Firoz Lalji Institute for Africa

# A Retrospective Assessment of COVID-19 viewed from Arua Regional Referral Hospital, West Nile Sub-region, Uganda

Emmanuel Candia in conversation with Solomon Kamurari

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Research project: Living the Everyday: Health-seeking at Uganda's borders

**Indigenous Lockdowns: A Historical Exploration of Epidemic Containment in Arua District, West Nile sub-region, Uganda**

**Acknowledgements**

"Living the Everyday: Health-seeking in times of sickness and epidemics at Uganda's borders", is hosted by the LSE Firoz Lalji Institute for Africa in partnership with Muni University. "Living the Everyday" principally addresses how social relations and everyday life affect knowledge and the management of sickness. The project contributes to policy approaches focused on containing epidemic diseases, including Ebola and COVID-19, across national borders.

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This interview retrospective was written by Solomon Kamurari from UUKHA. Dr Elizabeth Storer edited the narrative for conventions of style and grammar, leaving the meaning of the text unchanged.

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**Contributors**

Emmanuel Chandia is a Medical Officer at Arua Regional Referral Hospital and emergency care coordinator for the West Nile sub-region, Uganda.

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The Firoz Lalji Institute for Africa (FLIA) focuses on engagement with Africa through cutting-edge research, teaching and public events, strengthening LSE's long-term commitment to placing Africa at the heart of understandings and debates on global issues.

## Foreword

The West Nile sub-region has a unique history. Colonial and post-colonial patterns of violence and political marginality continue to inflect health-seeking practices in the present, including during an epidemic crisis. The “Living the Everyday” project sought to understand health-seeking priorities and borders through the experiences of those who live on the borders of the state. Originally, this enquiry was grounded in collaborative ethnographic research. Yet, as with many other research projects, the design shifted with COVID-19.

Our Ugandan research team – including Anguyo Innocent, Osuta Jimmy, David Angualia, Patricia Nyivuru, Caesar Andevu, Francis Sebbi and Phillip Anzuvu – have been conducting in-depth research in Arua and Moyo since 2020. This research has captured the evolving COVID-19 response, as well as social responses to pandemic containment. As one of the poorest sub-regions in Uganda, it is unsurprising that many West Nilers vehemently contested the livelihood shocks initiated by the lockdown. COVID-19 was experienced as both a health crisis and a crisis of well-being. People in the region continue to manage the shock.

Whilst the global scope of COVID-19 was novel, our research has tracked the long-term effects of delivering healthcare in “emergency-mode”. For West Nilers, the delivery of healthcare remains subject to the decision-making of international and national policymakers. Awareness is thus raised around prioritises defined externally to the region – in 2018/19 this was Ebola, before that it was HIV/AIDS and Hepatitis-B. On the one hand, our research has documented how this layered landscape of emergencies has structured understandings of healthcare and how to access it. On the other, we have seen how these emergencies displace already fragile infrastructure available to support chronic and other illnesses.

The following conversation between Emmanuel Candia and Solomon Kamurari tells an interesting perspective about COVID-19 from Arua Regional Referral Hospital. It shows how decision makers were forced to prioritise particular forms of care, and how their freedom to dictate what care mattered shifted over the course of the pandemic. The interview also reveals the changing balance between hospital and home-based care, as well as efforts to coordinate different levels of the health-system. It is a unique insight for the margins of the state.

Elizabeth Storer
Research Officer, Firoz Lalji Institute for Africa, LSE
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## Introduction

The following paper is an interview with Dr Emmanuel Chandia, a Medical Officer at Arua Regional Referral Hospital. He is the emergency care coordinator for the West Nile sub-region and has coordinated the response to COVID-19 at Arual Regional Referral Hospital. As such, Emmanuel has been central to organisational planning in relation to preparedness and response measures to COVID-19 in West Nile.

Dr Emmanuel is interviewed by Dr Solomon Kamurari, who is currently the Head of Programmes at the Uganda UK Health Alliance. In this role, Solomon coordinates over 50 UK-led global health partnerships in Uganda's Health Sector. He also works closely with the various departments of Ministry of Health including the Department for Integrated Epidemiology, Surveillance and Public Health Emergencies, that was at the centre of the COVID 19 Response.

The interview traces the COVID-19 response between March 2020 and the present. It does this through tracking experiences of Arua Regional Referral Hospital. The Health System in Uganda is a referral system where each region has a referral hospital to provide advanced care and health system support to hospitals and lower health facilities in the region. Arua Regional Referral Hospital (hereafter ARRH) is the referral centre for a population of about 3 million people in the nine districts of Adjumani, Arua City, Koboko, Maracha, Moyo, Nebbi, Pakwach, Yumbe and Zombo. Additionally, the hospital doubles as the referral point for health centres for the largest refugee settlements in the country with over 1 million refugees. Beyond this, the hospital receives patients from South Sudan and the Democratic Republic of Congo and South Sudan, who cross international borders to receive treatment. It is against this complex background that ARRH served as the epicentre for the COVID-19 in the West Nile sub-region.

## Emmanuel Candia, in conversation with Solomon Kamurari

***SK: Can you describe the shifting dynamics of COVID-19 in Arua? What symptoms promoted ordinary people to come to Arua hospital?***

EC: On March 21, 2020, Uganda confirmed its first case of COVID-19 at Entebbe International Airport. This was a 36-year-old Ugandan male returning from Dubai, United Arab Emirates and was detected through multiple measures instituted at the airport, to prevent entry and spread of the infection. The man presented with symptoms of high fever and poor appetite, with loss of taste or smell. When these symptoms were registered, the passenger was evacuated to Entebbe Grade B Hospital, where he tested positive and was admitted for management.

In the early stages of the pandemic (March-June 2020), the majority of ordinary people came to the hospital because they had flu like symptoms that included loss of taste or smell, cough, fever, body weakness, sore throat, headache and joint pains aches. Others who were asymptomatic were prompted to come to the hospital after receiving a positive result from a COVID test, but at this point tests were note widely or freely available in Uganda.

The other category of patients who came to hospitals were those brought in by the district surveillance team, who were working within communities. Many were reported to the team on account of suspicion communities, after returning high-risk counties. Initially the country had a national toll, answered centrally, where community members would call to notify. Once a phone call about a suspected case is received at national level, the central team (comprised of National Coordinators for case management teams, surveillance, ICT, Risk Communication and Laboratory) would notify the district about origin of the call. Each district had to reactivate and strengthen district surveillance teams and District Task Forces response team that comprised mainly of security, risk communication committee, surveillance case management, testing committees, burial team, psychosocial support and logistics committee. The team responsible would trace the suspected case and pick the case by ambulance for testing and quarantine. The districts had surveillance focal persons up to subcounty level. These figures encouraged community members to report to authorities of any suspected case. In the initial stages of the pandemic, the District COVID-19 Response Teams were facilitated by the budget from the National COVID-19 Taskforce. When cases increased, the funding was no longer sufficient.

The first case of COVID-19 was detected in the West Nile region on 24th March 2020. This was a local trader in Adjumani who had travelled to the Elegu Border Post between Uganda and South Sudan in Amuru District. He was picked from the community by the surveillance team on suspicion from the community and taken to Adjumani General Hospital. He had symptoms consistent of a viral illness which included a high-grade fever, sore throat, non-productive cough as well as body weakness.

The next two patients came to the ARRH in March. They came themselves. These were drivers from South Sudan, who due to the overcrowding at quarantine centres were allowed to continue their journey. Subsequently, they received positive test results. An additional six patients were admitted in April and May. The majority were truck drives from neighbouring counties. They were asymptomatic and healthy and were only admitted because the national policy at the time was to admit every positive case. Since the isolation unit at ARRH hospital was already occupied by TB patients. The management of ARRH therefore converted the mental health into a COVID Isolation and Treatment Unit.

The strict first national lockdown has been acknowledged to have limited community transmission of COVID-19 within Uganda. Measures were eased from the beginning of June 2020. The first case of community transmission was detected on 15$^{th}$ June 2020 in West Nile and cases continued to increase from that point. Infections were mostly detected by surveillance teams through community notification and contact tracing. From August, most of the lockdown measures were relaxed, community cases further increased with daily admissions to ARRH at the peak period around 7-12 cases. Over 200 cases were detected and admitted in the period, including over 30 health workers During these peak stages of community transmission, the majority of the cases were brought to the

hospital by concerned family members, or by themselves due to severe symptoms of difficulty in breathing, high grade fever, sore throat, non-productive cough, chest pain and confusion.

Unlike in the first wave where most of severe and critical cases were above the age of 60, the second wave was characterised by a shift to high number of cases among the age group below 40 years. During the early stages, denial was common among young people, and many believed COVID-19 was a ploy of health workers to extract money from the population. This led to younger patient populations that had initially dismissed COVID-19, as a disease affecting only the old, to start coming the hospital because of these severe symptoms.

***SK: How did the hospital work with the COVID-19 task force? How did the hospital work with local health facilities (e.g., at sub-county level) to provide care?***

EC: The work of ARRH with the COVID-19 Task force and local health facilities was guided by the National COVID-19 Preparedness and Response Plan, which was developed by the National Task Force on COVID-19 and led by Ministry of Health.

Before the first case of COVID-19 was detected in the West Nile, the National COVID-19 Taskforce had already rolled out training on detection and management of suspected COVID-19 cases nationwide and all Regional Referral Hospitals like Arua were designated as COVID Treatment Centres and assembled COVID response teams. General Hospitals and lower health centres were trained and briefed on high index suspicion of cases for COVID-19. Cases suspected at this level would then be referred to ARRH for quarantine, testing and management.

According to this plan, if a case was detected, the COVID Response team at ARRH would go and picks the case and admit the person for further management. In the later stages of the pandemic, the hospital worked with District Covid Response Teams to pick the patients and transport them to ARRH. This was followed by training and supporting district hospitals/lower Health facilities to admit and manage mild to moderate cases of COVID-19.

***SK: At what moments was mortality perceived to be high in Arua?***

EC: Based on official hospital and national records, mortality was highest during the 2nd wave of COVID-19. The highest cases of mortality in the hospital were recorded between the period of April-August 2021. About 80-90 patients lost at ARRH during this period.

During this time, in communities there was also an observed increase in the number of COVID-related deaths, where the victims did not end up at ARRH, but instead sought care at nearby health facilities or stayed at home. This perceived increase in COVID-19 related deaths in the community was further reported through media reports (mainstream and social media). The district surveillance teams could not adequately track these unreported deaths since the community cases were overwhelming, and home-based care was being promoted for mild/moderate cases. So, COVID-19 deaths outside the hospitals could not be easily tracked and reported.

**SK: At what points did the pandemic overwhelm hospitals?**

EC: The pandemic began to overwhelm hospitals during the 2nd wave, when there were severe shortages of oxygen due to a high number of critically ill patients. By late March 2021, the number of community cases had doubled. Progressively, we observed that patients would bringing themselves to the hospital very sick. The hospital had between 10-20 admissions per day during the period from April to September and had to operationalise treatment tents to manage admissions. At the peak of the wave in August, there was a crisis of lack of oxygen and ICU beds across the country. This pattern was similar to that experienced at ARRH.

Before COVID-19, ARRH had an oxygen plant that was producing sufficient levels of oxygen for patients, as well as refilling oxygen cylinders for lower facilities. During the 2nd wave of infection, the increase in critical cases of COVID-19 that required oxygen overwhelmed the production capacity of

the plant. Initially, the Hospital maximised the use of Oxygen Concentrators and refill from nearby facilities like St Mary's Hospital, Lacor, Gulu. Later the government evoked emergency production of oxygen by industries across the country where regional referral hospitals including ARRH could easily refill cylinder for free and transport them back to meet the needs of the hospital.

ARRH had only High Dependence Units since the Intensive Care Unit (ICU) was not yet in operation. Critically ill patients who needed admission to the ICU were referred to Mulago NRH and private facilities. This was a big challenge since the National Referral Hospital was also overwhelmed by critical cases. As a result, Mortality rates were high at ARRH and across the country due to overwhelming numbers of critically ill COVID-19 patients.

***SK: What changes were initiated by the hospital to manage COVID-19?***

EC: As mentioned above, the National COVID-19 Taskforce had already rolled out training on detection and management of suspected COVID-19 cases nationwide. All Regional Referral Hospitals like Arua were designated as COVID Treatment Centres and assembled COVID response teams. A comprehensive training package on all the pillars of response and preparedness i.e.: clinical care, surveillance, laboratory and psychosocial aspects was delivered to staff at ARRH.

Before the first case was detected in the West Nile sub region, the hospital put in place high Infection Control measures. At the hospital gate, designated personnel conducted temperature screening and had a standard World Health Organisation based questionnaire for all incoming persons to fill. The questionnaire had a checklist on demographics, signs and symptoms, respiratory symptoms, history of contact with a traveller or a confirmed case of COVID-19, history of travel, body temperature among others. Suspected cases were isolated at the isolation centre and tested. If their test results were positive, they would be managed, and district teams notified for contact tracing. If negative, they were allowed to go home and quarantine for 14 days.

Of course, the screening for COVID-19 was a challenge for pregnant women in labour or with obstetric emergencies. A simple isolation area had to therefore be created with in the maternity ward for pregnant women suspected to have COVID-19

ARRH received new equipment, new beds and vehicles from the National COVID-19 Taskforce and the Ministry of Health, to support response to COVID-19. This included the development and equipment of an ICU unit later. However, some of the routine services like Opthalmology, mental health, elective operations etc that were not considered emergencies were temporarily stopped to reduce the risk of infection. For instance, the hospital converted its Mental health to the isolation centre since the designated isolation centre was occupied by TB patients.

*SK: Research conducted by a team of researchers within the Living the Everyday project has indicated that herbal cures were often preferred to clinical medicines. Do you think that many people managed COVID-19 at home? Does the hospital support the use of herbal cures in home-based care (noting that the President sanctioned the distribution of Covidex)?*

EC: The management of COVID-19 guided by Ministry of Health with National guidelines. These were mainly adopted from WHO bulletins, which recognised COVID-19 as a pneumonia disease that required supportive treatment.

Many people in the community were reportedly taking herbs for confirmed and suspected COVID-19. These herbs were mostly the ones used in cases of flu and cough, including, for example, the leaves of eucalyptus, leaves of guava and leaves of mango trees, which were boiled in order for people to 'steam' themselves.

A number of patients were also reported to use a mix of over-the-counter medications and herbs, especially during the period when the Ministry of Health advised outpatient/home management of mild/moderate cases of COVID-19. Faith in herbal medicines was boosted by stories from other patients who were getting relief or perceived themselves to be cured from the COVID-19 by using

herbal concoctions. This was also compounded the government encouraging research institutions to conduct expedited research on some of the remedies (like COVIDEX). Private pharmacies were prescribing these remedies over the counter to patients, but they were never officially included in the COVID Treatment guidelines, apart from encouraging people to boost their immunity by increasing their uptake of Vitamins and other sources of micronutrients.

ARRH followed these national guidelines in the management of COVID-19 and did not encourage taking of local herbs due to lack of evidence (including those that had been sanctioned by the president by COVIDEX). The general public were informed that these treatments required further approval to be included in the treatment plans for COVID-19.

**SK: Similarly, research conducted within this project has indicated that the COVID-19 response in Uganda, as in many other countries worldwide, has affected the delivery of routine care. How was wider provision of health services affected by ARRH?**

EC: With the increased number of COVID-19 cases, a number of routine services were suspended. For instance, the mental health unit was repurposed as a covid treatment unit. This means that mental health services were severely disrupted, and the hospital did not have the capacity to admit mental health patients.

Some of the staff delivering routine health services were re-assigned to treat the increasing numbers of patients with COVID-19, and there was loss of staff who underwent quarantine, got infected or required to care for infected friends and family. The combination of increased workload and reduced number of health workers posed a severe strain on the capacity to maintain routine services.

Access to routine services was also affected by social restrictions and in particular the lockdown. Many patients that had to come to seek care, routine check-ups, drug refills faced challenges in travel and would often stay home or go to nearby clinics that did not have the required services.

In the early stages of the pandemic, this led to complication of chronic conditions due to disruptions in drug refill. HIV patients could not obtain their HAART refill due to travel bans; mental health services were suspended, and there was observed poor control of number of patients with hypertension, diabetes and other NCDS.

HIV Programs resorted to multi month drug refills for HIV clients who had suppressed viral loads, forming of client groups to be directly supplied with drugs at community level. A drone project is being piloted to pick-up samples and deliver drugs to remote communities which are hard to reach.

**SK: Was there an increase in people seeking psychiatric care during the pandemic?**

EC: During the pandemic, there was an observed increased in mental health conditions due to increased social stresses. However, in the initial stages of the pandemic, there were a lot of restrictions that meant people had great difficulties accessing care.

Initially during the lockdown, people seeking services decreased due to lack of transport for about 3-4 weeks of the total lockdown. Later, there was relaxation in the rules and patients were able to seek care number of people seeking care increased. The types of patients were in 2 categories, those seeking care on previous medication as well as those first times.

To date all the mental health units in the region are still COVID treatment centres.

The mental health services at ARRH were moved from the original 40 bed capacity unit to a smaller unit that was shared with ENT, Opthalmology and other disciplines. The makeshift unit had capacity for only 14 in patients and posed a lot of difficulty in managing the increasing number of patients to the extent that patients were admitted in the common corridor.

There was an increased number of new cases due to causes related to the effects of the COVID-19 pandemic on loss of livelihoods, increased idleness among the youth who were no longer in school

among others. This led to increased stressors (including alcohol and narcotic abuse) and risks to mental disorders that later precipitated mental breakdowns.

The major disorders among COVID-19 patients were delirium and a number of COVID-19 patients would come in with marijuana intoxication due to the popular belief in the community that boiled marijuana was a cure for COVID-19.

Once they stabilised a significant number developed depression and suicidal thoughts due to worries on livelihood and the fear of dying. The number of suicide and homicide attempts and threats increased in both refugees and nationals, with many looking at suicide to relieve their stress. This was particularly common in mental health patients who had defaulted on treatment.

**SK: Was ARRH predominantly serving Ugandans? What happened to Congolese and South Sudanese patients who usually seek care at the Hospital? Did people continue to cross the border to seek care?**

The hospital continued to handle cases from the neighbouring countries. These were mostly truck drivers and traders. The only difference is that in the later stages of the pandemic, the statistics of foreigners were segregated from national averages, to avoid travel bans to Uganda by other countries, due to rising cumulative numbers of COVID infections.

In terms of routine services, the hospital was managing referrals from refugee settlements that include South Sudanese and Congolese patients. Despite the closure of borders initially, most of the communities in the three countries share ethnicities and always cross along the porous border points to receive care. There were a number of patients who received care at the hospital and reported to be Ugandan citizens, yet they were from neighbouring countries.

***SK: Our research in the context of COVID-19 and previously on Ebola has indicated that some health measures relating to epidemics have met with resistance from communities. Often, the most tense points of engagement are around managing the dead. SOPs for COVID where very different from customary Lugbara funeral rites. How was the hospital involved in the handling of the dead? Were relatives involved in this process? Did people take COVID-19 cases to the hospital?***

EC: Rituals surrounding burial generally in many communities across Africa are a challenge during outbreaks. This is because they include body washing which exposes the bereaved to the infectious disease.

The District Health teams were initially handling all burials related to COVID-19 with restrictions on rituals and number of people attending burials. This was only possible when cases were few.

In the COVID Unit, there was a psychosocial team for COVID-19. When death occurs, the staff had to provide psychosocial support. Body preparation was by a designated person from the mortuary, and the psychosocial team would inform the relatives, and relay the procedure of the burial. The team would ask the family to buy a coffin, and the body would be prepared for transportation. Relatives would arrange transport, take the body and would be advised against the normal Lugbara funeral rite, particularly the washing of the body. Some people would adhere to that, but some people would refuse and remove the body and wash.

It is difficult to tell which people followed the health guidelines since, after funding was retracted and caseloads became high, burial teams were no longer conducting burials in the community. It became costly to provide full PPE, ambulances, allowances etc with increasing cases of COVID-19 related deaths. For suspected COVID-19 related deaths in the community, some families would seek guidance from the health facilities on how to conduct the burials. Many families went ahead and conducted the burial following the Lugbara funeral customs.

***SK: Did clinical officers partner with church pastors or elders to encourage people to visit the hospital?***

EC: Right from the beginning when COVID-19 Struck, the hospital teamed up with religious leaders and worked with other community leaders to raise awareness on COVID-19.

Initially, once patient a was admitted, because of stigma, the team would involve the hospital religious leader in counselling. On discharge the COVID-19 team would identify a religious leader to help the patient resettle back home, depending on their religion. The community leaders would then use the opportunity to encourage the people to go to hospitals and demystify some of the myths around the virus.

This worked for only the first two months of the pandemic because it required logistical support of religious and community leaders to make hospital and home visits. Lockdowns made travel a challenge, and health promotion was difficult due to lack of traditional public gathering platforms during movement restrictions.

**SK: Did experience of HIV/AIDS inform the management of COVID-19?**

EC: Uganda and the West Nile sub-region were devasted by the HIV epidemic in 80s, 90s and early 2000s. In the last decade however, the country has significantly reduced the number of new infections and overturned the HIV epidemic using a combination of robust prevention and treatment programs. Reportedly today, compared to the national prevalence of 6.9% the HIV Prevalence in the West Nile is 3.1% and is much lower. This can partly be attributed to the success of prevention campaigns. Other statistics tell a different story, the adherence to Anti-Retroviral Therapy is poor in the region due to stigma and this has resulted in West Nile region being one of the regions with poor suppression rates of 89%-90% compared to the national average of 93-94%.

ARRH has for four decades delivered HIV/AIDS services in the region and currently provides care to 5797 HIV clients out of the 35987 HIV Clients in the region. It also offers support to lower health facilities especially in management and ordering for 3rd Line Drugs for National Medical Stores. Based on this experience, there was a lot of learning from HIV/AIDS Programming that was used at regional and National Levels in the response and management of COVID-19.

All the pillars of controlling the HIV/AIDS epidermic were employed and approached. For instance, HIV services were decentralised although Arua Regional Referral Hospital supports lower health centres in HIV/AIDS programs, the actual services were decentralised for ease of access by communities. This experience was used as cases of COVID-19 increased to bring testing, vaccination and case management closer to the communities.

In the management of COVID-19 cases, lessons were learnt from the holistic approach of managing HIV/AIDS patients where both the physical and psychosocial needs of the patients were addressed.

Stigma for HIV/AIDS has been a very big challenge and has discouraged people from seeking care and adhering to treatment. This is being overcome by educating masses, demystifying the disease, involving patients and promoting positive living as a strategy. Stigma was in turn very pronounced during the COVID-19 Pandemic and we used similar approaches to demystify the disease and educating the communities against stigma towards COVID-19 Patients.

Several Donors and NGOs implementing HIV/AIDS programs Put funding aside from HIV Programs and dedicated it to specific pillars of; Infection and Prevention Control, used channels for risk communication and behavioural change for HIV for health promotion on COVID-19 as well as the use of VHTS conducting RDT for HIV to conduct RDT for COVID-19 in the community.

At National Level, Presidential and government leadership was instrumental in the successful fight against the HIV Pandemic. This same commitment from the President as the chair of the National Task force for COVID-19 has been instrumental in emphasising and implementing COVID-19 response measures.

To overcome severe shortages of drugs and supportive treatment during the HIV/AIDS epidemic, the government attracted pharmaceutical companies like CIPLA from India to start producing ARVs and other essential medicines. During the heat of the COVID-19 pandemic when many essential COVID-19 supplies such as masks and ventilators, oxygen, vaccines, sanitisers were in short supply, the government used this experience and diversified some of the industries to produce these supplies locally which addressed critical shortages.

**SK: Did experiences of Ebola inform the management of COVID-19?**

EC: Yes, Uganda and the West Nile region had the "unique" opportunity to deal with the threat of several deadly disease outbreaks like Ebola before the COVID-19 Pandemic struck. This enabled the country to quickly identify experiences and specific factors that contribute to the successful management of such public health threats and use them in preparedness and response to COVID-19.

In Uganda, Government and partners invested more than $18 million in preparedness and readiness for another Ebola outbreak. This included, in early 2019, training more than 10,000 health workers on infection prevention and control, psychosocial support, surveillance, safe and dignified burials, and other aspects of disease outbreak response. This training made the cascading of the COVID-19 prevention and control measures quick throughout the country.

Beyond this, some of the health workers who had been involved in previous outbreaks and trainings had the experience to lead and train other members on response teams which was invaluable in getting all health workers set to respond to COVID-19. These teams were also well versed with rapid development risk communication and community engagement measures learnt from Ebola outbreaks in the region.

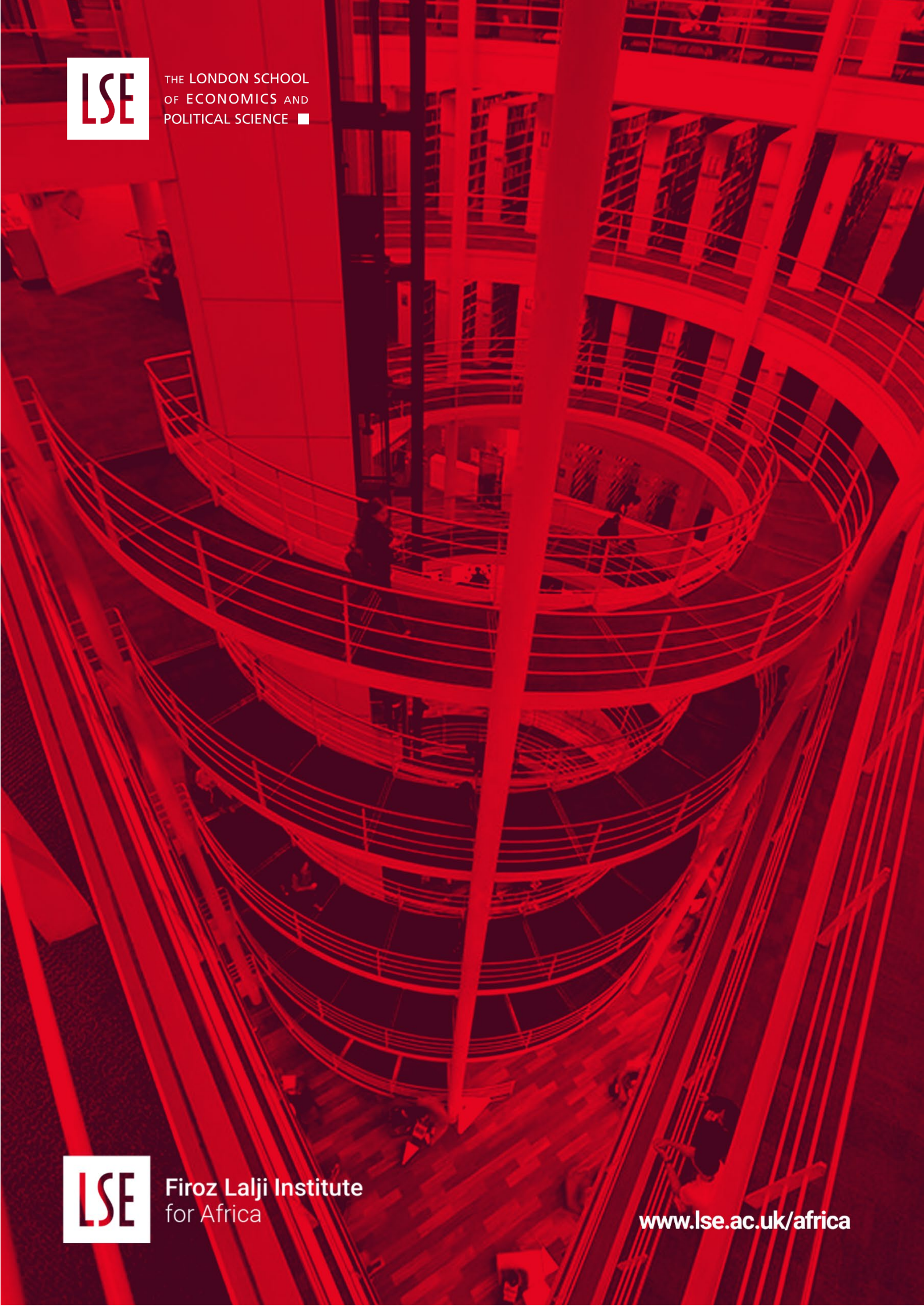
In the West Nile sub-region, the government and several development partners had already put in place systems and networks as well as infrastructure to prevent, detect and respond to outbreaks of Ebola. In 2019, a case of Ebola death was detected in Ariwara, Congo – a cross-border market town which lies 7km away from Arua Town. This found the region on high alert for disease outbreaks. The systems put in place to mitigate Ebola were activated during the preparations and response to COVID-19 – this included District Surveillance teams, health check-ups at border points and knowledge and access to laboratory networks across the country.

**SK: How much did is cost to treat Covid-19 in private clinics? In government clinics? At ARRH?**

EC: In government facilities treatment was meant to be free, apart from occasional requests put to in-patients to buy extra medicines that were not available at the facility. In private facilities, for mild/moderate cases, most people opted to buy over the counter drugs including multivitamins, Zinc, antibiotics, pain killers and sometimes low dose steroids for 1-2 weeks.

Most of the severe cases were admitted at ARRH and for further treatment, patients would be referred to Mulago National Referral Hospital. Those who opted to go to private facilities in Kampala and were later admitted to intensive care units incurred very high costs since ICU space in most of the private facilities is usually expensive and was highly limited during the pandemic.

In the private sector, the costs vary from facility to facility. At the peak of the second wave, hospitals were charging between UGX 1.5m and UGX 5m per day to treat a critically ill patient. So, the patient would spend between 10.5-35M Ugandan shillings/ per week, depending on the severity of the disease (and the cost of the facility).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