ACCESS TO COVID-19 DIAGNOSTICS, VACCINATION AND TREATMENT SERVICES IN UGANDA

Draft Research Report

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Table of Contents

Abbreviations and acronyms

ACT	Access to COVID-19 Tools (ACT) Accelerator
Ag RDT	Antigen Rapid Diagnostic Tests
COVID-19	Corona virus disease 2019
CSO	Civil society organizations
DVT	Diagnostics, vaccines and therapeutics
HEPS-Uganda	Coalition for Health Promotion and Social Development
MOH	Ministry of Health
NAAT	Nucleic acid amplification testing
PCR	Polymerase Chain Reaction
PPE	Personal Protective Equipment
RDT	Rapid Diagnostic Test
rRT-PCR	Acid by real-time reverse transcription polymerase chain reaction
UGX	Uganda Shillings
USD	United States Dollars
WHO	World Health Organization

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Thank you all

Kenneth Mwehonge
Executive Director

1. INTRODUCTION

1.1 Background

Corona virus disease 2019 (COVID-19) was declared by the World Health Organization (WHO) a 'Public Health Emergency of International Concern' on 30 January 2020, and then declared it a global pandemic on 11 March 2020 (WHO, 2022c). COVID-19 has since affected millions of people all over the world. As of 8 July, 2022, a cumulative total of 551.2 million confirmed cases, including 6.3 million deaths, had been reported to WHO (WHO, 2022b). In Uganda, Ministry of Health reports that the country has accumulated an estimated 163,301 cases, including 3,588 deaths (MoH, 2022).

WHO recommends that all individuals suspected of being infected with SARS CoV-2 be tested. The diagnosis process involves analysis of samples for current or past presence of SARS-CoV-2, the virus that causes the highly infectious COVID-19. The standard diagnostic method for SARS-CoV-2 is use of the Polymerase chain reaction (PCR) from a nasopharyngeal or oral swab. However, different countries have used rapid antigen tests for community screening; antibody tests to survey their populations; and antibody tests upon request (Secaucus, 2020). In Uganda, there are 26 accredited laboratories for conducting COVID-19 PCR tests[1].

Globally, data on access to COVID-19 testing and diagnosis is hard to come-by. However, to effectively stop the spread of SARS-CoV-2 or COVID-19, it is necessary to rapidly detect all positive cases of COVID-19 for isolation, treatment and implementation of public health control measures based on the national protocols. The WHO Director-General Dr. Tedros Adhanom Ghebreyesus has stated that "The most effective way to get – and keep – ahead of COVID-19 is to keep testing" (WHO, 2022a).

At the national level, Uganda's Ministry of Health (MOH) recommends the use of PCR for diagnosis of COVID-19 and the RDT for its surveillance in the communities. MOH reports that 2.5 million samples have been tested so far using PCR but other Ugandans have accessed COVID-19 rapid diagnostic (RDT) tests from other service providers. In addition, since April 2022 to date, MOH and partners have implemented the Accelerated Mass Vaccination Campaigns nationwide, in order to increase the uptake of vaccination against COVID-19. However, uptake of COVID-19 vaccination services in some areas and sub-populations have remained low.

Similarly, COVID-19 testing services are also often underutilized in many of the services. Furthermore, limited engagement of private sector in the areas of testing, vaccination and treatment of COVID-19 cases has further suppressed efforts to increase access to care (Kabwama et al., 2022). Therefore, this study assessed the community and health facility-level barriers to COVID-19 testing, and utilization of COVID-19 prevention and treatment services.

[1] https://www.cphl.go.ug/covid19-documentation

1.2 Objectives of the study

This study aimed at assessing community and health facility-level barriers and facilitators of access to COVID-19 testing, and how these enable or disenable access to, and utilization of COVID-19 prevention and treatment services, and the overall response to the pandemic. Specifically, the study set out:

1) To assess the availability, accessibility and utilization of diagnostic, prevention and treatment services at the community level.
2) To assess the knowledge level of communities on COVID-19 testing and diagnosis.
3) To assess the attitudes and perceptions of community members toward COVID-19 testing and COVID services.
4) To explore the practices related to COVID-19 diagnosis, prevention and treatment at the community and health facility levels.

2. METHODS

This study reached out to the key actors in the COVID-19 response in selected districts, using both qualitative and qualitative methods.

2.1 Study design

This was a mixed methods research which used cross sectional study design, to collect and analyze quantitative and qualitative data from health facilities and communities.

2.2 Study site

The study was conducted in 12 districts where HEPS-Uganda has a physical presence, namely; Wakiso, Kiboga, Hoima, Masindi, Mbarara, Isingiro, Lira, Gulu, Kamuli, Palisa, Arua and Nebbi. These were purposively selected based on the fact that HEPS-Uganda already has a presence and working relationships with community, local government and health facilities in the 12 districts. Furthermore, selection of these districts was also guided by efforts to have representation from each of the four broad geographical regions of Uganda; that is, Central, Eastern, Western, and Northern, which would enable us obtain insights of what is generally perceived and happening in the different regions of the country.

2.3 Study scope

The study assessed public awareness of testing tools; attitudes related to SARS CoV-2 diagnostics, treatment and vaccines. The study surveyed health workers, community members and communications materials related to testing as gateway to vaccination and treatment. This initial assessment also sought to explore awareness of diagnostic services and demand for therapeutics, experiences accessing PPEs, understanding of risk of re-infection, and the rationale for retesting.

2.4 Study population

This assessment was conducted among health workers, patients and community members within the catchment population of the respective sampled facilities. Special focus was put on interviewing health workers who have been involved in COVID-19-related service delivery; that is, either testing, treatment or vaccination, especially the COVID-19 focus persons for the sampled facility or their deputy.

At community level, the study focused on interviewing: *Boda-boda* groups, females and males working in community markets, community members working in taxi parks, the elderly, and male and female youths. These were distributed in such a way that in each district, there was at least one of these groups mobilized and interviewed through a focus group discussion (FGD).

3. FINDINGS

The estimated average distance (in kilometers) from respondent's home to the nearest health facility was four kilometers.

3.1 Demographic characteristics of respondents

A total of 587 individuals (in health facility exit surveys) and 62 health workers were interviewed in this assessment. Females made up 65% of the respondents in the exit interviews; the majority (61%) were aged 25-44 years; half of them had attained secondary or higher education; and the majority (61%) considered themselves employed.

Table 1:Background characteristics of the exit surveys with patients

Characteristic	Option	Freq.	Percentage
Gender	Female	380	65
	Male	207	35
Age	18-24 years	140	24
	25-44 years	358	61
	45+ years	87	15
Education level	None	25	4%
	Primary school	272	46%
	Secondary school	203	35%
	Tertiary (vocational/university) level	86	15%
Employment status	Currently employed	360	61
	Not currently employed	227	39

3.2 Availability, accessibility and utilization of COVID-19 diagnostic, prevention and treatment services at the community level

In June 2021, Ministry of Health issued guidance to District Health Officers, hospital directors and superintendents, health facility in-charges and accredited COVID-19 testing laboratories on the use of antigen RDTs in Uganda.[2] The guidance stated that the PCR method recommended by the WHO as gold standard diagnostic test is primarily designated for specialized laboratories requiring special training of laboratory staff, has a longer turn-around time for results, it is costly and it is further complicated by global procurement challenges.

In a 2 June 2021 circular, Ministry of Health guides that antigen RDTs be used for the rapid screening of symptomatic alerts and symptomatic contacts of confirmed cases; patients with COVID-19-like symptoms presenting at health facilities; and symptomatic cases in congregate settings, such as prisons and schools, suspected of exposure to known cases and at high to establish an outbreak. These particular recommendations are tagged to the need to ensure prompt attention without having to wait for PCR results.

Ministry of Health further recommends that any RDT-positive cases from the above tests will be considered "COVID-19 positive and managed accordingly, not requiring additional PCR confirmation except in exceptional cases such as genomic sequencing or routine quality control monitoring. Any RDT negative case with highly suggestive symptoms are supposed to considered "suspect COVID-19" cases until confirmed negative by PCR and should be managed with enhanced infection prevention

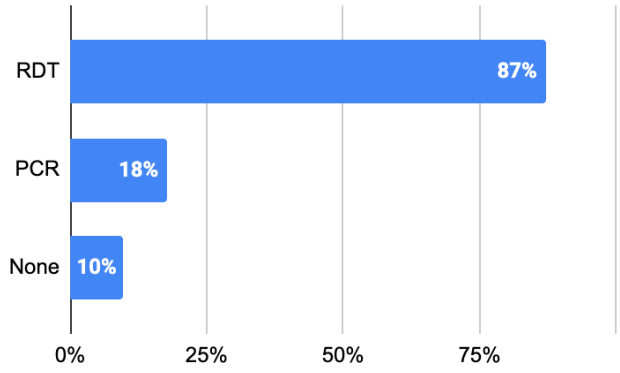
[2] https://cphl.go.ug/sites/default/files/2021-06/Guidance%20on%20the%20use%20of%20COVID%2019%20antigen%20Rapid%20Diagnostic%20Test.pdf

and control measures. In addition, Ministry of Health stressed that these diagnostic tests were to be availed to users free of charge.

3.2.1 Availability, accessibility and utilization of diagnostic services

All the health facilities reached in this study reported that they provide COVID-19 testing services. In addition, all the health workers interviewed reported that their respective facilities (#62) provide COVID-19 vaccination services.

Whereas only 18% of the sampled health facilities had PCR[3] testing services, 87% of the facilities reported to have RDT tests for COVID-19. This suggests that rapid diagnostic tests for COVID-19 are widely available, especially at the lower level of primary healthcare levels, specifically level-three health centers (HC IIIs). However, PCR tests far less available and hence access to them is by extension lower. Furthermore, the respondents from the exit interviews hardly knew about the PCR tests, hence limiting their power to demand for and access them.



The respondents who had accessed COVID-19 testing services were overall satisfied with the quality of service and the care of health workers, but there were inadvertent instances of stigmatization and ridicule by service providers. Respondents also reported discomfort with the pain involved in taking the nasal swab for the sample.

> "When I felt sore throat, headache, flu and loss of appetite similar to COVID symptoms, I thought I was infected with COVID-19. I went to the health center and sat down to wait for service. When they asked how they can be of help to me, I said I wanted to take a Covid-19 test. Yes, they showed some signs of being scared. They put on their protective gear and handled my case well. They never did anything to scare me. When they disclosed my results to me, they all burst out laughing, saying jokingly that things are O.K.," – *Elderly FGD participant, Arua.*

> "My experience was a funny one… I was tested once in Muni when the President came to meet the LCs (local council leaders). The staff came and tested all of us. The results came out the following day when we were already seated waiting for the President who came and took his seat. Then the results came in showing that four out of 56 people tested were positive. At the gate, as they were removing the four positive cases, the security ran aside scared as the four were evacuated," – *another elderly FGD participant in Arua.*

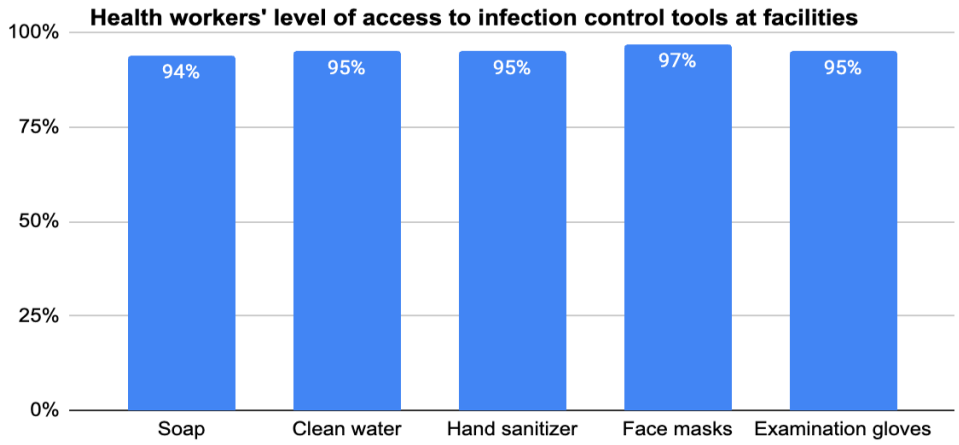
[3] HC IV and above

However, other responses indicated that health facilities have been short of supplies for COVID-19 services, and that morale among health workers has been low. Some health workers feel that they have not received adequate support from their superiors, while others have concerns about their workload. Community respondents pointed out the lack of choice as to brand of vaccine, use of threats from authorities to enforce access to COVID-19 services, the lack of capacity on the part of health facilities to handle demand, especially at pandemic peak, and exorbitant charges for vaccination and treatment.

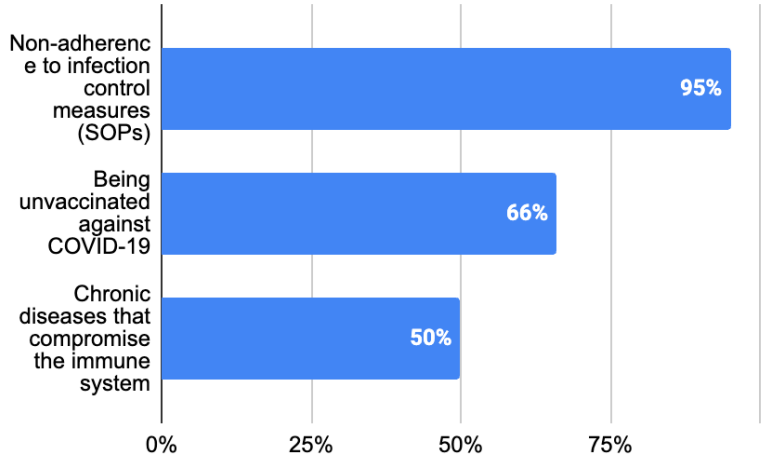
> "Government didn't pay the health workers that worked during the COVID times. These people are tough on us because they were never paid. They don't even care about the patients anymore," – *boda-boda operator, Hoima (FGD participant #3).*

3.2.2 Availability, accessibility and utilization of prevention services

Generally, the health workers in the sampled health facilities observed that there was high availability and access to infection control and prevention tools by the health workers.



This study sought health worker perspectives on adherence to COVID-19 infection prevention and control within healthcare settings. An overwhelming majority (95%) of the health workers acknowledged that there was non-adherence to standard operating procedures (SOPs) for COVID-19 in their workplaces, which predisposes them to COVID-19 infection. They pointed to a shortage of clean water and gloves as some of the major concerns.



The experiences with vaccination were varied. The majority of respondents had not been vaccinated yet. They cited fears about the pain involved, possible adverse events and side effects. In a few cases, respondents reported seeking vaccination largely more out of fear of COVID-19 than non-consideration of the potential risks involved. Respondents who had not vaccinated reported that they were scared by rumors that some people had died after vaccination, while others had heard that the vaccines were "fake" because after vaccination one would reportedly still get COVID-19 infection.

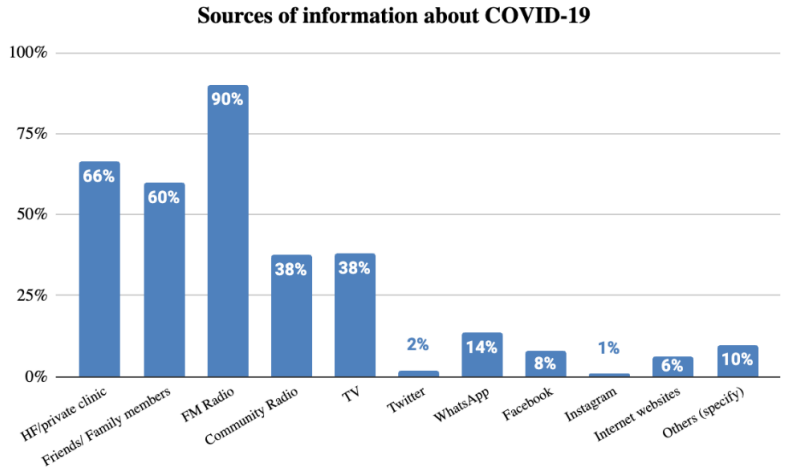
> "Those who feared getting vaccinated heard that this would cause other sicknesses that kill. At first I also feared getting vaccinated. They said if one had asthma, pressure, ulcer, vaccination was not recommended. This is why I delayed. Up to now some people are not vaccinated because they believe it kills," – *another elderly FGD participant, Arua*.

3.2.2 Availability, accessibility and utilization of treatment services

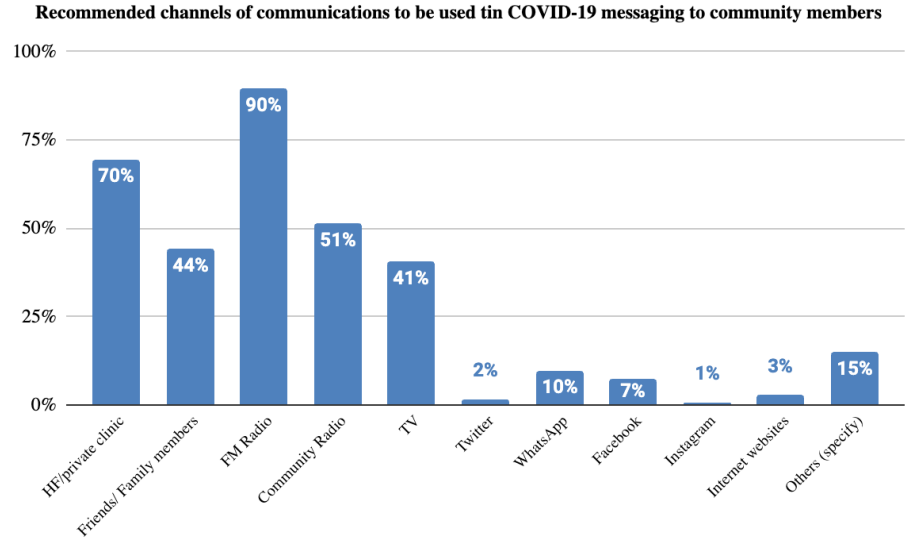
While this study found high availability of COVID-19 diagnostic and prevention services at public health facilities reached, COVID-19 treatment services were rare. Only 42 out of 62 (68%) of the facilities reported offering COVID-19 treatment services.

3.3 Knowledge level of communities on COVID-19 testing and diagnosis

The study explored the knowledge levels of communities about COVID-19 and its prevention, diagnosis, and management. All respondents knew about COVID-19, citing the untold suffering they endured during the lockdown and loss of livelihoods. They cited a variety of sources through which they had received information about COVID-19. However, the sources of information that respondents in the health facility exit interviews cited most frequently were radio (90%), health workers (66%), and friends/family members (60%). Only one in four (25%) of the respondents cited social media – WhatsApp (14%), Facebook (8%), Twitter (2%), and Instagram – among their sources of information on COVID-19.



On the other hand, the channels that respondents recommended for use in channeling communication about COVID-19-related messages included: FM radio (90%), followed by health workers (70%), and community radio (51%). This suggests that majority of members of the public have relatively strong trust/confidence in these channels.



The respondents in the FGDs demonstrated a fair knowledge of what COVID-19 is, its signs and symptoms, how it is transmitted, and how it can be prevented. There were respondents who knew that it is a viral disease; it is air-borne and very infectious; is like 'strong flu'; can kill very fast if no help is got quickly; it is a new disease; it originated in China; it is deadly; and that it can be cured if promptly treated. Many respondents due that COVID-19 can be prevented by maintaining social distance, frequent hand-washing with soap, wearing a face mask, using sanitizer, and vaccination.

The majority of the respondents knew at least a few of the signs and symptoms of COVID-19. They frequently mentioned flu, fever/cold, headache, cough, sore throat, shortness of breath/difficulty breathing; loss of taste/smell, and body pains, among others. During the FGDs, a few respondents freely shared their experience with COVID-19 infection.

> "I know COVID-19 as a disease that spreads through air, and in Acholi we call it '*two gemo'*… It can prevent you from breathing well and at the end of it all it could lead to death," – *Man working in Gulu Bus Park.*

> "Someone with COVID usually feels cold, always with flu, cough and the body has body pains and weakness... [They get] difficulty in breathing. That's how you can tell that someone has COVID. [You] need to go to hospital for check-up if you feel like that," – *boda-boda* operator, Hoima

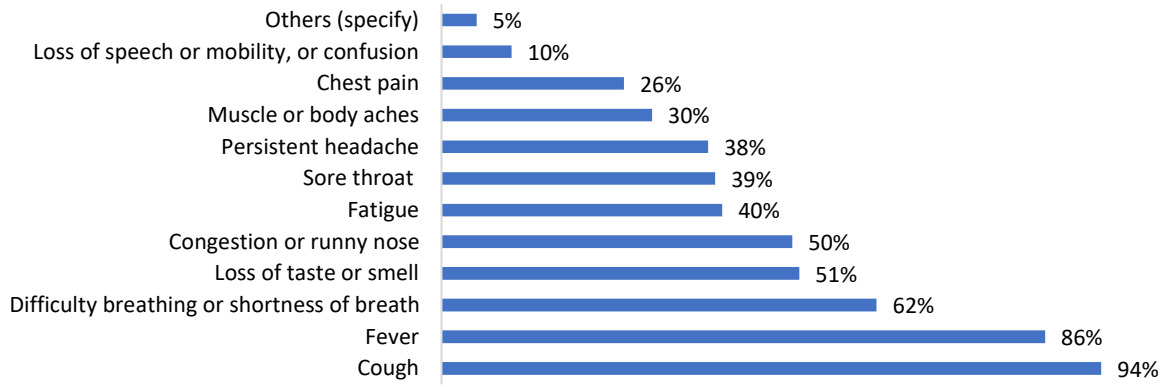
> "Corona is mainly suspect when someone's sneezing is unstoppable… coughing a lot, no taste or smell, body weakness and swelling joints. That means you need treatment" – another *boda-boda* operator, Hoima

> "I understand COVID-19 as a disease that attacks the human lungs and you are not able to breath. And in most cases, you need inhalers for oxygen if at all it attacks the lungs. Furthermore, I understand that COVID-19 is one of the diseases that kills," – *Participant in FGD with market vendors, Kamuli*

> "COVID-19 is a disease that affects the lungs. It comes with a feeling heaviness in the chest, headache, stuffy nose, and general weakness in the body," – *boda-boda operator, Wakiso (FGD participant #8)*

In the health facility exit interviews, cough (94%) and fever (86%) were the most well-known signs and symptoms of COVID-19. Details are shown in the figure below. However, the overall knowledge of respondents regarding COVID-19 is punctuated by gaps, mix-ups, confusion, wrong information, contradictions, and myths and misconceptions across all categories of respondents and across all survey districts. In the health facility exit interviews, there were signs and symptoms that COVID-19 patients often exhibit, but were rarely mentioned by respondents.

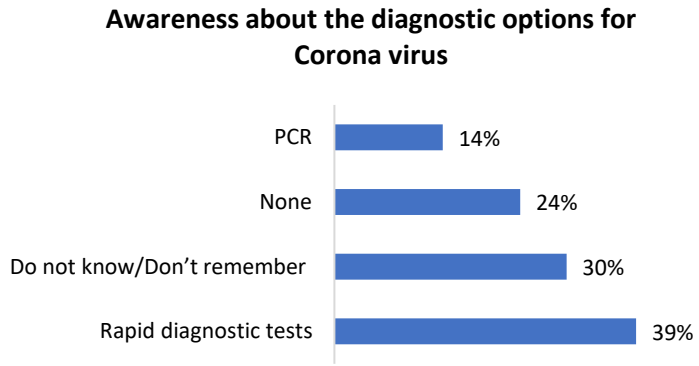
Respondents' (exit interviews) knowledge about signs and symptoms of COVID-19



Results from the health facility exit interviews showed that there were less known signs and symptoms of COVID-19 infection. As depicted in the table above, the less known signs and symptoms include malaise, chest pain, loss of speech or mobility, fatigue, headaches and sore

throat. Loss of smell was mentioned by only half of the respondents (51%), while difficulty in breathing was highlighted by 62% of the respondents from the exit interviews.

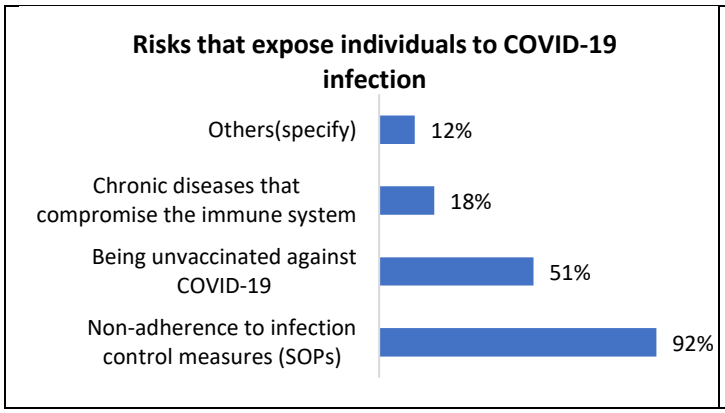
While an over-whelming majority (93%) of the respondents in the health facility exit interviews believed that it was necessary for an individual to get tested for COVID-19 infection, their knowledge of the different test methods was, as expected, very limited. Less than one third of them (30%) had an idea about the available Corona virus tests at the health facilities where they routinely sought care, reporting that they were aware of the availability of RDTs for testing for Corona virus.
One third (33%) acknowledged that they did not know any tests, while 24% reported that there are no known tests for Corona virus. Only 39% knew that there are RDTs which are used to test for Corona virus. Half of the respondents in health facility exit interviews did not know which tests for Corona virus were available at the respective facilities where they often seek care.

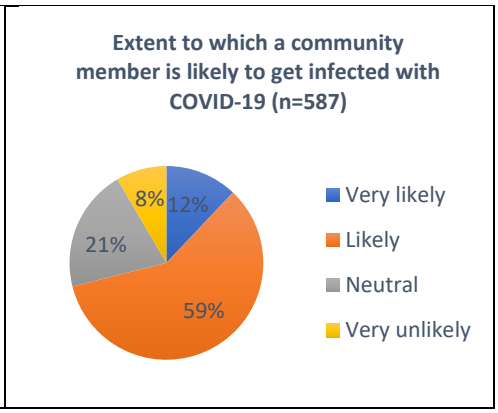


Across the survey districts, respondents made reference to God, either as the one who for some reason sent COVID-19 upon mankind, or as the one that shielded them from infection and/or death. In Arua, one respondent said COVID-19 "is a sickness that came to kill", while another said it is caused by fleas. In Gulu, one FGD participant maintained that the virus was deliberately manufactured.

Opinion about the risks that expose an individual to COVID-19 infection

The most well-known risks for exposure to COVID-19 infection is non-adherence to infection control measures (93% of the respondents), followed by being unvaccinated against COVID-19 (51%).

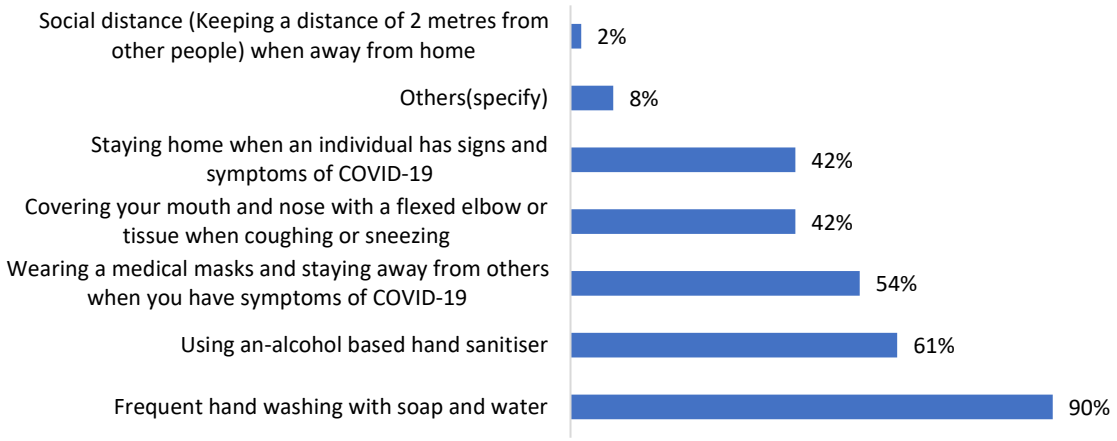




Reducing the risk of COVID-19

Frequent hand washing (90%) and use of hand sanitizers (61%) were the most popular measures of controlling the spread of Corona virus, while observing social distance was the least known infection control measure against Corona virus, which suggests that this strategy is less feasible/viable within the community context for the general public.

Options that reduce the risk of getting Corona virus (n=585)



Generally, majority (97%, 60/62) of the health workers had the conviction that it is necessary for an individual to get re-tested for COVID-19 where necessary.

3.4 Attitudes and perceptions of community members toward COVID-19 testing and COVID-19 services

Overall, the findings that the knowledge, attitudes and perceptions of COVID-19 were largely informed by their experiences with the infection but also with the national response to the pandemic. It is also notable that the respondents knew more about COVID-19 – not for what the disease really is – but for its effects on their livelihoods; their bad experiences with overzealous, extortionist security agents that were deployed to enforce the lockdown; personal experiences with COVID-19 infection; and a high prevalence of COVID-19 stigmatization in the community.

> "COVID-19… I know COVID-19 as a disease that came and found me in school studying, and when I contracted it, I had to leave school. And another thing, my parents lacked the money to take me back. Covid 19 left us without enough food, we resorted to eating one meal a day ie Lunch. We nolonger ate two meals ie lunch and supper because our parents nolonger have money. We even lack money to buy water." – *Female youth, Isingiro.*

> "Corona is a flue sickness that came and disturbed us a lot, especially us who do *boda boda*. We were arrested, beaten and even the money we made was taken. Like me, I lost about 300,000 shillings in the first COVID-19... to army [men] and police [men]. They disturbed us… they find you walking home and they beat you… [They] used to make us lie down and beat us ask irrelevant questions like, 'where are you going?', 'where are you coming from?' When you [them] ask what you did wrong, they ask how much you have," – *boda-boda operator, Hoima*.

> "No one in my family got COVID, and people have always coughed… Some of us get disturbed by allergies and asthma and you get flu, cough, breathing difficulties – which are signs of COVID. The truth is you can never know whether it's CORONA or the usual allergies and Asthma. Even cough is there, people get cough and get healed but we never know whether it's CORONA or not. But now every time you sneeze or cough people turn their heads or an approaching prospective passenger just continues to another person – and you feel guilty," – *boda-boda operator, Hoima.*

In the health facility exit interviews, some 41% of the respondents noted that they had ever experienced the well-known common signs and symptoms of COVID-19 infection in the last 6-12 months preceding the survey, including loss of speech or mobility, or confusion; chest pain, chest pains, muscle or body aches, persistent headache, sore throat, fatigue, congestion or running nose, loss of taste or smell, difficulty in breathing or shortness of breath, fever and cough. Even then, the perception of risk of infection by both health facility and community/health consumer respondents was generally low.

An over-whelming majority (93%) of the respondents in the health facility exit interviews believed that it was necessary for an individual to get tested for COVID-19 infection. However, a smaller proportion (59%) of them felt that individuals within their community were likely to get infected with COVID-19, while only 12% felt that community members were very likely to acquire COVID-19 infection.

However, within the community, risk perception is apparently higher among people whose work involves close interaction with people of different kinds, including sick ones who might be seeking to transportation to hospital, in the case of *boda-boda* operators. This has apparently influenced their demand for COVID-19 prevention services.

> "The truth is, we didn't go for testing even when the government was announcing and encouraging us to go for testing. [But] because our work is about interacting with all kinds of strangers, vaccination was necessary. I only went for vaccination because of that," – *boda-boda operator, Hoima*

Some vaccinated participants in FGDs felt that vaccination had given them full protection from COVID-19 infection.

> "I have never tested for COVID but I know I am very safe because I was vaccinated and I finished all the doses. I know I can never get Corona because I am vaccinated," – *boda-boda operator, Hoima*

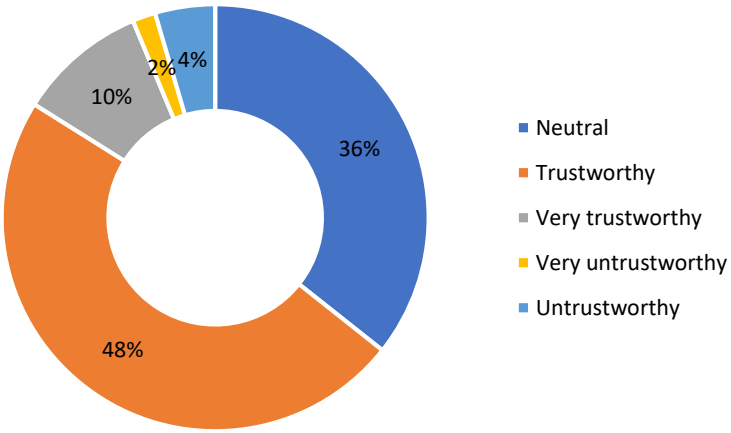
> "I am fully vaccinated and I believe that because of that, there no need to go and test for Corona when I am vaccinated," – *another boda-boda operator, Hoima*

Risk perception was also low among health workers, even though they work in a high risk setting. Only about half (54%) of the health workers interviewed in this study believe that health workers within their facility were likely to get infected with COVID-19. This finding speaks to the low usage of basic preventive measure in the surveyed facilities, such as hand-washing, distancing and mask-wearing.

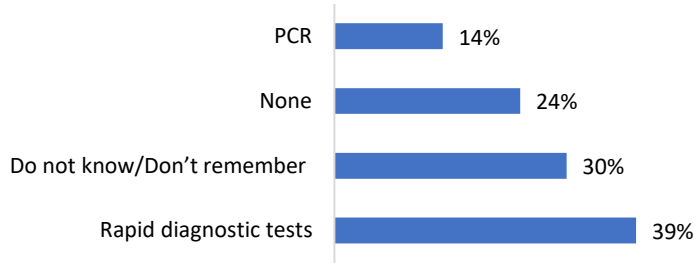
Generally, the findings suggest that demand for COVID-19 services is generally low at the community level. Only one in four (24%) of the respondents from the exit interview believed that an individual should test for Corona virus if they are travelling from a COVID-19 high-risk area, while 64% of the respondents believed that testing is only necessary if one has been exposed to an individual who had previously tested positive for Corona virus.

The findings further indicate that the level of trust in the COVID-19 test results is low; only 58 of the respondents were 'trustful' or 'very trustful' of the test results.

Level of trust in the COVID-19 test results



Awareness about the diagnostic options for Corona virus



From the findings, it appears that community attitudes and perceptions about COVID-19 diagnosis, prevention and treatment have been influenced by their experiences, the dynamics of the pandemic, threats from response actors, but also by information and misinformation (including myths) circulating in the community, personal religious beliefs and convictions, and by long-held attitudes about perceived inefficiencies in the public health sector. For example, in Hoima, in an FGD that lasted barely 25 minutes, there were six references to God and God's grace. In Gulu and Hoima, there respondents who sought vaccination not so much that they thought they needed it, because it was a condition that authorities set or threatened to set, to allow people into their workplaces or even into public places.

> "Actually, we thank God that we didn't get sick or have anyone who fell sick. It was all god's grace. We had to make sure we get vaccinated and finish the dose and continued with our day today work," – *boda-boda operator, Hoima (FDG participant #3)*

> "Me, I didn't go to the hospital, because you could go to hospital and come back without getting anything... I went there and they gave me a bed and that was all. I waited for help, I didn't get it… the hospital so full you would reach there and they make you wait for nothing.

So I decided to just go home and heal from there because the hospital wasn't helping. I was healed by the grace of God," – *boda-boda operator, Hoima (FDG participant #6)*

"One of my friends got COVID and yet being a doctor, I thought he knew what to do, but Corona disturbed him a lot and he ended up in quarantine. I was scared that if a doctor can get sick, then who am I? [I said to myself], let me adhere to the preventive measures to avoid getting [infected]. I have done all it takes to ensure I don't get it," – *boda-boda operator, Hoima (FDG participant #7)*

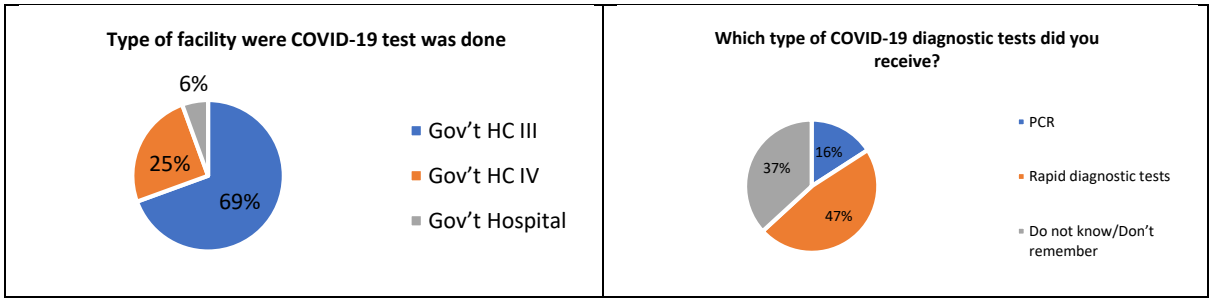
"For me, I heard and know someone who was vaccinated, they fell sick and died. Since then we know that when they vaccinate you, you fall sick and die. I decided that I will never get vaccinated because I don't want to die. And I am still alive, and now I think if they had vaccinated me I would have died. Even those that got vaccinated they kept on complaining about the side effects," – *boda-boda operator, Hoima (FDG participant #5)*

3.5 Practices related to COVID-19 diagnosis, prevention and treatment

This study explored what the respondents had done individually, as households and as communities to understand and respond to COVID-19 as a medical condition, and as a public health problem. It also explored what individuals, households, communities and health workers did to prevent, control and treat COVID-19.

3.5.1 COVID-19 testing

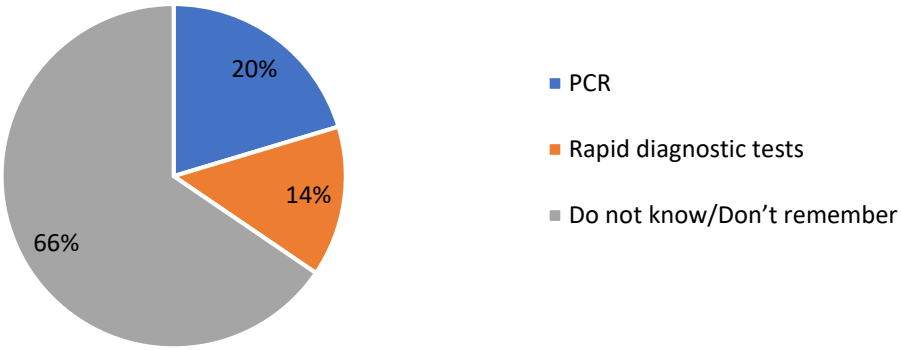
Fewer people, (41%) of the exit interview respondents, reported that they had ever taken a COVID-19 test. Uptake of testing services has been low, even among respondents who had experienced COVID-19 signs and symptoms.
Some respondents reported that they were hesitant to test for COVID-19, even when they experienced the signs and symptoms because they feared to test positive and incur high treatment costs.
The findings indicate a high prevalence of COVID-19 stigmatization at the community level with respondents reporting that people in the community tended to distance themselves from those who sneezed and/or coughed, which were assumed to be the most visible signs of COVID-19 infection.



Reasons for not testing

From the perspective of health consumers, non-availability of services was the biggest hindrance to access to COVID-19 testing services. In the health facility exit interviews, up to 92% of respondents observed that they had gone to a government health facility but did not access any of the COVID-19 test from there.

COVID-19 diagnostic tests which respondent tried to access at a health facility but did not get them



Challenges in testing

A small proportion of respondents (4%, 13/304) of the respondents noted that they were required to pay for the COVID-19 testing services, and majority of these had sought care in the government facilities. One of the barriers to testing for COVID-19 has been the high costs of the tests to the consumers. The median amount of money paid for the COVID-19 tests was UGX 100,000 (range 5000-250,000). In interviews and FGDs, respondents reported the cost of a COVID-19 test to be as high as UGX 200,000. From other sources, it has also been documented that COVID-19 testing using PCR is quite high, with an average cost for testing ranging between UGX 180,000 – 240,000[4]. This is in line with the government guidance issued by the ministry of health on 27th August, 2020 indicating that the government testing laboratories charge USD 65 as fees COVID-19 testing[5]. There were concerns from some focus group discussion respondents who argued that testing for COVID-19 is so expensive that only people who are sick with symptoms or have to travel overseas can justify payment of such high testing fees. This gap in funds charged should be narrowed, now that there are a lot more available alternatives for COVID-19 testing.

Other barriers to accessing COVID-19 testing included: fear of stigmatization and discrimination in the community, the fear of being told that one is positive; fear of the pain involved in the swabbing process during the collection of samples for COVID-19 testing; and fear of being quarantined and separated from their family.

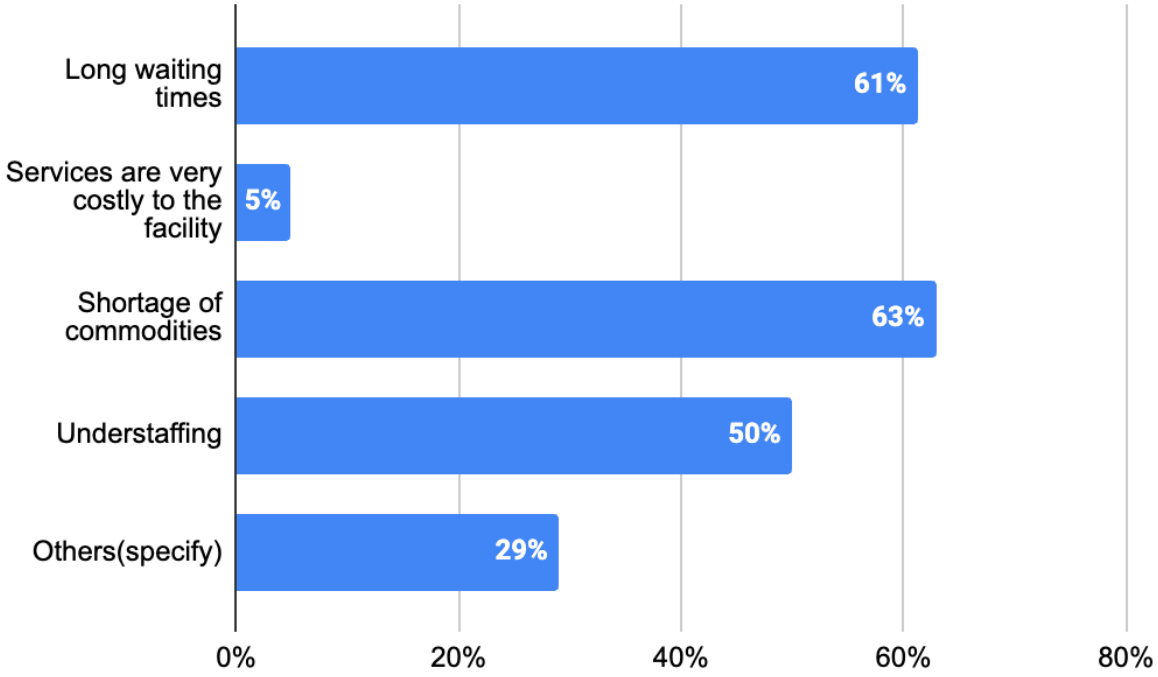
Resource constraints

This study has observed capacity gaps on the supply side, including skill and logistical gaps. As far as human resource gaps are concerned, about 18% of the health workers reported that they did not know how to interpret the COVID-19 test results and guide on the respective clients on the next steps. Challenges faced by health workers in accessing infection control tools included, shortage of PPEs (84%); complacency among health workers (63%); non-compliance of patients with regard to infection control measures (73%); inadequate funding (48%); and limited support from facility management (11%). Other challenges also mentioned include: supply chain constraints like delays in delivery of stock from the warehouse(s), among others.

From interviews with health workers, access to COVID-19 testing services at facility level is mainly constrained by shortage of diagnostic commodities (63%); long queues (63%); and understaffing (50%). Other challenges mentioned include high costs of some diagnostic services in some private facilities, myths and misconceptions, among others. Details are shown in the graph below.

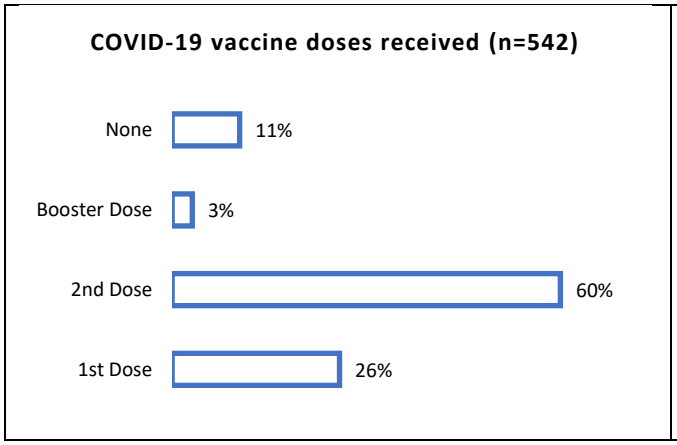
[4] https://ug.usembassy.gov/covid-19-information-page/

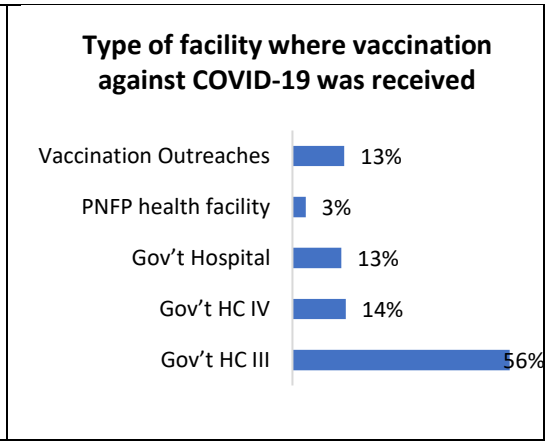
[5] https://covidlawlab.org/wp-content/uploads/2020/09/User-fees-for-COVID-testing.pdf

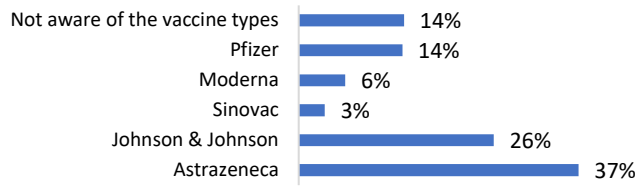


3.5.2 COVID-19 vaccination prevention practices

Up to 77% (450/583) of the respondents from the exit interviews reported to have been fully vaccinated against COVID-19, which is above the national full vaccination rate of 47%. Approximately 60% of the respondents reported that they had received the second dose; about 26% had received the first dose but were overdue for the second; and only 3% had received a booster dose. Majority of the vaccination beneficiaries had received their vaccines shots from government HC IIIs (56%). More than one third (38%) of the respondents who had been vaccinated of respondents in the exit interviews were yet not receive their vaccination certificates.







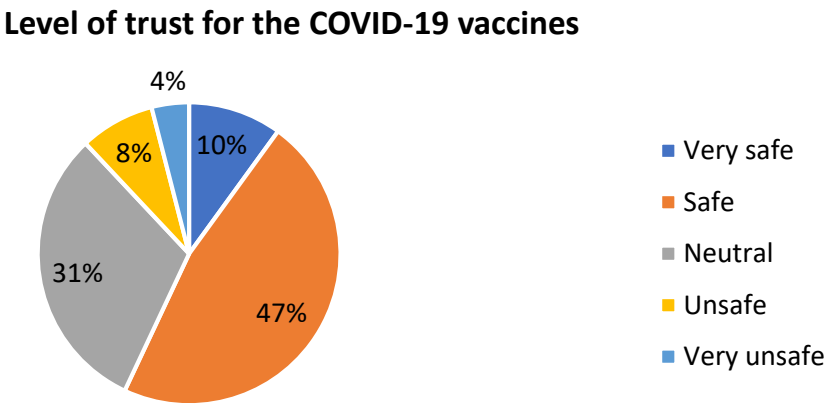
Majority of the exit interview respondents mentioned that Astrazeneca was the most available COVID-19 vaccine brand (37%) in the facilities where they sought care, followed by J&J (26%). However, 14% of the respondents did not know the available vaccine types that were either available at the clinic, or those to which they had been administered.

The findings indicate a high prevalence of traditional practices in the prevention and management of (suspected) COVID-19. Respondents reported using steaming and consumption of ginger, garlic, lemon, and herbs.

Vaccination against COVID-19

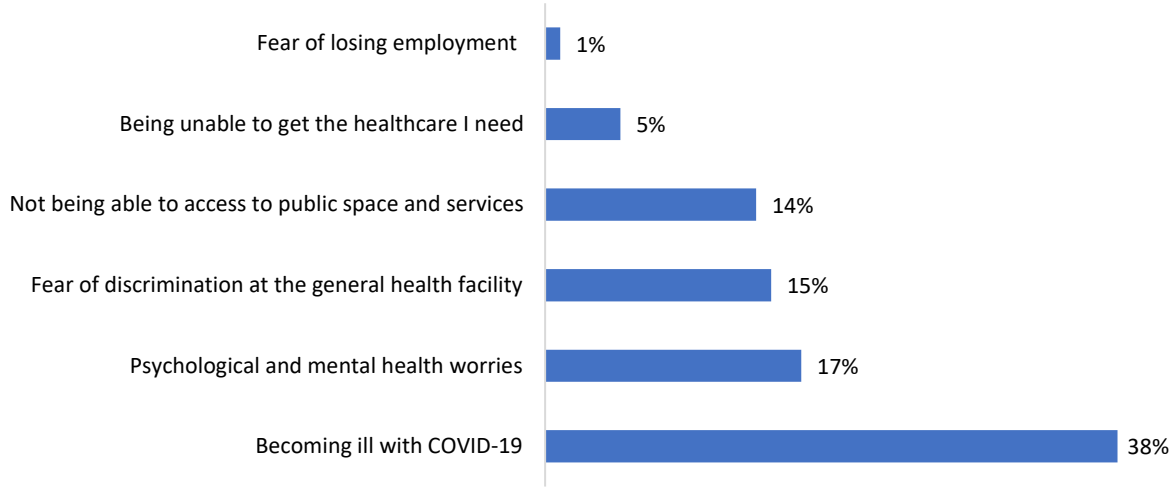
Almost all respondents (99%) of the respondents in the exit interviews mentioned that they did not pay for the vaccination services received. For the few (1%) that reported to have paid for vaccination services, the average reported fee was UGX 11,000. However, this is suggestive of some isolated cases of out-of-pocket expenditures for access to COVID-19 vaccination.

On the other hand, half of the respondents in the exit survey were generally not worried about the safety of the vaccines against COVID-19.



It was also observed that 52% (93/178) of the respondents that were not fully vaccinated expressed no intentions of going back to get another dose of the vaccination against COVID-19. When asked about the safety concerns about the COVID-19 vaccine, most of the respondents expressed their worries about potential of becoming ill with COVID-19, mental health issues, not being able to access public space and services in case one is not vaccinated. Other concerns included myths and misconceptions like death occurring to a vaccinated individual within two years as well as fears of sudden death following vaccination, infertility, fear of getting blood clots and other real and perceived side effects, etc.

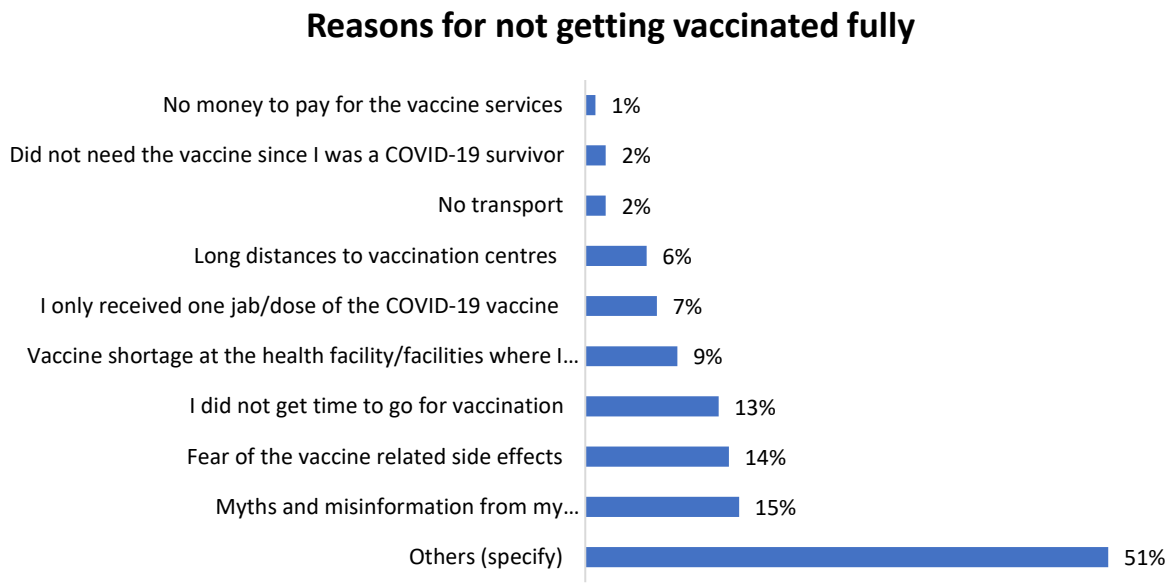
Reasons why respondents were worried about COVID-19 vaccination



Reasons for not getting fully vaccinated against COVID-19

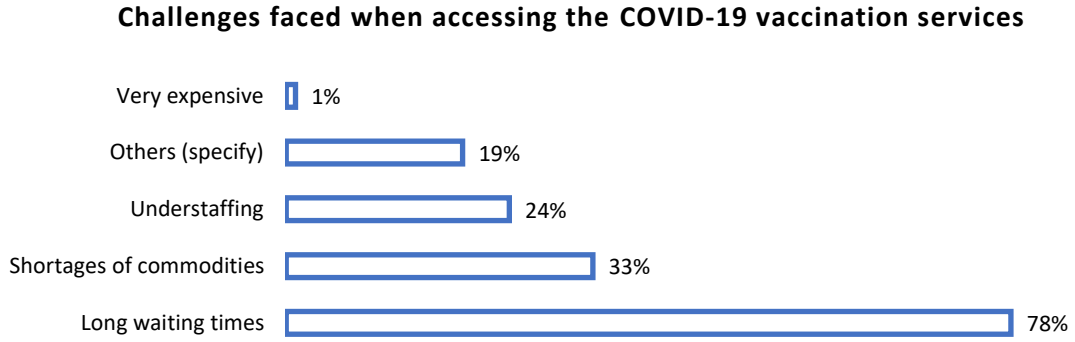
Most of the respondents in the exit interviews who were not fully vaccinated noted that the main barrier was myths and misconceptions about the quality and efficacy of the vaccine, including alleged negative effect on fertility; fear of side effects after vaccination (including malaise, and the fear of falling sick after vaccination), long distances to vaccination sites; and lack of sufficient time within their schedule to go queue for vaccination. Other reasons expressed by the respondents included: fear of the vaccine affecting the fetus (especially potential to result in miscarriage) since the respondent was pregnant at the time, vaccine stock outs, while others missed out on vaccination since they did not have national IDs which health workers asked for at the vaccination sites.

> "When I went to Aywee HC people were very many and then you end wasting your time that you would have been working," – *male FGD participant, Gulu Park.*
> "Then people who have diseases like diabetes did not vaccinate because they feared that in case they get vaccinated they could easily die. Even those who have pneumonia or asthma, you end up dying faster," – *another male FGD participant, Gulu Park.*



COVID-19 vaccination challenges

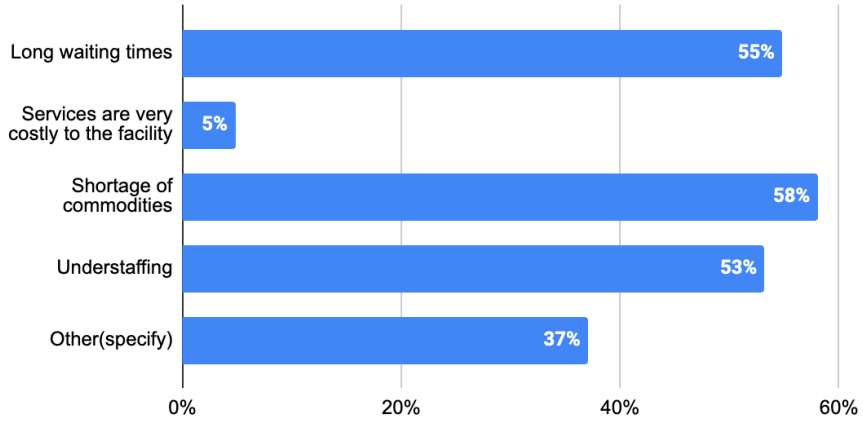
The biggest challenge faced (from the demand side) in accessing COVID-19 vaccination services, from the demand side was long waiting times (78%) - in some facilities, it was not easy to get the 10 individuals who make up the batch for the vaccine vial to be opened and used at a given time, followed by shortage of commodities (33%) like vaccines and vaccination cards. Other reasons given include: limited information that is given to individuals before vaccination, among others.



There were also concerns from the respondents that there were circumstances during which individuals were coarsed to take the COVID-19 jabs, against their own will. This scenario sometimes happens in the context where vaccination is tagged to access to a given service, access to a given office space, or within communities where some individuals are threatened to ensure that they get vaccinated. As a result, some community members get scared, and further creates a vaccine utilization hesitancy mechanism within communities.

Supply side:

The three key barriers of access to COVID-19 vaccination services from the supply side include: shortage of commodities (58%), long waiting time (55%) and understaffing (53%). Details are shown in the figure below.

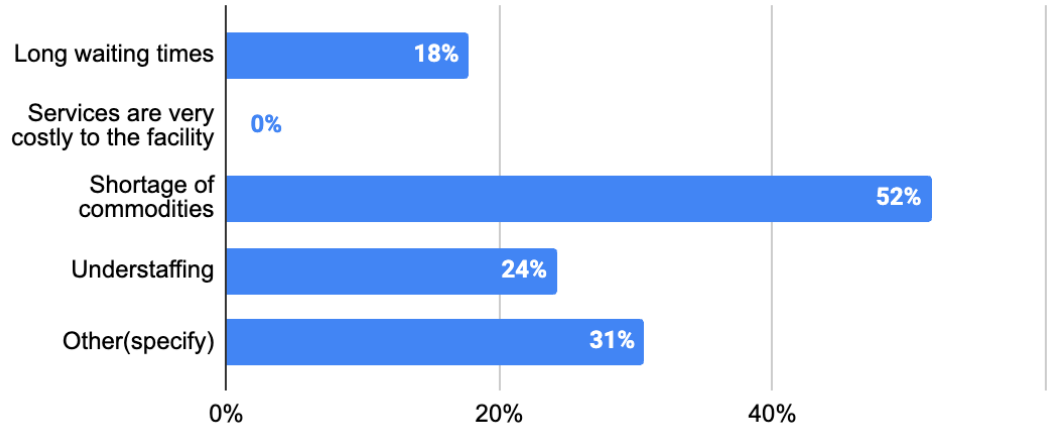


3.5.3 Community practices relating to COVID-19 treatment

Only 16% (82/529) of the respondents reported to having ever tested positive for Corona virus, and among these, two thirds (67%, 54/82) reported to having sought for care at a health facility, while 33% did not seek any care. The main reasons given for not seeking care include: being asymptomatic or not been too sick, preference for treatment at home (including use of herbs, steaming, basking in the sun, among others), while others argued that home-based treatment was better than that given at the health facilities.

Majority (64%) of the respondents from the exit interviews were undecisive about the level of satisfaction regarding the COVID-19 treatment and care that they received from the healthcare facilities, while 26% reported the care to be satisfactory. Furthermore, majority (80%) of the respondents had received care from a government health facility, while 50% (27/54) of them did not pay for COVID-19 treatment services received. However, the median cost of COVID-19 treatment was UGX 40,000 (range of 5,000-450,000). These costs were mainly meant to cater for Medicines & lab costs, transport, as well as meals and welfare during hospitalization period.

Supply side challenges for treatment of COVID-19



The key barrier of access to COVID-19 vaccination services from the supply side is shortage of commodities (52%). Other challenges included long waiting time, and understaffing. Details are shown in the figure below.

Demand side challenges for treatment of COVID-19

The findings indicate a prevalence of pent-up anger against the high-handed enforcement of COVID-prevention measures, including lockdowns, curfews and other apparently inconsiderate directives that led to challenges in accessing food and other essentials, mistreatment, extortion and misery. Reports of exorbitant COVID-19 treatment seem to have created anger against the response generally but also against COVID-19 treatment services.

> "We are suffering because of other issues not just Corona," – *Female FGD participant, Lira*

> "There are other diseases affecting people in the community, not only Corona, there is a lot of malaria, people have ulcers, back ache, lower back pain, our complain is that they should provide enough medication for the people in the community. Because we stay in a camp and we drink dirty water, we have so many challenges," – *another female FGD participant, Lira*

> "Here it was the RCC (Resident City Commissioner) who came here and told us if you are not vaccinated you will not enter the Bus Park… This is what scares people; they wonder why they are being forced… that means what they are giving them is not good," – *operator, Gulu City Bus Park*.

The findings indicate that the Ministry of Health's plans to roll-out vaccination to children are yet to be well-appreciated at the community level. Community-level respondents were against any plans to vaccinate children against COVID-19 in school settings without parental consent, possibly point to safety concerns.

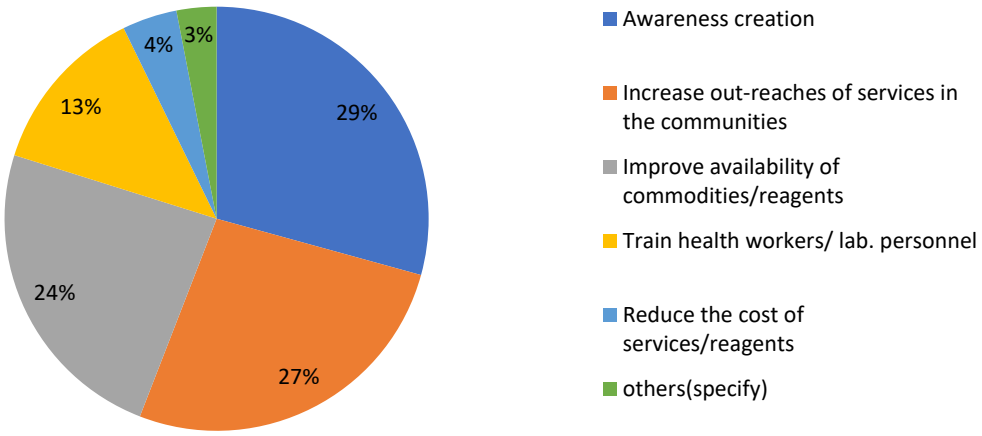
> "What I would like to share is that, their plan to vaccinate children from school without the consent of their parents is not good, they need to first get consent from the parent of the child if the parent agrees then they can go ahead and vaccinate," – *participant, FGD participant, Gulu city bus park operators.*

3.5 Recommendations

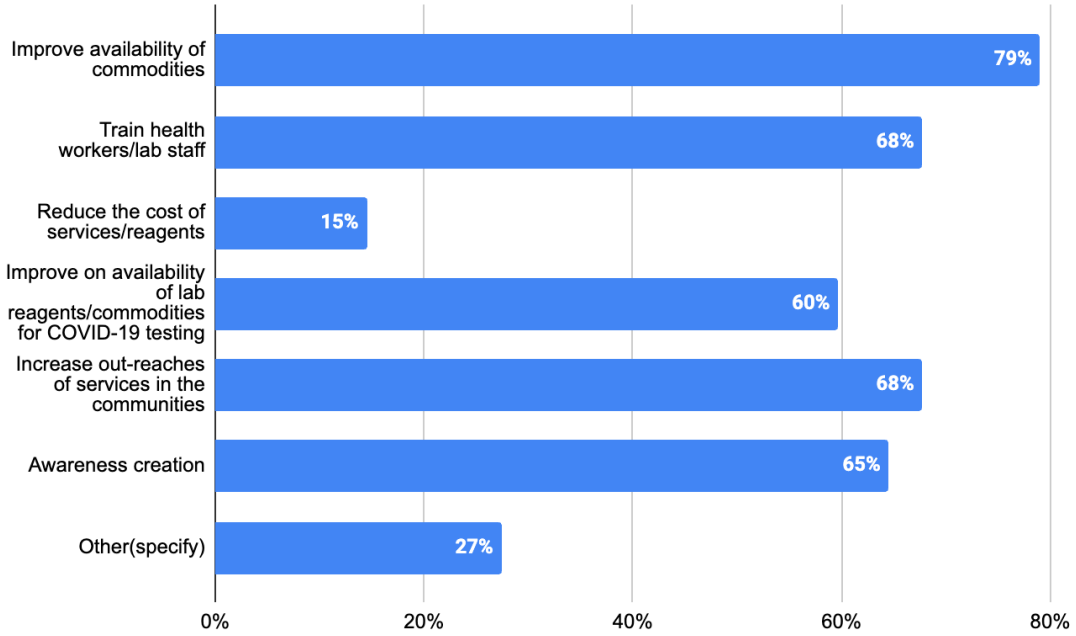
Recommendations to improve COVID-19 testing

The key recommendation, on the demand side, to improve access to the COVID-19 diagnostic services included: the need to strengthen the awareness creation, outreaches and the need to improve the availability of commodities/reagents.

Recommendations to improve access to the COVID-19 diagnostic services



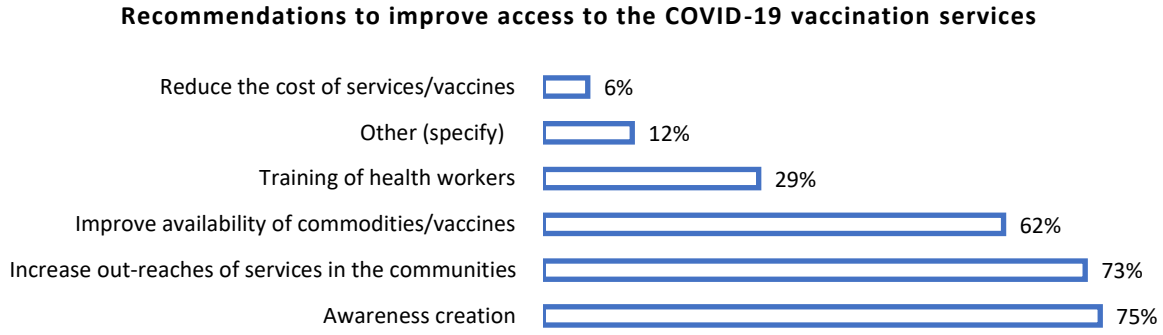
Recommendations to improve testing on the Supply side:



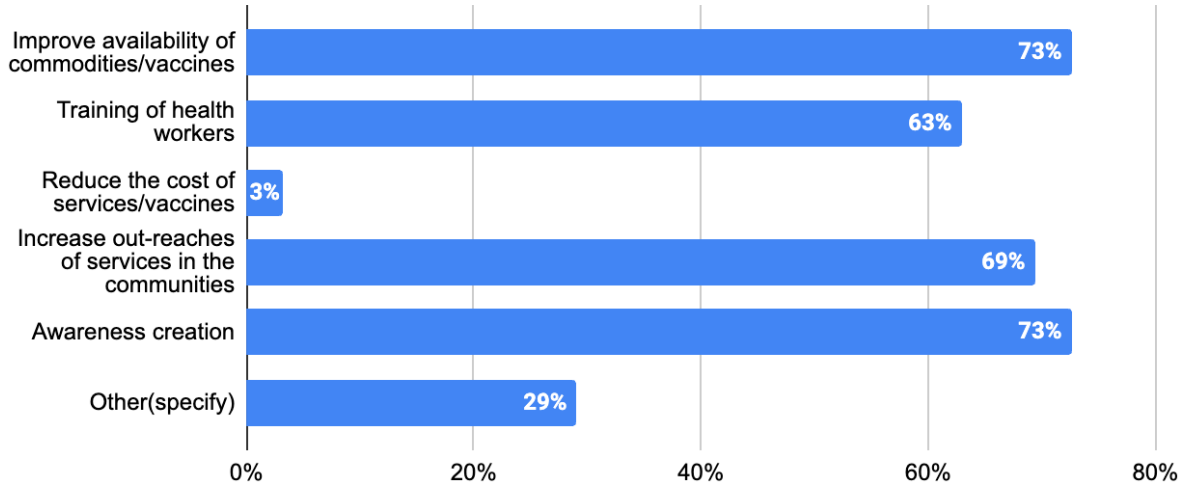
COVID-19 vaccination

Recommendations to improve access to the COVID-19 vaccination services

The key recommendations to improve access to COVID-19 vaccination services from the demand side include: the need to strengthen awareness creation, outreaches of services in the communities, and improve availability of required commodities.



In addition, the key recommendations to improve access to COVID-19 vaccination services from the supply side include: the need to strengthen availability of commodities, and additional service training of health workers.



4. Conclusions

Overall, there was modest level of knowledge about the available opportunities for COVID-19 testing, vaccination and treatment services. However, there is need to strengthen community awareness about the availability of the services and tools for diagnosis, prevention and treatment of COVID-19 should be enhanced. In addition, despite the relatively good availability of RDTs at the facilities, there was limited evidence of widespread COVID-19 testing among the respondents. Similarly, there was limited access to PCR testing. Furthermore, miss information and limited awareness about the available COVID-19 diagnostic, treatment and vaccination services subsequently affects uptake of these services. Therefore, availability of PCR tests needs to be improved in order to improve access to COVID-19 diagnostic services.

References

Kabwama, S. N., Kiwanuka, S. N., Mapatano, M. A., Fawole, O. I., Seck, I., Namale, A., Ndejjo, R., Kizito, S., Monje, F., & Bosonkie, M. (2022). Private Sector Engagement in the COVID-19 Response Experiences and Lessons from the Democratic Republic of Congo, Nigeria, Senegal and Uganda.

MoH. (2022). *Ministry of Health. Coronavirus (Pandemic) Covid-19.* Retrieved 9 July 2022 from https://www.health.go.ug/covid/

Secaucus, N. J. (2020). *Quest Diagnostics launches consumer initiated COVID-19 antibody test through QuestDirect™.* . PRNewswire. https://newsroom.questdiagnostics.com/2020-04-28-Quest-Diagnostics-Launches-Consumer-Initiated-COVID-19-Antibody-Test-Through-QuestDirect-TM

WHO. (2022a). *New agreement under C-TAP aims to improve global access to COVID-19 testing technologies.* Retrieved 16 June 2022 from https://www.who.int/news/item/16-06-2022-new-agreement-under-c-tap-aims-to-improve-global-access-to-covid-19-testing-technologies

WHO. (2022b). *WHO Coronavirus (Covid-19) Dashboard*. Retrieved 9 July 2022 from https://covid19.who.int/

WHO. (2022c). *WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020.* World Health Organization. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020