Welcome to the third edition of the Uganda Cambridge Cancer Initiative Newsletter! Our Initiative is a collaboration between the Uganda Cancer Institute (UCI) and several different groups in Cambridge including Cambridge-Africa at the University of Cambridge UK, Cancer Research UK Cambridge Institute (CRUK CI), Cancer Research UK Cambridge Centre (CRUK CC) and Cambridge Global Health Partnerships (CGHP). Read the first and second newsletter.

About Us
Cambridge-Africa is a University of Cambridge programme that supports African researchers and promotes mutually beneficial collaborations. Cambridge-Africa leads the coordination of the Initiative with the UCI. The UCI is a cancer treatment, research and teaching centre located in Kampala, Uganda, which has 80 beds and sees approximately 200 patients every day. The link between the UCI and Cambridge began in 2018 and has since grown into a wider network compromising a number of research projects, collaborations and student exchanges. Read more about us on our webpages.

News
• Two Makerere University medical students have been selected to undertake their electives in oncology at Addenbrookes Hospital in 2022.

• We are awaiting the outcome of the NIHR group application. If successful, this grant will support collaborative research between Cambridge and the UCI and also have a focus on community engagement community education on cancer in Uganda.

• The application for the UK Partnerships for Health Systems grant has proceeded to the second stage.

Contact/Get involved!
If you would like to be involved in the Initiative please contact Corinna Alberg, Cambridge-Africa team, University of Cambridge, UK. Email: ca392@cam.ac.uk
Joyce Balagadde Kambugu is a paediatric oncologist at Uganda Cancer Institute (UCI) where she heads both the paediatric oncology service and the fellowship training program. The UCI is the national referral cancer centre in Uganda with a mandate to coordinate all cancer related activities, spearhead cancer related research and training as well as offer technical support to the Ministry of Health on all matters related to cancer in the country.

Some of Joyce’s achievements include leading the establishment of a dedicated paediatric oncology service at the UCI in 2012. This service currently receives about 600 new children and adolescents annually. She also contributed to the establishment of the paediatric oncology fellowship program at UCI in 2015. Joyce is motivated by the belief that every child with cancer, regardless of where they are in Uganda and Africa, deserves a chance at cure and to live with dignity and she is passionate about paediatric oncology in developing countries. She believes that all barriers in this regard can be tackled one by one till they are all levelled. To this end she is determined to see a paediatric oncology centre of excellence established at the UCI. Already, working with others in the National Cancer Control Secretariat at the UCI, paediatric oncology has been included in the 1st edition of Uganda National Cancer Control plan.

At an international level, Joyce is the continental president elect of SIOP Africa (Africa continent branch of the International Society of Paediatric Oncology). This organization aims to improve and disseminate knowledge of childhood malignant diseases, and their management in African countries. In line with this role, she is the chair of the forthcoming SIOP Africa continental meeting that will take place in March 2022 in Kampala, Uganda. This is a two and a half day meeting that gathers paediatric oncologists and other health professionals as well as civil society to share experiences and new scientific knowledge in the field of paediatric oncology on the continent.

As part of the Uganda Cambridge Cancer Initiative, together with colleagues at Addenbrookes hospital, a project to improve chemotherapy safety for children and adolescents has been undertaken. This entails streamlining the whole cycle from chemotherapy prescription through transcription, preparation, dispensing and administration. An audit of the prescription node has already been conducted in August 2020 and outstanding challenges are being addressed in a collaborative fashion with the team from Addenbrookes hospital.

Outside of work Joyce can be found in her flower garden where she spends most of her free time communing with nature.
IMPACT OF COVID-19 ON CANCER CARE IN UGANDA

Dr. Nixon Niyonzima, Uganda Cancer Institute

When the first case of COVID-19 in Uganda was reported in March 2020, it prompted a host of measures that were designed to prevent spread and transmission of the new virus. Some of the measures enacted by the government at that time included the following:

1. Ban on both private and public transportation
2. Ban on social gatherings
3. Ban on inter-district travel
4. Nighttime curfew

The ban on both public and private transportation meant that it was difficult for both staff and patients to travel to the Uganda Cancer Institute. Initially, patients could only access the UCI using ambulances and government vehicles which drastically increased the time that patients took to come for care but also the cost of coming to the UCI. When the transportation ban was lifted, restrictions were left in place to limit numbers of people per vehicle which further increased costs of seeking care. However, the impact of COVID-19 went far beyond transportation and included some of the following:

**Increased costs of care**

On top of the costs of transportation that patients incurred, costs of consumables also increased as a result of COVID-19. The initial COVID-19 nationalism that was associated with the disease led to challenges in access to drugs, personal protective equipment such as gloves, syringes and reagents. When these were accessible, they were very highly priced which limited quantities that could be accessed as well as increased average expenditure per patient. These costs, while mainly incurred by the hospital, were not limited to the UCI only but also extended to the patients as well. Due to challenges in access, we had hundreds of patients that were stuck at the UCI who were unable to go home because of the costs of transportation. The UCI, with support from the government, organized to transport these patients to the different districts. This was an unplanned expenditure that the institute incurred.

The Executive Director of the UCI flagging off patients to their homes during the peak of the COVID
Delays in access to care
As a result of the costs of transportation and the lockdown that was imposed, the UCI witnessed a drastic reduction in new patient registrations reflecting the fewer numbers accessing care compared to previous years. Although the numbers picked up later in the year, there is likely to be an impact on disease stage of presentation due to these delays. It is also likely that there are many patients who are still not seeking care due to the cost increases associated with COVID-19.

Reduced service utilization
As a consequence of the reduced patient numbers (see chart comparing patient numbers in 2019 and 2020), there was an overall reduction in service utilization across the entire institution. We saw reductions in numbers of laboratory tests, chemotherapy infusions and admissions.

Loss of Income
Like the rest of the population, patients were also economically affected through reduced income.

Outcomes of the impacts of COVID-19 on cancer patients
Although we are still doing research to determine the nature of the outcomes, we believe that COVID-19 could have led to the following outcomes among our patients:
1. Upstaging presentation of cancers
2. Impoverishment and catastrophic health expenditure
3. Disease progression
4. Excess deaths from cancer
5. Treatment abandonment
To mitigate these impacts, the UCI put in place the following measures:

1. Continuous operation
The UCI operated continuously during the course of the pandemic and attended to patients who were able to access the Institute.

2. Providing PPE to staff and patients
The UCI provide PPE to staff including aprons, gowns, gloves and masks to all staff. All patients were mandated to wear masks and if necessary, these were provided by the Institute. We also provided ready access to handwashing facilities and sanitizers. This ensured safe continuous operation.

3. Communication
The UCI embarked on a campaign to sensitize the public about access to cancer services and set up a call centre and a toll free number to allow patients easy access to information.

4. Providing transportation to staff and patients
This allowed both staff and patients to access the Institute.