AFRICAN FIELD EPIDEMIOLOGY TRAINING PROGRAMS (FETPs) INVOLVEMENT IN COVID – 19 RESPONSE

The World Health Organization (WHO) report on the COVID-19 pandemic indicates that as of 20 April 2020, the COVID-19 pandemic has spread to 213 Countries with 2,319,066 confirmed cases and 157,970 confirmed deaths.

As of 20 April 2020, only two countries on the African continent had not reported a confirmed COVID-19 case. FETPs in Africa are closely working with ministries of health in Africa to contain the COVID-19 pandemic.

Angola FELTP COVID-19 response activities

On 21 March 2020, Angola recorded the first two positive cases of COVID-19. Since then, under the guidance of the Minister of Health, a total of 14 residents of Cohort V of the Angola Field Epidemiology and Laboratory Training Program (Angola FELTP) have been integrated into Rapid Response Teams (RRT) of the National Directorate of Public Health, under coordination of graduates of the Angola FELTP from Cohorts I, II and III including one graduate from Cohort IV of the FELTP.

The team are participating in activities in the Luanda province, which is the epicenter of the epidemic, and mainly focus on:

- Investigation of suspected cases of Covid-19
- Tracking of suspected cases contacts by phone and home visits
- Monitoring at home of travelers that have arrived in Angola from affected countries

A total 17 cases were confirmed from 21 March to 7 April 2020, of which 13 are under hospital care, 2 recovered and 2 deaths recorded.

The Rapid Response Team (RRT) have investigated 12 confirmed cases, 352 suspected cases, and tracked (followed) 605 suspected cases contacts. A total of 1786 people have been placed
in quarantine (institutional and home) for 14 days are under surveillance, 190 of whom have already been discharged after a negative laboratory test.

The laboratory team at the National Institute for Health Research (NIHR) have processed until now 1008 samples, 17 of which were positive, 834 negative and 155 in process (awaiting results). Key to note is that a Cohort V resident of the Angola FELTP is part of this NIHR laboratory team.

1. Preparation of the institutional quarantine center
2. Elaboration of the daily investigation report of the exposed people who were in institutional quarantine
3. Activities in the institutional quarantine center
Burkina Faso FETP in the response of COVID-19

Burkina Faso recorded the first case of COVID-19 on 9 March 2020. The Burkina Faso Field Epidemiology Training Program, (the Regional FETP that houses 8 other FETP programs) responded to the pandemic with a total of 188 Frontline alumni, 12 Intermediate residents, and 17 advanced residents (Cohorts IV and V) from Burkina Faso, Guinea Bissau, Mali, Mauritania and Niger as well as six other alumni were deployed to the response. Advanced FETP residents from Guinea Bissau, Mali, Mauritania and Niger participated in the first investigation for contact tracing. The FETP faculty, residents and alumni were involved in the Surveillance (Alert system, rapid response team, contact tracing and screening at points of entry), laboratory, infection control, logistical support and coordination at all levels (district, region and national). On 18 April 2020, Burkina Faso recorded 565 confirmed cases, 36 deaths (6.3%) and 321 recovered (57%).
Ghana FELTP response to the COVID-19 outbreak in Ghana and other West African Countries

The GFELTP which is the hub for training field epidemiologists in English speaking West Africa (with the exception Nigeria) has its residents and alumni involved in responding to this pandemic in the various countries. Below is the Ghana FELTP COVID response in other West African countries.

Ghana residents respond to COVID-19 in the Gambia

- The Gambia recorded the first COVID-19 confirmed case on 17 March 2020. The index case was an imported case from the United Kingdom. Four Cohort XII residents and four alumni of the GFELTP are currently involved in the investigation of this outbreak since the confirmation of the first case.

- The Public Health Emergency Operational Center (PHEOC) was activated upon the confirmation of the first case. Residents together with other Surveillance Officers were trained on 19 March 2020 on Contact Tracing and SOPs. On 27 March 2020 residents were part of a Joint Response Team responsible for supporting the response and training of healthcare workers, Red Cross Volunteers and Security officers on contact tracing, rapid response, fumigation of quarantine centers and risk communication.

- The residents served as supervisors for contact tracers who were deployed in various districts alongside other public health personnel to follow up with all the passengers/contacts in the communities that boarded the same flight with the index case.

Mr. Baba Ceesay demonstrating the donning and doffing of PPEs to healthcare workers towards the COVID-19 outbreak response
Ghana residents respond to COVID-19 in Liberia

Liberia recorded its first COVID-19 case on 16 March 2020. The case-patient self-reported to the National Public Health Institute of Liberia (NPHIL) on 15 March 2020. Sample was collected and tested at the National Public Health Reference Laboratory. The positive test result was received on within 12 hours, the case-patient had been isolated. Contact identification, listing and monitoring commenced. As of 13 April 2020, Liberia had recorded a total of 76 confirmed cases, 7 deaths and 7 recoveries.

Five residents of Cohort XII (originally from Liberia but undertaking the field epidemiology training in the GFELTP) and five alumni are actively involved in the response to COVID-19 in Liberia. Ms. Musand Melody Kromah, one of the residents’ is part of the Epi Surveillance Pillar on the National Response Team and serving as case investigators and contract tracers.

Ms. Musand Melody Kromah (in blue vest) gathering vital information from a case-patient 5th Street Sinkor Greater Monrovia, Montserrado County Liberia

Mrs. Lily Sanvee Blebo, faculty of the the Liberia FETP is coordinating several pillars: Risk Communication, Epi – Surveillance including Points of Entry Surveillance, Case Management and Infection Prevention and Control, Water and Sanitation (WASH) and Coordination (PHEOC) for preparedness in Liberia. AFENET Liberia developed plans for the pillar trainings as well as training materials for contact tracing and case investigators training.
Mrs. Lily Sanvee Blebo training contact tracers, case investigators and data managers at the sub-national and national levels in Liberia

Ghana residents respond to COVID-19 in Sierra Leone

On 18 April 2020, Sierra Leone had recorded a total of 30 cases. Three Cohort XII residents and four alumni of the GFELTP are currently involved in the response to COVID-19 outbreak in Sierra Leone. Mr. Kassim Kamara has been appointed the lead for the Surveillance and Quarantine pillar at the Lungi International Airport which is one of the points of entry (POE) where individuals travelling by air are screened and quarantined where appropriate for a period of 14 days. Lungi also has riverine crossing points where boats, especially from Guinea dock.

Dr. Desmond Maada Kangbai, serves as the Chairman of the District Emergency Operations Centre (DEOC). The District Emergency Operations Centre (DEOC) is the central location for coordinating operational information and resources for strategic management of public health emergencies and events. Dr. Kangbai is spearheading key activities such as community sensitization and education.
Dr. Desmond Maada Kangbai (arrow pointed at him) and the team assessing the international border crossing point between Sierra Leone and the Republic of Guinea prior to the confirmation of the index

**Ghana FELTP COVID-19 response in Ghana**

Ghana has confirmed a total of 834 cases with 9 deaths and 99 recoveries as 18 April 2020. Ghana FELTP residents and alumni are playing key roles which include: District Supervisors for contact tracing for the COVID-19 response in the various districts. A total of 72 residents and alumni comprising 5 Cohort XII residents, 7 Cohort XIII residents and 65 alumni of the GFELTP are currently participating in the outbreak response.

Residents are participating in the following: Training of contact tracers, district support, district coordination, contact tracing and interviewing of suspected and confirmed cases, sample collection, and providing daily situational updates and keeping a daily log file of all activities.

Mrs. Eunice Baiden Laryea, a Cohort XII resident of the GFELTP trained 24 teams (two persons per team) for contact tracing using of the SORMAS App, which is a data collection software for contact tracing. Teams include nurses, laboratory technicians,
physician assistants and disease control officers were recruited from various district health facilities. She is also supporting case management in the districts. The district team comprises of District Disease Control Officer and a laboratory technician to identify all community transmitted COVID-19 cases.

*Mrs. Eunice Baiden Laryea* training contact tracers on donning and doffing of PPEs as well as the use of SORMAS data collection software

*Mrs. Eunice Baiden Laryea* submitting sputum samples of suspected cases to Noguchi Memorial Institute for Medical Research for laboratory testing
Liberia FETP COVID-19 Response

Risk Perception Rapid Survey
A total of 41 graduates and trainees of the Intermediate FETP conducted a COVID-19 risk perception rapid survey in the 15 counties of Liberia. The exercise lasted for 8 days, from 30 March 2020 – 7 April 2020. Each of the data collectors completed a total of 25 interviews summing up to 1,025 respondents. The survey recorded that 161 (16%) of respondents said COVID-19 was either not real or a scam by the government.

Liberia Intermediate FETP residents conducting a COVID-19 risk perception rapid survey
Liberia Intermediate FETP residents conducting a COVID-19 risk perception rapid survey

Liberia Intermediate FETP residents conducting a COVID-19 risk perception rapid survey
Nigeria Field Epidemiology and Laboratory Training Program (NFELTP) response to COVID-19 outbreak Nigeria

Nigeria recorded its first COVID-19 case on February 27, 2020. COVID-19 has since been declared a global pandemic. The national effort to contain and manage the epidemic in Nigeria is led by the Federal Ministry of Health and the Nigeria Center for Disease Control and Prevention (NCDC) in partnership with development partners including the WHO, CDC and AFENET. Graduates and residents of the Nigeria FELTP have been involved at the strategic, technical and operational levels in the response to the COVID-19 outbreak. At the country-level coordination, planning and monitoring, NFELTP graduates have been assigned key strategic positions. The positions occupied include:

1. National Team lead
3. Lead, Pre-Incident technical group
4. Deputy Incident Manager at the National Emergency Operations Center (EOC)
5. Laboratory Pillar lead
6. Head of operations at the EOC
7. Epidemiology Surveillance pillar lead
8. Risk Communication Pillar lead
9. Epidemiology and Surveillance Pillar lead at Lagos State EOC
10. Epidemiology and Surveillance Lead in Ogun State EOC

At the operational level, 105 Epidemiologists have been deployed to 17 states in this response to serve in different capacities - Point of Entry surveillance and monitoring of persons of interest, members of RRT supporting IPC, surveillance and contact tracing, risk communication, and coordination. Some serve as the RRT team leads. We have some graduates service as pillar leads in the National and Subnational EOCs, deputy incident managers in Subnational EOCs, members of Presidential Taskforce at the National level. Nine epidemiologists are supporting the National EOC with the State Operations Management. They help the different pillars quickly resolve challenges arising from the states in a quick and coordinated manner.

In addition, residents and graduates are actively involved in the operationalization of real-time electronic surveillance and outbreak management using SORMAS. Furthermore, residents are supporting primary screening using self-reporting forms and data capture using ODK as well as being involved in the production of algorithms and SOPs. Secondary screening is also being done through case investigation.

Other Areas AFENET has been involved include:

1. Logistics and operations
2. Risk communication
3. IT Support
NFELTP resident conducting contact tracing in Oyo State
NFELTP Residents participating in Training of LGA Social Mobilization Officers on Risk Communication and Community engagement on COVID-19 in Oyo State

Amuwo Odofin contact tracing team comprising NFELTP residents and DSNOs
A 2-day simulation exercise implemented by WAHO in collaboration with AFENET and AfricaCDC to strengthen regional preparedness and readiness capacities to COVID-19 pandemic in West Africa.

**Mozambique Field Epidemiology Training Program (FETP) COVID-19 response activities**

**Rapid Assessment at the main points of entry**

At the end February, 2020, seven graduates of the Mozambique FETP conducted an rapid assessment exercise at the main points of entry in five priority provinces in Mozambique to conduct rapid health assessment of the points of entry such airports and sea ports to evaluate their preparedness in regard to COVID-19 screening. The rapid Assessment activities included data quality, stability and flexibility of the surveillance systems.
Mozambique FETP graduates integrated with the PoE team discussion

Mozambique FETP graduate conducting rapid assessment at point of entry in Pemba province, Mozambique
COVID-19 Case Investigations

Mozambique FETP residents and graduates have been actively involved in case investigations in Maputo City. They have been supporting case investigations in the provinces where new cases have been identified.

Mozambique FETO residents supporting with Data entry in Maputo

Mozambique FETP Residents collecting information’s in the field
Contact tracing support by Mozambique FETP

On 22 March 2020, when Mozambique confirmed the first case of COVID-19, a preparedness and response plan was implemented by the Mozambique Ministry of Health (MISAU). Residents supported with development of forms and tools for contact tracing and writing Standard Operation Procedures (SOP).

Residents and graduates have been fully supporting with contact tracing from the time the initial cases was detected.

Active Surveillance activities

The National Institute of Health (NIH) implemented an active surveillance of COVID-19 plan with the integration of COVID-19 into the existing surveillance system. The surveillance plan was implemented at the main public and private health facilities.

Residents participated in developing a protocol to collect and analyze retrospective data on the acute respiratory disease at the main health facilities in Maputo Province. This was used to analyze the burden and epidemiological of the surveillance system during the last months.

Supporting MISAU activities
Residents were integrated to the Ministry of Health Working groups which include: Communication, Surveillance, and Point of Entry screening as per the Country Preparedness and Response Plan to COVID-19.

Residents and graduates are supporting the improvement of existing data collection forms and developed six news documents based on the WHO technical guidance on surveillance, case investigation and rapid response teams.

Mozambique FELTP is also supporting the Provincial Health Directorates to implement activities related with contact tracing and rumors investigations.

Uganda Public Health Fellowship Program FETP residents in COVID-19 Preparedness and Response

Following the declaration of COVID in Uganda, fellows of the Uganda Public Health Fellowship Program (PHFP) – a partnership between the Ministry of Health, Makerere University School of Public Health, and the US CDC, are supporting the National Rapid Response Team (NRRT) of the National Task Force (NTF). PHFP fellows have participated in various activities such as:

COVID-19 preparedness and response activities in which FETP residents have been involved in to date:

1. Drafting the COVID-19 national rapid response plan
2. Assessing readiness of Entebbe International Airport for COVID-19
3. Surveillance at Entebbe International Airport through screening of incoming travellers. High risk travellers were followed up. Through these efforts, the index case was identified.
4. Comprehensive Epidemiological/clinical investigation of all COVID-19 Cases in Uganda
5. Training District Health Teams in surveillance, laboratory, case management, Infection Prevention and Control
6. Contact listing, tracing and follow-up
7. Ensuring proper institutional or self-quarantine of contacts
8. Alert verification through phone calls and investigative field visits
9. Data management activities including development of a COVID-19 dashboard for Uganda and writing daily situation reports
10. Supporting Incident Management Team with processing incident actions
11. Training media and alert call centres on COVID-19
12. Screening of attendees during the enthronement of the 9th Arch Bishop of the Church of Uganda at St Paul’s Cathedral, Namirembe
13. Drafting of Guidelines for the management of pregnant, breastfeeding women, and infants in the context of Covid-19
14. Writing of several newspaper articles on COVID-19

14. **Ongoing epidemiological investigations by FETP residents to help guide control measures during the COVID-19 outbreak in Uganda**

<table>
<thead>
<tr>
<th>No.</th>
<th>Project</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Prospective evaluation of risk factors for illness among COVID-19 contact tracers (PPE use, age, sex, number of contacts followed, etc.)</td>
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<tr>
<td>2</td>
<td>COVID-19 in healthcare workers in Uganda</td>
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<tr>
<td>3</td>
<td>Case series COVID-19 clinical course and outcomes among foreigners and Ugandans</td>
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<td>4</td>
<td>Impact of malaria co-infection on COVID-19 outcomes</td>
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<td>5</td>
<td>Economic impact of shutdown on persons living in rural &amp; urban communities</td>
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<tr>
<td>6</td>
<td>KAP study about COVID-19 at various stages of the epidemic</td>
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<tr>
<td>7</td>
<td>Documenting the transmission of COVID among early cases in Uganda-19</td>
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<tr>
<td>8</td>
<td>Countrywide coordination of the COVID-19 response in Uganda &amp; lessons learned</td>
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<tr>
<td>9</td>
<td>Role of FETPs in COVID-19 outbreak response in Uganda</td>
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<tr>
<td>10</td>
<td>Case series of PLHIV who develop COVID</td>
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<tr>
<td>11</td>
<td>Epidemiological modeling of COVID-19 in Uganda</td>
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<tr>
<td>12</td>
<td>COVID-19 in refugee settings in Uganda</td>
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<tr>
<td>13</td>
<td>Effects of lockdown on air quality in Kampala &amp; lockdown adherence</td>
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<tr>
<td>14</td>
<td>Documentation of Health worker training and implementation: COVID-19</td>
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<tr>
<td>15</td>
<td>Effect of lockdown on health care service delivery using DHIS2 + combined with qualitative study</td>
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<tr>
<td>16</td>
<td>IPV during the shutdown using police records &amp; survey</td>
</tr>
<tr>
<td>17</td>
<td>Association between perception of the risk for COVID-19 and protective behavior (eg wearing a mask, buying sanitizer etc.)</td>
</tr>
<tr>
<td>18</td>
<td>Analyzing COVID epidemiological data from case database</td>
</tr>
<tr>
<td>19</td>
<td>Factors associated with adherence to protective measures</td>
</tr>
</tbody>
</table>

FETP Resident Maureen Nabatanzi (green shirt) conducting COVID-19 screening at Entebbe International Airport

FETP Graduate Kenneth Beinomugisha (standing) training quarantine personnel on COVID-19
FETP Resident Doreen Gonahasa (Holding Temperature gun) conducting temperature screening at Entebbe International Airport

The Uganda Minister of Health Jane Ruth Aceng interacting with FETP residents during her supervision visit at Entebbe International Airport
AFENET Epidemiologists’ Support to Uganda MoH COVID-19 Response

From 30 March to 5 April 2020, epidemiologists at the AFENET Secretariat continued support to the Uganda Ministry of Health COVID-19 response. Uganda has recorded 55 confirmed cases to date with no death or recovery as yet (Uganda MoH, 2020).

COVID-19 Training of Trainers at the MoH Emergency Operations Center (EOC)

A team of epidemiologists comprising of Dr. Ben Masiira, Dr Wilbrod Mwanjje, Dr. Christine Kihembo, Dr Kevin Mugenyi & Dr Godfrey Kayita attended the Covid19 training of trainers at the Public Health Emergency Operations Center (PHEOC). The training aimed at equipping epidemiologist with knowledge and skills for sub national level rapid response teams (RRTs) activation. The training was coordinated by Dr. Freda Loy Aceng, and supported by Dr. Julie Harris (CDC/ Public Health Fellowship Program Resident Advisor). Topics covered included: Introduction to COVID-19, surveillance, case detection and investigation.

Contact tracing in Kampala and Wakiso Districts

From 31 March – 2 April 2020, the AFENET team participated in daily surveillance team meetings for contact tracing, and followed contacts in Kampala and Wakiso District respectively:

- Teams followed a number of contacts:: Dr Kevin Mugenyi’s team followed up 5 contacts in Kyanja, Kampala District
- Dr Ben Masiira’s team compiled daily report and submitted to Contact Tracing Team Lead and Data Manager A total of 13 contacts were followed up.
- The KCCA team followed up 137 contacts across the 5 divisions of kampala.
- On 1 April 2020, the teams followed up 7 contacts in Nansana, Wakiso District, followed up 14 contacts in makindye division
- Compiled daily report and submitted to Contact Tracing Team Lead and Data Manager
- All the 23 (100%) contacts were followed up.

COVID-19 Alerts Management Summary Report

The Alert Management system desk at the Emergency Operation Center (EOC) is being led by Dr Wilbrod Mwanjje an Epidemiologist, AFENET. EOC rolled out an electronic call log system which is comprised of 6 call centers hosted by MTN and Uganda Telecom Limited. The call centers are operated by call agents on an 8 hourly schedule. The agents receive calls from the public and following an inbuilt SOP COVID-19 signals (alerts) are filtered through and forwarded to the center (EOC) for verification and further action including samples collection and evacuation of probable suspect cases to isolation facilities.

AFENET team of Event Based Surveillance at the EOC participated in trainings where they were oriented on the electronic system and how to filter signals. Site visits were also made to the 2 call centers at MTN and UTL where call center agents are hosted to orient them on case definitions and
logging queries/signals from the public. On a daily basis the teams analyzed the signals received and took actions to complete them. They also participated in the COVID19 surveillance training held at the MOH premises and attended 3 coordination meetings with case management teams at Mulago and Naguru hospitals.

Below is a summary of signals, alerts and laboratory samples collected over the week 30 March 2020 to 5 April 2020 by day.

<table>
<thead>
<tr>
<th>Date</th>
<th>Indicators</th>
<th>(April 01, 20)</th>
<th>(April 02, 20)</th>
<th>(03_04_20)</th>
<th>(04_04_20)</th>
<th>(05_04_20)</th>
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<tbody>
<tr>
<td></td>
<td>Incoming calls</td>
<td>2153</td>
<td>2085</td>
<td>1923</td>
<td>1903</td>
<td>1122</td>
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<tr>
<td></td>
<td>Signals not investigated at the end of previous day (A)</td>
<td>328</td>
<td>422</td>
<td>692</td>
<td>52</td>
<td>63</td>
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<tr>
<td></td>
<td>New Signals received (B)</td>
<td>197</td>
<td>371</td>
<td>377</td>
<td>220</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td>Total Signals (C=A+B)</td>
<td>525</td>
<td>793</td>
<td>1069</td>
<td>272</td>
<td>234</td>
</tr>
<tr>
<td></td>
<td>Alerts verified (D)</td>
<td>103</td>
<td>101</td>
<td>196</td>
<td>209</td>
<td>193</td>
</tr>
<tr>
<td></td>
<td>Pending Alerts (E=C-D)</td>
<td>422</td>
<td>692</td>
<td>873</td>
<td>63</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Alerts investigated with collection of Lab samples (F)</td>
<td>36</td>
<td>0</td>
<td>5</td>
<td>4</td>
<td>12</td>
</tr>
</tbody>
</table>

Below is a map showing the distribution of calls and alerts by district on Sunday April 05, 2020.
Red color shows the number of calls received on Sunday 05-April-2020 throughout the country. Blue circles represent the number of calls that merited follow-up. Seven (7) met the case definition for sample collection.

Daniel 0788576569
Dr. Kevin Mugenyi conducting contact tracing at household level in a village in Wakiso District, Saturday 4th April 2020, for symptomatic monitoring, follow up of compliance with quarantine requirements and contact support including responding to any concerns raised by contacts to case-patients
ACoDD members educating family members of one of the contacts, Gayaza, Wakiso District

ACoDD team conduct Contact tracing at Mulago Referral Hospital

AFENET Corps of Disease Detectives (ACoDD) team members: Patricia Eyu and Aggrey Byaruhanga were deployed to conduct contact tracing for COVID-19, on 18 March 2020.

The confirmed case was a truck driver who entered Uganda through Mutukula border from Tanzania. The case was one of 12 trailer drivers that were investigated, including taking off their samples, upon entry into Uganda on Thursday 17 April 2020. He was screened at the border and tested positive for COVID-19 and was admitted to Mulago National Referral Hospital upon confirmation. This ACoDD team was deployed to conduct a detailed interview with the case with the objective of ascertain information on all contacts to the case. The interviewing supported contact listing, contact identification and contact follow up among persons interacted with along the highway, stop over and fellow truck drivers. With the help of the surveillance focal person of Masaka District in Central Uganda, who first identified the case, the team was able to triangulate information on the history of travel of the case, disease progression and possible source(s) of exposure.

The ACoDD teams are being coordinated through the Emergency Operation Center (EOC). The EOC is at the forefront of receiving community alerts and tracking transport movements using GoData contact follow up application. ACoDD teams will be critical in following up all these contacts.
ACoDD team, conducting contact tracing at Mulago Hospital, Kampala, Uganda
ACoDD team, conducting contact tracing at Mulago Hospital, Kampala, Uganda