Case Study on Gauteng City Region's efforts to combat the impact of COVID-19

A Provincial Deep Dive

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ACRONYMS AND ABBREVIATIONS

ABT	Alternative Building Technology
Agbiz	Agricultural Business Chamber
AIDS	Acquired Immune-Deficiency Syndrome
BBC	Black Business Council
BFAP	Bureau of Food and Agriculture
B4SA	Business for South Africa
BUSA	Business Unity South Africa
CANS	Community Action Networks
CHW	Community Health Worker
CHWs	Community Health Workers
COGTA	Department of Cooperative Governance and Traditional Affairs
COVID-19	Corona Virus Disease of 2019
CSG	Child Support Grant
DALRRD	Department of agriculture, Land Reform and Rural Development
DBE	Department of Basic Education
DG	Director General
DHET	Department of Higher Education and Training
DHIS	District Health Information System
DID	Department of Infrastructure Development
DoH	Department of Health
DPME	Department of Planning, Monitoring and Evaluation
DSD	Department of Social Development
DTIC	Department of Trade, Industry and Competition
EAP	Employee Assistance Programme
ECD	Early Childhood Development
ESRI	Environmental Systems Research Institute
Exco	Executive Committee
GCR	Gauteng City Region
GCRO	Gauteng City Region Observatory
GDARD	Gauteng Department of Agriculture and Rural Development
GDE	Gauteng Department of Education

GDED	Gauteng Department of Economic Development
GDP	Gross Domestic Product
GDoH	Gauteng Department of Health
GGT	Growing Gauteng Together
GOP	Gauteng Office of the Premier
GTAC	Government Technical Advisory Centre
GP	General Practitioner
GPG	Gauteng Provincial Government
GWK	Griekwaland-Wes Korporatief
HFNA	High-Flow Nasal Oxygen
HIV	Human Immuno-Deficiency Virus
HMI	Health Market Inquiry
HOD	Head of Department
HR	Human Resources
HRH	Human Resources for Health
HSRC	Human Science Research Council
IBM	International Business Machines Corporation
ICC	International Chamber of Commerce
ICU	Intensive Care Unit
IFRI	The International Food Policy Research Institute
IPC	Infection Prevention and Control
ISHT	Integrated School Health Team
KI	Key Informant
LMG	Leadership, Management and Governance
LMICs	Low- and Middle-Income Countries
M&E	Monitoring and Evaluation
MEC	Member of the Executive Committee
MSF	Doctors Without Borders South Africa
MTEF	Medium Term Expenditure Framework
NATJOINTS	National Joint Operations and Intelligence Structure
NCCC	National Coronavirus Command Council
NDoH	National Department of Health

NGO	Non-Governmental Organisation
NHI	National Health Insurance
NHLS	National Health Laboratory Service
NICD	National Institute for Infectious Diseases
NIDS-CRAM	National Income Dynamics Study-Coronavirus Rapid Mobile Survey
NIOH	National Institute for Occupational Health
NPO	Non-Profit Organisation
NRF	National Research Foundation
NSFA	National Students Financial Aid Scheme
NSNP	National School Nutrition Programme
NWK	Noord-Wes Kooperasie
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational Health Services
OoP	Office of the Premier
OVK	Oos-Vrystaat Kooperasie
PCCC	Provincial Coronavirus Command Council
PDCCC	Provincial District Coronavirus Command Council
PDMCC	Provincial Disaster Management Command Centre
PHC	Primary Health Care
PMO	Project Management Office
PPE	Personal Protective Equipment
PPGI	Public-Private Growth Initiative
PSET	Post School Education and Training
PROVJOINT	Provincial Joint Operational and Intelligence Structure
PUI	Person Under Investigation
REC	Research Ethics Committee
SA	South Africa
SABC	South African Broadcasting Corporation
SACBO	South African College Principals Organisation
SALGA	South African Local Government Association
SANCO	South African National Civics Organisation
SASSA	South African Social Assistance Agency
SARS-COV2	Coronavirus 2

SAUS	South African Union of Students
SIDS	Sustainable Infrastructure Development Symposium
SIU	Special Investigations Unit
SMME	Small, Medium and Micro Enterprises
SEZ	Special Economic Zone
SOE	State Owned Enterprise
SOP	Standards Operating Procedures
SPRP	Strategic Preparedness and Response
StasSA	Statistics South Africa
TVET	Technical and Vocation Education and Training
UHC	Universal Health Coverage
UIF	Unemployment Insurance Fund
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNICEF	United Nations International Children's Emergency Fund
UP	University of Pretoria
USAF	Universities South Africa
VKB	Vrystaat Kooperasie Beperk
WHO	World Health Organization

GLOSSARY OF TERMS

Case finding	A “strategy for targeting resources at individuals or groups, suspected to be at risk for a particular disease, and involves actively searching for at risk people, rather than waiting for them to present with symptoms or signs of active disease” (Obtained from https://www.healthknowledge.org.uk/public-health-textbook/disease-causation-diagnostic/2c-diagnosis-screening/screening-diagnostic-case-finding).
Confirmed case of COVID-19	"A person with laboratory confirmation of COVID-19 infection, irrespective of clinical signs and symptoms
Contact	"A person who experienced any one of the following exposures during the 2 days before and the 14 days after the onset of symptoms of a probable or confirmed case: • face-to-face contact with a probable or confirmed case within 1 metre and for more than 15 minutes • direct physical contact with a probable or confirmed case • direct care for a patient with probable or confirmed COVID-19 disease without using proper personal protective equipment • other situations as indicated by local risk assessments"
[Health] Equity	is the absence of avoidable, unfair, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically or by other means of stratification.
Human resources for health (HRH)	HRH – also known as the health workforce – is defined as "all people engaged in actions whose primary intent is to enhance health"
Gauteng City-Region (GCR)	“The Gauteng City-Region is an integrated cluster of cities, towns and urban nodes that together make up the economic heartland of South Africa. The core of the city-region is Gauteng, South Africa’s smallest but most densely populated province”. [Obtained on 20/11/20 from https://gcro.ac.za/about/the-gauteng-city-region/].
Leadership	The creation of a vision and strategic direction for the organisation, communication of that vision to the staff and customers of the organisation, and inspiring, motivating and aligning people and the organisation to achieve this vision.

Pandemic Preparedness	"The ability-knowledge, capacities, and organizational systems- of governments, professional response organizations, communities and individuals to anticipate, detect and respond effectively to, and recover from, the impact of likely, imminent or current health emergencies, hazards, events or conditions. It means putting in place mechanisms to be aware of risks and deploy staff and resources quickly once a crisis strikes"
Probable case	"A suspect case for whom testing for the COVID-19 virus is inconclusive" or a suspect case for whom testing could not be performed for any reason"
Suspect case	"A patient with acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g. cough, shortness of breath), and a history of travel to or residence in a location reporting community transmission of COVID-19 disease during the 14 days prior to symptom onset" or "A patient with any acute respiratory illness and having been in contact with a confirmed or probable COVID-19 case in the last 14 days prior to symptom onset " or "A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g. cough, shortness of breath; and requiring hospitalization) and in the absence of an alternative diagnosis that fully explains the clinical presentation".
Screening	Aims to detect early disease or risk factors for disease in large numbers of apparently healthy individuals. (Obtained from: https://www.healthknowledge.org.uk/public-health-textbook/disease-causation-diagnostic/2c-diagnosis-screening/screening-diagnostic-case-finding).

CHAPTER 1
Background and Introduction

In December 2019, a Corona Virus emerged in Wuhan City, Hubei Province of China. On 31 December 2019, Chinese authorities alerted the World Health Organization of an outbreak of a novel strain of coronavirus causing severe illness, which was subsequently named SARS-CoV-2. On 7 January 2020, 'Severe Acute Respiratory Syndrome Coronavirus 2' (SARS-CoV-2) was confirmed as the causative agent of 'Coronavirus Disease 2019' or COVID-19. The majority of the case-patients initially identified were dealers and vendors at a seafood, poultry and live wildlife market in China. As of 20 February 2020, there were a total of 75 995 confirmed cases, including 2 239 fatalities in China. The virus then spread to more than 100 countries, including South Africa. On 12 March 2020, the World Health Organisation (WHO) declared the Coronavirus a global pandemic. The number of affected countries had tripled. There were more than 118 000 cases in 114 countries and 4 291 people had lost their lives.

Although the virus had spread to various countries, South Africa was in the very early stages of the pandemic. SA's first COVID-19 infection was identified on 5 March 2020. The number of confirmed infections in South Africa rose to 709 by late Tuesday, 24 March 2020 with all nine provinces affected. At that stage, there were 366 cases in Gauteng, which has more than 12 million residents - about 44% of whom are migrants from other provinces and countries.

On consideration of the magnitude and severity of the COVID-19 outbreak which had been declared a global pandemic by the WHO, in its special meeting held on Sunday 15 March 2020, Cabinet resolved to declare a State of National Disaster and established a National Corona-virus Command Council chaired by President Cyril Ramaphosa to coordinate South Africa's response to the COVID-19 challenge. A national disaster was declared in terms of the Disaster Management Act, 2002, Government Gazette, 15 March 2020, issued by the Minister of Cooperative Governance and Traditional Affairs, Dr Nkosazana Dlamini-Zuma.

After consulting with a wide range of stakeholders in the country, on 23 March 2020, President Cyril Ramaphosa announced the escalation of measures to combat Coronavirus COVID-19 pandemic. These measures included a nation-wide lockdown for 21 days with effect from midnight on Thursday 26 March until 16 April 2020. On 09 April 2020, the President further announced to the nation that the National Coronavirus Command Council has decided to extend the nation-wide lockdown by a further two weeks beyond the initial 21 days. The President highlighted that the nation-wide lockdown was enacted in terms of the Disaster Management Act and all South Africans should stay at home except health workers in the public and private sectors, emergency personnel, those in security services

– such as the police, traffic officers, military medical personnel, soldiers – and other persons deemed to be providing essential services.

In order to combat the impact of COVID-19, the President elaborated on the strategy that will be pursued by government to save lives and protect livelihoods. These included:

- Firstly, an intensified public health response to slow down and reduce infections;
- Secondly, a comprehensive package of economic support measures to assist small businesses and individuals affected by the pandemic;
- Thirdly, a programme of increased social support to protect poor and vulnerable households;
- Fourthly, called for involvement of all spheres of government, the private sector and the civil society organisations and the society at large to form a social compact, work together in a co-ordinated manner towards the common goal of flattening the COVID-19 curve and slow down the infection and;
- Lastly, initiated the Solidarity Fund to mobilize finance in support of COVID-19 initiatives and support vulnerable groups.

On April 23, President Ramaphosa announced that as of the 1 May, the country will be moving to from level 5 to level 4 of the lockdown. Level 4 allowed for some economic activity to resume, albeit with extreme precautions to limit community transmission and outbreaks. The country subsequently moved to alert level 3 effective from the 1 June then to alert level 2 from the 18 August and to alert level 1 from the 21 September.

Gauteng City Region Responds

This Gauteng Case Study provides detailed insights into the responses from the GPG and the rest of the Gauteng City Region (which have been put in place). Many lessons can be drawn from the interventions that have been introduced and how they have been implemented.

This Case Study is compiled as part of the mandate of the Office of the Premier and takes the form of a series of thematic papers which consider how the GCR responded to the pandemic. It reflects on both what was done well and not done so well, as well as reflect on lessons that can be learnt. It assesses the effectiveness and sustainability of measures put in place *for growing the Provincial economy beyond the pandemic*. It documents various intervention measures that the Gauteng City Region (GPG, metros, districts and local municipalities), in collaboration with various sectors, have implemented to deal with the COVID-19 pandemic at different phases. The Case Study is about documenting processes and lessons learnt from intervention measures that were implemented in Gauteng and is envisioned to inform future interventions of this nature both in terms of what was done well and challenges experienced. The Case Study is intended to capture and reflect on the experiences of policy makers, public servants, medical experts and practitioners who were involved in the conceptualisation, design and implementation of the interventions on COVID-19. It also seeks to document the role played by various

stakeholders outside of government including the private sector, public sector partners, labour, academia, religious organisations, civil society organisations and the general public.

Aim and Objectives

The main aim of the Case Study is to capture the interventions adopted by the Gauteng City Region (GPG, metros, districts and local municipalities), to deal with the health, and socio-economic impact of COVID-19 pandemic. It documents lessons learnt in terms of successes, challenges and failures of the interventions to save lives, protect livelihoods and expand social and economic support to the most vulnerable. *These lessons will be used as basis for future efforts aimed at growing the provincial economy beyond the pandemic*.

The specific objectives of the Case Study are to:

- Establish the extent in which the measures adopted by the Gauteng City Region (GCR) to combat the spread and impact of COVID-19 pandemic were implemented.
- Reflect on the effectiveness and/or ineffectiveness of the measures that were implemented, and reasons for such.
- Reflect on the impact of the interventions that were implemented across spheres of Gauteng to assess the collaboration/ or lack thereof and the reasons for such.
- Document the contributions made by social partners and other structures in support of the strategy adopted by the province.
- Document Gauteng citizens' response to compliance with approaches instituted by the Province and
- Document these in an accessible form for further sharing and learning across the province, country and beyond.

Research Methodology

A choice to adopt a case study method as a research strategy was made because this technique is preferred when who, why and how questions are posed, when the investigator has little control over events and when the focus is on contemporary phenomena within some real life context (Yin, 2003). The use of multiple evidences in case studies allows for the provision of a convincing argument as an answer to the questions. A case study allows the investigator to retain the holistic and meaningful characteristics of a real life event such as the COVID-19 pandemic response. The Case Study is based on in-depth interviews with key informants. Further details of the methodology followed to conduct research into the different thematic areas are outlined in each chapter.

This reports commences with chapter 2 on Leadership, Governance and Decision Making Overview. This chapter discusses the structures that were created to coordinate the overall planning, management and implementation of measures to deal with COVID-19 at

different spheres of the Gauteng City Region. It discusses weakness in the supportive Gauteng structures, efficiency of coordination across spheres of the City Region and preparedness and synchronisation between the different spheres of Gauteng amongst others. Chapter 3 discusses the health and health systems measures and responses that were put in place by the Gauteng City Region to slow down and reduce infections. Chapter 4 discusses resource allocation, prioritisation and the public health response. Chapter 5 discusses the economic response and covers the economic measures that were put in place by the Gauteng City Region to assist businesses, employees and individuals affected by the pandemic and to protect poor and vulnerable households. Chapter 6 discusses measures that were put in place to protect food systems, safeguard food security and other social security related interventions. Chapter 7 discusses the effectiveness of communication and the management of change in the Gauteng City Region during times of crisis. The report ends with a consolidated discussion of impacts and recommendations in chapters 8 and 9 respectively.

Across all these themes, the effectiveness and /or ineffectiveness of the measures that were implemented, and reasons for such is discussed. This includes the most successful concrete outputs that can be attributed to measures implemented, obstacles, challenges and failures encountered and how these were addressed and overcome and lessons learned from the measures implemented.

CHAPTER 2

Governance, Leadership and Decision-making

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ABSTRACT

The onset of the pandemic prompted one of the most ambitious efforts at adaptive governance of the democratic era in South Africa. Extraordinary measures were put in place to achieve cooperative governance vertically across the spheres of government, and horizontally across the functional departments. Many important and innovative measures were achieved in this process, impelled by the sense of urgency and common purpose inspired by the fact of the pandemic. Simultaneously, and predictably, the ability to achieve the full intended adaptive response was conditioned by a number of existing factors and structural realities in a complex city region and a transitional society. Observations emerging from this case study, noting important adaptive achievements as well as significant limitations, provide valuable insight into some of the conditions and requirements that enable and support effective approaches to adaptive governance in a sub-national context of this nature.

Central to the adaptive strategy formulated to address the pandemic was a disaster-management governance structure intended to facilitate both increasingly collective decision-making as well as the flow of decisions, information and responsiveness through the complex reaches of government and the health-care system. While the logic of this new structure has been affirmed, it became clear that some of the systems, scriptures and cultures of the existing government structures persisted in the new arrangement, and the need for adaptive capabilities among the personnel had been underestimated. Important insights have emerged into how some of these constraints were overcome over time.

Further, it became clear that the existing conditions and interests at play in the wider socio-political landscape continued to be present and challenged efforts at adaptive responses. Significantly, it became clear that the adaptive 'centre of gravity' needed to evolve over time from top-down leadership and direction towards increasingly localised decision-making and responsiveness, based on the best available knowledge and local capacities.

In conclusion, a view emerges of a complex set of considerations that inform efforts at adaptive governance in the highly challenging context of a pandemic impacting a city-region. These considerations include the role of leadership in forging common purpose, purposive organisational

structures, adaptive dispositions within these structures, the capacity for organisational learning, the influence of wider political and economic interests, and the ability to achieve a distributed and diffused responsive agency on the ground.

2.1 Introduction: overview and key questions

This chapter for the case study on the Gauteng Provincial Government's response to COVID-19 outlines the specific governance measures initiated to respond to the pandemic, and describes and analyses the political and administrative leadership, decision making, day-to-day coordinating, intergovernmental and operational structures, systems and processes established to manage the pandemic in the Gauteng City-Region. The focus falls mainly on leadership and governance of the pandemic *within* the Gauteng Provincial Government itself. However this is also considered in relation to what was established in the other spheres of government, national and local, with some specific attention to the metropolitan municipalities.

In discussing questions of leadership, decision-making and governance of COVID-19, it is inevitable that there will be some reference to what was done to manage, for example, the health response, social safety nets such as food parcel distribution, or plans for economic recovery. However the fuller details of policies adopted, strategies pursued and actions taken within these specific areas of the response are left for other chapters. This chapter therefore looks at the COVID-19 governance architectures and practices across government, rather than the governance of any particular dimension (health, economy, etc.) of the crisis.

The approach taken in this chapter is descriptive and analytical, in that the research teases out key insights from the successes and apparent limitations that can be synthesised into learnings. However, the intention is not to be evaluative, in the sense of scoring the adequacy of the response, or appraising what was done against a hypothetical ideal type of what ought to have been done. Instead, successes and weaknesses are indeed highlighted, based mainly on observations from research respondents, but with the intention of reflecting on the intention to achieve adaptive governance. The aim is to pinpoint areas that proved to be challenging, or where improvements could conceivably be made, rather than to expose or critically judge any leader, manager or organisational unit for what was done or what was not accomplished. Adaptive governance is a continuing objective for government, and this chapter is intended to provide insight to support this quest.

This chapter covers the following ground:

- Provision of the conceptual framing informing this chapter
- Outline of the key decision making and operational structures and systems established at the start of the crisis in March / April 2020
- Reflections on leadership
- Experience at operational levels
- Strengths and weaknesses of intergovernmental relations
- The role of data in decision-making

- Reflections on adaptive capabilities

Across the analysis in the chapter we consider a number of overarching questions:

First, to what extent did the COVID-19 crisis expose existing weaknesses in government capability, relative to the extent to which the crisis also enabled an opportunity for 'reset' – a chance to establish new systems, structures and ways of working that could provide a basis for better governance into the future? This was a question posed by Provincial leadership figures relatively early in the response-planning. The answer is a dynamic one. The research suggests competing narratives of successes and shortcomings. Governments are continually confronted with multi-dimensional classic 'wicked issues' that need adaptive responses across the traditionally organised functional areas of government. In this particular instance, these competing narratives reveal a government that, while facing a massive new external challenge in the form of the pandemic, had nevertheless to confront significant existing internal challenges. Put simply, in order to fix the crisis, it had to fix the problems that had accumulated in the past, and which were bedevilling efforts to address the future.

Second, therefore, to what extent was dynamic leadership able to overcome well-established institutional practices and cultures that, in the harsh light of an unexpected and massive crisis, were shown (again) as dysfunctional? Was government able to respond adaptively and demonstrate innovation and agility in the face of a grave new societal threat?

Third, more specifically, to what extent was government able to navigate the inherited accountability systems, bureaucratic arrangements, organisational values, and day-to-day routines that typically inhibit the setting and pursuit of new transversal-government agendas? Put differently, what kind of associative intent and dispositions could be mustered in the interests of framing a common purpose, in a context where the institutional hardware and software of government historically resists signals for newly-directed efforts that need significant cross-institutional collaboration?

To properly contextualise these questions a more detailed conceptual framing is warranted.

2.2 Conceptual framing

An analysis of the governance approaches adopted to managing the pandemic needs to be situated in a wider conceptual landscape that helps to clarify the significance of what has been attempted, and that frames the value of the insights emerging from this case study. There is much to be learned from the ambitious responses to this challenging conjuncture.

The notion of 'adaptive governance' has taken on enhanced salience in the context of the 'urban turn' and the understanding of the role of cities and city-regions in achieving increasingly sustainable patterns of human behaviour in an interconnected and interdependent global context. Many of the assumptions, explicit or implied, underpinning the achievement of various multilateral development objectives (like the Sustainability Development Goals, for example) speak to the capacity of governments and their partners to respond differently into the future, changing the

patterns of the past in order to address deep societal inequities and the likelihood of globally distributed catastrophes (which include the effects of climate change, economic crises and pandemics, among others). The implication is that government needs to work more innovatively itself, but also in greater collaboration with its social partners, so as to bring varied and complementary capabilities to bear on complex structural phenomena and the 'wicked problems' that threaten global well-being (Moore 2016).

This approach is inscribed in South Africa's quest for 'cooperative governance' to function across the architectures of government, and in the institutionalisation of this ambition in the form of departments of cooperative governance within the respective spheres, and in mechanisms to advance 'intergovernmental relations' (IGR) between the spheres. The authors of many policy frameworks have emphasised the necessity for collective and coordinated efforts across the arms of government to address common purposes. The challenge of 'associative governance', where various sectors work in concert towards common goals, is a fundamental requirement for tackling many (or most) of the complex challenges facing contemporary urban society. This requires thoughtful policy architectures, packages of interactive measures, and organizational structures that act as co-ordinating platforms for aligning different (often competing) interests. The global experience is that achieving this form of associative governance is difficult and elusive.

It is widely recognised that in the South African context these provisions have worked unevenly. Cooperative governance arrangements seldom function as opportunities for collective planning and coordination, or platforms for tracking and monitoring progress on shared purposes (DPME & COGTA, 2018). In the context of the Gauteng city-region, co-ordinated efforts directed towards complex outcomes seem relatively rare, and the architectures for this co-ordination seem not yet well-developed, in spite of the intentions inscribed in the mandates for COGTA.

Various analysts have observed that the widespread difficulty in achieving associative governance may be due to the strength of existing traditional approaches to government, the historically very successful Weberian division of labour across defined functional areas, which succeed in accumulating specialised knowledge, expertise and routines to address a very specific domain of performance. A set of strongly established precepts, and systems of evaluation and reward, are accumulated within the functional bureaucracy, and senior figures in such a structure may have dispensations to distribute in one way or another in codified and legitimate forms of patronage. A powerful and self-sustaining logic accretes within such bureaucracies, and this may result in very successful performances of the mandate (in the best cases), but also encourages an independence and self-sufficiency that is not naturally open to signals from outside. The flow of power and authority within that structure depends on the maintenance of strong insulations and autonomy.

The injunction for functional departments, or even spheres of government, to work cooperatively provides something of a challenge to the traditional order of a previously relatively autonomous organisational unit, and suddenly a much greater complexity of ends and means has to be

accommodated. This has implications for systems of authority, for protocols of decision-making, for the kinds of information needed, for the mediatory and cross-functional skill-sets of staff at every level, for fiscal processes, and for accountability and the allocation of rewards. In other words, effective coordination across functional areas, or across spheres of government, implies very much more complex organisational functioning, higher order skills, and different approaches to conceiving and delivering on common purposes (which are inherently likely to be complex in their nature). In the absence of conscious measures to achieve greater reciprocity and coordination between cooperating partners, the patterns of established behaviours may prove resilient and resistant (Heller, et al, 2019). Where collaborative modes are successfully achieved, often under the conditions of crisis and emergency, it is possible that the new associative patterns eventually weaken and revert to prior patterns, unless stable measures are put in place to institutionalise the new adaptive mode (Storper 2014).

These comments above consider chiefly the internal forms and capabilities of government structures that enable or hinder the achievement of cooperative governance. However, these structures are also embedded in larger landscapes of regulatory affordances and ambiguities, where powers and responsibilities are sometimes shared between two or more spheres, or are ambiguously defined. Government is further located in a terrain of established or competing interests, the flows of economic and political power, and societal interest groups. A transitional society like South Africa seeks some degree of redistribution of societal goods, with lively contestation between existing interests and newly-aligned emerging elites. Finally, the Gauteng city-region is a rapidly growing set of urban agglomerations, characterised by deep inequalities. These are deeply challenging contexts in which government must seek to achieve its objectives, which include a greater distributive equity while at the same time steering an economy that must be vibrant, innovative and inclusive. To do this, government has to consider, firstly, the strength and reach of its political authority and the extent to which it is able to generate a collective consensus on priority common purposes. Leadership may need to navigate both inter-party political competitiveness (where more than one party holds sway in some administrations in the city-region) as well as intra-party differences of opinion among competing factions. Secondly, as we've noted above, adaptive governance requires particular forms of capability (not least the ability to work transversally), not just in the form of skilled individuals but also in teams and units that can pursue complex objectives, and have the confidence and authority to make decisions across distributed fronts. Finally, in as much as government is always societally embedded, the willingness of social partners and communities to respond and cooperate will be conditioned by the perceptions of legitimacy and the levels of trust alive in that context (Heller et al, 2019).

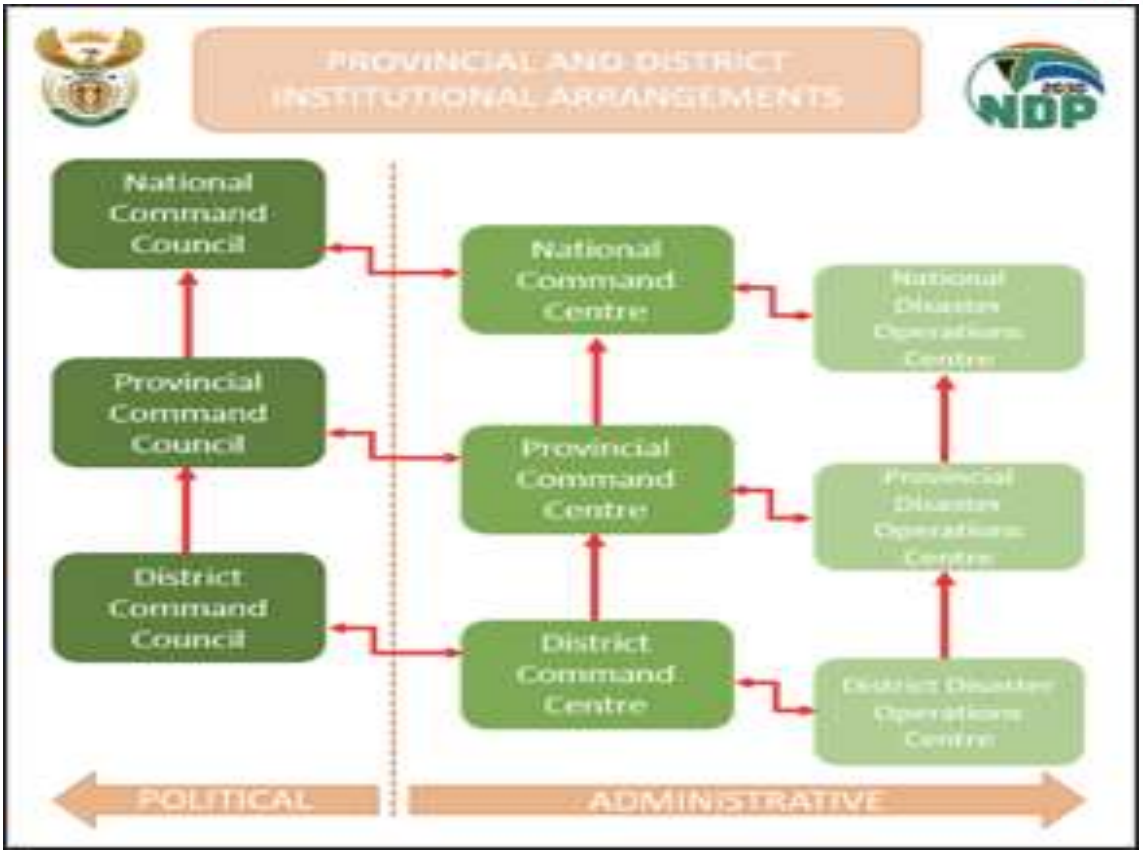
These factors together make for a highly demanding governance agenda, and the arrival of a devastating pandemic is perfectly calculated to exemplify the extent to which government has succeeded in assembling adaptive capabilities for 'normal' governance in a fluid and dynamic city-region, let alone for responding to the exigencies of a far-reaching and unprecedented emergency.

2.3 Key structures and systems established at the start of the response

It is clear that government leadership very quickly understood the gravity of the approaching pandemic, and that this would require extraordinary measures, beyond the current public health provision already in place. National government moved swiftly to ensure that messaging about the crisis was communicated, and the South African public were able to anticipate the announcement of the State of Emergency by President Ramaphosa and make preparations for the impending lockdown. At no point was the seriousness of the emergency underplayed (as has been noted in some other contexts internationally), and communication about the health impact of the pandemic, and measures to contain this, have been consistent. At both National and Provincial levels, government moved decisively to establish the structures of government to manage a national emergency, striking a clear note of centralised 'command' that signalled simultaneously the seriousness of the crisis, and the top-down approach that would be taken to initiate and coordinate responses to the situation.

The prevailing accounts of how structures and systems were set up to manage the COVID-19 crisis tend to emphasise that establishment followed the declaration of a nationwide state of disaster in mid-March 2020, and that the structures cascaded through each of the three spheres of government in line with the prescripts of disaster management legislation and regulations. These accounts also suggest that the structures mirrored one another across the different parts of government.

For example, a report from the National Department of Cooperative Government (COGTA) to the Department of Planning, Monitoring and Evaluation (DPME) dated 30 April 2020 provides this diagram, after noting how provincial and local government set up co-ordinating and joint technical disaster management structures similar to that institutionalised in the national sphere (Department of Cooperative Governance, 2020).



However, it is worth considering to what extent the institutional architecture of government's COVID-19 response strictly followed provisions for disaster management, and to what extent there was variation across different parts of government. A closer look reveals considerable adaptation of disaster management arrangements. It also indicates significant variation in what was established in the Gauteng City-Region – provincially and locally – relative to the arrangements in national government.

The Department of Cooperative Governance (2020) report explains that the Minister of Cooperative Governance and Traditional Affairs declared a national state of disaster in terms of Section 27(1) of the Disaster Management Act, 2002 (Act No. 57 of 2002) on 15 March 2020, through publication in Government Gazette no 43096. It then goes on to detail the 'Establishment of Disaster Coordination Structures'. These included:

- The National Coronavirus Command Council (NCCC), chaired by the President and made up of relevant ministers, meeting three times a week.
- The National Command Centre, comprised of Directors General of departments whose Ministers constituted the NCCC, and serving as a technical committee to this structure, also meeting three times a week.

- The National Joints Operations and Intelligence Structure (NATJOINTS) meeting daily to coordinate the national response. This was comprised of key components of South Africa's security cluster – the South African National Defence Force, the State Security Agency and the South African Police Services – as well as Director Generals of key departments involved in the COVID-19 response. It was supported by the National Disaster Management Centre in COGTA. The NATJOINTS established various workstreams to deal with different aspects of the disaster, including 'public health containment', 'social', 'economic', 'border control', 'legal and regulatory', and so on.
- Interestingly, the National Disaster Management Centre in COGTA was responsible for chairing the 'public health containment' workstream, and processing reports for this workstream into the NATJOINTS. This workstream dealt with dissemination of public hygiene information, strengthening of surveillance, identification of quarantine facilities, etc.
- The National Disaster Operations Centre, activated to coordinate with provincial and local disaster management centres. (Department of Cooperative Governance, 2020)

While this might appear, at first glance, to be an array of structures established in terms of South Africa's disaster management law, only the National Disaster Management Centre is expressly provided for in terms of the National Disaster Management Act (57 of 2002). This raises the question of the basis on which the other structures, especially the National Coronavirus Command Council (NCCC), were set up.

Various reports indicate simply that the NCCC was 'established by the President', being first announced to the country in President Ramaphosa's address to the nation on 15 March, and then meeting for the first time on 17 March (Hunter, 2020).[1] It's exact status was clarified only gradually as its decision making powers were subsequently questioned in parliament, and then through court cases brought to contest the ban on cigarette sales during lockdown. Hunter (2020) quotes various figures who describe the NCCC as a structure of the National Cabinet, akin to an inter-ministerial committee set up to deal with a specific matter, or a grouping of ministers making up a Cabinet cluster. It is reported that while it initially only had 19 Ministers as members, membership was subsequently extended to all cabinet members (Harrison, 2020). Though the President referred on numerous occasions to the fact that the NCCC had taken a decision, it was subsequently clarified that as a sub-structure of Cabinet it had no decision-making power in and of itself, and needed to refer final decisions to a full sitting of Cabinet.

In Hunter's account the nature of the NCCC was perhaps best explained by then Presidential spokesperson Khusela Diko. Hunter quotes her as arguing that the NCCC was required because 'Cabinet as a construct is not agile and is not flexible':

[1] Although note that Harrison (2020) says that the structure was "established on 18 March".

"*It has very unique rules on how it should conduct its business and how matters are brought before it. The command council therefore is an operational mechanism tasked with coordination and management of the state of disaster. It has no constitutional standing and where any policy decisions need to be made, these are recommended to Cabinet*" (Khusela Diko, quoted in Hunter 2020).

Standing at the pinnacle of the country's COVID-19 management structures the National Coronavirus Command Council is therefore seen as an exemplar of an adaptive governance response, built on a recognition of insufficient crisis-response capability of the existing structures.

As with the national arrangements for responding to the crisis, the institutional architectures of Gauteng's COVID-19 response were partially dictated by legal provisions for disaster management emanating from the legislation, but also saw considerable adaptation of existing structures and systems, and innovation on what was envisaged by national government.

2.3.1 Setting up Gauteng's COVID-19 response structures: national directives meet the reality of pre-existing arrangements

In some respects the structures established by the Gauteng Provincial Government to respond to COVID-19 were indeed directly mandated by national government using the legal provisions for disaster management. Following the declaration of a national state of disaster on 15 March a series of regulations, directions and guidelines were issued either by the Minister of Cooperative Governance and Traditional Affairs, or by other Ministers as appropriate. One such Direction – GN R399, COVID-19 Disaster Response Directions – was issued by the COGTA Minister on 25 March 2020 (subsequently amended on 30 March by GN R432), applicable to all provinces and municipalities. Amongst other items[2] it dealt with requirement for provincial and local government to set up appropriate institutional arrangements and formulate COVID-19 response plans (Department of Cooperative Governance, 2020).

Section 6.8 of these Directions required that Provincial COGTAs and Offices of Premiers should: immediately establish a Provincial Command Council as well as coordinating structures to support national institutional arrangements; support the establishment of joint operation centres in district and metropolitan municipality, including by making resources available to supplement capacity if necessary; and monitor the impact of interventions *inter alia* by submitting weekly consolidated reports to the national disaster management structures (Department of Cooperative Governance, 2020).

Municipalities were similarly directed to: establish a District Command Council as well as coordinating structures to support national and provincial institutional arrangements; participate

[2] Including municipal obligations around basis services, sanitizing of public spaces, identification of quarantine facilities and emergency procurement, amongst others.

in joint district and provincial disaster management structures to ensure a coordinated response to COVID -19, and monitor progress on interventions by submitting weekly consolidated reports to the provincial and national disaster management structures (Department of Cooperative Governance, 2020)

A further COGTA Circular (10 of 2020) followed on 4 April. This provided Terms of Reference for Provincial and Municipal Coronavirus Command Councils and Provincial and Municipal Coronavirus Command Centres. This circular aimed to give more clarity to provincial and local government on the institutional arrangements required, including membership of these structures, in order to ensure a consistent approach across the country (Harrison, 2020).

The Gauteng Provincial Director General, who was central to establishing arrangements following these prescripts, emphasises that the province was at pains to ensure alignment with national structures and systems in the interests of cooperative government:

> *The directive that came from National Government indicated that the National Coronavirus Council had been established with the Command Centre of NATJOINTS. Provinces and municipalities were expected to establish the same structures and the membership of those structures was outlined. When I set up the Gauteng one I sat with the DG in the Presidency, and I asked about the structure of the agenda so that even this would match.*

However, it also needs to be recognised that the process of establishing COVID-19 response structures in line with national expectations met with pre-existing realities that required rapid problem solving, and in turn adaptation and innovation.

On the one hand, the establishment of province-wide COVID-19 structures following the COGTA directives encountered a set of structures and working arrangements that had been initiated within the Gauteng Department of Health (GDoH) earlier in March. As the Director General explains:

> *When we started early days in March it was responded to as a health emergency and the Department of Health was the first one that set up response structures, including a structure that they called a war room. In this war room they invited departments and various other role players and when people were not quite co-operative the MEC spoke to myself and the Premier, and after attending one meeting of the war room I realised that I needed to pull the Gauteng Province in its full might into the war room as we called it at the time. This was now when we were in the state of disaster and before the lockdown, and before the directives had been written and the provincial structures were outlined.*

This embryonic GDoH structure, initially called the war room, was eventually redubbed ‘the nerve centre’ when the Provincial Disaster Management Command Centre came to be commonly

known as 'the War-room' to help distinguish it from the Command *Council*. While it was clearly not functioning optimally before the Premier's Office took charge of an 'all of government' COVID-19 response, it does need to be recognised that it was a prior structure. When the other parts of the response architecture were assembled it was certainly fitted in – in the words of the DG 'like a puzzle piece' – as the body in charge of the 'comprehensive health response'. But various respondents in this case study noted how GDoH was slower than other part of government to respond to the signals for central coordination through the nationally mandated arrangements, and reorient itself as one of a number of workstreams reporting in to the overarching new governance structures.

On the other hand, the province had to confront limitations in the capability of its extant disaster management structures and offices. The DG recalls that:

> *The structures were set up at national and we discussed with colleagues at national and they indicated what their expectations were of provinces. We accordingly activated the Provincial Disaster Management Centre in accordance with the National Disaster Management Act. But because the physical building was very small it would have actually made sure that we don't respond. It was so small that we were sitting on top of each other literally, and with the social distancing requirements and the number of people who were expected to come into the Command Centre, we then took a decision that we needed a different building … and we moved the Command Centre to Ormonde.*

Rashid Seedat, head of the Delivery Support Unit, speaks even more pointedly about the limits of the arrangements pre-defined to be available in the event of a disaster such as COVID-19, and how this required an adaptive response:

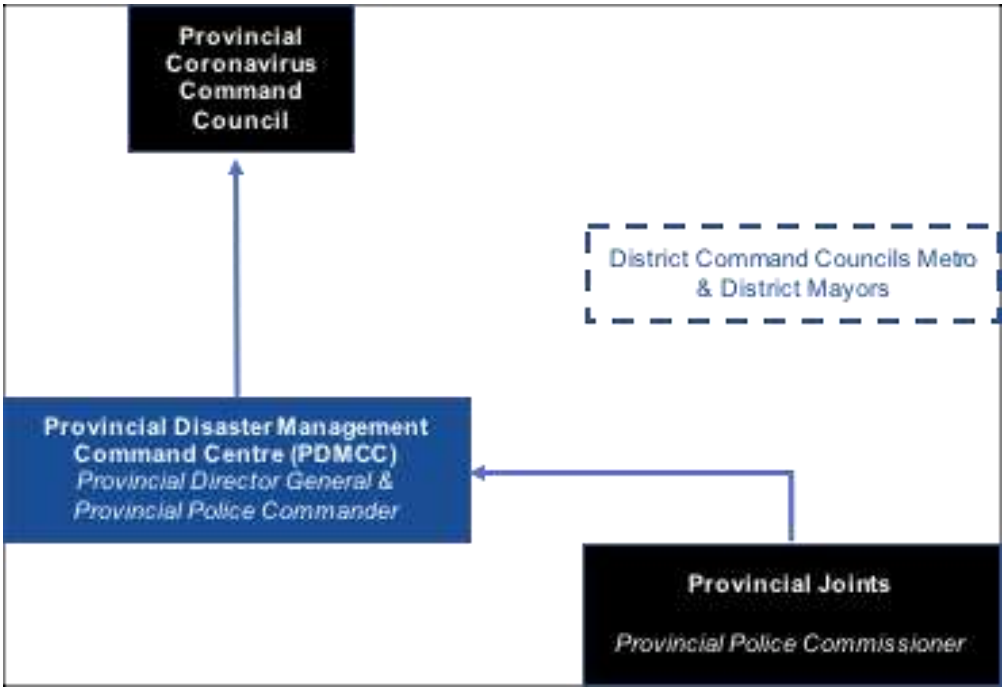
> *Our so-called Provincial Disaster Management Centre was actually completely inadequate in a whole number of ways, and this was actually supposed to be our safety net in the event of a crisis breaking out. Within a week or two we had to move out of the building we were in, and this was supposedly a building that had been purpose-built for this kind of function. So at that level we were unprepared, and yet in terms of getting the systems right, we were able to perform well.*

In sum, the Gauteng governance arrangements did accord with what had been spelled out as required in national directives drawn in terms of legal provisions for disaster management, and efforts were made to ensure that what was set up aligned with national requirements. But the Province's COVID-19 response architectures needed to be adaptive right from the start, contending with both pre-existing working arrangements established in the Gauteng Department of Health, and the reality of disaster management capacities that were not fit for purpose regardless of what national government might have envisaged in its instructions.

2.3.2 An overview of the Gauteng arrangements

As Gauteng confronted the limits of its existing disaster management capacity, and moved rapidly to procure new offices within which to convene warm bodies involved in its crisis response, it began to establish the various structures that would be core to governing its COVID-19 strategy.

The key governance structures are formally described in a report, dated 26 August 2020, by the DG to the National Command Council on the Gauteng Provincial Government Response to the Impact of the Covid-19 Pandemic: March – July 2020. This report notes that these "governance structures for managing the COVID-19 project in line with the disaster management legislation" were approved on 25 March 2020 by the technical clusters of the Provincial Executive Council (EXCO, or Provincial Cabinet). It is noteworthy that 25 March was the same day that COGTA issued Direction GN R399, which amongst other things required provinces to establish Command Councils and supporting structures. The DG's report provides the following diagram of these structures. While it is clear in overall terms, there are important nuances hidden behind this simplifying figure.



As required by the COGTA Directions of 25 March, Gauteng established the **Provincial Coronavirus Command Council (PCCC)**. This of course mirrored the NCCC at national level. Chaired by the Premier, the PCCC included Provincial Members of the Executive Council (MECs),

the provincial DG, and the provincial police commissioner. It held meetings twice a week, taking reports from the Command Centre, and was responsible for the following:

- Providing directives in line with National Coronavirus Command Council
- Setting targets to be achieved and enforcing accountability against these performance measures
- Determine appropriate COVID-19 response policies for the Gauteng City Region
- Providing strategic guidance to the other structures described below
- Resolving escalated issues that could not be dealt with in other structures; and
- Unlocking national resources for use in provincial government and municipalities

The Director General's report is somewhat ambiguous on whether the PCCC is, strictly speaking, a decision making body. Interestingly it is not described as a 'structure of Cabinet' in the same way as the NCCC has on occasion been characterised. On the one hand, according to the DG's report, the PCCC "considers proposals for medium-term to long-term measures for approval by EXCO", suggesting that it must channel resolutions for final decision to a full sitting of the Provincial Cabinet. On the other hand the report also says that the Province's District Coronavirus Command Council takes responsibility for clarifying "the operational implications of directives, policies *and decisions* from the PCCC".

Secondly, Gauteng set up a **Provincial District Coronavirus Command Council**. It is important to understand that this is not the District Command Councils represented on the diagram above. Following the national directions each metro (Johannesburg, Ekurhuleni and Tshwane) and each district (Sedibeng and West Rand) established its own COVID-19 response structures, with each headed by Command Council (or equivalent) specific to that municipal area. The Provincial District Coronavirus Command Council was a co-operative structure across provincial and local government. It met twice a week, bringing together the provincial political leadership with metro and district mayors.

Lastly, and most importantly, Gauteng also established a **Provincial Disaster Management *Command Centre* (PDMCC)**. The structure became colloquially known as the War-room, and was the operational core of Gauteng's response, meeting daily on each week day for several hours starting at 3pm each day. It cannot be fully understood outside of a description of the Programme Management Office (PMO) and six workstreams as outlined below – which together constituted the unique interpretation Gauteng gave to a structure that was mandated by national directive.

In formal terms the PDMCC, or War-room, is described in the DG's report as responsible for the following:

- Monitoring and assessing performance (against the provincial COVID-19 strategy, as executed by the workstreams)
- Mitigating risks identified by or arising in the workstream

- Resolving issues escalated from the workstreams, or alternatively escalating these to the PCCC
- Challenging approaches being taken to delivery to address impending risks, and
- Promoting cooperation amongst work-streams and external interfaces.

The War-room was made up of representatives of the Programme Management Office, workstream leads (with this role filled by departmental Heads of Departments), representatives of the ProvJoints, and provincial representatives from a range of national departments and agencies. Interestingly the diagram above suggests that the chairing of the PDMCC was shared between the Provincial DG and the Provincial Police Commissioner. It is possible that this because the structure was seen as a cognate of the National Joints Operations and Intelligence Structure (NATJOINTS) that, supported by the National Disaster Management Centre, met daily to coordinate the national response. But in fact the joint chairs of the PDMCC were the provincial DG and the MEC for Health.

The War-room is understood in a varied and multidimensional way by respondents interviewed for this case study. In one sense the War-room is a *structure of government* with a clear role and purpose. In another sense the War-room is understood as a *system of institutionalised practices, a daily meeting with its routines* – mostly the systematic 'taking of reports' – that, over time, served to orchestrate common understandings, strategic direction and consensus. In yet another sense the War-room was also in fact a physical space in an office park in Ormonde in southern Johannesburg – a true operational centre for day-to-day and incident-by-incident disaster management. Social distancing requirements, especially after the War-room saw three COVID-19 outbreaks, meant that after a while activities enabled by it became more virtual. But it was nonetheless still a physical centre – with officials at desks and screens on walls holding various dashboards.

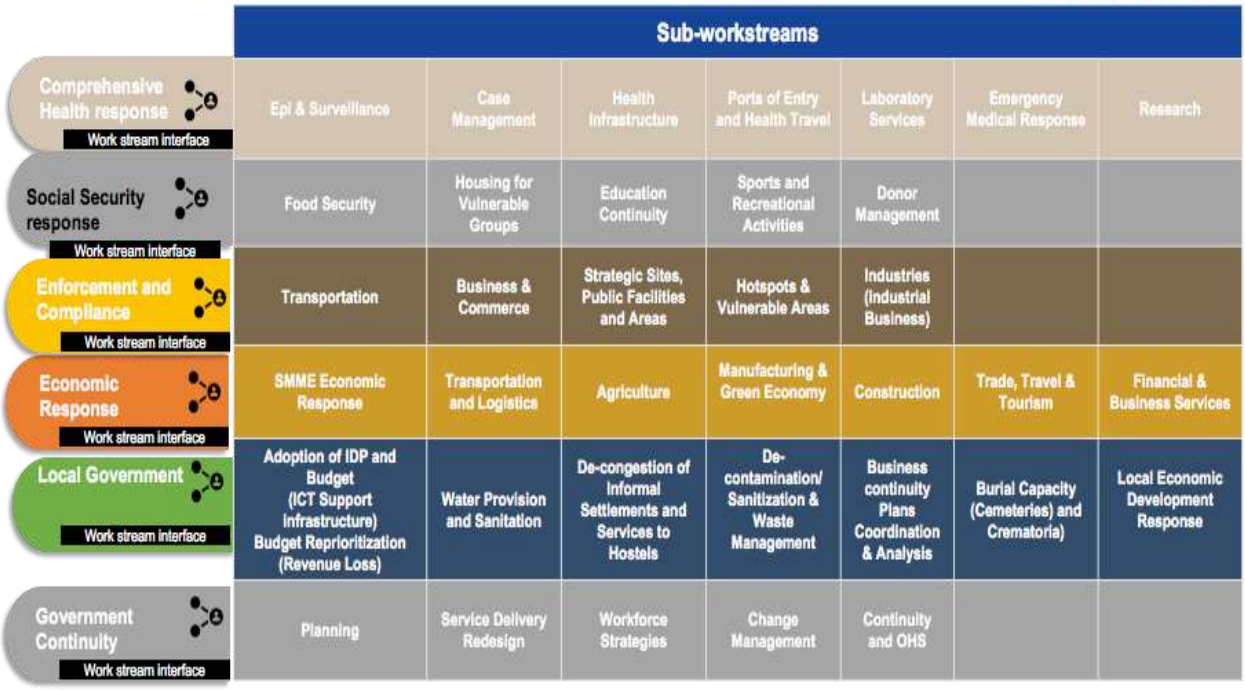
2.3.3 The definition of the Programme Management Office and workstreams

At the same time as new structures were being defined the Gauteng Provincial Government resolved to seek technical assistance in the setting up of systems required to support a programmatic approach to tackling COVID-19. In the final days of March 2020 GPG approached Deloitte & Touche to secure technical services, and on 2 April the province accepted an offer from the company that it would provide some R2,8 million in consulting time pro-bono, helping to define and establish a Programme Management Office (PMO) and associated workstreams. This generous offer translated into some 60 days of technical assistance, rolling out from mid-April.

The COVID-19 response strategy adopted by GPG is interwoven with the PMO and the workstreams – integrated via the War-room – that it supports.

Through a risk identification process, Gauteng identified key risks associated with COVID-19, and then moved to structure a six part strategy to respond to these. Each component of the strategy was then structured as a workstream, integrating key officials from across different departments into the shared space of a transversal programmatic area.

Each of the workstreams was then, through a process of iteration, divided into a number of sub-workstreams. Below is a diagrammatic representation of these sub-workstreams from early in the process, but it must be recognised that these saw considerable evolution over time.

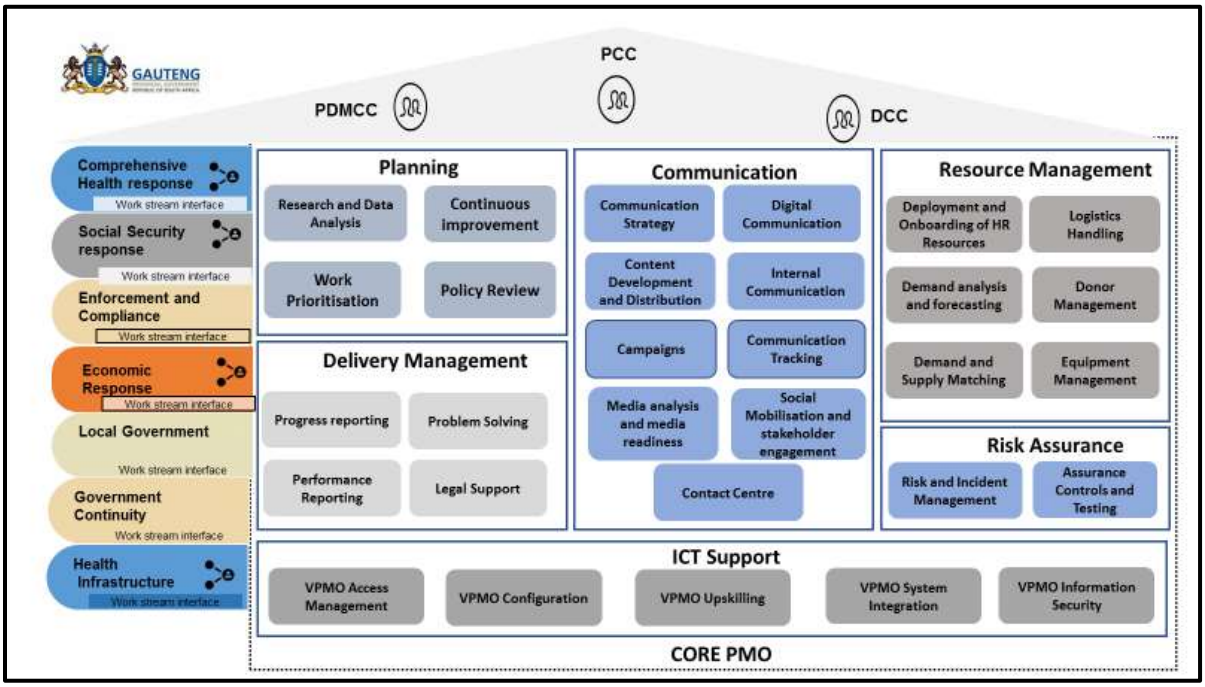


Each of these six workstreams was headed by a stream lead, a Head of Department from the departments brought together in the new cross-cutting space. However, each workstream was given structured 'secretariat' support by identified high level project managers making up the PMO. While each workstream was formally held accountable – through regular reporting – by the War-room, the PMO was therefore the operational lynchpin that held the workstreams together. Its role was defined as follows:

- Provide a centralised management structure to coordinate all efforts in response to COVID-19
- Securely manage a centralised information repository for all workstreams for record-keeping, data-analysis and reporting
- Coordinate the activities of workstreams, and set the cadence of their work
- Provide individual project portfolios and reporting capabilities to each of the workstreams to ensure standardisation and accuracy
- Escalate and flag issues to be addressed by the PDMCC governance structures to quickly extinguish potentially disruptive and damaging activities
- Ensure interfaces between all structures of government and other external stakeholders
- Provide assurance on response delivery by making sure that resources and capabilities were available in line with regulations
- Lead the planning and implementation of government continuity as required.

The key capability of the PMO was its head, carefully selected 'mandarins' (a term used by a number of respondents) who interfaced with HoD leads, and a number of dynamic young officials

playing a variety of secretariat roles, it is worth noting that as designed by Deloitte the PMO was envisaged as a rather expansive structure, with a number of posts to be filled to cohere centralised capacity. An indication of this vision is diagrammatically represented in the following figures.



2.4 The role of leadership

We should not underestimate the foundational acknowledgement by leadership in Gauteng of the seriousness of the emergency. This acknowledgement included, firstly, the gravity of the crisis; secondly that it was not simply a health emergency but would have a 'whole society' impact; thirdly, that all arms of government horizontally and vertically would need to respond; and finally that a qualitatively different model of governance would be required to address the pandemic. By itself, this acknowledgement reflects an essential starting point for effective leadership - an inaugural grasp of what is to be confronted, and what it would take to respond appropriately. As we have seen elsewhere internationally, this has not always been the case.

From the outset, the leadership in the Gauteng city-region moved swiftly to establish the alternative structures of governance intended to coordinate and drive the response to the pandemic in the city-region. The intention was made clear immediately that the systems needed to be city-region-wide and this would bring both Provincial and Local Government administrations into close alignment with each other. As noted above, structures were established to enable political and administrative leadership layers to meet very regularly and it is clear that, for some time into the crisis, these were respected and provided almost unprecedented depth and

continuity of engagement between these spheres of government in the GCR. As one senior COGTA official noted in late June: “For the first time, I am able to have meetings with City Managers three to four times a week”.

In these constitutive processes, the top leadership, mostly in the form of the Premier himself, was active in shaping the governance response, liaising upwards with the National Command Council, and then working politically across the city-region, convening the Provincial Command Council, meeting at least weekly with all the mayors of Gauteng, the provincial MECs, and the nationally-allocated Ministers and Deputy Ministers. Senior officials commented:

> *We had visible leadership from our politicians. The Premier said that there was no way we could wage a battle if the leaders were sitting in the bunkers. He said “The frontline must see the leadership”.*

Further, the Premier took on the public role and in articulating the public messaging, including the regular television broadcasts, where he hosted the scientific advisors and re-iterated the strong public health messaging that informed the approach to the pandemic.

There was a further ‘crisis-within-a-crisis’, when the concern emerged about corrupt practices in the procurement of PPE equipment. At this point, the Premier took the lead in informing the public in frank and forthright terms about the problem, and clearly articulated a strongly ethical stance on the matter.

> *This does not seem like something that just happened, it seems like it was a proper plan designed to ensure that rules are not followed and as quickly as possible people make a quick buck. We want the money recovered. These people must go to jail.*

The leaderly stance of the Premier was reflected in the activities of other senior officials in the Office of the Premier, who worked in a facilitative fashion across the workstreams, and in relation to partners who were supporting government. As will be noted later in this chapter, a strong reflective ethic was encouraged, with frequent opportunities arranged for critical feedback on how the pandemic was being managed in the city-region. The fact that deeply entrenched limitations could not adequately be surfaced and addressed in these opportunities should not detract from the culture of reflexity and adaptive responsiveness that was being encouraged by this layer of leadership.

At the level of the GPG Command Centre and War Room, the role of the Director General was seen by many as pivotal in providing the high-level leadership that gave definition and purpose to the new coordinating structures. This role involved expressing a high-level vision of the common purpose around which the various functions needed to cohere. However, the shift from the traditional line-department structures of government towards greater coordination and integration of these functional areas was not universally welcomed. The long-established autonomy of these ‘silos’ was challenged by this approach. Senior leadership noted:

It took a long time for the collaboration to take effect, and this was to be expected. Government operates in silos, and between departments, the walls are even harder.

Officials in the War Room commented on some of the dynamics that helped to sustain these 'walls':

I think the DG got a lot of pushback. There was a lot of resistance to the plan and the approach. We can understand now why this would be: when people can operate behind closed doors, within their circle, it is easier to keep things within that circle. But when you open the door to other parties, then you have people reflecting on your work and having oversight. With oversight, the gaps and loopholes become apparent. And that is where the resistance came from; people didn't want to allow others in to look at what they were doing. … It was a territorial resistance, with people not buying into the fact that we are one government with a common goal.

In addition to navigating this resistance, the DG needed also the ability to knit together the differing functional contributions needed for the multifaceted responses. A senior officer commented:

The DG exercised immense leadership. She provided the vision for what was needed in this coordinated approach, she brought people together and told them what had to be done. So while there were discussions and debates, there were things that had to be done and we all had different responsibilities in order to get there. ... For quite a while there was a lot of frustration because people felt overwhelmed by the amount of work, and there was frustration from the DG as people were not doing what they were supposed to be doing. People were working hard but not necessarily systematically, but she was very persistent, and adamant. I would not say that the DG's leadership was forceful: it was convincing. She put forward an argument … why the coordinated multi-sectoral, multi-level and inter-governmental approach was what was needed to fight this pandemic.

It took them a while to appreciate what we were asking them to do, but once they did, then the gelling happened. … We could have spent a lot more time on change management but we didn't have that time. Because of the time constraint, people realised they either had to work here, in this space, in this way or else they would be left by the wayside. We made it clear that we would be moving along irrespective.

It thus became clear that the new structural form was a necessary but not sufficient component of what was needed to achieve coordinated governance, and persistent guidance and attention to detail from leadership figures was essential to creating the conditions in which other chemistries of organisational change would emerge, as will be noted in the next section of this chapter.

2.5 Experience at operational levels

The setting up of the Project Management Office (PMO) – which was constituted partly on 'workstream' guidelines from the WHO, and on a model developed for GPG by Deloitte on a *pro bono* basis. The model of the PMO was affirmed by most respondents as an excellent structural vehicle for managing responsiveness to the pandemic, succeeding in the longer run in achieving the intention of coordinated responses from across the functional areas of government.

> *What Deloitte gave us was a good basis for government as a whole to interrogate the way it works, and how collectively we could put systems in place to allow for a more holistic understanding of the situation and response. …There was a dire need in government, and COVID presented the opportunity for us to begin looking at coordinated responses for government intervention.*

However, in the early months of the lockdown, the model and its requirements were unfamiliar for many officers and it took time for operational staff to adapt to the new mode of working. A senior GPG officer commented as follows:

> *In the beginning, when Deloitte first came on board, it took us a while to get going. It was a fairly complex form that they were proposing and it was perceived as being complex. Many people struggled with this complexity, and the conception of how reporting would need to be executed. It took weeks of labour, trying to work through the Deloitte system.*

Another officer noted:

> *There was a naïve perception that if everyone sits in one room, important things will happen. But as waves of people were called in, there was no clear communication about how it would all work. Government employees were really motivated and willing, but much was unclear. Who does what, where?... Deloitte gave us the framework and we were allocated into sections, but we had to work it out for ourselves.*

The logic of the original structural blueprint was sound, but in addition to the framing role of top leadership, the functioning of it in effect had to find definition organically, rather than through a controlled exercise of the design.

It became clear from interviews that, aside from this framing provided by leadership, the emergence of actual transactions across functional areas had to be undertaken through the emergence over time of transversal relationships across the invisible but powerful boundaries of the silos. In other words, working relationships and reciprocal trust needed to be forged between individuals who previously were unknown to one another. A new social fabric needed to form in order to give effect to the collaborative intent of the PMO.

The upside was that officials communicated among themselves and gained a maturity of understanding – people from different departments were discovering each other for the first time. I'm finding some really efficient individuals, and developing personal and supportive relationships. We were shocked that it took so long to get things working, so we took responsibility ourselves to make things work.

Respondents noted however that the quality of these relationships was important, not least because of the real 'pull' of the continuing responsibilities and accountabilities of original line departments, where continuity of normal service provision under conditions of lockdown was a challenge by itself. Furthermore, the sensitivities of how line departments would appear in the eyes of others continued to encourage hesitancy and discretion. Individuals who were open to the collaborative ethic needed thus to comport themselves judiciously in relation to their departmental colleagues, while simultaneously working across boundaries to advance the common purpose. Respondents spoke of the need to "use personal influence", "find opportunities" and exercise the skills of intermediation to solve problems collectively.

You have to think above and beyond oneself to deal with this, to resolve certain things. I can say my character has been tested.

The kind of skills needed for cooperative work are becoming clear. We can start to identify the "go-to people" for this kind of work.

It is possible to infer from responses that individuals who were able to respond adaptively to the situation displayed particular levels of capability and receptiveness, and it would be intriguing to explore if there are some individuals who are more 'adaptively disposed' than others, and what it would take to generate these skills more systematically.

Respondents noted that, over time, a network of capable and co-operatively-disposed people has arisen, and that this has enabled the collaboration. Respondents also spoke of the important mediatory contribution of figures from the Office of the Premier, who also worked to assist some workstreams to respond to the emergency.

It seems however that some line departments remained more resistant to the integrative ethic than others, and many respondents expressed frustration with some functional areas in particular. One respondent noted:

One workstream … hasn't taken off … it is very resistant to change. … we have now put them onto a different reporting cycle – now only once a month – because it takes time to show results. We feel they are too slow: six months later and they still have not established (a key relief initiative). (This Department) is too slow. They are following rather than leading.

Another respondent ascribed some delays to regulatory constraints:

The (workstream) has been slow to respond – by October, the (relief initiative) had yet to be launched, and relief funds not yet distributed – the procurement guidelines issued by National Treasury were holding up the process so we had to go back to the drawing board.

In some lagging contexts, leadership made efforts to provide support, and allocated assistance from the Office of the Premier. Respondents noted that while this support seemed to have been welcomed in some quarters, other (often political) quarters viewed the measures as 'interference'.

2.6 The role of data in decision-making and governance

Central to the success of the integrated model of governance that was intended is the quality of information that flows through the system. Essentially, the central coordinating structures, and the respective work-streams, are each intended as a platform for creating a synoptic view on the progress of the pandemic, enabling collective planning of responses and interventions, and multi-dimensional monitoring of their effects. The quality and currency of information is at the heart of the function of this model and its chance of success. Given that the pandemic was understood to be a 'whole society' crisis, rather than only a health crisis, information on the full range of effects of the pandemic and the lockdown needed to be gathered, analysed and fed into the various structures and systems of the governance model. Further, given the need to interrupt the spatial spread of the disease across communities, and given the disparities of impact on the economic and social wellbeing of the population, it is critical that the information is spatially referenced, to enable targeted responsiveness.

A senior figure, commenting on the imperative for "an agile and responsive system in a pandemic", noted the following:

> *One of the key things that builds this agility is having access to information for decision making. We are now at 2000 cases a day so our strategies need to change, and the changing of strategies is reliant on data. Evidence is needed for the decision-making process that is such a central part of governance. The rapidly evolving nature of the pandemic is making quicker access to information fundamental to decision making, with quicker turnaround times and (for it to be) acquired in more intelligent ways. … it needs to be gathered and then made available at a quality that people can trust. This is needed to empower people working at different levels to be able to use data to make decisions. Structurally this involves actually delegating to them the authority to make decisions, so that the GCR can be more responsive to these kinds of challenges.*

As the pandemic unfolded, it became clear that access to trusted and current data to enable decision-making was uneven at best. The consequences of inadequate data provision could influence operational strategies on the ground:

There is no direction … on how to interpret the data. When there is data presented, we would like to know how it was derived, analysed and how it could be explained to the citizens. … With our limited resources we tried to cover areas where we thought the spread might be: so we focussed on the inner city only to find out later the spread was predominantly in (the) west.

In some cases, like the hotline for food relief, a very capable tool was made available to record the requests for food. Having good quality information about food insecurity was especially important, given that a number of agencies were active in providing food relief, and increasingly centralised control needed to be exercised to coordinate these efforts.

We had to report on the number of (homeless) shelters … and then we were asked to indicate what assistance we needed. We reported this to the War Room and the PDMC. The result was that there was double dipping – both assisted us and at one stage we had two to three trucks bringing food from different entities.

It seems that high-quality data systems were available from the Department of e-Government, but that these were unevenly used in the work-work-streams. Availability of reliable and up-to-date data on the spread of Covid-19 infections remained a challenge, including timeously generated spatially-referenced data. This frustration appeared to have complex origins, beginning with the level of training at the point of data generation, and continuing in fitful difficulties in making the data available across organisational boundaries, for reasons that remained somewhat obscure. Eventually, the most consolidated record of the progress of the pandemic seemed to be captured on a dashboard developed and managed by the GPG's IBM partner based at the Tshimologong precinct.

It quickly became clear that the assistance of partners would be helpful in managing the data, and analysing the trends of the pandemic. For example, a team at Wits University were able to provide frequent modelling services to anticipate the possible progress of the pandemic, and the GCRO assisted with analysis of the localised trends and patterns in the spread of the disease. Data scientists from the University of Pretoria provided strategic advice, while geo-coding work was done by the International Systems Research Institute (ESRI).

Given the wide impact of the pandemic and the accompanying lockdown, it was important for data on other dimensions of impact to be recorded – for example the impact on the economy and jobs in precarious communities, or the incidence of gender-based violence in locked-down households and so on. One respondent noted in October:

The data is still not enough to advise us what to do. We don't have data on the impact on the economy and on livelihoods. We knew from the GCRO's work that there was vulnerability, especially related to access to services. But it was very difficult to know the impact on industries.

One senior figure commented on the issue as follows, noting that the issue of data integrity and usage is a complex systemic question that has implications for the quality of data, for its appropriate distribution, for the skills of the users of data, for the levels of discretion awarded for decision-making based on the data, and for the social partners who can assist government in the complex and challenging approaches to evidence-informed governance:

> *Then there are issues of the availability and timeliness of data for people at the coalface. Responsive governance requires that the data needs to get to people immediately and in a format that they can use. … To what extent is data or information viewed as an asset to be jealously guarded? … We know from experience that we need to focus on the human element: … what is being done to strengthen their capacity to use data? … And then strengthening people's capacity to use the data at different levels (in government), which comes with the authority to use it: are they empowered and mandated to make decisions on the basis of the data? … What are we doing to strengthen our data quality? What engagements and relationships do we need to have between the GCR and scientists and academics to help us improve the quality of data? … The important question is how we sustain these relationships and take them through to the post-COVID era.*

In summary, the availability of comprehensive high-quality information, its distribution and effective use needs to be a foundational requirement for effective governance, but it seems clear that this was not sufficiently established within pre-pandemic government, and this weakness subsequently manifested in the adaptive structures configured for the crisis. Underpinning an effective system of intelligence for governance must be a deep cultural orientation towards evidence-informed decision-making, as well as strongly developed information management capabilities throughout the system. The absence of these qualities, combined with a disinclination to share data within government and externally, stand as fundamental obstacles for effective adaptive governance.

2.7 Reflections on adaptive capabilities

As noted earlier, the South African government moved quickly and decisively to construct a systemic response to the threat of the pandemic, and we've noted above the structures and systems that were established to this end. In Gauteng, the Provincial Government quickly realised that the existing Disaster Management infrastructure was inadequate, and moved swiftly both to identify suitable physical facilities and to create organisational structures designed to facilitate a synoptic and coordinated response to the emergency. It is clear that they intended a qualitatively different mode of governance from the normal structures of routine government, and that they quickly moved to give effect to a city-region model, that would have provincial government working hand-in-hand with the cluster of local government authorities in Gauteng. This was an ambitious response, implemented with considerable speed and with little or no lead-up time for careful planning and preparation. The shape and character of governance, as well as the physical

facilities for the coordinating core, had to be assembled and given effect very rapidly. Simultaneously, arrangements needed to be made for the continuity of 'normal' government functions under circumstances that would provide for staff members a degree of protection from Covid-19 infection. Under these circumstances, it is entirely predictable that the bold intentions of this policy approach would encounter some difficulties and unanticipated hurdles. Of particular interest in this study is the degree to which leadership would steer the adaptive intent through these difficulties to secure its objectives. Put slightly differently, what levels of organisational learning and responsiveness were at work, fine-tuning the initiative as inevitable challenges arose? What was the extent of established adaptive capability in the face of an unprecedented and fast-changing set of circumstances, and to what extent was new adaptive capability emerging?

Adaptive learning in complex organisations includes instituting proactive initiatives for monitoring, reflection and change, including drawing on insights from partners, which in turn depend on the encouragement of receptive and generative cultures of reflexivity. Learning in organisations is an inherently social and political set of processes, dependent on the levels of trust and reciprocity, and the political affordances of any context (Rashman, *et al*. 2009). Inevitably, structures and approaches designed for one era of government may not be suited for a new one, and so appraisal is needed of the 'fitness for purpose' of structures and functions, and the readiness to undertake adaptive modification (Greiling & Halachmi, 2013).

It is clear that the set-up and function of the Provincial-level Command Council and Command Centre were predicated on the intention for continuing reportage from all workstreams, and the achievement of a synoptic view of the progress of the pandemic and the effectiveness of the preparations, interventions and responses. In other words, these constituted the platforms for collective organisational learning and responsiveness. Insights from respondents indicate that the routines of these patterns of oversight and accountability were rigorously pursued, and by all accounts, government was functioning more-or-less seven days a week. This set of structures, and the determined management of its routines, provides the vital form and coherence of the governmental architecture and its cognitive intent.

The form of this system of oversight was strongly asserted and sustained by the leadership, although some reservations were expressed by respondents on two accounts. The first was reflecting the (inevitable) higher transaction costs of an integrated architecture and prompting the experience of some officials (in both provincial and municipal structures) of 'reporting overload', involving reportage to multiple structures simultaneously, and the logic and effect of the reporting systems were not always evident to those on the ground. The second reservation arises from the constraints noted earlier in the form of some inherited line-department cultures that were slow to respond to the transparency required by the cooperative ethic. This was noted as a concern about the quality of what was reported, in that 'face-saving' responses may have trumped the more frank assessments that may have been necessary.

(Some of the officials) were very report-driven .... (Some) didn't seem to think about the implications of their reports or why they had to do them – they were focussed on getting the numbers, and getting everything into 'green', because they used that robot designation. I don't think that they really understood the gravity of what they were meant to do.

Respondents noted that cultures from within some home line-departments inhibited openness of disclosure, in that critique was discouraged, especially in the presence of the departmental leadership or outsiders, and that this influenced the reporting to the various platforms. One respondent noted the expressions of a newly arrived political leadership figure who took over a Department in the middle of the pandemic:

(We could see) his expression of righteous anger and disbelief about the Department! … He said "is it really this bad?".... He would visit clinical facilities; in his first two weeks he visited 30-40 different facilities. He was appalled by the conditions. He told us that as part of Cabinet he had been listening to reports from (the Department), and he said that all of our principals had been engaged in a huge cover-up because none of this comes up. None of what is on the ground is anything at all like what the Premier's entourage have understood. There is a fear of exposure – everything must look green, even though it's fiction.

It seems that in some cases this inhibition found effect in the workstreams themselves. This is a pattern found in many organisations, and the salient point is that cultures of open disclosure and confronting problems need consciously to be developed, and local-level leadership is crucial to fostering this.

However, it is clear that the conception of the convergent reporting systems, and how they were firmly modelled by the leadership, clearly established the flows and connectivity that, if the quality of data and the cultures of learning were suited to this adaptive purpose, would comprise the baseline neural architecture for better informed and increasingly collaborative government. Especially at leadership levels, this model was experienced as generative and productive, and future initiatives towards (for example) city-region governance are bound to draw on this precedent.

Equally important in the move towards adaptive systems is the need for vigilance, since necessary processes of destabilizing and changing routines open up the possibilities for unintended consequences. Shortly after the commencement of the lockdown, an audit team was directed towards likely areas of difficulty - food distribution and PPE procurement. The problems in the latter were quickly identified as early as April 2020, and the matter was escalated to the Special Investigations Unit (SIU). This investigation, and the subsequent SIU report on the problems, resulted in the departure of a number of top-level figures in the Gauteng Department of Health, in an important demonstration of consequence management by the provincial leadership.

A key strategy for innovation and learning includes drawing on the insights and experience available outside of one's own circles. To what extent were the strengths and exemplars of partners recruited to inform the adaptive strategies? Evidence gathered for this case study reflects several examples of important proactive work with partners, initiated by the leadership. For example, in a very demonstrative initiative to generate reflection and debate, the Office of the Premier launched a series of 'Governance Dialogues' facilitated by, and including, university partners, which was initially conducted for figures within provincial government, and then widened to include participation from other spheres and partners. The intention was both to sharpen insight into the current adaptive measures, as well as consider the possible implications for approaches to city-region governance into the future.

An important question was whether there was room for the approaches initiated at the outset to be adapted, based on learning generated along the way and insights provided by non-traditional partners? One key evolution in the approach was the development of the ward-based strategy, which saw a much more localised set of multi-disciplinary interventions targeted at emerging or anticipated 'hotspots'. In this case, a number of respondents acknowledge the influence of senior military advisors, invited by the Premier, who brought particular skills and tactics to the management of the pandemic. What is notable is the openness of leadership levels to advice and approaches from a quarter not usually accommodated in government, and the willingness to move swiftly towards innovative strategies.

2.8 Concluding Comments

> *One of the biggest lessons is that state capacity to manage a crisis of this proportion is dependent on the cumulative investments that a state has made on its ability to govern, do and manage.*
>
> *Mazzucato and Kattel (2020)*

The approach to tackling the pandemic taken by the Gauteng Provincial Government was highly ambitious, with the intention of achieving a radical model of cooperative governance. This was instituted very swiftly, with little opportunity for careful preparation and re-orientation of officials, and under conditions of deep apprehension about the impact of the virus. Under these circumstances, it is to be anticipated that not all would proceed according to plan. However, the fundamental governance architecture of the initiative has proved resilient, both in its effect and in its value as a precedent for the future. Taking this broad view into account, there are also emerging a number of valuable insights around the conditions that tend to contribute towards, or constrain, the approach towards increasingly associative forms of governance.

Ultimately, it is clear that divergent orientations towards adaptive government have arisen during these first months of the pandemic. On the one hand, an ambitious and radical effort is swiftly undertaken to construct an architecture designed to achieve unprecedented levels of cooperative

governance, followed by an emergent uptake of associative and collaborative practices in some quarters. On the other hand, numerous respondents have pointed to some key functional areas which demonstrated significant incapacity and/or resistance, in large measure based on dispositions that pre-existed the pandemic. In some cases, these weaknesses were well-known and documented, and an important line of future enquiry will be to understand why long-standing problems have been difficult to remedy. Doubtless these problems have complex origins, and may be complicated by powerful structural and socio-political factors, and a thorough and very frank analysis of the phenomenon is needed in order to design approaches to solving the problem. The fact that Gauteng managed to cope (on the health front at least) with the June/July surge of 2020 should not deflect from the need to understand and remedy line departments whose weaknesses became all the more evident during the pandemic. The insights arising from this case study suggest that the ability to address underperforming functional areas is an essential component in achieving adaptive governance more generally in the city-region, and responding to current and future crises of this nature specifically.

Finally, insights arising from the case study confirm several key elements that contribute to the successful function of adaptive systems. The first is the central importance of the integrity and flow of high-quality information through the system, and the capacity of staff at every level to work effectively with data. The achievement of evidence-formed decision-making depends on a comprehensive data-oriented culture and strongly-established analytic skills base, together with a clear understanding of how flows of data come together to constitute the strategic intelligence needed for governance. Secondly, we are reminded of the essentially social and political character of dynamics that inform the micro-ethnography of organisational behaviour. Officials are socialised into patterns of performance that can contribute towards, or work against, the objectives of agile and innovative government, and under rapidly changing conditions, staff members may experience a paralysing regulatory dissonance. The task of engendering a population of adaptively-oriented civil servants requires both requisite levels of capability and an accumulated culture of associatively-disposed orientations. Finally, and drawing heavily on the preceding considerations, is the ability to achieve organisational learning, which includes both a clarity of realisation and the ability to act productively (and often collectively) on those insights. The achievement of adaptive governance is never achieved in theory, or in planning, but in the execution of ambitious intentions, and the willingness to confront and respond to the inevitable lessons that arise along the way.

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CHAPTER 3

The Health and Health System response to COVID-19 in the Gauteng City Region: Innovations, Contestations and Lessons for the Future

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ABSTRACT

Background
Gauteng Province (GP), the commercial and industrial powerhouse of the country and of Southern Africa, accounts for 30.5% of South Africa's reported COVID-19 cases. This chapter describes the health and health systems response to the COVID-19 pandemic in the Gauteng City-Region (GCR).

Methods
This was a case study design, using mixed methods, including a document review, epidemiological information on COVID-19 in the GCR and in-depth interviews with 36 key informants.

Results
At face value, the GCR developed an impressive and comprehensive COVID-19 Strategic Response that aimed to address the dual challenge of saving lives and the economy. The Comprehensive Health Response evolved since March 2020 in response to changing circumstances, and this is commendable. The Gauteng Department of Health launched a massive, resource intensive COVID-19 response that marshalled the entire public health system to prevent infections, contain the pandemic and save lives.

The interviews revealed a complex picture of multiple narratives that contain examples of innovations, local leadership, teamwork and front-line health professionals going beyond the call of duty and rising to the challenge of providing health care. The case study found that the COVID-19 pandemic exposed and amplified the fault-lines, inequities and vulnerability of the public health care system in the GCR. A major weakness of the COVID-19 health response in the GCR is the collateral damage caused by the virtual shut-down of the health care system for essential health

services, the impact of which may only be felt in years to come. This is likely to affect poor people disproportionately who are dependent on the public health care system.

There was under-investment and insufficient focus on the health workforce, the response failed to take into account or deal with their fears, and to incorporate strategies for psycho-social support, and safe working environments. There were missed or wasted opportunities to: invest in primary health care as the foundation of the health system; partner with communities and civil society; and explore relationships or collaboration with the private health sector.
The reported PPE corruption is a reflection of sub-optimal health leadership, management and governance, exacerbated by a culture of poor accountability and unethical behaviours. The vulnerabilities of information systems (data quality and utilisation) and a relatively rigid top-down approach unresponsive to different viewpoints led to inappropriate decisions (e.g. community screening, field hospitals, etc.).

Recommendations and lessons
We underscore five immediate response actions and recommendations (IRR) to deal with a possible second wave of infections in the GCR.

- IRR 1: Enhanced leadership, management and governance
- IRR 2: Surveillance, containment and control
- IRR 3: Ensure lives saved
- IRR 4: Avoid collateral damage of health care system, specifically maintain essential services and prioritise the health workforce
- IRR 5: Invest in health information systems

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3.1 Introduction

Globally, the devastating impact of the COVID-19 pandemic is reflected in the more than 56 million confirmed cases and more than one million deaths reported to the World Health Organization by 20 November 2020 (https://covid19.who.int/). In addition, the shocks caused to social and economic systems have exacerbated pre-existing inequities, fragilities and unsustainable practices [8].

South Africa remains among the top 20 countries with the highest number of reported COVID-19 positive cases of 762 763 as at 20 November 2020 (https://sacoronavirus.co.za/2020/11/20/update-on-covid-19-20th-november-2020/). Figure 1 shows the key COVID-19 statistics.

Figure 1: COVID-19 Statistics in South Africa, 20 November 2020.

Source: https://sacoronavirus.co.za/2020/11/20/update-on-covid-19-20th-november-2020/

Accessed: Friday 20 November 2020

Gauteng Province (GP), the commercial and industrial powerhouse of the country and of Southern Africa, accounts for 30.5% of South Africa's reported COVID-19 cases (Table 1).

Table 1: Gauteng's reported COVID-19 cases relative to other provinces

Province	Total reported cases	Percentage total
Eastern Cape	114 830	15,1
Free State	58 667	7,7
Gauteng	232 653	30,5
KwaZulu-Natal	125 721	16,5
Limpopo	18 347	2,4
Mpumalanga	30 971	4,1
North West	34 527	4,5
Northern Cape	22 905	3,0
Western Cape	124 142	16,3
Total	**762 763**	**100,0**

Source: https://sacoronavirus.co.za/2020/11/20/update-on-covid-19-20th-november-2020/

Accessed: Friday 20 November 2020

This chapter describes the health and health systems response to the COVID-19 pandemic in the Gauteng City-Region (GCR). For the purposes of the health chapter, the GCR refers to the geographical boundaries of Gauteng Province. The two terms GCR and GP are used interchangeably.

The chapter begins with an overview of the methodological approach to the case study, including the conceptual framework selected (Section 2). Section 3 present a summary of the overall strategic approach in preventing infections, COVID-19 containment and health care provision in the GCR, based on a review of key government documents. In Section 4, we use the conceptual framework to describe the perspectives of key informant interviewed. The final section 5 contains recommendations and lessons for the management of future health crises.

3.2 Methodological Approach

3.2.1 Specific Objectives

The specific objectives of the Health Component of the GCR Case Study were to:

a. Describe the *GCR's health and health system response* to the COVID-19 pandemic, specifically the measures to:
   i. Prevent the spread of COVID-19
   ii. Limit or combat the spread of COVID-19

iii. Mitigate the potential impact of COVID-19

b. Explore the *perspectives and/or experiences of key policy actors/ stakeholders* with the implementation of the COVID-19 health system interventions.
c. Identify the *factors that influenced the implementation* of the the COVID-19 health system interventions.
d. Identify strengths and weaknesses in the *GCR's emergency/crisis preparedness and response* from multiple perspectives, including any unintended consequences (positive and/or negative) and factors that predisposed or exacerbated the COVID-19 crisis.
e. Highlight lessons learned and propose recommendations to strengthen the health system response and to ensure preparedness.

3.2.2 Study Setting

The study setting is the Gauteng City Region (GCR), which for the purpose of this health case study is the area that corresponds to the geographical boundaries of Gauteng Province.

3.2.3 Study design

This was a case study design, using mixed methods, including a document review, epidemiological information on COVID-19 in the GCR and in-depth interviews with key informants.

3.2.4 Conceptual framework

Following deliberations on an appropriate conceptual framework to explore the health and health system response to COVID-19 in the GCR, the research team combined and adapted the conceptual framework of the InterAction Council on Pandemic Emergency Response to the Coronavirus, COVID-19 [9] and WHO's COVID-19 Strategic Preparedness and Response (SPRP) Monitoring and Evaluation Framework [10] (Figure 2).

The conceptual framework assumes that the goals of the GCR response to the COVID-19 pandemic are to prevent COVID-19 infections, save lives, address health inequities and ensure a just economic recovery [11]. The conceptual framework is an analytical tool, and the different elements are integrated, and cannot be separated in practice. We have presented them separately for the sake of clarity.

In our conceptual framework, we consider *leadership, management and governance* (LMG) to be a critical aspect to the success of the COVID-19 response. The concept of LMG includes the existence of legislation, policies, strategies, and plans, the establishment of COVID-19 emergency structures and/or committees whose role is to ensure oversight and accountability,

and intelligence or information without which planning is impossible [4]. Coordination, communication and engagement are cross-cutting important elements of the conceptual framework.

The health and health system response rests on four critical pillars: surveillance, containment and control; saving lives; enhancing community resilience; and strengthening the health care system.

Finally, research, reflection and recovery are important cross-cutting elements of the conceptual framework to ensure that the GCR is a learning organisation, able to incorporate insight and lessons for future emergencies or crises.

We have used this conceptual framework to review the key government documents, and to present the results of the key informant interviews.

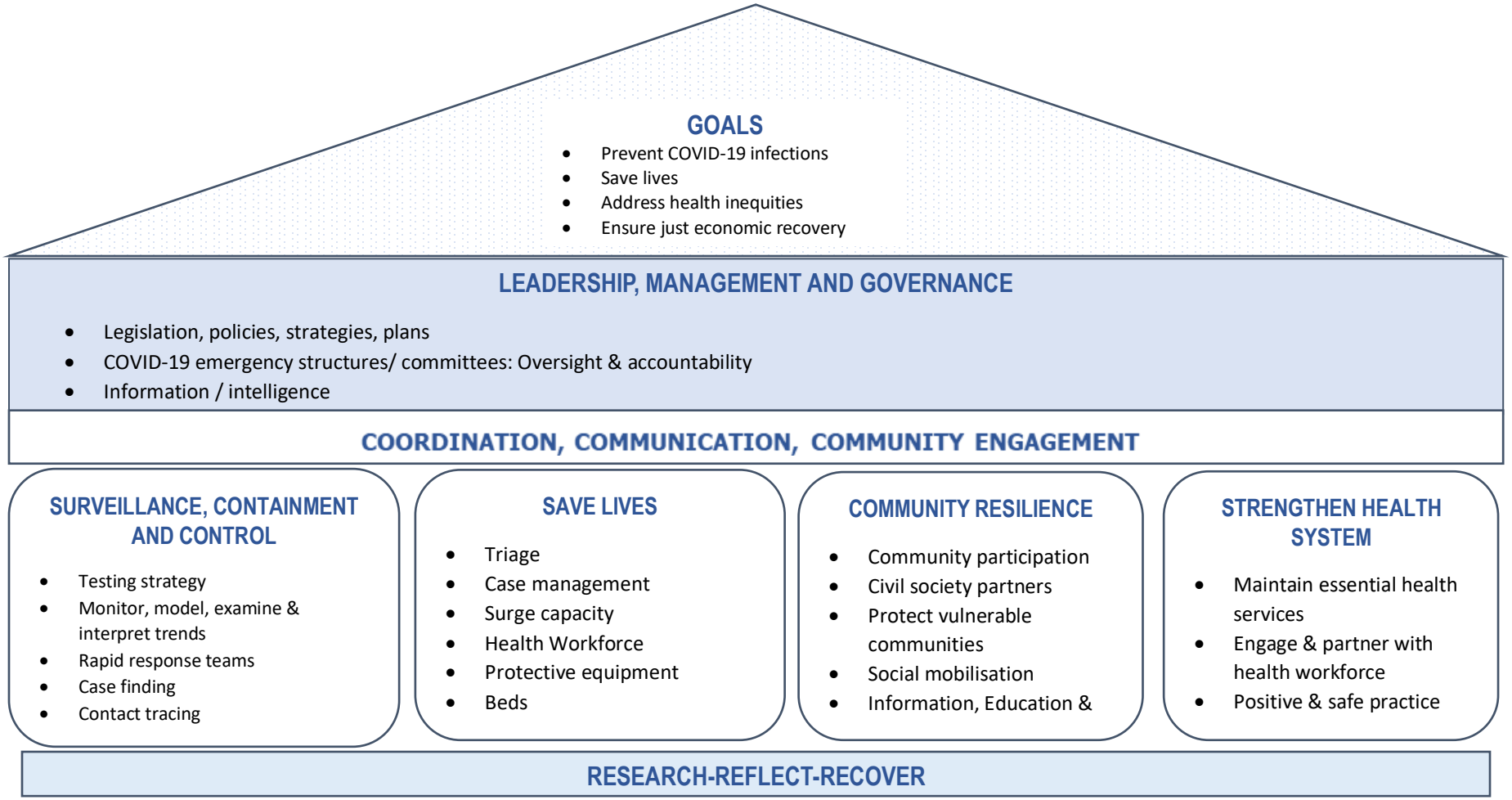

Figure 2: Conceptual Framework to explore Health and Health System Response to COVID-19 in the GCR

Sources: Adapted from InterAction Council, 2020 [9] & WHO, 2020 [10]

3.2.5 Document review

The document review aimed to describe the evolution and details of the GCR response and progress made since the countrywide lockdown on 27 March 2020. However, this review was limited by the written documents that the research team was able to obtain, and the time constraints for completing the case study, as well as competing priorities. In the end, the research team reviewed the following government documents:

a. City of Johannesburg's Mayoral Committee meeting 17/03/2020
b. Provincial Disaster Management Command Centre (PDMCC)-Presentation to the Gauteng Executive Council on the Gauteng City Region Response to COVID 19: Consolidated report, 3 June 2020
c. Director General Report to the National Command Council on the Gauteng Provincial Government Response to the Impact of the Covid-19 Pandemic March – July 2020
d. Minister of Health COVID-19 update media briefing 5 August 2020
e. Responding to COVID-19 in the GCR: Data insights 20 August 2020
f. NICD COVID-19 Surveillance in Selected Hospitals, Tuesday, 08 September 2020
g. COVID-19 Expenditure Disclosure Report
h. Ward-Based War Plan
i. Public Health Stream's Presentation to the Provincial Advisory Council, Monday: 14 September 2020.

We also did a search of peer-reviewed articles and media reports that focused specifically on the COVID-19 response in the Gauteng City Region, and where relevant, we have referenced these.

3.2.6 Key informant interviews

Participant selection

We used purposive sampling to select key informants based on their knowledge and/or experience of the COVID-19 health or health system response in the GCR, and the

implementation of the overall GCR strategy in the districts (municipalities) and health facilities. The categories of key informants selected for interviews are shown in Box 1.

Box 1: Categories of key informants selected for interviews

1. Executive or senior managers or officials from different levels of provincial or local government
2. Senior clinicians or frontline health workers in hospitals and clinics
3. Professional associations and/or unions
4. Government entities critical to response such as the National Institute of Infectious Diseases (NICD), the National Institute of Occupational Health (NIOH), and the National Health Laboratory Service (NHLS) and individuals providing technical support, research and/or expert advice.
5. Private for profit health sector stakeholders
6. Members of civil society, including non-governmental organisations or health advocacy groups.

Data collection instrument

The lead researcher developed two interview schedules in English: one for executive managers and one for all the key informants. The interview schedules consisted of semi-structured questions, in line with the case study objectives.

The semi-structured interview schedule for executive managers consisted of five main subsections. The first section focused on the key informant's role in the COVID-19 response in the GCR. The second section focused on a description or overview of the actual health and health system response to COVID-19. The third section focused on stakeholder involvement and communication. The fourth section focused on their perspectives on the COVID-19 response and/or strategy, notably their perspectives of the strengths of the response, innovations, weaknesses, unintended consequences (both positive and negative) of the way COVID-19 was managed, and the political–management interface. The last section focused on key lessons from the management of COVID-19 interventions in the GCR, and recommendations for future management of health crises (including a possible second wave).

The semi-structured interview schedule for all other key informants was a truncated version of the key informant schedule for executive managers, and excluded sections 2 (specific response) and 3 (stakeholder involvement).

The interview schedules were reviewed by a team of researchers for content validity and clarity of questions, and a meeting was held to discuss revisions. The lead researcher revised the interview schedules, addressing all the comments. A trial run was done amongst researchers to ensure readiness to collect data, and to test the clarity of the questions.

Data collection

The members of the research team were assigned key informants to interview, and at times interviews were conducted in pairs of researchers. Two administrators from the

Office of the Premier (OoP), assisted with scheduling the interview meetings. Each participant was contacted via email to request voluntary participation in the study. Following informed consent, the administrator or the relevant researcher arranged the interview date and time with each key informant. The researchers emailed the information sheet, informed consent forms, and the relevant interview schedule to the study participants.

All interviews were conducted virtually and in English, via Micro-soft Teams, Zoom or telephone on two occasions when technology failed.

Each interview began with an introduction of researchers to the participant, assisting the participant to be familiar with the virtual platform and putting the participant at ease. This was followed by an introduction to the study, and an explanation of the voluntary nature of participation. Prior to the start of the interview, the researcher confirmed consent for participation and for recording of the interview.

Following informed consent, the research team used the semi-structured interview schedule as a guide to explore each participant's perspectives on the COVID-19 response and the management of the COVID-19 pandemic in the GCR. The researchers used probes to obtain details and clarification of responses. Each interviews lasted between 30 -60 minutes, but the duration varied depending on the key informant's responses. In cases where two researchers were in the interview, one researcher led the interview, and giving the other researcher at the end the opportunity to ask any other questions. The non- interviewing researcher wrote most of the notes, and short discussions were held by the pair of researchers after each interview, to agree on key issues emerging. Detailed notes were made during interviews, and were complemented when the researchers listened to the audio-records.

Interviews were recorded digitally and labelled with a key informant code. All audio-recordings are kept on a password-protected computer to ensure confidentiality.

Data analysis

Following data collection, all raw data were collated and cleaned by the lead researcher, and submitted to other researchers for review and to examine for completeness. Two meetings were held by researchers, one midway of data collection and the other at the end of data collection period. These meetings focused on discussing the emerging issues, and to identify gaps, and validate if data saturation has been reached. In qualitative research, data saturation is reached when no new information or themes are observed in the data [12].

Following agreement that data saturation was reached, each researcher analysed the data independently, inductive thematic analysis was followed. Each researcher read and reread each transcript independently to familiarise herself with the data, and to get a

sense of the whole interview. The transcripts were coded line by line, by writing key words on early impressions, using the direct words from the transcripts. Each researcher made notes on reflections from the data. Following coding stage, each researcher developed themes, interrogated and evaluated the themes for similarities and differences in meaning across different categories of key informants.

Once the process was complete, the four researchers held a meeting to discuss the independent codes and themes, and to reach inter-coder agreement. An iterative process followed of examining the codes and themes in light of the selected conceptual framework.

Ethical considerations

All researchers signed confidentiality and non-disclosure agreements. The lead researcher requested advice from the Chair of the Human Research Ethics Committee (Medical) of the University of the Witwatersrand in Johannesburg on whether an ethics submission should be submitted prior to conducting the interviews. The Chair indicated that the confidentiality and non-disclosure agreements were sufficient to undertake the GCR case study, as it was commissioned by the OoP. All participants were given a detailed information sheet, as well as a verbal explanation of the study. Participants were also informed of the voluntary, confidential, and anonymous nature of participation in the study. We use participant codes to ensure their anonymity. All the data are stored on a password protected laptop.

3.3 Covid-19 In The Gauteng City Region

3.3.1 Preparation and strategic response

Prior to the declaration of the state of national disaster on 15 March 2020, the Gauteng Provincial Government (GPG) implemented several measures to combat the COVID-19 pandemic [11]. These measures included the following:

- The establishment of multi-sectoral coordination mechanisms at both provincial and district levels for COVID-19 preparedness and response
- Strengthening capacity to undertake surveillance for COVID-19 at provincial and district levels
- Training of 259 contact tracers
- Ensuring health care system preparedness to receive, manage and report on the clinical progress of persons with COVID-19
- Ensuring National Health Laboratory Services capacity to support testing for COVID-19
- The designation of three hospitals Charlotte Maxeke Johannesburg Academic Hospital, the Steve Biko Academic Hospital as well as Tembisa Tertiary Hospital, for appropriate treatment of confirmed cases [11].

Gauteng adopted a six pillar strategic response to the COVID-19 pandemic (Figure 3) [11].

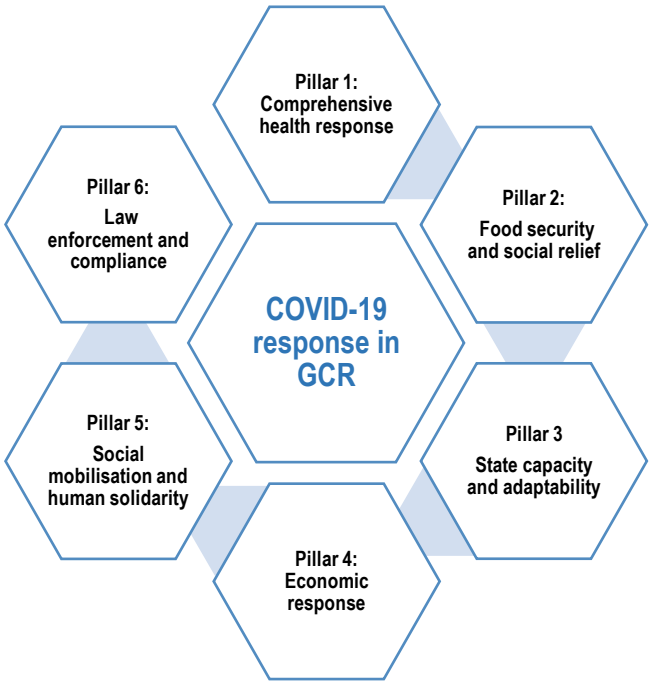

Figure 3: The six pillar strategy of Gauteng's response to COVID-19

Source: Adapted from Provincial Disaster Management Command Centre [11].

Several high level structures were set up, the most important of which were the Provincial Coronavirus Command Council (chaired by the Premier) and the Provincial Disaster Management Command Centre (PDMCC) co-chaired by the Provincial Director General and the Provincial Police Commander [11]. These are discussed in more detail in the chapter on leadership and governance. It appears that the GCR strategy was accompanied by a risk assessment on household vulnerability to income disruption and that took into account different dimensions, including food security, geography, population density, the elderly and COVID-19 cases [11]. In addition, discussions focused on flattening the COVID-19 "medical curve" while concomitantly flattening the "recession curve" [11]. Each of the six pillars translated into a work stream that presented updates to the PMDCC, which in turn reported to the Provincial Coronavirus Command Council, and to the Provincial Executive Council (Cabinet).

3.3.2 Overview of comprehensive health response

The activities of the Comprehensive Health Response Work stream were organised into seven sub-work streams: epidemiology and surveillance; case management; health infrastructure; ports of entry and health travel; laboratory services; emergency medical

response; and research [11]. On 3 June 2020, a progress report was presented to the Gauteng Executive Council (Cabinet) that covered various aspects, shown in Table 2.

Table 2: Summary of Comprehensive Health Response Work stream Report, June 2020

Progress category	Brief overview
Epidemiology of COVID-19 in Gauteng:	• COVID-19 positive cases, recoveries, active cases and mortality by district and for the GCR • Age and gender breakdown of deaths
Hotspots defined as a district that has 5 or more active cases per 100 000 population or the high number of new positive cases over 14 days	• Overview of case profile by ward and district • Mitigating/ management interventions e.g. enforcement of regulations, addressing health and social security issues • Response teams • Importance of different stakeholder involvement
Status of influenza immunization	• Number of vaccinations by district (municipality) • Groups/ categories vaccinated e.g. staff, elderly, pregnant women, et
Screening	• Number screened by district • Type of screening: community (56%), hospital (10%), PHC screening (34%)
NHLS Provincial Testing Figures	• Gauteng testing numbers compared to other provinces
Management of COVID-19 Positive In-patients	• Public vs private sector admissions • Intensive care vs general ward admissions • Discharges • Deaths
Infrastructure readiness regarding the ICU, high care, quarantine and isolation beds looking at 3 scenarios:	• Scenario 1 - Beds within the existing hospital and other government facilities • Scenario 2 – Additional beds within the existing facilities (Though Alternative Building Technology) • Scenario 3 – Private Sector-ICU, high care (AngloGold Ashanti Hospital etc.); and quarantine (NASREC, SOE, Hotels etc.).
Personal Protective Equipment (PPE) stock availability	• Face, body and hand PPE • Respiratory PPE, tools and environmental PPE • Stock on hand vs stock ordered

Source: Adapted from Provincial Disaster Management Command Centre [11].

On 26 August 2020, the director-general of the Gauteng Provincial Government (GPG) presented a progress report (on behalf of GPG) on key areas of the Gauteng COVID-19 strategy, including the Comprehensive Health Response, to the National Coronavirus Command Council (NCCC) [13]. This progress report noted that the Gauteng Department of Health (GDoH) proposed an intervention programme in line with WHO guidelines. The DG reported slightly different sub-work streams to the ones presented to

the Executive Council in June 2020. These revised sub-work streams are shown in Figure 4.

Figure 4: Gauteng Department of Health (GDOH) response to COVID-19 pandemic, August 2020

Source: Director-General Report to NCCC, 2020 [13]

The progress report to the NCCC noted that the GDoH response has been re-organised to focus on four key areas, shown in the table below.

Table 3: GDoH reported key areas of focus, August 2020

Focus area	Brief overview

Reduction of transmission rate of COVID-19 projection of cases, case management and community mobilisation	• Non-pharmaceutical response
	• Flattening the curve" through:
	  ○ Strong social mobilisation
	  ○ Communication
	  ○ Tracing and tracking of the behaviour of the pandemic

Provide care through provision of functional beds and management of positive case	• Adequate capacity to manage people that require quarantine, isolation and treatment (in intensive care, high care and general beds) in current facilities (nursing homes, clinics, CHC, district hospitals, regional & special hospitals and Central hospitals) • Additional capacity in current facilities or temporal structures outside current facilities • Key priority was the ability of the health care system in the GCR to provide a functional bed in line with the demand so as to achieve a low mortality rate for COVID-19 patients
Facilitate appropriate management of human remains	• Adequate capacity to manage the end of life processes • Provision of storage space for bodies • Transportation and burials

Focus area	Brief overview

Provision of logistical support to the various programmes.	• Provision and management of :
	  ○ Infrastructure
	  ○ Human resources
	  ○ Health technology
	  ○ Available budget
	• Occupational Health Management, management of labour relations, management of data and ensuring good governance in the management of the processes.
	• Consumables sourced through Supply Chain Management Processes

Source: Director-General Report to NCCC, 2020 [13]

3.3.3 Bed needs for the COVID-19 peak in the GCR

The report of the Director-General on behalf of the GPG also presented the results of modelling of projected COVID-19 cases in the GCR by the expected peak of mid-September 2020. A summary of these estimates are shown in the table below [13].

Table 4: Projected COVID-19 cases, bed capacity needed, and proposed strategies

Modelling scenario	Number
Estimated total GPG Cases by the anticipated peak in mid-September 2020	419 654 - 541 137
Estimated total number of critical care beds need in the GCR (both public and private sectors)	8 000
Gap in critical care bed need (both public and private supply)	6 878
Estimated total number of critical care beds need in the GCR's public sector	2 400
Gap in critical care bed need in public sector	2 027
Estimated total general ward beds needed in GCR (public and private sectors)	25 000
Gap in general hospital beds in GCR	18 197
Estimated total general ward beds needed in GCR's public health sector	7 500
Gap in the need for general hospital beds in GCR's public health sector	5 948

Source: Director-General Report to NCCC, 2020 [13]

The GPG planned to overcome the gap in the need for additional beds through repurposing of existing/beds and wards; decanting wards in existing facilities and preparing them for the use of COVID patients; creating additional capacity within the existing hospital platforms through the use of Alternative Building Technology (ABT) for long term use; and creating temporary capacity outside existing facilities through field hospitals [13]. There was also recognition of the need to ensure financial, human and other resources to meet the demand for all hospitalisation and quarantine needs.

3.3.4 Ward-based Battle Plan

The ward-based battle plan is not dated, but appears to be a subsequent development to or a refinement of the August 2020 GPG COVID-19 pandemic response [14]. The stated goal of the battle plan is to: " *direct targeted interventions towards priority-wards where infections are high, with the aim to disrupt the movement and spread of the virus and to control the pandemic by slowing down the transmission and reducing mortality associated with COVID-19"* [14].

The key elements of the strategy are shown in the table below

Table 5: COVID-19 ward-based battle plan

S0 1 Mobilisation	**S02 Control**	**S03 Suppress**	**S04 Reduced** Mortality	**SO5 Develop**
• Mobilise all sectors and communities to take takes ownership of prevention response • Hand hygiene, • Respiratory etiquette • Physical distancing	• Control sporadic cases and clusters • Prevent community • Transmission • Find & isolate all cases • Provide appropriate care • Trace, quarantine and support all contacts	• Suppress community transmission • Context-appropriate infection prevention and control • Population level physical distancing • Travel restrictions	• R e d u c e mortality by providing appropriate clinical care for those affected by COVI D-19 • Ensure continuity of essential health and social services • Protect frontline workers and vulnerable groups	• Develop safe and effective vaccines and therapeutics • Deliver at scale • Accessibility based on need

Source: Gauteng Department of Health [14]

The Battle Plan makes provision for elaborate structures, and implementation at strategic, operational and ward-based levels. At the ward-level, implementation is envisaged to be led by the Ward Councillor and Ward Committee, with Civil Society invited to participate and participation of all levels of society, including university students [14]. The ten wards with the highest number of COVID-19 infections were prioritised for intervention, and reporting envisaged to be to local government, provincial and national structures [14].

3.3.5 Surveillance, containment and control

On 14 September, the Public Health [sub] Work Stream, also known as the "Reducing Transmissions Stream", presented a final report to the Provincial Advisory Council [15]. The core mandate of the stream is epidemiology and surveillance, community mobilisation, education and advocacy, and case management and public health training [15]. Key elements that pertain to surveillance, containment and control of the presentation are highlighted in this section.

The GDoH Public Health Stream reported that close to 18 million screenings had been done by 11 September 2020. Assuming that the tests conducted were a reflection of people who met the requirements for testing, the overall yield for possible COVID-19 positive cases was 2.3% for the Province as a whole, ranging from a low of 1.4% to a high of 2.5% in the West Rand [15].

District	Screens	Tests	% Yield
Johannesburg	4627989	152 351	3.3
Ekurhuleni	3627984	49340	1.4
Tshwane	6209439	83979	1.4
Sedibeng	1480778	56838	3.8
West Rand	1179926	41509	3.5
Correctional Services	862733	26229	3.0
GP Total	**17 988 849**	**410 246**	**2.3**

Source: Adapted from Public Health Stream Report, 14 September 2020 [15].

The Stream also reported that 99.96% or 132 928 of 132 981 contacts have been traced. The Stream highlighted the challenges of "unallocated cases" stemming from wrong contact details of index cases and their contacts, poor awareness and uptake of the COVID Connect App, the disconnect between the NICD data, and the district health information system, the low contacts to Index Cases ratio data and competing priorities within the other priority health programmes, e.g. such as malaria, measles, .polio surveillance and non-adherence of community members to non-medical interventions such as wearing of face masks, hand washing and physical distancing [15].

Box 2: Key issues emerging from the document review

Key observations/ issues
1. At face value, the GCR developed an *impressive and comprehensive COVID-19 Strategic Response t*hat aimed to address the dual challenge of saving lives and the economy. The Response incorporated a detailed risk assessment that took account of multiple levels of deprivation at the district level. The Comprehensive Health Response is a key pillar of the GCR response. 2. The Comprehensive Health Response evolved since March 2020 in response to changing circumstances, and this is commendable. However, the *rationale for the changes, and linkages between different strategic foci s* over time is not explicit from the document review. 3. There appears to be an *excessive focus on high-level structures*, and less emphasis on implementation. 4. The June 2020 modelling exercise produced an *over-estimate of the expected number of COVID-19 cases of between 419 654 - 541 137* at the peak of the pandemic in the GCR. These estimates are almost double the cumulative total of COVID-19 cases as at 20 November 2020. 5. The inaccurate modelling also led to an *over-estimate of critical care and general hospital beds in the GCR*, which influenced subsequent decisions or strategies that aimed to address the gap between bed needs and bed availability/supply. 6. Although the private health sector was factored into the original modelling of bed needs, the *GCR response focused entirely on the public health sector*. This appears to be a missed opportunity to facilitate greater equity in resource access and optimize scarce resources. 7. The Comprehensive Health Response *was a hospital-based strategy primarily,* with the Ward-Based Battle Plan developed much later, probably after COVID-19 infections had peaked in the GCR. This was also a missed opportunity to strengthen PHC in the GCR. 8. The *community screening appears to have a very low yield* of less than 5%, judging from the tests performed, relative to screening. This raises questions about the cost effectiveness of the community screening strategy.

3.4 Key Informants' Perspectives On Strengths, Innovations And Contestations

3.4.1 Characteristics of key informants

We interviewed 36 key informants (KIs), and their characteristics are shown in the table below. We were unable to schedule interviews with two executive managers from the GDoH, due to competing priorities and time constraints. The chief executive officer of a

prominent civil society organisation agreed to participate, but his personal assistant failed to schedule an interview, and one senior official from an international non-governmental organisation agreed to complete the key informant schedule in writing, but never returned it.

Nonetheless, we reached data saturation with people repeating similar issues. Importantly, the Case Study on health did not aim to ensure representativity, but the research team wanted to interview a diverse group of policy actors and get their perspectives on the COVID-19 response in the GCR.

Category of key informant	Male	Female	Total
Executive manager in provincial or local government	5	2	7
Facility/ district managers, senior clinicians or frontline health workers in hospitals and clinics	6	5	11
Professional associations and/or unions	2	-	2
Technical support, research, academia	3	5	8
Private health sector	1	2	3
Civil society	4	1	5
Total	**21**	**15**	**36**

The case study found that there were multiple, and at time contradictory narratives from key informants. Although these are overlapping and integrated, we present the emerging themes and sub-themes according to the conceptual framework shown in Figure 2. For example, the concepts of leadership, management and governance cannot be separated in reality, but we have presented them separately to deal with the wealth of data that emerged from the interviews.

Table 6: Themes and sub-themes from key informant interviews

Theme	Sub-themes
Leadership	• Political leadership • Digital innovation • Involvement of critical stakeholders in decision-making • Perception and/or experience of lack of transparency
Governance	• Disaster Management Act • Rapidly changing regulations • Regulations vs practical reality • Availability of user-friendly guidelines • COVID-19 response and strategy • Contestation of information/ intelligence/ modelling of risk • Unclear accountability mechanisms • Corruption
Management	• Pandemic preparedness • Perception of poor, inadequate and/or reactive planning • Confusion or duplication of roles and reporting lines • Insufficient management of change
Coordination and collaboration	• Improved collaboration ○ Public and private health sectors

Theme	Sub-themes
	○ Provincial government departments ○ Tertiary hospitals and surrounding clinics ○ Within hospitals e.g. between management and staff • Sub-optimal intergovernmental relations • Missed opportunity for public-private partnerships
Communication and engagement	• High-level communication in mainstream media • Poor or sub-optimal communication ○ Across different spheres of government ○ Poor communication with communities ○ Lack of/ insufficient engagement with the health workforce ○ Lack of trust ○ Certain voices more dominant than others ○ Apparent contradictory messages
COVID-19 surveillance, containment and control	• Lack of clarity on testing strategy or guidelines • Appropriateness of screening strategy • Contact identification and tracing • Laboratory testing capacity • Inaccurate modelling predictions • Utilisation of isolation quarantine facilities • Data management
Saving lives	• COVID-19 designated hospitals • Infection prevention and control • Uniform protocols for case management • Training of the health workforce • Protection of health workforce
Community resilience	• Behavioural change/ institutionalisation of public health measures e.g. handwashing/ sanitisers • Community taking responsibility for own health • Contradictory or fearful messages to communities • Perceived missed/ wasted opportunity to involve and/or engage with communities and civil society • Perception that goodwill of civil society ignored
Strengthening health system	• Allocation of additional resources to the health sector ○ Treasury allocated an additional R4 billion ○ Appointment of additional staff, albeit on contract ○ Upgrading/ building of additional infrastructure • Unintended positive consequences e.g. decrease in trauma cases, respiratory syncytial virus • Appropriateness of investment in field hospitals • Hospi-centric pandemic response rather than primary health care/ community-based response • COVID-19 prioritisation resulted in “health system lockdown” • Compromised quality of care • Insufficient investment or lack of prioritisation of the health workforce

Each of the themes is discussed briefly below.

3.4.2 Leadership

Although some key informants thought that it was difficult to distinguish a province-specific COVID-19 response from the national response, several commented positively on the visible and strong political leadership (Premier, MEC for Health) in the GCR.

> W*e were led properly in our response. The Provincial Command Centre had given us clear, accurate instructions on what needs to be done e.g. the setting up of NASREC and all the other quarantine centres. It showed bold leadership from our provincial heads… the flow of patients, we knew which hospitals had COVID designated wards* (KI 8, Central Hospital Manager).

> T*he Premier and the DG were part of the daily processes around COVID. The establishment of the Provincial Command Council (War Room) also helped. The district level had Joint Operations Committees led by the police generals. A few months back, we established District Command Centres led by the mayor which helped to consolidate the government's response as a collective to the pandemic* (KI 34, District Health Manager).

The strength of political leadership was also echoed by two key informants from civil society organisations.

> *The Premier was good with communication and making public appearances. Masuku* [MEC for Health] *made appearances at hospitals and strengthened the Gauteng Province response to COVID-19* (KI 13, Civil Society)

> *It* [the strength of the COVID-19 response] *has been this strange juxtaposition- the Premier has given the impression of efficiency and transparency, and that has inspired confidence, and the belief that everything was under control. The Provincial War Room was another example. I was impressed with the slides presented at the media briefings, and it showed a real attempt at showing hard data* (KI 23, Civil Society)

Some of the key informants commented on the digital innovation that was led by the GCR, evidenced by the screening/tracing app, and the bed availability dashboard. One KI, an executive manager from provincial government, indicated that the GDoH created a bed availability dashboard at the Command Centre. This was a mobile solution that was shared with the private sector. However, an academic disputed the availability of the bed availability dashboard, and lamented the duplication of the initiative, as the NICD had implemented a hospital surveillance system that included a daily bed availability report.

Some key informants criticized the lack of involvement of all important stakeholders in decision-making, specifically the lack of involvement of communities, frontline health workers, and the private health sector. A recurring theme was that frontline health

workers or end users were not involved in decisions that affected patient care, and that there was not a two-way mechanism to report challenges from the ground. For example, hospital managers were expected to provide regular reports, but there was no mechanism to ask questions or to report their operational challenges. A senior clinician at a central hospital commented as follows:

> *Consultation lacked inputs from end users, namely frontline clinicians, staff, patients and communities e.g. the 300 beds for COVID were closed without warning, re-opened very slowly – collateral damage ++ (major disruption and sacrifice, prejudiced non-COVID patients) plus very costly (R100m) without improving basic infrastructure (*KI 11, Central Hospital Clinician).

In some instances, the lack of involvement of frontline staff resulted in the wrong consumables, PPE or ventilators been delivered to hospitals.

Key informants from the private sector felt that they had been excluded, and this was both a missed opportunity for collaboration, and frustrating. This perceived lack of involvement of different stakeholders was exacerbated by the perception of lack of transparency on certain decisions, such as field hospitals.

3.4.3 Governance

WHO defines governance as the existence of strategic policy frameworks, combined with effective oversight, coalition building, regulation, attention to systems design, and accountability [4]. None of the executive managers in the GDoH was able to articulate the Comprehensive Health Response to the COVID-19, but they told us about their individual portfolios and responsibilities. They referred us to the OoP for details of the response, thus raising questions as to their involvement in the development of the six pillar strategy of the GCR.

All the key informants were familiar with the rationale and purpose of the Disaster Management Act, namely to ensure an integrated and coordinated response to the COVID-19 pandemic. Some highlighted the confusion created by the accompanying regulations, especially at the beginning of lockdown, exacerbated by the changes, the lack of a coordinating mechanism, and lack of user-friendly guidelines. Those key informants at the frontline in both the public and private health sectors complained about the rapidly changing regulations that were open to interpretation, and the impracticality of some of the regulations. One commented as follows:

> *There were regulations about the numbers of people that have to be at work. In some settings some employees are deemed as non-essential, in health all employees are essential and everybody had to be at work and we couldn't keep to the 30% required by the regulations. The regulations stated that the people above 60 and with co-morbidities, were supposed to stay at home. In health these*

> *were the people who were able to fight COVID and have the wisdom to deal with certain complications that might arise due to COVID-19. These are the highly skilled critical care nurses and dieticians - we needed them to work- initially some resigned and later withdrew, some would run to labour unions to complain* (KI 10, Central Hospital Manager).

Another key informant highlighted the problem of unclear guidelines.

> *We faced challenges with unclear guidelines. For example, the guideline on when a facility has a COVID-19 case, it is not clear on who should do the deep cleansing, because previously we were using the service providers, but now it says that deep cleansing should be done in the facility, so the only thing that is not clear is on who should do the deep cleansing, is it the staff, the general assistants at the facility or the service provider.* (KI 32, PHC facility manager)

Civil society key informants were of the opinion that the regulations were not designed to deal with a crisis and to ensure that there was rapid response, but rather to meet the needs of the bureaucracy. One commented:

> *Another challenge was the interpretation of the 25 March regulations, the definition of essential goods. We found that trying to feed people was such an effort, as we had to answer numerous questions on supply, storage and distribution of food. There was little acknowledgement that some non-governmental organisation were already supplying people in need (e.g. soup kitchens). Our sense was that the Province was interested that the bureaucratic hurdles were met e.g. they asked, where is the food coming from, where are you taking it to, which route are you taking, which wards, etc. There was a lead-time for authorization. In the end, we ignored some of these regulations and dropped off the food to make sure that people did not starve.* (KI 30, Civil Society)

Key informants from the private sector complained that the regulations were designed for the "command structure" of the public health sector. For example, they pointed out that they had to lobby extensively to ensure that the wording of the regulations for the prescribed minimum benefits changed, to make sure that medical scheme beneficiaries are covered for a COVID-test, even if they were not admitted to hospital.

Some of the key informants highlighted the missed opportunity of government in regulating the private health sector to ensure access to health care and to scarce resources, such as ventilators.

An integral part of the leadership and governance function is the generation and strategic use of information, intelligence and research [4]. One of the major sub-themes that emerged from the key informant interviews was the contestations regarding the modelling that predicted the expected number of COVID-19 cases, deaths, estimated number of critical care and general hospital beds.

There were several comments on the provincial modelling.

> *Given the pandemic, the entire system had to be adjusted to deal with the pandemic. There was panic at the beginning, with over-estimates of the actual number of cases. For example, the 23 000 active cases look very different to projections of more than 100 000 cases. The additional allocation to health was made following their modelling and projections. The Department of Health initially requested an additional R14.9 billion for PPE, oxygen and infrastructure. The inaccurate costing reveals some of the legacy challenges in education and/or capacity* (KI 3, Executive Manager)

> *The modelling was too hospital-based – we needed more emphasis on quarantine-type or step-down care. Sometimes it seems that the interventions were more about creating good publicity, being seen to be doing something without enough thought for the legacy or long-term spinoffs that could have been realised. They were not willing to learn, change or adjust in response to the changing reality. The problems at NASREC were already raised in March (design, HR), but were not listened to, suddenly plans resuscitated in July in spite of evidence from the Western Cape and internationally that this was a waste.* (KI 11, Central hospital clinician)

> *The provincial modelling team was completely off the scale – this led to potential for huge over-commitment of funds of around R20 billion. Gauteng chose its own parallel process instead – I do not know why – it was a private group with IT people, some people from universities.* (KI 15, Academic/ Researcher)

May key informants highlighted the reported PPE corruption scandal as a painful incident, which overshadows the achievements and strengths of the COVID-19 response in the GCR. They were of the opinion that the alleged corruption was entirely preventable. Box 3 shows the key informants analysis of the anatomy of PPE corruption.

Box 3: Anatomy of reported PPE corruption

- Disaster Management Act made provision for emergency procurement
  - Centralisation
  - Lack of transparency
- Perceived failure to:
  - Prioritize societal interest above self-interest
  - Comply with legislation
  - Identify and anticipate risks
  - Ensure that basics were in place
- Possible political interference or undue pressure combined with weak management/ administrative capacity
  - Insufficient or weak capacity
  - Inadequate knowledge or incompetence of officials
  - Weak systems, creating opportunities for corruption
  - Lack of checks and balances
- Sub-standard orders/ non-compliant specifications e.g. personal protective equipment (PPE), ventilators
- Acts of omission due to culture of fear or indifference as well as climate of denial
- Lack of accountability

Some key informants raised the problems of unclear or lack of accountability as a weakness in the COVID-19 response. Some key informants were of the opinion that the GDoH is still dealing with the legacy of the Life Esidimeni crisis of "absent accountability", weak management, neglect in systems, an organisational culture of no consequences, exacerbated by the bureaucracy, top down approach and working in silos.

> *As the GDOH we have gone through a few challenges and after Life Esidimeni people are reluctant to part of our operations and even advising, so staying away is a safer space should things go wrong* (KI 33, District Health Manager).

3.4.4 Management of the COVID-19 response

Notwithstanding a detailed COVID-19 Strategy for the GCR, which included a Comprehensive Health Response, key informants on the frontline were of the opinion that pandemic preparedness was low, in part because everyone under-estimated COVID-19, there was limited knowledge on the virus especially at the start of lockdown, and there was a gap between planning and implementation.

> *One of the things we lacked was a broader operational plan - there was a gap in the timing of our implementation strategy, we did not manipulate that process very well. What I mean –the operational plans were in place, but in terms of people need to implement those plans, there were delays in terms of staff appointments, infrastructural interventions, inter-facility engagement, etc. Our reaction has been more reactive rather than pre-emptive. COVID in its very nature it's a respiratory disease and part of the preparation should be to prepare*

for respiratory challenges. I mean we had ample of time, when COVID hit China, to when it came to our shores. (KI 9, Regional hospital manager)

Key informants on the frontline complained about a top-down approach to planning, with instructions issued, lack of or insufficient engagement of hospital managers, and little or no room for questioning. Those in the private sector commented on the lack of engagement or discussion on contracts, with a perception of rigidity on the part of the GDoH, with a heavy-handed, top down approach.

Some key informants highlighted the confusion or duplication of roles and reporting lines at intergovernmental level, as well as within the NDoH. For example one key informant highlighted frustrations around roles and responsibilities, especially regarding homeless shelters. The comments from two key informants are illustrative.

> *National including NICD, province, district –it was very unclear who did what. The War Room was good but it wasn't clear at first what kinds of decision were taken there. This led to a certain paralysis in responding. For example, in early March, we were contacted by a Church group planning a big international event in April, asking for advice as to what to do. Province said they couldn't advise, the NICD said they couldn't – eventually the District had to give an answer while emphasizing that they had no authority to do so but were providing their own understanding that it would not be a good thing to go ahead with the event (*KI 12, District Health Manager).

> *At the War Room there was duplication of roles, you would find three sets of teams doing the same thing, For example: you would have a public health specialist team analysing data and coming up with a way to do it, then you have a clinical health team in the department (of health) doing the same thing, and then you go have the district people (health programmes) doing the same thing (KI 9, Regional Hospital Manager)*

3.4.5 Coordination and collaboration

There were mixed perceptions on coordination and collaboration. Some key informants were of the opinion that COVID-19 facilitated improved collaboration across several levels, namely across provincial government departments, between the public and private health sectors, between tertiary hospitals and the surrounding clinics, and within hospitals, between management and staff.

In contrast, some key informants highlighted sub-optimal inter-governmental relations, and one commented as follows:

> *Intergovernmental relations were problematic-although the City owns clinics, the provincial chief director communicated directly with the clinics, and*

*bypassed the executive director for health in the city. The matter had to be escalated to the HOD of Health. There was insufficient investment in good relationships, and at times, the province-local government politics played itself out. (*KI 1, Executive Manager).

Another key informant highlighted the fragmentation between national, provincial and local government, lack of or insufficient communication, and weak messaging. One key informant reported that one of the municipalities only came on board in August 2020.

> *The left hand does not know what there right hand was doing. There is a huge disjuncture between National and the Gauteng Provincial DOH, lack of trust, and the relationship has worsened. The national meetings were mostly tick box exercise, and these in turn affect the districts, so it becomes a vicious cycle* (KI 6, Technical Support/ Researcher/ Academic).

Some key informants commented on the missed opportunity of public-private partnerships, while others saw the missed opportunity as the failure of government to regulate the private health sector to ensure greater equity.

> *We didn't have regulations to ensure access in private sector. There were no regulations on distribution of resources e.g. ventilators in public and private sectors. We had a two sector response to the pandemic, contributing to inequity. There was different turn-around time based on where you tested e.g. in private sector quick access, but this was not the case in the public sector* (KI 18, Civil Society)

> *The biggest disappointment is that they (public sector) thought they could do it themselves. There was a major missed opportunity to engage the private health sector in service provision. The guidelines were not for the entire nation, and were not applicable to the private health sector* (KI 24, Private Sector Manager)

> *I have tried through three parallel pathways to get the private sector involved. Firstly, through the Private Practitioners' Forum. Secondly, through the private specialist pathway. Our meetings with the Minister of Health have been productive, but it has been difficult to know how to assist, because often the short meeting has been about giving an update. Thirdly, through contracting private doctors. There have been 23 editions of contracts for public patients to be seen by private doctors. The contracts have been very restrictive, with very low salaries. There has been no engagement or discussion on contracts (*KI 26, Professional Association).

3.4.6 Communication and engagement

Many key informants pointed to good high-level communication from the Premier and former MEC on COVID-19 as a public health crisis, and government prioritisation of the pandemic. There were regular updates on the GCR strategy and COVID-19 updates in the mainstream media (television, radio, newspapers). They felt that the explicit support

of national decisions by the Premier and MEC was critical in getting a unified response. The visits of politicians to health facilities and communication with staff also strengthened the province's response to COVID-19. However, key informants from civil society were of the opinion that the Premier adopted the same model of communication as the President, and that this was inappropriate in Gauteng, as the small size of the Province provides a platform for greater interaction with various stakeholders. Although there was recognition of the Premier's leadership, individuals from civil society organisations lamented government's non-responsiveness to their offers of support, or collaboration.

> *The government was non-responsive to communication from the civil society; perhaps people were too busy to answer phones and emails. This was a missed opportunity for collaboration* (KI 13, Civil Society).

> *There was a lot of goodwill on the part of civil society, but it does not have the power or the resources to intervene. Government did not take advantage of civil society. To a large extent the response has been biomedical and bureaucratic, ignoring the insights from the HIV/ AIDS epidemic. Government did not capitalize on the experience of the community or civic involvement in the HIV pandemic* (KI 23, Civil Society).

There was acknowledgement that there was room for improvement in the communication to communities and to staff.

> *The lack of involvement or briefing of SALGA, unions, SANCO-I think it was a big error at provincial level. The communication with the community was very, very, very poor. (*KI 1, Executive Manager).

> *The communication was very sophisticated, but did not filter to community level* (KI 23, Civil Society).

The lack of, insufficient communication and engagement with the health workforce was also a recurring theme, and many key informants commented on this aspect.

> *This issue of staff fear wasn't recognised- this was an unintended consequence of the communication campaign to try and get the population to follow guidance but had the effect of creating fear and panic amongst staff that this* [COVID-19] *was like Ebola- that they would die. The perception that there was a high mortality associated with* [COVID-19] *infection was never undone, even when reality was showing something different* (KI 11, Central Hospital Clinician).

> *Some information was well understood at higher level, as you go down to frontline there was not the same level of understanding* (KI 19, Technical Support).

> *We should have been involved in discussions around how oxygen will be supplied to the tent, now it's a problem, sometimes you run out of oxygen*

during a resuscitation. Nurses have to carry big cylinders of oxygen (KI 36, Central Hospital Clinician).

3.4.7 Surveillance, containment and control

COVID-19 surveillance, which involves monitoring the spread of disease, is critical to prevent a widespread epidemic that could overwhelm the health system [9]. The WHO recommends active surveillance, with a focus on case finding, testing and contact tracing, with syndromic surveillance based on the symptoms of an individual who corresponds to COVID-19 [1]. Containment and control measures aim to keep ahead of the epidemic curve and to stop the spread of infection, and are closely linked to surveillance [9]. Containment and control measures include contact tracing, hygiene (hand-washing and sanitizers), wearing masks, social distancing, isolation and quarantine [9].

The executive managers reported that the strengths of the response in the GCR were the development of an App [the Impilo App] both for screening and testing, the creation of a database to enable contact tracing, widespread community screening, case finding, quarantine, and tracing of contacts. When asked about the appropriateness of the community screening strategy, one of the executive managers said that he was "also surprised by the low yield".

A district health manager commented on the "hype" around the use of technology and the reality.

> *There were lots of talk of using technology but it didn't quite work out. There was a need to engage interactively with the* [COVID-19] *cases and to improve the data collection and reporting. We tried using the Impilo App for self-screening because it is interactive but this turned into just reporting* (KI 12, District Health Manager).

One of the district managers said that the GCR has done very well in terms of COVID-19 containment.

> *If you look at the numbers of COVID against the population, GP has done very well. Containment: any figure of 5 COVID cases per 100 000 population then you should be worried, anything below then you are managing well* (KI 34, District Health Manager).

COVID-19 also provided an opportunity for innovations at the district level (see Box 4).

Box 4: Reported innovations in COVID-19 surveillance, containment and control in Ekurhuleni district

- CONTACT TRACING STARTED EARLY IN EARLY MARCH, 2020
- DEVELOPMENT OF WRITTEN STANDARD OPERATING PROCEDURES
- TWO TYPES OF TRACER TEAMS
    - PHYSICAL TRACERS, MAINLY CLINICIANS (NURSES)
    - TELEPHONIC TRACERS I.E. LAY COUNSELLORS AND OTHER TRACERS
- System of contact tracing
    - Physical tracing teams sent to the houses of cases as part of the first visit, for swabbing and education of the household, assessing feasibility of isolation in the home, and getting contact information
    - Telephonic tracers had a system of monitoring the cases and contacts every day for the 14-day period

Several key informants highlighted the wide-spread positive behavioural change and institutionalisation of public health measures, such as mask wearing, social distancing, handwashing and/or the use of sanitisers.

However, there were contestations regarding the clarity or knowledge on the provincial COVID-19 testing strategy, availability or use of testing guidelines, laboratory testing challenges, the delays in and coordination of contract tracing activities, the quality of screening in referring hospitals, inaccurate modelling predictions (see governance theme above), utilisation of quarantine/ isolation facilities, and data management.

With regard to the COVID-19 testing strategy in the GCR a key informant noted that:

> *There was failure to share the Provincial Testing Strategy, especially on the employee testing. There was also non-compliance with testing guidelines e.g. random testing of communities without following the guidelines, leading to conflict with our team. I guess that the contributing factor could be that we were in a learning curve and things or processes were changed as we continued* (KI 20, Technical Support/ Research/ Academic).

One pointed to an initial slow and inadequate response.

> *The department (GDoH) was slow to respond – it took weeks to set up contact tracing teams. Facility readiness activities were complicated by the suspension of key active staff member early on in the process. It took weeks to set up the field hospital. Health promotion activities were not visible initially. Contact tracing activities were absent for about the first month of the outbreak (March-April) and thereafter co-ordination was weak* (KI 14 / Technical Support/ Research/ Academic).

Other pointed to insufficient clarity on the definition of a COVID-19 contact, and what to do in practice.

> *The guidelines say that if I test positive, I need to indicate my contacts. The guidelines say that those people who have been in contact with that person for 15 minutes and more, must go into quarantine. But if I work in an environment like this clinic, then everybody will be my contact. Imagine in the clinic when we give each other a report, it's for 15 minutes or more, it gave us a challenge because everybody in the clinic will want to go for quarantine because they are contacts* (KI 32, PHC Facility Manager).

Those on the front-line highlighted the challenges experienced with laboratory testing.

> *While we were managing the pandemic, we had a lot of areas that were not in sync, so this is an area we can improve e.g. the lab tests, I don't know where the problem was, but we had a lot of instances where people would be reported as negative or positive, but there would be missing information, there be no addresses and contact numbers, so it made tracing difficult and made contacting them difficult* (KI 34, District Health Manager).
>
> *Lab issues, there was a lot of paper work to be done, and confusion on how things are supposed to be done, tests getting rejected because papers not done properly (*KI 36, Central Hospital Clinician).

Some key informants were the opinion that the setting up of NASREC and all the other quarantine centres showed bold provincial leadership. Others pointed out that there was poor utilisation of quarantine or isolation facilities, because the amenities were basic and/or community members refused to leave their homes. In addition, they pointed out that the long period of quarantine was a problem in the early stages of lockdown, exacerbated by the insistence of some staff members to quarantine despite being heavily protected.

Key informants also reported that data storage was a problem. In one district, the cloud storage system crashed and the data of 50 000 COVID-19 positive individuals were compromised.

3.4.8 Saving lives

The pillar of saving lives aims to prepare the surge capacity of the health sector, and includes triage systems, [re]deployment of staff and appropriate infrastructure e.g. beds, oxygen, ventilators, and PPE [9]. In March 2020, the GPG designated the Charlotte Maxeke Johannesburg Academic Hospital, the Steve Biko Academic Hospital as well as Tembisa Tertiary Hospital for the appropriate treatment of COVID-19 confirmed cases [11]. However, this changed as new evidence on COVID-19 emerged, and because there

was a realisation that the designated facilities were overwhelmed with inappropriate referrals, and panic calling from the public to the senior managers of those facilities.

Some of the key informants commented on the proactive response of the GCR in response to the perception of the serious threat of the COVID-19 pandemic. This was reflected by the establishment of structures, such as the Provincial War Room, education of the public, consultation with experts, extensive planning with respect to bed capacity, staffing and resources, and focus on infection prevention and control (IPC), and occupational health services (OHS).

The managers and clinicians interviewed were of the opinion that the success of the COVID-19 response is largely because of the proactive action of managers at health facilities, the excellent teamwork, innovation or improvisation necessitated by the pandemic, and the contribution and sacrifice of frontline staff.

> *The response from the hospital, was quite quick. By January we already started training on COVID-19. The team work was amazing – everyone pulled together to get the work done – they were paid overtime, the hospital hired agency nurses (the province only gave extra staff from 1 June). Our psychiatrist set up an online psychosocial support for staff which was then taken up by province. We did all the protocols, we gave them to province, not the other way.* (KI 7, Central Hospital Manager).

> *We began training on what COVID is, proper donning and doffing of PPE. Clinicians from different departments organised themselves to work as a team and to cover departments that needed the most assistance. Psychologists internally provided debriefing for staff members* (KI 8, Central Hospital Manager).

> *For the first time as an organisation, we could reflect on the strengths at our facility. The unity of purpose was highly pronounced, our focus was on COVID-19. The long term positive effects are that we have better resourced wards, they are beautiful now, and we managed to renovate them* (KI 9, Regional Hospital Manager).

> *We developed a new triage system just to deal with the pandemic and that was good* (KI 36, Central Hospital Clinician).

Key informants in both the public and private health sectors indicated that COVID-19 pandemic underscored the importance of IPC principles (e.g. handwashing, IPC training, infrastructure, etc.), which have been neglected historically.

> *There a new norm: what I am seeing in the staff, is that everybody is washing their hands, wearing their PPE, the staff is compliant, previously they were relaxed about issue of infection control, but now they are doing the correct thing* (KI 32, PHC Facility Manager).

However, several key informants pointed out that the large number of infections among health workers reflected weaknesses in IPC.

> *We did not prepare the health care workers enough, most of the infections were on the so-called greenside. Accident and emergency (units)-there were infections caused by insufficient or poor quality PPEs, also utilisation* [of PPE] *was a challenge* (KI 4, Executive Manager)

> *Central hospital ABC was actually overwhelmed, and ran out of space for patients. There were mini-outbreaks happening in the wards. The infection rates among health care providers are an indictment of preparedness and PPE provision. For example, 55% of health workers in the Internal Medicine wards housing COVID or persons under investigation (PUIs) became infected over a period of 6 weeks. Fortunately there were few hospitalisations among this group, no deaths. This happened due to poor IPC practices, but also poor PPE. They were only provided with KN95 masks, not the N95 respirators that were needed* (KI 15, Technical Support/ Researcher/ Academic).

At another central hospital, the hospital manager reported that 755 staff members got infected, and very few of these infections came from the wards. Most of the infections happened in the tea room where staff members took off their masks and did not practise social distancing. The delays in test results impacted negatively on staff management. At a PHC clinic, 9 out of 55 staff members got infected and there were no deaths.

Other key informants pointed out that fear and anxiety mitigated against a rational approach to IPC.

> *People had amnesia about infection control, but the principles of infection control are not different in COVID-19* (KI 22, Professional Association).

Notwithstanding the reported PPE corruption (see Box 3), frontline staff expressed appreciation for the PPE, that was funded from a central budget.

> *The PPE was managed better. The procurement was centralised, we fetched our stuff from the warehouse in Midrand and Roodepoort. The system was working well for us* (KI 8, Central Hospital Manager).

> *Initially we had challenges but later, the district did their best to get us enough PPEs, hence we had limited number of staff who were infected because we had enough PPEs especially in my facility* (KI 32, PHC Facility Manager)

> *We have the necessary PPE and equipment. Different spheres of government and expertise (health experts and epidemiologists) are guiding us and giving us*

advice on the way forward and strategies and changes to cope with the pandemic and move in the right direction (KI 35, PHC Facility Manager).

Some of the informants highlighted the problem of sub-optimal quality of PPE.

PPE is imported from the US and Europe but they closed their exports and this became a problem, the Chinese market opened but unfortunately, we were not familiar with the Chinese PPE and especially with the critical items, the respirators. The Chinese one we had never seen before. The same respirators that are from China, some of its type, they look identical but one box will be written not for medical purposes and others are for medical purposes. This was a weakness and led to delay in the provision of PPE and some were of poor quality (KI 10, Central Hospital Manager)

Some key informants complained about the weak and delayed roll-out of COVID-19 training, especially to PHC clinics, which resulted in PHC staff being unaware of case definitions until June 2020.

In the GCR, the field hospitals were part of the strategy to deal with the projected surge in COVID-19 cases, needing hospitalisation. Several key informants reported that the decision on the field hospitals was taken by the national Ministers of Public Works (Infrastructure Development) and Health, and the decision was handed down to Gauteng Province, with no consultation or input from anyone. The research team was informed that the official policy position of the province was to invest in its own public health infrastructure and this was in line with the Growing Gauteng Together (GGT) 2030 plan of action. Hence, only one the NASREC field hospital was erected.

Some of the key informants thought that the field hospitals in preparation for the surge demonstrated quick decision-making in response to the pandemic, and created additional needed capacity.

We were able to develop additional capacity, using alternative building technology, which will remain the legacy of the pandemic. These facilities will be put to alternative use, e.g. at Chris Hani, we will use these facilities for medical oncology (KI 21, Executive Manager).

Others were of the opinion that the decision on field hospitals was both controversial and ill-advised.

Field hospitals were very controversial from the start, as the experience from many places shows that they were little used. They are very badly designed and criticism or request for change were ignored. Lots of money went into these and is still going into this – why are they still being built? Why could more emphasis not have been given to improving existing infrastructure, when existing ICU is under-equipped? The decision-making wasn't agile enough, it was too

compartmentalized, and unable to change direction (KI 11, Central Hospital Clinician).

There was no information in the public domain about field hospitals, whether they were used to their capacity, how other hospitals were coping and managing COVID-19 numbers (KI 13, Civil Society)

The field hospitals are a complete white elephant-the money could have been used for other priorities (KI 26, Professional Association).

3.4.9 Community Resilience

The pillar of community resilience aims to protect vulnerable populations, and prevent wide-spread transmission, through their participation in the response, partnering with civil society, social mobilisation to ensure information, education and communication on the public health measures to combat COVID-19, and addressing the social determinants of health [9]. As indicated in the section on containment, both a strength and achievement of the GCR response was the behavioural change. Some key informants were of the opinion that communities were taking responsibility of their own health.

COVID-19 became a national question, and hence ordinary community members take responsibility for their own health-they have been conscientised (KI 22, Professional Association)

There were challenges experienced with the implementation of strategies to protect vulnerable communities.

We had the designated areas where people were housed e.g. homeless people, but it created problems, the facilities were not health compliant, in terms of sanitation, running water, etc. Health workers had to go and sort things out and some people had to be moved to different facilities because it was not conducive having them in one area. Some people were in tents and mobile structures on soccer fields – this created more health problems and encouraged the spread of COVID-19 (KI 35, PHC Facility Manager).

Some key informants highlighted that there was insufficient engagement with, and participation of, communities

People were receptive for the lockdown and everybody was happy that the government was protecting them. As things unfolded to different levels, we were not taken through as communities, to explain that this is what each level means. That constant engagement at the community level is important (KI 33, District Health Manager).

Key informants from civil society were of the opinion that there was a missed or wasted opportunity to involve and/or engage with communities. There was the perception that government ignored the goodwill of civil society and that the GPG failed to capitalise on the experience and wisdom generated by the multi-sectoral, civil society involvement in the HIV response.

> *The reality is that in March or April, no one knew what the impact of the virus would be. There was insufficient engagement with people living with HIV, drawing on their experiences of knowing how to adapt to or cope with a devastating epidemic. There was a lack of focus on the relationship between people living with HIV and COVID-19, and the communication below the high level was insufficient* (KI 18, Civil Society)

> *Although lockdown was the correct strategy, very little was done to decrease the effects on communities. I know of lots of struggling families with no support from government, especially in the Hillbrow inner city area* (KI 23, Civil Society).

> *There has been an unwillingness to work with communities, and government only wanted people to stay at home. All the HIV experience has been completely thrown out of the window. Civil society has been trying to do relief work, without government who was only willing to work on these mega projects with corporations. There has been little coordination between province and local government, and hugely wasted opportunities in not working with civil society. A participatory and consultative approach allows people to develop and own the solutions* (KI 25, Civil Society).

While acknowledging the wisdom of moving to a ward-based response, the district health managers indicated that the ward-based response programme requires improvement to ensure that poor communities are assisted in reducing the impact of the pandemic.

3.4.10 Strengthening the health system

The pillar of strengthening the health system focuses on maintaining essential health services, engaging and partnering with the health workforce ensuring positive and safe practice environments for health workers, operational support and logistics, and ensuring resource sustainability [9, 10].

Many key informants interviewed highlighted the positive aspects of the COVID-19 response, which included the allocation of additional resources to the health sector to the tune of R4 billion, the appointment of additional staff, the upgrading and/or building of additional infrastructure.

> *The response to COVID-19 was comprehensive. Once the national disaster was declared, the WHO assisted with formulating the response. The success of the*

strategy is highlighted by: effective case finding, quarantine, contact tracing, hospitalisation, etc. We were also able to get additional finances, and donations. We also made progress with research, monitoring and evaluation, and data system. We also took the decision to revamp current infrastructure, using alternative building technology (ABT). For example, the decision was taken to establish 300 beds at Jubilee, which can be used post-COVID-as the hospital is close to the highway. In the case of George Mukhari, the surgical corridor was renovated using ABT, and at Kopanong the extra capacity will be used by mental health users (KI 4, Executive Manager).

*The support was palpable on the ground…we were given R14 million to beef up current staffing levels, the budget mitigated staff shortages especially with the opening of new wards. After the first phase, we were given another amount to recruit professional nurses, staff nurses and auxiliary nurses (*KI 8, Central Hospital Manager).

It (COVID) brought the strength of each individual worker. We have never experienced better team work than during this period…everybody was prepared to engage very efficiently, there was willingness to share resources, especially on the issue of PPEs, there was some level of transparency in terms of the things that were done in the department. There was willingness from the staff to assist, that's why we saw increase in the number of overtime (KI 9, Regional Hospital Manager).

The reality is that we have more resources than before. In some instances mental health, maternal and child health, were forced to ramp up the response, and showed that it could be done. Overall, the Department [of Health] *is in a much better position now* (KI 21, Executive Manager)

Key informants also highlighted the unintended positive consequences, such as the decrease in trauma cases and a decrease in hospital admissions for respiratory syncytial virus and influenza. In addition, COVID enabled the GDoH to leverage technology, and to fast track certain projects such as telemedicine.

However, many key informants pointed out that COVID-19 prioritisation resulted in a *de facto* "health system lockdown". This had many unintended negative consequences, including a reduction in access and/or provision of essential health services (e.g. maternal and child health services, HIV and tuberculosis, non-communicable disease care), scaled-down hospital services (e.g. no elective surgery), and loss to follow-up of some patients. Some key informants pointed out that the impact of COVID-19 prioritisation on adverse events e.g. maternal and/neonatal deaths is unknown. The comments from some key informants are illustrative.

Everyone was engrossed in COVID-19, and nothing else mattered. All other services went out of the window because COVID-19 took everything over (KI 1, Executive Manager).

The 100% focus on COVID, patients, might have neglected our normal stream patients. We used to admit a lot of psychiatric patients in our casualty, but during the COVID period we restricted them to go to the district health care services, I don't if the district services were coping. The postponement of elective operations – there is a serious backlog in terms of operations as result of COVID (KI 8, Central Hospital Manager).

Collateral damage to patient care was and is significant. The deaths of non-COVID patients surpassed those of COVID patients for the first 3 months although no formal system was set up to measure this. I noted it informally to try and bring problem to notice of hospital EXCO. Many patients died without proper care while waiting for their test results (KI 11, Central Hospital Clinician)

There has been a 25-50% reduction in vaccinations – this is recovering but there is a large unvaccinated cohort and we run the risk of a massive measles outbreak with increased mobility now. There were major disruptions to HIV-TB treatment – the effects will be long term. The approach to lockdown including staffing redeployment to "COVID" was a mistake – it should have been in the opposite direction, with strengthening of routine services. We raised concerns about collateral damage very early on. There was also less chronic medicine being dispensed disrupted both by fear and by health system barriers (KI 15, Technical Support/ Researcher/ Academic).

The health seeking behaviour of the public during lockdown changed: not as many patients were presenting in the hospital. Patients who came to the hospital were really critical (KI 36, Central Hospital Clinician).

Some key informants pointed to the "collateral damage" in terms of quality of care provided.

The quality of care wasn't the best quality, we had to erect tents, sleeping and eating in tents was not the best, we had air conditioners but the tents were opened all the time. In the beginning- medications were not administered as needed because of limited personnel and this was sorted and we started directing resources accordingly (KI 10, Central Hospital Manager).

The quality of care was also affected by the appointment of junior staff and/or the reliance on agency nurses.

Overcrowding and our effort to circumvent that made us to send the newly appointed staff to casualty, and they were not orientated. They didn't understand the operational mandate within the hospital, this was a serious problem, you find that there were 15-20 patients with 3 or 4 nurses who didn't understand the

functional mandate of that particular department We discovered a lot of gaps, a lot of clinical services gaps – notes not taken properly, even were services rendered there was no recording of such services (KI 9, Regional Hospital Manager).

Another key informant highlighted poor mentorship and supervision of frontline staff, which led to gaps in practice at the frontline, e.g. poor documentation, lack of knowledge and of application of well-developed guidelines.

Some key informants criticized the hospi-centric pandemic response rather than primary health care and/or community-based response.

We need to move away from a curative system, and invest in primary health care, you cannot talk about PHC and continue to invest in hospitals. COVID-19 was a missed opportunity to optimize and focus on the PHC system (KI 18, Civil Society).

As indicated in section 4.8 on saving lives, many key informants questioned the appropriateness of the GPG's substantial investment in field hospitals.

Key informants pointed out that COVID-19 laid bare the health care system inequities in the GCR. A summary of their responses is shown in Box 5.

Box 5: Perceptions of COVID-19 and Health [in] equity

- COVID-19 showed us the stark realities of inequity.
- Inequities between the public and private health sectors
- There were public facilities and private facilities, and stark contrasts in access to care
    - Two sector response to the pandemic, contributing to inequity
    - Different turn-around time for testing e.g. in private sector quick access, but this was not the case in the public sector.
    - Inequities in terms of quality of care, equipment, and budgets
- Inequities
    - In IGR.
    - Between PHC level and hospitals
    - Among health facilities – infrastructure, staff

A major recurring theme in the majority of interviews was the health workforce. Many key informants expressed appreciation for the additional funding and staff appointments. However, they lamented poor or sub-optimal human resource management, which included insufficient change management to deal with the fears and anxieties of health workers, especially those on the frontline of service delivery.

> *COVID-19 exposed poor management who often took out their frustration on ordinary health workers, and distinguished those managers able to respond to pressure* (KI 22, Professional Association).

Some key informant were of the opinion that there is lack of prioritisation of human resources and that the GDoH did not demonstrate appreciation of staff, despite health workers risking their lives to do their duties. One commented as follows:

> *Doctors are really burnt out, nothing you do really gets recognised, morale is low, and there is poor support, lack of equipment, unfilled trolleys, staff shortages of doctors, having to run around for stock in the tent, at times electricity just switches off in the tent, no backup. Few incidents where the tent had collapsed, it a very draining emotional experience. There is now phasing out of support from the management as we are in the COVID-19 level 1* (KI 36, Central Hospital Clinician).

> *To contain COVID-19 you needed healthy and sober-minded workers – this was a big challenge – people were not coping- health care workers contracted COVID 19 and some lost their lives. We should have given a little more attention to frontline workers, for success we need healthy frontline workers. More care to health care workers e.g. buses provided for travel so that they don't have to contract COVID, more emotional (psychological) support (*KI 32, PHC Facility Manager).

One key informant criticized the decision of the GDoH to contract community health workers at a much higher rate, setting a precedent and with potentially negative implications for the rest of the country.

There was a general feeling that staff fear and anxiety were either ignored or downplayed, with no clear strategy for employee assistance or psychological support. This was across both the public and private health sectors. One hospital manager explained that staff fear was almost irrational.

> *We thought that we are strong, but were all paralysed with fear in spite of infection control training. In June/July- when the surge was really high, even though we had a guideline on which protective PPE should be worn, but everyone wanted to see themselves wearing the triple layer (disposable scrub suit, gowns, coverall, plastic aprons, N95 marks, etc.) of PPE even in non-COVID stream wards because of fear and not because of scientific evidence, PPE were going down at an alarming rate because of this and could not win because of fear* (KI 8, Central Hospital Manager).

Staff members were affected badly because they have lost a relative, some have lost their colleagues or they contracted the disease themselves (KI 10, Central Hospital Manager).

One of the private sector key informants noted that the early preparation of staff should have included psychological support, as there was a lot of uncertainty and the impact of COVID-19 on staff was massive.

Box 6: Key messages from the interviews

1. The GDoH launched a m*assive, resource intensive COVID-19 respons*e that marshalled the entire public health system to prevent infections, contain the pandemic and save lives.
2. The interviews revealed a *complex picture* of multiple narratives that contain examples of innovations, local leadership, teamwork and front-line health professionals going beyond the call of duty and rising to the challenge of providing health care.
3. COVID-19 pandemic exposed and amplified the fault-lines, inequities and vulnerability of the public health care system in the GCR.
4. A major weakness of the COVID-19 health response in the GCR is the *collateral damage* caused by the virtual shut-down of the health care system for essential health services, the impact of which may only be felt in years to come. This is likely to affect poor people disproportionately as they are dependent on the public health sector.
5. There was under-investment and insufficient focus on the *health workforce,* the response failed to take into account or deal with their fears, and to incorporate strategies for psycho-social support, and safe working environments.
6. There were *missed or wasted opportunities* to:
    a. Invest in primary health care as the foundation of the health system
    b. Partner with communities and civil society
    c. Explore relationships or collaboration with the private health sector.
7. The *reported PPE corruption is a reflection of* sub-optimal health leadership, management and governance, exacerbated by a culture of poor accountability and unethical behaviours.
8. The vulnerabilities of information systems (data quality and utilisation) and a relatively rigid top-down approach unresponsive to different viewpoints led to inappropriate decisions (e.g. community screening, field hospitals, etc.).

3.5 Recommendations And Lessons For The Future

3.5.1 Introduction

We asked each of the key informants to comment on the benefit of hindsight (i.e. things they would have done differently if they could turn back the clock), their recommendations and lessons for the future. We analysed their responses in line with our conceptual framework presented in section 2. In this section, we present a prioritized summary of their responses, focusing primarily on the immediate recommendations should there be a second wave of COVID-19 infections in the GCR. An effective short-term response lays the foundation for the long-term strengthening of the health system in the GCR. In the concluding section, we highlight some of the medium to long-term issues that require attention.

Immediate response and recommendations

In this section underscore five immediate response actions and recommendations (IRR).

IRR 1: Enhanced leadership, management and governance

a. Effective stewardship by the PMDCC to ensure preparedness of entire health system, with clarity of the role of different stakeholders
b. Clear implementable policies, guidelines and standard operating procedures that take into account the reflection/inputs of front-line managers and staff, and training/ communication to ensure consistency in interpretation
c. Transparency in decision making, communication, and ongoing and regular feedback
d. Enforcement, coordination, checks and balances to prevent fraud and corruption
e. Clear accountability mechanisms

IRR 2: Surveillance, containment and control

a. Monitoring and identification of hotspots
b. Clear testing strategy
    i. Staff and priority groups
    ii. Communication of testing strategies to relevant stakeholders
    iii. Ensure availability of test kits
    iv. Liaison with laboratories
c. Case finding
d. Contact tracing
e. Health promotion and behavioural change
f. Strategies to maintain social distancing
    i. Staff
    ii. Communities
g. Hand hygiene in informal settlements e.g. provision of free sanitizers
h. Clear communication to communities and staff on
    i. Importance of non-medical interventions
    ii. Anticipated levels of risks, without creating paralyzing fear that prevent people from using health services needed
    iii. Action of everyone that matters e.g. mask wearing, appropriate cover of both nose and mouth.

IRR 3: Ensure lives saved

a. Engagement with hospital and district health managers on optimizing existing capacity
b. Clear and transparent decisions on infrastructure in GCR for possible surge, ensuring agility of COVID-19 response (i.e. take account of changing needs or circumstances)

i. Beds
ii. Equipment
iii. Staff
iv. Oxygen

c. Infection prevention and control
d. Clinical protocols with involvement of clinicians/ experts
e. Clear communication to citizens and other stakeholders.

IRR 4: Avoid collateral damage of health care system

Maintain essential services

a. Implement alternative models of care e.g. decanting of patients, medication supply for non-communicable diseases, increased automation of some processes, etc.
b. Strengthen or invest in PHC system
c. Protect or maintain essential /routine health services, including quality of care, clinical governance mechanisms

Health workforce and human capital

a. Prioritise health workforce
    i. Policies and strategies must put health workforce at centre
    ii. Listen to and involve frontline staff and managers
    iii. Communication and training to decrease fear
    iv. Personal protective equipment
    v. IPC and safe working environments
    vi. Employee assistance programme (e.g. psychosocial support, debriefing, etc)
b. Show appreciation of staff, and communicate the message that everyone matters
c. Teamwork
    i. Identify strengths, build team, build and engender trust
    ii. Balance between firmness and flexibility
d. Improve HR management
    a. Manage staff workloads
    b. Manage productivity
    c. Manage staff relationships e.g. junior/ new recruits and senior/ existing staff

IRR 5: Invest in health information systems

a. Ensure data for real-time decision-making i.e. to combat the pandemic and ensure a proactive response
    i. Coordination of information
    ii. Transparency on predictive models and/or estimates
    iii. Pay attention to quality of information
    iv. Leverage use of technology
b. Reporting, feedback, interpretation and utilisation of information.

3.6 Conclusion

This case study set out to explore the health and health system response to COVID-19 in the GCR. As indicated, the immediate response to the pandemic, should there be a second wave of infections, cannot be separated from the long-term strengthening of the health care system in the GCR.

Within the critical domain of *leadership, management and governance*, some issues to discuss or focus on in the medium to long-term, include management structures that are based on function, and consisting of meritocratic team members, able to manage complex change and build strong systems. Such systems should detect fraud and corruption early on. However, while strong systems are essential, changing the organisational culture is equally important. This will require investment in people, confronting dysfunctional or weak management, ensuring ethical conduct and accountability and the creation of a learning system to reflect on and learn from mistakes.

Other aspects that need attention is a more decentralised approach, with appropriate delegation of authority, accountability, and consequence management, and reducing the gap between policy and implementation. Open, transparent and seamless communication across government spheres will go a long way in improving intergovernmental relations and ensuring a coordinated, unified response.

In the GCR, the *private health sector is large and prominent.* Government has an important stewardship role that includes appropriate legislation or regulation (e.g. costs of tests), strategies that use a combination of incentives and penalties. The GCR could lead the way in engaging and partnering with the private health sector in testing different health care delivery models in preparation for the national health insurance system.

The capacity of the state to deliver has been challenged by the COVID-19 pandemic. In the medium term, there should be an analysis of existing disaster management capabilities in the GCR, and long-term investments needed (competencies, skills, money, etc.). Importantly, a capable state also requires investment in communication systems, including appropriate use of technology, listening to alternative viewpoints, building confidence and trust in government's ability to provide stewardship and leadership of complex changes, to the benefit of the population at large.
A bottom-up approach, investing in and partnering with communities, civil society and other stakeholders will strengthen relationships, ensure ownership of solutions and reduce resistance to change.

Finally, a long-term response requires interrogation and confrontation of the unacceptable health inequities in the GCR.

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CHAPTER 4

Resource allocation, prioritisation and the Public Health Response

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ABSTRACT

The objectives of this chapter are to describe and analyse resource allocation and prioritisation decisions and processes of Gauteng Provincial Government to the health response, from the declaration of the State of National Disaster by the President of the Republic of South Africa (15 March 2020) to the date of commencement of Level 4 lockdown (01 May 2020).

The Gauteng provincial government developed an interdepartmental coordination structure which was centrally coordinated by the Gauteng office of the premier, to craft the provincial response strategy to the pandemic. Improving the health of the population requires not only the department of health but the coordination of various departments of governments including transport, water and sanitation, human settlement etc. It is commendable that these structures were set-up in a relatively short space of time and were functional.

Declaration of the national state disaster and the level 5 lockdown coincided with the end of the Financial Year 2019/20. Thus, the 2020/21 budgets for healthcare both nationally and for the Gauteng province had already been concluded and had not factored any COVID-19 related expenditure. In April 2020, President Ramaphosa announced a ZAR500 billion economic and social relief package as part of the government's resource allocation response to the pandemic. At a national level a total of R21.5 billion was reprioritised to public health services, which is an additional 10% to the 2019/20 budget of which about R16 billion is for provinces and R5.5 billion for the national Department of Health, inclusive of conditional grants. Of the R5.5 billion, R2.6 billion has been reprioritised within the national department and R2.9 billion is additional funds. These resource allocations were informed by epidemiological modelling, a national health sector COVID-19 cost model and provincial plans. Part of the ZAR500 billion relief fund, R130 billion was realised through reprioritisation, where national departments had to finance the R100 billion within the budget that was already tabled in February by the minister of finance, while provinces were required to fund the R30 billion.

Like all other provinces, the Gauteng provincial government had to reprioritise resources. The Gauteng province's reprioritisation process yielded R7.8 billion for the GPD, although R1 billion was lost from the reprioritisation process at National level. Additional resources were also received through social mobilisation and solidarity – R208 million,

which was received in the form of donations, food parcels and PPEs. Most of the funds to be reprioritised came from the public works, roads and transport sectors, and the postponement of planned sports, arts and culture events, with the stoppage of the various economic activities during the hard lockdown such as – construction, travelling, human settlement, resources were redirected and earmarked for the pandemic. The Department of Health received the lion's share of the budget because this was a public health emergency. Similarly to the National Department of Treasury, the Gauteng province allocated resources based on epidemiological modelling. There was no evident spending strategy, nor a relative prioritisation of prevention over treatment.

The Gauteng Department of health had centralised responsibility on procurement of essential protective equipment (PPE) and products for all departments. This occurred in a context of “Emergency procurement procedures”. There has been widespread levels of corruption uncovered in the procurement processes of PPEs and other essential products (e.g. food parcels), wherein high-ranking officials of government were implicated.

Despite the established interdepartmental coordination structure, oversight on the expenditure of the enormous funds allocated to the Gauteng provincial department of health was lacking. The effectiveness and impact of this structure can be improved by introducing strategic focus to this forum—review reporting requirements, with an element of introducing oversight on expenditure and coverage of critical items. A clear spending strategy is needed. It will be necessary for the province to decide on a relative prioritisation between prevention and treatment. Prioritise prevention strategy and determine the scale of prevention strategies for impact. The resource allocation framework, whichever form it takes, whether through a centralised approach or not, should embed in them accountability and monitoring structures, be supported by evidence and data.

Rigid procurement instruments impede, reasonable response to public health emergencies. Gauteng provincial government may require flexible procurement instruments again in the future. Flexible procurement systems must be accompanied by significant oversight, communication and transparency; these are critical in building public trust and accountability.

Despite several attempts to assess the effectiveness of the block exemption on healthcare from the Competition Commission and the extent to which the GPG and the coordination structures exploited these no information came forth. Most officials had limited knowledge of this block exemption and indicated that the competency of contracting with the private sector, including how these block exemptions would have been used, resided with the department of health. Again, these questions the effectiveness of these multilateral coordination structures, and whether the information was shared sufficiently to enable a useful resource allocation response, but also the weaknesses of centralised resource decision with the department of health. It will be important for the Gauteng province to engage the Competition Commission on how they could utilise block healthcare exemption issued by the Competition Commission to

coordinate private sector providers and achieve cost reductions on healthcare products and services. And also explore pro-active interventions on the pricing of healthcare products that are key to the response, and consider price setting mechanisms to curb price inflation through published and transparent guidelines, to ensure that the public purse is not abused.

4.1 Introduction

The emergence of coronavirus disease (COVID-19) on the global public health scene has led to growing concerns and uncertainties. Governments globally had to ensure that there is an aggressive prevention strategy as well as adequate health facility response. Healthcare in South Africa is provided through a two-tiered health system, by the tax-funded public sector providing services to approximately 84% of the population, and privately funded through voluntary health insurance (medical schemes), covering the rest of the 16%. Given the two-tier health system in South Africa, a response to the pandemic needed to establish a framework that would ensure that both public and private sector healthcare resources were available for the COVID-19 response in particular access to critical care beds, isolation and referral networks, testing facilities, health personnel etc., concerns were raised about the absence of a framework to ensure pooled access to the public and private sectors (Van den Heever A, 2020).

Allocation of resources in pandemics and other settings of scarce resources, converge on four fundamental principles, that is – maximising the benefits produced by inadequate resources, equitable access to services, promoting and rewarding instrumental value, and giving priority to the worst off or vulnerable populations (Emanuel et al., 2020). This is mainly in a context of uncertainties related to the extent of the spread and duration of the pandemic, the threat to the health system and economy, consequently, to supply chains concerning the necessary treatment and essential products to respond to the pandemic (Silva et al., 2020).

This chapter reviews the Gauteng Provincial Government (GPG) interventions in response to COVID-19, specifically the health resource allocation and prioritisation framework adopted to respond to the pandemic. To assess this, the research sought to assess the multidisciplinary coordination structures established to enable resource allocation, additional resources allocated to healthcare to deal with the pandemic, the accompanied priority setting process for purchasing (procurement) of healthcare services and personal protective equipment (PPE) from both the public and private sector. This assessment focused on the period from the declaration of the State of National Disaster by the President (15 March 2020) to the date of commencement of Level 4 lockdown (01 May 2020).

4.2 Literature Review

4.2.1 Systemic failures in response to public health emergencies

Various studies have assessed the systemic failures in the Ebola response, revealing that only about one-third of countries in the world can prevent, detect and respond to public health emergencies. These studies have shown among other issues; inadequate financing for pandemic preparedness, rigid instruments for emergency response, and slow and costly delivery of aid (Osewe, 2017) are major impediments to an effective response to public health emergencies. In addition to allocating finances and having flexible instruments for an emergency public health response, countries also need to have an associated strategy (in other words a prioritisation framework) that sets out how the money will be spent. Lack of a resource allocation and prioritisation framework poses a risk of inappropriate use of funds.

The required health system response to COVID-19 broadly falls into these two areas: prevention and treatment. The two are closely interlinked. On the prevention side, interventions include social distancing as well as rapid testing, mask wearing, contact tracing and quarantining. These require massive upscaling to have a preventive effect. Prevention also involves public health interventions separating infected from uninfected people. For its part, treatment requires that health services address the needs of COVID-19 patients while at the same time protecting health service workers and non-COVID-19 patients from undiagnosed patients presenting for non-COVID conditions.

An example of a strategy that prioritised prevention can be observed in Taiwan. Their system prioritised availability of masks, rapid testing and quarantine. 25 out of the 33 actions on resource allocation between 22 January and 23 February 2020 were dedicated to masks. Taiwan's strategy included price setting for masks, banning the export of masks, distributing masks to local district public health centres and schools, using government funds and military personnel to increase mask production, investing in a digital app that tracks mask distribution across the country, purchasing machines to increase daily outputs of masks. The remainder of the actions were on quarantine efforts and testing (Wang et al., 2020).

The World Health Organisation (WHO) provided expedient counsel regarding responsive policies that governments should implement to manage the impact of the pandemic (World Health Organisation, 2020). The WHO articulated that successful implementation of COVID-19 response strategies, depends on numerous factors to provide coordinated management of COVID-19, with multidisciplinary and multi-departmental coordination structures as critical pillars of such a response and resource allocation. These structures are not only necessary to plan resource needs and allocate resources but also to identify funding gaps and monitor progress against the resource allocation action plans (World Health Organisation, 2020).

4.3 Research Design And Methods

4.3.1 Research Questions

How did the Gauteng City-Region allocate resources to COVID-19 health response? What process was followed? What lessons can be drawn from this process? What approaches were used to curb costs?

4.3.2 Qualitative Study

Interviews with Gauteng provincial officials

Gauteng provincial officials were invited to interviews via telephonic and email contact. All relevant officials who were part of the Gauteng City Region Response were invited to participate. Information was collected through recorded interviews with officials from Gauteng Department of Treasury, the Gauteng Office of the Premier (GOP), Gauteng Department of Infrastructure Development (DID) and Gauteng Department of Human Settlements. All interviews were in English and took place through Microsoft Teams. A semi-structured guide was used to conduct the interviews, which was modified during data collection to explore issues that emerged as important in influencing in the Gauteng City Region's response. At the time of drafting the chapter, an interview with the Gauteng Department of Health officials could not be secured.

4.3.3 Desktop review

Information was also sourced from peer-reviewed published articles in academic journals, government reports, grey literature, press statements, and media reports.

4.3.4 Analysis

Qualitative content analysis

Qualitative content analysis can identify either latent or manifest content in the text. Manifest content refers to that content that is visible and obvious. In contrast, latent content refers to that content that is the issue that the text talks about, the underlying meaning of the text. While both the manifest and latent level of analysis requires interpretation, it could be said that the latent level of analysis would require further abstraction, as being more in-depth and requiring more interpretation than the manifest level of analysis (Graneheim and Lundman, 2004).

The transcripts of each interview were considered the unit of analysis. First transcripts were read and re-read to gain familiarity with the data and a sense of the whole. Following this, each transcript was coded openly, identifying phrases, words and sentences that formed meaning units. These were then condensed into meaning units. These packed meaning units were then abstracted further and labelled with a code. Codes were further arranged according to sub-themes and major themes, as the level of abstraction was increased and the analysis examined the latent content of the interviews

rather than staying at the manifest level of the analysis. Codes were assigned to sub-categories, following which the sub-categories were classified into categories (Graneheim and Lundman, 2004).

4.4 Findings And Discussion

Theme 1: Coordination structure and resource allocation for the COVID-19 health response

The South African government responded consistent with the guidance provided by the WHO and other international bodies such as United Nations (2020), the United Nations Conference of Trade and Development (UNCTAD, 2020), and the Organisation for Economic Co-operation and Development (OECD, 2020), through the establishment of the National Command Council (NCC), which was set up by the Presidency using the declared State of National Disaster regulations. The NCC which comprised of about 20 ministers and their Director Generals, and representatives of the security cluster, was mandated with the coordination and leading of the country's response to the crisis, which culminated in various regulations published to respond to the pandemic (Singh, 2020). There were other collaborations with expert advisors, who provided clinical and epidemiological advice to the NCC (Department of Health, 2020). Provincially similar structures were established.

The GPG developed a coordination structure which was centrally coordinated by the office of the Premier, this structure was tasked with crafting the provincial response strategy to the pandemic. The COVID-19 pandemic is a public health emergency, thus both the national and provincial department of health were critical in developing response structures, which included the creation of a "*war room*" consisting of various departments and other role players,[3] which were consolidated into a fully integrated and interdepartmental structure coordinating the response of the Gauteng province. This structure was integral in determining the resource allocation. The Gauteng Provinces disaster management command centre response focused on six key pillars, namely:

1. Comprehensive health response
2. Social security
3. Economic response
4. Law and compliance enforcement
5. Social and communication mobilisation
6. Adaptable government[4]

Through this approach including the inter-departmental structures, the department of health was identified as critical to the first pillar, i.e. the health response, thus granted a sizeable portion of the resources, with centralised responsibility on procurement of

[3] National Treasury, MECs, Health, department, municipalities, national departments in the province, Correctional Services, Home Affairs, SOEs – Eskom, SALGA.

[4] This pillar was set up to ensure continuity of service delivery, utilising business continuity plans of various departments such that government services do not shut down.

essential protective equipment (PPE) and products to respond to the pandemic. The Gauteng Department of Treasury as a key custodian of resources allocation was involved in a two-pronged approach to support the office of the Premier and the overall response strategy. First it has a mandate to resourcing government strategies to ensure that there is efficient spend and that there is an impact in all the programs that are funded from the provincial fiscus. Secondly, the Gauteng Department of Treasury had to ensure accountability and monitoring to ensure that explicit policies were in place and adhered to. What also seemed critical, was that compliance is balanced with support, such that entities are provided with support to enable service delivery.

Whilst there are visible areas of effectiveness through this inter-departmental approach. Despite the established interdepartmental coordination structure. There were areas which were not clearly coordinated, and that did not receive appropriate oversight.

Despite the established multidisciplinary coordination structures and the two-pronged strategy by the the Gauteng Department of Treasury, it seems that ultimately, the health department played a central role in the resource allocation framework with excessive decision making power that was not effectively monitored and managed through these structures. The department of health centralised role in resource management seems to have fallen outside the coordination structures and weakened compliance and monitoring role that these structures were ceased with. This was very clearly articulated by officials from across the departments indicating that they had limited knowledge on how the resources were utilised for the health response, as this was the sole responsibility of the department on health, but also how they observed and received reports of maladministration yet they could not contain the situation until after a lot a damage had been done.

Secondly, it is not clear what coordination efforts were in place to ensure alignment between the national and provincial structures to achieve synergy in the resource allocation. Rigid resource allocation strategies, limit the efficiencies necessary for optimising costs and spend. This is particularly given the federal system of governance wherein provisional authorities have the mandate to govern and allocate resources independently. But specific to the Gauteng, what alignment processes were in place between the provincial and municipal structures in the resource allocation framework, to enable these synergies. This information was not evident in the information collected and therefore difficult to assess are alignment was enabled.

Theme 2: Resource allocation and reprioritisation

Large-scale crises and emergency management within any given context, certainly regarding COVID-19, is an environment characterised by dynamic and competing demands and priorities. According to WHO, governments and health systems have an obligation to ensure that resources are allocated equitably and efficiently across the various needs (WHO 2020), foremost to respond to the crisis, but also to ensure continuity of service delivery in the ordinary course. While the criteria for allocation of limited resources is an ongoing debate specifically in healthcare, some basic resource

allocation principles have been established, which include ethical prioritisation frameworks, and development of allocation formulas that are needs-based and reduce inequalities (Nagy, 2015).

Theme 2: National reprioritisation

The declaration of the State of disaster and the level 5 lockdown coincided with the end of the Financial Year 2019/20, the 2020/21 budgets for healthcare both nationally and for the Gauteng province had already been concluded and had not factored any COVID-19 related expenditure. In April 2020, President Ramaphosa announced a ZAR500 billion economic and social relief package as part of the government's resource allocation response to the pandemic. At a national level a total of R21.5 billion has been reprioritised to public health services, which is an additional 10% to the 2019/20 budget of which about R16 billion is for provinces and R5.5 billion for the national Department of Health, inclusive of conditional grants. Of the R5.5 billion, R2.6 billion has been reprioritised within the national department and R2.9 billion is additional funds. Allocations have been informed by epidemiological modelling, a national health sector COVID-19 cost model and provincial plans. A new R3.5 billion COVID-19 component has been formed in the HIV, TB, malaria and community outreach grant (National Treasury, 2020).

Theme 2.2: Provincial reprioritisation of resources

Like all other provinces, the Gauteng provincial government had to reprioritise resources. Provinces have committed to reprioritise at least R20 billion within their own budgets. These funds will come from cancelling activities that cannot be undertaken while economic activity is restricted (including travel and venue hire) and postponing implementation of early-stage projects until 2021/22. Most of the funds to be reprioritised come from the public works, roads and transport sectors, and the postponement of planned sports, arts and culture events, wherein with the stoppage of the various economic activities during the hard lockdown such as – construction, travelling, human settlement, resources were redirected and earmarked for the pandemic. Therefore, part of the ZAR500 billion relief fund, R130 billion was realised through reprioritisation, where national departments had to finance the R100 within the budget that was already tabled in February by minister of finance, while provinces were required to fund the R30 billion. At a provincial level, the reprioritisation yielded R7.8 billion for the GPD, although R1 billion was lost from the reprioritisation process at National level.

Another key pillar of the government response strategy was the economic response which included the development of a post-COVID economic recovery. Given Gauteng's position as the economic hub of the country, accountable for approximately 35% of the Gross Domestic Product, the response strategy considered the role of the province in stimulating the economic activity, including infrastructure development projects and other strategies that could support in particular SMEs. In this regard, a sizeable portion of the relief fund was allocated to the GPG, relative to other provinces. Additional resources

were also received through social mobilisation and solidarity – R208 million which was received in the form of donations, food parcels and PPEs.

Theme 3: Flexible instruments for a public health emergency

Given that the pandemic is a public health emergency, GPG the centralised of health response budget including of procurement of PPEs, and essential products and services, i.e. oxygen, ventilators, infrastructure, beds, human resource requirements to the department of health. Information from the National Treasury and the office of the Premier, indicates that within the command council and the coordination structures, there was appreciation that the department of health was best suited to manage resources for the health response, but also to procure essential health products and services on behalf of all the departments. This decision seemed rational given the DOH's expertise and acquaintance with procurement of essential health products and thus could ensure that the correct quality products are procured Further, centralised procurement strategy is a commonly used in these kind of scenarios, given the ability to achieve economies of scale, efficiency, and therefore overall cost reductions (OECD, 2002). Unfortunately, as we discuss in the next section, this is an area where significant lapses and abuse occurred, given the widespread instances of corruption, mal-administration and lack of accountability.

Another aspect that was considered in the health response was that given that the majority of resources were allocated to department of health, statistical modelling of the pandemic – including the impact on populations, PPEs, oxygen, requirement, infrastructure, number of beds, human resource requirements etc were conducted as part of assessing the anticipated need and therefore quantify resource requirements including allocations for health infrastructure.

Theme 4: Lack of spending strategy

Specific to allocation of health infrastructure, including isolation and quarantine facilities and Intensive Care Unit (ICU) and high care beds, there were interventions through the Department of Infrastructure development (DID) to repurpose existing infrastructure to make sure that there was adequate capacity to respond to the pandemic. The DID had responsibility to convert capacity within existing facilities, to provide both ICU and general beds that would be used for isolation purpose. The DID's intervention would be informed by the end user requirements that would identify space within a facility, to quantify the scope of converting those facilities into ICU or isolation beds, in line with the protocols or norms and standards of COVID-19. The observation is that most of the existing ICU capacity, was not suitable for infectious diseases such as COVID-19, which aligns to the literature observations around systemic failures and lack of preparedness for public health emergencies. In addition, the methodology for classifying facilities and allocating which would be ring-fenced for COVID-19 treatment or identified for repurposing, was not clearly articulated. It seems somewhat that these processes were arbitrary and not fully quantified from a resource planning perspective For instance an aspect that warrants concern, is the decision towards the construction of isolation field structures,

including the Nasrec, Telkom and Transnet sites, at an undisclosed amount, as opposed to building permanent facilities that could in future relieve the constrained capacity in the public health system. As reported by Medical Brief (2020) he Telkom and Transnet sites were closed in August and September, respectively due to low demand for services in these facilities. These facilities would have served much more value if consideration was made for a permanent structures that could serve the health system post COVID-19, and converted into primary care facilities as an example. Others have even proposed that future facilities should rather have more flexibility for pandemics and other outlier events that create temporary surges in demand every five or 10 years (Hsu, 2020).

Theme 5: Coordination and collaboration

Many calls have been made in various platforms, including WHO (World Health Organisation, 2020), World Bank (Fakhuory, 2020) the International Chamber of Commerce (ICC) and UNICEF (United Nations International Children's Emergency Fund, 2020) and various local forums (for enhanced cooperation between the public and private sectors to strengthen the response to COVID-19 and as well to share essential resources to reduce the cost of the response to COVID-19. This is particularly important in the context of the two-tiered structure of the South African health sector, the inequity stemming from this structural design, and importantly the private health sector which sits with excess capacity yet serving only 16% of population (Health Market Inquiry, 2019). In this regard, it is not evident how these two sectors collaborated to share resources and synergies between them. For example, COVID-19 tests were easily accessed and typically processed within a 24-48 hour period in private healthcare sector, in contrast to the public sector which often experienced longer lead times. The same has been reported regarding the distribution of health practitioners, facilities, ICU and High Care beds, ventilators, and PPEs. However there are reports of improved information sharing between the two sectors, which enabled contact tracing and infection reporting. The extent to which the province also procured capacity from the private sector is not known, including the processes and cost implications in this regard. Reports of the successful contracting were however observed within the Western Cape provincial government's response (Cleary, 2020); although it is not clear why these could not be translated to other provinces.

Collaboration between competing private sector firms is another policy intervention which can be used to respond to the pandemic (OECD, 2020). In recognition of this, government through the Department of Trade, Industry and Competition (dtic), in collaboration with the Competition Commission and the Department of Health, issued block exemptions with several regulations to enable firms to cooperate lawfully in response to the pandemic. In the ordinary course, competing private sector firms are legally not allowed to coordinate as this would be regarded as collusion (Competition Act, 2019).[5] The objective of this exemption was to promote coordination, sharing of information, standardisation of practice across the entire healthcare sector. The exemption also sought to facilitate cost reduction measures costs of diagnostic tests and

[5] Section 4 of the Competition Act 2009, as amended.

treatment and other preventive measures to promote agreements with the private sector, to promote additional capacity. Despite several attempts to assess the effectiveness and the extent to which these were exploited by the GPG and the coordination structures no information came forth. Most officials indicated that the competency of contracting with the private sector, including how these block exemptions would have been used, resided with the department of health and some official seemed to have had limited knowledge on these. Again, these questions the effectiveness of these multilateral coordination structures, and whether information was shared sufficiently to enable an effective resource allocation response, but also the weaknesses of centralised resource decision with the department of health.

Ultimately, as observed by Motam et al (2020) the specifics and modalities of budgetary increases and the strategies around allocation to various priority areas remained to be seen and there are many important questions that arise. Despite several progressive interventions, such as reprioritisation and repurposing of resources, regulations put in place to enable private sector collaboration and capacity sharing, it is important to understand how decisions on resources were ultimately made to through various established provincial and district structures and whether there was a systemic priority setting and resource allocation framework was place.

Theme 6: Transparency and accountability

"Emergency responses and quick actions are required to save lives and livelihoods, but the easing of controls streamlining of processes and procedures to respond to the crisis, expose the government to the risks of the misuse or abuse of public resources" – Kimi Makwetu August 2020

Policy transparency is fundamental at all stages of a crisis response, to build public trust, but also foster accountability (OECD, 2020.). Several activities have been suggested to strengthen transparency and accountability in crisis management, and to ensure the effectiveness of policy measures, which *inter-alia* include implementing systems and controls for the traceability of emergency and recovery expenditures, promoting transparent procurement (including e-Procurement systems) and spending, and providing key information to citizens regularly (World Bank, 2020)

According to the officials from the National Treasury, a key principle of the resource allocation framework, is the monitoring of the utilisation of the resources that were essential for the health response. In their submissions, they highlighted that their role does not end with the allocation, but are expected as a matter of principle is to " *follow the Rand*", throughout, to ensure the responsibility on sustainable resource management, and that there is value for money. In this regard, instructions of several reasonable guidelines were issued, which include guidelines and processes for emergency procurement (National Treasury, 2020). The main purpose of those directives was to ensure that processes were addressed as far as possible that there were certain controls to ensure that money goes to the right places. It is however not unusual for transparency and accountability to be side-lined during the crisis due to

authorities' focused attention on priority areas and often emergency responses which do not follow ordinary administrative processes (Montero and Le Blanc, 2020). In an effort to caution against abuse of resources, and calling for more oversight in resource management. Nkonki & Fonn (2020) stated the following:

"*We should not be naive, and must consider that profiteers both from the public and private sectors, in equal measure, may try to take advantage of this situation. Oversight of the resources that are being invested in protecting SA from the COVID-19 virus must be exercised.*[6]"

Similar sentiments were shared by Monsal et al (2020).

Despite efforts put in place by national government to ensure transparency and accountability, several areas GPG's response raise concerns in this regard. There has been widespread levels of corruption uncovered in the procurement processes of PPEs and other essential products (e.g. food parcels), wherein high-ranking officials of government were implicated. The office of the Auditor General (AG), undertook an audit of 16 of the key Covid-19 initiatives introduced by the government and the management of R147,4 billion of the funds made available for these initiatives (Auditor General, 2020). The AG investigation report found various areas of "*poor financial management controls, a disregard for supply chain management legislation, an inability to effectively manage projects and a lack of accountability* in many of the government sectors that now need to lead or support the government's efforts". Similarly, the Special Investigating Unit (SIU) (2020) looked at PPE procurement worth R8 billion. Some of its preliminary findings, particularly in relation to the Gauteng department of health relate to "*failure of sufficient oversight in the provincial health department, which led to irregular and wasteful spending*". Again, the Competition Authorities, investigations reveal several areas of excessive pricing of PPEs and essential products, with margin increases of up 500% in some instances, not only in private sector procurement, but also in the public sector (Competition Commission, 2020).

When questioned about these lapses, officials from both Gauteng Department of Treasury and the office of the Premier, acknowledged that one key area which created the opportunity for abuse was the centralisation of the procurement and allocation of resources towards the department of health. Whilst the reasons for this initiative were noble, it created room for abuse and exploitation. It was mentioned that health officials in Gauteng placed orders for PPEs and other products related to the fight against Covid-19 at a cost of more than R500-million above market-related prices and mark-ups exceeding 200%.[7] This clearly defies the very logic of economies of scale intended with the centralised procurement, which is to drive down costs. Further it questions the systems of accountability and controls, in place to ensure that such abuses are curbed. In hindsight, this is an area where systems should have been tightened.

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Another key area of accountability is the transparency in which some of the decisions are made, and the evidence that supports these decisions. Despite officials highlighting that a large part of their decisions were supported by expert advice provided at the level of the command council and coordination structures through economic and epidemiological modelling, its however not clear how these were translated into financial decisions and areas of expenditure. For instance, the DID correctly indicated that facilities were identified for repurposing to increase capacity, particularly of ICU beds. How were these facilities identified, what informed the number of beds that are required, what evidence informed the development of the field isolation structures is not clear. These questions around transparency are important, particularly to rationalise the decisions taken and the resources invested in initiatives. Again the extent to which these additional beds and isolation facilities were occupied is also not clear, because the data is not public. We know media reports as articulated above, for example three of the field isolation facilities were under-utilised, and thus subsequently closed.[8]

We enquired from the DID about their involvement in procuring private health sector capacity, in terms of how many beds were required, in essence, if they had given any input around contracting private sector space. The DID responded to say that they were not involved and but would act based on the modelling that would have been conducted by the department of health, which would identify geographical areas of infection pressure and thus repurpose or develop field facilities on the basis of that. The question remains whether there was assessment of private sector capacity available in those pressure areas, and whether this capacity could not have been contracted in an effort to streamline resources. The extent and the details around the cooperation with the private sector is therefore not transparent although this was one the key strategies employed by the coordination structures.

The Health Market Inquiry (HMI) report, which investigated several issues in the private health sector, made critical recommendations for the need to increase the synergies between the public and private sector, to relieve the burden and capacity constraints facing the public sector, particularly given the severely constrained fiscus. [9] It was common course that during the pandemic, the public sector was likely to face more constraints given the population it services, approximately 84%. The HMI found that there were several markets where limited public sector capacity could be augmented by the excess capacity that resides in the private sector, through strategic contracting and purchasing arrangements, given the buyer power the state has.[10] While recognising that systemic challenges inherent in private-public collaboration may occur due to market power of private sector players, lack of information and technical expertise for public procurement, the HMI emphasised that various forms of strategic purchasing by various countries have been used to achieve effective resource allocation in a constrained

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environment. The National Health Insurance, similarly, recognises the role of strategic contracting with the private sector in extending access.

While collaboration in the context of the government's response to COVID-19 has taken place between the two sectors, the details of these contracting arrangements need to be made clear and transparent for future development, particularly in the context of the NHI. It is not clear how effective this collaboration has been and tensions between private-sector and the government about payments amongst other issues, have been reported in the media.[11] The lack of transparent details about contracting at other levels of government, including the provincial and district levels and detail about the areas and services of collaboration covered by these contracts, including the pricing and cost sharing arrangements are other factors that were critical to assess.

4.2 Conclusions And Recommendations

Gauteng provincial governments resource allocation and reprioritisation had both positive and negative unintended consequences. On the positive side, improving the health of the population requires not only the department of health but the coordination of various departments of governments including transport, water and sanitation, human settlement etc. It is commendable that these structures were set-up in a relatively short space of time and were functional.

In the table below we highlight vital lessons as well as areas of improvement that could strengthen the province's response to COVID-19 and could provide a framework for future response to public health emergencies or other emergencies that may require a public health response such as climate disaster.

Finding	Lesson	Area of improvement
1. Coordination and interdepartmental structure	The interdepartmental structure exists and could meet regularly.	Introduce strategic focus to this forum—review reporting requirements, with an element of introducing oversight on expenditure and coverage of critical items.
2. Resource allocation and reprioritisation	The Department of Health received the lion's share of the budget because this was a public health emergency. National Department of Treasury allocated resources based on epidemiological modelling, a national health sector COVID-19	A clear spending strategy is needed. It will be necessary for the province to decide on a relative prioritisation between prevention and treatment. Prioritise prevention strategy and determine the scale of prevention strategies for impact.

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Finding	Lesson	Area of improvement
	cost model and provincial plans.	The Gauteng province should leverage available resources for long-term public health infrastructure. The resource allocation framework, whichever form it takes, whether through a centralised approach or not, should embed in them accountability and monitoring structures, be supported by evidence and data.
3. Flexible instruments for emergency response	Rigid procurement instruments impede, reasonable response to public health emergencies. Gauteng provincial government may require flexible procurement instruments again in the future.	Flexible procurement systems must be accompanied by significant oversight, communication and transparency; these are critical in building public trust and accountability.
4. Price inflation and coordination of the response		The health system to be sustainable needs strengthening of both the public sector and the private sector and for these to be better integrated and coordinated. Utilise block healthcare exemption issued by the Competition Commission to coordinate private sector providers and achieve cost reductions on healthcare products and services. Have pro-active interventions, on the pricing of healthcare products that are key to the response—setting mechanisms to curb price inflation through published and transparent guidelines, to ensure that

Finding	Lesson	Area of improvement
		the public purse is not abused.

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Appendix 1 (Questions posed to various government officials)

1. What additional resources were allocated to healthcare to deal with the pandemic? Was there any priority setting processes?
2. Was there a financing framework in place for purchasing healthcare services from the private sector?
3. What structure was responsible for purchasing arrangements with the private sector?
4. How has the province used the block exemption into private healthcare to reduce costs and coordinate the private healthcare providers' supply side?
5. Did the province get the industry to ramp up production of protective clothing for all public and private sector staff?
6. What resources were allocated to sourcing additional ventilators, critical care bed equipment field hospitals etc.?

CHAPTER 5

Gauteng's Economic Response to Covid-19

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ABSTRACT

The purpose of this chapter is to provide a preliminary review of the economic response of the Gauteng Provincial Government (GPG) to the Covid-19 pandemic. It is a high-level assessment rather than a comprehensive evaluation. The main source of information was twenty hour-long interviews held with key informants - eleven with external stakeholders in other parts of government and in the private sector, and nine with senior officials within GPG. Key GPG documents were also analysed for further details of the economic response.

The first main finding is that GPG's top priority was preparing for the risk of a public health disaster. With hindsight, the unfolding economic devastation deserved more attention than it received, bearing in mind the massive loss of 660,000 jobs in the province since the onset of the pandemic, more than one in seven! The severe human and social consequences of this are likely to cast a long shadow over the province for years to come.

Second, GPG did adapt some of its policies and processes to address the economic damage. (i) It accelerated the implementation of existing plans and initiatives, (ii) it introduced several new projects and processes, and (iii) it developed new relationships with national government and organised business. These initiatives should help to lay the basis for future investment, growth and institutional collaboration. With hindsight, more emphasis could have been given to providing rapid relief to firms, households and communities that were in difficulty in order to protect jobs and livelihoods, and to reduce hardship and suffering.

Third, the provincial economic response was uneven. Some parts of the leadership and administration were energetic, agile and innovative. However, this was not the case elsewhere. The response strategy devoted more emphasis to laying the groundwork for large physical projects, which are inevitably complex, risky and take time to deliver, than to immediate, practical measures that respond to tangible opportunities to attract investment and proven evidence of demand for government support.

Looking to the future, the first lesson to be learnt is that GPG should be able to anticipate the economic effects of disasters sooner. It should do more to help prepare businesses to implement risk-adjusted strategies, and to reduce the loss of income and jobs by adapting their business models to the new environment. Second, GPG should use its special relationship with national government to advocate greater flexibility in national restrictions and quicker and more effective national economic relief and stimulus programmes. Third, GPG should put more emphasis on direct and indirect forms of relief

for firms and households in difficulty to stem the loss of jobs and business closures, partly through facilitating access to national support schemes, and encouraging municipalities to offer rates relief. Fourth, more could be done to share the economic expertise, insights and capabilities of the more dynamic sections of GPG with other parts of the administration to raise awareness of the economic consequences and potential of their actions. Fifth, GPG should prepare for the possibility of a second wave by anticipating which sectors, places and groups are most vulnerable, improving its economic information systems to track changing conditions, and ensuring that its support is targeted appropriately. Finally, more investment in public health services and infrastructure to increase testing and contact tracing will pay off handsomely in reducing the spread of the disease and thereby limiting the social and economic damage.

5.1. Introduction

The Gauteng economy, along with the rest of the South African economy, was already in a technical recession before Covid-19. The situation is much worse now after an extended lockdown, widespread business closures, diminished exports and massive loss of confidence among investors and consumers. The OECD expects the national economy to shrink 11.5% in 2020. This is the biggest decline among the 19 countries in its analysis (OECD, 2020). The pandemic has shown the country's economic vulnerability to be much greater than people expected. Gauteng lost an unprecedented 660,000 jobs in the second quarter of 2020, more than one in seven (StatsSA, 2020). This was out of a total of 2.2 million national job losses in the same period. Less-skilled workers, women, poor communities and small businesses have borne the brunt of the economic devastation (Spaull et al, 2020). The rate of unemployment in Gauteng has doubled since the onset of the pandemic. More than one in three households in the province ran out of money to buy food in June 2020 (Visagie and Turok, 2020).

Other social and economic consequences include increased hunger and insecurity, harm to the education of young people, impaired physical and mental health, major loss of government tax revenues and severe cuts in public expenditure. More than a million adults in Gauteng took up the offer of the special Covid-19 temporary relief grant of R350 per month, indicating the level of desperation. Appendix 1 shows some statistical evidence for the socio-economic impact of Covid-19 on Gauteng. There has been no assessment of the total cost to Gauteng or the country as a whole, but a recent paper estimated the cost to the United States at $16 trillion (Cutler and Summers, 2020). This amounts to 75% of a year's US GDP and is four times that of the 2008 recession.

It is vital to understand why the province and the country proved so susceptible to Covid-19 and to learn how to manage the effects of such diseases better in future. Many questions have been asked of the government's response and the economic toll of the lockdown (e.g. TIPS Tracker, 2020; Seekings and Nattrass, 2020). Many of them concern the relationship between the health and economic imperatives, including whether an appropriate balance was struck between saving lives and livelihoods. Key concerns include (i) the early timing, extended duration and indiscriminate nature of the

lockdown, (ii) the stringency and arbitrary character of many of the restrictions, and (iii) insufficient attention to building the capacity for testing and tracing to limit infection rates and control the spread of the disease. Other questions focus on the economic response per se, including (iv) the size and delayed introduction of the economic relief and stimulus measures, and (v) the limited consultation with other economic stakeholders, including business, labour and civil society. These concerns relate mainly to the response of national government. This reflects the preoccupation of researchers and commentators in the newspapers, television and other media with the national response, on the assumption that it has been centralised, uniform across the country and 'place-blind'. There has been very little analysis to date of the sub-national response to the pandemic, either from provinces or municipalities.

The purpose of this chapter is to provide a preliminary review of the economic response of the Gauteng Provincial Government (GPG) to the Covid-19 pandemic with a view to learning lessons for the future. It is a high-level assessment rather than a comprehensive evaluation. Gauteng is the country's economic heartland, contributing an estimated R1.5 trillion or 35% of national GDP. GPG has modest economic powers and resources compared with those of national government. Nevertheless, it is an important economic actor because of its responsibilities and functions as an investor in infrastructure, a regulator of the environment and of development, a large employer and an intermediary between other spheres of government and the private sector. Through its links with local businesses and municipalities, GPG is arguably closer to the ground and has greater knowledge of conditions facing local companies and communities than national government. GPG has a Department of Economic Development (GDED) whose mandate is to promote inclusive economic growth and competitiveness. GPG also has a team within the Premier's Office focused on economic acceleration and fast-tracking investment.

The main questions posed in this review are as follows:

1. Did GPG have the foresight to anticipate the economic damage of Covid-19?
2. Was GPG able to plan and coordinate a quick response to the unfolding crisis?
3. Did GPG learn and adapt to the changing situation?
4. Was GPG able to cooperate with external stakeholders?
5. Did GPG have effective information and digital systems to manage the crisis?

The main source of information was a series of hour-long interviews with 20 key informants within GPG and externally undertaken by the author between August and October 2020. Nine interviews were held with senior officials within GPG and eleven with external stakeholders in other spheres of government and the private sector. The author also participated in various meetings with other researchers and officials where GPG's economic response was discussed. In addition, key GPG documents were analysed for further details of the economic response. It is important to note that this is a partial exercise based on very modest research resources, rather than a comprehensive assessment. For example, it does not look closely at the internal GPG structures,

procedures and decision-making during the crisis, or at the detailed impact or cost-effectiveness of the projects that were implemented.

5.2. Analytical Framework

The chapter is loosely informed by the concept of resilience and by the related idea of adaptive governance. Resilience is a useful lens to frame the analysis because of its broad concern with the ability of a system to withstand shocks and recover positively from a major disruption to its normal functioning (Martin, 2018). It asks whether crucial agents in the system (such as GPG and local firms) were able to anticipate and respond with agility to the unfolding crisis. There is a helpful distinction between 'engineering' resilience (bounce-back) and 'adaptive' resilience (bounce-forward) (Folke et al, 2010; Turok et al, 2019). The former refers to the simple rebound or recovery of a system back to the pre-existing situation (the status quo), whereas the latter refers to its ability to adjust positively to the changing context and evolve into something more sustainable and inclusive.

This is useful in posing questions about the balance of emphasis in GPG's response to the economic crisis. Did it focus on mitigating the impact on firms through mobilising immediate assistance ('relief'), or helping them to bounce-back through other forms of support ('recovery'), or helping them to adapt and move forward in the new environment ('reset'). It also raises questions about whether GPG itself responded in a conventional predictable, siloed and bureaucratic manner to the economic shock, or whether it responded in a more flexible, agile and engaged way by mobilising additional resources and capabilities to assist. Mazzucato and Kattel (2020) have stressed the importance of governments having 'dynamic capabilities' to respond quickly and effectively to the serious challenges arising from pandemics. These include the capacity to adapt and learn, to align public services and citizen needs, to govern resilient production systems, and to govern data and digital platforms. These features are different from the conventional attributes and routines of the Weberian state that emphasise stability, continuity and transparency. These ideas help to frame the research questions posed of GPG's economic response:

1. Did GPG have the foresight to anticipate the economic damage of Covid-19? In particular, did it have the information to assess the fallout from shuttering the economy? Did it make adequate preparations to mitigate the adverse effects on businesses, workers and informal traders? And did it monitor the evolving economic situation in order to be able to adjust its response accordingly?
2. Was GPG able to plan and coordinate a quick response to the unfolding crisis? In particular, did it identify priorities for early action that would have the biggest impact on businesses and jobs? Did it help firms to implement the risk-adjusted protocols to allow them to continue trading? And did it help businesses, workers and informal traders to obtain relief from national schemes?
3. Did GPG learn and adapt to the changing situation? In particular, did it develop new and innovative responses to the closure of administrative offices, the social distancing restrictions and the wider economic challenges? Did it introduce bold

measures commensurate with the unprecedented economic problems experienced?

4. Was GPG able to cooperate with external stakeholders? In particular, did it respond in a timely and positive manner to external requests for assistance? Did GPG reach out to partner with organisations in the private sector and civil society to reduce the impact of the pandemic? Did it help to co-create solutions and to prepare for an economic recovery?
5. Did GPG have effective information and digital systems to manage the crisis? Was GPG able to develop digital systems to enable people to work remotely, to ensure services could be provided remotely, and to cope with the inability to use physical/paper systems?

5.3. Research methods

The research strategy involved the following approach. First, an extended interview was held with senior officials in GPG to brief the author about the economic response, to identify the main documents relevant to the response, and to identify key informants involved in formulating and implementing the response. This was an interactive discussion rather than a one-way flow of information. Emphasis was placed on obtaining different views and perspectives on the response, both from within GPG and externally. A list of the role and organisation of each interviewee is provided in Appendix 2. Second, efforts were made to obtain economic data on the impact of Covid-19 within Gauteng. Selective information is shown in the introduction and Appendix 1. Third, key GPG documents describing the economic response were analysed. Fourth, 20 interviews were organised and undertaken with key informants. Finally, the evidence was digested and written up. During the course of the research regular meetings were held with other members of the research team to swap notes and discuss preliminary findings. These efforts were facilitated by a support group from GTAC and several administrative staff from the Premier's Office of GPG. Their assistance is gratefully acknowledged.

5.4. Research findings

5.4.1 The Nature of the Economic Response

Shortly after the national state of disaster was officially declared, GPG created a Provincial Disaster Management Command Centre (PDMCC) to coordinate the response. An Economic Cluster/ Workstream was established as one of six pillars. It comprised the Departments of Economic Development (GDED), Roads and Transport, Agriculture and Rural Development, Infrastructure, Human Settlements, Cooperative Governance, the provincial Treasury, the Premier's Office and various provincial economic entities. The Economic Cluster was mandated to prepare an economic response and recovery plan for GPG. It was chaired by the Head of the GDED. Key themes in the economic response included: support for SMMEs; transport and logistics;

agriculture; manufacturing and the green economy; construction; trade, travel and tourism; and financial and business services.

At the time there was considerable uncertainty and fear about the possible impact of the coronavirus pandemic on public health and the provincial health system. According to one of the top officials: “we didn’t know what we were dealing with”. Covid-19 was treated as a health emergency first and foremost. Some decision-makers said it was purely a health matter. There was also widespread support for the national lockdown within GPG and across government as a whole as the best way to slow the spread of the disease and buy time to prepare the health system for the demands that would be placed upon it. Most attention was devoted to mitigating the risks of a public health disaster.

The economic consequences of the lockdown and associated restrictions on workplaces and movement were a secondary concern at the time. This is clear from the deliberations of the PDMCC. For example, in their ‘Consolidated Report’ to the GPG Executive Council dated 3rd June 2020, not one of the 82 slides described the economic response. Slide 79 outlined the sequence of government efforts. The overwhelming priority for the year 2020 was the healthcare crisis. The economic crisis only featured in the last quarter of 2020 and was then scheduled to become the priority in the year 2021 (see Appendix 3). This supports the argument that the economic situation did not receive as much attention as it deserved, at least for the first 3-4 months of the lockdown. According to a senior official: “It was hard to make an economic case for action. At key meetings health officials were given hours to present, while we had eight minutes. Health was the top priority. The economy could be dealt with later”. Meanwhile thousands of companies were going bust, valuable productive capacity was being liquidated and hundreds of thousands of jobs were being lost. It is also revealing that there were no economists on the Premier’s Covid-19 Advisory Committee.

The Economic Cluster took an early decision to ground its response plan in the existing strategic plan for the province – Growing Gauteng Together 2030 (GPG, 2020). This aims to shift the provincial growth trajectory to become more inclusive and more competitive. Key features of GGT 2030 included (i) to attract investment in high growth sectors, particularly in Special Economic Zones, (ii) to invest in public infrastructure to unlock new private property development, especially in key spatial corridors extending across the province, (iii) to support small, medium and micro enterprises (SMMEs), particularly through public procurement efforts and financial assistance, and (iv) to support youth inclusion through the existing Tshepo 1 Million and youth workforce programme. The intention of the Economic Cluster was to bring forward the implementation of the GGT 2030 strategy to address the deteriorating economic situation and kick-start a recovery. Having some continuity between the disaster response and pre-existing plans was seen as desirable to avoid reinventing the wheel and starting from scratch.

In addition, the Economic Cluster introduced several new or modified themes in its disaster response. Some of these overlap and complement the Growing Gauteng Together (GGT 2030) strategy. For example, it devoted more attention to working in

partnership with the private sector, partly through a series of sectoral programmes and 'Action Labs' geared to taking new initiatives. The Action Labs are designed to focus attention on how key players in the public and private sectors can work together in task teams to support the recovery and demonstrate novel ways of getting things done. One is focused on improving the supply of food to townships, following the disruption of the lockdown. The idea is to create sustainable systems of food production and distribution, and not simply to increase food parcels as charity. Ambitious plans are being made and implemented to increase food security by developing local enterprises that can supply and distribute different kinds of food in the major townships. The second is concerned with improving digital services in the townships and other communities, ranging from speeding up the installation of fibre to creating jobs in business process outsourcing and enabling people to work from home. A particular opportunity arose to assist a global digital cloud company to create 500 call centre jobs in Soweto.

The third is aimed at creating jobs from construction, including the installation, repair and maintenance of public facilities and infrastructure. This aims to build on the success of the Tshwane Auto SEZ (see below). The fourth seeks to create jobs from manufacturing through the localisation of suppliers. This builds on the realisation among automotive companies that their global supply chains were disrupted by the pandemic and that having local suppliers would increase their resilience. Another initiative seeks to revitalise manufacturing industry in the Vaal Triangle, for example through developing various recycling facilities. The fifth Action Lab looks at business financing and how to increase take-up of the government's Covid relief credit guarantee scheme. One idea is to customise the scheme to the requirements of specific sectors, including tourism/hospitality, manufacturing and health.

GPG also recognised the special vulnerability of township entrepreneurs to the pandemic by preparing to mobilise additional financial support. GPG officials have been working with private sector partners to try and establish a completely new Partnership Fund to provide loans and working capital for vulnerable SMMEs. This should have various innovative features, including the way R250 million from the GPG Treasury levers some R750 million additional funding from the private sector. This is expected to support approximately 1,100 SMMEs over five years. GPG also created an online system for informal traders to register for official permits to enable them to trade during the lockdown. This digital tool avoided unnecessary queues at administrative offices and could operate when they were closed.

An unanticipated benefit from the creation of the Economic Cluster was the requirement that the member departments work together more closely and report according to a common framework. This has helped to reduce the notorious silo working (fragmentation) of provincial departments, to drive common priorities, to draw attention to major bottlenecks hindering development and to encourage more flexibility in the application of departmental rules and procedures. One official explained that departments pooled their resources to assist farmers to supply food to homeless shelters and schools providing free meals to learners.

GPG's work on special economic zones (SEZs) illustrates the nature of collaboration across government. GPG either holds, or is in the process of applying to hold, the licence to set up and operate half a dozen SEZs across the province, including the new Tshwane SEZ for the automotive sector. GPG has to work closely with the national Department of Trade, Industry & Competition (DTIC), which oversees the SEZ programme, and with the Presidency, which plays an important role in accelerating the provision of strategic infrastructure in SEZs and elsewhere. It also has to engage with municipalities, which are responsible for many of the land-use planning and building approvals. GPG's experience is that the pandemic has, especially with the passage of time, injected a greater sense of urgency into the attitudes of many public officials, which has helped to speed up planning and decision-making. However, this does not apply across the board. In every organisation there are officials that have been galvanised by the crisis, but also officials who continue to drag their heels.

GPG's work on SEZs and infrastructure corridors also illustrates another feature of the provincial economic response, namely a predilection for large physical projects. It is an emphasis rather than an exclusive focus because there have also been efforts to undertake smaller scale interventions and institutional reforms. When pressed on the rationale for this orientation towards big projects, one response from GPG officials is that visible schemes can help to instil confidence within the private sector and improve the general business climate. The mood in the country and media coverage of the economy has certainly been very gloomy since the pandemic. Government entities of all kinds are widely perceived to be unresponsive, inefficient and even hostile to the private sector. GPG believes that high profile initiatives can alter perceptions and encourage more constructive behaviour from other economic actors. There is some logic in this, as long as these projects are genuine, the capacity exists to implement them within a reasonable timeframe, and GPG also has a wider portfolio of more immediate actions. During the current pandemic, these should include short-term relief and guidance for struggling businesses, along with additional measures to boost the recovery once conditions have stabilised.

One of the private sector respondents was more sceptical of the large projects favoured by government because they often get stuck in the planning phase and are very slow to come to fruition because of weak implementation capabilities. He advocated smaller and more practical actions that GPG could undertake jointly with other partners as a way of building a common understanding, forming trust-based relationships and strengthening institutional capacity to deliver through shared learning and problem-solving. This is particularly important in a time of crisis when conditions are depressed, confidence is in short supply and mutual suspicions are rising. Large physical projects invariably take years to come to fruition because of the amount of time required for planning and design, public consultation, statutory approvals, fundraising and procurement processes. It could also be argued that during such periods of uncertainty, responding to tangible opportunities to attract investment and proven evidence of demand for government support is bound to be less risky than embarking on new, supply-led initiatives conceived by officials.

The SMME Partnership Fund mentioned earlier illustrates the risks associated with attempting to introduce completely new projects - in this case a major institutional reform - during an emergency. The Fund appears to be an excellent idea in principle and is one of GPG's flagship responses to the crisis. The first tranche of loans was supposed to have been disbursed in August 2020 and the full R1 billion by October 2020. Yet, at the time of writing the Fund still has not been formally established because it has run into legal obstacles that could delay it for several more months. Meanwhile many SMMEs are in serious difficulty and going bankrupt because they cannot access external funding. If the focus instead was on using the funds committed by GPG to extend and enhance one or more existing small business funding schemes, the province might have been able to assist hundreds of firms by now, and saved thousands of jobs.

5.4.2 GPG foresight and preparation

An important question is whether the GPG had the foresight to anticipate the economic damage of Covid-19? In particular, did it have the information to assess the fallout from shuttering the economy? Did it make adequate preparations to mitigate the adverse effects on businesses, workers and informal traders? And did it monitor the evolving economic situation in order to be able to adjust its response accordingly?

The short answer to these questions is that GPG did not expect the economic cost of Covid-19 to be as serious as it was. Consequently, it did not do a great deal to find ways of gathering the information and intelligence required to track the deteriorating economic situation. The province relied on modelled scenarios produced by the Reserve Bank and National Treasury, which suggested around 230,000 job losses in Gauteng. The recovery would also be V-shaped, so the economy would bounce-back to the pre-existing position within a year or two. The health impacts were also overestimated. According to one of the top GPG officials: "Our model was fundamentally flawed". Officials emphasise that the situation was unprecedented – a once-in-a-lifetime pandemic. They had never experienced anything like a pandemic before. The public health fears and the state of the health system were uppermost in everyone's minds. The GPG command centre even mobilised some of the most senior officials to visit taxi ranks and shopping malls to check whether members of the public were observing social distancing and wearing masks, and whether businesses were using sanitisers and complying with all the other protocols regarding Covid-19. Few experts or politicians were warning about the likely economic consequences of the lockdown. People did not appreciate the devastating impact there would be on livelihoods, household incomes and the tax base. There was also a lack of real-time information on the economic situation as it unfolded, so there was no way of knowing how businesses were coping and how many jobs and livelihoods were at risk. The banks were unwilling to make their data on consumer spending patterns and business trade available. According to one of the top GPG officials: "data management was a problem".

GPG politicians and officials were not unusual in failing to appreciate the economic consequences of the lockdown. A senior official in national government said that ministers and other members of the national command council did not appreciate the

economic toll either. S/he said that some of them did not even seem to care. The securocrats advocated a complete shutdown, except for the supply of food and essential services. The government's health cluster did not seem to be interested in the economic impacts (see also, Seekings and Nattrass, 2020). The same official applauded several GPG officials in the Premier's Office for highlighting the damage that the lockdown could have on private investment. But they were isolated voices who weren't taken very seriously at the time.

One of the initial problems that came to light was the difficulty facing informal traders and related businesses, especially in the townships. The lockdown rules initially stopped traders from operating at all, but when the crisis of hunger and loss of livelihoods became apparent, the government allowed informal traders to restart on condition they had some form of registration. GPG introduced a digital permit scheme to enable informal businesses to register when it was difficult for them to do so in person or using paper forms. It also avoided people standing in queues, and was beneficial in creating a database of informal enterprises for other purposes. It was a simple app that could be used on almost any cell phone without heavy demands on data. About two thousand traders are believed to have used the app successfully to obtain temporary trading permits. A senior official in national government was very impressed by this innovation. He hoped it would be taken up by other provinces.

GPG officials in the Department of Agriculture and Rural Development also because aware of challenges facing small farmers in the region. They responded by helping hundreds of farmers who were hit by the decline in orders from shops and restaurants to obtain vouchers from national government to assist with the purchasing of seeds and fertilisers. Another example of simple relief was the support that GPG gave to waste-pickers. It supplied them with free masks, gloves and tongs to pick up waste without risking their health.

Overall, it is fair to say that more could probably have been done to anticipate and prepare for the economic crisis. One interviewee was rather critical of some GPG officials working in economic development: "They have never run a spaza shop or done a deal. They don't appreciate the urgency of responding positively to private initiatives. Instead they give bureaucratic reasons for why projects shouldn't be approved. Their mindset is to receive an allocation of public funding and then to spend it". An official from one of the municipalities in Gauteng said "we began to think about the economic recovery before GPG. Their focus was on the health system".

5.4.3 GPG planning and coordination

Another significant question is whether the GPG was able to plan and coordinate a rapid response to the unfolding crisis? In particular, did it identify priorities for early action that would have the biggest impact on businesses and jobs? Did it help firms to implement the risk-adjusted protocols to allow them to continue trading? And did it help businesses, workers and informal traders to obtain relief from national schemes?

The Disaster Management Act required GPG to establish a provincial command centre to coordinate its response. One external observer thought that GPG's disaster management structures helped to get all the key stakeholders on board, including municipalities and state-owned enterprises. It encouraged them to communicate and to recognise their common interest in the employment situation and financial sustainability issues. In addition, several GPG officials found some of the reporting requirements to be helpful in identifying gaps and overlaps in the provincial response to the pandemic. They seemed to recognise that in moving from vertical lines of accountability (within departments) to horizontal coordination it was necessary to change the ways in which information flowed and decisions were made. Another positive aspect of the new arrangements was that officials could see their role in relation to the wider activities of GPG. A top executive from one department said: "Suddenly we were part of the bigger picture. It broadened our horizons. As a result of this we will try to speed up our regulatory processes, but we won't cut corners".

These positive experiences were offset by several negative attitudes. Some GPG officials felt that the reporting procedures were excessive and burdensome. They complained that their workload had doubled and they were very fatigued. Some of them had to participate in meetings all day long and were obliged to produce five reports every week. In short, there seemed to be too many meetings taking place and the format was too inflexible. According to a senior GPG official: "The meetings were too routine and formalistic. For some time, it was just the provincial officials talking and the municipalities were simply expected to listen". The reporting procedures also felt like the priority was compliance rather than action-oriented problem-solving. According to a senior GPG official: "It took time to overcome the silos … There was not enough creativity and lateral thinking". Some officials were not persuaded that the horizontal accountability now expected in GPG was worthwhile. They preferred the vertical lines of communication with the national department responsible for their function because they believed there was greater clarity and added value in these interactions.

A particular challenge for GPG was the desire to accelerate various plans and projects at precisely the time when it was difficult to do so because of the lockdown and restrictions on meetings and movement. Resulting delays in decision-making and in various procurement procedures completely stalled the implementation of some activities, such as the preparatory work on several SEZs. A senior national official said that the inability of GPG and national officials to meet with civil society and private sector stakeholders caused considerable frustration among both groups. He cited the example of an industrial park in Mpumalanga that required revitalisation, which was delayed by the lockdown. A more serious case was in Vereeniging and the wider Vaal Triangle, which has been experiencing all-round decline through industrial closures and the deterioration of public services, resulting in violent community protests. GPG and other entities in the public and private sectors were able to continue discussing plans with each other through virtual meetings, but this was altogether less effective than physical meetings. Moreover, members of the community and other stakeholders were not involved, so they were unaware of the plans being made for their area.

The same official also felt that internal GPG procedures could have been more efficient. There was insufficient sense of urgency among some departments, resulting in delays to the delivery of essential infrastructure and services. Another external partner criticised GPG for being several months late in providing an official letter to initiate a major project that they were working on together, without explaining the delay. The positive experience of the Tshwane Automotive SEZ highlighted the unevenness of the GPG administration. Strong leadership in this case (the GPG Premier, Deputy Minister of DTIC and Ford motor company) helped to accelerate implementation, including consultation with local communities, despite the lockdown. Major building and infrastructure work was being undertaken, with special efforts to broaden the economic impact of this investment through hiring local residents and building the capabilities of local subcontractors. An external official described the developmental achievements of the Tshwane SEZ as almost miraculous, which he attributed to the fact that the three key partners were co-funders of the project and had a stake in its ownership and control, which ensured accountability and responsibility for ensuring its success.

The community protests in Vereeniging were not isolated incidents. Several respondents identified the growing problem arising from holdups to construction projects. Disgruntled communities were establishing so-called 'business forums' to demand their 30% share of local construction contracts. Respondents agreed that it was a good idea to support the participation of local SMMEs in construction activity. However, the situation had got out of hand as local business forums were proliferating and literally battling with each other to secure a share of the work. Projects were often badly disrupted by on site protests and aggressive behaviour. This meant that additional security was required, which added to project costs. More strategic solutions to this problem did not seem to be forthcoming.

A final point in this section is that GPG did not do much to assist businesses to implement the government's regulations and risk-adjusted protocols to allow them to continue trading. The same applies to the introduction of new business models to help firms cope with the new operating environment, capacity restrictions and loss of certain clients and customers. Some officials thought that these tasks would be managed more effectively by industry sector organisations. The problem with this argument is that the level of organisation and capabilities of these bodies is highly variable. Some industries (such as agribusiness, automotive and financial services) are well organised and were able to formulate and implement effective guidance packages for individual firms to operate under the lockdown, but this did not apply in other cases, such as construction, which is highly fragmented. Finally, the GPG did not appear to see it as an important part of its responsibilities to help businesses and workers to obtain relief from national schemes, by raising awareness and acting as an intermediary. This is discussed further below.

5.4.4 GPG learning and adaptation

A third vital question is whether the GPG was able to learn and adapt to the changing situation? In particular, did it develop new and innovative responses to the closure of

administrative offices, the social distancing restrictions and the wider economic challenges? Did it introduce bold measures commensurate with the unprecedented economic problems experienced?

The answer to these questions is mixed. On the one hand, there were aspects of GPG's economic response that were very positive and forward-looking. A senior official in national government said that GPG were unusual in their go-ahead mindset. They were willing to experiment in order to make things work, i.e. to try and fail. He singled out a group of determined officials in the Premier's Office for their energy and dynamism. A culture of complacency and compliance seemed to widespread elsewhere in the public sector: "our bureaucracy has killed creativity". He said national government was strongly aligned with GPG because they shared similar attitudes towards making things happen around development and investment. They did not allow themselves to get demoralised by the bureaucratic constraints and other blockages facing investors. A similar point was made by a senior official from a government development finance institution. S/he said that staff from the Premier's Office were enthusiastic and always looking for solutions to the obstacles facing development: "They are among the best assets in GPG. They help to unblock administrative and political bottlenecks, and they try to crowd in the private sector".

The same attitudes were not apparent throughout GPG. Some observers were more critical of aspects of GPG's economic response for lacking leadership, vigour and responsiveness. According to a senior GPG official: "The economic workstream was slow to get going and there was insufficient urgency about its response to the crisis". The uneven capabilities across provincial departments is an opportunity for learning and cross-fertilisation of expertise.

5.4.5 GPG cooperation with external stakeholders

The fourth question is whether GPG was able to cooperate with external stakeholders? In particular, did it respond in a timely and positive manner to external requests for assistance? Did GPG reach out to partner with organisations in the private sector and civil society to reduce the impact of the pandemic? Did it help to co-create solutions and to prepare for an economic recovery?

An informant from the private sector confirmed that they worked well with selected GPG officials who were tasked with fast-tracking delivery. GPG had proved to be more receptive to overtures from representatives of the business community than other provinces. Premier Makhura showed strong leadership in May by convening a meeting with many large companies in Gauteng to discuss the obstacles they faced and to encourage greater dialogue. This helped to boost morale, and it opened to door to addressing various regulatory and administrative barriers facing a range of projects. Through the Action Labs, business leaders were able to communicate with sections of the GPG administration that they had never engaged with before. For example, companies in the food sector said this was the first time they had interacted with GPG officials and they now felt they could pick up the telephone and speak to someone if they

had a problem. These channels of communication were helping to improve relationships and trust on both sides, and would hopefully lead to further interactions and opportunities for practical collaboration in the future. The private sector seemed to support GPG's policies and plans, but was more critical of its implementation capabilities and was keen to see these strengthened. This included project preparation, facilitation, financing and management.

Several officials in national government also applauded GPG for its responsiveness and its alignment with national priorities. One said the government's relationships with GPG were more productive than with any of the other provinces. These officials recognised the special position of Gauteng as the country's economic heartland, so it was vital to ensure good relationships between national entities and the province. The Presidency and DTIC seemed to have particularly close links with GPG. Yet this message of alignment was not unqualified. Another senior government official said he was surprised that GPG did not take advantage of the Sustainable Infrastructure Development Symposium (SIDS) to nominate projects for priority attention, despite being specifically invited to do so. Several other provinces were more proactive than Gauteng in this respect, recognising that the SIDS process would help to fast-track implementation. In addition, GPG did not communicate to the national officials what reservations they had about participating in the process. The informant wondered whether GPG was concerned that national government would take control of their projects.

GPG also received a strong endorsement from a separate government agency for its determination to instigate change. The agency had worked closely with GPG officials to explore the regulatory barriers facing township enterprises. GPG took the initiative to draft a Township Economic Development Bill. The agency was very positive about the experience of working with GPG. They were compared favourably to the instability and inconsistency of municipalities: "GPG was so much better, more stable and responsive. It was one of the best undertakings we've had". Another senior government official said that GPG's competences and responsiveness were very uneven across departments, so it was hard to generalise. He singled out the economic acceleration unit in the Premier's Office for praise.

There is a strong case for sharing the economic expertise, insights and capabilities of the more dynamic sections of GPG with other parts of the administration to raise awareness of the negative economic consequences and positive possibilities of their actions. Armed with a greater economic understanding, different departments may be able to harness their powers and responsibilities to encourage investment and support local enterprise (e.g. through targeted procurement and capacity building). They may also be able to reduce the unintended costs they impose on local businesses (e.g. through simplifying onerous regulations and streamlining bureaucratic procedures) and enable informal enterprises to regularise their operations by assisting them to comply with the necessary rules and bylaws. Being more supportive of economic activity (formal and informal) will be imperative in the period ahead because the province will be poorer for some time to come and more people will be obliged to start their own enterprises and create their own jobs.

Another important field in which GPG sought to coordinate its activities with other entities was small business support. The basic idea was to integrate different financial and technical advisory services for small businesses so as to reduce wasteful duplication of effort and to improve the efficiency and quality of provision with a single point of entry for potential beneficiaries. This would also help two national small business entities to improve their provincial presence and visibility to local firms. Integrating these functions on a common platform across different government entities makes a lot of sense, but it has not been straightforward because of their different mandates, systems, cultures and practices. The first step is to create a legal agreement and an implementation plan with specific tasks and timelines. This has not been finalised at the time of writing, so there has been no practical changes to the way services are actually delivered as yet. One of the key informants said the GPG officials were enthusiastic and responsive, although the administrative and legal procedures were taking some time to be concluded. Once this happened, there would need to be a process of change management involving frontline staff to ensure the new system worked seamlessly. Another informant was hopeful that the reforms would be very beneficial in due course, although there was nothing to show for their efforts as yet.

5.4.6 GPG information and digital systems

The final question is whether the GPG introduced effective information and digital systems to manage the crisis? Was GPG able to develop digital systems to enable people to work remotely, to ensure services could be provided remotely, and to cope with the inability to use physical/paper systems?

GPG undertook various initiatives to accelerate the move to digital systems during the pandemic. A comprehensive digest of these is not available and there was insufficient time to collect an original list for this report. One of the successful schemes was a digital app for trading permits for informal enterprises, which was mentioned earlier. Digital systems were also being introduced to facilitate local procurement in the Tshwane Automotive SEZ and for a major arts festival. The Department of Agriculture was in the process of introducing a digital system for farm registrations. This could have wide-ranging benefits for documenting what they produce and what support services they require. Several departments began the process of converting their manual application forms for regulatory approvals into digital systems. This was a major task and would take some time to be completed. Finally, GPG found ways of supporting people working from home and participating in meetings through various software packages and applications.

These were all important initiatives that illustrate the scope for them to be extended and applied more widely to other administrative procedures in GPG. The fact that many GPG decision-making processes were disrupted by the lockdown, which stalled the provincial response to the pandemic, indicates the room for improvement in digital systems.

5.5. Conclusions and recommendations

The chapter provides a high-level review of the economic response of GPG to Covid-19, drawing mostly on interviews with key informants within GPG, in other parts of government and in the private sector. The first finding is that the unfolding economic crisis deserved more attention than it received, bearing in mind the devastating loss of jobs and livelihoods that has occurred.

Second, GPG did respond to the economic damage in various ways – to bring forward plans, to introduce new projects, and to develop new relationships with stakeholders. This should help to lay the foundation for future investment and growth. With hindsight, more emphasis could have been given to providing immediate relief to firms, households and communities that were struggling to cope in the difficult conditions.

Third, the response across the provincial administration was uneven. Some sections were energetic, agile and innovative. However, this was not the case elsewhere. There was more emphasis given to laying the groundwork for large physical projects, which are inevitably complex, risky and take time to deliver, than to immediate, practical measures that respond to tangible opportunities to attract and retain investment and proven evidence of demand for government support.

Looking to the future, the first lesson to be learnt is that GPG could have anticipated the scale of the economic crisis sooner than it did and done more to help prepare businesses for the effects of the lockdown, to assist them with implementing risk-adjusted strategies, and to reduce the loss of income and jobs by adapting their business models to the new environment. It is not too late for these things to be done, bearing in mind the slow recovery and the possibility of a second wave of the pandemic.

Second, GPG could have used its special relationship with national government to advocate greater flexibility in the national restrictions and for quicker and more effective national economic relief and stimulus programmes. It could still press for a stronger recovery plan, and make the case that the province cannot afford another hard lockdown in the event of a resurgence.

Third, GPG could have put more emphasis on direct and indirect forms of relief for firms in difficulty to stem the loss of jobs and business closures, partly through facilitating access to national support schemes, and encouraging municipalities to offer rates relief. It is not too late for these measures either, bearing in mind the slow pace of the recovery. This also includes ensuring that the province makes full use of the government's public works and community works programmes to create work experience and training opportunities for thousands of young people and adults in providing all kinds of socially-useful services.

Fourth, more could be done to share the economic expertise, insights and capabilities of the more dynamic sections of GPG with other parts of the administration to raise awareness of the economic consequences and potential of their actions. All parts of government will need to be more supportive of economic activity in the years ahead –

enabling enterprise and investment and reducing the burden of excessive regulation and bureaucratic procedures.

Fifth, GPG should prepare for the possibility of a second wave by anticipating which sectors, places and groups are most vulnerable, improving its economic information systems to track changing conditions, and ensuring that its support is targeted appropriately.

Finally, more investment in public health services and infrastructure to increase testing and contact tracing will pay off handsomely in reducing the rate of infection and the devastating social and economic costs that result. This includes more community health workers in the settlements that are most vulnerable to the spread of disease and economic hardship.

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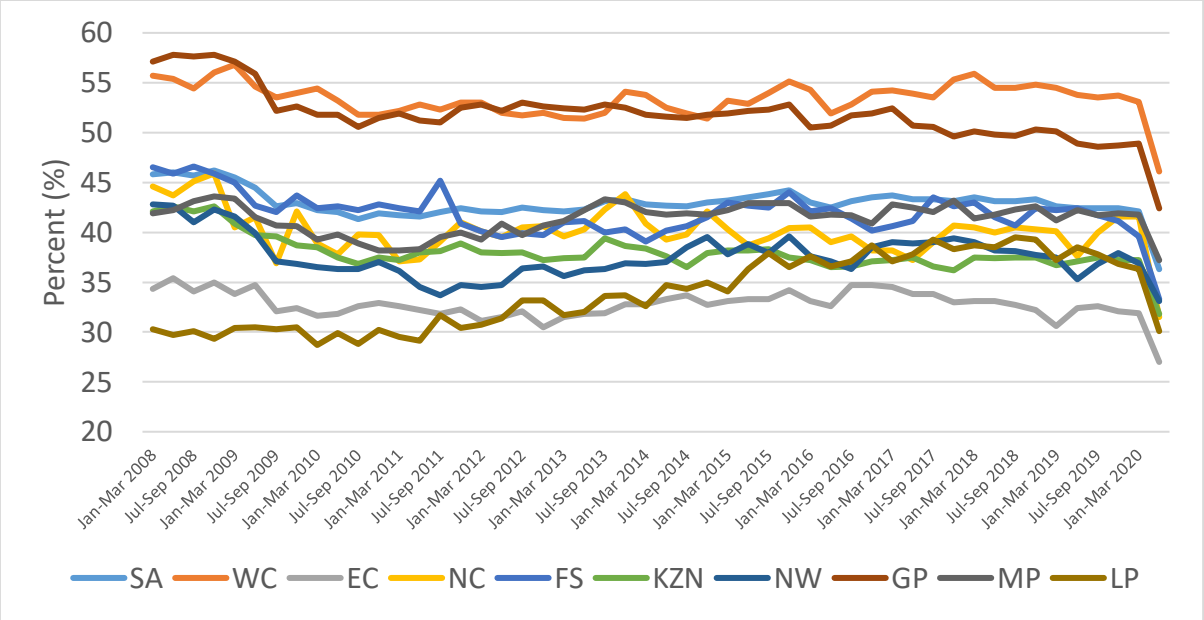
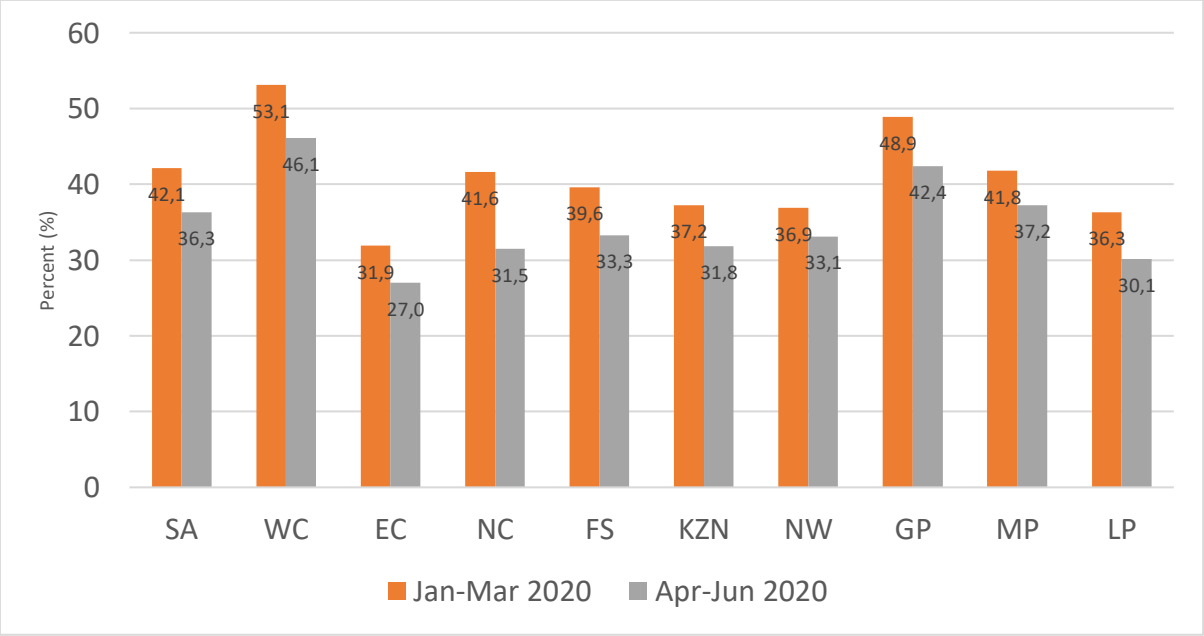
Appendix 1: Statistical evidence of the Socio-Economic Impact of Covid-19

Figure 1: Labour absorption rate 2008-2020



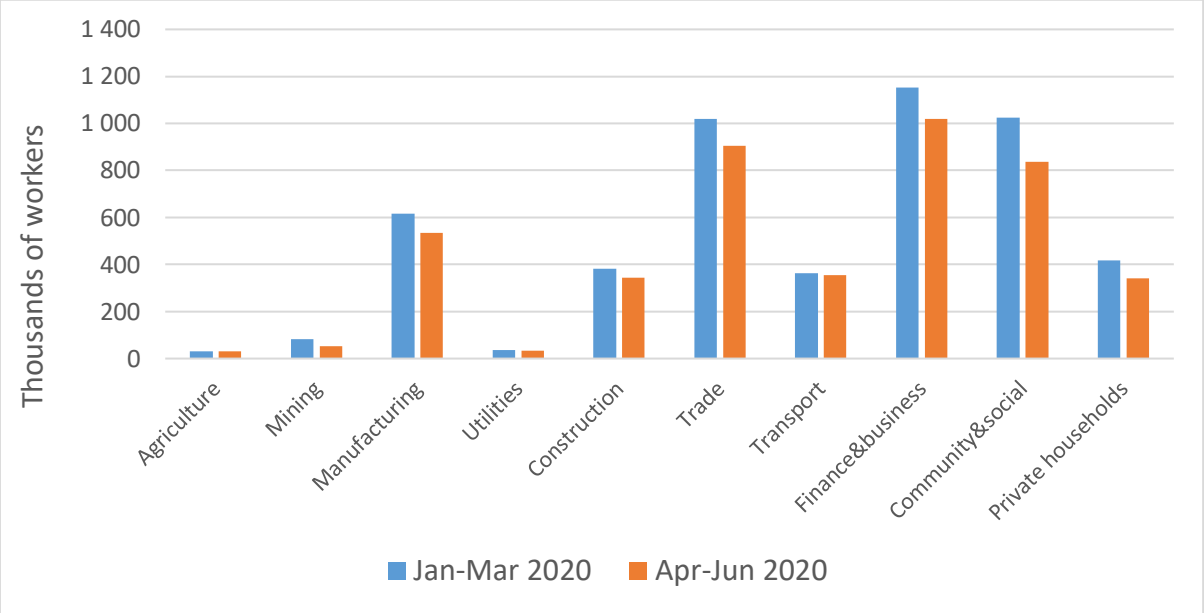
Source: StatsSA Quarterly Labour Force Survey

Figure 2: Labour absorption rate, before and after the onset of Covid-19



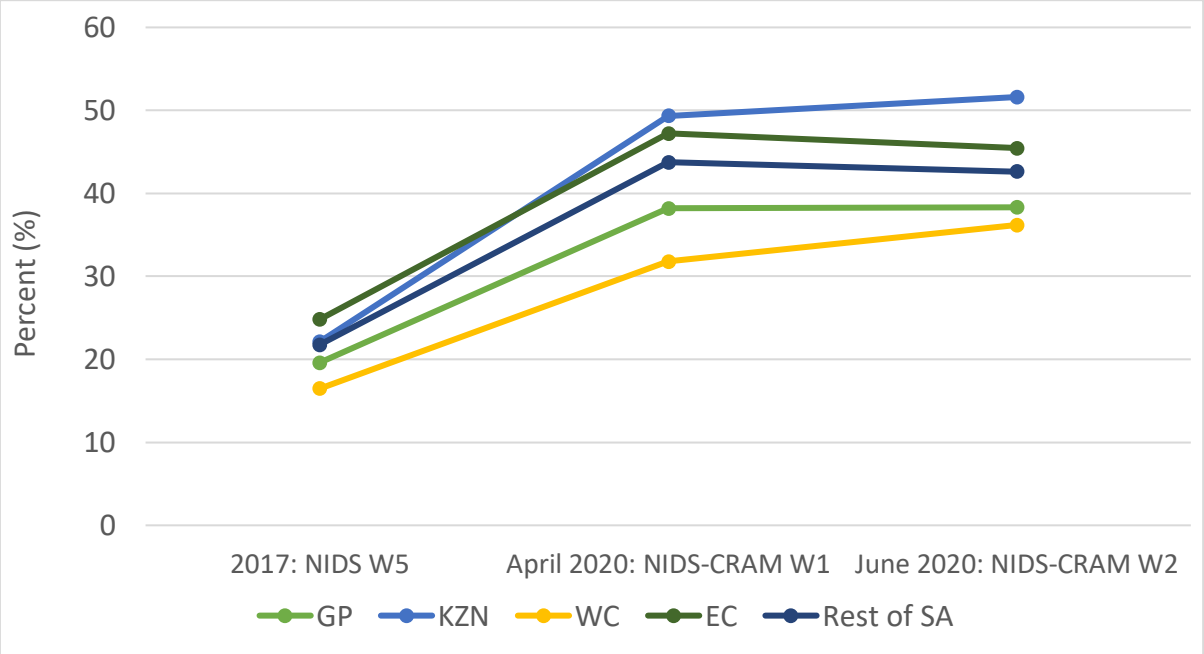
Source: StatsSA Quarterly Labour Force Survey

Figure 3: Change in employment by industry in Gauteng, before and after the onset of Covid-19



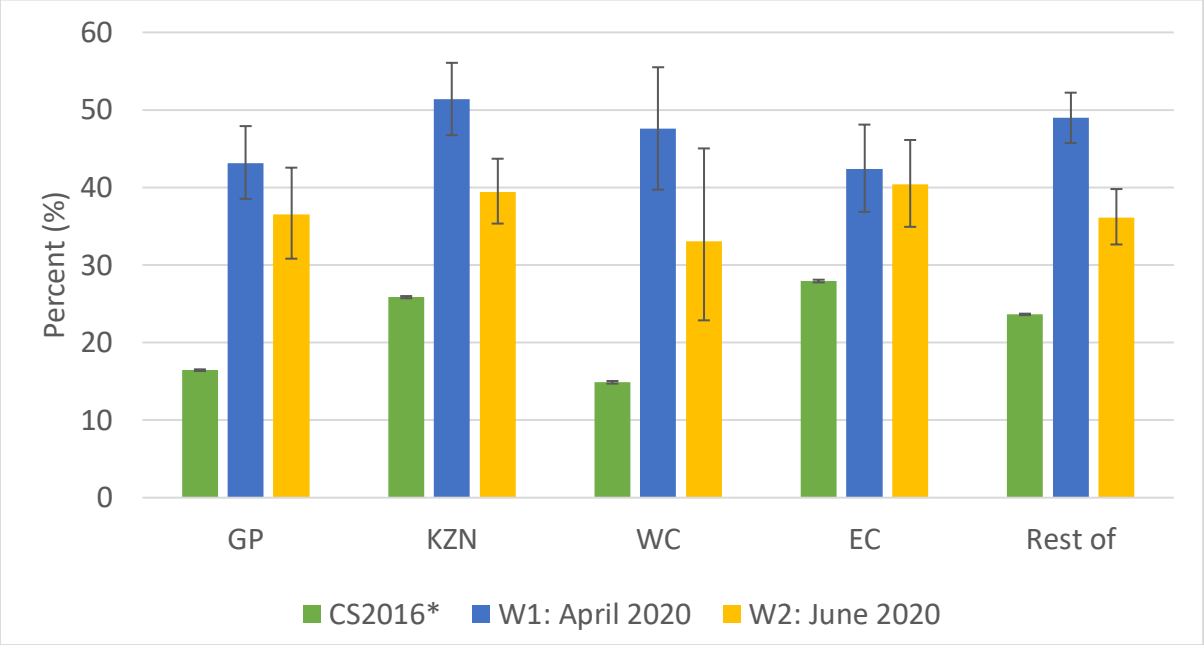
Source: StatsSA Quarterly Labour Force Survey

Figure 4: Rate of unemployment



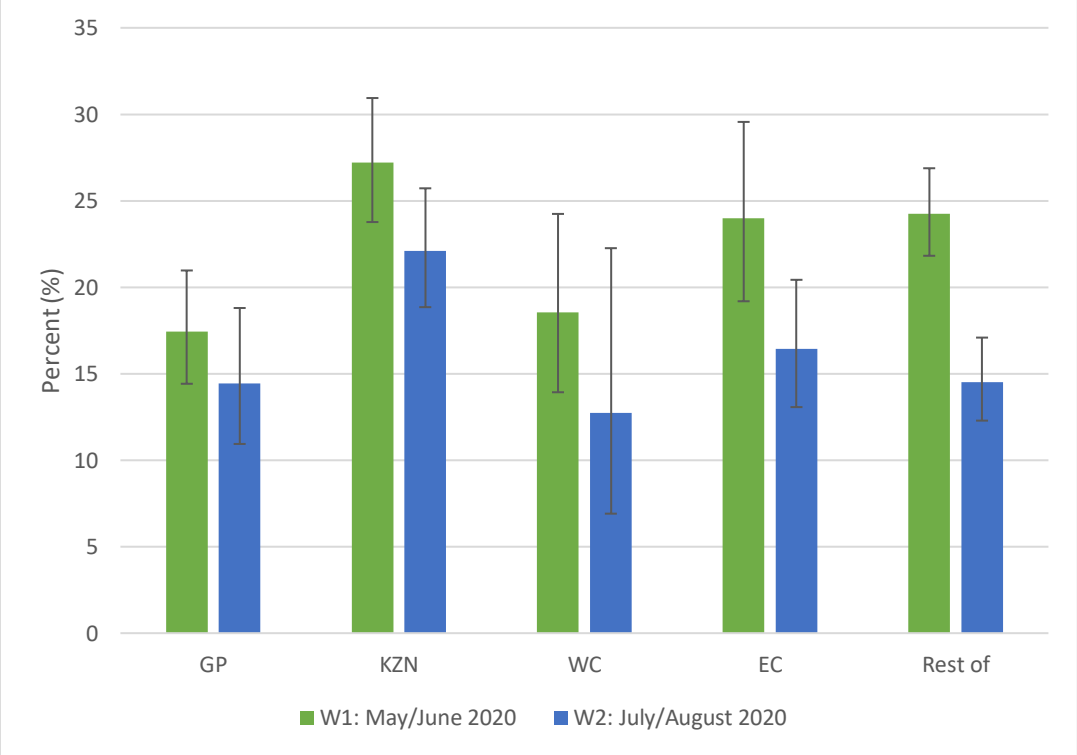
Source: NIDS-CRAM Survey (Visagie and Turok, 2020)

Figure 5: Proportion of households who ran out of money to buy food



Source: NIDS-CRAM Survey (Visagie and Turok, 2020); CS2016=Community Survey

Figure 6: Proportion of households who experienced hunger



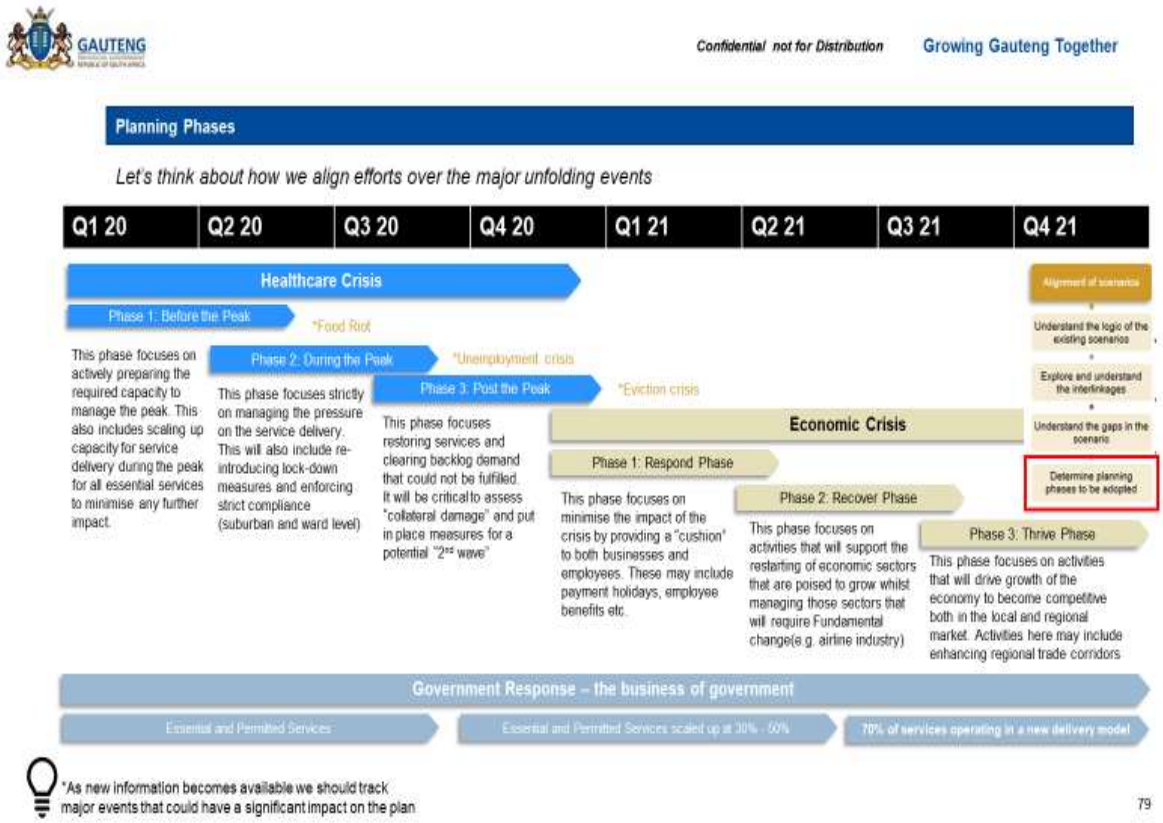
Source: NIDS-CRAM Survey (Visagie and Turok, 2020)

Appendix 2: List of interviewees

In order to safeguard the anonymity and confidentiality of interviewees, their names are not revealed. The list below identifies the role and seniority of the person interviewed, the department and organization they worked for and the date of interview.

	Role/seniority	Department and organisation	Date
1	Senior official	Premier's Office, GPG	26.8.2020
2	Senior official	Dept of Agriculture & Rural Development, GPG	7.9.2020
3	Senior official	Dept of Human Settlements, GPG	8.9.2020
4	Senior official	Presidency, National Government	8.9.2020
5	Senior official	Presidency, National Government	9.9.2020
6	Senior official	Dept of Infrastructure Development, GPG	10.9.2020
7	Senior official	Small Enterprise Finance Agency	11.9.2020
8	Senior official	National Dept of Small Business Development	17.9.2020
9	Senior official	National Dept of Trade, Industry & Competition	23.9.2020
10	Senior executive	Public-Private Growth Initiative	23.9.2020
11	Senior official	Premier's Office, GPG	9.10.2020
12	Senior official	City of Johannesburg	9.10.2020
13	Senior official	City of Johannesburg	13.10.2020
14	Senior executive	Development Bank of Southern Africa	14.10.2020
15	Senior official	South African Cities Network	14.10.2020
16	Senior official	Premier's Office, GPG	15.10.2020
17	Senior official	Department of Economic Development, GPG	20.10.2020
18	Senior consultant	Lanseria New Smart City	21.10.2020
19	Senior official	Department of Roads and Transport, GPG	21.10.2020
20	Senior official	Department of Economic Development, GPG	26.10.2020

Appendix 3: Phasing of GPG response



CHAPTER 6

Food Security Chapter

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Acknowledgements

We would like to thank all our key informants for their time and rich conversations and the sharing of their insights.
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Lastly, Dr Bangani Ngeleza, the lead researcher, we would like to thank you for compiling all the chapters for the Case Study on GCR's efforts to combat the impact of COVID-19.

ABSTRACT

Prior to the COVID-19 pandemic approximately 50% of households in South Africa were reported to be food insecure with 25% living under the poverty line. South Africa is recognised for its harsh lockdown regulations which led to widespread economic losses, negatively impacting food affordability and availability, ultimately increasing wide-spread hunger and undermining long-term nutrition outcomes. The study focussed on determining/ describing the effectiveness of the GCR's food (in)security interventions during the COVID-19 pandemic and exploring the perspectives and/ or experiences of key policy stakeholders. This was done by means of case studies performed in the form of semi-structured interviews over a period of two months as well as a literature and desktop study. Government responses included increases in social grants, UIF payments, the provision of food parcels and the establishment of temporary shelters at provincial level. Beneficiaries for food parcels had to register on the COVID-19 hotline. Unfortunately, approximately 80% of cases were not resolved due to the inability to effectively report back on the online platform. Food parcels distributed by the DSD furthermore lacked in nutrient quality and conditions at some temporary shelters were reported to be dissolute. There also seems to be inconsistency in that the three tiers of government reported a strong sense of togetherness in combatting the effects of the pandemic in a joint effort, but persons at grassroot level expressed scepticism. Civil society, NGO's, private sector, etc. contributed significantly to reach a wider group of vulnerable individuals, including those from foreign decent. Businesses including organised agriculture, labour, community and government cooperated through task teams to implement business initiatives to deal with the impact of COVID-19. It should be recognised that the coronavirus does not treat all equally and that the food (in)security

effects of the pandemic will be felt for a long time to come. Therefore, there exists a great need for continued cooperation and support, especially for vulnerable children.

6.2 Introduction And Background

The Coronavirus (COVID-19) pandemic is disrupting the world as we knew it, threatening to affect millions of people already vulnerable to food insecurity and malnutrition. The pandemic has exposed dangerous deficiencies and fragilities in our food systems, with the ramshackle nature of food data as one of the great "reveals". COVID-19 may not kill children, but hunger will.

Food affordability and adequate nutrition is one of the main issues that affect food security in South Africa. The *2018 Global Nutrition Report* positions South Africa amongst 41 other countries in the world currently experiencing a triple burden of malnutrition in terms of anaemia, i.e. iron deficiency, impeding growth in children and obesity (Development Initiatives Poverty Research Ltd, 2018). Limited food access and therefore inadequate food consumption is a reality nearly 25.0% of South Africans are confronted with. Even though the percentage of persons experiencing inadequate food consumption decreased from 24.2% in 2002 to 12.1% in 2017, 5.5% of South African households severely lack access to adequate food (BFAP, 2019).

With approximately 25% of households living under the poverty line and not being able to afford basic healthy eating, food insecurity is a reality for many South African households (StatsSA, 2017). During the various stages of lockdown South Africans were faced with a variety of challenges in economic and social terms. A steep and sudden decrease in income was experienced, leading to decreased purchasing abilities of households. According to the Bureau of Food and Agricultural Policy (BFAP) South Africans in the lower income deciles spend an average of 35% of their income on food. This figure skyrocketed to 84% during lockdown with the increased burden of more children to feed at home, adding an additional 10% increase to the grocery bill (BFAP, 2020). As the country progressed through the various stages of lockdown, it was found that the fear of contracting the virus was closely followed by the more pressing matter of food shortages and loss of income (AskAfrica, 2020).

The pandemic has forced government to develop interventions to ensure that vulnerable households have access to safe and sufficient food during the state of emergency in an attempt to mitigate food insecurity and see many households through one of the greatest pandemics of our time. These programmes mostly delivered non-perishable staples, oils, and pulses, potentially compounding already poor-quality diets. The coping strategies of vulnerable individuals do not promote good health. It is known that during times of crisis consumption patterns change with a decrease in the consumption of nutrient dense foods, such as fresh produce and animal source foods associated with an increase in the consumption of non-perishable energy rich starchy staples which can lead to micronutrient deficiencies (IFPRI, 2020). It is essential that the food consumed provides all the necessary nutrients in the correct amounts to ensure optimal health and that immune functionality is achieved.

6.3 Theoretical Framework And Literature

The Office of the Premier of Gauteng has commissioned a Case Study to document various interventions of the Gauteng City Region (GCR i.e. Gauteng Provincial Government, metros, districts and local municipalities), in collaboration with various sectors, to deal with the COVID-19 pandemic at different phases. The overall goals of the Case Study are to:

(1) Document processes and lessons learnt from interventions implemented in Gauteng;
(2) Highlight good practices, achievements and challenges experienced;
(3) Capture and reflect on the experiences of policy makers and Non-government organisations (NGO's) involved in the conceptualisation, design and implementation of the interventions on COVID-19; and to
(4) Describe the role played by various stakeholders outside of government including the private sector, public sector partners, labour, academia, religious organisations, civil society organisations and the public.

This document describes the approach to the Food Security Chapter of the Case Study. It should be read in conjunction with the GCR's Conceptual Framework.

6.4 Specific Objectives

The specific objectives of the Food Security Component of the Case Study are to:

(1) Describe the GCR's Food Security response to the COVID-19 pandemic;
(2) Identify the key stakeholder(s) involved in the food security response and how effective communication was perceived regarding the GCR's response;
(3) Identify the strengths and weaknesses in the GCR's emergency/ crisis preparedness to implement interventions to alleviate food insecurity from multiple perspectives; and to
(4) Highlight lessons learned and propose recommendations to strengthen food security and to ensure preparedness for the future management of food (in)security crises.

6.5 Literature Review

The coronavirus might be novel but hunger and malnutrition are all too common features in the lives of South Africans. It is estimated that prior to lockdown 25% of the population lived below the food poverty line, while half were food insecure with millions of children counted among these. Specifically, 9.8% of households in Gauteng experienced inadequate food access and 3.0% severely lack adequate food access (StatsSA, 2019). Food price increases further burdened households with the basic household food basket price increasing with 7.8% in the period March to May 2020. During this same period, it was estimated that the cost of feeding a child a basic nutritious diet increased by 4.6% (NIDS-CRAM, 2020). Dramatic increases in the price of imported products was

experienced due to the restrictions of trade. Changes in consumption patterns during lock down fuelled by breakfast at home and “banana bread challenges" hiked the price of eggs (a more affordable animal source of protein) and cake flour. Panic buying and stock piling prior to lockdown also contributed to sudden price increases.

Loss of income and the inflation of food prices led to an increase in hunger experienced by South Africans. According to Wills et al. (2020), South African households were experiencing tremendous hardship as a direct result of lock down measures. The National Income Dynamics Study – Coronavirus Rapid Mobile[12] (NIDS-CRAM) survey indicated that *adult hunger* declined from 22% to 16% between May/ June and July/ August 2020, and that *child hunger* decreased from 15% to 11% during the same period Between Wave 1 (7May to 27June) and Wave 2 (13July to 13August) of the NIDS-CRAM surveys it was clear that reported hunger declined for *anyone in the household*. These lower rates were however still substantially higher than pre-COVID-19 levels (NIDS-CRAM, 2020).

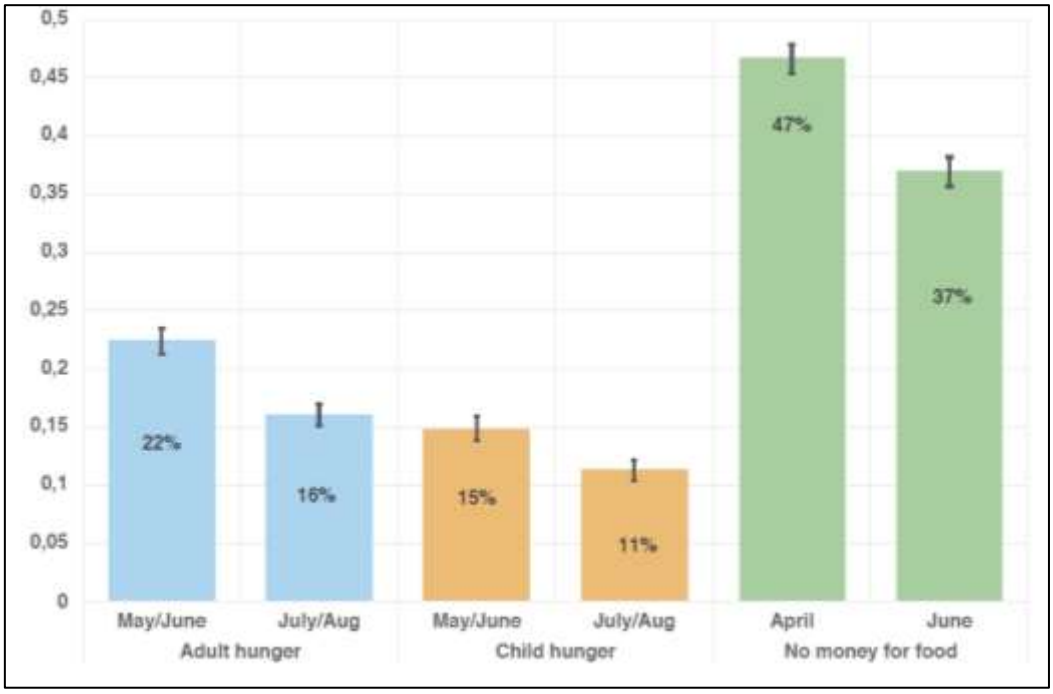


Figure 5: Household and Child Hunger and Money for Food During Wave 1 and Wave 2 of the NIDS-CRAM Study (NIDS-CRAM, 2020)

The NIDS-CRAM surveys further show that higher levels of hunger were experienced in rural areas compared to metros and cities/ towns. 20% of respondents in rural areas said that someone in their household had gone hungry in a 7-day period compared to 16% in cities/ towns and 13% in metro areas. In the urban areas it was found that shack-dwellers

[12] The NIDS-CRAM survey investigated the socioeconomic impacts of the national lockdown associated with the State of Disaster declared in South Africa in March 2020, and the social and economic consequences of the global coronavirus pandemic.

were the most vulnerable to hunger. Approximately 13% of respondents, living in an informal houses/ shacks were considerably more likely to report running out of money to buy food and experiencing hunger.

South Africa's national lockdown Level 5 has also shown consumers to lean towards products (such as pasta and cake flour) with extended shelf lives in times of crisis. This, together with the severe financial pressure COVID-19 has inflicted on households, caused consumers to switch to cheaper staple food options. However, the substitution of fortified maize meal in favour of rice, bread or pasta, had a negative impact on the micro-nutrient status of households as rice and pasta are not fortified with micronutrients in South Africa (BFAP, 2019; BFAP, 2020).

Individuals with weaker immune systems and limited resources are left more vulnerable in the fight against the virus. COVID-19 amplifies the social and economic fragility and frailty of households and highlights the instability of the supposed safety nets meant to catch the vulnerable during times of crisis. The novel coronavirus does not discriminate but still does not treat all equally. Of particular concern is South Africa's child-stunting levels (an indication of chronic and long-term food insecurity) as child malnutrition rates are expected to increase due to the lack of access to regular intake of nutrient dense foods (NIDS-CRAM, 2020). South Africa is also among the countries with the most unequal societies in the world.

6.6 Research Design And Methods

6.6.1 Methods

In attempts to address the Food Security Component's overarching aim, i.e. describing the GCR's Food Security response during the COVID-19 pandemic and exploring the perspectives and/ or experiences of key policy actors/ stakeholders with the implementation of the COVID-19 food insecurity interventions, we specifically focussed on determining the measures used to mitigate the potential impact of COVID-19 on food security. This was done specifically as related to: (a) food parcels; (b) meals provided at shelters; (c) the school feeding scheme; and (d) soup kitchens. Through identifying the strengths and weaknesses in the GCR's emergency/ crisis preparedness to implement interventions to alleviate food insecurity from multiple perspectives, any unintended consequences (positive and/ or negative) and factors that predisposed or exacerbated the COVID-19 crisis were also recorded. Knowledge obtained from the interviewees were validated against the literature and desktop study.

The above was done based on case studies performed in the form of interviews during mid-August to mid-October 2020. The research team selected 15 individuals purposively based on their knowledge and/ or experience regarding the COVID-19 food security response in the GCR, and the implementation of strategies in the various districts. With the assistance of the Government Technical Advisory Centre (GTAC), the Office of the Premier and through snow ball sampling the team selected key informants to be interviewed, i.e. senior managers or officials from different levels of provincial or local

government (including the Department of Social Development (DSD), the Department of Basic Education (DBE) and the Department of Agriculture, Land Reform and Rural Development (DALRRD)). Members of civil society (including charities and NGO's) were also interviewed.

6.6.2 Ethics

Members of the research team were required to sign a confidentiality and non-disclosure agreement. Ethical clearance was granted for the Food Security Component's chapter, i.e. *Case Study on Gauteng City Region's efforts to combat the impact of COVID-19*, by the University of Pretoria's (UP) Faculty of Natural and Agricultural Sciences (NAS) Research Ethics Committee (REC) (code NAS262/2020) (Addendum 1).

The research team respected and maintained ethical standards throughout the project. Potential respondents were provided with the study information sheet that explained the purpose of the study and detailed the terms of the respondent's consent. If the respondent agreed to be interviewed, they were asked to sign the study consent form. Consent was obtained for any recording of interviews on a separate consent form.

The confidentiality of all data collected was assured. No names are used in the chapter and identifying details cannot be linked in any way to data in the report. Interviewees' anonymity were furthermore protected by referencing to the *Interviewee (2020)*.

6.7 Research Findings And Discussion

It is estimated that there are more than 20 million people in South Africa that need some form of food relief with the number rising close to 30 million during lockdown (this remains a moving target) (FoodForwardSA, 2020). This is a staggering number considering it is almost 50% of the South African population (Worldometer, 2020). Prior to the pandemic, the Gauteng City-Region Observatory (GCRO) estimated that 3 million people were food insecure in the Gauteng region. It has been estimated that this number has doubled since the start of hard lockdown.

The spread of the global COVID-19 pandemic to South Africa is imposing further pressure on vulnerable households facing temporary or permanent employment interruptions (Nurhasim, 2020). In addition, the primary caretakers of these households now had more mouths to feed, including children that previously benefited from the National School Nutrition Programme (NSNP) also relying on their primary care givers for food (DBE, 2020). The associated costs of urbanised provinces, unemployment, children not attending school, students not attending universities, etc. are astronomical (Interviewee, 2020).

During lockdown words such as nutrition, food security, food drives and hunger were echoed from the news headlines. The COVID-19 outbreak in South Africa forced government to develop interventions to ensure vulnerable households had access to safe and nutritious food during the current state of emergency. Government responses

included increases in social grants, unemployment insurance fund (UIF) payments and the provision of food aid parcels at provincial level. It is estimated that the budgeted R43 million for food aid parcels reached 5 million South Africans or about 1 million households. Possible beneficiaries of local government response for food parcels had to register on the COVID-19 hotline via email or WhatsApp. However, the NIDS-CRAM study found that 42% of local communities did not believe that food parcels reached the most vulnerable (NIDS-CRAM, 2020). This could perhaps be ascribed to the fact that registration for food aid took place during Level 5 when the movement of people were restricted and the most vulnerable often might not have access to email or WhatsApp. NGO's, the private sector and civil society were more agile and specific to the need. Their food aid programmes reached millions of vulnerable individuals of South African and of foreign decent, taking many faces, such as community soup kitchens, food parcels, or targeted drives for specific items.

6.7.1 *A Case Study*: The Department of Social Development's response to food security during COVID-19

The main role of the DSD is to take care of vulnerable people, from cradle to grave i.e. children, youth (specifically those who are at risk for substance abuse), people with disabilities, older persons, women, homeless persons, etc. The DSD focuses on how services can be consolidated as to best intervene in social problems. In its COVID-19 food security response, the DSD was guided by policy: namely the Social Assistance Act and the Anti-Poverty Strategy. Key aspects of the DSD's food security response during the pandemic included: (1) providing shelters for homeless persons with the assistance of municipalities (a total of 47 shelters through the City of Johannesburg and the City of Tshwane); (2) funding NGO's for assisting victims of gender-based violence (although funding was provided per attendee as per service level agreements, purchases of items not normally disclosed as line-items were allowed, such as personal protective equipment (PPE)); (3) assistance to early childhood development (ECD) centres (however many parents felt it safer to keep their children at home), including those who are not registered with the DSD; and (4) assistance of organisations who takes care of elderly persons (Interviewee, 2020). The DSD determined who should be provided with food parcels based on information received from the COVID-19 hotline dashboard (email and WhatsApp), i.e. number of persons residing in a household, ages of persons, etc. (Interviewee, 2020).

6.7.1.1 Nutrient Quality of Food Aid Parcels as Provided in Gauteng

The nutrient quality[13] of the food aid parcels as provided by the Gauteng Government was questioned (Vermeulen, et al., 2020). The parcels contained mostly monotonous

[13] The nutritional value of the food aid parcels was compared to what is generally accepted as a nutritionally balanced diet by the Department of Health (DoH, 2020). In this case a balanced diet was defined based on the nationally accepted nutritional guidelines, i.e. The South African Food Based

staple items which do not provide the required nutrients for a healthy diet that support immune functionality. The Gauteng food parcel contained maize meal (10 kg), rice (5 kg), baked beans (2 tins), peanut butter (880 g), oil (2 l), sugar (2.5 kg), salt (1 kg), tea bags (100 bags), soya mince (1 kg), tinned fish (2 tins), laundry soap (2 bars), dishwashing liquid (750 ml) and all-purpose cleaner (750 ml). The total cost of the basket was estimated to be approximately R507. Table 7 shows the contribution of the food basket to the various food groups. The food basket is lacking in fruits and vegetables and provides excessive amounts of starchy foods, fats and oils, sugar and salt. The provision and distribution of food parcels can be seen as the largest area of work related to the COVID-19 pandemic (Interviewee, 2020).

Table 7: Contribution of the Food Aid Parcels From Gauteng to the Different Food Groups for a Reference family of four[14]

Food Group	Gauteng
Starchy foods	627%
Fish, chicken, lean meat, eggs	9%
Dry beans, split peas, lentils, soya	100%
Milk, maas, yoghurt	0%
Fat, oil	400%
Vegetables	0%
Fruit	0%
Sugar	500%
Salt	200%

6.7.1.2 Shelter Operations and Meals Provided

South Africa faces a large burden of homelessness. During the COVID-19 pandemic, thousands of homeless people were housed in churches, schools, sport stadiums and locked-down public areas in attempts to stop the spread of the coronavirus. The DSD of Gauteng is said to have housed 15 000 people in Johannesburg and Pretoria. According to a ministerial spokesperson in Gauteng the programme will continue after lockdown, with the main aim to reunite homeless persons with their families (Cocks & Roelf, 2020).

During interviews in the last week of hard lockdown, many of Johannesburg's homeless people told Spotlight that they preferred life on the street as opposed to living in shelters. Interviewees indicated that the circumstances they faced in shelters were worse than which they experienced on the street, despite cold weather and alleged police brutality. One of the interviewees indicated that he had to resort to begging on the streets for money as shelters did not provide much needed baby formula. According to two other interviewees, living conditions at a homeless shelter in Hillbrow were terrible as (1) residents were only provided with three slices of bread during the course of a day; (2)

Dietary Guidelines (FBDG), combined with the eating patterns suggested by the Department of Health (DoH) in the guidelines for healthy eating (National Nutrition Week, 2012).

[14] The contribution of the food aid parcels to the different food groups should be 100%.

there were no blankets; (3) nearly a hundred men were cramped into a room sufficient for thirty; and (4) there were no masks, sanitizers or gloves available (Green, 2020).

During the first two weeks of April 2020, Doctors without Borders (MSF) Southern Africa teams found poor infection and prevention control upon visiting several temporary shelters for the destitute and homeless in Tshwane, Johannesburg and Cape Town. According to their findings: (1) some temporary shelters placed a vast amount of their residents at risk for contracting not only COVID-19, but also tuberculosis and other infectious diseases; and (2) although many facilities were supported by medical services, these services were not sufficient for the high numbers of people residing in the shelters. The most common conditions faced by temporary shelters included: (1) overcrowding and the impossibility of physical distancing indoors; (2) insufficient access to water and sanitation; (3) lack of COVID-19 related health promotion and education; (4) low levels of screening for COVID-19 and lack of reliable referrals for confirmatory testing and safe isolation; (5) inconsistent distribution of food; and (6) the presence of heroin users suffering from withdrawal symptoms (MSF Southern Africa, 2020).

6.7.1.3 Soup Kitchens

Lockdown and the associated restrictions led to the abrupt halt of various industries including the food sector. Subsequently this also had a devastating effect on individuals relying on soup kitchens for their daily meals. Collectively more than 900 organisations, who used to provide prepared meals, distributed food parcels to 412 000 households feeding over a million people. In response to the closure of catering facilities many organisations providing prepared meals repositioned their modus operandi and started distributing food parcels. Since most normal activities resumed with lockdown Level 1, soup kitchens are allowed to operate again but with precautions and health guidelines followed at all times (Interviewee, 2020; South African Government , 2020).

6.7.1.4 A Dedicated COVID-19 Budget

Before the end of March 2020, a budget dedicated to the pandemic in terms of a food security response did not exist. According to an interviewee, additional funds for such a budget were in the process of being determined by means of realigning specific budget items. Funding to be reallocated from the Solidarity Fund is yet to be determined. It is estimated that a budget of at least R3 million is required to assist in the Gauteng Government's attempts to relieve food insecurity (Interviewee, 2020).

At the end of March 2020, the DSD entered into two-year food provision agreements with various service providers. The DSD acknowledges that its contribution towards limiting food insecurity during lockdown could not have been possible without the assistance of donations. These donors (stakeholders) included the DALRRD (coordinating resources from farmers), NGO's and private donors. The DSD was only allowed to accept physical donations (i.e. no financial donations) and donors had to be registered (Interviewee, 2020).

6.7.1.5 The COVID-19 Hotline

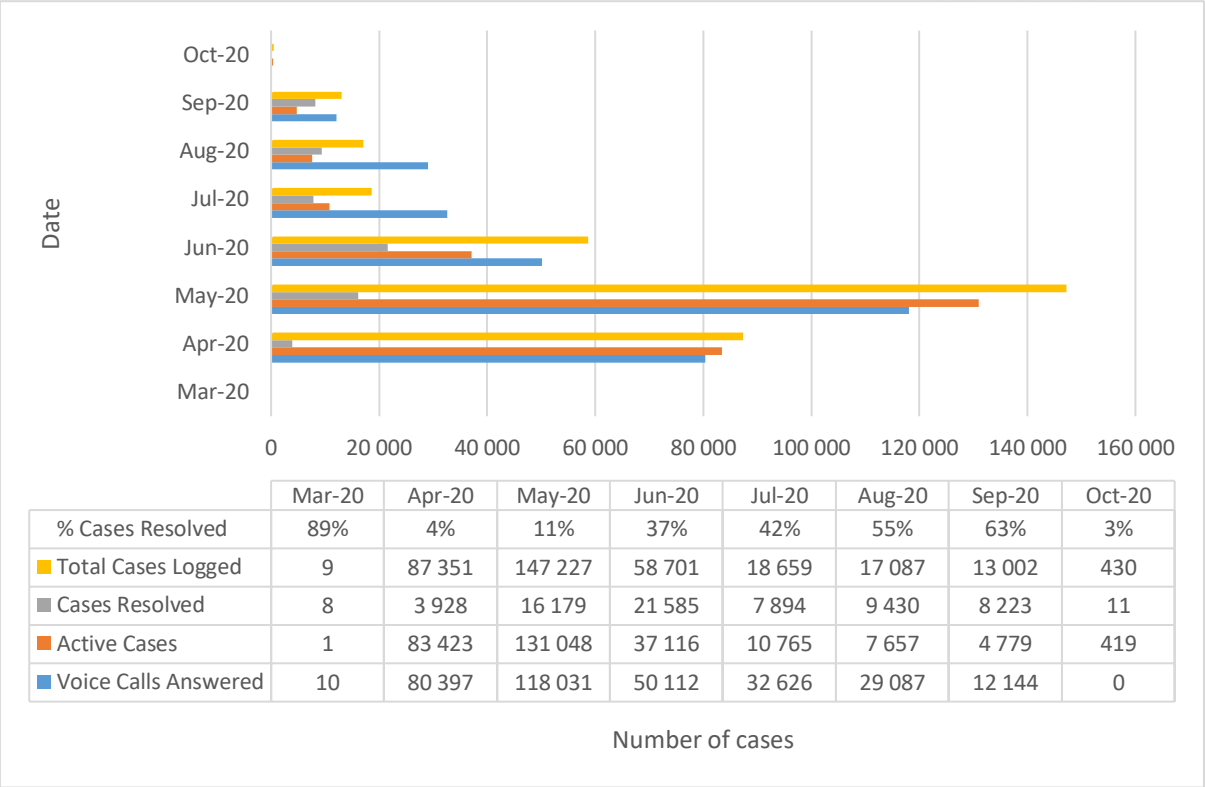
The hotline used for COVID-19 has been in existence since 2011, primarily used for service delivery such as water and electricity oversight. With the outbreak of the pandemic service delivery was put on hold to focus on food parcels. Requests for aid through the COVID-19 hotline was administered via the Member of the Executive Council (MEC) of Social Development. The high level of activity experienced by the hotline administrators was unexpected, and as a result various complaints regarding the hotline's effectiveness/ sufficiency was raised. The initial proposal for the hotline to be active for 2-3 weeks was insufficient, with 66 000 calls received per day during lockdown Level 5. As a result the hotline's availability needed to be expanded, with an increase in the service capacity necessitated, thus the hotline's capacity was increased from 20 members working from 08h00-17h00 to 250 young people working three shifts (on a 24-hour basis) (Interviewee, 2020).

The public was invited to make food parcel requests via SMS or email. Emails (41%) and telephonic logging (49%) were the main channels used to report cases. The implementation and expansion of the COVID-19 hotline significantly increased the requests for food. Interviewee (2020) is under the impression that for most affected areas the delivery of food parcels was effective, i.e. 4 000 food parcels delivered per day for each of the six districts.

The dashboard of Gauteng's COVID-19 hotline was used to measure food parcel demand and supply, capturing the number of food parcels distributed per district. The dashboard captured the amount of food parcels requested and attempted to resolve as many queries as possible. Since it has been criticized for its effectiveness, a solution might include to monitor capacity through a mobile- and web based platform for capturing data. A dashboard which tracks data in real time through GIS-mapping in informal settlements could be a great addition to Gauteng's COVID-19 protocol. Efficient data collection will also enable the tracking of service delivery times (Interviewee, 2020).

Data received from the Gauteng Department dashboard from March to October 2020 showed that, on average, only 20% of cases were resolved (i.e. March 89%; April 4%; May 11%; June 37%; July 42%; August 55%; September 63%; and October 3%). Even though the response for March seems very efficient there were only 9 cases of which 8 were resolved. During the months March to October a total of 342 466 cases were logged of which only 67 258 were resolved (approximately 20%) (

Figure 6: Hotline DSD Case Report). It should however be noted that the number of cases resolved could be higher, but since the paper-based system followed by the DSD does not link to the hotline's dashboard, this cannot be determined accurately (Interviewee, 2020).



	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20
% Cases Resolved	89%	4%	11%	37%	42%	55%	63%	3%
Total Cases Logged	9	87 351	147 227	58 701	18 659	17 087	13 002	430
Cases Resolved	8	3 928	16 179	21 585	7 894	9 430	8 223	11
Active Cases	1	83 423	131 048	37 116	10 765	7 657	4 779	419
Voice Calls Answered	10	80 397	118 031	50 112	32 626	29 087	12 144	0

Figure 6: Hotline DSD Case Report[15]

6.7.1.6 Eligibility to Receive Government Aid

Only South African residents with valid identity documents can benefit from the DSD's efforts to provide relieve in response to the COVID-19 pandemic. This has led to high levels of food insecurity as well as increased stress and the feeling of inhumanity for a vast number of undocumented persons, some of whom were deported to their country of origin (Interviewee, 2020).

6.7.1.7 Gauteng Province's Strengths and Weaknesses

From interviews with all government officials it became evident that during time of crisis, it is possible for departments at all levels of government to come together to combat the effect of the COVID-19 pandemic in a joint effort. This continued sense of togetherness will go a long way in addressing many social and economic issues within South Africa (Interviewee, 2020).

The main strength in the Gauteng DSD's COVID-19 food response lay in the already established food banks (decentralised service delivery systems) in each district, each with their own resources, including transportation and officials. The six districts are: City of Johannesburg Metropolitan municipality; City of Tshwane Metropolitan municipality;

[15] This figure portrays the number of cases as reported by the Office of the Premier of Gauteng. It may not accurately reflect data from cases resolved by the DSD.

Ekurhuleni Metropolitan municipality; Metsweding District municipality; Sedibeng District municipality; and West Rand District municipality (Gauteng, 2016).

Unfortunately, the fact that systems are not automated and information does not reflect immediately (especially that of warehouses) made record keeping extremely difficult. Many requests for aid was received and the DSD did not have enough data capturers. This created many missing links and made follow-up nearly impossible. The situation where food aid, in the form of cooked food, were banned during hard lockdown could also have been navigated better. Another situation that could have been handled better was the closure of food banks in the event of a positive COVID-19 case, i.e. teams could have been established to work alternate days. Improved integration, at grassroot level, with other departments and improved resource mobilisation could improve the DSD's pandemic related food security response (Interviewee, 2020).

Government processes were slow to answer to this abrupt need for food aid caused by the implications of the COVID-19 pandemic and the associated safety measures implemented. Ineffective social aid offices resulted in persons who applied for South African Social Security Agency (SASSA) relief to not receive the grant they applied for as well as persons who applied to the food relief programme not receiving any food aid. Another alarming insight into the GCR's COVID-19 response is that there does not seem to exist a follow-up protocol for persons in informal settlements who tested positive for the virus, nor for people who have been identified to be food insecure. Furthermore, foreigners and illegal immigrants were not allowed to register for food aid, which resulted in great suffering. As a result, the private sector, community and NGO's had to step in and therefore played a crucial role in navigating the COVID-19 pandemic. Most of these organisations/ persons interviewed indicated that they did not receive any government support for the purpose of providing food aid. Support which was received, was done through well-established relationships (for example the installation of additional water tanks to one of the informal settlements). Community leaders were tasked with the distribution of information and knowledge (Interviewee, 2020).

Identifying response measures after the pandemic is just as important as during the pandemic. One should be reminded that for many people it is dehumanising to receive food aid. A suggestion for the future might include e-vouchers, complementing the physical distribution of food through networks, spaza shops, banks, etc. But, since many people may not prioritise food if they receive e-vouchers, the effectiveness of such measures are questionable (Interviewee, 2020).

6.7.2 *A Case Study*: Private Response to Food Security During COVID-19

Many organisations launched charitable incentives, including community organisations, churches, agricultural organisations, farmers, NGO's, Non-profit organisations (NPO's), and even the private sector contributed immensely in attempts to alleviate the impacts of COVID-19 and hard lockdown. All these institutions recognised the importance of a shared community and compassion during times of crisis.

Organisations have provided relief in the form of: (1) distributing food parcels; (2) assisting private persons in distributing privately packaged food parcels; (3) working with police in distributing food parcels; (4) providing "flag-ship" for other NGO's who struggled to obtain permits to distribute food parcels; and (5) providing volunteers to assist the DSD in supervising/ managing food stores (Interviewee, 2020).

6.7.2.1 Food Parcels

Since lockdown Level 5, millions of Rands were sourced towards aid in the form of financial or food contributions, with beneficiaries mainly consisting out of persons living in informal settlements. Amongst these persons who do not qualify for government grants or incentives and are currently unemployed were included (i.e. temporary employees, commission-based earners, and minimum wage earners). Community workers who live in these informal settlements and who are thus familiar with the food insecure households identified the families to whom parcels were to be provided. One NGO, situated in Pretoria-East, commented that their food parcels reached between 6 000 and 8 000 people weekly, with more than 60 000 meals provided during lockdown levels 5 to 3 (Interviewee, 2020).

Food parcels were initially nutritionally balanced, with an estimated cost of R700 per parcel. This was however found to be too expensive in terms of meeting the total food need and hence the onus fell on providing (any) food. It has been estimated that food parcels, with a value of R250-R300, can feed a family for up to three weeks. Items in these food parcels included, amongst other, a 5 kg bag of maize meal or a 1 kg bag of soya/ sugar beans. Other items included in the parcels were vegetables (cabbages, potatoes, onions, carrots, butternut, and pumpkin), fruit (apples, oranges, and lemons), breakfast porridge and bread in order to make it a substantial food packet for a family. Donations of oil, sugar, tinned meat, soup packets and soap received were also distributed. Volunteers assisted with the making up and distribution of food parcels and beneficiaries were provided with community-based educational training on COVID-19 upon distribution (Interviewee, 2020).

Necessarily, health care protocols needed to be adapted in order to mitigate the risk of the spread of the coronavirus in informal settlements, for example: COVID-19 screening tests; the process/ criteria for identifying food insecure households; the means of delivering/ distributing food parcels; etc. One of the interviewees commented that, although one should be wary of creating any situation in which people become dependent on food for free/ no work, the hunger as a result of the pandemic was too great not to contribute by means of food parcels. As such, one of the most valuable lessons learned from this pandemic is that there exists an urgent need to increase the scale on which training for sustainable food security is implemented (Interviewee, 2020).

As the distribution of permits to numerous organisations (and even individuals) were delayed, countless people within the borders of South Africa were left hungry due to administrative ineffectiveness. Access/ procedures/ processes to obtain a permit to distribute food was too strict. Not only did the delay in issuing permits for the distribution

of food parcels leave many people hungry, but much needed food deteriorated in distribution centres, as some parcels included perishable fruits and vegetables. Several food parcels which were handed over to local municipalities, as per lockdown regulations, were left sitting on distribution floors as (1) all cooked or uncooked food parcels were to be inspected and approved by environmental health inspectors prior to distribution; and (2) clear details of what is being distributed, when, and to whom, had to be provided to the municipalities for sharing with the security cluster. Further concerns included that thousands of people have only received food aid from the Gauteng DSD once. Unfortunately, the system failed the people and therefore there exists an urgent need for government to refine its protocols. Red tape, caused by bureaucracy, has undoubtedly led to the inacceptable negligence of aiding relief to the hunger in the form of food parcels (Davis, 2020; IRR, 2020; Motswenyane, 2020; Abrahams, 2020; Maromo, 2020; Chothia, 2020).

6.7.2.2 Shelter Operations and Meals Provided

Many organisations responded to the immediate need of the homeless during the pandemic through the establishment of temporary shelters as well as the distribution of food parcels to the needy. Already established relationships with City Homeless Networks allowed for a more effective approach in establishing temporary shelters. It was suggested that under cover parking areas/ office buildings be converted into shelters. This was however not approved by the DSD. The process of establishing shelters did unfortunately take some time as many legal aspects needed to be considered. Health and Safety Officers inspected the sites and also provided positive advice. Shelters reported that they received good service from governmental emergency medical services (EMS) as well as local clinic(s). Local police also provided their services by means of (1) checking up on the safety of shelter residents and volunteers; (2) providing safety during the distribution of food parcels; and (3) dropping of homeless persons at the shelters. Local hospitals also sent people who were ready for discharge but had nowhere to go to the shelters. Shelters did not discriminate between people from different countries, i.e. any homeless person was accepted into the shelter as long as he/ she abided by the shelter rules. Since people were not allowed to move around during Level 5, shelter residents were not allowed to leave the shelters (May, 2020; Interviewee, 2020).

It is estimated that it costs approximately R89 000 per month to run a shelter for 50 homeless persons. Most of the costs can be attributed to rent, water and electricity, staff, toilets and security (the last two items being the most expensive). Shelter residents residing in non-government shelters received three meals per day, i.e. breakfast (consisting mostly out of eggs, oats, breakfast muffins and/ or instant porridge/ cereals, as well as tea and coffee), lunch (for example sandwiches, hotdogs, burgers, etc.) and dinner (stews, curries, etc.). Meals were mostly cooked/ prepared by persons within the local community. Fruits, water and juice were also readily available for the purpose of creating the idea of abundance as to avoid a situation of food snatching/ panic curbing. During their stay at temporary shelters, homeless people were provided with the time to

reflect on their lives. Although many were determined to find work and housing, for some the trauma of being back on the street when the shelters closed proved to be too great (Interviewee, 2020).

Unfortunately, governmental procedures made it very difficult to house new people as a hospital COVID-19 clearance certificate is required before admission (Brown, 2020). The COVID-19 pandemic did however create a platform for organisations to be recognised and to establish temporary shelters as many government incentives for shelters did not realize. Some of the shelters closed down during lockdown Level 4 as homeless recyclers and others returned back to work, and the running costs did not justify the empty beds (May, 2020; Interviewee, 2020).

6.7.2.3 Soup Kitchens

A COVID-19 pandemic initiative, with the purpose of raising money to support soup kitchens during lockdown, supported 135 soup kitchens (based mostly in the Western Cape, Eastern Cape and Gauteng provinces). From April 2020, 11 soup kitchens with an additional 2 since May 2020 (totalling 13 soup kitchens in the Gauteng area) received R6 000 per month. The community feeders were people who had worked with the organisations before and the vetting was therefore according to past experiences of partnering with the individual(s). To ensure money was spent correctly (i.e. the buying of food, PPE and electricity) the beneficiaries had to provide receipts and reports at month end. It is estimated that more than R456 000 was distributed (Interviewee, 2020).

6.7.3 *A Case Study*: The Agricultural Sector (Public And Private)

The importance of agriculture has never in recent history been as clearly understood as it was during 2020. The agricultural industry played a significant role in stabilising society and alleviating hunger during COVID-19. From an agricultural point of view, it is important to be risk adverse as the agricultural sector is considered an essential service. In response to the COVID-19 pandemic, the Minister of Agriculture, Land Reform and Rural Development led the economic work stream, which developed key immediate, short-term and long-term actions to respond to the likely impact of the coronavirus outbreak. A dedicated task team, consisting out of the DALRRD, Business for South Africa (B4SA), Business Unity South Africa (BUSA), the Black Business Council (BBC) and the Public Private Growth Initiative (PPGI), coordinated these efforts. Task teams also had the task of proactively assessing and implementing business incentives to deal with the impact of COVID-19 in the labour and health markets as well as the broader economy. Precautionary measures were also put in place to ensure that food supply chains within the country went uninterrupted during the crisis. Being proactive in terms of security, hygiene, border control, etc. is imperative from a food security point of view. Therefore, an important facet of hard lock down was to provide farmers with markets to sell their produce as hard lock down limited the movement of people (and therefore fresh produce), especially that of the informal sector, ultimately affecting price discovery through supply and demand (Interviewee, 2020; Grobler, 2020; Du Toit, 2020).

Since agriculture is considered an essential service, food security related interventions were regarded of high priority. During the COVID-19 pandemic, the DALRRD made provision to provide essential services, such as agricultural support and advisory assistance support to farmers. Key aspects/ elements of the DALRRD's response to the pandemic included: (1) advising farmers on precautionary measures; (2) providing support in the form of infrastructure, business development, advisory and technical services, production inputs, etc.; (3) assisting in the continuation of food production, for example maize which was only to be harvested in May-July 2020; (4) providing support in the form of equipment and mechanisation; and (5) transporting produce to silos. Service providers were appointed to assist farmers, with amongst other, the marketing of animal produce. The DALRRD's response further included reprioritizing R1.2 billion, i.e. (1) R400 million towards production support on pro-active land acquisition strategy (PLAS) farms in line with the Stimulus Package; (2) R20 million for hygiene; (3) R1 million towards communication; and (4) R775 million towards production support on all other smallholder and communal farms. Through the DALRRD's COVID-19 relief fund 997 applications were approved and beneficiaries received vouchers (R20 000-R50 000 per smallholder farmer cooperative) to purchase production inputs to the value of R38.3 million. This resulted in more than 3 000 farmers being assisted with vouchers for buying production inputs and emergency animal feed. The Department also directly supplied additional input and emergency animal feed to the farmers through the Ilima-Letsema programme (Interviewee, 2020).

The agri-food supply sector in Gauteng was not restricted throughout the various COVID-19 lockdown stages. However, it brought to light the challenges of inequality which became evident through the disruption experienced by informal trade food distribution channels that services townships, informal settlements and rural areas. Prices of agricultural commodities dropped by 20% due to low demand in the fast-food chains, hospitality and tourism sector. Low demand of agricultural commodities also led to accelerated losses given the perishable nature of these commodities (Interviewee, 2020).

In responding to the pandemic, the Gauteng Department of Agriculture and Rural Development (GDARD) took the initiative to establish its food security plan by developing a number of planned activities which would enable the GCR to address food insecurity challenges within vulnerable communities and those that have been severely affected. GDARD approached farmer commodity associations and the farming community within the province to make donations to the DSD's Food Bank, Booysen, in order to support vulnerable communities. By 1 October 2020, contributions to the value of R410 000 had been received from farmers, farmer associations and other stakeholders (Interviewee, 2020).

In response to food insecurity, GDARD is implementing a food security program targeting households, communities and schools. For the 2020/21 financial year there will be 1 830 household gardens, 20 community food gardens and 60 school food gardens established. Secondly as a post- pandemic strategy, GDARD will also employ 200 unemployed agricultural graduates during the 2020/21 financial year (a three-year

contract), who will be deployed on farms for experiential training. Through Agriparks, plans are also underway for Agro-entrepreneurs to be linked with markets so that they can also provide employment opportunities. In the longer term, GDARD is also implementing a commercialisation program targeting to support more than 53 farmers with the necessary production inputs, on- and off- farm infrastructure, agro-logistics and access to markets. All these programs will contribute to job creation and therefore the improvement of the livelihoods of many (Interviewee, 2020).

The GDARD also supported farmers through existing contracts for the supply of production inputs such as the procurement of seeds/ seedlings and production inputs for vegetable gardens. Key agricultural commodities that were identified for support with specific production inputs are grains, poultry, livestock (cattle), piggery and horticulture (Interviewee, 2020).

According to interviewees the DALRRD's response to the COVID-19 pandemic was effective. The department, together with private sector, was able to mobilize farmers and industry to assist in meeting the food need for the people. The DALRRD requested assistance from large organisations and facilitated donations received from farmers and industry and distributed food parcels to food banks of the DSD. Working together with the DSD, the department also assisted in moving homeless persons to shelters. In some instances, produce donated was directly delivered to shelters. Initiatives to work together with the other government departments, i.e. Social Development; Education; Health; and Sport, through the Social Security Workstream are also underway in order to ensure farmers have continuous access to markets (Interviewee, 2020).

Organised agriculture played a key role during the COVID-19 pandemic and the lockdown in ensuring food systems remained functional during the pandemic. Behind the scenes, various agricultural organisations worked together towards the common goal of navigating the COVID-19 pandemic. From the onset, organised agriculture was ready and geared to address the problems, challenges and questions of the agricultural sector at the highest level with the relevant role players to reach fast conclusions. The Agricultural Business Chamber (Agbiz) together with Grain South Africa, organised agriculture and other role players in the agricultural value chain and launched a food relief programme in April 2020 to benefit the most vulnerable people in rural agricultural communities. Farmers were requested to donate 1ha of dryland grain or oilseeds, or the equivalent to the value of R10 000, while businesses further down the supply chain could get involved through the processing, storage, packaging and delivery of donated produce. Participating agribusinesses included Senwes, Afgri, Vrystaat Kooperasie Beperk (VKB), Oos-Vrystaat Kooperasie (OVK), Griekwaland-Wes Korporatief (GWK) and Noord-Wes Kooperasie (NWK). The Agri Value Chain Food Umbrella, launched by Senwes, played an integral part in uniting the agricultural value chain. Maize meal, milled and packaged at no cost, were delivered to old-age homes, feeding schemes and farm schools. The donated maize was received, handled, stored and transported through subdivisions of Senwes (Grobler, 2020; Du Toit, 2020).

It is important to remember that policy is dependent on both economics and politics. Policy is formulated on information at hand, forecasts of what could happen followed by a best guess of imperative/ corrective intervention. A mis-step in policy might include the provision of aid before adequate data acquisition. A key limitation might therefore include implementing policy measures/ aid relief during an initial supply shock, as estimations of the most severely affected might be incorrect. Lockdown also caused significant confusion at various nodes in the value chains with regard to what should be classified as an essential service and what not. For example, initially informal traders were excluded as essential services and products such as wool and cotton were excluded as essential products. Excluding informal traders caused major disruptions in the access to food, especially in rural areas. In the case of cotton and wool, these products provide cash flow to farmers and are critical in the sustainability of livelihoods and food security, as without cash flow field crops cannot be planted. These disruptions in the supply chain hit the most vulnerable the hardest. Since agricultural value chains are intertwined, if not managed carefully, it will have a direct and negative impact on food security. Therefore, organised agriculture lobbied for extending the essential service classification across all agricultural sectors, and not just food production. This was eventually rectified by the changing of regulations (Interviewee, 2020; Grobler, 2020).

6.7.4 *A Case Study*: The National School Nutrition Programme (NSNP)

The South African NSNP[16] provides school meals to underprivileged learners and has been shown to improve punctuality, regular school attendance, concentration and the general wellbeing of learners (DBE, 2020). Over time the programme has reached more than 9 million learners in 19 393 quintile 1, 2 and 3 primary and secondary schools. Its main objectives are to: (1) contribute to enhanced learning through school feeding; (2) strengthen nutrition education in schools in order to promote healthy lifestyles; (3) promote sustainable food production initiatives in schools; and (4) develop partnerships to enhance the programme.

Meals provided through the NSNP came to an abrupt halt on 27 March 2020 when the South African government enforced school closures during lockdown. Without these daily meals, children benefitting from the NSNP lose the possible immune effect of food providing vital vitamins and micronutrients and further pressure was placed on vulnerable households to feed more hungry mouths. There are approximately 3 528 schools in the Gauteng province. The NSNP is estimated to support 1.5 million children in Gauteng (1.16 million in quintile 1-3 schools through the Conditional Grant and more than 365 000 through the Equitable Share Grant), and as a result of schools being closed many households needed to feed children who would otherwise have benefited from this programme (Interviewee, 2020).

[16] The South African NSNP was introduced in 1994 by government as part of the Reconstruction and Development Programme of the newly founded democratic Republic of South Africa.

Schools were granted permission to procure food and feed 186 000 Grade 7 and 12 learners for two weeks (8-19 June 2020) with a budget of R5 per learner (Section 20 schools were supported centrally). PPE's, sanitizers as well as detergents for cleaning were procured and delivered to schools together with guidelines for the management of nutrition centres and feeding areas. All volunteer food handlers were trained in June and nutrition coordinators and the youth brigade were dispatched to monitor social distancing and aspects related to hygiene. Unfortunately, this option was not effective as (1) the transportation cost of getting more than 1.3 million learners to school and back home again was too high for the department, and (2) upon the controlled re-opening of schools and the re-instituting of the NSNP, community members desperate for food threatened the safety of learners and staff through loitering and looting food (Interviewee, 2020).

A slightly better option considered was to provide 1.3 million food parcels for collection (pre-packed by service providers). The transportation cost of learners was again considered too high. It was therefore decided to make use of the DSD's distribution network to provide families of learners on the DSD's Indigent List (and not just individual learners) with a food parcel for a period. The department could transfer money equivalent to the number of learners to the DSD for the distribution of these food parcels. The budget for a food parcel was estimated to be R200, consisting out of maize meal, samp, instant porridge, cooking oil, pilchards, soya, sugar beans and salt. This approach could however only cover 300 000 learners and their families (Interviewee, 2020).

According to the NIDS-CRAM study only 25% of respondents indicated that a child received a school meal during a 7-day period in July/ August 2020, compared to 80% pre-COVID-19. Reported rates of children receiving a free school meal in a 7-day period were much higher at 50% for households with open grade learners (i.e. learners in grades which were allowed to go back to school) compared to households with closed grade learners (10%) during the same period (i.e. for grades that were re-opened incrementally).

6.7.5. Grants

South Africa provides social security grants for the aged (those too old to work), the disabled (those unable to work) and children (those too young to work). Social grants play an important role in mitigating the effects of poverty for children and their families. Multiple studies have found that receipt of a child support grant is linked to improved nutritional and health outcomes for children as well as numerous other positive effects in addition to reducing income poverty (Hall, et al., 2019).

Since there is no social assistance programme for the working-age unemployed, the UIF offers some income support to those who have contributed to it, but nearly half of the workers in South Africa would not be eligible for relief under the UIF (Bassier, 2020). Income support from contributory social insurance are unavailable to those in the informal sector, those in precarious employment and those whose employers have not registered with the UIF (as well as the millions of perennially unemployed).

The Child Support Grant (CSG) is well established. It is by far the largest grant in terms of numbers, reaching 12.8 million children – nearly two thirds of all children in South Africa. It is received every month by over 7 million beneficiaries, and contributes to the income of nearly 6 million households. Although child support grants are meant to be spent directly on the children to whom they are allocated, they effectively become part of household budgets and help to support entire households. Therefore, increasing this grant will reach the entire household.

The CSG is however the smallest of the social grants in terms of value (R445 per month for the current financial year) compared to all the other grants, i.e. the Old Age, Disability Care Dependency Grant (R1 860 per month), the War Veteran Grant (R1 880 per month) and the Foster Child Grant (R1 041 per month). This is far below the StatsSA poverty lines and even below the food poverty line (South African Government News Agency, 2020).

Pre-COVID-19 South Africa paid 18 million grants a month to about 12 million beneficiaries. Since lockdown, 4 million more grants are being paid. CSG's beneficiaries received and extra R300 in May 2020 and from June to October 2020 beneficiaries received an additional R500 each month. All other grant beneficiaries received an extra R250 per month for six months. In addition, a special Covid-19 Social Relief of Distress grant of R350 a month was paid to individuals (for six months) who were unemployed and did not receive any other form of social grant or UIF payment (Government of South Africa, 2020).

6.7.6 Fraud

During the peak of the COVID-19 pandemic vulnerable households in a society with stark inequality faced the extra burden of corruption and fraud. The South African Government implemented food aid programmes in response to the hunger cries of vulnerable communities. Budget reallocation led to R43 million being made available for food aid parcels as an on-the-ground solution to curb the hunger that many communities face.

Providing food parcels to millions of people required an intricate logistical plan with input from various stakeholders that need to align strategies in order to achieve success. This also required elaborate coordination with well monitored efforts to ensure the scales are balanced and communities receive their required proverbial piece of the pie. Many of the efforts implemented by government, private sector, civil society and ordinary citizens were well documented in the media. However, many individuals in dire need of food parcels never received any, and not due to a lack of food availability but rather due to greed and corruption by a few individuals.

Food aid parcel fraud was quickly exposed by the media and numerous stories of fraud at various levels, be it disappearing funds or disappearing parcels, were addressed. Some of the main injustices that were uncovered was the delivery of food parcels to private dwellings of government employees who allegedly then sold the food aid parcels, a recurring story in various provinces. Political agendas were also linked to the eligibility

of food aid relief. In some cases, it was reported that councillors in various wards tried to use the food parcel delivery scheme to encourage people to sign up to their political organisation. There were also reports that laptops, cell phones and allowances for data provided to assist in data collection and the disbursement of food parcels to the most vulnerable simply “disappeared”. Ward councillors were quickly removed from the supply chain of food parcels to try and minimise the occurrence of food theft.

6.8 Conclusions and Recommendations

People’s food environments (i.e. the physical, economic, political, and sociocultural context in which each consumer engages with the food system) rapidly changed in all dimensions with the outbreak of COVID-19 and subsequent lockdown, including the imbedded nutrient quality of food. It is critical that in times of crisis, such as with the pandemic, all possible efforts need to be made to ensure children do not carry the burden of the pandemic for the rest of their lives. The schooling system has been adapted and readapted to mould the academic calendar in such a manner that no one is left behind. Nutrition interventions need to follow this trajectory to ensure that the effects of malnutrition and associated stunting and wasting do not hinder children’s future growth and possibilities. The fact that agriculture is considered an essential service and that agricultural practices were allowed to continue throughout hard lockdown alleviated some of the pandemic’s shocks in terms of food security. Any interruptions in the supply chain(s) of the agricultural sector could have detrimental effects on the livelihoods of all people. The continued cooperation between government and the private sector is required to effectively and efficiently remove any bottlenecks that may arise and to maintain the continuous operation of all essential goods and service delivery within the food value chain. And although the agricultural sector did all it could to ensure adequate food supplies at national level during the pandemic and lockdown, the threat remains that access to food may become extremely difficult for some due to the wider economic impact of the pandemic on household income and employment. Recommendations and the associated limitations based on this study is summarized in Table 8. It is of the highest importance that National Government investigate the best model/ standard approach to combat food insecurity in times of crisis.

Table 8: Recommendations for the Short, Medium and Long-Term

Short-term Recommendations
Continuation of providing food to assist vulnerable households through the pandemic and its associated financial pressure as proactive measure to ensure better health outcomes which will reach beyond the pandemic. This might however create a sense of entitlement from beneficiaries - the more you give, the more is wanted.
Redesign the GCR's food parcel content to improve nutrient quality to support a healthy diet and immune functionality.
Include e-vouchers to complement the physical distribution of food through networks, spaza shops, banks, etc. Recipients might however not prioritise the purchasing of food – the risk can be minimised by implementing a minimum percentage food expenditure on selected food items associated with each e-voucher.
Redesign the protocol regarding a permit for distributing food parcels as well as the functioning of soup kitchens so that ineffective/ stringent regulations do not hinder the distribution of food aid.
Establish teams, working alternate days at food banks as to ensure the continuation of providing food aid even in the event of a worker testing positive for the virus.
Create a platform where government, private sector and civil society can actively engage to alleviate food insecurity.
Medium-term Recommendations
Maintain the provision of nutritious and safe school meals for the vulnerable.
Long-term Recommendations
Develop a fast-acting, sustainable food system in which people can seek to become self-sufficient for food by means of providing training for sustainable food security.
Establish a dashboard which tracks data in real time through GIS-mapping in informal settlements which will allow for follow-up protocols for persons testing positive for the virus and those who have been identified as food insecure.
Expand social protection of nutritious diets and essential services for all.
Data acquisition processes/ procedures/ methods should be developed as to ensure that aid is allocated to areas/ beneficiaries where it is most needed – if aid is provided during a crisis, incorrect estimates might overlook the most affected.
Continuation of including all agricultural sectors in the essential services classification.

Reflection by first author

I have been tasked with a job that I am not equal to. As a natural scientist, I work with carefully collected data. During this journey I have learned a lot. I was inspired by the interviews with highly ranked officials and impressed by the energy and dedication to the task at hand. At the same time, we have to acknowledge that as the constitution calls on "Right to food" and specifically for children "Right to nutritious food" I can categorically state that the government of South Africa was unable to assure this during COVID-19, as they had already failed 25% of the population prior to lockdown. May I encourage everyone in government, civil society and private sector to upscale their efforts to assist alleviating hunger in South Africa and upscale their efforts so that everyone will have daily access to nutritious food and clean water.

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CHAPTER 7

THE GAUTENG DEPARTMENT OF EDUCATION RESPONSE TO THE COVID-19 PANDEMIC

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ABSTRACT

The Department of Basic Education's Annual Performance Plan for 2020-2021 provides some context of the challenges that schools nationally, and in particular, the Gauteng Province were facing in responding to the pandemic. At the time of the announcement of a national lockdown starting on 23 March 2020, schools had already closed on 18 March 2020 and would remain closed until 14 April 2020. In terms of the education sector, the themes that dominated the Covid-19 strategy in the Basic Education Sector, included (i) the academic calendar, (ii) the curriculum, (iii) supporting teachers and learners at home, (iv) health and safety protocols at schools, (v) adequate school infrastructure and sanitation (including procurement of PPE's), (vi) school nutrition schemes. To consider the education response to Covid-19 in Gauteng, this chapter will draw on a systemic and contextual analysis of the post-secondary and education training sector, in the Gauteng province across three systems, i.e. micro, meso and macro-systemic levels of education. Some of the most predominant contextual factors that impacted on the Gauteng educational response in basic education included factors related to informal settlements, poverty, and lack of access to basic resources that shaped the Covid-19 response in the Gauteng Province.

7.1 Introduction

In this chapter I discuss the postsecondary education and training sector (PSET) response to the COVID-19 pandemic from March to September 2020. This period covers the announcement of a national lockdown of 21 days by the President of South Africa, Pres. Cyril Ramaphosa, to the extension of the Disaster Management Act up to the announcement of Level 3 of the national lockdown. I focus specifically on the response in the basic education and higher education sector as guided by the directives of the Minister of Basic Education, Mrs Angie Motshekga, and the Minister of Higher Education, Dr Blade Nzimande.

The Department of Basic Education's Annual Performance Plan for 2020-2021 provides some context of the challenges that schools nationally, and in particular, the Gauteng Province were facing in responding to the pandemic (Department of Basic Education, 2020). For example, the report states at the time that some 3898 schools in the country

still had inadequate sanitation facilities, and indicated that the DBE's priorities in the next 5 years would be the improvement of sanitation facilities, improving reading and learning outcomes in the Foundation Phase, equipping teachers for a changing world with the introduction of new curricula and subjects, attending to school safety, and improving the early childhood education sector. The report particularly singled out the importance of (i) school nutrition plans to support health for effective learning, and (ii) weaknesses in information and communication technology capacity to support learning as matters of priority.

At the time of the announcement of a national lockdown starting on 23 March 2020, schools had already closed on 18 March 2020 and would remain closed until 14 April 2020, and universities had already sent students who resided in University residences home. During the 21 day lockdown, the intention was very much not only to limit the spread of the virus, but to create much needed time for the healthcare and other sectors to prepare for the inevitable increase in infections associated with the coming winter months. By 9 April 2020 the country was informed that the 21 day lockdown would be extended and that the country would enter Level 4 lockdown on 1 May 2020. Then, on 28 May 2020 Level 3 lockdown was announced to start on 1 June 2020, bringing with it some revival of the economy and increased movement of persons. It is during this period of a hard lockdown until the announcement of Level 3, that all sectors worked to prepare for the possible return of people to their workplaces, and of course, teachers and learners to schools, and students to colleges and universities. This period of preparation is what the focus of the present chapter will deal with.

In terms of the education sector, the themes that dominated the Covid-19 strategy in the Basic Education Sector, included (i) the academic calendar, (ii) the curriculum, (iii) supporting teachers and learners at home, (iv) health and safety protocols at schools, (v) adequate school infrastructure and sanitation (including procurement of PPE's), (vi) school nutrition schemes. For their part, universities were occupied with similar challenges such as (i) realignment of the academic calendar, (ii) formulation of health and safety protocols on campuses, (iii) and devising various strategies to support access and success of teaching and learning, and developing a risk-adjusted approach to the return of students to campuses.

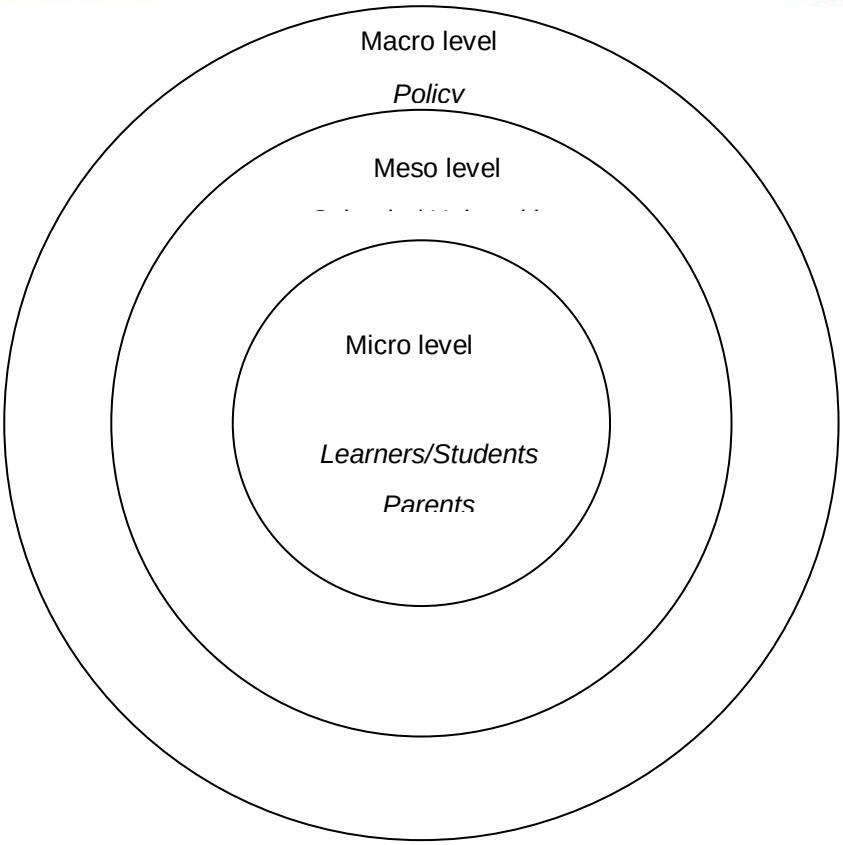
While the challenges introduced by the pandemic and the resultant national lockdown forced the entire country to respond to the health crisis in meaningful ways, and indeed sorely tested the capacity of the country to respond effectively and efficiently, the response was to a large degree constrained by the size, demographics, social and economic contexts of provinces. This chapter focuses specifically on the Gauteng Response to the Covid-19 pandemic and the particular challenges that were experienced and reported by public and private schools in the Gauteng Province. With respect to the Gauteng Province, it should be noted that its Covid-19 response was facilitated by several factors such as its historically high level of compliance in terms of having at least 90% of public schools in the province conforming to the minimum standards for physical infrastructure. With respect to basic health and sanitation, it is reported that 95.9% of

schools in Gauteng has access to running water, 97.8% have adequate toilets, and 88.7% have access to the Internet (DBE, 2019). Improving quality of education has long been a focus of the Gauteng Provincial Education Department, which consists of 15 Education Districts, over 2200 schools, 82 000 educators, and more than 2.3 million learners across the province as at January 2019 (GDE, 2019, Progress Report). In 2019, the Gauteng Department of Education further reported that water was only delivered to 4 schools, while 2019 had municipal water connections, and the rest(n = 54) had boreholes. However, 747 schools in the province had a shortage of adequate toilet facilities but predicted that these challenges would be resolved by 2020.

In terms of the Higher Education Sector, public universities service more than 1 million students at public institutions (as at 2017), indicating a participation rate of about 20%. In terms of the Technical and Vocational Education and Training Sector (TVET), there are 50 colleges across the country with about 150 campuses many of whom are historically underfunded and experience severe infrastructure shortages. During the pandemic, it was recognised from the start that a one-size-fits-all approach would not be possible, and therefore Universities' were asked to devise their risk-adjusted strategies in accordance with their capacity to respond, and the unique needs of their community of students. As a result, the PSET Sector response was coordinated largely on an institutional, rather than provincial level. Much later in 2020, it became evidence that differences did emerge in Universities' responses in terms of the capacity that institutions had to respond to the need for online teaching and learning, and the completion of the academic year, but to a large degree, most Universities were able to continue with teaching and learning.

7.2 Conceptual framework

To consider the education response to Covid-19 in Gauteng, this chapter will draw on a systemic and contextual analysis of the post-secondary and education training sector, in the Gauteng province across three systems, i.e. micro, meso and macro-systemic levels of education. The micro system concerns how Covid-19 impacted on learners and their parents, and students and lecturers and the response. The meso-system concerns the institutional response of schools and universities in responding to the pandemic, while the macro system will focus on the policy response of the Gauteng Province as far as it reflects the response to the national South African education system. In addition to the systemic approach, it will become clear that the broader social and economic context of the Gauteng Province in as far as it relates to poverty, inequality, unemployment in many cases constrained the capacity of the provincial government on macro-level, and institutions on meso-level, to respond meaningfully to the Covid-19 pandemic.



7.3 Research design and Method

This is a qualitative case study making use of interviews with key informants, and an analysis of archival records in the public domain, in the form of newspaper articles and media briefings. This will be a descriptive, multimodal, critical incident case study (Bott and Tourish, 2016), the aim of which is to describe the Gauteng response to the Covid-19 pandemic in the education sector by analysing critical incidents in the education sector in relation to the Covid-19 pandemic, and describing them without a view to generalize to the education sector in other provinces, or in the country, for that matter.

The main method of data collection involved (i) critical key stakeholders in the Gauteng Department of Education, (ii) newspaper clippings in the press, (iii) media briefings by the Minister of Basic and Higher education, and by the Gauteng Premier, as well as (iv) University media releases as published on the institutions web sites. These were all analysed by means of a content and theme analysis to identify the major themes related to education that informed the education response in Gauteng, in relation to the systemic and contextual conceptual framework presented in the previous section.

It is important to note that most of the responses that will be described in this chapter require a long term view to assess their effectiveness. The gold standard in education to evaluate the effectiveness of interventions in relation to education, involve analyses of

access to education, success rates in any given year, as well as an analysis of throughput rates to the next year. This is the case for basic education as well as higher education. Given that this chapter focuses on the four month period from the announcement of the national lockdown to level 3 lockdown, it will not be possible to evaluate the effectiveness of many of the measures that had been implemented as these might only become apparent towards the end of 2020 and beginning of 2021 when examination results are released.

7.4 Research, findings, analysis and discussion

7.4.1 Basic Education: Contextual Factors

Some of the most predominant contextual factors that impacted on the Gauteng educational response in basic education included factors related to informal settlements, poverty, and lack of access to basic resources. Despite the Gauteng Province being largely compliant in terms of infrastructure, some of the main issues that had to be dealt with included a lack of water in schools to provide adequate hygiene and sanitation, lack of infrastructure, water pressure problems leading to the unavailability of water in some schools. In urban areas, several incidents of theft, break-ins and arson at about 350 schools in Gauteng during the first period of hard lockdown was reported in the media. Not only was lack of access to water a problem in some schools, but some schools also reported problems with water pressure which led to schools being closed due to lack of water provision to maintain hygiene and sanitation standards.

Around 2000 households in Gauteng are classified as vulnerable families who are food insecure, and these families were particularly vulnerable during the lockdown since many children receive their only meal of the day at school. In addition to these factors, broader societal ills such as family violence, gender-based violence, child abuse add further pressure when more parents and children were at home than ever before. With large variation in social and economic conditions across the Gauteng Province, the emergency measures introduced varying levels of distress. For example according to Statistics South Africa, in 2011, Atteridgeville in the Tshwane Metropolitan area had a population density of 6550 persons per km^2 with 92.7% of dwellings being formal dwellings, to Katlehong with a density of 7357 persons/km^2 but only 74.6% of dwellings being formal, to Diepsloot with a density of 11 532 persons/km^2 and only 34.5% formal dwellings. These figures can be contrasted with suburbs such as Sandton with a density of 1550 persons/km^2 and 96.6% formal dwellings to Centurion, Tshwane with a population density of 599 persons/km^2 and 93% of its dwellings being formal. Considering such inequalities and the implicit inequalities of income and social conditions associated with these numbers that could only have maintained or even increased in the last decade, it is clear that the lockdown would have introduced varying levels of difficulty and stress for the Gauteng province population.

For the Gauteng Department of Education these factors constrained the effectiveness with which its Covid-19 strategy could be implemented at any given time, since the inequalities that exist between and among various districts, indeed even among schools in the same district had to be taken into account in a differentiated approach.

7.4.1.1 Macro-system: Basic Education Policy

The context: Once the decision had been taken to close schools, there was very little time to prepare a coherent strategy. The Gauteng Department of Education pointed out that provincial departments of education were informed about school closures two days before the fact, and with minimal direction, which implied that there was very little time for providing guidance to districts and school principals in the provinces. Some of the first actions that were taken were to declare senior management (Directors and above) as essential workers and to start preparing a response plan. With the Gauteng Department of Education being one of the first provincial departments to produce a plan, the GDE also had to contend with approximately 350 schools that were vandalised during the hard lockdown period, while procuring the necessary personal protective equipment (PPE) and devising a cascade training model to ensure that all schools were trained on the protocols outlined in the DBE Standard Operating Procedures, with the principle that the plan could be implemented successfully taking into account the lowest common denominator. The basic principle was to assume that everyone needed to be informed and not to make assumptions about people's knowledge of any facets of the pandemic.

Standard Operating Procedures: The Provincial response to the Covid-19 pandemic was informed by the Department of Basic Education Standard Operating Procedure for the containment and management of Covid-19 for schools and communities, and weekly meetings to ensure consistency in policy interpretation and implementation. The SOP provided direction to provincial departments of education on inter alia health and safety protocols, the use of PPE's and supporting learners' needs, the disinfection of schools, managing Covid-19 at the school, food preparation protocols (including schools in the national school nutrition program), learner transport, as well as how to deal with learners not returning to school. Thus, using these guidelines, the GDE developed their protocols for schools and adjusted them according to the level of lockdown and the conditions of the particular school. The delivery of PPE's to schools demanded careful balancing, as the GDE discovered that early delivery would attract break-ins and theft. In all cases, the 15 districts were charged with the responsibility to monitor compliance with Covid-19 protocols in terms of the Occupational Health and Safety Act. In particular, the SOP clearly outlines the responsibilities of Integrated School Health Teams (ISHT) at schools, the Provincial Education Department, and district officials.

Putting plans in place: At the time when the Gauteng Province was the epicentre of the pandemic, the Gauteng MEC for Education, Mr Panyaza Lesufi reported in a press briefing on 25 March 2020 on the GDE plan to ensure schools were opened to teachers and learners safely. Specifically plans centred around the cancellation of the school holidays and plans to catch-up including Saturday classes, walk-in support, learning from

home, school camps envisaged for the September break and lessons to be broadcast on SABC between April 1 and 16 April and that would cover subjects such as life sciences, physical sciences, mathematics, mathematics literacy, economics, business studies, tourism, English, English additional first language, accounting, history and geography." With regard to school nutrition, Mr Lesufi mentioned plans for 235 food distribution centres that would assist communities living in informal settlements, including dignity packs for female learners. These plans essentially meant that the national school nutrition programme would be suspended and schools would no longer feed learners for fear of aiding the spread of the virus if children continue to come to school for food. This decision was later challenged successfully by the NGO Equal Education in the Gauteng High Court who on 17 July 2020 ordered the Department of Basic Education and Provincial Education Minister to recommence the national school nutrition programme and ensure that all children receive at least one meal a day regardless of whether they were attending school or not.

7.4.1.2 Meso-systems: Schools

The context: Even though the GDE generally has close to 96% compliance with minimum standards that schools should comply with, there were some challenges related to the continuous provision of water to schools especially during load shedding when water pressure dropped significantly. In such cases, Mr Mosuwe, Head of Department at the GDE, indicated that affected schools were closed immediately if water was not available to ensure adherence to the appropriate Covid-19 sanitation practices. The GDE further worked closely with the Department of Health to identify cases of infection and engaged through its provincial steering committee with its social partners and stakeholders, including teacher unions and school governing body associations to assist in managing perceptions and communication of accurate information about infection and health management. On a provincial level, the local response that was required was to access schools to understand the seating arrangements and how to organise space not only in classrooms, but outside classrooms as well. This required careful coordination of planning, infrastructure and psycho-social teams. Continuous and consistent messaging, and delegating processes to district officials who, together with subject advisors, were provided with devices ensured that the value chain was maintained.

Readiness of schools: The readiness of schools centred around physical infrastructure, capacity to enforce health and safety protocols and provision of water and sanitation. Assessments one week before schools opened on 8 June 2020 indicated that all but 4 schools in the Gauteng Province had adequate toilet facilities and water supply, and about 70 schools did not have the physical infrastructure, partly due to the vandalism that took place at some schools during the lockdown period especially in the Sedibeng, Hammanskraal and Bronkhorstspruit. It was reported that 15 Schools in the Tshwane districts of Soshanguve and Nellmapius were either vandalised, set alight or suffered incidents of theft, and that required the GDE to provide mobile classrooms.

There were 67 schools with no water and sanitation facilities, and these schools were authorised to appoint additional contractors to get them ready. As was also reported in the *Weekend Citizen (June 6, 2020)* the 67 Gauteng Schools that were not in a suitable state to open included about 27 Schools in the Sedibeng Area that experienced water pressure and sewerage problems, while seven Schools in Gauteng West had insufficient water pressure, and eight schools south of Johannesburg South, one school in Ekhurhuleni, one school in Hammanskraal experienced water issues. The solution at the time was to place pupils from these schools in alternative schools.

Some schools opened with contractors on site, but within 3 - 4 weeks all schools in the Gauteng Province were operational. For some schools, additional chemical / dry toilets were provided and about 103 mobile classrooms were delivered. Finally, only about two schools were not able to open on time due to parents demanding more services at the schools than were necessary. In addition, further preparations for the safe opening of schools included the training of about1800 Covid-19 Youth brigade members to assist with temperature screening once schools re-opened.

7.4.1.3 Micro-systems: Teachers, parents and learners

Training teachers: The GDE devised a cascade model to train teachers in its Covid-19 Standard Operating Procedures by training all district officials in well-controlled contact sessions as a first step. Thereafter, district officials cascaded training down to School Principals, Heads of Departments and Deputy Principals. While there was some resistance from unionised members, especially during the first 21 day hard lockdown period, training was conducted in contact sessions observing all health and safety protocols, with some sessions being conducted online, and all sessions followed up with manuals for further reference. All teachers received the trimmed curriculum with appropriate teaching and learning materials, and were trusted to use their professional judgement when assessing learners.

Once the country had moved to Level 3 of the Lockdown on 1 June 2020, and schools were scheduled to open on 8 June 2020, the issue of teachers having to return to school was addressed by a collective agreement published by the Education Labour Relations Council (ELRC) on 30 May 2020 that provided for teachers in high-risk groups, such as those over 60 years, with comorbidities and other underlying conditions to remain at home with full pay. It had been reported that approximately 10% of teachers fell into this category, and considerable criticism was levelled at the Department of Basic Education by unions for not providing clarity on how such teachers would be accommodated.

Learner support: The GDE learning support strategy followed a three-pronged approach consisting of

1) provision of learning support materials in the form of 14 day learning activity plans, arranging for parents to collect learning materials from the school to complete at home and which they could bring to school again to be assessed, and training teachers in how to support parents and learners while at home.

2) Continuing with learning online and at home, particularly in schools where such capacity existed, and
3) the use of television broadcasts - driven by the DBE - and supplemented by local and community radio station broadcasts.

An important assumption behind this approach from the GDE was to continue its vision of access to quality education, while acknowledging that some learners would, even after schools opened, continue to remain at home and learn from home. The GDE approach to learner support during the lockdown was managed with the aspiration that the maximum amount of learning would take place for Grade 1 - 11, but that the entire curriculum had to be covered for Grade 12 learners.

For the Foundation Phase, one of the principles of the GDE was to flood schools with teaching and learning materials, and learning activity packs, and to accept the risk that schools would have different capacity to manage the distribution and use of these materials. Well-resourced schools were able to continue teaching and learning online, but less well-resourced schools relied on the availability of teaching and learning materials to continue learning. It is very likely that these factors will have a significant influence on the academic success of schools as well as their ability to have covered the curriculum for the year. The availability of IT infrastructure and the capacity for schools to incorporate online learning in the education of learners will be one of the factors most likely to constrain the success with which the 2020 academic year could be concluded.

Lockdown learning: During widespread school closures when children were learning at home, and especially once schools gradually began accepting learners again under lockdown level 3, the Gauteng Department of Education anticipated that the parents of many learners would choose to keep their children at home rather than to send them back to school. The lockdown learning strategy accounted for learners by making provision for keeping them on the school register during their extended absence from school and ensuring they received learning materials during their absence. According to the Head of Department, Mr Edward Mosuwe, just under 5000 learners eventually took advantage of lockdown learning by remaining on the school register, but staying at home. The pandemic also saw more than a 1000 applications from parents to homeschool their children as parents, while homeschool groups on social media in some cases saw unprecedented growth in membership as parents considered deregistering their children to take advantage of homeschooling, which was probably viewed as a more stable option given the unpredictability of the school calendar during the pandemic.

Work-school-life stress: Some of the main challenges introduced by the Covid-19 pandemic and the resultant closure of schools, particularly during the hard lockdown period, was the fact that parents and their children were confined to their homes for the duration of the lockdown up to and including Level 3 lockdown. In a very short space of time, most people were at home with some losing employment, children had to come to terms with learning at home while their parents, many of whom do not have formal education themselves, had to support their children's learning, in addition to working from

home. With poverty and poor economic conditions adding to the stress of many households, there has been documented concern about the wellbeing of children while at home during the pandemic (Unicef, 2020).

7.4.2 Higher Education Institutions: Contextual Factors

In terms of the post-secondary education and training (PSET) sector, many of the difficulties that faced universities and schools were similar. Both schools and universities (i) had to (i) respond to remote forms of learning within a matter of weeks, (ii) take measures to maintain access to teaching and learning, (iii) manage health and safety of physical infrastructure and plan for safe reopening once the academic calendar resumed, and (iv) needed to take special measures for indigent learners and students who required special interventions. However, as would be expected, what those measures were differed vastly due to the different contexts of the basic and higher education sector. Even then, in the higher education sector, the response different vastly across the sector since not all universities are equally well resourced, and the technical vocational and education sector (TVET) were particularly vulnerable due to generally being under-resourced with respect to infrastructure, facilities and great variability in preparedness of the sector to accommodate remote learning.

The response of the higher education sector also differed from that in basic education because the higher education sector do not have provincial departments as is the case in the DBE. Thus, the DHET established a Covid-19 Team consisting of Universities South Africa (USAF), the South African College Principals Organisation (SACPO), the Department of Health and Higher Health, and working together with stakeholders such as the South African Union for Students (SAUS) and various unions to coordinate the response in the higher education sector. What made the higher education response complex was that many higher education institutions are not also places of learning, but most institutions had residences where students live, and therefore the complexity of managing the closing of the sector, as well as the safe eventual re-opening of the sector demanded coordination across many departments and entities. It also meant that institutions each had their unique context to manage, and therefore it was decided early on that broad principles would be adopted, but each university would be entrusted with managing their response in accordance with their existing capacities.

Some of the main problems that had to be addressed in the higher education sector included (i) access to remote teaching and learning, (ii) management of students at university residences and accommodation (including protocols for international students), (iii) maintaining continuity of teaching and learning, (iv) quality assurance of learning programmes, particularly in professionally accredited programmes, and once Level 3 was announced, (v) implementation of a risk-adjusted strategy to ensure the safe return of students and staff to university campuses.

7.4.2.1 Meso-context: Universities and Residences

The context: Once the lockdown had been announced, and schools had closed, Universities had very little time to prepare students to leave its campuses and for teaching and learning to be conducted remotely before Universities closed for early recess on 18 March 2020. The main tasks in preparation for what was then a 21-day lockdown period, meant that Universities had to formulate plans to ensure that students were evacuated from residences in a very short period of time. As it became apparent later when the 21 day lockdown was extended, many students had anticipated that the lockdown would only last 21 days, and therefore left most of their textbooks and learning materials in the residence. Once the lockdown was extended and it became apparent that students would have to continue sheltering in place and continue remote learning, the implications thereof meant that universities also had to make emergency plans for students to have access to teaching and learning materials.

Saving the academic year: Universities had to adjust their academic calendar several times to accommodate a sufficient number of days to conclude the academic year. At the time that the lockdown had started, students were half-way through the first semester, and so saving the academic year was principally focused on switching to remote forms of learning to ensure that students could complete their first semester. To accomplish this, Universities had to leverage existing capacity for online teaching and learning through their learning management systems, as well as negotiate with telecommunications companies for zero-rated access to websites required for learning, and make adjustments to assessment strategies to accommodate online learning.

Constraining factors: The success with which universities and colleges managed the adjustment to remote learning were strongly constrained by a number of factors such as (i) access to learning management systems, (ii) the extent to which learning management systems had already been entrenched in the teaching and learning culture of the institution, (iii) the adoption of online teaching amongst staff and their confidence in teaching online, and (iv) the extent to which students not only had access to the learning management, but also data, devices and network services when not on the campuses of the institutions.

All universities attempted with varying degrees of success to (i) provide students with laptops where students did not have a device with which to access the University learning management system, and (ii) data to ensure students would be able to access the learning management system for online tests and examinations. In addition, Universities identified students who, in rural areas did not have access to a network, and couriered learning materials to them, as well as signed them up to tele-tutoring services whereby a tutor would regularly call the student to ensure that they remained engaged in their modules and was able to complete the academic year.

Risk-adjusted strategies: Once level 3 was announced, and the Minister of Higher Education and Training, Dr Blade Nzimande announced that Universities would follow a risk adjusted strategy allowing them to bring back 33% of the student body under lockdown level 3, the main task for Universities were to decide who the students would be that would be brought back safely, as well as prepare its campuses, buildings and facilities to be sanitised, as well as establish health and safety protocols for accepting students on campuses. Generally, students who were in rural areas and struggling with access to remote teaching and learning, those who were regarded as vulnerable due to having unfavourable conditions at home, and who were dependent on living in a residence to learn effectively were considered first to return to University campuses. As part of returning some students to campuses, Universities also had to consider whether, and under what circumstances they would consider returning to contact teaching or whether all teaching and learning would remain online.

7.4.2.2 Micro-context: Students, Staff, Lecturers

Due to the unique circumstances of each higher education institution, whether the institution was a comprehensive university, a college or a private institution, and dependent on the student community that the university served, their number of NSFAS students on bursaries, it is safe to say that each institution experienced the lock down and its associated challenges very differently.

Even institutions with a tradition of adopting blended learning experience varying degrees of adoption of technology in learning among its staff and students. Students in their first year were two months into their first experience of university before the pandemic disrupted everything students thought they knew about university. It is safe to say that for both staff and students, the disruption demanded great resilience, mental strength and determination to continue learning and to complete the academic year.

The pandemic impacted staff not only in terms of shifting to remote teaching in a matter of weeks despite not necessarily having been trained to do so, but staff have also suffered in other areas, such as their ability to conduct research and meet research output targets of their institution. Across the sector, the mental health and well being of staff and students alike were frequently mentioned as important aspects that deserved more attention.

As is the case for all learners in schools and universities alike, learning from home in South Africa does not look the same for all citizens. Stark inequality in the country, and unequal distribution of opportunities and resources, meant that for some lecturers, teachers, students and learners working and learning from home did not come automatically with a quiet home office, a laptop and super fast wifi access to conduct all the Zoom and Google meetings. For many, if not most, learning and working from home meant cramped conditions where a table or a laptop had to be shared with other members of the household who also had to do their tasks, accessing the learning management system late at night when other household tasks and chores had been

completed, or not having access at all. In such cases, the associated stress of worrying about the completion of the academic year impacted severely on students' ability to complete their studies.

7.5 Conclusion

The Covid-19 pandemic has disrupted education in an unprecedented and fundamental way, and all indications are that the pandemic will continue to impact education in the next 2 - 3 years. It has brought with it exciting opportunities for renewal and modernisation as schools and universities continue to embrace online learning in varying degrees as an essential part of teaching and learning in the future. The pandemic has, in many ways, provided opportunities for the education sector to understand its strengths and weaknesses, and to show its resilience in dealing with the association challenges.

The pandemic has also brought into sharp relief the inherent weakness not only in schools and universities, but also in society. In a country where basic education is considered a right, and where education is regarded as one of the main avenues of relieving poverty and stimulating the economy, the pandemic offers many opportunities for education leaders to be decisive about its future, and to set priorities that will allow everyone to access education and to have a reasonable chance at academic success. It is often said that the future demands that education should embrace technology and blended learning and prepare learners and students alike to participate in a society that requires technological savvy. This can only be achieved if the country, and each province, prioritises the development of the necessary infrastructure in schools and universities and work to ensure more equality in access to such technology. The pandemic has shown that the education sector is very resilient when the infrastructure to support teaching and learning exists, and when a provincial government and its social partners work together to accomplish common goals.

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CHAPTER 8

Community Mobilisation, Communication and Change Management

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ABSTRACT

This chapter details and analyses the Gauteng Cities Region's response to the COVID-19 crisis in relation to matters of communication across sectors of government and with the public. It also covers community responses to such communication in terms of compliance with regulations set during the crisis. The provincial government has adapted well to new modes of meeting and planning via e-communication, as well as to use of digital platforms in communicating comprehensibly with the public. Understanding of the crisis and consequent compliance are, however, sociologically skewed in terms of peoples' access to financial and societal resources, including the affordances of modern communication. The chapter also draws attention to the complexities of terminology and translation in a multilingual region in relation to key new global terms coined during the crisis.

8.1 Introduction & Overall Aims of the Chapter

This chapter focuses on the themes of communication and compliance during the current COVID-19 crisis, starting with the initial lockdown at phase 5 in March – April 2020 up to lockdown level 1 at the time of writing, with especial reference to the earlier period. . It addresses these themes from both a government and a citizenry perspective. It aims to explore, describe & evaluate the Gauteng City Region's (GCR) methods & means of communication, specifically to convey and promote information about COVID-19, and to convey the need for compliance with lockdown regulations. It does this by eliciting the perspectives and experiences of key policy actors & stakeholders. The chapter identifies strengths and weaknesses in the emergency preparedness for a pandemic and includes some implicit lessons for the future.

8.2 Theoretical Frameworks and Literature Review

Ultimately the authors of this chapter draw on their experience in fields of language study, viz. linguistics, sociolinguistics & applied linguistics - more specifically those of communication in a multilingual society. These fields stress communication as a multi-dimensional process involving a sender and receiver within a social (socio-political) context, sharing and interacting over referential content (a "message"), via some variety

of a language or languages within a physical channel (e.g. a cell phone, radio or now "zoom"). This model is most closely associated with the linguist Roman Jakobson (1960), and has shown itself to be adaptable to changes in modern modes of communication. Sociolinguistics is a discipline in which techniques of data elicitation feature strongly, with particular emphasis on eliciting natural speech within relatively egalitarian interviews. The discipline is also attuned to notions like footing and stance-taking that are evident in conversation. The analysis of meaning draws on the fields of semantics and translation for individual words and phrasing, and discourse analysis for larger stretches of text. Other parts of this chapter, especially the analysis of community responses and compliance rests on a more practical understanding of human relations.

8.3 Research Design & Methods

This is a qualitative study based on interviews and a survey of relevant government and international reports. The first set of interviews drew on senior officials of the Gauteng Premier's Office. Interviews with officials who were specifically involved with communication with the public or in matters related to ensuring compliance were conducted by the chapter authors. Where the emphasis was more on health and medical matters the authors participated as part of a team of interviewers which were led by other members of the overall research team. The second set of interviews was with non-government organisations involved in monitoring and supporting the response to the crisis. Ethics clearance for all interviews was provided by the Universities of Cape Town & Witwatersrand. In addition, approval granted for the project overall was obtained via the Human Sciences Research Council. All interviews were conducted and recorded using *MS Teams*, facilitated by the Gauteng Premier's Office. A list of interviews on which this chapter draws is given in the appendix, by department or organisation, rather than individual interviewee.

8.4 Research, Findings, Analysis & Discussion

8.4.1 An overview of Structures Set Up and Procedure

In alignment with the National Coronovirus Command Council (NCCC), the Gauteng Provincial Executive Council established the Provincial Coronavirus Command Council (earlier and briefly called "the War Room"). Also in alignment with the NCCC an administrative "nerve centre" called the Core Project Management Office was set up in the office of the provincial Director-General. The Gauteng Response structure is depicted as follows:

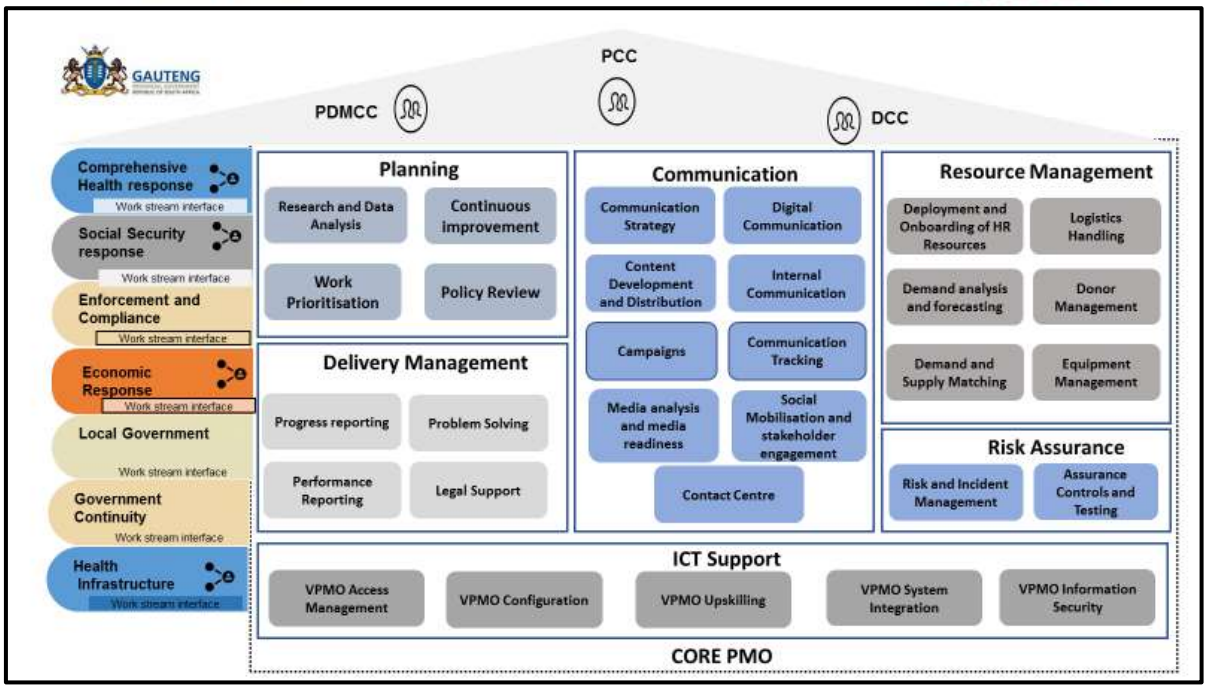

Figure 7: Gauteng Response Structure

(Source: Gauteng Provincial Government, 2020)

Figure 1 shows that communication was envisaged as an important component of planning and execution of a response. As noted in an earlier chapter and in the Country Report, the Provincial command council parallels the national structure in terms of composition and responsibilities. Its secretariat is the Provincial Disaster Management Command Centre (PDMCC), which includes the provincial joint operations committee. The PDMCC is, in COVID-19 response terms, an extended Provincial Joint Operational and Intelligence Structure (PROVJOINT). It is co-chaired by the secretary of the Provincial Executive Council and chairperson of the PROVJOINT. The Gauteng PDMCC meets together with the various District (Disaster Management) Command Centres (DCC) to co-ordinate and realise the service delivery co-ordination model for its cities, districts and local municipalities. As the country report stresses, the PDMCC in Gauteng is charged with the central responsibility of leading, directing and coordinating efforts across the province and relevant stakeholders, and in alignment to the NCCC, to protect and maintain the livelihood of the people of the Gauteng City Region. Joint efforts are meant to filter down from national to provincial to city/district/local and ward levels.

There are scheduled weekly meetings of the PDMCC with high-level delegations to approve workstream recommendations and enforce accountability, measured against performance, and the daily meetings of DCC. At these meetings the activities of the districts are collated, their performance analysed and input provided. As the country report notes, these co-ordinated meetings are new departures in intergovernmental governance in South Africa: “the re-usability of these practices is a policy dividend of the COVID-19 pandemic” (p104). Our interviews filled in finer details which give a sense of

the hurdles faced at early stages, given (a) the difficulties of planning and communicating in a major new crisis and (b) a lack of sufficient co-ordination previously across the hierarchies of national – provincial – district levels.

8.4.2 Themes relating to communication

Affordances and readiness for e-communication: The establishment of a virtual project management office was a new and necessary departure, bringing its own opportunities and challenges. New governance approaches have of necessity been created that have the potential to redefine the workings of the Public Service beyond the pandemic. They are reliant on maintaining a high level of computer and allied infrastructure, of ensuring advanced levels of computer literacy among the government employees and - most importantly – ensuring that access to this literacy and its tools are made widely available to the public. There are connectivity demands that service providers will have to meet efficiently as well as demands on accessibility to cheaper data that allows downloading of applications ("apps") and so forth. Some important interventions occurred at a national level. A dedicated website was established, and social media platforms and mainstream media were used to distribute information emanating from government. In support of the schooling system and its switch to online learning, South African telecommunication networks zero-rated many learning sites, thereby allowing free downloads of learning materials. Telephone networks have also zero-rated the websites of universities and technical and vocational training colleges, providing links to subject learning pages (*Country Report*, p121). The *Mpilo* (= "health, well-being") *App* was launched in Gauteng well into the crisis in September to support service delivery and improve the experience of patients in the province. It supplies details of health care centres, ambulance services and the like and means of contacting them.

It must be noted that during early stages of the pandemic the country's supplier of electricity, Eskom was in crisis itself. Reassurances have still to be made regarding the reliability and affordability of electricity nationally. In terms of access to other basic services, even a simple dictum like "wash your hands regularly" is not straightforward in a situation where affordable and clean water supply cannot be taken for granted everywhere.

As the most industrialised province of the country, Gauteng has benefitted from the "4th industrial revolution" of electronic communications more than other provinces. Officials had previously been adequately trained in computer literacies so that working from home has been possible and effective. In some ways, decision making has even been speeded up, as working from home and interacting via "zoom" has not encouraged extended deliberations and prolixity. However, at lower echelons and in some sectors there is room for maximising the potential of e-communication for the future (the "paradigm shift" within a "new normal"). Security and policing services were sectors mentioned as needing to be upgraded digitally to take into account the new realities of limited mobility and face-to-face interaction.

Chains of command and information flow: Conceptually, the organisation of the Gauteng Response Structure is well demarcated with clear lines of connection. Moreover, it replicates structures at national level and thus affords a continuous chain of command. Opinion was divided over their effectiveness. The view from the South African Police Services & Community Safety in the province was a positive one concerning the regularity of meetings, accessibility of leaders and lines of command and communication, which led to "co-operation, commitment … and synergy" across sectors. Others speak of a possible disconnect between sectors, especially the health sector and the provincial command centre (see chapter 3). In the early stages of lockdown there was a largely political face to the communication, especially on television. Like the rest of the country, Gauteng province officials and the public relied on presidential addresses delivered on national television about the state of the crisis and the need for different lockdown stages to carry the official communication. There were 14 of these addresses between 15th March and 15th November (covering the period of the declaration of a state of disaster to the time of writing). These were regular and informative occurring almost twice a month on average and including 4 in the first month of lockdown. The authors and respondents have a high opinion of the President's ability to communicate essential messages with clarity and decisiveness during these addresses. The influence of effective national communication from political leadership is a necessary (but not sufficient) one in driving the response. The Government Communications COVID-19 Impact report of August 2020 which focussed mainly on the initial lockdown phase 5, indicates that 85% of 5088 respondents indicated that they had co-operated with these early government pronouncements. Gauteng responses were in line with the national average in this regard. This government-led survey showed that people relied on health experts for most for their information, closely followed by the government (both scoring above 70%) with journalists lower down (at under 60%). Furthermore 65% in this survey agreed that the government was doing "a good job" in informing and educating South Africans about the spread of the virus (with 22% disagreeing and 13% being non-committal). Most respondents indicate that they understood and perceived the need for the complete lockdown of stage 5 at the outset on 26 March 2020.

It is not clear how widely received the president's addresses were outside the English and Sign Language-using communities. Translations do exist into the 10 other official languages of 6 of the speeches (up to 17 June 2020) on the website of the Office of the President under "speeches". There was debate about whether the adoption of a military-like approach was the most appropriate in the crisis. Labels like "command centre", "war room" and a military uniform worn by the president during one of the television addresses were felt by some to send unintended signals to ordinary people, many of whom indeed encounter police and security personnel in an antagonistic way. It was felt that other "voices" were missing in these early pronouncements of lockdown, which could have given greater reassurance from an expert scientific, medical, psychological and perhaps spiritual perspective. On the other hand, other interviewees argued that the semblance of command and control in our metaphors was appropriate in facing an unseen and silent killer virus. A militaristic semblance of operation also runs the risk of encouraging officials

to take a particular stance on the sharing of information about the spread of the disease – leading (hypothetically) to the temptation of less than full disclosure of facts and realities "in the public interest". Some officials noted that sharing of information across sectors was a problem. Whereas different sectors (in particular policing and security) had of necessity layers of firewalls to prevent easy and unwanted access to outsiders in the past, the selective and efficient opening of portals related to COVID-19 is a new desideratum that had to be solved.

Language in a Multilingual society: Officials are convinced that English has been effective at upper echelons of planning and communication, i.e. in the command council at all levels. Nevertheless, spaces exist for informal chat in other languages, viz. Sesotho and isiZulu. Information and communiques are "packaged" in English, and filter down into other languages. This is done by translation of pamphlets (a task which is outsourced to service providers) and reliance on teams of volunteers (who are on a stipend) to interface with the public to best convey information in the languages of communities. The Provincial Communication Office provides pamphlets in two languages other than English, viz. Sotho and Zulu. One NGO providing information via a website produced information in 7 languages (English, Afrikaans, isiZulu, isiXhosa, Sesotho, SePedi, Tshivenda), with no requests being made for the other official languages (Siswati, isiNdebele, Xitsonga). The issue of diversity within the languages also had to be heeded. For Zulu there were two pamphlet versions prepared regularly: one in the traditional KZN (KwaZulu-Natal) form and one in the Soweto urban form. Officials of the Communications section of the Premier's Office observed that pamphlets in English seem to be preferred, judging from the proportions of pamphlets returned unused. This might relate to the dominance of English as language of literacy. It has become (with the exception of Afrikaans) the language through which education is provided in South Africa to the exclusion of local languages for learning and teaching science and health at school and university. It also relates to perceptions of English as being closer to the deliberations of the scientific and health research community.

Overall, matters relating to wording and translation are not straightforward. As officials in the provincial Communications department noted, "huge debates" occur "all the time" over the meaning and appropriacy of key practical terms, even in English as the source language. These terms are clarified at the outset: e.g. the difference between "physical distancing" and "social distancing" has to be debated to rid the latter as a technical term of irrelevant connotations (since one can in everyday parlance be "socially distant" with someone "physically close"). Other examples include the subtle but essential differences between "self-isolation" (which implies prior infection) and "quarantine" (which leaves this open, while presuming previous exposure). In all cases the WHO (World Health Organisation) definition was taken as foundational and authoritative. Such complexities become multiplied in translation. "Herd immunity" and "asymptomatic" would appear to be particularly subtle concepts that prove challenging for a semantics in translation. Here it is not a matter of only finding a "translation best" equivalent, but to ensure that the pre-suppositions and implications that come "packaged" with the newly-coined technical English term are understood and clarified in the translation process. Even in the English terminology, clarity said in response to the question whether there are better ways of

talking about the risk posed by symptom-free spreaders: “probably, yes: it just requires a few more words” (Ashleigh Tuite, University of Toronto, cited in online blog *Wired*). One should therefore not underestimate the task facing volunteers who are expected to translate and communicate “on the ground” in an *ad lib* fashion.

On the whole, however, the affordances of the new media, especially the presentation of crucial information via cartoons in pamphlets, online and on television have been effective. The visual and audio-visual modes of modern communication have been of huge value. Some respondents felt that parallel opportunities for radio stations in Gauteng had been missed. The use of short skits and plays was said to be noticeably missing on radio stations in the Gauteng area, which would have had the added benefit of keeping actors/actresses in employment.

In terms of reaching people in a language they can understand, there is concern that the large number of relatively recent migrants in Gauteng from “Francophone” Africa need to be factored in, as some arrive in the country with a minimal knowledge of English or any other official South African language. The country report mentions a concern that the Blind (or sight-impaired) community might not have sufficient reading materials in Braille. For them it becomes doubly important that clear information be communicated on radio, a medium that does not discriminate visually.

Consistency of communication and fake news: In early stages there were some contradictory messages emanating from government regarding the need for wearing masks. This was predicated on the (unstated) concern that while wearing of masks was a necessity, there might not be enough of these initially for the entire nation, and if so, medical personnel had priority. However, masks have not been in short supply. There was also a conflict between initial stress on the need for testing and the declaration of a lockdown at level 5, which made clinics unavailable, except to those already infected.

Fake news is a negative side effect of the social media and electronic revolution and expectably present at times of crisis like the present one. Some unfounded claims like those of the alleged immunity of certain groups over others, or of cures allegedly approved by the government (in which garlic seems to feature prominently) have been in circulation. The Gauteng Digital Platform (hosted by the Premier’s office) has a COVID-19 portal with an easily accessible button for countering such fake news (with the effective one-line contrasts between “myth” vs “fact”). The Communications Office also sent out prompt official statements to radio and television stations to counteract fake news in circulation. In particular restrictions on purchasing of liquor – intended to decrease cases of violence and hospitalizations - proved fertile grounds for dis-information designed to encourage panic buying. Looking into future crises, there is clear room for dialogue between the liquor and other industries as a whole and the provincial and national government.

8.4.3 Themes relating to community responses and compliance

Certain pre-COVID-19 initiatives relating to governance and policing proved valuable. Of these the Community Police forums set up in the 1990s and community patrols proved important in focussing on residential responses and compliance in lockdown. A community police forum is a structure provided for in the South African Police Service Act that enables a partnership between community organisations (e.g. schools, churches, civic bodies) and a local police service so as to enhance community safety. In some notably better resourced "middle class' areas, positive relations and co-operation were noted between residents and the police. However, this was not generally the case in other areas. Operation *Okae Molao* ("Where is the Law?"), which was set up in 2018, to provide a visible police presence within and across provinces has been mainly diverted into monitoring and ensuring compliance with COVID-19 regulations. It enabled some integration across sectors and a degree of co-operation and compliance in relation to the lockdown. One positive effect of the lockdown was a decrease in many types of crime. However, crimes against women and children, especially in the form of domestic abuse and violence were frequently noted as a side effect of lockdown. This major cause for concern goes beyond issues of policing and compliance.

The system of using volunteers on a stipend by the Provincial government was carried over to now focus on the distribution of pamphlets, and making announcements via loudhailers in public spaces (like malls, pay points, taxi ranks) in languages that people could follow and be reminded about regulations. Concerns were expressed that the budget for this purpose would have to be increased in the future to allow for further and intense use of volunteers.

Public compliance was stronger initially in the first month at lockdown level 5, a stage which was also easier to monitor. In subsequent months "lockdown fatigue" and risks to their livelihoods made people less compliant in relation to social distancing and the wearing of masks. The willingness to co-operate with officialdom and follow regulations had to be balanced against the need to earn a living, especially by those in informal and occasional employment for whom lockdown was not a realistic option.

As noted above, a large-scale government Communications report covering the early phase of the crisis (August 2020, cited above) paints a positive picture of citizens' understanding of the government's role in the crisis. However, NGOs (non-government organisations) involved in researching and assisting in the crisis paint a less positive picture. In particular, they point to a lack of trust of the police among the underprivileged which counts against a ready compliance with authoritative communiques, regulations and measures, even in a national crisis. Trust of ward councillors, to cite one opinion, seems "even less". Suspicions of corruption were raised by citizens concerned about the even-handed treatment of those in need.

A frequent observation is that government procedures are "too top-down"; that compliance is better achieved through the building of trust via long term co-operation.

While this may seem slightly utopian in relation to policing in a country with high levels of violent crime, it certainly would improve procedures involved in a more efficient and equitable distribution of food parcels in poorer communities. Communities feel that a fairer distribution can be achieved by close liaison with already existing community networks, like CANS (Community Action Networks). The latter have grown in Gauteng on the model of similar groups originating in Cape Town (started by *Cape Town Together*, a Facebook-based group aimed to encourage and enable self-help and reliance in neighbourhoods and communities). The *Gauteng Together* group has 73 CANS, with 580 volunteers and involving 47 organisations. Such volunteer and non-government organisations provide an entry point less fettered by established hierarchies and political affiliations. One organisation set up during the crisis gave a clear account of its volunteer status and the creative and practical potential of its members - all of whom work full-time elsewhere and who converged on a part-time basis to use their creative, computer and analytic skills to set up materials and inform the public about COVID-19. They cite good relations with the Gauteng provincial government who are in acknowledgement of their endeavours. However, there was no commitment on the part of provincial government to working in partnership or providing finances and sharing resources. This is an area of potential symbiosis that deserves concrete exploration going into the future.

8.5 Conclusion

Our discussions with a range of role players makes it clear that there is overall a gap between the “haves” and “have nots” in SA society – Past President Thabo Mbeki’s delineation of two nations within one country applies as much as ever. This relates not just to economic matters but to degrees of “informed-ness” and an understanding of the need for the government’s reaction to the crisis. Compliance is thus sociologically skewed. The Gauteng Provincial government has been more successful in communicating with and relating to those who are digitally literate and well resourced. It also seems to have the digital capacity to tackle communicative aspects of future crises reasonably well. The challenge remains to cater for the immense needs of a large section of the less privileged sectors of the population. Going into the future, the need to ensure effective multilingual communication on the ground seems warranted. More concretely, suggestions like the ones below ought to be considered and concretised using provincial government expertise so as to overcome the communication and digital divide. However, these suggestions cannot be divorced from practical matters pertaining to food supplies, health and livelihoods detailed in earlier chapters:

- Increased communication on local radio stations in several languages to involve members other than government officials in top-down mode – e.g. in short plays and sketches.
- Building stronger relations with grassroots organisations that have standing in their localities.
- Work towards making possible greater input and debate from health specialists, community leaders and members of the public on radio and television.

- Strengthening the reach of electronic communication to benefit poorer communities.

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Appendix

Selection of key personnel and stakeholders:

Government Depts:

- Gauteng Dept of Health
- Corporate & Marketing
- Provincial Communication Services
- South African Police Services / Community Safety & Management
- Cooperative Government & Traditional Affairs

NGOS

- Institute of Security Studies
- Balang Foundation (Children's literacy)
- Patriotic Movement (Civil Society Organisation)
- Kathrada Foundation
- COVIDCOMS

Chapter 9

Overall Impact Assessment

This chapter presents a consolidated view of both the positive and negative impacts of the GRC's COVID-19 response drawn from the different chapters of this report. The discussion that follows makes use of an adaptation of the Conditional/Consequential framework by Corbin and Strauss (2008) as framework for analysis. This framework has the following four basic components.

1. There are *conditions*. According to Corbin and Strauss, these allow a conceptual way of grouping answers to questions about why, where, how and what happens. These reveal circumstances or conditions that lead to certain action. They could relate to national declaration of the state of disaster, the policy and legislative context, institutional culture including leadership style etc.
2. There is the *phenomenon* which in this case is the COVID-19 pandemic.
3. There are *actions, interactions and emotions*. These are the responses made by individuals or groups to situations, problems, happenings and events. In this case, interactions and emotions represent the actual process of responding to the COVID-19 pandemic in the Gauteng City Region.
4. There are *consequences*. These are the outcomes and/or impacts of the interactions. Consequences answer the questions about what happened as a result of those interactions in response to the COVID-19 pandemic.

What follows below is a discussion of conditions, actions/interactions and consequences relevant to the GCR response using themes emerging from the different chapters of this report.

Before starting this discussion, a few superordinate framing conditions are worth noting. Like all nation states, the South African state derives its legitimacy primarily from its ability to serve its citizens through amongst other means, safeguarding welfare and maintaining, nurturing and improving the conditions of its citizens (Bobbitt, 2002). To this end, and as a state whose evolution followed a particular historical trajectory, the South African state certain basic human rights enshrined in its constitution. Amongst these are the right: to equality, human dignity, life, freedom and security of the person, freedom of movement and residence, freedom of trade, occupation and profession, housing, health care, food, water and social security, children's right including the right to basic nutrition, shelter, basic health care services and social services, education, language and culture, access to information (Constitutions of the Republic of South Africa, Act 108 of 1996).

The constitution also creates a three tier government system made up of national, provincial and local spheres which are distinctive, interdependent and interrelated [S40(1)]. The effectiveness and efficiency of this form of government within a unitary state relies heavily on good inter-governmental relations. The Intergovernmental Relations Framework Act 13 of

2005, provides a guiding framework for the management of relationships between these tiers of government.

As part of the South African state, the foregoing contextual factors are amongst some of the key factors that need to be kept in mind in understanding the Gauteng City Region's responses to the COVID-19 pandemic. The different chapters of this report highlight a range of pertinent pre-existing conditions within which the COVID-19 response was implemented resulting in observed positive and/or negative consequences. These are consolidated below under selected themes that emerge from and are repeated in the different chapters. This consolidated view thus allows for a pulling together of emerging themes and their discussion from the different perspectives represented in the different chapters in what may be referred to as s process of theoretical saturation (Corbin and Strauss, 2008). Whilst the causal relationship between conditions, actions and consequences is complex and non-linear, it is possible to identify from the different chapters the following conditions under which impacts can be discussed.

9.1 South Africa's Triple Challenges (Poverty, Inequality and Unemployment)

COVID-19 is first and foremost a health matter which required an effective health response supported by a range of other whole of society responses. It arrived in a South Africa and in a Gauteng City Region (GCR) that is characterised by deep levels of *poverty, inequality unemployment.* This is starkly represented in health by a two tier health system with a private health sector that sits with excess capacity yet serving only 16% of the SA population and an overburdened public health system that primarily serves the poor majority. The GCR's public health system was thus under-prepared for the anticipated demand with inadequate ICU bed capacity to cope. This realisation early on informed some of the GCR's decisions, including the decision to construct field hospitals in Nasrec and at the Telkom and Transnet sites which remained underutilised. The latter two were consequently closed in August and September 2020 respectively. In contrast to the public health sector which often experienced long lead times in testing and processing of COVID-19 tests, in the private sector tests were easily accessible and were typically processed within 24-48 hours and there was excess bed capacity.

Gauteng lost 660 000 jobs in the second quarter of 2020 with the less skilled workers, women, poor communities and small businesses being most affected. The fact that the pandemic arrived at a South Africa whose economy was already in a technical recession exacerbated the impact of COVID-19. The economy is projected to experience the biggest decline of 11.5% amongst 19 countries analysed by the OECD. The rate of unemployment has doubled in Gauteng due to the pandemic with many people running out of food.

The South African state was already paying social grants to 18 million different categories of beneficiaries before the pandemic due to high rates of poverty, inequality and unemployment. These grants are a response to the constitutional mandate to secure the citizen's welfare. With the arrival of the pandemic, some of the grant amounts were increased, new categories of beneficiaries were included, viz. 18-59 unemployed, special UIF for COVID-19 disbursements were introduced and the need and demand for food parcels and soup kitchens increased. The

pre-existing legislative and policy framework, including the Social Assistance Act and the Anti-Poverty Strategy facilitated the implementation of these protective measures whose magnitude was necessitated by the pre-existing structural weaknesses of the economy. Income support from contributory social insurance is unavailable though to those in the informal sector, those in precarious employment and those whose employers have not registered with the UIF as well as the millions of perennially unemployed. More than a million adults in Gauteng took up the offer of the special COVID-19 temporary relief grant of R350, which indicates the levels of desperation brought about by the pandemic.

High poverty levels also meant that the quality of food parcels that needed to be distributed needed to contain the required nutrient levels in order to support the immune system of the poor and vulnerable. This was unfortunately not the case as reflected in the food items list identified in the food security chapter. The lockdown and associated restrictions led to the abrupt halt of various industries including the food sector, the banning of food aid in the form of cooked food during hard lockdown had a devastating impact on individuals that rely on soup kitchens for their daily meals.

Many children from poor households benefit from the National School Nutrition Programme. The abrupt halting of this programme on March 27 with the enforced closure of schools meant that children from poor backgrounds lost the possible immune effect of the food that provided vitamins and micronutrients. This placed a further burden on vulnerable households who needed to feed more mouths without the capacity to do so.

The burden of homelessness that existed before the COVID-19 pandemic meant that thousands of homeless people needed to be housed in churches, schools, sports stadiums and locked down public areas as an attempt to stop the spread of the virus. This pre-existing burden of homelessness coupled with the need for a quick response resulted in sub-optimal service quality at these centres. These include a failure to provide much needed baby formula to mothers with children, poor food quality with residents provided with only three slices of bread during the course of the day in some instances, absence of blankets, cramped conditions, an absence of masks, sanitizers or gloves and poor infection control which only served to expose the homeless to a higher risk of COVID-19 infection.

South Africa also has a significant number of undocumented nationals, largely foreign, but which also includes some cases of local nationals that remain undocumented. The fact that only South African citizens with valid identity documents can benefit from DSD's efforts to provide relief resulted in high food insecurity, increased stress and feeling of inhumanity and indignity for a large number of undocumented persons, some of the foreign nationals were also deported to their countries of origin.

The factors that effected the basic education sector related to informal settlements, poverty and lack of access to resources. At the start of the hard lockdown, there were 747 schools in the province had a shortage of adequate toilet facilities with some limitations in terms of access to running water. Many vulnerable families who are food insecure and who relied on the School Nutrition Programme (for the nutritional needs of their children were negatively affected by the suspension of the programme. Schools located in poor areas of the province were also most likely to be vandalised during the lockdown. Levels of poverty and inequality also meant that

learners from poor households neither had infrastructure for online learning, adequate space at home to study nor support with school work from parents, many of whom have little or no formal education.

The pre-existing conditions, coupled with the actions taken brought into sharp focus the triple challenges facing South Africa, which in turn means that GCR citizens experiences of the pandemic are asymmetric based on socio-economic status. All evidence points towards the deepening of poverty, inequality and unemployment as a consequence of the pandemic.

9.2 Institutional Capacity

A state led whole of society response to any crises requires that the state possess certain key capabilities to coordinate and direct various social actors Mazzucato and Kattel (2020) *cited by* Turok in the Economics response chapter. This highlights the important need for dynamic capabilities to respond quickly and effectively to the serious challenges arising from pandemics. Amongst some of the key required capabilities is the ability to adapt and learn, to align public service and citizen needs, to govern resilient production systems and to govern data and digital platforms. This section discusses the institutional capacity conditions that framed the GCR response under different sub-themes.

9.2.1 Consequences of GCR institutional strengths

Institutionally the Gauteng City Region already possessed some strengths that serve to mitigate against some of the negative impacts of the pandemic. GCR capacity for ***strategizing and planning*** meant that an impressive comprehensive COVID-19 strategic response which addressed the dual challenges of saving lives and the economy was quickly developed. The Economic cluster was also able to quickly prepare an economic response that included supporting SMMEs; transport and logistics; agriculture; manufacturing and the green economy; construction; trade, travel and tourism; and financial and business services. Several new or modified themes were also introduced by the economic cluster in its disaster response. Once the impact of the pandemic on the economy was recognised, the implementation of pre-existing plans including the GGT 2030 was also brought forward as a way of addressing a deteriorating economy and kick start recovery.

GDARD was able to implement a food security programme targeting households, communities and schools. The department has developed a post pandemic strategy which includes the employment of unemployed agriculture graduates who will be deployed on farms for experiential training. The plan is to link agro-entrepreneurs to markets which will expand employment opportunities in future. In the long-term, the plan is to implement a commercialisation programme that will support farmers with necessary production inputs, infrastructure, agro-logistics and access to markets. These initiatives and plans demonstrate a capacity for forward thinking, taking advantage of a crises to address existing systemic problems. This department also assisted farmers who were affected by the decline in orders from shops and restaurant to obtain vouchers from national government to assist with the

purchasing of seeds and fertilisers. Waste-pickers were also supplied with masks, gloves and tongs to pick up waste without risking their health.

The Gauteng Department of Education was one of the first provincial departments to produce a COVID-19 response plan which included a catch-up plan.

Leadership is an important feature of institutional capability and often shapes to a large extent institutional responses, behaviour and performance. The GCR benefitted from strong and decisive leadership which appreciated the gravity of the crisis early on. This included an acknowledgement that COVID-19 is not simply a health emergency, but that it would require a whole of society response. This early realisation resulted in moves early on to adapt modes of governance such that vertical and horizontal cooperation was made possible. The establishment of alternative structures of governance aimed at coordinating and driving the response was as a consequence of strong and decisive leadership from the Premier and the DG of the Province.

Strong leadership was overall responsible for encouraging a culture of reflexivity and adaptation which went a long way in framing the GCR response. The response by operational level officials operating through the war room and other structures, who responded adaptively to the call for cooperation is an indication that GCR's institutions are staffed by a critical mass of individuals who are predisposed to and possess the necessary capabilities for adaptation and experimentation. A capability that, with proper direction, could be systematised across all GCR institutions.

This capability for effective, responsive leadership that does not shy away from consequence management was also demonstrated by the rapidness of the response to food distribution and PPE procurement challenges. Leadership quickly referred the matter to the Special Investigative Unit (SIU). A move which subsequently resulted in the departure of a number of top figures in the Department of Health.

Different departments in Gauteng already possessed capabilities that meant that supported their readiness to respond accordingly. For example, Provincial Department of Social Development (PDSD) already had a good food distribution ***system*** of decentralised food banks in each district, each with its own resources, including transportation and officials.

DALRRD's COVID-19 relief fund managed to approve a significant number of applications and to issue vouchers to smallholder farmers and cooperatives to purchase production inputs. This response resulted in more than 3000 farmers being assisted with vouchers for buying production inputs and emergency animal feed. The department also directly supplied additional input and emergency animal feed to farmers through a per-existing programme named Ilima-Letsema.

GCR officials demonstrated an ability for ***agility and experimentation*** to ensure that things got done. This included staff in the Premier's Office who were enthusiastic and always looking for solutions, they assisted to unblock administrative and political bottlenecks and always tried to crowd in the private sector. GCR officials also worked well with a national agency in exploring regulatory barriers facing township enterprises, with GPG taking an initiative to draft a Township Economic Development Bill, showing initiative, stability and consistency.

In preparing for the safe opening of schools during level 3 lockdown, the Gauteng Department of Education trained about 1800 COVID-19 youth brigade members to assist with temperature screening once schools re-opened. A cascade teacher training model was implemented for training teachers on Standard Operating Procedures for school re-opening. This entailed the entailing the training of district officials as a first step, followed by the training of principals, heads of departments and deputy principals who then trained the teachers.

The GCR also demonstrated considerable capabilities ***to learn and adapt*** as reflected by its quick adaptation of the nationally prescribed structures including those prescribed through national directions and the disaster management act. Amongst of these adaptations was the establishment of a Provincial Disaster Management Command Centre (PDMCC) and Provincial District Coronavirus Command Council. The latter structure being a co-operative structure across provincial and local government, bringing together provincial political leadership and mayors. The PDMCC or war room was established along the lines of a Programme Management Office design with six workstreams and represented the unique interpretation Gauteng gave to a nationally mandated structure.

At a societal level, a democratic and ***open society approach to governing*** the GCR meant that non-state actors could launch charitable incentives and make a significant contribution to the response. Amongst the actors that play this role in the GCR are community based organisations, faith based organisations, agricultural organisations, farmers, NGO, NPOs and the private sector. Many organisations also responded to the immediate needs of the homeless by establishing temporary shelters and distributing food parcels.

9.2.2 Consequences of institutional weaknesses

Whilst the afore mentioned examples of institutional capability assisted to mitigate the negative impacts of the pandemic, the shortfalls that were experienced in different parts of the system reveal the effect of countervailing institutional weaknesses. Amongst these are the following:

The ***social aid offices*** ineffectiveness resulted in persons who applied for SASSA relief not receiving grants they had applied for, this includes people who applied for food relief. Charitable initiatives that were launched by a number of social actors to distribute food needed permits to do so. Slow ***approval processes*** meant that many people were left hungry and much needed food, especially perishables such as fruit and vegetable, deteriorated in distribution centres. The process of establishing shelters by non-state actors was also hamstrung by legal requirements. Overall the system was constrained by red-tape and bureaucracy which impacted negatively on the urgent need for food aid. An SMME Partnership which was established to support SMMEs was supposed to have disbursed its first tranche of R1 billion by August 2020 but due to legal obstacles, its establishment is delayed, with dire impacts on small businesses who have had to shut down, laying off thousands of employees.

Lack of ***institutional clarity*** regarding who should be classified as an essential services caused confusion in food value chains regarding what should be classified as an essential service. This resulted amongst other things in the exclusion of informal traders who form an

important part of the food value chain. This disrupted access to food, especially in the semi-urban and rural areas of the City Region.

Unclear health regulations and guidelines, that were also subject to rapid change resulted amongst other things in highly skilled critical care health professionals, with the requisite experience and wisdom to deal with complications not being available, impacting negatively on the response.

The uncertainty surrounding the COVID-19, coupled with an appreciation of systemic weaknesses, that heightened the risk of complete devastation of lives and livelihoods, tested the ***modelling capabilities*** available to the GCR. This resulted in grossly inflated expected numbers of COVID-19 cases which were almost double the cumulative total number of COVID-19 cases by 20 November 2020. The effect of these overestimations was an over-estimate of critical and general hospital bed requirements in the GCR. This in turn influenced decisions to address the perceived gap between bed supply and demand. This, coupled with the fact that the comprehensive health response was primarily, hospital-based meant an over commitment of limited resources. The results of the modelling also served to delay the economic response and other responses that are aimed at saving livelihoods, with dire consequences for the workforce and vulnerable citizens of the GCR.

The ***capability to use data*** for effective decision making was also tested, with limits to access to trusted and current data negatively affecting operational responses. These limitations militated to some extent against the strategy of focusing on hot spots because of the reliance of this strategy on real-time accurate data, and the necessary capability to interpret and use the data to support decisions. High quality data systems seem to have been available from the department of e-Government but this data was unevenly used in the work-streams. Data on the impact of the pandemic on the economy and on livelihoods was also not that readily available.

The balance in the early response that focused more on a health response (saving lives) than on an economic response (saving livelihoods) betrays the limited institutional ***readiness for a novel disasters*** such as COVID-19. This includes (i) the early timing, extended duration and indiscriminate nature of the lockdown, (ii) the stringent and arbitrary character of many of the restrictions, (iii) insufficient attention paid to building the capacity for testing and tracing to limit infection rates, (iv) the size and delayed introduction of economic relief measures and (iv) limited consultation with economic stakeholders including business. The delayed economic response resulted in thousands of companies shutting down with a resultant loss of jobs that ran into hundreds of thousands in the GCR.

9.3 Inter-Governmental Relations

The need for a whole of government response and the urgency for the different institutions of government to collaborate both vertically and horizontally brought the effectiveness and efficiency of intergovernmental relations into sharp focus. South Africa's challenges in managing the demands of coordinating work vertically between the constitutionally created three tiers of government (national, provincial and local) and the ability for horizontal

coordination is a singular challenge that is well documented. This challenge is not limited to South Africa but is in keeping with international experience regarding associative governance.

The existence of frameworks for intergovernmental coordination including the Intergovernmental Relations Framework Act and the Disaster Management Act amongst others meant that the GRC was able to rapidly establish inter-governmental structures to respond to the pandemic, including using the Provincial Disaster Management Centre and Provincial Joints. The former structure quickly morphed into a Project Management Office/war room.

The Economic cluster was also able to work together. Because of the urgency of the situation, member departments were required to work much more closely than they had done previously and report according to a common framework. This assisted in reducing pre-existing silos and fragmentation. The GCR also worked well and closely with the Department of Trade, Industry and Competition (DTIC), the Presidency and the Tshwane municipality in accelerating the provision of infrastructure to the Tshwane SEZ. The pandemic managed to inject urgency amongst GCR officials for inter-governmental cooperation.

The gains in intergovernmental relations were affected by pre-existing limitations, that are often exacerbated by non-supportive institutional cultures. Within the context of the GCR, pre-existing conditions where coordination towards complex outcomes was rare, with an under developed coordination architecture, meant that cooperation was not always welcome nor successful. Officials found themselves burdened with onerous reporting requirements that betrays a compliance driven culture. Workload for some officials doubled as a result, which had negative consequences on officials well-being with many reporting fatigue. Meetings also tended to be excessively formal and routine, with provincial officials talking and municipal officials listening, a reflection of high levels of vertical complexity in the system of governance accompanied by a dominant institutional culture that puts a heavy emphasis on positional power and authority.

9.4 Collaboration with non-state actors

The realisation that COVID-19 requires more than just a health response, but a whole of society requires the state to possess the ability to collaborate for with non-state actors including civil society organisations, community based organisations, non-governmental, non-profit organisations and the private sector.

9.4.1 Consequences of strengths in collaboration

A laudable national level example of positive collaboration with the private sector was achieved with telecommunications network providers which resulted in the zero rating of some sites, especially learning sites. This allowed free downloads of learning materials which went a long way in cushioning the education system.

GCR displayed a willingness and ability to collaborate with non-state actors, including the Economic Cluster's introduction of new themes in its disaster response that included working in partnership with the private sector through a series of sectoral programmes and 'Action Labs' aimed at saving the economy.

Shelters in the GCR also reported receiving good service from government emergency medical services (EMS) as well as local clinics. Local police also provided their services by means of (1) checking up on the safety of shelter residents and volunteers; (2) providing safety during the distribution of food parcels; and (3) dropping of homeless persons at the shelter.

Another example of good collaboration between GCR is from GDARD's, which approached farmer commodity associations and the farming community within the province to make donations to the DSD's Food Bank in order to support vulnerable communities. By 1 October the value of these contributions from farmers, farm associations and stakeholders amounted to R410 000. In its recognition of the vulnerability of township entrepreneurs, the GCR also managed to mobilise additional financial support through working with the private sector to establish a partnership fund to provide loans and working capital for vulnerable SMMEs. The GCR responded positively to overtures from business representatives and showed a willingness to collaborate with business. This included the use of 'Action Labs' which facilitated communication between the business community and sections of the GCR administration in ways that were not possible before. This improved relationships and trust between business and the state.

The Gauteng Department of Education worked closely with the Department of Health to identify cases of infection and engaged through its provincial steering committee with its social partners and stakeholders, including teacher unions and school governing body associations to assist in managing perceptions and communication of accurate information about infection and health management.

GPG also secured the services of Deloitte & Touche in April for assistance with the establishment of a Programme Management Office (PMO) pro-bono. A service that was valued at R2.8 million. It also collaborated with a team from Wits University who were able to provide frequent modelling services to anticipate the progress of the pandemic. The GCRO assisted with the analysis of the localised trends and patterns in the spread of the disease. Data scientists from the University of Pretoria also provided strategic advice, with geo-coding was done by ESRI.

9.4.2 Consequences of weaknesses in collaborating

The need for deep collaboration with the private sector had never before been put into such sharp focus as it was with the arrival of COVID-19 in South Africa. The novelty of the pandemic exposed some countervailing weaknesses.

The fact that data and connectivity costs in South Africa remains high means that the effectiveness of some social media platforms and mainstream media that was used to distribute information were not as effective as they could have been.

The modelling showed that the public health sector did not have enough existing ICU bed capacity as opposed to the private health sector that sits with excess capacity. Further whereas the public health sector experienced long lead times in testing and processing of tests, tests were easily accessed and were typically processed within 24-48 hour period in the private sector. This notwithstanding, the limited ability and experience in collaborating with the private sector resulted in an opportunity to access private sector capacity being lost. This inability to collaborate is one amongst a number of factors that resulted in a decision to construct isolation field hospitals at Nasrec, Telkom and Transnet sites at an undisclosed amount. The latter two centres were closed in August and September due to low demand. An opportunity to regulate the private health sector to ensure access to health care and to scarce resources was also lost.

Limitations were further exposed by the inability of most GCR officials to use block exemptions. These were introduced by the Department of Trade, Industry and Competition, in collaboration with the Competition Commission and the Department of Health. They were issued as a way of enabling firms to cooperate lawfully in response to COVID-19 but ended up not being used due to limited knowledge amongst officials.

Overall, the private sector felt that they had been excluded. This perceived lack of involvement of different stakeholders was exacerbated by the perception of a lack of transparency on certain decisions. There was also inadequate support directed as assisting the private sector to comply with government regulations and risk adjusted protocols so that they could continue trading. Businesses were also not supported with the introduction of new business models to help them to cope with the new operating environment.

9.5 Resource Utilisation

As a health matter, the arrival of COVID-19 required an effective health response supported by a whole of society response. This realisation informed the decision to give the department of health a leading role in the management of the health response, including the procurement of essential health products and services on behalf of all other departments. This decision made financial sense from a cost efficiency point of view because it would support the achievement of economies of scale through centralised procurement.

A key resource utilisation condition that characterised South Africa before the arrival of the pandemic is a culture of wasteful expenditure (as reported annually by the Auditor General) and corruption. Revelations at the Life Esidimeni Commission of Inquiry brought this culture into sharp focus especially in relation to the Gauteng Department of Health. Given this background, the inability to accompany the decision to centralise procurement at the department of health with strict controls resulted in lapses, abuse and significant instances of corruption. Positive steps currently underway aimed at reversing this culture including the ongoing Zondo Commission of Inquiry, the prosecutions that are underway by the National Prosecuting Authority, the SIU investigations underway in Gauteng are positive moves aimed at reversing this culture.

The good intentions behind the use of modelling which resulted in inflated numbers largely due to the novelty of COVID-19 inadvertently led to an over-estimate of critical care and general hospital in the GCR, which influenced subsequent decisions or strategies that aimed to address the gap between needs and beds availability/supply. Further, the community screening appears to have had a very low yield of less than 5%. These observations raise questions about the cost effectiveness of the resource allocation in general.

9.6 Communication and digital innovation

9.6.1 Consequences of strengths in communication and digital innovation

As a whole of society crisis, COVID-19 required good communication, including communication with the citizens. The GCR has a more advanced electronic communications environment which put it in a good position to take advantage of the 4IR. This coupled with the high levels of computer literacy amongst officials made working from home possible. This in turn supported the continuity of the business of government. This ability to work from home also speeded up decision making as it discouraged extended deliberations that often characterise meetings. Digital innovation in the GCR also saw the development and use of a screening/tracing app and a bed availability dashboard.

A pre-existing service delivery hotline was used for the COVID-19 response and was administered by the MEC for Social Development. The hotline's capacity was expanded in response to COVID-19 from 20 staff operating from 08h00-17h00 to 250 staff working three shifts on a 24 hour basis. This hotline is deemed to be have been effective with 4000 food parcels delivered per day for each of the six districts.

The GCR managed to take advantage of its well established 4IR capabilities to improve its digital services in townships and other communities, including speeding up the installation of fibre to create more jobs in business process outsourcing. This enabled people to work from home. The GCR assisted a global digital cloud company to create 500 call centre jobs in Soweto. An online system for informal trader registration for official permits was also created to avoid unnecessary queues. The department of Agriculture is in the process of introducing an online registration system for farm registration. Several departments have begun a process of digitizing the submission of forms for regulatory approvals.

Communication from the higher echelons especially from the President and the Premier, including their abilities to communicate essential messages with clarity and decisiveness went a long way in ensuring GCR citizens compliance early on in the pandemic. The Premier took on a public role of communicating to citizens, including through television broadcasts where he hosted scientific advisors and re-iterated a strong public health message. The Premier took the lead in informing the public in frank and forthright terms about the crisis that surrounded the procurement of PPE.

The GCR also made efforts at dispelling fake news through a button on the digital platform of the office of the Premier.

9.6.2 Consequences of weaknesses in communication and digital innovation

As already mentioned earlier, high data and connectivity costs in South Africa limited the effectiveness of some social media platforms and mainstream media that was used to distribute information. High data costs also meant that because movement during level 5 was restricted, the most vulnerable who may not have access to email or WhatsApp could not register for food aid.

The adoption of a top-down militaristic response that filtered through to the language of communication including the use of labels like “command centre”, “war room” and a military uniform worn by the president during one of the television addresses had some unintended consequences. It sent negative signals to ordinary people, many of whom encounter police and security personnel in an antagonistic manner. This also resulted in a temptation from some officials to disclose less of the facts and realities in the public interest, which affected the manner in which citizens responded to communications.

The Constitution of South Africa, recognises 12 official languages. This is a strength that could have been used to ensure that communication reached all citizens in a language they understand. This was not the case, the dominance of English as a language of communication in the COVID-19 response meant that the opportunity presented by the constitution was missed.

In the age of social media, mediating the impact of fake news only through the digital platform in the Office of the Premier proved inadequate and little effort seems to have been made to mediate the impact of fake news on social media.

9.7 Institutional Culture

The term institutional culture is used here to refer to a system of meaning and customs within GRC. This includes the underlying assumptions, belief systems, espoused values and characteristics such as norms, language, behavioural rituals and myths [Schein, 1992 *cited in* Bratton, Grint and Nelson (2005)]. The coincidence of a culture of impunity and corruption with the COVID-19 pandemic resulted in political agendas being linked to the eligibility for food aid relief in certain instances. Some councillors reportedly tried to use the food parcel delivery scheme to encourage people to sign up to their political parties. This includes reports that laptops, cell phones and allowances for data provided to assist in the data collection and for food parcel disbursement to the most vulnerable simply disappeared. GRC quickly responded to this development by removing councillors from the supply chain of food parcels to try and minimise the occurrence of food theft.

The hierarchical and top down nature of governance also meant that frontline health workers or end users were not involved in decisions that affected patient care. There was little two way mechanism to report challenges from the ground. The lack of involvement of frontline staff in some instances resulted in the wrong consumables, PPE or ventilation being delivered to hospitals. This lack of consultation and engagement extended to the private health sector who experienced the department of health as rigid, heavy handed and top-down. Further there was

a general feeling that frontline staff anxieties and fears were ignored or downplayed with no strategy for employee assistance or psychological support.

The legacy of Life Esidimeni and the demonstrated lack of accountability characterised by weak management, system neglect and a weak consequence management culture, exacerbated by bureaucracy and silos militated against a fully effective response from the Department of Health.

The adaptive and reflexive capabilities that were encouraged and subsequently integrated into the GCR response were confronted in some instances by a pre-existing countervailing culture that is resistant to working collaboratively. Some workstreams were too slow to respond, most notably the one on the relief initiative. Part of the difficulty mentioned as an explanation for the slowness of this workstream are procurement guidelines from National Treasury. Cultures in some departments that discourage openness of disclosure and critique in the presence of leadership and outsiders influenced the quality of reporting.

Observations in this chapter lead to a general conclusion that response of the Gauteng City resulted in mixed outcomes. There are both positive and negative consequences to the response which is influenced by and can be framed within the pre-existing conditions. In moving forward, the GCR needs to deepen and to take advantage of those conditions that supports its pandemic responsiveness. At the same time, it needs to urgently focus on addressing those countervailing conditions that increase vulnerability, including that of its citizens.

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Chapter 10

Recommendations in the Short, Medium and Long-Term

This chapter consolidates recommendations from the seven different chapters of this report. These include policy and other interventions that should be implemented in the short, medium and long-term. They are meant to assist the GCR to transition from where it finds itself to where it may enhance its responses to any other crises in the future and better serve the citizens of Gauteng.

10.1 Leadership, governance and decision making

1. Retain the fundamental governance architecture of the initiative it has proved to be resilient, both in its effect and in its value as a precedent for the future. Support this by taking this broad view into account, emerging valuable insights around the conditions that tend to contribute towards, or constrain, the approach towards increasingly associative forms of governance.

2. Initiate an inquiry into reasons why longstanding and well documented weaknesses have been difficult to remedy. Doubtless these problems have complex origins, and may be complicated by powerful structural and socio-political factors, and a thorough and very frank analysis of the phenomenon is needed in order to design approaches to solving the problem. The insights arising from this case study suggest that the ability to address underperforming functional areas is an essential component in achieving adaptive governance more generally in the city-region, and responding to current and future crises of this nature specifically.

3. Support the institutionalisation of adaptive governance through amongst others

    - Securing the integrity and flow of high-quality information through the system, and the capacity of staff at every level to work effectively with data. The achievement of evidence-formed decision-making depends on a comprehensive data-oriented culture and strongly-established analytic skills base, together with a clear understanding of how flows of data come together to constitute the strategic intelligence needed for governance.
    - Socialise officials into patterns of performance that can contribute towards the objectives of agile and innovative government. The task of engendering a population of adaptively-oriented civil servants requires both requisite levels of capability and an accumulated culture of associatively-disposed orientations.

- Secure the ability to achieve organisational learning through clarity of realisation and the ability to act productively (and often collectively) on those insights.
- Pursue adaptive governance not in theory or in planning but in the execution of ambitious intentions, and the willingness to confront and respond to the inevitable lessons that arise along the way.

10.2 The Health and Health System response to COVID-19 in the Gauteng City Region

IRR 1: Enhanced leadership, management and governance

1. Effective stewardship by the PMDCC to ensure preparedness of the entire health system, with clarity of the roles of different stakeholders
2. Clear implementable policies, guidelines and standard operating procedures that take into account the reflection/inputs of front-line managers and staff, and training/ communication to ensure consistency in interpretation
3. Transparency in decision making, communication, and ongoing and regular feedback
4. Enforcement, coordination, checks and balances to prevent fraud and corruption
5. Clear accountability mechanisms

IRR 2: Surveillance, containment and control

1. Monitoring and identification of hotspots
2. Clear testing strategy
    i. Staff and priority groups
    ii. Communication of testing strategies to relevant stakeholders
    iii. Ensure availability of test kits
    iv. Liaison with laboratories
3. Case finding
4. Contact tracing
5. Health promotion and behavioural change
6. Strategies to maintain social distancing
    i. Staff
    ii. Communities
7. Hand hygiene in informal settlements e.g. provision of free sanitizers
8. Clear communication to communities and staff on
    i. Importance of non-medical interventions
    ii. Anticipated levels of risks, without creating paralyzing fear that prevent people from using health services needed
    iii. Action of everyone that matters e.g. mask wearing, appropriate cover of both nose and mouth.

IRR 3: Ensure lives saved

1. Engagement with hospital and district health managers in optimizing existing capacity

2. Clear and transparent decisions on infrastructure in GCR for possible surge, ensuring agility of COVID-19 response (i.e. take account of changing needs or circumstances)
    i. Beds
    ii. Equipment
    iii. Staff
    iv. Oxygen
3. Infection prevention and control
4. Clinical protocols with involvement of clinicians/ experts
5. Clear communication to citizens and other stakeholders.

IRR 4: Avoid collateral damage of health care system

Maintain essential services

1. Implement alternative models of care e.g. decanting of patients, medication supply for non-communicable diseases, increased automation of some processes, etc.
2. Strengthen or invest in PHC system
3. Protect or maintain essential /routine health services, including quality of care, clinical governance mechanisms

Health workforce and human capital

1. Prioritise health workforce
    i. Policies and strategies must put health workforce at centre
    ii. Listen to and involve frontline staff and managers
    iii. Communication and training to decrease fear
    iv. Personal protective equipment
    v. IPC and safe working environments
    vi. Employee assistance programme (e.g. psychosocial support, debriefing, etc)
2. Show appreciation of staff and communicate the message that everyone matters
3. Teamwork
    i. Identify strengths, build team, build and engender trust
    ii. Balance between firmness and flexibility
4. Improve HR management
    i. Manage staff workloads
    ii. Manage productivity
    iii. Manage staff relationships e.g. junior/ new recruits and senior/ existing staff

IRR 5: Invest in health information systems

1. Ensure data for real-time decision-making i.e. to combat the pandemic and ensure a proactive response
    i. Coordination of information
    ii. Transparency on predictive models and/or estimates
    iii. Pay attention to quality of information
    iv. Leverage use of technology
2. Reporting, feedback, interpretation and utilisation of information.

10.3 Resource allocation, prioritisation and the Public Health Response

Coordination and interdepartmental structure

1. Introduce strategic focus to the interdepartmental forum—review reporting requirements, with an element of introducing oversight on expenditure and coverage of critical items.

Resource allocation and reprioritisation

2. A clear spending strategy is needed. It will be necessary for the province to decide on a relative prioritisation between prevention and treatment.
3. Prioritise prevention strategy and determine the scale of prevention strategies for impact.
4. The Gauteng province should leverage available resources for long-term public health infrastructure.
5. The resource allocation framework, whichever form it takes, whether through a centralised approach or not, should embed in them accountability and monitoring structures, be supported by evidence and data.

Flexible instruments for emergency response

6. Flexible procurement systems must be accompanied by significant oversight, communication and transparency; these are critical in building public trust and accountability.

Price inflation and coordination of the response

7. The health system to be sustainable needs strengthening of both the public sector and the private sector and for these to be better integrated and coordinated.
8. Utilise block healthcare exemption issued by the Competition Commission to coordinate private sector providers and achieve cost reductions on healthcare products and services.
9. Have pro-active interventions, on the pricing of healthcare products that are key to the response—setting mechanisms to curb price inflation through published and transparent guidelines, to ensure that the public purse is not abused.

10.4 Economic Response

1. GPG could have anticipated the scale of the economic crisis sooner than it did and done more to help prepare businesses for the effects of the lockdown, to assist them with implementing risk-adjusted strategies, and to reduce the loss of income and jobs by adapting their business models to the new environment. It is not too late for these things to be done, bearing in mind the slow recovery and the possibility of a second wave of the pandemic.

2. GPG should use its special relationship with national government to advocate greater flexibility in the national restrictions and for quicker and more effective national economic relief and stimulus programmes. Press for a stronger recovery plan, and make the case that the province cannot afford another hard lockdown in the event of a resurgence.

3. Put more emphasis on direct and indirect forms of relief for firms in difficulty to stem the loss of jobs and business closures, partly through facilitating access to national support schemes, and encouraging municipalities to offer rates relief. It is not too late for these measures either, bearing in mind the slow pace of the recovery. This also includes ensuring that the province makes full use of the government's public works and community works programmes to create work experience and training opportunities for thousands of young people and adults in providing all kinds of socially-useful services.

4. Do more to share the economic expertise, insights and capabilities of the more dynamic sections of GPG with other parts of the administration to raise awareness of the economic consequences and potential of their actions. All parts of government will need to be more supportive of economic activity in the years ahead – enabling enterprise and investment and reducing the burden of excessive regulation and bureaucratic procedures.

5. Prepare for the possibility of a second wave by anticipating which sectors, places and groups are most vulnerable, improving its economic information systems to track changing conditions, and ensuring that its support is targeted appropriately.

6. Invest more in public health services and infrastructure to increase testing and contact tracing will pay off handsomely in reducing the rate of infection and the devastating social and economic costs that result. This includes more community health workers in the settlements that are most vulnerable to the spread of disease and economic hardship.

10.5 Food Security

Short-term Recommendations

1. Continuation of providing food to assist vulnerable households through the pandemic and its associated financial pressure as proactive measure to ensure better health outcomes which will reach beyond the pandemic. This might however create a sense of entitlement from beneficiaries - the more you give, the more is wanted.
2. Redesign the GCR's food parcel content to improve nutrient quality to support a healthy diet and immune functionality.
3. Include e-vouchers to complement the physical distribution of food through networks, spaza shops, banks, etc. Recipients might however not prioritise the purchasing of

food – the risk can be minimised by implementing a minimum percentage food expenditure on selected food items associated with each e-voucher.

4. Redesign the protocol regarding a permit for distributing food parcels as well as the functioning of soup kitchens so that ineffective/ stringent regulations do not hinder the distribution of food aid.
5. Establish teams, working alternate days at food banks as to ensure the continuation of providing food aid even in the event of a worker testing positive for the virus.
6. Create a platform where government, private sector and civil society can actively engage to alleviate food insecurity.

Medium-term Recommendations

7. Maintain the provision of nutritious and safe school meals for the vulnerable.

Long-term Recommendations

8. Develop a fast-acting, sustainable food system in which people can seek to become self-sufficient for food by means of providing training for sustainable food security.
9. Establish a dashboard which tracks data in real time through GIS-mapping in informal settlements which will allow for follow-up protocols for persons testing positive for the virus and those who have been identified as food insecure.
10. Expand social protection of nutritious diets and essential services for all.

11. Data acquisition processes/ procedures/ methods should be developed as to ensure that aid is allocated to areas/ beneficiaries where it is most needed – if aid is provided during a crisis, incorrect estimates might overlook the most affected.

12. Continuation of including all agricultural sectors in the essential services classification.

10.5 Education Response

1. Renewal and modernise schools and universities including continuing the embrace of online learning in varying degrees as an essential part of teaching and learning in the future.

2. Education leaders to be decisive about the future of education in the province and set priorities that will allow everyone to access education and to have a reasonable chance at academic success. This includes embracing technology and blended learning and preparing learners and students alike to participate in a society that requires technological savvy.

10.6 Community Mobilisation, Communication and Change Management

1. Increased communication on local radio stations in several languages to involve members other than government officials in top-down mode – e.g. in short plays and sketches.
2. Building stronger relations with grassroots organisations that have standing in their localities.
3. Work towards making possible greater input and debate from health specialists, community leaders and members of the public on radio and television.
4. Strengthening the reach of electronic communication to benefit poorer communities.