

COVID-19

UGANDA'S PREPAREDNESS FOR EQUITABLE ACCESS TO MEDICAL PRODUCTS



Everyone has a role to play but Government and Ministry of Health must take lead

Diagnostics, vaccines and therapeutics (DVT) and personal protective equipment (PPE) play a critical role in epidemic control. Basing on results from a rapid assessment, this brief highlights the key gaps in the country's readiness to ensure equity in access to essential COVID-19 DVT and PPE for an inclusive response to the COVID-19 pandemic in Uganda.

BACKGROUND

Uganda is one of the countries that had the least COVID-19 cases in the first wave of infections.¹ However, cases shot-up in a more virulent second wave, driven by new variants of the virus, with the positivity rate reaching 17.1% and cumulative cases quickly shooting to 84,140 and deaths to 2,064 as of 9 July 2021.²

Although the country is a beneficiary of global and regional collaborations as well as bilateral donations, there has been a critical shortage of DVT and PPE.³

GLOBAL GUIDANCE

The COVID-19 Strategic Preparedness and Response Plan (SPRP) of the World Health Organisation (WHO) of February 2021 and its Operational Plan focus on ensuring that capacities are in place in all countries to equitably deploy essential COVID-19 medical products.

The Operational Plan in particular sets out the key actions and measures to be taken to ensure a comprehensive and effective response to the pandemic, including the implementation of new DVT in every country and context – under-resourced settings inclusive.

WHO recommends the mainstreaming of gender equality, health equity and human rights during program design, planning and implementation. It emphasizes meaningful participation, collaboration and consultation with people experiencing poverty and social exclusion.

1 Government of Uganda, 2020. COVID-19 Response INFO Hub. <https://covid19.gou.go.ug/>
 2 Ministry of Health Coronavirus (pandemic) Covid-19 information portal. <https://www.health.go.ug/covid/>
 3 Elias Biryabarema (2020). Uganda health workers say they lack vital equipment to fight COVID-19. *Reuters*, 3 June 2020. <https://www.reuters.com/article/us-health-coronavirus-uganda-idUSKBN23A218>

NATIONAL POLICY AND GUIDELINES

The National Guidelines for Management of COVID-19 recommend use of a range of DVT and PPE for its prevention, diagnosis and management, depending on the level of exposure and the severity of illness.

DVT and PPE recommended for use in Uganda

Therapeutics	Paracetamol, Hydroxychloroquine, Amoxicillin, Zinc, Azithromycin, Intravenous Vit C, statins, Oxygen, IV Ceftriaxone, IV Ampicillin, Amoxicillin-Clavulanic acid, IM/IV Gentamicin, IV Norepinephrine, IV Epinephrine, Dobutamine
PPE	Medical masks are needed during patient interaction without contact. Facial protection, gown, apron, gloves, medical mask, gum boots are required for tasks that involve contact with patients while N95 mask is also required when in risk of Aerosols with or without patient contact. Heavy duty rubber gloves and alcohol-based disinfectants for cleaning.
Diagnostics	Polymerase chain reaction (PCR) test for diagnosis of COVID. Rapid diagnostic test (RDT) is used for surveillance in the communities.

COLLABORATIVE EFFORTS FOR ACCESS TO COVID-19 MEDICAL PRODUCTS

Upon the onset of the pandemic in 2020, the global community⁴ launched the Access to COVID-19 Tools Accelerator (ACT Accelerator) to lead the development, production and equitable access to COVID-19 medical products. The ACT Accelerator's vaccine arm, COVAX, has the mandate to maximise access to COVID-19 vaccines as quickly, as fairly and as safely as possible.⁵

In March 2020, Africa Centres for Disease Control and Prevention (Africa CDC) established the Africa Medical Supplies Platform (AMSP) with a mandate to pool the purchase of COVID-19 DVT and PPE for member states of the African Union (AU) with promptness, cost effectiveness and transparency.⁶

In April 2021, Africa CDC further launched the Partnerships for African Vaccine Manufacturing (PAVM) as part of AU's ambition to manufacture at least 60% of the continent's vaccine needs by 2040.

MAIN GAPS IN THE NATIONAL RESPONSE

Under-funding: Government of Uganda (GOU) investment in the response to COVID-19 has been embarrassingly underwhelming. For instance, the funding need for FY2020/21 for laboratory and surveillance is projected at about USD 22 million, of which there is a commitment of only USD 13.6 million, leaving a gap of up to USD 8.4 million (38%).⁷

There is no evidence that Uganda has made full use of COVAX. The country has apparently tethered all hopes for vaccines on donations.⁸ Yet, COVAX has been unreliable, delivering only 864,000 doses of the vaccine on 5 March 2021 after it received Uganda's application for 16 million doses more than three months earlier.⁹

High cost of COVID-19 diagnosis and treatment: The high cost of diagnosis and treatment of COVID-19 has undermined access by people with limited resources.

As far as diagnosis is concerned, the price of a PCR test ranges between UGX 185,000-250,000 (USD 50-68) in public facilities¹⁰, and up to UGX 330,000 (USD 89) in

private laboratories.¹¹ The rapid diagnostic test (RDT) would be far more affordable but Ministry of Health recommends it only for surveillance in the communities.

One example of a recommended therapeutic drug whose price has shot-up due to a sharp rise in demand is Hydroxychloroquine, with the price of a pack of 100 tablets increasing tenfold from UGX 25,000 prior to COVID-19 to UGX 250,000.

The charges for treatment of critically ill patients requiring in-patient intensive care have particularly been outrageous. Private hospitals have charged them between UGX 2-5 million per day, with hospitalisation for a two-week period accumulating bills in excess of UGX 100 million – irrespective of whether they recover or not.

This is unaffordable to most Ugandans, 21.4% of whom live in absolute poverty¹². Ugandans already bear about 40% of total health care expenditure in form of out-of-pocket spending, and nearly 80% are at risk of catastrophic or impoverishing health expenditures.¹³

Indeed, there were reported instances when hospitals required COVID-19 patients to deposit asset documents such as land titles as collateral before admission. In other instances, dead bodies were withheld to force relatives to pay accumulated hospital bills.

Lack of frugality in procurement: The procurement of the much-needed items has been wrought in inefficiency, obscurity and allegations of corruption, leading to delayed and insufficient deliveries, and outright extravagance.

For example, N2M Company Ltd delivered 3,200 packets of surgical masks, each containing 50 masks, each at UGX 247,343, translating to a unit price of UGX 4,946.¹⁴

On 5 June 2020, the Ministry of Health published the following unit costs (including shipping charges) of COVID-19 test kits: Altona PCR kits USD 25; GeneXpert kits USD 19.8; ABI kits USD 17.2; COBAS 6800/8800 kits USD 18.9; and RDT kits USD 5.¹⁵ There have been complaints about high charges for COVID-19 tests.¹⁶

While vaccinations are being provided free of charge to high-risk individuals, they have been purchased expensively, save those that have come as donations.

4 ACT Accelerator is a collaboration of governments, scientists, businesses, civil society and philanthropists and global health organisations, including the Gates Foundation, CEPI, FIND, Gavi, Global Fund, Unitaid, Wellcome, WHO, World Bank

5 World Health Organisation (2021). Therapeutics and COVID 19; Living guideline. www.who.int

6 Africa Medical Supplies Platform (website). <https://amsp.africa/about-us/>

7 Ministry of Health (2020). COVID-19 Preparedness and Response Plan March 2020-June 2021

8 Ministry of Health (2021). Update on COVID-19 response in Uganda. Press statement, 11 February 2021

9 GoU and COVAX, 2021. Joint Press Release; Uganda receives 864,000 doses of COVID-19 vaccines

10 Ministry of Health (2020). <http://www.health.go.ug>dow-noad-attachment>

11 The Independent, 14 August 2020

12 Uganda Bureau of Statistics (2020). [Distribution of Poverty in Uganda across regions 2016/17](#)

13 The World Bank Group (2016). World Bank Open Data: 2016 [updated 17 October 2017]. <https://data.worldbank.org/>

14 Ministry of Finance, Planning and Economic Development (2020). COVID-19 interventions report.

15 Ministry of Health (2020). Ministry of Health Clarification on cost of COVID 19 Testing. Press Release, 5 June 2020. <https://www.health.go.ug/cause/ministry-of-health-clarification-on-cost-of-covid-19-testing/>

16 Halima Athumani (2020). Uganda cuts cost of COVID test from \$65 to \$50. *Voice of America*, 24 October 2020. <https://www.voanews.com/africa/uganda-cuts-cost-covid-test-65-50>

At the time of our assessment, the country was expecting AstraZeneca/Oxford vaccines from COVAX at USD 7 per dose.¹⁷ The two-dose vaccine together with shipping and handling costs, would bring the total cost per person to USD 17 – a price that is 20% more than South Africa's and roughly triple that paid by the European Union.¹⁸

Insufficient testing capacity: As of 11 February 2021, only 21 facilities and laboratories had been accredited to test for COVID-19 across the entire country.¹⁹ These facilities were in addition, unevenly distributed: more than half of them are located in Kampala and border entry points, with Lango, Acholi and Karamoja completely left out.

The private sector and community-level pharmacies have not been involved in testing. At the time of our assessment, the country did not have even a single national supplier of COVID-19 test kits for the private sector. Lancet Laboratories reported that it was directly importing test kits for use in their laboratory which was not cost effective given the small quantities involved.

Ministry of Health enhanced the capacities of 100 facilities across the country to function as laboratory hubs.²⁰ It should also be noted that GeneXpert machines have been installed at regional referral hospitals (RRHs) and general hospitals, most of which are already serving as testing hubs for TB.²¹ The Ministry should leverage these facilities to rapidly expand COVID-19 testing.

DVT and PPE shortages and stock-outs: There has been an embarrassing shortage of essential medical supplies for prevention and management of COVID-19 in Uganda, including PPE for health workers.²² As at 25 July 2020, the stock status of laboratory items at national level was below the target of a minimum of two months of stock.²³

By July 2020, the country had less than one-month's stock of most PPE for health workers.²⁴ Shortages of gloves, face masks, face shields, aprons and other PPE have been reported in most hospitals.²⁵

17 Ministry of Health (2021). Update on COVID-19 response in Uganda. Press statement, 11 February 2021.

18 Dyer, O. (2021). Covid-19: Countries are learning what others paid for vaccines. *BMJ*

19 Ministry of Health (2021). Update on COVID-19 response in Uganda. Press statement, 11 February 2021

20 The list of the hubs can be accessed from <http://cphl.go.ug/hub-list>

21 Nalugwa, T; Shete, P; Nantale, M; Farr, K; Ojok, C (2020). Challenges with scale-up of GeneXpert MTB/RIF in Uganda: a health systems perspective. *BMC Health Services Research*

22 Biryabarema E (2020). Uganda health workers say they lack vital equipment to fight COVID-19. *Reuters*, 3 June 2020. <https://www.reuters.com/article/us-health-coronavirus-uganda-idUSKBN23A218>

23 MOH (2020). COVID-19 situation report. 25 July 2020.

24 MOH (2020). COVID-19 situation report 25 July 2020

25 Biryabarema E (2020). Uganda health workers say they lack vital equipment to fight COVID-19. *Reuters*, 3 June 2020. <https://www.reuters.com/article/us-health-coronavirus-uganda-idUSKBN23A218>

Even non-medical masks for the general public were not only delayed, but also under-estimated, under-supplied or under-distributed. The need was estimated at 32,979,928 for 2020 (assuming each beneficiary would use one mask for a whole year),²⁶ but as of 3 March 2021, only 24,997,096 masks (75.8%) had been distributed²⁷, and as of 9 July 2021, only 1,379,070 had been tested²⁸.

In mid-June 2021, there was a severe shortage of medical oxygen in hospitals.²⁹ Findings from a rapid assessment HEPS-Uganda conducted in Kamuli district on oxygen availability and management revealed that few health workers have the capacity to manage cases of hypoxemia (shortness of breath, caused by low oxygen in the body), including the administration of oxygen on patients. Ministry of Health should build the capacity of health workers in this area.

Access to vaccines has been even more problematic. As of 9 July 2021, only 1,058,084 doses of vaccines – enough for only 1.2% of the population (assuming two jabs per person) – had been administered.³⁰ Yet WHO recommends that a substantial proportion of a population – estimated at 60% – needs to be vaccinated to achieve herd immunity against COVID-19.³¹

Inadequate cold chain capacity: Some vaccines on the market must be kept at negative 80°C. Not many facilities have this capacity in Uganda. For this reason, GOU opted for the Oxford/AstraZeneca vaccine, which requires a manageable 2°- 8°C. The Ministry also considered the Chinese vaccine for the same reason.³²

GOU needs to invest in the health system's cold chain to increase the capacity to handle a variety of vaccines on the market and expand options.

Limited public awareness: The spread of COVID-19 has been accompanied by a wave of disinformation that is generating distrust, amplifying fear and concern among citizens, and sometimes leading to harmful behaviours.³³

26 MOH update on COVID-19 response, 13 June 2020

27 MOH (2021). <http://library.health.go.ug/>

28 MOH Covid-19 information portal. <https://www.health.go.ug/covid/>

29 Olukya G (2021). Uganda hospitals run short of oxygen amid spike in COVID-19 cases. Anadolu Agency, 15 June 2021. <https://www.aa.com.tr/en/africa/uganda-hospitals-run-short-of-oxygen-amid-spike-in-covid-19-cases/2275032>

30 MOH Covid-19 information portal.

31 WHO (2020). Coronavirus disease (COVID-19): Herd immunity, lockdowns and COVID-19. <https://www.who.int/news-room/q-a-detail/herd-immunity-lockdowns-and-covid-19>

32 MOH update on COVID-19 response, 11 February 2021

33 OECD (2020). Transparency, communication and trust: The role of public communication in responding to the wave of disinformation about the new Coronavirus. <https://www.oecd.org/coronavirus/policy-responses/transparency-communication-and-trust-bef7ad6e/>

The uptake of testing and later vaccination was initially low due to limited awareness, scary myths and misinformation.³⁴ Reports linking some vaccines to incidents of fatal blood clotting have not been helpful.

Yet, an assessment of COVID-19 communication showed that, by February 2021, Ministry of Health had made “little or no effort” to engage with communities ahead of measures.³⁵

At least one study³⁶ conducted in March-April 2021 to determine the acceptability of COVID-19 vaccine among persons at high risk of COVID-19 morbidity and mortality in Uganda has recommended increased sensitisation, myth busting and utilisation of opinion leaders to encourage vaccine acceptability.³⁷

Insufficient support for local research and development (R&D): There has been some modest effort into COVID-19 DVT and PPE but GOU has not given sufficient support to this effort. On 27 January 2021, a clinical trial of UBV-01N, a herbal treatment for COVID-19, was launched by the Presidential Initiative on Epidemics.³⁸

34 Keneth Iceland Kasozi, et. al (2021). A descriptive-multivariate analysis of community knowledge, confidence, and trust in COVID-19 clinical trials among healthcare workers in Uganda. *MDPI*, Vol 9, Issue 3. <https://www.mdpi.com/2076-393X/9/3/253/htm>

35 Awobamise, A. O., Jarrar, Y., & Okiyi, G. (2021). Evaluation of the Ugandan Government’s Communication Strategies of the COVID-19 Pandemic. *Online Journal of Communication and Media Technologies*, 11(1), e2021xx. <https://doi.org/10.30935/ojcm/10824>

36 Bongomin, F. et. al (2021). COVID-19 vaccine acceptance among high-risk populations in Uganda. *Therapeutic Advances in Infectious Disease*, 9 June 2021. <https://journals.sagepub.com/doi/full/10.1177/20499361211024376#>

37 Bongomin, F. et. al (2021). COVID-19 vaccine acceptance among high-risk populations in Uganda. *Therapeutic Advances in Infectious Disease*, 9 June 2021. <https://journals.sagepub.com/doi/full/10.1177/20499361211024376#>

38 UVRI (2021). Uganda successfully joins trials race for coronavirus drug. <https://www.uvri.go.ug/news/uganda-successfully-joins-trials-race-coronavirus-drug>

On March 17, 2021, a locally-made COVID-19 antigen RDT test kit was launched. However, at the time of our assessment, there was no information on when mass production of these kits would start.

In June 2021, a pathologist at Mbarara University of Science and Technology, Prof. Patrick Ogwang, launched an herbal remedy named Covidex but it had to take the President’s intervention for National Drug Authority (NDA) to allow its emergency use.³⁹

In early July, researchers at the Gulu University came to the limelight with another COVID-19 herbal remedy named Covilyce, but could not raise UGX 200 million they needed to start production.⁴⁰

Support for local R&D should not only be in form of funding, but also creating a conducive policy and regulatory environment, including supporting a proposal by India and South Africa – a proposal backed by the United States – to waive patents on COVID-19 vaccines in order to boost supply by allowing production of generic versions of existing vaccines.

CONCLUSION

COVID-19 has exposed many gaps in the health system but also in the country’s preparedness for inclusive response to emergencies, including epidemics. The response at the global, national and sub-national levels must ensure equity in access to COVID-19 DVT and PPE. The global community, regional actors, GOU, Ministry of Health, Ministry of Finance, NDA, the civil society, media, private sector, and individuals have a role to play, but GOU and Ministry of Health must take leadership to ensure the response is inclusive.

39 Olukya G (2021). Ugandan-made COVID drug now on black market. *aa*, 6 July 2021. <https://www.aa.com.tr/en/africa/ugandan-made-covid-drug-now-on-black-market/2295296>

40 Ayugi C, Owiny TJ, & Abet T (2021). Govt blocks Gulu varsity Covid drug. *Daily Monitor*, 14 July 2021. <https://www.monitor.co.ug/uganda/news/national/govt-blocks-gulu-varsity-covid-drug-3472632>



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