

### Impact of COVID-19 on Supply Chains in Zimbabwe

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#### Abstract

Zimbabwe like many other sub-Saharan African states has been struggling to provide a quality health service delivery system. Nations with rampant corruption and ineffective bureaucracy made worse, the response towards the fight against COVID-19, Coronavirus Disease 2019. Despite the Zimbabwean government setting out protocols with international agencies such as WHO, World Health Organization to mount an effective response against COVID-19, the health system has been overstretched with lack of personal protective equipment, shortage of drugs and essential equipment and wanton corruption practices coupled with shortage of staff. Timely delivery of orders is still a challenge due to strict bureaucratic measures when transporting goods and the existing competition between countries. Manufacturers and donors are shifting their focus to their countries leaving the Zimbabwean health service underfunded and under-resourced. However, among the challenges experienced the country has been given a chance to revisit its priorities and strategize how best the government and organizations can move essential medical goods, utilize current trade agreements such as ACFTA, African Continental Free Trade Area and local drug manufacturers to produce essential medicines. Launching an efficient mechanism to end corrupt practices in procurement and supply as well as improve interagency cooperation and communication may help improve efforts to end COVID-19 in Zimbabwe.

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## Introduction

For ages many African countries have had challenges in improving the quality of health services. Recent epidemics have given Government a chance to evaluate their priorities and preparedness to control outbreaks of diseases. Efforts are being made to curb outbreaks of disease in Zimbabwe with a focus on improving and strengthening supply chains at province, district and health facility levels. According to a workshop held in 2019 aimed at strengthening coordination to prepare for a prompt and rapid response against disasters, it facilitated disaster emergency preparedness and supply chain policies alignment with supply chain emergency response preparedness plan<sup>1</sup>. Zimbabwe has been struggling economically for about 2 decades limiting its response to provision of hospital equipment and supplies. Health workers' strikes have occurred a number of times protesting failure of hospitals for providing PPE, Personal Protective Equipment in the middle of the COVID-19<sup>2</sup>. Zimbabwe is a nation with approximately 13 million habitants, 52% of these being women. The country has 10 provinces and the highest proportion of the country's population lives in Harare, the capital city. Most women, the elderly and children stay in the rural areas of Zimbabwe and the health system has both public and private players. The public sector is the main provider of health care services and health care in Zimbabwe is delivered through 1,848 facilities, most of which are public health care facilities. The remaining ones are non-profit and church affiliated facilities (referred to as mission facilities), private for-profit facilities and company operated clinics. Health services are provided from the primary level up to the quaternary level<sup>3</sup>. With the onset of COVID-19 only Wilkins hospital was operating as the main COVID-19 isolation and treatment centre<sup>4</sup>.

The rising demand for COVID-19 equipment has been burdensome for African countries particularly those from LMICs, Lower-Middle Income Countries. WHO and other charitable organizations have intervened to identify and negotiate with suppliers to purchase essential products for LMICs. WHO has managed to procure 6.5 million PCR, Polymerase Chain Reaction test kits and 5.6 million collection kits for 134 countries<sup>5</sup>.

The Zimbabwe blood Transfusion Services have also suffered with the lack of blood processing materials due to diminishing forex reserves and disruption of supply chains<sup>6</sup>. Hence, the purpose of this paper is to highlight and analyse the impact of COVID-19 on the supply chains of health commodities in Zimbabwe.

### *Government Efforts and Current Challenges*

Recognizing the need to establish a protocol to curb the spread of infection, the Zimbabwean MOHCC, Ministry of Health and Child Care in collaboration with the United Nations migration agency set up a strategic preparedness and response plan<sup>7</sup>. A major priority of this plan involves supporting logistics, procurement and supply chain of critical supplies to ensure patient access to health and social services. Despite significant effort to prepare against the pandemic by expanding testing services, district isolation and treatment centres, COVID-19 has stretched the Zimbabwe's health system far beyond its capacity disrupting health supply chain systems.

Africa's reliance over external supply of kits and reagents, limits its capacity to scale up COVID-19 testing to desirable levels<sup>8</sup>. There are frequent reports of shortage of PPE in health facilities which in turn has led to further reduction in testing capacity of these centres, restricting patients' care to only those with a positive COVID-19 test. Currently, there is a critical shortage of essential drugs such as diazepam and morphine to manage COVID-19 as well as medical equipment (pulse oximeters and syringe pumps) in Parirenyatwa hospital, the only public hospital managing severe COVID-19 cases<sup>9</sup>. Another issue hampering the responses, is rampant corruption in the procurement of COVID-19 equipment presumably further worsening existing health problems in the country due to retrogressive duty processes, costly and difficult custom clearing procedures particularly for small traders who feed into govt procurement structures.

Due to the global effects of COVID-19, pharmaceutical suppliers have reduced their for-export production levels and with the government-imposed lockdowns in their respective countries and the ban of transportation activities there are less exports. In countries like India and China there has been an increase in domestic demand for PPEs and respective governments have emphasised the need for cost

minimisation<sup>10</sup>. Zimbabwe also has faced issues to do with logistics and sample shipment to various testing centres which through collaboration of MOHCC and its affiliates, the problem was sorted in some areas<sup>11</sup>.

#### *Impact on Health Worker Services*

COVID-19 has had an impact on Zimbabwe's grassroots level activities such as movement obstruction of employees working in industrial units and health workers who commute to and from work, due to untimely cooperation between different transporters and couriers. All these factors cause delays and cripple the logistics and supply chain affecting transportation of vaccines, health workers, medical equipment and raw material. Some health workers reported that the shortage of public transport led them to waking up as early as 4am for them to get to work by 8am and has resulted in them reaching their respective work stations fatigued. These hustles coupled with the low remuneration which is continuously eroded by hyperinflation and lack of PPEs at the government hospitals has prevented health practitioners from reporting for work. This cascade of problems negatively impacts the quality of healthcare service delivery, overworking student health practitioners and delays in getting quality treatment for the community. This clearly shows that logistics supply chain means much more than the transportation of pharmaceuticals between countries, but also the movement of practitioners<sup>10</sup>.

Recent data reveals preventable mortalities related indirectly to the COVID-19 pandemic, particularly due to disruption of other health care services such as maternal and child care, immunization, blood supply services and chronic diseases. A rapid rise in unexpected pregnancies and sexually transmitted diseases is anticipated due to reported shortages in contraceptives and condom supply in health facilities, which may lead to complications in unsafe abortions<sup>6</sup>. COVID-19 has disrupted medicine supply, schedules for prescription refills and routine laboratory testing for patients with chronic non-communicable and infectious diseases and this may lead to increased odds of death from COVID-19 infections<sup>6</sup>. Finance, procurement challenges and travel restrictions has led to critical shortage in supply of blood products such as blood bags, due to in the country<sup>12</sup>. These disruptions must be addressed effectively, by redirecting supply chain management

systems, as these effects could be deleterious on the health system.

A second lockdown was instituted following a second wave of COVID-19 in Zimbabwe while air travel was still operational given travellers present COVID-19 test results<sup>13</sup>. Vaccination is set to commence in the country immediately after the vaccines are procured through COVAX, COVID-19 Vaccine Global Access, the WHO-initiative<sup>14</sup>. However, a major concern is the transportation, storage and distribution of these vaccines.

#### **Recommendations**

Strategies to maintain supply chain of medical supplies need to be part of the Zimbabwean response to the COVID-19 crises as it bothers on the sustainability of essential health services.

Many health facilities lack basic medical supplies which include essential medicines and consumables.

The pandemic has further exposed the vulnerability and the consequences of the largely untapped utilisation of the production capacity of many African countries as there is huge dependence and reliability on the importation of these supplies as well as their raw materials.

Zimbabwean healthcare system has the potential to be self-reliant and sustainable and therefore it will be highly beneficial for the government to embark on strengthening of its regulatory systems, improve business environment through favourable policies and integrate research and development with the market demands in response to such crises- local vaccine production should be a priority at this moment, advise is for the government to equip local universities with supplies and knowledge that help them to be able to produce PPE, sanitizers and state of the art storage facilities that will enable vaccines to be transported across the country, hustle free. There is also need for partnerships with relevant bodies both internationally and indigenously in order to foster investments, trade facilitation, business development and industrialisation.

The global health supply chain program in Zimbabwe has recommended enhancing data availability through real time data transmission from distance outposts to improve turnaround times as well as negotiating longer contract terms with various suppliers.

With the second wave of COVID-19 in Zimbabwe, stricter and vigorous port of entry inspections are the order of the day with some goods being held in bonded warehouses until they satisfy port guidelines. Finding ways which enable major pharmaceutical distributors to deliberately let go of conventional shipping of medical supplies through the Indian Ocean and consider air cargo may be ideal for essential goods.

The disruption of the medical supply chain is a great opportunity for Zimbabwe to be less dependent on foreign medical supplies. MOHCC needs to come up with import substitution measures to strengthen the nation's capabilities of producing medical supplies through organisations like Varichem, CAPS, Natpharm and Availpharm pharmaceutical which for years have yearned for government support and public private partnerships<sup>11</sup>. The country can get the best deals through a meticulous negotiation of lower prices for essential medical goods required at the front line, providing diminishing profits and priority for importation with both foreign and private companies. Another, recommendation is for local medical supplies importers to apply for tax holidays and the deferment of VAT, Value Added Tax on essential supplies being used during the COVID-19 period. This may help the smooth the supply chain of these goods and tax payment negotiations with the ZRA, Zimbabwe Revenue Authority may be done later after the goods have reached the end users efficiently and promptly.

The recent launch of the AMSP, Africa Medical Supplies Platform brings hope for Zimbabwe. The platform reveals immediate access to an African and global base of examined manufacturers and procurement strategic partners, and ensures African Union member states purchase certified medical equipment<sup>10</sup>. This platform, coupled with the ACFTA, has the potential to reduce the cost of reagents. The initiative will also help in building partnerships that will optimize supply, logistics and accelerate the regulatory approval pathway. With these partnerships, joint demand management is also possible and product and supplier shortlists that improve the supply chain process are generated.

MOHCC needs to address issues of corruption in the tendering and procurement process of medical supplies. In the context of the COVID-19 supply chain,

CSOs, Civil Society Organisations and the ZACC, Zimbabwe Anti-Corruption Commission may play a vital role in demanding and ensuring transparency and good governance of public financial resources. Development partners should also ensure that CSOs managing their donations adopt means to track, monitor and shadow report on anomalies that emerge in resource and commodity utilization<sup>11</sup>.

## Conclusion

COVID-19 has disrupted the health sector supply chain greatly and this has incurred detrimental effects of untimely deaths of patients and enormous challenges for health workers. As the country moves away from reliance on donor funds and foreign supplies, much is to be learnt from the lessons of managing COVID-19. The Zimbabwean government is urged to work towards improving the welfare of its critical frontline staff so that the pandemic is combated effectively and progress towards the achievement of SDG 3, Strategic Development Goal 3.

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## Conflict of interest

The authors declare no conflicts of interest.

## Abbreviations

COVID-19: Coronavirus Disease 2019

MOHCC: Ministry of Health and Child Care

SDG3: Sustainable Development Goal 3

CSO: Civil Society Organizations

ZACC: Zimbabwe Anticorruption Bureau

WHO: World Health Organization

PPE: Personal Protective Equipment

SPRP: Covid-19 Strategic Preparedness and Response Program

LMICs: Lower Middle-Income countries

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