

Recovery and transforming the South African health system

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The COVID-19 pandemic has devastated lives and livelihoods globally and in South Africa (SA). The SA government has been lauded for its swift response to the pandemic, in March 2020 and subsequently. Many routinely provided health services were severely disrupted and there is an urgent need to recover to 2019 levels at least. In this paper, the lessons from the COVID-19 response are discussed and proposals for transformation of the SA health system are considered.

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'Never waste a good crisis!' This statement is attributed to Sir Winston Churchill (former prime minister of the UK) post World War II. Similarly, it is often said that one should not waste a failure. Currently the world is faced with several crises, but two crises, COVID-19 and climate change, and how we deal with these crises, may well define the lives and livelihoods of generations to come. In this paper we focus on the COVID-19 crisis and the measures/strategies the South African (SA) health sector needs to implement to recover and to transform itself into a more resilient entity.

Impact of COVID-19 on routine health services in SA and globally

The first confirmed case of COVID-19 in SA was diagnosed and reported on the 5 March 2020 and the first death on 27 March 2020. By 24 March all nine provinces had confirmed COVID-19 cases. The government of SA, in response to the increase of cases, announced a national full 21-day lockdown from 27 March. It is reported that the lockdown restrictions on travel and movement, combined with users' fear of the risk of acquiring COVID-19 in healthcare facilities, brought about major reductions in the use of health services. This compromised continuity of care for people with TB, HIV and other chronic diseases like diabetes and hypertension.^[1]

Surveys conducted by the Global Fund for HIV, TB and Malaria and the World Health Organization (WHO) showed that many countries around the world struggled to ensure patients' access to routine health services during the peaks of the COVID pandemic.^[2]

Between April and September 2020, the Global Fund for HIV, TB and Malaria surveyed 502 health facilities in 32 low-and-middle-income countries in Africa and Asia.^[2] The report shows that antenatal first-care visits fell by 5% in health facilities in Africa and by 66% in seven countries across Asia. Among persons <5 years of age, visits declined by 23% in Africa compared with a decline of 74% in health facilities in Asia. Access to HIV testing across all countries surveyed declined by 41% and tuberculosis (TB) referrals dropped by 59%. In facilities on the African continent, TB referrals declined by 29%, with a 28% decline in patients diagnosed. These declines in patients being referred, diagnosed and treated for TB will increase the number of missing TB patients – estimated at 3 million by the

Stop TB Partnership.^[3] Similarly, countries in Asia and Africa also reported disruption of malaria diagnosis services, with facilities in Asia reporting a 56% decline in malaria diagnosis and a 59% decline in malaria cases treated. Facilities in Africa also reported declines of 17% and 15% in diagnosis and treatment, respectively.

Mirroring the findings from the Global Fund, the WHO also reported disruptions in the provision of routine health services in 105 countries that were surveyed.^[4] The survey found that a range of routine health services were affected. Immunisation services provided at health facilities declined by 61%. Antenatal care access declined by 56%. Contraceptive services declined by 68%. The diagnosis and treatment of non-communicable diseases declined by 69% and cancer diagnosis and treatment by 55%.

The main reasons for these declines, from both the Global Fund and WHO surveys, included: reductions in outpatient services; lockdowns; lack of transport; fear and stigma; cancellation of services; redeployment or infection of staff; and shortages of personal protective equipment (PPE), commodities and supplies.

Similarly to reports from the Global Fund and WHO, access to routine services in SA was also disrupted during the two COVID waves experienced during 2020. Routinely collected data through the District Health Information System (DHIS) illustrate that compared with 2019 (prior to COVID-19) many services experienced significant declines.^[5] However, the picture is mixed by service and by province. The excess mortality in SA also increased substantially during the first and second waves (Fig. 1), with large interprovincial variations.^[6] As reported by the South African Medical Research Council this was directly related to the COVID-19 pandemic, with a proportion of excess deaths attributable to overwhelming of health systems during the waves.

Objectives

The objectives of the paper are to: (i) review the impact of COVID-19 on routine health services particularly in SA; (ii) propose steps for maintaining routine health services during next waves or any future pandemics; and (iii) explore lessons from the response to the COVID-19 pandemic to transform the health sector to deliver improved health services.

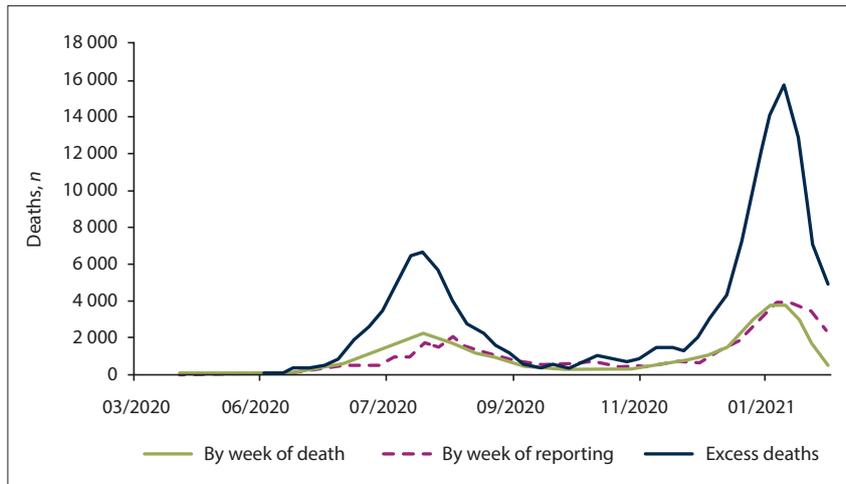


Fig. 1. Correlation of excess natural deaths with other measures of the COVID-19 pandemic in South Africa. Source: Burden of Disease Unit, South African Medical Research Council, 23 February 2021.^[6]

Methods

Google Scholar was used to search for global and local published examples of the impact of COVID-19 on routine health services. In addition, data from the DHIS were used to explore the impact of interventions to mitigate and contain the spread and impact of COVID-19 in SA.

Results

COVID-19 impact on routine health services in SA

Data from the DHIS show that the national headcount (number of people visiting) at health facilities declined by 18.5% from 99.6 million visits in 2019 to 81.2 million visits in 2020. All provinces experienced a decline, with the largest reductions in the Western Cape (31.1%) and smallest in the Free State (8.7%). With the lowest decline in headcounts in the Free State, one would expect the province to have a lower decline in various health services.

The April-May 2020 period (lockdown level 5) witnessed significant declines in contraceptives dispensed compared with data from 2019 for the same period. The largest decline was in Mpumalanga (21.1%) and smallest in the Free State (1.6%).

While 5 provinces experienced declines in antenatal first visits in 2020 compared with 2019 during the April-May period, 4 provinces showed an increase. The provinces with declines were Free State, Gauteng, Northern Cape, Western Cape and North West while those with increases were KwaZulu-Natal, Limpopo and Mpumalanga. On this indicator the Free State fared the worst and Mpumalanga the best. In explaining increased births in Limpopo and Mpumalanga during 2020 compared with 2019, Pattinson *et al.*^[7] surmise that this was

possibly due to urban to rural movement during the lockdowns in 2020. This may also be the reason why the antenatal rates in KwaZulu-Natal are higher in 2020 compared with 2019.

In respect of institutional maternal mortality, all provinces showed increases in 2020 compared with 2019. The largest increases were in the Western Cape (82.1%), followed by KwaZulu-Natal (44.2%) and Mpumalanga (36.7%) provinces. The institutional maternal mortality ratio increased from 90.5/100 000 live births in 2019 to 106.8/100 000 in 2020. There was a marginal increase of 4.8% in institutional neonatal mortality in 2020 compared with 2019.

Testing rates for HIV and TB in the public sector – which traditionally tests and diagnoses the majority of people – declined during 2020 relative to 2019. HIV testing declined by 22.3% and TB diagnosis by the National Health Laboratory Service (NHLS) declined by 26.0%.

The private health sector also witnessed a decline in patients seeking routine health services. The South African Medical Association is quoted to have reported that private health practices saw a 60% decline in patient numbers during the hard lockdown and that over the course of 2020 patient numbers were between 40% and 50% lower than normal.^[8] Reports suggest that many patients who use the private sector deferred elective procedures.^[9] It is therefore not surprising that medical schemes reported lower pay-outs to health providers and deferred increases in medical paid subscriptions for the first half of 2021.^[10]

Despite the COVID-19 pandemic and the lockdowns, patients on chronic disease medication in the public sector were able to receive their medicine through an expansion

in the centralised chronic disease medication dispensing and distribution system (CCMDD) programme.^[11] This was expanded beyond the distribution of antiretrovirals. In addition, multimonth dispensing was enabled to ensure that patients did not have to return to facilities to collect their medication.

Recovery to pre-COVID-19 service levels

The Incident Management Team (IMT) established by the National Department of Health (NDoH) convened COVID-19 resurgence planning workshops for the third wave in November to December 2021. In these workshops, DHIS data for all the nine provinces were presented for each health district and the province was encouraged to conduct an in-depth analysis to identify potential bottlenecks and develop specific plans to address the declines in performance.

A national workshop convened by the NDoH helped to develop a range of interventions for recovery. Several lessons from the first and second waves of COVID-19 were identified during the workshop that would help prepare for the next wave and towards recovery and transformation of health services in SA:

- There is a need to build strong governance and leadership capabilities that would provide support from the top by reprioritising allocation of resources.
- Intersectoral approach is key to engaging the different sectors of the economy. This includes academics, non-governmental organisations, as well as public and private health sector collaboration.
- Strengthen clinical governance to enhance quality of care.
- Standardise surveillance systems and use surveillance data for evidence-based decision-making.
- The health system should also consider the needs of vulnerable populations in the organisation and provision of equitable healthcare services.
- TB recovery actions should integrate TB screening for people that test for SARS-CoV-2.

Lessons from the COVID-19 response: Implications for health system transformation

There are a number of lessons from the COVID-19 response that can assist in transforming the SA health system.

The SA government has been lauded for its decisive action in March 2020 as soon as the first laboratory-confirmed case was identified. The WHO has expressed its appreciation for the SA response to the

COVID-19 pandemic.^[11,12] This illustrates the first lesson from COVID – high-level government commitment to saving lives. This commitment needs to also translate to saving lives and improving the health of South Africans beyond the COVID-19 response. Increasing investment in the health sector, as well as the Sustainable Development Goals, will demonstrate this commitment.

The agility of government – reflected in how swiftly various structures were created and activated and how rapidly decisions, such as the decision to lock down, were taken – indicates that government can react to the needs of its people rapidly. Similar levels of agility are required throughout the health system. This includes health sector managers responding swiftly to needs of communities and adopting a health systems approach to finding solutions. Hence, managers need to have emergency response plans in place to be able to deal with similar disruptions and ensure routine services are not interrupted.

Organisations, such as the Health Professions Council of South Africa (HPCSA, the body that regulates the practice of medicine, dentistry and clinical psychology in the country), authorised health professionals registered with the Council to consult using mobile health technology, provided that there was an existing provider-patient relationship.^[13]

During the COVID response, digital health technology was rapidly deployed. Examples of these applications (apps) include COVID-19 Connect^[14] (which reached over 6 million unique users in the first 7 weeks post deployment), Data for COVID (DATCOV), COVID-19 Alert,^[15] WhatsApp help lines, call centres, and referral apps such as Vula.^[16] The rapid deployment of DATCOV, which was able to collate hospital data from both public and private hospitals, suggests that the health sector should be able to deploy information systems that link patient and management data from both the public and private sectors as envisaged by the National Health Insurance System.

Discussion

As in many countries ravaged by the COVID-19 pandemic, the SA health system was also negatively affected by the pandemic. As was reported in the Global Fund and WHO surveys, routine services were affected by both the lockdown and patient concerns. Major reasons suggested for non-attendance at clinics and hospitals were: lockdown travel restrictions; facilities either closed or perceived to be closed or short staffed; lack of transport; fear of infection; and stigma.

Regrettably, this has resulted in many patients not being screened or tested for HIV and TB, lower immunisation rates for childhood diseases and declines in antenatal visits. There was also an increase in institutional maternal mortality, with a smaller increase in neonatal mortality in SA. It is evident from the data recorded by the DHIS and the NHLS in respect of TB testing and treatment that significant declines occurred during the lockdown period.

Maintaining comprehensive health services during the pandemic and recovery thereof is critical to manage the implications of the pandemic due to de-escalation of comprehensive services and up-scaling of COVID services. The re-escalation of comprehensive services between waves and post the pandemic needs to be a major intervention strategy to enable the health system to optimise comprehensive services.

Preparations for the next COVID-19 wave should include continuity of routine services to ensure that the declines reported in 2020 do not recur. However, this would require concerted actions on both supply and demand sides.

Health workforce

Vaccinate frontline health workers as rapidly as possible. Map the distribution and capacity of health workforce at all levels, and plan

for redistribution and task-sharing. Ongoing information sharing and capacity building in new protocols and guidelines are critical. The COVID-19 pandemic has emphasised the need for more focused attention to human resources for health, without which strengthening of the health system is not possible.

Service delivery realignment according to pandemic alert level

Define the core set/package of routine health services that can be calibrated in line with various phases of the pandemic/alert levels. Clear guidance for scaling down on routine healthcare services and yet maintaining a core set of identified services will help hospital managers with informed decision-making and planning.

Strengthen referral pathways for all essential health services

Mainstream routine health services in COVID-19 response: establish responsible structures within provincial IMTs, as well as routine monitoring of key service coverage/utilisation indicators, and take proactive actions to resolve any disruptions quickly.

Make health facilities safe and efficient

Maintaining comprehensive services during the pandemic involves management of the risk of virus transmission within health establishments by: instituting measures to improve patient flow, and prevent overcrowding; utilising personal protective equipment (PPE) where there is close contact; and ventilation of spaces to minimise the risk of transmission in confined and unavoidable enclosed service-delivery spaces.

Expansion of digital health solutions

To ensure that patients can continue to consult their healthcare providers during the next wave and to lower the costs of healthcare, as well as the burden on patients, the HPCSA should be urged to extend the policy of telemedicine beyond COVID-19.

Community engagement and empowerment

Strengthen health promotion and messaging to communities on when and where to seek services during peaks of COVID-19 waves, and intensify use of community health workers for health promotion messages and community-based care. Also reduce financial barriers for communities, including access to tests, consultations and essential medicines. The re-escalation of comprehensive services post pandemic will entail intervention strategies to achieving global targets incrementally, with returning of platforms that were repurposed for COVID, repurposing structures like field hospitals or new infrastructure and personnel no longer needed for COVID. Other interventions may include, but should not be limited to, more intensive use of healthcare worker programmes, CCMDD and use of delivery systems, virtual patient follow-ups, etc.

The health system has been described as being in crisis before the advent of the COVID-19 pandemic.^[17] It is critical that the lessons (positive and negative) are used to strengthen the health system – not only to respond to the next COVID wave but to build resilience and improve health outcomes for all.

Conclusions

The COVID-19 pandemic has devastated lives and livelihoods globally and in SA. The SA government has been lauded for its swift response to the pandemic in March 2020 and subsequently. Many routinely provided health services were severely disrupted and there is an urgent need to recover to 2019 levels at least. However, there is a

further task – that is to use the lessons from the COVID-19 response to radically transform the SA health system.

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