ADJUSTING FACILITY OPERATIONS TO PROMOTE SAFETY AND MAINTAIN ACCESS TO ROUTINE AND ESSENTIAL SERVICES IN JOHANNESBURG, SOUTH AFRICA

COVID-19 PROMISING PRACTICES

EXECUTIVE SUMMARY

- South Africa is a middle-income country with a strong governmental commitment to improving primary health care (PHC). The country had its first documented case of COVID-19 in March 2020, with Johannesburg Health District and Gauteng Province at the epicenter of the South African outbreak.
- To ensure the safety of patients and staff and maintain routine and essential PHC service delivery, Johannesburg Health District has focused on restructuring clinic flow.
- Changes in facility operations were most successful in PHC clinics that had strong and committed leadership, adequate staff, and the financial resources needed for supply procurement.

SOUTH AFRICA PHC AT A GLANCE

Population: 57.7 M
GDP/Capita: $6,374 (current USD)
Human Development Index: 0.705
Life Expectancy at Birth: 63.5 Years

- South Africa's national health system is divided into nine provincial health departments with 52 health districts.
- PHC is free at point of care and South Africa is in the process of developing its **National Health Insurance program.**
- In 2017, **30% of the government health budget** was devoted to PHC initiatives.
- 84% of PHC services are **publicly provided** and private facilities are also committed to providing **preventative PHC** as a benefit.
- PHC in South Africa has a strong focus on nurse-provided care, with nurses making up **77%** of the healthcare workforce in 2015.
- South Africa's PHC system continues to face a high burden of HIV cases, with **7.7 million people** living with HIV in 2018.

COVID-19 IN SOUTH AFRICA

As of 19 May 2020

17,200
TOTAL CONFIRMED CASES

7,960
RECOVERIES

312
DEATHS

15 MAR 20 — 1ST CONFIRMED LOCAL TRANSMISSION; NATIONAL STATE OF DISASTER DECLARED

27 MAR 20 — START OF NATIONAL LOCKDOWN; CLOSURE OF ALL BORDERS

01 MAY 20 — EASING OF LOCKDOWN RESTRICTIONS

South Africa's COVID-19 response has been focused on three main pillars: increasing testing, declaring a **National State of Disaster,** and enforcing a national lockdown. Additional efforts have included mass screening through the **deployment of community health workers**, and a **government mandate** requiring private-public collaboration to share essential resources and supplies to reduce the cost of COVID-19 diagnosis and treatment. South Africa has also focused on re-organizing facilities to provide and capacitate dedicated triage and treatment centers: **nine hospitals** were designated as COVID-19 management centers and government aid went towards capacitating inpatient units for an influx of COVID-positive patients, including initiating an increased production of ventilators through the **National Ventilator Project**.

COVID-19 IN JOHANNESBURG, SOUTH AFRICA:

THE ROLE OF SAFETY AND FACILITY OPERATIONS IN EFFECTIVE PREPAREDNESS AND RESPONSE

AN INTERVIEW WITH DR. SHABIR MOOSA

Dr. Shabir Moosa is a Family Physician located in the Johannesburg Health District of Gauteng Province, the epicenter of South Africa's COVID-19 outbreak. Dr. Moosa is the current President of WONCA-Africa and is a Professor of Family Medicine at University of Witwatersrand. We interviewed Dr. Moosa to learn more about his experiences with developing and implementing guidelines for restructuring PHC facility operations in light of COVID-19. Responses have been edited for length and clarity.

COVID-19 PREPAREDNESS, RESPONSE, AND RECOVERY:

Question: What has been the role of PHC in South Africa's COVID-19 response? What has this looked like in Johannesburg, where your work is focused?

Answer: The initial "knee-jerk" government response was to close borders, impose a lockdown, and undertake top-down contact tracing. Once infections spread into the community, the focus shifted to developing hospital capacity and in-patient management while suspending PHC services to avoid poorly-managed queues at PHC facilities.

However, it was quickly recognized that PHC--given its ability to directly access communities--had a critical role to play in maintaining routine and essential services, as well as helping to identify potential COVID-19 positive patients. This resulted in the acknowledgement that PHC facility structures, including clinic flow and regular procedures, required adaptation to ensure the safety and well-being of both patients and providers.

To make this shift in Johannesburg, I worked with family physicians and other specialists to develop a COVID-19 Plan for the Johannesburg Health District.We worked with a team of infectious disease specialists with experience in Sierra Leone's Ebola response to refine the plan and developed a document for the Infectious Diseases Society of Southern Africa. This was then implemented in six PHC facilities with clinical site managers to improve COVID-19 management in PHC clinics. A complimentary plan was developed to guide private PHC facilities. Together, these three documents provide a comprehensive description of adapting PHC facility operations for COVID-19.

Question: What strategies did those guidance documents describe to change facility operations and increase patient and provider safety?

Answer: These guides describe a restructuring of facility operations, particularly clinic flow, to ensure isolation of symptomatic patients, appropriate social distancing, and sanitization of facility space and equipment. **This is achieved by managing the general flow of the clinic in three "zones" - yellow (medium risk), orange (high risk), and blue (low risk) - to facilitate appropriate triaging and control one-way clinic flow.**

It starts with a single point of entry to the clinic (the "yellow zone") that is equipped with a sanitation station and then a screening station to identify potential COVID-19 patients (see standardized screening criteria for potential COVID-19 patients **here**). Non-COVID-19 patients are sent to the "blue zone" to receive routine services, while potential COVID-19 patients are sent to a temporary chest clinic in the "orange zone". The "orange zone" also houses COVID-19, Tuberculosis, and HIV testing stations.

The guidelines also describe standardized changes to patient seating arrangements, and the implementation of stringent PPE and sanitation requirements. For example, in waiting areas, large Xs are placed over the seats that cannot be occupied to ensure appropriate physical distancing, and patients are asked to stay in one chair until it is their turn to receive care. After the patient leaves from the waiting area, that seat must be thoroughly cleaned with a high-grade disinfectant before being used again.

It is also required that all clinic staff wear masks, and all patients wear at least cloth face coverings. Nurses and physicians coming in direct contact to care for potential COVID-19 patients must don at least a surgical mask, gloves and plastic apron. Those conducting COVID-19 testing outdoors are expected to wear gloves, a plastic apron, a N95 mask, and a visor with regular changes of PPE.

Deliberately marked "Xs" on waiting room seats to ensure appropriate physical distancing. Photo: Chris Collinridge for the Daily Maverick

Question: How is the reorganization of clinic operations being utilized to maintain essential in-person services during COVID-19?

Answer: Reorganization of clinic operations were effectively achieved in six pilot PHC clinics across the Johannesburg Health District. Entire clinics were reorganized by drawing out and demonstrating safe distances and best practices on the premises, using tools as simple as paint, hazard tape, and masking tape. This helped to demarcate the three clinic zones, and to minimize physical contact between patients and providers. Anxiety over the safety of both patients and staff were alleviated through implementation of these measures, and many services including, women's health, family planning, and child health services have been able to continue. This is in contrast to most of South Africa, where services such as immunizations and chronic disease management have decreased overall. While restructuring has worked well among these six clinics, others are struggling to apply the same techniques resulting in long, concerning lines and crowding in public spaces. Lessons from the successes and struggles of the six pilot clinics will be essential in expanding this model of reorganization to other PHC clinics across the province and country.

Question: What factors facilitated the successful implementation of these guidelines in the pilot clinics?

Answer: Implementation in the six pilot clinics has gone well due to the overwhelming support from the broader Johannesburg community for the procurement of appropriate supplies and additional volunteers. This collective environment, including buy-in from staff and support from management and governing bodies, enabled facility restructuring, appropriate physical distancing, and enhanced personal safety. Necessary supplies included PPE, tape, paint, and sanitation equipment, among others to enable continued services and enhanced safety. Strong, active clinical management and leadership enabled prompt changes to long-standing clinic culture and ways of practice to adapt to new procedures in light of COVID-19. Management activities included effective redeployment of personnel, enforcement of new safety protocols, and assurance of continued personnel attendance and availability. Involvement of senior district management assisted appropriate procurement of supplies to enable the execution of revised clinic procedures, this also helped in building appropriate clinic capacity and the associated trust among managers, nurses, physicians, and patients.

Question: What have been the challenges related to implementing effective restructuring of facility operations?

Answer: A major challenge to effectively restructuring facility operations is developing the necessary cultural and technical shift needed to appropriately carry out new guidelines and procedures across all 120 clinics serving 5.5 million people in Johannesburg. Such shifts require strong guidance from committed management, which unfortunately has been lacking in many places. Furthermore, facilities often face a great lack in access to funds for the procurement of supplies and personnel. Despite adequate budgets on paper, the level of autonomy given to facilities to spend their funds is low unless a prolonged bureaucratic process is followed.

Such shifts require strong guidance from committed district health service management, which unfortunately has been lacking in many places. As a consequence, facilities are relying on community donations and university assistance in stocking supplies and manning clinics. This is seen through donations of technical supplies and PPE, as well as university students volunteering as triage leaders in clinics.

There is also a lack in coordination with other supporting agencies to allow clinics to efficiently function and provide essential services. This includes a lack of guidance from the central government on the restructuring of community-based PHC facilities, as well as minimal communication with local non-health agencies such as road development or traffic police to help enforce physical distancing guidelines. While the central government advocates for private-public collaboration in light of COVID-19, this is less likely to occur at the local level.

Question: What has adapting the PHC system for COVID-19 taught you, and where do you see opportunities for longer term health systems strengthening?

Answer: COVID-19 has spotlighted several gaps and challenges in the broader South African health system, however this allows for identifying directed efforts for long-term health systems strengthening. The guidance documents created, while specific to COVID-19, have the potential to be further developed as standing documents for future epidemics and health emergencies and hopefully will enable future restructuring efforts to be quicker and more efficient.

This pandemic has also underscored opportunities for broader changes in PHC service delivery. For example, the Chiawelo Community Practice Model (CCP) my team has developed proposes a physician-led effort to provide community-oriented primary care by adopting concepts of empanelment and **integrating new payment mechanisms** into South Africa's National Health Insurance plan. The CCP model could have provided a means of systematically screening patient panels, tracking suspected patients, undertaking contact tracing, and providing general education and community protection efforts using community health workers. This might have proved to be more effective than early efforts to use CHWs who were not linked to any clinic in random communities--efforts which have demonstrated limited success and are now being abandoned. The challenges we are facing with PHC service delivery highlight the need for further experimentation and implementation with models such as these.

While COVID-19 has resulted in widespread concern, it has also led to collective action to strengthen the broader health system and has underscored the importance of maintaining primary health care services during this time. If delivered safely and effectively, PHC can help to mitigate the impact of COVID-19 while continuing to minimize the burden of other ongoing endemic health issues.

RELEVANT **RESOURCES**

RELEVANT IMPROVEMENT STRATEGIES

- Primary Health Care Policies
- Quality Management Infrastructure
- Innovation & Learning
- Facility Infrastructure
- Workforce, Funds, and Safety
- Facility Management Capability and Leadership
- Performance Measurement and Management

GLOBAL LEARNING TOOLS

- Operational Considerations for Non-US Settings
- Non-COVID-19 Care Framework
- WHO Coronavirus (COVID-19) Technical Guidance:
  - Essential Resource Planning
  - Maintaining Essential Health Services and Systems