CHAPTER 2:
GOVERNMENT LEADERSHIP, GOVERNANCE, AND INSTITUTIONAL ARRANGEMENTS

ABSTRACT

This chapter reviews the leadership, governance, and institutional arrangements in the first year of the Covid-19 pandemic. While the institutional architecture for handling the disaster was put in place quite quickly, the pandemic highlighted shortcomings in the institutionalised capacity for disaster management, inequalities in access to healthcare, inadequate political oversight, and the damaging effect of corrupt practices. The impact of the health crisis on society, human rights, and the immediate and long-term effects on the economy were also initially underestimated.

Effective recovery from future disasters requires a resilient disaster management system with well-capacitated disaster management centres in the various spheres and sectors to lead a disaster management response. There is a need to address constraints in the health sector, reconsider legislation to enable an appropriate response to future health disasters, and improve financial resilience in the public sector to recover from the financial repercussions of the pandemic and future disasters. The level of behavioural change among the general public during the pandemic suggests an opportunity for improving other behaviour-related deficiencies.

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ABBREVIATIONS AND ACRONYMS

CDC	Centres for Disease Control and Prevention
CoGTA	[Department of] Cooperative Governance and Traditional Affairs
DMRE	Department of Mineral Resources and Energy
DPME	Department of Planning, Monitoring and Evaluation
GCIS	Government Communication and Information System
HIV	human immunodeficiency virus
ICT	information and communications technology
IT	information technology
MAC	Ministerial Advisory Committee
MAC-Vacc	Ministerial Advisory Committee on Coronavirus Vaccines
MEC	Member of the Executive Council
MinMEC	Minister(s) and Members of the Executive Council
NatJOC	National Joint Operations Centre
NatJoints	National Joint Operational and Intelligence Structure
NICD	National Institute for Communicable Diseases
PPE	personal protective equipment
ProvJoints	Provincial Joint Operational and Intelligence Structure
SALGA	South African Local Government Association
SANDF	South African National Defence Force
SAPS	South African Police Service
SASSA	South African Social Security Agency
WHO	World Health Organization

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INTRODUCTION

Having been declared a Public Health Emergency of International Concern by the World Health Organization (WHO) on 30 January 2020, Covid-19 triggered global health and governance regulations to be implemented through national regulatory frameworks. Effective implementation required strong leadership and institutions, whose actions would have to be framed by a respect for human rights. Indeed, in some ways a pandemic is a test of the strength of a society's adherence to human rights norms, as the response necessarily affects basic rights such as free movement and assembly, economic activity, and access to food.

This chapter discusses the leadership and institutional arrangements in place before South Africa's national lockdown, some aspects of disaster management policies that predated Covid-19, and the arrangements that guided the management of the first two waves of the pandemic from March 2020 to January 2021. It considers the effectiveness of these measures and the successes, challenges and lessons learnt. It then makes some recommendations for immediate and longer-term implementation. The measures discussed here are explored in more detail in the subsequent chapters of the Covid-19 Country Report.

This chapter focuses on the first and second waves of the pandemic. Government leadership, institutional arrangements and state capacity during the further progression of the pandemic will be discussed in the second edition of the Country Report.

THEORETICAL FRAMEWORK

A seminal WHO report noted that efficiency and effectiveness in today's complex, interlinked and rapidly changing environment require redesigning the structures and processes of governments to encompass a new set of actors and tools (Kickbusch & Gleicher, 2012). Governments must remain responsive to changing conditions and to changes in people's expectations, and must build capacity to operate effectively in complex, interdependent networks of organisations and systems in the public, private and not-for-profit sectors to co-produce public value.

Covid-19 meant that it could not be business as usual for the country's leadership. The president, cabinet and government all played critical roles in formulating and guiding the nation's response. The main objective was to save lives, minimise the impact of the pandemic on livelihoods, and 'flatten the curve', so that frontline institutions had time to prepare for the full impact of Covid-19.

In a crisis of this kind, government must assemble a wide array of capabilities, including those for anticipation and quick diagnosis, ongoing learning and adaptation, rapid response, and sustained effort throughout the post-disaster recovery. These capabilities are underpinned by institutionalised disaster preparedness, including an institutional architecture for disaster response, effective decision-support systems, and supportive institutional cultures and values. Political leaders must demonstrate moral authority, effective operational and communication skills, and attention to human rights.

Key leadership practices that must be exercised during times of adversity and crisis include offering decisiveness in decision-making, conveying resilience and confidence, providing hope and vision, retaining and building credibility and trustworthiness, and communicating constantly.

RESEARCH DESIGN AND METHOD

Various methodologies were used in this research, within the methodological limitations of a study conducted on an ongoing basis at short notice. Qualitative strategies included data collection through the scrutiny of primary and secondary documents and reports from government departments, the media, and others. Interpretive and descriptive techniques were used to assess the processes and functions of policy review before and during the disaster, structural arrangements, and measures to mitigate the impact of Covid-19 in South Africa.

With the assistance of the Department of Planning, Monitoring and Evaluation (DPME), interviews were scheduled with senior national, provincial and municipal officials, expert professionals, and various stakeholders. The interviews, which lasted for 1,5–3 hours, took different formats, and the number of interviewees varied. There were also engagements with colleagues in the Gauteng City Region Observatory, which the Gauteng Provincial Government had commissioned to write an input on governance in the province during the pandemic (GCRO, 2021). Given the tight time frames of the report, not all interviews could be arranged in time; additional interviews will be scheduled in the coming months.

For some interviews, an information sheet template containing a more detailed explanation of the project and a formal consent form were used (Anelich, 2020a). Before any interview, all interview partners received the DPME letter of endorsement and detailed information on the project. Oral interviews were done virtually and were documented by recording and transcription (where possible), or as brief notes. These were sent to the interview partners for correction and approval. For written interviews, follow-up verbal discussions were held for clarification.

Full ethics clearance for the first phase of this minimal risk research was granted by the Human Sciences Research Council Ethics Committee (REC 1/23/09/20) Interviews with members of the public, including vulnerable groups, will be conducted only after ethics approval for this phase of the research has been obtained. Furthermore, the Stellenbosch University Research Ethics Committee: Social, Behavioural and Education Research (SPLPAD-2020-19146) granted conditional approval for the interviews performed by the Stellenbosch University's School of Public Leadership.

The rest of this chapter is set out as follows: the legal framework for disaster management is reviewed first. This is followed by a timeline of events, from the period leading up to the pandemic to the first and then to the second wave. The next sections consider intergovernmental relations, preliminary lessons learnt, and recommendations for improving governance and leadership. The chapter concludes with suggestions for immediate interventions.

THE LEGAL FRAMEWORK FOR DISASTER MANAGEMENT

The Disaster Management Act of 2002 provides the legal basis for the management of any disaster that cannot be managed within the scope or mandate of a specific government department. A disaster differs from a state of emergency (Chapter 3.1); in the Act the term 'disaster' is defined as follows:

> a progressive or sudden, widespread or localised, natural or human-caused occurrence, which (a) causes or threatens to cause (i) death, injury or disease; (ii) damage to property, infrastructure or the environment; or (iii) disruption of the life of a community; and (b) is of a magnitude that exceeds the ability of those affected by the disaster to cope with its effects using only their own resources.

The Intergovernmental Relations Framework Act of 2005 governs the relationship between the three spheres of government and facilitates coordination in the implementation of policy and legislation. It provides that in the implementation of a policy, the exercise of a statutory power, the performance of a statutory function, or the provision of a service that depends on the participation of organs of state in different spheres of government, those organs must coordinate their actions. The Act establishes the President's Coordinating Council, which consists of the president and cabinet members responsible for finance, public service, and local government. This, however, is a consultative structure with very limited decision-making power.

In many respects, intergovernmental relations are the Achilles heel of this system of government, contributing to turf battles, disjointed action, unnecessary conflicts, and wasteful duplication. That said, there is also a constant process of adjustment and bargaining across the spheres of government, within formal and informal domains, and with varying levels of competition and cooperation.

It was understood from the start that a coherent and effective response to the pandemic required the establishment of governance structures across the three spheres of government. The National Coronavirus Command Council, along with provincial and district coronavirus command councils, was to be the platform for coordinating activities and processes and providing leadership. The aim was to avoid duplication of functions and/or contradictions in the roll-out of the programmes and the messages communicated. It is not clear, however, what legislative framework was used to create these structures, some of which appeared to duplicate the national, provincial and local disaster management centres. Admittedly not all of the existing structures were fully functional. The Inter-Ministerial Committee on Disaster Management, for example, had not met for many years; the new structures might, therefore, well have been necessary.

Risk management strategies for the management of annual influenza outbreaks offer useful insight into the measures in place before Covid-19. The National Influenza Policy and Strategic Plan (2017–21) was informed by lessons from the 2009 influenza outbreak. It outlines a comprehensive approach to prevention and control, emphasising the importance of community health education, laboratory surveillance, and ensuring the availability and use of antivirals and influenza vaccines. It specifically refers to creating systems that enable epidemic and pandemic readiness, including establishing an

influenza surveillance programme, ensuring a sufficient supply of vaccines, providing proper care and treatment for infected people, and promoting studies on influenza at the human–animal interface.

Evanson et al. (2018) assessed the readiness of African countries to respond to an influenza pandemic. South Africa performed relatively well on this assessment – its coordination and partnership, surveillance and monitoring, ethical considerations, and prevention and containment capacities were deemed 'optimal' and its risk communication capacity 'strong'. However, its preparation levels scored at only two-thirds of the maximum, while case investigation and treatment stood at only 40% of the optimal capacity required. The report noted that South Africa regularly updated its plans and strategies and commended the adoption of a national policy on responses to influenza. However, it highlighted the absence of business continuity plans to cater for worker absenteeism and related economic impacts across the non-health sector (Evanson et al., 2018:9).

The national Department of Health introduced a public health surveillance system in 2011, giving South Africa both a notification system (to detect, report and manage notifiable medical conditions) and a disaster management plan. The Disaster Management Act and the National Health Act provide for the issuing of regulations on emerging conditions, including events such as the Covid-19 pandemic. The public health surveillance system comprises a national electronic disease reporting system that links healthcare providers, such as hospitals, clinics and private physicians, with the corresponding local, provincial and national health departments and facilitates the electronic transfer of laboratory results from both state and private laboratories. This system aims to provide standardised approaches to disease surveillance and the reporting of notifiable medical conditions, as envisioned in the 2005 International Health Regulations (WHO, 2016).

Several models were developed to help predict the spread of Covid-19. These aimed to assess the socio-economic impact of the pandemic (e.g., public health capacity, infrastructure, school openings, business productivity, and economic fallout) and inform social welfare and other mitigation strategies.

A TIMELINE OF EVENTS[1]

BEFORE THE NATIONAL LOCKDOWN (27 MARCH 2020)

South Africa's National Disaster Management Centre began to engage with the Covid-19 situation in December 2019 when China announced the first outbreak of a novel coronavirus (then called 2019-nCoV). On 27 March 2020, South Africa went into a national lockdown. In the period between these two events, the government 'assembled its capabilities', largely through setting up structures and putting regulations in place. Figure 2.1 and Figure 2.2 show the key events before and during the pandemic, both locally and internationally (see also Chapter 1 and DPME, 2021).

[1] The timeline of government's response to the pandemic is discussed in more detail in the background papers: Anelich, 2020a & 2020b; Harrison, 2020; Mubangizi, 2020; Ndevu & Rabie, 2020; Rabie & Ndevu, 2021.

Figure 2.1: Timeline of international events related to pandemic preparedness and Covid-19

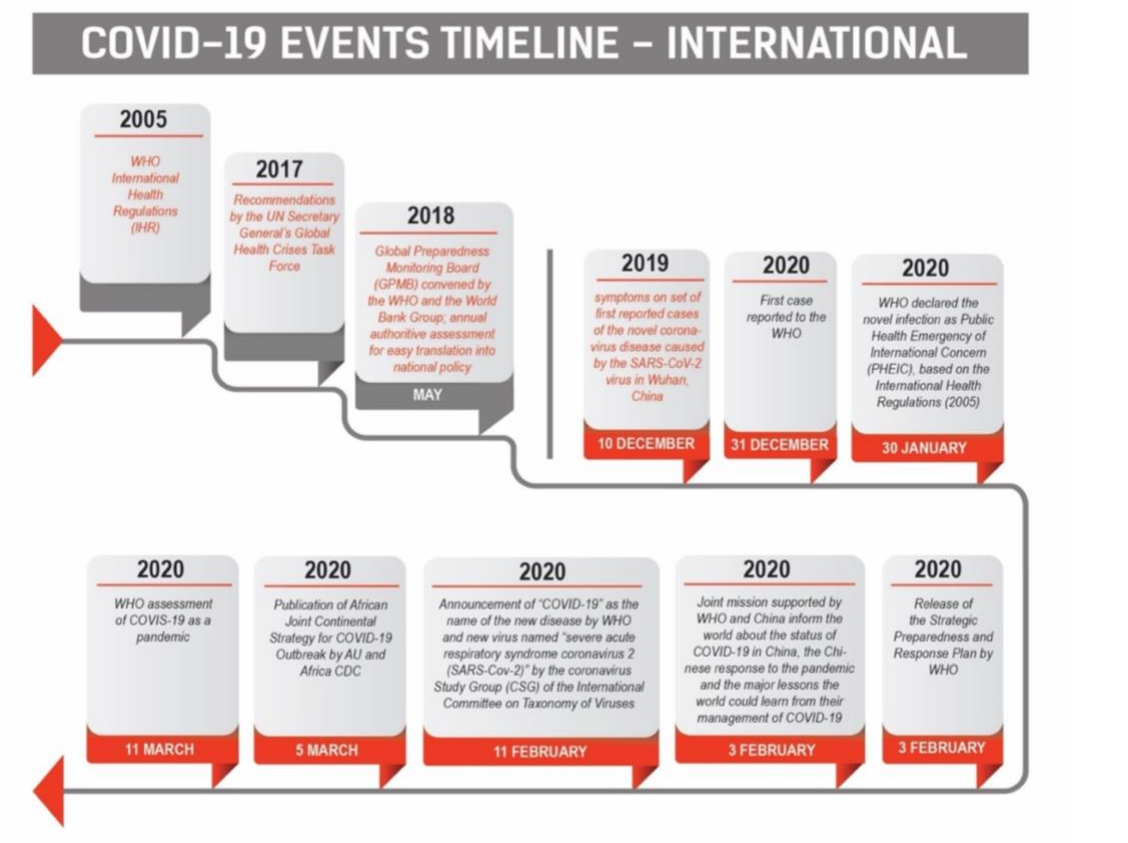
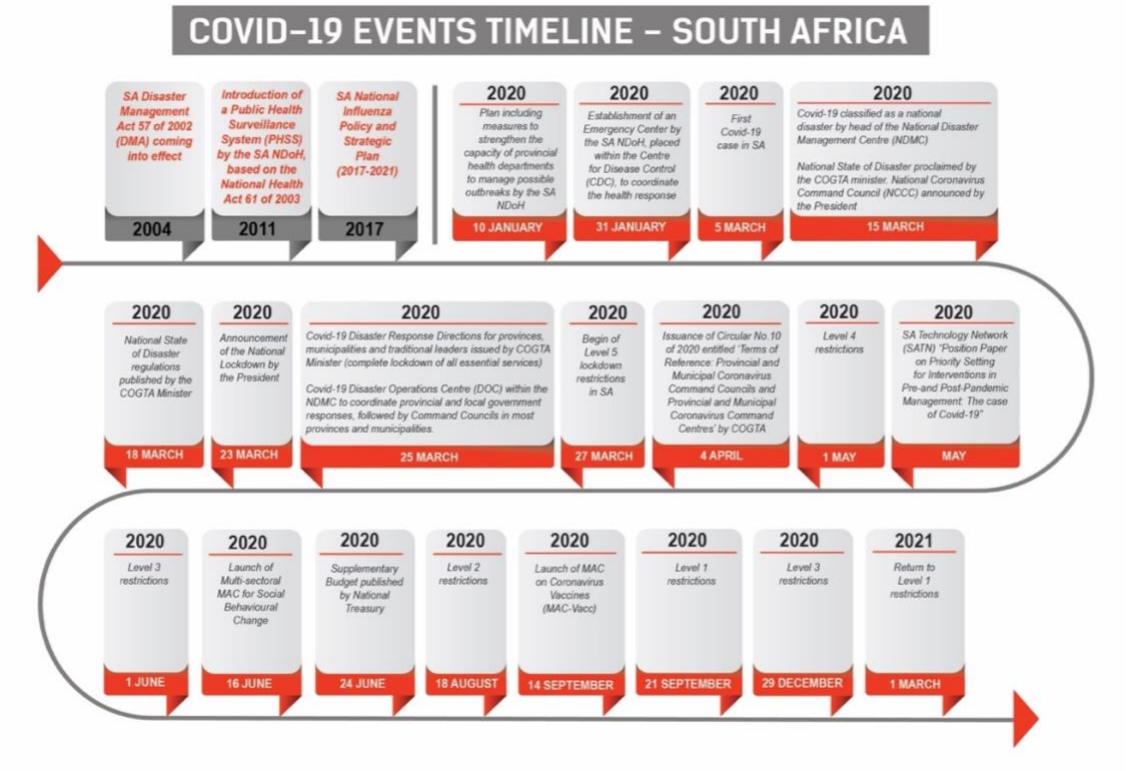


Figure 2.2: Timeline of events related to pandemic preparedness and Covid-19 in South Africa[2]



[2] See also DCD, 1999; RSA, 2003; Ministry for Provincial and Local Government, 2005; DoH, 2020.

January and February 2020

Early in 2020 the South African government's initial response to Covid-19 focused on managing international agreements to repatriate citizens affected by international lockdowns. This was coordinated by a structure within NatJoints, in conjunction with the national Department of Health.

On *24 January 2020* the Department of Health and the National Institute for Communicable Diseases (NICD) reconvened the Multisector National Outbreak Response Team and activated provincial response teams. The national team was led from within the health sector, but departments such as Home Affairs, International Relations and Cooperation, Transport, and Water and Sanitation also participated. An inter-ministerial committee was set up, chaired by the Minister of Health.

On *31 January 2020* the Department of Health set up an emergency centre in the Centres for Disease Control and Prevention (CDC), led by Ms Maggie Munsamy, to coordinate the health response. The South African CDC office, established in 1995, operates in terms of the WHO (2016) International Health Regulations and its guidelines on infectious diseases, building on experience with previous crises (e.g., Ebola and listeriosis). The CDC unit took on a central advisory role to guide the preliminary response to a potential pandemic.[3]

In *February 2020*, the Department of Health produced a Preparedness and Response Plan (DoH, 2020) that summarised the goals, objectives, institutional structures, and specific activities needed to manage the pandemic, accompanied by a comprehensive set of indicators to track performance. The plan included measures to strengthen the capacity of provincial health departments to manage a possible outbreak and to develop capacity for surveillance, contact tracing, data management, and case management.[4] Importantly, it identified 11 provincial public hospitals to manage Covid-19 cases.

At provincial level, most of the work was in surveillance and preparatory measures, which included strengthening the capacity for tracing, case management, testing (in provincial labs of the National Health Laboratory Service) and providing emergency medical services. However, the sense of urgency and the quality of preparations among the provinces were uneven. For example, the Western Cape activated response teams on 2 February to monitor events, but other provinces lagged.

March 2020

After South Africa announced its first Covid-19 case on *5 March 2020*, government acted decisively. President Ramaphosa convened a special meeting of cabinet on *15 March 2020*, which resolved that the Minister of Cooperative Governance and Traditional Affairs (CoGTA) would proclaim a national state of disaster. In the week before the meeting, the discussion had centred on whether existing structures within the health department could manage the Covid-19 response. At the cabinet meeting, however, the president established new structures, including the National Coronavirus Command

[3] Once the emergency had been declared, information was shared with the relevant sectors, and the usual protection of information was waived.

[4] See Harrison (2020) on the institutional capacity and preparedness of provincial and municipal governments and of the connecting institutions of intergovernmental relations before and during the pandemic.

Council (which was not set up in terms of the Disaster Management Act). It would be supported by a technical committee, the National Command Centre, comprising the directors-general of the departments serving on the Command Council. These structures were to meet three times a week. The National Joint Operational and Intelligence Structure (NatJoints) was activated to provide ongoing coordination, with the National Joint Operations Centre (the NatJOC) as its Secretariat. It was to meet daily. This arrangement was to prove controversial – in providing technical support to the Command Council, the NatJoints strayed beyond the security-related dimensions of the pandemic, with potential implications for civilian and constitutional government (Merten, 2020; see also Chapters 3.1 and 3.2).

The Government Communication and Information System (GCIS) convened a communication meeting on *12 March 2020*, one day after the WHO declared Covid-19 a pandemic (Chapter 4). Presentations by representatives of the Department of Health and the NICD provided information on the nature and spread of the virus.

On *18 March 2020* the CoGTA minister published the regulations for the national state of disaster in terms of section 27(2) of the Disaster Management Act of 2002 (CoGTA, 2020b). These applied to all spheres and sectors of government, including provincial and local government, all of which were required to: (a) make funding and other resources available, (b) activate emergency structures and processes, and (c) reprioritise existing budgets, 'as far as possible, without affecting service delivery'. The lack of detail in these regulations was discussed at a CoGTA Ministers and Members of Executive Councils (MinMEC) meeting on *20 March 2020*, at which it was resolved that further directions would be issued to provinces and municipalities (see below).

On *23 March 2020* the president convened a meeting with about 50 scientists and clinicians to solicit advice on the pandemic. Following the discussion, the Ministerial Advisory Committee (MAC) was established, chaired by Prof. Salim Abdool Karim (Abdool Karim, 2021). The committee was to provide advice to the health minister and the president during the pandemic, as discussed in the next section.

On the same day, the president announced the national lockdown, effective from 27 March. Provision was made for five alert (or lockdown) levels, depending on the extent of the spread of the virus and the readiness of the health sector. Law enforcement agencies were to play an important role in ensuring adherence to the lockdown regulations.

Two days later, on *25 March 2020*, the CoGTA minister issued the Covid-19 Disaster Response Directions, R399, for provinces, municipalities and traditional leaders (CoGTA, 2020c). In effect, these amounted to a complete lockdown of all but essential services. Provinces were required to:

- Set up provincial coronavirus command councils, support district and metro command councils, and capacitate the structures required by the Disaster Management Act.
- Develop and implement Covid-19 response plans.
- Support and monitor responses in the municipal sphere.
- Report on progress on a weekly basis to the minister.
- Implement precautionary measures to mitigate employee health and safety risks (CoGTA, 2020c).

The regulations were periodically supplemented, amended, and countermanded. For example, the Public Transport Lockdown Directions, dated 26 March 2020, set out regulations for transport operators but also required owners of transport facilities and services (including municipalities) to improve hygiene, sanitation and disinfection (DoT, 2020). Some officials interviewed for this research admitted that they struggled to keep abreast of the many regulations, directives and circulars.

Also on 25 March, CoGTA activated its Covid-19 District Disaster Operations Centre in the National Disaster Management Centre to coordinate provincial and local government responses (Dlamini-Zuma, 2020). Its primary role was to analyse daily reports from provinces and districts and to provide national Covid-19 structures with intelligence in the form of a daily national report. This consolidated report was submitted to NatJoints, which prepared reports to the National Coronavirus Command Council.

To facilitate reporting, the District Disaster Operations Centre created a situational reporting system to standardise reporting requirements from provinces and municipalities (CoGTA, 2020d), most of which acted promptly in setting up command councils. These councils quickly emerged as the hubs of subnational authority, although their legal basis was initially queried in some provinces, just as that of the National Coronavirus Command Council was queried at national level (Hunter, 2020). It was, however, eventually accepted that the provincial coronavirus command councils operated as a structure of the provincial cabinet with the authority of the cabinet, and the district coronavirus command councils acted with the authority of the mayoral executive.[5]

Consistent with the Directions, there was a high level of uniformity in the structures. Provincial command councils were established and chaired by the premiers and involved most, if not all, provincial Members of the Executive Council (MECs).

The Directions of 25 March 2020 dealt with the establishment of political structures but did not indicate how these structures were to be supported technically and managerially. The reference in the Directions to the capacitation in the structures required by the Disaster Management Act suggests that, at the time, provincial and district disaster management centres were expected to be the primary support structures. However, on *4 April 2020* CoGTA issued Circular 10 of 2020, titled 'Terms of Reference: Provincial and Municipal Coronavirus Command Councils and Provincial and Municipal Coronavirus Command Centres'.[6] Its aim was to ensure the following:

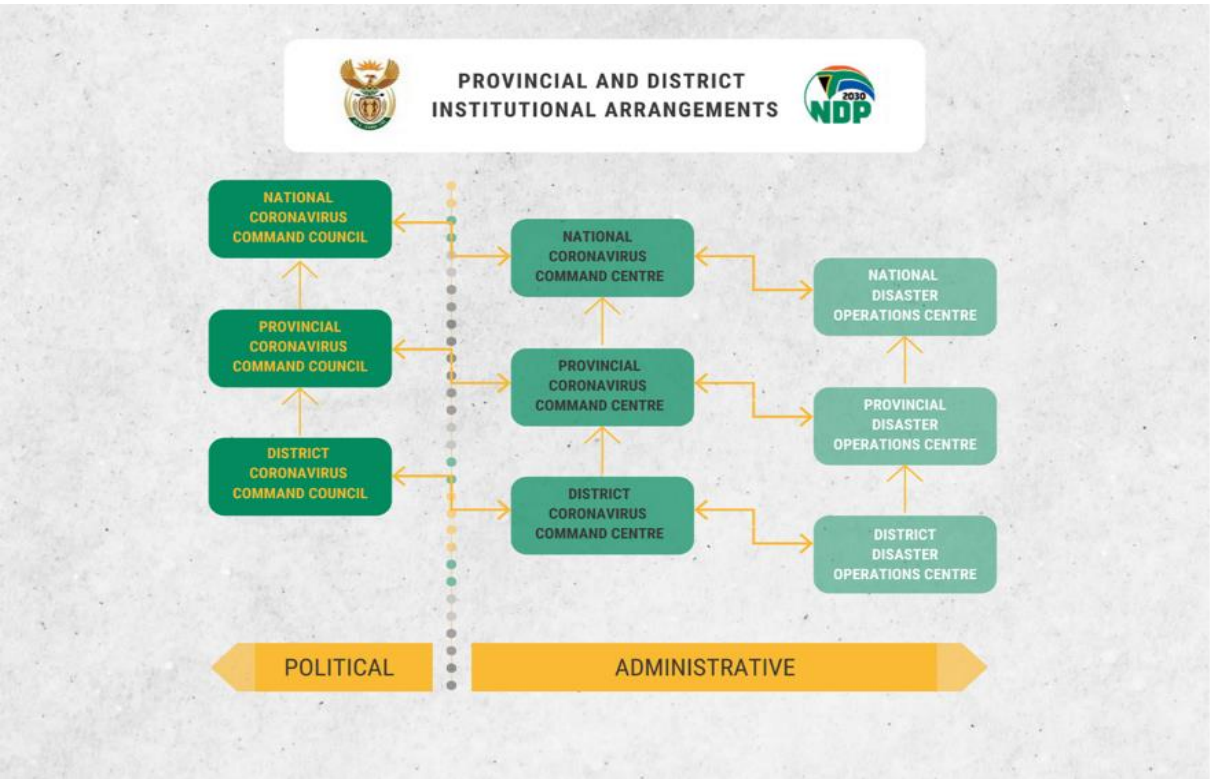
- National institutional arrangements and structures were replicated at provincial and district level.
- Structures were standardised to align with the Disaster Management Act and the published regulations and directions (CoGTA, 2020a:s2.1).

[5] In early June, in answering a parliamentary question, the president indicated that cabinet set up the National Coronavirus Command Council as a committee of cabinet in its meeting of 15 March 2020 (Hunter, 2020). Thus, despite it being called a 'command council', the National Coronavirus Command Council's decision-making authority rests with cabinet, to which it makes recommendations. Indeed, the Command Council was eventually expanded to include all members of cabinet, effectively conflating it with its mother structure.
[6] Although Circular 10 was issued on 4 April, after the start of the lockdown on 27 March, it is discussed here because it is integrally related to the regulations issued on 25 March.

Circular 10 required provinces and districts or metros to set up command *centres* (as opposed to the command *councils*, which were the political structures). As shown in Figure 2.3, the command centres were the intervening structure between the command councils and the disaster management centres. The provincial and district command centres were to meet three times a week and submit reports to the provincial command councils. The provincial disaster management centres were expected to undertake the technical work around the reports, but provincial joint operational and intelligence structures (ProvJoints) would be active participants.

The command centres were to ensure the preparation and implementation of the Covid-19 response plans; the implementation of all regulations, directions and guidelines directed at provincial and district government; the reprioritisation and mobilisation of resources; the activation and functionality of disaster management centres and joint operations centres; the provision of basic services; and the availability and functionality of quarantine sites. Importantly, as this took up a significant proportion of time, it was to submit reports to the command councils (CoGTA, 2020a:s3).

Figure 2.3: Circular 10: Provincial and district institutional structures



Source: CoGTA, 2020a

These structures developed and evolved across provinces and municipalities, drawing on existing institutional capacity. Some provincial disaster management centres were well capacitated because they had recently been activated to deal with the drought; others were barely functional.

The term 'command centre' was soon dropped – possibly because of the confusion with the term 'command councils' – and many provinces and municipalities referred to 'war rooms' instead.

Command councils or war rooms were staffed by high-level officials (directors-general, municipal managers, and department heads) and met three times a week. A further layer of support with divisional heads was needed; the Circular called for provincial and district 'disaster operations centres', which were to meet daily.

In almost all cases, the structures were set up as required, although they were not as standardised as CoGTA envisaged. The South African Local Government Association (SALGA) reports high-level buy-in and personal commitment to the operation of structures within the municipal sphere.[7] It observes that these structures were able to work together, even where there was some competition for position. In any event, the boundaries between structures became quite fuzzy because of cross-membership. While the structures may have performed well in terms of their institutional set-up, determining the effectiveness of the institutional architecture is a complex matter.

The initial lockdown (late March to November 2020)

As noted, cabinet had established the National Coronavirus Command Council to coordinate the Covid-19 response, supported by NatJoints and the National Disaster Management Centre. The Command Council set up various work streams, and members of the National Disaster Management Centre served on several of these (Bruwer et al., 2020):

- *Public health containment work stream:* The National Disaster Management Centre supported the Department of Health and the public health work stream of NatJoints with information on infection rates, possible measures to protect people, and new protocols (e.g., social distancing, handwashing, and analysis of the dispersion rate) for balancing health and economic considerations at various levels of lockdown. The approach to implementing the different levels was not uniform; instead, it would be tailored to prevailing socio-economic conditions.
- *Legal and regulatory work stream:* From 16 March to 9 May 2020, the legal work stream worked every day from 9:00 to 22:00. NatJoints reports were sent to the National Coronavirus Command Council, and decisions with legal implications were returned to the legal work stream to be translated into legislation. Since 18 March 2020, there have been 13 government notices in terms of the Disaster Management Act; 170 notices of directions have been gazetted, and 60 notices have been issued in terms of other legislation. The legal work stream also provided initial inputs on legal cases instituted against government; however, formal responses were managed by the relevant ministries.
- *Economic work stream:* During this phase, the focus was on final pandemic-related measures and on the post-Covid recovery plan. The economic work stream assessed which sectors were viable in different levels of lockdown, based on their contribution to the economy, the impact of lockdown on each sector, and the degree to which health risks could be managed. It considered various social support mechanisms, such as expanded access to the Unemployment Insurance Fund and providing for an unemployment grant. It also engaged with the public to ensure that

[7] Interview with a senior official from SALGA, 29 July 2020.

health and safety protocols were followed, to build trust in government, and to give information on the available support programmes.

NatJoints provided a platform for coordination between the sectors and helped ensure that implementation plans were put in place, as captured in the response plan. The National Disaster Management Centre assembled a network of experts that could be helpful in coordinating the response to any future disasters. Other lessons were also learnt (e.g., how to optimise virtual meetings). Data and information management structures had been put in place, and researchers could access data on Covid-19-related matters.

The MAC, formally established on 30 March 2020, played an important role in responding to questions from the president and the MEC for Health (Abdool Karim, 2021). Its advice was more informal in the initial four to six weeks, but from April it provided formal advisories. By mid-June 2020 the MAC started to pose its own questions, in addition to those from the MEC for Health. The MAC was not formally gazetted, and its existence was irregular, but it worked fairly well to provide inputs on the management of the pandemic and its effect on society, based on the evidence available at the time. Advice from the committee was considered in addition to other inputs, including financial considerations. The MAC was later reorganised to allow for more efficient decision-making and add key disciplines, including the behavioural sciences. The Multisectoral Ministerial Advisory Committee for Social Behavioural Change was launched on 16 June 2020 (Mpumlwana, 2021), and the Ministerial Advisory Committee on Coronavirus Vaccines (MAC-Vacc) was announced on 14 September 2020 (Table 2.1; Schoub et al., 2021).

Table 2.1: Ministerial advisory committees

Committee	Chair(s)
Ministerial Advisory Committee on Covid-19	Professors Salim Abdool Karim and Marian Jacobs
Ministerial Advisory Committee on Coronavirus Vaccines	Professor Barry Schoub
Multisectoral Ministerial Advisory Committee on Social and Behavioural Change	Bishop Malusi Mpumlwana

Because the police units and military were involved, the initial responses to the pandemic emphasised law and order (Schwartz, 2021). Later on, a more social approach became important, and it might have been appropriate at this stage for government's response to have been led by departments from the Social Protection, Community and Human Development Cluster. However, the Department of Health continued to lead the response, with support from the others. Indeed, at one point the health minister expressed the desire to use the National Health Act in responding to Covid-19, rather than the Disaster Management Act (Pillay, 2020).

Between the peak of the first wave (August 2020) and the start of the second towards year-end,[8] the governance focus shifted to recovering from the disaster, with the emphasis on 'averting or reducing the potential impact response and relief measures and rehabilitation and reconstruction strategies following a disaster' in accordance with the National Framework for Disaster Management (Ministry for Provincial and Local Government, 2005:54). This involved strategies to recover lost jobs and the continued payment of Covid-19 support grants (Chapters 5.3 and 6.1). The second wave halted recovery activities and refocused attention on the management of the pandemic.

THE SECOND WAVE (DECEMBER 2020 TO JANUARY 2021)

The first and second waves of the pandemic were very different in nature. The first wave was characterised by a gradual increase in cases from March to the peak in August 2020; this gradual rise could probably be ascribed to both the hard lockdown and people exercising extreme caution. The second wave was more severe, peaking within two months. It saw a rapid increase in new cases, hospitalisations, and deaths (Chapter 5.1).

To some extent the prediction models, informed by the first wave and the local context, accurately anticipated the second wave. Some respondents reported that the models helped to inform the interventions required (e.g., the number of beds needed). However, others were caught off guard by the rapid spread of the virus, with little or no opportunity to control the pandemic. The new strain of the virus seemed to spread more rapidly, aided by reduced civil adherence to Covid-19 protocols (e.g., social distancing and sanitising) over the festive season, and economic and psychological exhaustion following people's long-standing compliance with these protocols.

By and large, government was better able to respond to the second wave from a facility, clinical, and security point of view. Existing protocols and interventions were strengthened, including moving to a higher level of lockdown, reducing human interaction, preventing super-spreading events, and delaying the reopening of schools for the new academic year. At provincial and local level, institutional arrangements and joint implementation approaches were scaled up, with meetings shorter, more focused, and less time-intensive than during the first wave. Data collection and information-sharing arrangements streamlined the implementation approach; some provinces reported a more hands-on, provincially driven response, less dependent on direction from the national level. Frontline staff were also more willing to engage with their tasks despite the risk associated with the pandemic. Overall, there had been an opportunity to learn and improve systems between the first and second waves. Much of the learning was informal and implicit, but there were examples of formal organisational learning, such as the Gauteng case study (GCRO, 2021).

Likewise, healthcare staff had more experience and information in the second wave, and health facilities were better equipped to manage infections and cross-contamination. However, the severity

[8] While the second wave officially started in December, provinces such as the Western and Eastern Cape already saw a surge in November, as discussed in more detail later. This underscores the need for a nuanced approach to any future waves.

of the second wave meant that many healthcare facilities struggled more than in the first wave. In Cape Town, for example, facilities reached 105% capacity by end-December, requiring provincial authorities to redistribute patients and reallocate resources between hospitals. Unexpectedly, in some provinces there was less pressure on public than on private facilities, as people outside the private healthcare system were less likely to report to hospitals (or, indeed, for testing). One consequence was very high levels of 'excess deaths' in some areas, including the Eastern Cape and non-metropolitan KwaZulu-Natal (Chapter 5.1).

Across the country, the high rate of infections among healthcare practitioners increased the strain on the health sector, while the lockdown arrangements to prohibit alcohol sales sought to reduce strain on the sector (Chapter 6.2). Government support activities adopted a different focus from the first wave, as shown in Table 2.2.

Table 2.2: Focus areas in the first and second wave

Area	First wave	Second wave
Institutionalising systems	Focus on establishing systems to monitor the pandemic and track rising case numbers.	Structures institutionalised and systems established in the first wave enabled a more informed response.
Available information	Information often not available, with unclear mandates on data collection responsibilities. Additional support from Health, the SAPS and the SANDF in some areas.	Responsibilities and collaboration agreements better defined; available information assisted with projections of observed trends.
Humanitarian and economic relief	Emphasis on humanitarian, socio-economic relief under hard lockdown (e.g., providing facilities to homeless people), with heavy responsibility on municipalities	SASSA and national government coordinated humanitarian and economic relief efforts. Limited focus on assisting homeless people because of financial constraints.
Public quarantine facilities	Provision of public facilities for quarantine (guest houses) for those who cannot isolate at home.	Few public quarantine and isolation facilities because of financial constraints.
Hospital beds	Additional field hospitals commissioned to increase bed capacity. Most provinces able to cope with the demand for treatment facilities.	Repurposing of existing facilities to provide additional beds. Demand exceeded supply in more provinces. Additional facilities deemed unfeasible because of a lack of healthcare practitioners to staff further beds.
Medical personnel	Focus on procuring adequate, high-quality PPE. Protocols drafted on treating Covid-19 patients and avoiding contamination.	Focus on reducing staff shortages from staff that contracted Covid-19, staff exhaustion, and rising patient numbers.
Civil compliance with Covid-19 protocols	Hard lockdown encourages civil compliance with regulations (e.g., social distancing, sanitising). Emphasis on strategies and communication to change behaviour.	Challenge with continued civil compliance with protocols after relaxation of lockdown (and general sense of relief). More forced compliance (e.g., police monitoring of public spaces) rather than promoting and enabling behaviour change.

Security response	Additional security support from the SAPS and the SANDF to ensure compliance with hard lockdown rules. Some incidents of wrongful enforcement of lockdown rules.	Reduced deployment of the SANDF to communities. Enforcement of ban on alcohol sales and access to public spaces diverted attention from controlling the spread of the pandemic.

Note: SAPS: South African Police Service; SANDF: South African National Defence Force; SASSA: South African Social Security Agency; PPE: personal protective equipment

Another critical difference between the two waves is that the country was not in complete lockdown the second time round. Although the economy remained in distress, activity was cushioned by the Covid-19 social relief of distress grant (Chapters 5.3 and 6.1). During the first wave, many of the regulations were targeted at economic activity, but in the second, the focus was more directly on containing viral spread, for example through requiring the use of masks, restricting public gatherings, and enforcing curfews. Some regulations, however, were controversial, especially the banning of outdoor activity through the closure of public spaces. There was also a mismatch between the progress of the second wave and the regulatory response, especially during the critical first three weeks of December when South Africa remained at adjusted alert level 1.

INTERGOVERNMENTAL RELATIONS AND SUBNATIONAL RESPONSES

The institutional placement for coordinating the disaster management response varied between provinces, depending on their existing capacity. In Gauteng, the Western Cape and KwaZulu-Natal, operational disaster management centres in the CoGTA or local government departments were instrumental in coordinating the Covid-19 response. These provincial disaster management centres benefitted from experience in managing earlier disasters (e.g., droughts and floods) in their provinces. In the North West, the provincial department of health coordinated the provincial response, with strong support from the private sector (e.g., mining companies). In the Northern Cape the Premier's Office coordinated the response with strong support from the department of health, the provincial arm of the South African Police Service (SAPS) and augmented support from the South African National Defence Force (SANDF).

As noted, most provinces and municipalities acted promptly in setting up command councils in response to the Directions of 25 March 2020. Some, including the Eastern and Western Cape, held 'extended command council meetings' (sometimes called 'extended cabinet meetings'), which brought social partners, political parties, and mayors into decision-making. The broader constitution of command councils was also important in the municipal sphere. In Nelson Mandela Bay, for example, the mayor leveraged the participation of business to secure funding for a large field hospital from the private sector and created partnerships with local universities (Ellis, 2020).

While South Africa has state-of-the-art legislation and institutional structures, institutional slippage over time contributed to serious capability deficits in key areas. The National Development Plan acknowledged this, noting that institutional performance was highly uneven with 'tensions in the political–administrative interface, instability of the administrative leadership, skills deficits, the

erosion of accountability and authority, poor organisational design and low staff morale' (NPC, 2012:408). Also, 'South Africa suffers from high levels of corruption that undermine the rule of law and hinder development' (NPC, 2012:446). More recently, the Auditor-General delivered a withering assessment of the management of many municipalities, noting challenges such as irregular expenditure, weak financial controls, supply chain irregularities, and high levels of municipal debt to state-owned enterprises, including Eskom and the water boards (Somyo, 2020).

In confronting a crisis on the scale of Covid-19, government must draw fully on structures, capacities and goodwill across all spheres. The effectiveness of this is, however, undermined by both institutional weaknesses and weaknesses in intergovernmental relations, including a lack of mutual trust and the poor quality of information flows. A big question, therefore, is whether the crisis itself might help improve intergovernmental relations by bringing the three spheres (and other actors of governance) into new or better relationships. In this regard, prior experience of health crises, including HIV/Aids and tuberculosis, may have been significant in shaping responses. Likewise, levels of awareness of a possible pandemic may have improved somewhat with the 2017 outbreak of the severe foodborne disease, listeriosis, in Gauteng (Tchatchouang et al., 2020). During the outbreak, the Multisector National Outbreak Response Team was activated, which meant there was some recent experience with monitoring disease outbreaks.

Ultimately, government had to balance directive and cooperative approaches to the crisis across the different spheres; how successfully it did this can be debated. More important, however, is the learning that emerges and the implications for post-disaster governance. Critical concerns relate to the form of the disaster management system, institutional cultures, the distribution of functions between the spheres of government, the quality of decision support systems, and governmental responses to the (severe) fiscal consequences of the pandemic. For the future, the primary issue is how to capitalise on the positive elements that emerged from this disaster, while addressing the problems identified.

As a health crisis, the pandemic did not affect all parts of the country at the same time or to the same extent. Likewise, as an economic and social crisis, its ongoing effects are also differentiated, because the economic structure of places differ (for example, some depend more on the severely affected tourism sector), as do levels of household vulnerability (Chapters 5.3 and 6.3). It is therefore important to pay close attention to governance and pandemic responses at subnational level, including provinces, districts, local areas, and wards.

PROVINCES

Provincial premiers and their administrations had direct responsibility for provincial and district health services. The crisis revealed considerable variation in the performance of these structures and in their ability to facilitate the flow of epidemiological data and other information for the management of the pandemic. Provincial governments also had to sustain education during the lockdown, dealing with the consequences of national decisions across very different provincial and local contexts (e.g.,

preparedness for school reopening). They also had to provide leadership throughout the crisis, communicate with the public, mobilise social actors, and support municipalities. Provincial premiers and their top leadership were highly visible during the lockdown, and one of the consequences of being 'on the ground' was that a number of politicians and senior officials were infected with Covid-19. More severe, however, was the effect on frontline staff, especially in education and health.

Provinces played a strong leadership role during the lockdown but also experienced leadership and system failures, most seriously around corruption in the procurement of pandemic-related goods and services. The Gauteng case study (GCRO, 2021) showed that the ability to achieve the necessary adaptive response was hampered by pre-existing factors and structural realities in a complex city region and a transitional society. The newly established disaster management governance structure was intended to facilitate both collective decision-making and the flow of decisions, information and responsiveness. However, the need for personnel to adapt to these requirements had been underestimated.

MUNICIPALITIES

Municipalities were placed on the margins of decision-making but had an enormous role to play. They had to keep providing essential services while accepting an expanded range of functions – some possibly outside their constitutional mandate – at a time of lower income, disrupted logistics, and severe pressure on officials. Critical municipal functions included:

- Maintaining essential services (e.g., water, electricity, refuse removal and transport)
- Supporting provincial and national government agencies with tracking, tracing, advocacy, education, and providing isolation and quarantine facilities
- Collaborating with law enforcement agencies in ensuring compliance with regulations
- Expanding support to vulnerable people (e.g., water, sanitation, homeless shelters, and social relief)
- Working towards the recovery phase through, for example, economic development programmes.

In general municipalities managed credibly under the extremely difficult circumstances, but their performance varied. Some complex issues also arose. The first related to *political oversight over executive actions*. The operation of municipal councils was suspended between 27 March and 7 May 2020, for example. Even after that, council performance was often partial and variable, depending on factors such as information and communications technology (ICT) preparedness. The continued political functioning of local government under crisis is a matter that requires consideration.

Second, national government deployed its *district development model* for structuring pandemic governance at municipal level. While districts do provide a scale of governance that allows for strategic coordination, in some provinces they are territorially vast, and authorities and communities are far apart. There were adaptive responses: district command councils, for example, found the means to incorporate local municipalities. Importantly also, ward-based governance approaches evolved, allowing for micro-coordination and information sharing. In KwaZulu-Natal, a long-established ward-based approach known as Operation Sukuma Sakhe enabled provincial and district structures to draw

on local commitments, knowledge and relationships. Other provinces followed this example, although arguably too late in the first wave to make a real difference. The role of ward councillors, however, was poorly defined. They were withdrawn from processes such as the allocation of food parcels to vulnerable households after allegations of patronage but were not given other roles that could have drawn on their local knowledge and networks.

Third, insufficient attention was given to the *specific challenges of rural municipalities*. These areas have the highest levels of vulnerability and poverty, but their physical scale, low population density, poor ICT connections, and weak fiscal base hamper service delivery. Specific challenges included:

- Communicating the messages of pandemic responses across long distances and in areas where radio and television signals are weak or absent
- Ensuring proper sanitation (including handwashing) in places without running water
- Managing the risks of community gatherings for customary and cultural practices
- The effects of mobility restrictions on livelihoods that require travel (e.g., taking produce to market)
- The difficulties facing rural councillors in connecting to online municipal council meetings
- The difficulties of isolation and quarantine due to the nature of rural livelihoods (e.g., the need for constant supervision of crops and livestock).

In some areas, councillors and mayors played an important role in visiting outlying communities, relaying Covid-19 messages and protocols to these communities, countering false news, and reducing the stigma around Covid-19. Mubangizi (2020) provides more detail on how rural municipalities were brought on board in the Covid-19 response.

One key feature of rural areas is the presence of traditional leadership, who play an important role in the allocation of communal land and in the management of customary and ritual practices. The role of traditional leaders was acknowledged in the pandemic, and critical meetings were held between these leaders and the deputy president and president. The National House of Traditional Leaders moved quickly at the end of March to announce the suspension of the initiation season. However, other challenges remained, including large gatherings for funerals and other events. Reportedly, traditional leaders helped support municipalities in managing these events and in balancing the need to sustain traditional coping mechanisms with the need to prevent the spread of the virus. The role of traditional leaders does, however, require further attention, as noted by the chair of the Multisectoral Ministerial Advisory Committee on Social Behavioural Change (Mpumlwana, 2021).

Fourth, the difficult problems were not limited to rural municipalities. *Metropolitan municipalities*, for example, have the largest and densest concentrations of people and were often epicentres of the pandemic. Communities in informal settlements are particularly vulnerable – social distancing is impossible in these areas, and many people are food insecure (Chapter 5.3). In the Eastern Cape, for example, the pandemic was brought under reasonable control early in the first wave by activating community structures, but high rates of infection persisted in the metros and their surrounds.

A further category of settlement that proved challenging was those that rely on *mining or tourism*. As discussed in Chapter 6.5, mines pose a particular risk. They have a large concentration of people, and (especially underground) conditions are conducive to the spread of the virus. Governance is also different, with significant involvement of the Department of Mineral Resources and Energy, the Mine Health and Safety Council, the Minerals Council South Africa, mining companies, and labour unions. At the start of the lockdown, mining companies had to place their mining operations under 'care and maintenance', but mines began to reopen from mid-April 2020. As labour returned to the mines, this risked the spread of infection first on the mines and then into surrounding communities. Measures taken during the pandemic included:

- The Department of Mineral Resources and Energy issued regulations in terms of the Disaster Management Act, requiring all mines to develop a standard operating procedure in consultation with organised labour.
- The Minerals Council worked on developing the agreed standard operating procedures and other guidelines.
- Testing of the workforce for Covid-19 was extensive; in some cases, 100% coverage was achieved.
- Facilities were refurbished for use as field hospitals and for quarantine and isolation.
- Despite recent wage strikes, mining companies and unions found common cause in the fight against Covid-19 and worked together to contain its spread.
- Provincial and district health authorities monitored compliance with the regulations.

Importantly, partnerships between government, mining companies, and other private actors were significant in increasing testing capacity in more rural provinces and facilitated the supply of additional hospital beds and personal protective equipment (PPE). The spread of the virus was contained, and by late October 2020, the Minerals Council observed that 'as the mining industry we have come through fairly well, with cases declining rapidly and a case fatality rate that is about half the national one' (James, 2020).

Fifth, municipalities faced additional demands, but their *income streams were shrinking rapidly*; their sustainability during periods of crisis needs serious attention (Chapter 6.1). Because municipalities rely heavily on the monthly collection of property taxes and service changes, most were immediately affected by the economic shock. Collection rates dropped sharply as unemployment increased and businesses contracted, and municipalities lost their leverage over defaulters when credit control measures were suspended. In one metro, for example, collection levels dropped precipitously from 95% in March to 56% in April 2020. National government did provide some support: for 2019/20, the National Treasury allowed municipalities to reallocate conditional transfers that were not contractually committed, and a Municipal Disaster Relief Grant was activated. However, the amounts were modest relative to the scale of the challenge. For the new financial year, the president has announced a R20 billion stimulus package that includes an allocation to be paid directly to municipalities. However, the long-term effects of the pandemic are still uncertain, and its fiscal impact is expected to continue for at least the next three years.

Sixth, the WHO Covid-19 delegation dispatched to South Africa at government's request found that the country's set-up of response structures was very successful (Ramadan & Talisuna, 2021). South Africa has adapted the Integrated Disease Surveillance and Response Strategy used in the region. However, its *surveillance system is fragmented*. Information system infrastructure remains a major challenge – each province has two or more platforms that are mutually incompatible. The WHO team recommended the development of a single national system to capture and analyse data in real time. At provincial level, reporting, coordination, and information sharing were also inadequate. The WHO is supporting improvement efforts, including resurgence planning and preparedness. Targeted responses in the Eastern Cape, the North West (Box 2.1) and Gauteng helped improve the situation (Chapter 9). At district level, there were severe gaps (e.g., in the availability of experienced personnel). As a result, districts were neither adequately involved in the responses nor sufficiently prepared for the second wave.

Box 2.1: The North West in the first wave

The Department of Health's existing provincial outbreak response teams needed to adapt to the particular demands of Covid-19. In the North West, the department appointed a technical team to set up new systems and structures. These included the command council and centre, the disaster management team, a security cluster, a technical lead team in the department, and an occupational health and safety committee that involved the mining sector and big business. The technical team ensured that protocols and guidelines were in place and informed staff how to respond. Three committees were activated, one led by the head of department for CoGTA, a technical team that coordinated the work of all senior managers from departments, a security cluster to maintain law and order, and a team of executive managers to participate in the district command centres.

The Department of Health set up nerve centres with programme managers, the CDC, epidemiologists, and data capturers. Comprehensive plans were developed – an integrated Covid-19 response plan at provincial level assisted with coordinating the response across provinces. The Department of Public Works helped provide separate facilities for Covid-19 patients, based on the projected demand for beds. The health department worked with private facilities willing to provide quarantine facilities. The coordination with the mining sector sought to ensure the provision of quarantine sites for staff members in mine hospital facilities. One of the mines turned a structure into a field hospital and allowed the department access to these beds. Ultimately, the hard lockdown helped to slow the infection rate and created the opportunity to develop systems. Infections rose once the lockdown eased, but protocols for managing returning mine workers and travellers from abroad have since been tightened to avoid a repeat of such increases. By November 2020, no areas of resurgence (defined as a 20% increase in weekly cases) had been identified.

Finally, like the other spheres of government, municipalities have experienced problems of *corruption* in procurement, especially after 5 May 2020, when the Minister of Finance exempted them from the provisions of the 2005 Municipal Supply Chain Management Regulations. Developing flexible but transparent and accountable processes for procurement is a critical challenge into the future.

SUBNATIONAL GOVERNMENT AND THE TWO WAVES OF THE PANDEMIC

The waves of the pandemic did not pass evenly across the provinces. The first wave began early in the Western Cape (peaking on 4 June) and ended with minor peaks in the more rural provinces of Mpumalanga, Limpopo, and the Northern Cape in August and September 2020. As noted, the second wave began in the Eastern Cape in early November; it peaked by about 10 December, when the

Western Cape, KwaZulu-Natal, and Gauteng were only entering the second wave. These provinces peaked in early January, driving the national peak, and the other provinces peaked slightly later.

This provincial variation complicated the national response to the pandemic. For example, when national restrictions were eased on 11 November, the Eastern Cape was seeing a surge of infections that could potentially spread nationwide. The use of a hotspot strategy did, however, enable limited spatial targeting, although controversially so in terms of the closure of public spaces (including beaches). Overall, government's broad approach was to maintain national uniformity and central decision-making, with limited adjustment when warranted by local circumstances.

The extent to which different provinces were affected by the pandemic is not always clear. The official national figures suggest the pandemic centred mainly on provinces with metropolitan hubs. However, a careful reading using a standardised figure per 100 000 people suggests a more even spread. Calculations of 'excess deaths' and studies of antibody positivity or seroprevalence suggest that the Eastern Cape and KwaZulu-Natal may have been the most severely affected, while provinces such as the Free State, the Northern Cape, and Limpopo also had higher levels than previously supposed. Many of the regional effects of the pandemic remain partly hidden (see also Chapter 5.1).

The ending of the first wave nationally during August 2020 provided a much-needed respite and an opportunity to absorb earlier lessons. In this time, provinces responded to serious allegations of widespread corruption in procurement during the first wave; some premiers took action to ensure greater transparency and better control in future. In Gauteng and the Eastern Cape, the health MECs lost their jobs. Provinces, and some municipalities, followed the release of the national Economic Reconstruction and Recovery Plan by producing their own, tailored economic recovery plans. Improvements were also seen in systems (e.g., the use of data and ICT) and in health facilities (e.g., greater bed capacity and the construction of oxygen tanks).

Across most provinces and municipalities, the second wave was more intense than the first. At the peak of the second wave, healthcare facilities in many places were under severe pressure. Hospital capacities were arguably breached in places, although for a limited period. Successful management of the peak pressures required the ability to rapidly redeploy capacity and redistribute patients between hospitals, which provinces managed with varying degrees of success. Ironically, in some provinces the pressure was on private rather than public hospitals, with sick individuals outside of private medical care remaining at home rather than reporting to health facilities (even for testing).

INTERGOVERNMENTAL RELATIONS

The crisis compelled the spheres and agencies of government to come together around a common objective to a degree, which is historically rare, and new and expanded practices of collaboration and coordination have emerged within and across them. There was a quick recognition that the scale of the crisis demanded an all-of-government approach, and structures were set up that crossed the

spheres and allowed for the rapid transmission of information, instruction and feedback at the national–provincial, national–municipal, and provincial–municipal levels.

There are, however, some points of contention and areas for future consideration. Although the structures allowed for multi-sphere coordination, they were quite hierarchical. The debate will continue over whether a fair balance – appropriate to the country's constitutional system – was achieved between the need for a rapid, authoritative and uniform response nationally and the need for experimentation, flexibility, contextual responsibility, and local and regional participation. Most provincial officials interviewed indicated their willingness to accept a higher degree of hierarchical arrangement during a crisis but stressed that this should only be *temporary*.

While intergovernmental relations were arguably one of the strengths of the pandemic response, there were weaknesses in the detail and in the broad approach. At times the dynamic between national government and the Western Cape was complicated because of political divisions, although working relationships were sustained. Other areas that require attention include the regulatory role of municipalities in relation to the SAPS; the respective roles of the national Department of Social Development, the South African Social Security Agency (SASSA), and municipalities in supporting vulnerable households; provincial engagement in national decision-making around school closures and openings; and the functioning of the district development model in relation to local municipalities and wards. Horizontal-type collaboration was another weakness. The orientation was quite strongly vertical, and many opportunities for cross-jurisdictional (inter-national, interprovincial, inter-municipality) learning, collaboration, and support (e.g., sharing of equipment, personnel and facilities, and joint procurement) were missed.

Although a detailed discussion of the multiple dimensions of government leadership, institutional arrangements and state capacity in responding to Covid-19 is beyond the scope of this overview, the boxes below discuss specific examples: the food supply chain (Box 2.2), science and research (Box 2.3), and higher education and training (Box 2.4). The impact of the pandemic on the food supply chain is discussed further in Chapter 6.2 on agriculture and in Anelich (2020a & 2020b); the impact on the education sector is addressed in Chapter 5.2.

Box 2.2: The food supply chain

A critical challenge in any lockdown is how to ensure that the supply of food remains functional, so that people can access food consistently and at stable prices. In retrospect, government underestimated the knock-on effects of decisions it made before alert level 5. Infrastructure to support compliance with regulations was also inadequate. Because the food industry is highly organised, more reliance on its expertise and systems might have improved outcomes, as it was better placed to address critical issues.

For example, the ports had not been designated 'essential services', and operations at several ports, especially Cape Town and Durban, were seriously affected. Cape Town initially operated at 30% capacity, which forced fruit exporters to transport produce to Port Elizabeth at considerable cost. At Durban Port, food imports were delayed by as much as 3–4 weeks.

There was little coordinated communication between national government and provincial and local levels, resulting in confusion. The SAPS, for example, were not clear on what services were essential. Provinces also interpreted regulations differently, creating difficulties for food businesses with facilities in several provinces.

The larger industry organisations were approached by either the Department of Agriculture, Land Reform and Rural Development or the Department of Trade, Industry and Competition; within those structures, there was good communication from government. However, for organisations outside these larger organisations and for small businesses, there was little to no communication. This created significant difficulties; both the wine industry and the restaurant sector were severely affected.

Overall, Covid-19 highlighted weaknesses in government structures, services, communication, and decision-making processes. However, some mutually beneficial new connections were made between industry and government. It is hoped that these connections will be maintained after the pandemic. A number of industry associations also worked together and formed new relationships. Another important finding from this period is the interconnectedness between the formal agricultural sector and informal food traders.

Box 2.3: Science and research

South Africa's world-class biomedical and related research expertise has extensively been directed towards alleviating the Covid-19 pandemic. The Department of Science and Innovation has been engaging with Cape Town-based Biovac, the only South African public-private partnership manufacturer of human vaccines. This led to an agreement with Sanofi Pasteur to outsource the manufacturing of vaccines for use in South Africa and the region. From interviews conducted with the director-general of the department and the MAC-Vacc (Schoub et al., 2021), it is apparent that funding for research has been stable for 2021 and the National System of Innovation will continue to operate at pre-Covid-19 pace. Biovac has the expertise for filling and finishing Covid-19 vaccines, as well as limited manufacturing facilities. Negotiations are underway around the filling and finishing Covid-19 vaccines locally. Should such negotiations be successful, any local process would require a 12-month lead time. The department is also working to connect local capacities, including clinical trials, 'upstream' production of vaccines (e.g., in cell culture) and upscaling of production, over the next 18–24 months. The procurement and supply of Covid-19 vaccines in South Africa will be presented and discussed in detail in the second version of the Country Report.

Box 2.4: Higher education and training

Before the lockdown, the Department of Higher Education and Training published a document titled 'A Handy Guide on What's Happening in the Post School Education and Training Sector'. The document does not recount on what basis decisions were made, but in retrospect the timelines for the reopening of post-school education were over-optimistic, as discussed in Chapter 5.2. While all parties wanted to save the 2020 academic year, returning to campus could risk the lives of 2,5 million students. For this reason, the department adopted a 'risk-adjusted programme', without campus-based academic activity, and the whole sector sought to go online. Universities South Africa, the membership organisation representing all universities in the country, coordinated the process (USAf, 2020). Steps taken by universities include disabling biometric access systems and setting up Covid-19 and business continuity task teams or 'war rooms' (Makupe, 2020). Institutions were also to provide students with material for instruction, along with laptops and other devices for all students with National Student Financial Aid Scheme assistance. The Minister promised stimulus and possible relief funding for public institutions in distress (IOL, 2020).

On 8 June 2020 government published directives in terms of the Disaster Management Act on the criteria for the return to public and private higher education campuses (DHET, 2020). The only group of students excepted from the ministerial directives were final-year medical students, who would return under serious control circumstances and 'under strict conditions for in-service training'. They were expected to participate actively in the examination of Covid-19 cases as part of their qualification requirements; refusal to participate would mean 'no degree [would] be conferred' in 2020.

However, many felt that universities acted without either transparency or their consent, if not recklessly. Their concerns included fears around the dynamics of their professional surroundings, the lack of PPE, and the absence of guarantees of personal and family safety. Many felt forced to choose between their safety and completing their degrees; their universities would not assume responsibility should they contract Covid-19. The Junior Doctors' Association of South Africa was sharply critical of this but indicated that students should 'continue their in-service training despite the high risks involved, so that they are able to assume their internship posts at the beginning of 2021' (Naik 2020).

PRELIMINARY LESSONS LEARNT

QUALITY OF LEADERSHIP

To effectively manage a crisis, a country needs political leaders with the moral authority to mobilise government and societal responses; operational leaders to plan, mobilise resources, coordinate, and ensure implementation; and leaders in science with the credibility to advise government and persuade society at large.

South Africa has garnered international praise for the quality of its political leadership. The president has been lauded for his early and decisive action and his ongoing communication with the country. The health minister has been widely acknowledged for his rational approach to the conflict, with quick action also from the CoGTA minister around coordinating subnational responses and from ministers with sectoral responsibilities. In most cases, this quality of leadership cascaded through provincial and municipal government, with premiers, mayors, and other senior politicians visible and reassuring. At the start of the crisis, South Africa went into lockdown immediately, while other countries were still reflecting. This gave the health sector time to prepare. Another critical early intervention was the establishment of the Solidarity Fund. The ministerial advisory committees (comprising biomedical practitioners, clinical experts, specialists in ethics, the nursing profession, social scientists, researchers, community leaders, medical experts, and academics) provided advice and helped inform a science-based response. Apart from the committees, a network of experts in health and beyond was mobilised to advise, counsel, and research.

There were leadership failures, however. The most serious of these was extensive corruption in public procurement, in which high-profile officials (both elected and appointed) have been implicated, as discussed below. Also, the constitutional and human rights implications of some leadership decisions have been challenged (Chapter 3.1; Botes, 2020 & 2021). While many – perhaps most – operational-level leaders have been exemplary in their commitment and tireless work under extreme pressure, the crisis also revealed deficiencies in capability and competence.

While leadership was strong throughout the crisis (albeit with some serious lapses), the question whether leadership decisions were correct is difficult to address. For example, government's decision to accept the worst-case epidemiological scenario for planning purposes (as discussed in the healthcare section below) may have distorted resource allocation and decisions. The measures the country took succeeded in flattening the curve; however, they may also have lengthened it.

Political leaders faced the immensely difficult task of balancing the imperative to contain the spread of the virus with the need to sustain the economy and livelihoods. There are multiple positions on whether this balance was achieved, but the national political leadership represented on the National Coronavirus Command Council played an important role in assessing economic considerations and helping to recalibrate the risk-adjusted strategy. There were also difficulties in balancing the need for a clear national response with the need to be responsive to regional differences. In April 2020 a recommendation to the Command Council provided for a differentiated lockdown approach that

allowed more economic activity in areas with lower infections. This approach was not deemed feasible because of the complexity of regulating travel between areas. While international experience of differentiated approaches has been mixed, a differentiated model could possibly have offered some scope for balancing health and economic considerations.

INSTITUTIONALISED CAPACITY FOR DISASTER MANAGEMENT

The pandemic demonstrated the strength and limitations of the disaster management system as provided for in the Disaster Management Act. While the Act was clearly correct in providing for durable disaster management capacity in each sphere of government, the pandemic showed that the system was under-resourced, poorly located, and in need of an overhaul:

- *Location:* The powers and functions of the National Disaster Management Centre are to some extent restricted by its placement within CoGTA, which reduces its convening power. The mandate and role of the centre were also not clearly understood, and it was sometimes difficult to establish relationships with the Department of Health to coordinate the national response. The problems at the national sphere were replicated in provinces and municipalities, whose disaster management centres were not positioned in the offices of the premier (or mayor or city manager) and were often poorly resourced. In some cases, these centres had barely been functioning, if at all; notable exceptions were the centres that had recently dealt with droughts.
- *Funding:* While national government undertook to provide extensive funding for the Covid-19 response, this has not been forthcoming, and pandemic-related spending has put significant pressure on departmental and municipal budgets (Chapter 6.1). Departments had to reprioritise, reduce targets, or even terminate projects to redirect funds. Municipalities had already been in financial straits, as people struggled to pay their municipal accounts. Given Covid-19's demands on available funds, they may well find rendering basic services a challenge in future. This underlines the need for a coordinated strategy on the financial repercussions of the pandemic.
- *Capacity:* Across all spheres of government, the task of coordinating the disaster response tended to fall on a small group that had to drive information analysis and formulate responses. This was not sustainable, given the extent of the disaster. The nerve centres were overburdened, and many found it difficult to deal with the expectations of the national sphere, including uncoordinated requests for information. Harding (2020) reports a senior figure in a provincial health department saying, 'The clinicians are getting on with it. But the senior management is overwhelmed. It's always been a shambles. They're mostly cadre deployed. There's no leadership capacity. They're completely out of their depth and very anti any cooperation with the private sector.'
- *Systems:* A critical component of institutionalised capacity to deal with crises is the strength of operational systems. The pandemic highlighted the weaknesses of existing IT and data management systems. In some cases, information was either not available or the custodian was unwilling to share it. A 'culture of secrecy' obstructed in the flow of information critical to the management of the pandemic, especially in its early phases. Still, in many cases, the Command

Council and the President's Coordinating Council were perceived to enable the seamless transformation of information from the national to the provincial and district levels.

More positively, alert level 5 helped delay the spread of the virus and provided the opportunity to set in place various strategic systems. The state of disaster effected an immediate and dramatic transition to electronic platforms and virtual meetings. This offers potential gains for the future and may facilitate regular meetings between delivery partners. For example, virtual meetings could enable national, provincial, and municipal disaster management centres to engage more regularly.

Many other elements of capacity are required to manage a crisis. Challenges that emerged in the early days of Covid-19 included the lack of transportation for contact tracers, problems obtaining PPE for health staff on a competitive open market, dealing with poor-quality products, and misinformation. It is hard to avoid the conclusion that despite pockets of excellence, government in its totality was not adequately capacitated and resourced to deal with Covid-19.

ROLE AND PERFORMANCE OF THE NEW STRUCTURES

As noted, the structures provided for in the Disaster Management Act had not been adequately maintained and were badly located in relation to real institutional power. Thus, there was an urgent need to set up viable structures to coordinate the disaster response across the spheres of government. These structures were set up quickly and were functional throughout the crisis. There were high levels of institutional commitment, and governance actors were brought together in new and productive relationships.

Generally, South Africa adopted a very structured response to the pandemic. There was strong political commitment at the National Coronavirus Command Council, and MECs reiterated the serious nature of the crisis. A holistic government approach under the leadership of the president ensured that every cabinet minister and every department was involved in the response. The status and importance of disaster management was raised, as were those of the Disaster Management Act, the National Disaster Management Centre, and every organisation managing these risks. At provincial and local level, joint implementation ensured more efficient sharing of information between provincial, district and local authorities. Ward-based strategies were critical for implementation even in the larger provinces, where subdistrict management teams (including councillors, mayors, clinic committees, and chairpersons of hospital boards) helped reach outlying regions, raise awareness, and respond to local problems. Ward-based responses also promoted cooperation across departments (e.g., Social Development, Health, Water and Sanitation, and the SAPS), where joint coordination teams enabled quicker responses to identified issues (e.g., repairing a faulty water pump in a single day through direct communication with relevant parties). Intergovernmental relations seem to have improved during the crisis, as networks of support were built across the spheres and new structures provided forums for dialogue and communication.

That said, particular intergovernmental relationships were complicated by factors such as political divides. Other areas of challenge include the following:

- Insufficient attention was given at first to the *legal basis* for establishing various structures beyond the scope of the Disaster Management Act (Chapter 3.2). This included not only the National Coronavirus Command Council but also the provincial and district command councils.
- Political structures were not supported by *dedicated forward planning, coordination and operational structures*. At national level, the National Disaster Management Centre should arguably have performed this role, but it was not properly resourced and positioned to do so. In practice, the NatJoints fulfilled this role. The NatJoints was functional and could operationalise quickly, but its base within the security cluster raised questions around its role in guiding non-security-related matters. Also, decisions were mainly focused on immediate action. The system would have benefited from a dedicated team looking beyond the next 10 days to the changing nature of the disaster and the response needed to get ahead of the curve.
- The MAC was initially constituted in a seemingly haphazard manner, although it worked well in offering policymakers direct access to expertise. However, a *lack in transparency* in decision-making led to confusion about when and why policy deviated from the advice of the experts. This undermined people's trust and their response to Covid-19 measures. To make matters worse, in some cases different ministries issued contradicting messages and directives, which confused both implementers and the public.

COMPROMISED HEALTHCARE SECTOR

The healthcare sector was at the forefront in responding to the crisis. Covid-19 dramatically demonstrated the backlog in public health facilities and inequalities in access to healthcare (Chapter 5.1). Ironically it began in the first month of the Department of Health's new five-year strategic plan, which had identified many of the risks that materialised in the pandemic.

Covid-19 is highly contagious, and the risk of contracting the virus when visiting a treatment facility is significant. The Department of Health had earlier developed a National Infection Prevention and Control Strategic Framework to reduce infections that threaten patient safety at healthcare facilities. The framework, which is aligned with the WHO's approach to reducing infections associated with healthcare services, acknowledges the gaps in previous policies, infrastructure, equipment, training and guidelines that increased the vulnerability of both patients and personnel. However, because the pandemic began in the first month after the launch of the strategic framework, its measures had not yet been implemented.

In response to Covid-19, the Department of Health produced a Preparedness and Response Plan (DOH, 2020) that summarises the goals, objectives, institutional structures, and specific activities needed to manage the pandemic. Although it is accompanied by a comprehensive set of indicators of performance, data on the extent to which these objectives have been attained has not been made available. This implementation plan may well have been optimistic. At facility level, the support

anticipated in the plan was not provided – equipment was in short supply, many medical personnel contracted Covid-19, and there were backlogs in laboratory testing.

By March 2020 data on the spread and management of Covid-19 in the international context was still limited. The decision to enforce a hard lockdown was based on information presented to the National Coronavirus Command Council. The modelling team, comprising internal contractors and external experts, based the models on assumptions and experiences in Europe. Government accepted the worst-case scenario presented for hospital beds, human resources, ventilators and medicines. Some of these responses now seem excessive. However, had government ignored the model and this resulted in mass deaths, the impact would have been worse. (As argued later on, the costs of effective preparedness are dwarfed by the costs of a failure to prepare.)

The initial hard lockdown gave the health sector time to prepare. It needed time to put hospital facilities in place, ensure the availability of health personnel, procure the necessary medication, and put a prevention strategy in place to identify infected persons early on. For example, ventilators were in short supply worldwide; over time, local companies and the Council for Scientific and Industrial Research managed to produce a large number of ventilators. Whereas equipment could be produced quickly, it was more difficult to employ additional nurses and doctors. Although healthcare workers showed commendable commitment, and all professionals worked together (Venter, 2020), it was a challenge to obtain the necessary human resources. There was an advertisement for primary care providers, but many private sector practitioners did not respond, possibly because they feared contracting Covid-19. The lockdown also enabled community development workers to go house-to-house to identify hotspots and take people into quarantine where necessary. The establishment of field hospitals was considered a waste of resources by medical experts (Venter, 2020). Other general concerns were the inadequate protection of vulnerable groups, such as elderly people.

Initially the National Health Laboratory Service was unable to cope with the high demand. Laboratory turnaround times were long, partly because of an inadequate testing strategy and technical problems. Later, the strategy changed to targeted testing (Preiser, 2020). Eventually, provincial laboratories assisted with the testing, which also improved turnaround times.

Another unanticipated outcome was the significant decline in non-Covid-19 patients at hospital facilities. During the lockdown, many people avoided healthcare facilities because of the fear of contracting Covid-19. It cannot be stated that the high number of excess deaths is Covid-19 related or due to insufficient treatment facilities for Covid-19 patients, but it may still be seen as an unintended result of the Covid-19 response.

GOVERNMENT AND SOCIETY

The interface between government and society is critical (see also Chapter 8). Covid-19 underscored the value of relationships between the private sector, the non-governmental sector, and the public. Both non-governmental and community-based organisations played an important role in providing

humanitarian relief, while the private sector offered access to non-state medical facilities. In the initial, hard lockdown, there was strong public support for the prescribed measures, in contrast with the public protests and debates seen elsewhere in the world.

While Covid-19 forged new relationships, these were not without challenges:

- There was a sense that *political oversight and accountability* had been compromised in favour of rapid executive action, which undermines democratic practice. The approach was arguably too top-down in character. Information that informed elements of the risk-reduction strategy was not always transparent. Little evidence has been provided, for example, of the data and science behind critical decisions. Future disaster preparedness requires a community-based, bottom-up approach from the beginning.
- The impact of the health crisis on *society and the economy* was arguably underestimated at first. In a single district in the Western Cape, job losses in the agricultural sector were estimated at 80 000 (Chapter 6.1). The tourism and hospitality sector was also devastated (Chapter 6.3). SASSA was unable to meet needs for humanitarian relief, and it fell to provincial and local government to address the hunger, accommodation, and income crises. In the Northern Cape alone, eight tons of food were distributed with the help of the air force. With no alternatives available, people suffered from lockdown fatigue and the loss of income.
- The challenges of instilling *behavioural change* in the general public were underestimated. It was difficult to get people to understand how to protect themselves. Disaster management centres had to divert their already limited capacity to deal with non-compliance with lockdown regulations, a problem that escalated as lockdown fatigue grew. Over time, higher survival rates made people less afraid of contracting Covid-19. This led to a decline in testing and lower compliance with regulations around mask wearing and social distancing, which may have contributed to the resurgence of cases (Ramadan & Talisuna, 2021).

During the hard lockdown, both *crime and trauma* came down because of movement restrictions, suggesting that progress on these fronts could be made with the right strategies.

Corrupt practice

Regrettably, corrupt practice was a key aspect of Covid-19 governance (Chapter 3.2). The surge in corrupt practices during the pandemic, including in the public service, undermined people's confidence and generated widespread anger. The corruption reflected self-serving and criminal acts by elected and public officials and by individuals and firms in the private sector, but there were also structural problems. For example, the National Treasury relaxed procurement procedures for a period to facilitate emergency responses (Chapter 6.1); during this time, some mass procurement decisions were not transparent. Although government was under immense spending pressure, with hindsight more time should have been spent on reducing the scope for corruption (Box 2.5). Serious attention must be given to developing approaches to emergency procurement that are flexible but are still transparent and retain the necessary safeguards. Although concerns remain, procurement improved

between the first and second waves, and the political leadership nationally and provincial showed some resolve in responding to corruption in Covid-19-related procurement.

Box 2.5: Procurement of PPE

Early in the pandemic, there was a dramatic shortage of PPE. The private sector set up structures that imported PPE directly, something that public procurement rules did not permit. A critical mistake was allowing provinces to buy PPE by themselves when they did not have the capacity to assess either the supply capacity or the quality of the goods. A range of difficulties emerged with suppliers, many of whom were merely middlemen who imported goods from China. In retrospect, it would have been preferable for suppliers to have been pre-approved at national level.

LEADERSHIP AND GOVERNANCE RECOMMENDATIONS FOR A RESILIENT DISASTER MANAGEMENT SYSTEM

Effective disaster management requires a system that not only prevents and mitigates the effect of disasters but is also resilient and facilitates quick recovery. This is important because specific interventions must rely on evidence-based advice obtained both locally and internationally. At this stage, there are no good nationwide studies, since countries were not well prepared, and scientists did not understand their role in this respect (Jansen, 2021). The following recommendations arise from the research discussed above.

LEADERSHIP AND GOVERNANCE CAPACITY

South Africa's leadership was generally praised for reacting decisively early on. Effective leadership is critical in a prolonged crisis with such serious consequences and requires physical, psychological and emotional resilience. However, weaknesses in departments and in governance more generally have emerged over time. Corruption has weakened leadership, systems and institutions. Under such circumstances, the difficulties in planning, designing and implementing complex policies have meant that service delivery has suffered.

The *Disaster Management Act* provides a strong legal framework for coordinating a disaster management response but may benefit from revision to provide a more comprehensive framework of possible risks, including systems to enable appropriate decisions and actions.

For *health disasters,* a statutory approach is needed, and there may be a need to change other legislation (e.g., the National Health Act and associated regulations) to provide an effective response. Such changes should ensure a broader, longer-term focus to deal with pandemics and build resilience. Although these changes may provide for the restriction of movement and coordination of behaviour, freedom of movement is a constitutional right. Covid-19 fatigue demonstrates that people do not easily accept the long-term removal of this right.

The *National Health Act* should be amended to allow the Department of Health to manage future pandemics. Funding for disasters can still come from the National Disaster Management Centre, but the structures needed to respond should be created in the sector best placed to manage such a

response. The Disaster Management Framework should be regularly updated when cabinet is restructured, or other role players emerge.

The role of *traditional leaders* in managing local development and their relationship with the democratically elected leadership remain contentious. The pandemic highlighted the important role of this governance system, which raises the issue of both the extent to which these leaders should be involved and how this should be funded.

INSTITUTIONAL STRUCTURES TO MANAGE NATIONAL-SCALE DISASTERS

The institutional architecture for handling the disaster was put in place quite quickly, but there are *lessons for future configurations*. These include the need for a careful consideration of the boundary between security and non-security-related apparatuses; the unnecessary emphasis on standardising administrative and managerial structures, which may undermine contextual appropriateness and innovation; the initially unclear legal basis for political structures; the duplication of reporting; and the overall clutter of institutions with their fuzzy boundaries. At the same time, there were innovations in the institutional architecture (especially breaking through silos) that must be taken forward.

NatJoints is a good structure for natural disasters, although it is predisposed towards a law and order (policy and military) response; the tools it adopted may not necessarily be appropriate in disasters that require a strong social response. It may have been better to have the Department of Health lead the response, with support from other departments. Managing the pandemic required a fine balance between an authoritative, coordinated response and respect for constitutional norms of democracy, human rights, and cooperative governance. Whether government achieved this balance is debatable, and the courts may be the final arbiter. It would, however, be deeply unfortunate if the pandemic led government towards a more hierarchical, directive approach. Achieving coherence in government in 'normal times' should not mean overriding differences and relying on instruction, but rather ensuring that the platforms for dialogue and the processes for mediation and conflict resolution are in place.

There is a need to *clarify roles and responsibilities* between the various coordination structures (NatJoints and the national and provincial disaster management centres). It is important to create a sustainable structure that can draw on government's strengths to manage a project of this scale on an ongoing basis. The institutional placement of the National Disaster Management Centre could be reconsidered; potentially, being placed within the Office of the President could help it coordinate an integrated response to national disasters.

There is no simple conclusion as to whether the structures, systems and processes of governance at *subnational spheres* were 'fit for purpose' and had the desired effect. On the positive side, the three spheres of government worked together in ways that had not been achieved before. There was proactive and engaged leadership across the spheres, quick decision-making, and new forms of social partnership. However, the crisis also exposed flaws of governance within and among spheres. It remains important to strengthen the relationship between the different spheres of government.

The *roles and responsibilities of departments* to manage risk should be clarified, including what structures can be mobilised in case of a disaster in their sectors. As the initial capacity of provincial disaster management centres varied, the Covid-19 response was at times coordinated by a premier's office or a representative from the provincial department of health. The capacity of the provincial disaster management centres in the local government departments in all provinces should be enhanced to enable a uniform approach to future disasters. Strengthening the procedures, forums, information management and communication systems of these centres will facilitate a coordinated and rapid response in future. At local level, the joint district and metro methodology in the Western Cape provided for a geographical, team-based approach, with representatives from various provincial and national departments. In KwaZulu-Natal, the Operation Sukuma Sakhe service delivery model employs household profiling to determine the need for support; this was adjusted to focus on the support needed in the pandemic. Similarly, the Covid-19 Visual Analytics Tool[9] developed by the Gauteng City Region Observatory, IBM, and the universities of the Witwatersrand and Johannesburg provided helpful and up-to-date information on hotspots and the spread of the disease, along with predictions of future risk areas. It also included a vulnerability index that helped identify communities that required more support.

Another significant benefit was the *emergence of 'trust equity' and new practices of collaboration and coordination* at different scales. These provide a basis for a better system of intergovernmental relations, with mutual trust and good faith underpinning improved formal and informal interactions. One respondent identified a potential risk that provincial governments might wish to manage all interventions along the same disaster management lines to maximise results. This would be unrealistic, because other programmes do not have the same momentum and would not permit the extensive redeployment of senior staff to support local responses. This sentiment was echoed in three other provinces, where respondents indicated that staff from the SAPS, the SANDF or the provincial department of health assisted with the collection of statistics. Additional personnel from the SAPS and the SANDF also helped to enforce regulations. The strict enforcement, additional monitoring and deployment of extra staff had a positive impact on crime (e.g., the Northern Cape reported a 43% decrease in crime incidents). However, as Covid-19 cases decrease and alert levels are lowered, the additional personnel are now returning to their administrative offices to resume their normal duties.

These challenges have become apparent retrospectively, providing the opportunity to build a more resilient governance response for the future. More immediate is the question of *how governance approaches should shift as South Africa moves beyond lockdown*. A critical concern is how to capitalise on the positive elements (or positive disruptions) from the lockdown, including the trust equity, new institutional relationships, the sense of social purpose, the energy of responding to crisis, the digitalisation of government, and the stronger relationship with the non-governmental sector. Government also needs to make changes to address other emergencies, such as social inequality and climate change. The post-pandemic emergency is about the social, economic and fiscal consequences

[9] https://gpcoronavirus.co.za/

of the health crisis and requires the building of institutions, infrastructure (e.g., for digital inclusion), relationships, systems and processes for long-term recovery and resilience. It requires, for example, a shift away from hierarchy and instruction towards collaborative governance and social compacts.

BUILDING A RESILIENT SYSTEM THAT RECOVERS FROM DISASTERS EFFECTIVELY

It is important to raise the profile and importance of *disaster management centres* at all levels of government. Disaster management planning needs to be turned into a mechanism that enables resilience to disasters. All government departments, municipalities and entities should adopt disaster management plans and establish central units to ensure the plan finds place in their day-to-day working. In the event of a disaster, these central units should become the main contact for the National Disaster Management Centre. Public servants need to be trained to respond to different types of disasters; public healthcare professionals should likewise be trained to respond to pandemics.

The NICD is designed for research rather than the management of pandemics. A *dedicated 'pandemic' unit*, headed by virologists and epidemiologists and supported by capacitated response teams, should be established in the Department of Health. With Covid-19, the director-general and MEC directly coordinated the response to the pandemic, at the possible expense of attention to other healthcare programmes. Given that such disasters are infrequent, and the specific nature of a disaster requires sector-specific expertise, creating permanent capacity to deal with all types of disasters is not viable. Increased attention to designing appropriate protocols to manage national disasters is recommended. In the case of high-impact disasters, it is important not only to respond to the requirements of the sector but also to adopt a wider response that limits the economic and social impact of the disaster and enables the country to recover more efficiently.

The process of *sharing information* needs to be streamlined. Some systems have been put in place, but more effort is needed to create a workable system that is widely supported.

The *Covid-19 visual analytics tool* (footnote 9) adopted by the Gauteng Provincial Government shows promise as a future planning and disaster management tool. Although this data-intensive system requires extensive human resources to collect and analyse data, it provides an important foundation for efficient and accurate decision-making. Geo-information tools are particularly useful for disaster management and can also inform strategic decision-making more generally.

ADDRESSING HEALTH SECTOR CONSTRAINTS

Covid-19 highlighted the importance of addressing the impediments to universal, quality healthcare. The experience in South Africa has been in line with the findings from the WHO (2020:7) report:

> Particularly in low capacity and humanitarian settings, effective delivery of services and interventions will require strategic shifts, investments, and partner support to foundational health system capacities including financing; data management, collection, and analysis; workforce planning, management and development; clinical care; logistics and supply chain management.

The pandemic exposed the Department of Health's *lack of readiness*. This remains the case – as one interviewee said, 'If the same disaster struck again, we are going to struggle again.' In Gauteng, where the Plan of Action focused on infrastructure regeneration, projects and expenditure were redirected to the health sector. The province expedited the completion of new hospital facilities and the refurbishment of existing ones, supported by the private sector and the National Treasury. Health facilities were improved, wards repurposed, human resources capacitated, and technology improved. In the Northern Cape, likewise, intensive care capacity increased from 30 beds (in both public and private healthcare facilities) to 100, with the possibility of adding a further 37 beds if needed.

At *local level*, pressing concerns include human resource constraints in healthcare, universal access to equipment in treatment facilities, and integrated monitoring and information systems. Versatile laboratory services are needed that can quickly adapt their testing capacity to meet a short-term spike in demand for specific tests, as are appropriate infrastructure, electronic data management systems, and more personnel.

Other critical requirements are *investment in IT* and appropriate electronic data systems. Ideally information management should be coordinated by Statistics South Africa, with direct liaison with the relevant sector to ensure that the most important indicators are tracked, and information is shared and coordinated for monitoring and reporting purposes.

During the first wave of the pandemic, the interpretation of hard lockdown regulations and fear of contracting Covid-19 prevented some patients from accessing healthcare facilities for *non-Covid treatment* or collecting routine medication (Chapter 5.1). While this was managed better during the second wave, further attention is required to ensure the healthcare system is resilient and can continue delivering services even during a pandemic.

A SUSTAINABLE FUNDING MODEL FOR DISASTER MANAGEMENT

Spending on Covid-19 put significant pressure on departmental and municipal *budgets* – departments had to reprioritise, reduce targets, and even terminate projects to redirect funds (Chapter 6.1). SASSA and the Department of Social Development struggled to provide food parcels; in the interim provincial and local governments redirected funds to assist communities while SASSA systems were put in place.

The Disaster Management Act requires an integrated approach, and a single sphere or sector cannot provide the full financial commitment to mitigate a disaster. Covid-19 demonstrated the lack of *financial resilience* in the public sector and the need for a coordinated strategy to deal with the financial repercussions of the pandemic. Also, the laws and regulations for municipalities should be reviewed to reduce red tape, streamline compliance reporting,[10] facilitate efficient implementation, and support development priorities.

[10] Interviewees in the local government sphere expressed strong opinions about perceived over-reporting, which has both time and cost implications. Stringent reporting requirements do not necessarily improve

CHANGING BEHAVIOUR THROUGH CITIZEN ENGAGEMENT

Successful management of a pandemic depends on a *collaborative implementation approach*, along with the commitment and support from citizens. Various government departments invested millions in a communications strategy (Chapter 4). Especially in time of crisis, it is important to reflect on the message government wishes to communicate and the desired response. Behavioural scientists advise that punitive measures are difficult to enforce. A positive approach that encourages and incentivises compliance and collaboration is easier to implement and may more successfully change behaviour.

The level of behavioural change achieved with Covid-19 demonstrates that other behaviour-related diseases and other social challenges (e.g., crime) could potentially also be addressed. To this end, the lessons learnt from this disaster need to be better understood and appreciated.

Community radio stations played a critical role, and efforts should be made to strengthen these. Equally, *local information resource centres* and telecentres should be developed with the support of the public sector and civil society. These could also disseminate messages that affect livelihoods.

IMMEDIATE INTERVENTIONS REQUIRED

According to the WHO (2021) Weekly Update of 23 March 2021, South Africa continues to report one of the highest numbers of new cases and most new deaths in the African region, accounting for nearly 20% of new cases and over half of new deaths. From mid-November 2020 to mid-February 2021, the second wave of the pandemic proved particularly complicated to control. The rapid increase in new infections, novel and more contagious Covid-19 variants, rising admissions to hospitals, and high mortality rates create uncertainty about the future course of the pandemic; recurring waves are a strong possibility.

Immediate interventions to prevent or mitigate rising Covid-19 infections include continued, regular information to the public on social distancing, mouth-and-nose masks, handwashing and ventilation, as well as the re-evaluation and planning of science-based restrictions and other interventions in the various alert levels, as required. Ongoing communication and other initiatives to promote social *compliance* with the necessary protocols are important in strengthening people's resolve and enabling successful management of the pandemic.

Human resource constraints in *healthcare*, universal access to equipment in all treatment facilities, and increased laboratory capacity need to be addressed in all provinces. 'Ensuring continuity of essential health services and building resilient health systems remain essential not only to mitigate the impact of Covid-19, but also to ensure readiness for other concurrent and future health emergencies' (WHO, 2020:8). Serious attention must be given to developing systematic approaches

performance, as smaller municipalities (which arguably need more oversight) have less capacity to comply. Options include differentiated approaches to reporting, based on performance (see also SALRC, 2021).

to emergency procurement (of medical equipment, laboratory supplies, etc.) that are flexible, but remain transparent and retain the necessary safeguards.

Improvements of IT *systems* need to be sustained through technical improvements, upgraded skills, and a change in attitudes. The WHO (2020:8) finds that 'surveillance systems are finding it hard to cope with the high force of infection in some countries ... and this is even more pronounced in settings where testing capacities are limited'. An effective and inclusive communication strategy is required for both interdepartmental communication (to avoid conflicting messages) and to ensure an open flow of all relevant information to the public.

Government should consider urgent investment in essential *infrastructure*, such as ports. Where essential services for food exports and imports are required from specific government departments (e.g., agriculture), effective planning is needed to resource remote offices, along with an effective coordination mechanism (Chapter 6.2).

The *informal sector* also requires urgent attention. Government needs to develop a better understanding of the sector and provide infrastructure and other support. All sectors that have gained valuable experience to share, such as the formal agricultural and food sectors, should be included.

South Africa must refine its *disaster preparedness plan* in line with WHO specifications. Many countries fundamentally underinvest in comprehensive preparedness and emergency response systems to protect their people from disease outbreaks, natural and human-made disasters, armed conflict, and other hazards. The costs of effective preparedness are dwarfed by the costs of a failure to prepare. Public health and social measures to control Covid-19 could have considerable social and economic costs and must be risk-based, regularly reviewed on the basis of robust and timely public health intelligence, effectively communicated, and enabled by targeted measures to ameliorate the socio-economic costs of participation (WHO, 2020:8). Increased attention to designing appropriate protocols to manage national disasters is recommended.

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