



Word from the Chief Executive



Dear Reader,

Hello and welcome to this edition of One Health Digest. We are delighted to share with you what our teams have been up to in

the last 3 months.

The COVID-19 pandemic has dominated global health debates and narratives for the last one year. It has presented health management challenges and opportunities in equal measure. It has altered life the way we know it, creating a surge in innovations and work adaptations.

Our country teams designed and implemented initiatives geared at addressing COVID-19 and its effects in their respective settings. These ranged from deployment of students to work alongside government teams to educate communities on COVID-19; what it is, its transmission, symptoms and prevention measures. Rwanda and Uganda report interesting outcome of such engagements.

COVID-19 crisis provided opportunity for AFROHUN showcase the utility for One Health as an approach to managing complex health challenges that COVID-19 is. Our team in DRC used this opportunity to engage previously trained One Health Workforce to beef up efforts and initiatives by authorities, specially at sub-national level. Three categories of trainees were engaged; 1) Territorial Administrators (previously trained in One Health leadership, and prevention, detection and response to disease outbreaks, 2) students previously trained at One Health Demonstration Site Field Attachments, 3) and the 6 MSc. students on the new programs that were developed under the USAID One Health Workforce project. Read about how the teams were prepared to take part in the response, where they worked and what they did and the outcomes of their engagements. Plus, the lessons these engagements provide us in terms of progression.

Adapting One Health Field-based training to COVID-19 setting: Case of Uganda's One Health Institute



Some of the faculty discussing the MUELE platform during one of the training sessions.

The Uganda One Health Institute is an annual intense program that engages both undergraduate and graduate students at participating universities. The Institute has three main components: 1) the theoretical

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MUST READ

[Kenya Provides Blueprint for virtual Global Health Case Competition in the AFROHUN Network](#)



Story on Pg. 6

[The COVID-19 Global Crisis provides DRC with perfect ground for practical One Health training](#)

This exciting activity aimed at supporting students in the Students One Health Innovations Clubs (SOHIC) to come up with innovative ideas of developing a national-based App...

Full story on Pg. 8

[Ethiopia takes bold step to Create a National Students One Health Innovations Club](#)

In Ethiopia, Students One Health Innovations Clubs (SOHICs), have for a long time, been associated with only two universities; Mekelle University and Jimma University.

Full story on Pg. 11

In Kenya, continuing undergraduate students were engaged in a gruelling process to develop a One Health App that can address some of the challenges frontline health workers face as they respond to health emergencies of a One Health nature. In this article, they take you through their journey so far and how it is shaping their thinking.

The COVID-19 pandemic brought in a new normal, adapting to working within movement and other restrictions. All across the AFROHUN network, country teams worked to innovate and re-organise to be able to work within the existing limitations. Experiences from Uganda, Kenya, Senegal and Tanzania provide useful lessons for future planning of similar initiatives.

From Ethiopia, read about our efforts to harness the benefits of social media to engage students at scale. Using Telegram, One Health student leaders in Ethiopia have mobilised over 3000 students in universities across the country to join the One Health movement.

At network level, a Webinar was organised for students to share their experiences as members of

COVID-19 National Responses and Taskforces and how these experiences are helping build One Health competences. We have a story on this webinar.

Thank you once again for taking off the time to read from us! We value your involvement in our work.

Professor William Bazeyo
AFROHUN Chief Executive

principles training, 2) the field attachment for the undergraduate students and, 2) the fellowship attachment for graduate students.

This year, sixty-two graduate and undergraduate students at Makerere University underwent the first ever online One Health Institute theoretical principles training. Three hundred students at Mbarara University of Science and Technology (MUST) also underwent the same training.

This is usually an in-person training undertaking, but due to the COVID-19 pandemic, this year, the arrangement changed and the training for theoretical principles was delivered virtually. The major training platform for Makerere University was the Makerere University E-Learning Platform (MUELE). The discussions, activities and assignments were all majorly conducted on this platform. However, the students were also able to communicate, discuss and engage with each other, the supervisors/mentors / trainers and the Uganda office using Zoom and WhatsApp platforms. This activity was very successful (the first cohort to undergo an online training on infectious Disease Management). This activity was made possible with support from faculty (COVAB, CHUSS, SPH) and team of facilitators from the Institute of Open and Distance Learning at Makerere University.

The process of moving delivery of this training from in-person model to virtual/online was highly consultative. It involved consultation from the AFROHUN Deans on which school will house the on-line course. During the deans' meeting, all deans agreed that the on-line course be housed under the School of Public Health. Space was then created under the School. The One Health Institute was created as a standalone course.

Following that, Deputy Principal, College of Education and External

Studies was consulted on possibility of having the course transformed on-line. The country office together with the TL and AL were taken through the different phases of converting a course to online format.

Zoom meetings were held with the course facilitators, where experiences concerning on-line teaching, challenges among others were shared.

Five weeks were dedicated to transforming the course to on-line format. Only one module (Health Policy) did not qualify for the transformation.

This process presented its own experiences to the team that worked on the transformation. "Transformation of a course from face-to-face to on-line is engaging. It calls for revision of course content, including updating teaching materials.

Faculty gained pedagogical skills on on-line teaching and facilitation which qualify them for a certificate required by the University for promotion. The approach has allowed the AFROHUN Uganda Country Office to support more students to be trained with over 365 benefiting from this approach. Our target is to train 500 students every year for the next four years", Angella Musewa, AFROHUN Uganda Country Manager.

Delivering this training successfully required putting in place some special arrangements. The team had to provide faculty and students with data bundles to see them through the training. This was a critical issue.

The team also realised that using email communication would delay processes. They therefore created WhatsApp groups on which they could communicate regularly, posted updates on the groups, asked participants to raise any challenges they encountered, among other issues. This worked out well.

All students and faculty had an orientation session with the E-learning administrator at Makerere University, during which they taken through the MUELE platform and then give four days to explore and get to understand the platform before enrolling into the course. This was very useful especially to those who were encountering online teaching and learning for the very first time.

At some point, adrenaline went up when progress was not as had been anticipated.

"The point when faculty were not submitting tasks. To ensure that a module was ready to go online, faculty had to complete 18 tasks. However, we came to a point when the faculty were exhausted and task submission ceased. Facilitators from CEES were asking us what the problem was. We had to send out repeated reminders, call faculty on phone to follow-up and work through the problems. The modules have previously been delivered through collaboration (2 faculty per module), however we noticed that some faculty left the work to their colleagues to finish while others didn't participate at all because of the payment that was deemed not commensurate to the amount of work", Ms. Musewa noted.

Some faculty had never facilitated on-line thus took a quite some time to adopt to the changes, some of them wanted to drop off.

This was a success story for the Uganda team. Students learned the hard way but had a great experience. They appreciated the fact that E-learning is possible, they had been hearing about it in other countries like USA and Europe.

Faculty mentioned that they wanted a refresher training in Year 2 of the One Health Workforce Next Generation project to enable them grasp what they missed during the first training.

One Health Institute Field Attachment

Fifty-seven undergraduate students were enrolled into this training program and received all the necessary logistics needed to solve a One Health challenge in their communities. Students were teamed up on-line, WhatsApp groups per group created among other approaches. Supervisors went out in the field and evaluated the students' projects (these are individual projects – students were working within their communities). Every day in the evening, meetings were held with the students and their supervisors to discuss the progress of the project and help those who had difficulties, including with identification of projects. Students up-load their reports every after three days on MUELE indicating project progress.

Students emerged from this training with a mixed bag of experiences. These were positive, negative, frightening in some cases as well as enriching in terms of exposure and the learning that comes with it.

“For the first time, I have gained interest in my local community’s wellbeing as I had to interact with them”, Joanita Daphine Mutunda.

“Working as a team but online was hard, I had a challenge expressing myself clearly and discussing things with my teammates as almost everyone an issue of their own to discuss”, Joan Nabaggala.



Community sensitization on preventive strategies for the control of COVID-19 in Wakiso district.

“The political situation in the country has most of the people looking at my endeavors as apolitical move and I was faced with some unfriendly reactions”, Henry Lugoloire.

“The abattoir leadership that I visited was at first not welcoming as they thought I was there to secretly inspect them from the Ministry of Health”, Joy Mirembe.

“Community entry on my own was very challenging and almost scary as I had to face and address all these people on my own without my team”, Brian Makoko.

“The response of my demo site community and their leadership in helping us attain our goals while still adhering to the COVID-19 SOPs was very encouraging; I’m grateful”, Anastacia Ssebowa.

“Language barrier, I faced some challenges expressing my self to the people in my demo site as I am not well conversant with the local language” Gisele Uwabo.



A student demonstrating the introduction of steaming as a counter measure to charcoal dust inhalation in Iganga district.

Students were also excited that they were exposed to and experienced distance learning. However, with field work, the COVID-19 SOPs made it impossible to meet big groups of people.

“To my experience the AFROHUN cohort of 2020 has achieved a great deal in a very challenging situation. Their ability to learn their theoretical modules online and hold the necessary discussions to pick the imparted information is quite encouraging. I have had an opportunity to interact with most of these students and to also see some of their interventions, what they have individually been able to achieve in their respective communities is very impressive. They also managed to utilize the multidisciplinary support of their colleagues using social media. So, I would say it was really a positive learning experience for them. They might have missed out on the great team working experience experienced by the previous years, but they did achieve a great deal more”, Grace Celia Nalaga-AFROHUN Field attachment Cohort 2017.



Students sensitizing health workers at Kitebi health centre communicating One Health and Antimicrobial Resistance in Kampala district.



A community water source (spring) in Kyebando, Kampala district

This model was an adaptation of the standard field attachment model where students are deployed to the field for close to a month, working with the communities to identify One Health challenges and design appropriate interventions. This adaptation challenged the very multidisciplinary nature of this training approach. *“Limited multidisciplinary teaming on ground- particularly during activity implementation”*, said **Angella Musewa**, the AFROHUN Uganda Country Manager. To minimise the negative effect of this on the students’ learning, they were teamed up in multidisciplinary groups for discussions before, during and after project implementation. This was conducted using various social media platforms as well as Zoom interactions.



Contaminated water sources pose a health risk to many residents in the communities where students conduct their attachments



Adherence to COVID-19 measures was critical during the field attachment as students engaged community members for in-depth understanding of community issues



Students vaccinating a cat against Rabies. Over 500 dogs and 130 cats were vaccinated in two days in commemoration of World Rabies Day at Kyengera HC 11, Wakiso district.



Multidisciplinary student teams partnering with community members to address some of the determinants of health in a Kampala city slum

One Health Institute Fellowship Attachment

Five (5) fellows, who completed the on-line theoretical training in infectious disease management were placed in institutions where they conducted their 30-day fellowship placements. The institutions include Amref, Infectious Diseases Institute at Makerere University College of Health Sciences, and FAO.

“We were given little time for the fellowship placement. Placement presents a lot of experiences to us to integrate into organizations. Theoretical principles training should be allocated separate time-lines from the placement”, Simeo Ochieng attached at Amref.

“AFROHUN Uganda has presented a great opportunity for us; My attachment at IDI has presented a great opportunity to learn. Ask me anything about the Regional Electronic Cargo and Truck Drivers tracking system (RECTDs)”, Martha Mwebaza Nalweyiso - IDI, Supporting the Emergency Operations Centre.

“Fellows are learning a lot; however, they have absorbed in COVID-19 activities more than ever. Organizations have offered great support to the fellows, which is a sign of successful collaboration”, noted one Faculty Supervisor.

“We were given little time for the

fellowship placement. Placement presents a lot of experiences to us to integrate into organizations. Theoretical principles training should be allocated separate time-lines from the placement”, said Simeo Ochieng who was attached at Amref.

“AFROHUN-Uganda has presented a great opportunity for us; my attachment at IDI has presented a great opportunity to learn “Ask me anything about the Regional Electronic Cargo and Truck Drivers tracking system (RECTDs)””- Martha Mwebaza Nalweyiso (attached at IDI, Supporting the Emergency Operations Centre)

“Our fellows have been engaged in all sections including coordination, organizing logistics but also engaged in various field activities such contact tracing, training health workers on case identification using the COVID-19 case definition, risk assessment exercise in Kyotera, and border Health in relation to COVID-19”, pointed out one faculty who was part of the supervision team.

The major challenge raised was the stipend given; some fellows reside far away from their host organizations. To observe SOPs, all public transport vehicles are carrying half capacity of their normal load and have doubled their

fares. Fellows mentioned that this cost them a lot as they had to commute daily. Also, the short duration for the fellowship attachment (2 months), which they felt was This very short for them to execute all their deliverables.

“Basing on this learning, if these conditions are still existing in Year 2, we plan to support fellows with transport but also revise the placement period from 2 months to three months if the budget allows”, Ms. Angella Musewa noted.

Fellows have been placed in organization that are at the forefront of preventing and controlling the spread of COVID-19. However, these organizations lacked enough human resource; thus, welcomed the fellows with wide arms. The fellows have benefited extensively from the placement.

“Our fellows have been engaged in all sections including coordination, organizing logistics but also engaged in various field activities such contact tracing, training health workers on case identification using the COVID-19 case definition, risk assessment exercise in Kyotera, and border Health in relation to COVID-19”



Ms. Martha Mwebaza (standing in the middle) verifying results of truck drivers at the COVID-19 test verification centre at Namanve Industrial Park, Mukono district



Martha seeking options from a truck driver regarding the Regional Electronic Cargo and Truck Drivers tracking system, at Namanve Industrial Park, Mukono District Uganda



Amref- Kyotera Sub Office team introducing One Health graduate fellow (first; right) to the local leadership of Kakuuto ahead of a health assessment exercise

Senegal takes on the ECHO Technology for COVID-19 Knowledge Transfer Sessions with faculty, students and health workers

The AFROHUN-Senegal team held their first ever ECHO session on COVID-19, targeting universities (faculty and students) as well as health workers.

The overall objective of the ECHO session for faculty and students was to build the capacity of faculty and students in higher education institutions to better contribute to the response to COVID-19 in Senegal. This session was officially opened and closed by Professor Bathily (Dean of Faculty of Sciences and Technics-UCAD-Cheick Anta Diop University, on behalf of the Rector).

The specific objectives were: - 1) To review the epidemiological situation of COVID-19 in Senegal; - 2) To inform and analyse the response process developed and implemented in Senegal; - 3) To update on the immunopathological aspects of COVID-19 and the vaccine prospects against the pandemic virus; - 4) To discuss how African herbal medicine fits into COVID-19; - 5) To highlight the importance of communication and community engagement during pandemics such as COVID-19.

Almost 80 persons attended this session. There was a lively discussion of issues and questions related to COVID -19 in Senegal.

The second ECHO session was held for health workers professionals and was opened by Dr Adjaratou Ndiaye, Permanent Secretary of National Platform

on Sanitary Security. The overall objective of this second webinar was to build the capacity of health professionals to better contribute to the response to COVID-19 in Senegal by sharing experiences on case management and lab analysis. The specific objectives were: - 1) To remind the infection prevention and control measures of COVID-19; 2) To share experiences in the care of COVID-19 patients in Senegal; 3) To discuss the role of the laboratory in the management of COVID-19 cases; 4) To provide the opportunity for discussions on the contribution of health workers in the management of COVID-19 cases in Senegal.

Prof Yaghouba KANE (faculty at EISMV) was the facilitator and USAID project SHOPS Plus, which supports the provision of quality products, services, and information by the private health sector, was involved in this activity. Almost 28 people attended this session and issues and concerns related to COVID -19 in Senegal were discussed.

Participants appreciated the space created through the ECHO platform that enabled them to access knowledge and information that they would have otherwise missed due to challenges posed by COVID-19 restrictions.

"I had a better understanding of the usefulness and proper use of barrier measures (a fundamental aspect in the fight against the spread of the virus).

Through the various presentations, I also had a better understanding of the national situation and the role that I can play as a public health actor", Arthur Diatta, Pharmacist.

"This session ECHO gave us confidence in the ways and system put in place to manage COVID in Senegal, as well as a reminder of the barrier measures", Abiezer Dingam Riguenedji.

The AFROHUN team that organised the ECHO sessions were having a go at this for the first time.

"I learned a lot in terms of preparing (elaboration of registration form, evaluation template, and interaction among people involved in ECHO session preparation) and implementing this activity. Based on experience of the first session, we adapted the second one with less experts to allow more exchange with participants", Sara Dieng AFROHUN Senegal Country Manager.

During the sessions for faculty, students and health workers, the team was also able to identify other areas that need similar engagement. *"AFROHUN Senegal will analyse potentials themes to be covered and develop strategies to launch another round of ECHO sessions", Sara elaborated.*

These ECHO sessions were organised with the technical support of the Project ECHO team within the One Health Workforce Next Generation project consortium.

Kenya Provides Blueprint for virtual Global Health Case Competition in the AFROHUN Network

Case competitions are extracurricular events where participating students are challenged to come up with a solution to a business or any other field-related problem within a limited time frame.

The competition offers students the opportunity to apply the concepts they have learned in class and theory and showcase their knowledge, critical thinking skills, leadership, and presentation abilities while competing to win a prize; cash or otherwise. The case competition is the students' chance to practice case-solving and be challenged by a panel of industry-leading

professionals, which is an experience rarely gained while studying.

Global Health Case Competitions are a high-level approach to training the One Health workforce. Done right, the competitions heighten students' understanding of issues of national, regional and/or global interest and concern. They bring together multidisciplinary student groups to propose innovative ideas and solutions to a provided case on a complex health challenge. The groups compete against each other for the best, most practical and most innovative solutions to the case. Faculty have been

responsible for developing the cases and mentoring students throughout the process.

This is a unique opportunity for undergraduate (and graduate) students from multiple schools and disciplines to come together to develop innovative solutions for 21st century global health issues. Students gain simulated professional experience while building a network of interdisciplinary students that will soon become their colleagues.

The Kenya Global Health case Competition was initially planned to be undertaken as a physical activity. However, COVID-19 threw a curve ball, and the team shifted

the activity online. This was the first time the network was testing this mode of delivery of the activity.

A case prompt was sent through University communication channels and social media forums (specifically WhatsApp), for interested students to register their participation and send in their motivation letters. The response to this was good as we also received interest from institutions that are not yet members of AFROHUN.

The preliminary round saw participation from six (6) teams with a total of thirty-five (35) students, representing five (5) universities and twelve

(12) disciplines including: medicine & surgery; dental surgery; environmental health; pharmacy; veterinary medicine; animal health & production; nursing; economics; environmental studies; community development; education with special needs education; and environmental management

The 2020 AFROHUN Kenya preliminary case competition focused on COVID-19 in a connected world: A One Health Approach to Pandemic Response in East Africa.

Participants were given a budget and challenged to develop strategies to address key actions including:

- 1) Controlling the spread of disease to susceptible persons and animals
- 2) Mitigating loss of livelihoods and effects on

mental health

- 3) Determining effective strategies to foster behaviour change for reducing risk and minimizing public panic in the coming weeks
- 4) Improving preparedness to prevent zoonotic disease spill over events in the future

Teams that made it to the final round were given a case progression and were challenged to design and budget a national awareness and health promotion campaign to support an upcoming COVID vaccine trial. Specifically, the teams were challenged to address the following key issues:

- i) building public trust among diverse groups that would allow for acceptance of the vaccination campaign

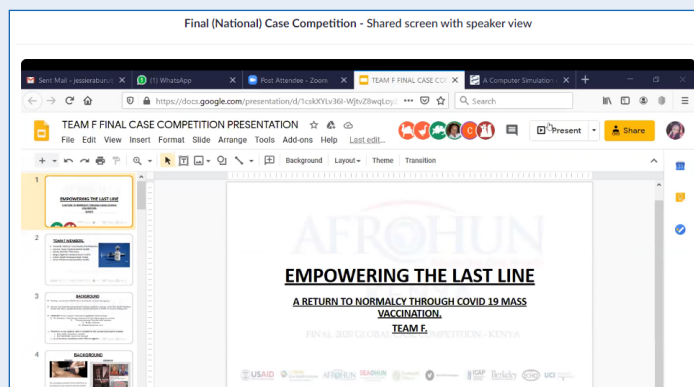
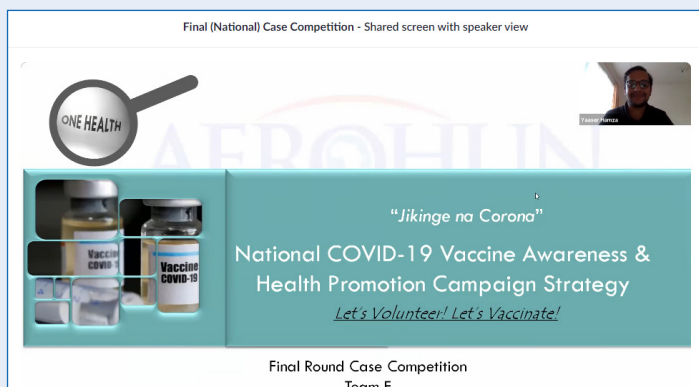
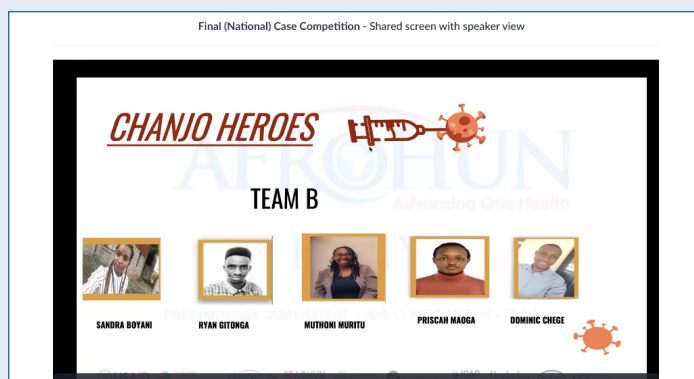
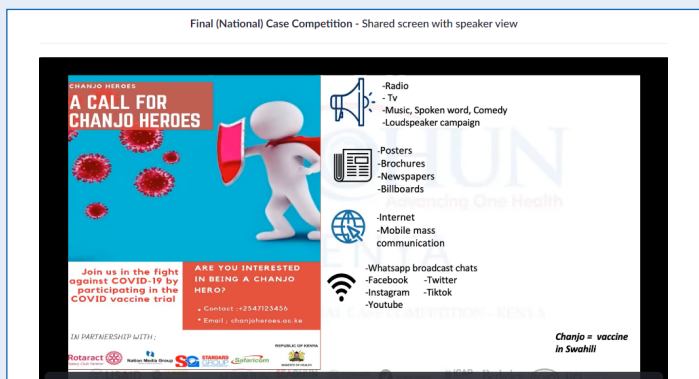
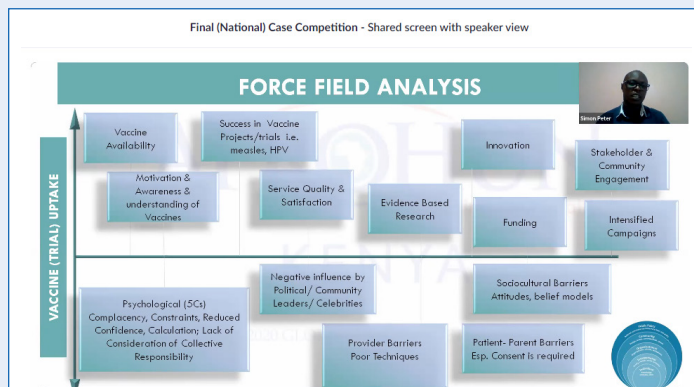
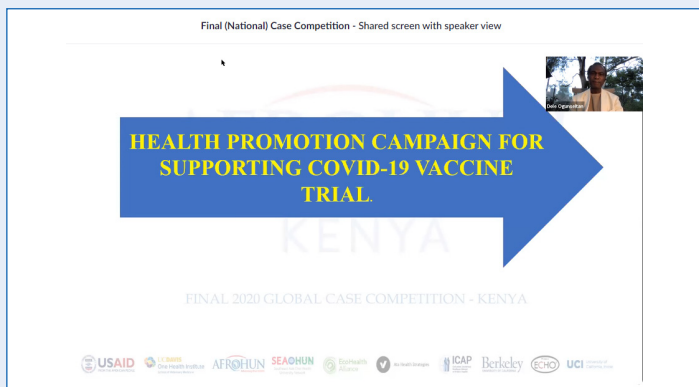
- ii) developing tailored communication strategies for different community leaders
- iii) promoting and encouraging the continued participation of parents in routine childhood vaccination efforts.

One key aspect of the Global Health case Competition is mentorship that student teams receive as they work their way through the case. Mentors were selected from the faculty/lecturers that were already supporting the different One Health Workforce Next Generation project activities.

The judges were drawn from a team from the One Health Workforce Next Generation project Global Consortium, well-experienced in the One Health field and the case at hand. Other judges were;

- 1) Mr. Timothy Wakabi - AFROHUN Secretariat
- 2) Collins Jaguga - MTaPS
- 3) Yusuf Ibrahim - CORE Group
- 4) Dr. Mark Nanyingi - FAO
- 5) Prof. Peter Wagacha - UoN School of Computing and Informatics
- 6) Henry Musembi - IFRC
- 7) Dr. Amadiva Kibisu - Public Health Emergency Operations Centre, Ministry of Health

In twenty minutes, the competing teams pitched their ideas and solutions to the case. Assessment was done online; using Qualtrics, an online platform. This facilitated real-time uploading of the judges' scores and fast-tracked the announcement of the winning team within the same session, saving on time.



The COVID-19 Global Crisis provides DRC with perfect ground for practical One Health training

DRC's first case of COVID-19 was imported (much like many other African countries) from Europe in early March 2020, landing in Kinshasa, the centre of vibrant economic, political, and social activity in DRC. At this point the country was still battling to control other epidemics, including ones of Ebola, measles and cholera.

Coinciding with the start of the USAID One Health Workforce Next Generation project in the AFROHUN, the pandemic provided opportunity for AFROHUN in DRC to test the practical

skills of personnel trained in One Health previously, using a real-life disease outbreak. In this article we share experiences and outcomes from 3 different activities: 1) supporting Msc. Students to gain practical skills and knowledge in surveillance, case investigation and contact training; 2) support previously trained undergraduate students to engage in risk communication at health zone level; 3) support Territorial Administrators to strengthen their risk communication skills using the COVID-19 pandemic.

Deploying previously trained pre-service workforce to support COVID-19 Risk Communication and Community Engagement

Since 2010, AFROHUN DRC has trained approximately 1000 pre-service students in disease detection, prevention, and response. In July and August 2020, AFROHUN-DRC supported district level risk communication and community engagement using students trained during One Health Demonstration Site Field Attachments.

After one day of training on COVID-19 Risk Communication and Community Engagement (RCCE) by a member of the Communications Commission of the DRC COVID-19 National Response, 60 students (30 from Lubumbashi and 30 from Kinshasa) from veterinary medicine, human medicine, public health, Pharmacy, Environmental sciences and nursing worked in 9 health zones (3 in Kinshasa and 6 in Lubumbashi) visited 1640 households (754 in Kinshasa and 886 in Lubumbashi). For each health zone a team of one student and one Community Health Worker was created and tasked to visit a selected area in the health zone. They spent time talking to community members, answering their questions and concerns about COVID-19 in the country.



Professor Prince Diangs Kimpanga – a member of the Communications Commission- delivering one of the sessions during the one-day training

The DRC health system is divided in 526 health zones (health districts) each health district coordinating response activities according to its jurisdiction. This includes ensuring that prevention measures are followed and that surveillance activities are conducted at both the community and the hospital level.

For this activity, we selected both urban and rural health zones were selected for this activity. In the community, students talked about COVID-19 symptoms, transmission means and prevention measures to avoid the spread of the disease.



In the field, students engaged various members of the community around issues related to COVID-19 symptoms, prevention measures and transmission.

“We discussed with community members in each visited household about COVID-19 symptoms and prevention measures. They were happy to see us coming to visit them and asked questions. This dialogue was really appreciated” George Kabongo

“So much fake news are circulating in the community according to COVID-19, it was a good opportunity for us to share with them the correct information on the disease and the prevention measures”.
Nathan Kutshi

During their engagement with the

communities, students observed that community members were not adhering to the COVID-19 prevention measures, while others were not even accepting the existence of the disease, thinking that it's politically created so that politicians can receive money from donors.



Students noted that community members were not adhering to COVID-19 prevention measures which was a significant challenge to curbing the spread of the disease

The resistance by community members to follow COVID-19 measures is a very significant challenge to managing its spread. It also indicates that communities have not been engaged since the beginning in the response.

Engaging in this activity helped build competencies in multidisciplinary collaboration, risk communication and community engagement and epidemiology of COVID-19.

Territorial Administrators Supported to strengthen leadership for COVID-19 Response

Like many countries in the region, DRC has had challenges with risk communication for the COVID-19 response. AFROHUN-DRC therefore designed activities to strengthen risk communication and community mobilization skills of Territory administrators and their staff in collaboration with the Ministry of Interior and Security and the Ministry of Health. This activity was conducted in consultation and in collaboration with the Communication Commission of the COVID-19 National Response Taskforce.

During the Emerging Pandemic Threats 2 (EPT-2)

funding cycle to One Health Central and Eastern Africa (then), territory heads in Kongo Central and Kwango provinces and their staff were trained in One Health leadership and prevention, detection, and response to disease outbreaks.

The COVID-19 pandemic presented an opportunity to learn from them on how they are applying the knowledge they acquired, during the training under EPT 2, in the management of COVID-19 at the territory level. AFROHUN DRC organized two workshops of two days in each territory, for the administrators and their territory medical

officers to learn from them on the management of the pandemic. Facilitators used this opportunity to emphasize the importance of risk communication and community engagement.

The content of the two-day workshop was based on risk assessment, contingency and response to health emergencies, risk communication and community engagement and Territory Administrators' responsibility in the preparedness and response to health emergencies.

This training was building onto the previous training they have received before, during

the One Health Workforce project. During EPT 2, the same modules were taught except risk communication and community engagement. At that time, there were no outbreaks in these two provinces. However, currently there is a country-wide challenge of COVID-19, which is a good opportunity to learn from them on how they are applying the knowledge to manage the pandemic and share experiences from different territories. This guided the facilitators on how to introduce the Risk Communication and Community Engagement (RCCE) module to the Territory Administrators.

As part of the training, the Territory Administrators visited schools, markets, public places to see how preventive measures were being applied and adhered to by the population.

In their presentations after these visits, the Territory Administrators noticed that for the community there is no COVID-19 and no need to apply prevention measures such as wearing of face masks. The facilitators then used these results to train the Territory Administrators in how to involve their communities in the response and to take active leadership in the response.

The training brought together Territory Administrators who were originally working in their geographical silos on their own.

“We have been managing this pandemic but through this training I learned new things from my colleagues and

strengthened my understanding on communication not only media based but also using community leaders and community health workers can improve community engagement” Madame Niongo Marie-Josée, Boma

“Leadership is a key to the success of the response; we have to ensure that our one health team are in place and strongly engaged not only from office but in the field. This helps to hear from the community and to respond to fake news.” Dr José Mavuna Nketo, Medical officer, Kisantu

“During the field visit, we have observed the lack of adherence to the COVID-19 prevention measures and regulations most of the people we have seen are not even wearing masks some of them have masks in their bags or pockets they wear them once they see the police. This really bad.” Anicet Mbemba, T.A of Luozi, Kongo Central.



The community visit component of the training enabled the Territory Administrators to assess community adherence to and effectiveness of the COVID-19 prevention measures

The Ministry of the Interior was engaged for the training. Invitations for training were sent to territory administrators by the Ministry. The Deputy Inspector of Territory Administrators (photo below on the right) was part of the trip to Kongo Central and presented a module on rules and missions of territory administrators.



MSc. Students supported to undertake internships under the Ministry of Health COVID-19 outbreak response

Six students from the University of Lubumbashi School of Veterinary Medicine in DRC have been pursuing their masters' degree programs in Wildlife Veterinary Medicine, Ecotourism, and One Health Applied Epidemiology with financial support from USAID One Health Workforce project (under EPT 2). Students are required to participate in at least two outbreak response efforts during their training. The masters' students participated

in the ongoing Ebola outbreak in DRC in 2019. Assistance in the COVID-19 outbreak response offered students an opportunity to fulfill their academic requirements as well as to attain the necessary competencies.

The 6 MSc students (from Veterinary Medicine, Public Health, and Human Medicine) had their internship at provincial level; 2 in Lubumbashi, 3 in Kinshasa and

1 in Goma. Those specializing in animal health were also involved in Surveillance activities in domestic animals. They worked under the mentorship of the Surveillance Commission, where they were involved in various activities, including contact tracing, surveillance, data collection and analysis, and community engagement. They also participated in multiple trainings and capacity building activities related to COVID-19

response, including a biosafety training organized by the Ministry of Health. Students also received mentorship from members of the Province and Health Zone level outbreak response taskforces and their academic supervisors. This mentorship also included support to understanding the use of and adherence to the recommended safety measures.

“This internship helped us to

see how the response to a pandemic such as COVID-19 can bring together both human and animal health. The National Veterinary Lab has been conducting COVID-19 testing to support response activities”, Dr Chancard Lufiaulusu.

“This internship on the wildlife side allowed us to learn and bring our expertise to the Kinshasa zoo on the implementation of barrier measures, the taking of samples from different animals to find out their current state in relation to COVID-19.” Dr Paulin Mungongo.

As epidemiologists and wildlife veterinary professionals, this training gave the students good insight into key aspects of early detection and response to infectious disease outbreaks using the One Health approach. This is a good lesson in improving disease surveillance at the human-animal interface.

This was an exciting experience to the students, overall.

“Going to the field in One Health team for case investigation or contact tracing was the most exciting moment during

this training. We took advantage of this internship to participate in trainings provided by partners such as WHO for the responders, like on contact tracing, outbreak investigation and use of digital tools for surveillance of COVID-19”, noted one of the students.

Students noted that contact tracing is quite challenging when conducted in remote areas where access is very difficult by car. They had to take motorcycles to reach those areas to collect information on the contacts.

Ethiopia takes bold step to Create a National Students One Health Innovations Club

In Ethiopia, Students One Health Innovations Clubs (SOHICs), have for a long time, been associated with only two universities; Mekelle University and Jimma University. However, this seems to be changing. Coinciding with the commencement of the One Health Workforce Next Generation project and a new wave of thinking within the Africa One Health University Network (AFROHUN), AFROHUN Ethiopia has embarked on an initiative to bring many more students in the country into the student club fold. To this end a Telegram platform has been created, opening opportunities, for as many students in universities in Ethiopian as possible, to share knowledge about One Health in broader ways.

The Telegram group (E-SOHIC) is the first in Ethiopia to bring the whole Ethiopia university student population in one space to learn about One Health, to learn about and discuss global health-related issues. Most importantly, this is a good initiative for different disciplines to share and exchange innovative ideas on different national and global agendas.

The objectives of the Telegram group are:

- To bring different university students from different disciplines in one space and engage them around the One Health approach in Ethiopia.
- To disseminate the One

Health principles and concepts in every corner of the country through the students' discussions on the platform.

- To create a generation of young multidisciplinary professionals with passion, strong work ethic and eager to work in collaboration to address the world's most pressing health challenges

The group was created with the leadership of former Students One Health Innovations Club (SOHIC) leaders in Jimma and Mekelle Universities in collaboration with AFROHUN-Ethiopia country office. The overall activities of the group are strictly managed by the club leadership chaired by Yimesgen Tarekegn. Other members of the leadership are; Vice Chair, Salhadin Ali and the AFROHUN-Ethiopia Country Manager, Dr. Berihu Gerbrekidan.

The Telegram group has students from a wide range of disciplines including; veterinary medicine, human medicine, environmental health, biology, ecology, plant science, economics, law, public health, nursing, midwifery, laboratory technology (veterinary and human medicine) and sociology, among others.

The Ethiopia Telegram group is a good example for other countries on how they can bring multidisciplinary student groups together in cost-effective ways. The students use the platform to accomplish a lot of things, including

sharing knowledge, planning, designing, and implementing activities. In terms of gender, the Telegram group is open to all genders and discussions are made to appeal to everyone.

Group members engage in different types of scheduled discussion on various topics of importance to them and in the country, according to prevailing circumstances. Topics and themes so far focused on include:

- What is One Health approach and principles?
- Prioritized zoonotic disease in Ethiopia
- Antimicrobial drug resistance in national and global context
- Common environmental health issues in Ethiopia
- Food safety and security
- Community outreach activities
- The Ethiopia National One Health Strategic Plan
- The current COVID-19 pandemic and similar events in the past
- Potential AFROHUN-Ethiopia SOHIC activities

The group is also open to unscheduled discussions and members are encouraged to bring up issues of interest any time they encounter them.

Many students have found this group useful to their learning, connecting with others, gaining One Health knowledge, among others.

“The Ethiopian Students’ One Health Innovations Club

Telegram group is the only one in Ethiopia. It engages around about what the real global health issues are and the One Health approach in details. I find it a crucial ground to bring students like me from different universities to have a solid understanding of how collaboration could be the only solution for current One Health problems”, Yimesgen Tarekegn - DVM graduate, Jimma University.

“The Telegram group gave the chance to all of my friends who really want to work and know what One Health is; but before the Telegram group there was no platform to bring us together to know each other, to share ideas on human, animal and environmental health issues. I think the group should be encouraged and supported to make the One Health approach more known and strengthen the students’ knowledge, but most importantly learn how to work in collaboration with other disciplines”, Salhadin Ali - 5th year DVM student, Mekele University.

“I joined the Ethiopian Students’ One Health Innovations Club Telegram group this year. In the group, I have learnt that One Health is very important to our planet. Before this Telegram group, I never knew anything about One Health, but once I joined the group, I realized that the information shared on the group was important to our professional practice. But also, the importance of collaborating

with other respective fields from vet, environment, and others”, Meron Bayababel - 5th year MD student, Jimma University.

“The Ethiopian Students’ One Health Innovations Club is giving us opportunity to know what is really One Health; the importance of bringing professions from different disciplines and I’m so much encouraged by this”, Takuma Fetene - 6th year, DVM student, Mekele University.

“At Haromaya University, there

is no One Health club. The Telegram group gave me a chance to know about One Health and exposes me to a lot of global One Health issues. I love the discussions from the different students across the country”, Nebiyat Zeynu - 5th year, DVM at Haromaya University.

“Before the Ethiopian Students’ One Health Innovations Club Telegram group, I only had a few hints about One Health, that was not much knowledge. Being on the Telegram group has

given me a chance to know what is really One Health for my profession; environmental health and now I actively participate in the group’s daily activities from national to global One Health issues”, Sebelewongel Asres - 4th year Environmental Health student, Jimma University.

“I am very much interested to be a member of the Ethiopian Students’ One Health Innovations Telegram group from Hawassa University. This is the first time to have

such a group. The Telegram group has enabled me get knowledge about One Health. I do have an interest to work on this knowledge”. Aduugna Getahun - 6th year MD at Hawassa University

“I am glad to share fruitful stories about the Ethiopian Students’ One Health Innovations Telegram group has empowered us to deal with One Health issues across the country”. Bethlehem Tesfa - 5th year, DVM from Addis Ababa University

AFROHUN supports Capacity Strengthening of Non-Clinical Frontline Health Workers for COVID-19 Response in Kenya

The training aimed at strengthening the capacity of the participants to respond to COVID-19 at the community level. This was critical as the PHOs are frontline health workers at the community and as such, it was deemed important to engage in building their capacity and update the information they could be having, especially in light of the changing dynamics and information around COVID-19.

The activity targeted Environmental Health Officers/ Public Health Officers, Community Health Workers and Health Promotion Officers. The training ended up eventually having the Public Health Officers as the participants.

AFROHUN engaged with the Public Health Officers and Technicians Council to identify the training areas.

The selection of those to attend followed a call that was made to all forty-seven (47) County Public Health Officers (CPHOs) to nominate participants for the training. From these, thirty-eight (38) counties responded with a total of 114 nominees out of which 73 were selected.

Public Health Officers are involved as frontline health workers in the response to COVID-19 and are engaged in surveillance, contact

tracing, WASH activities, Risk Communication and Community Engagement (and especially for health promotion and education), IPC at the health facilities and community levels, Occupational Health and Safety, Waste Management, Promoting safe handling and burial of the COVID-19 suspects and patients, among others

The training content included:

- i) COVID-19 overview - Epidemiology, Global & Local Situation & National Response; Surveillance and response; Contact tracing; Stakeholder roles in rapid response teams
- ii) WASH - Environmental Sanitation in health facilities & the community; IPC & Standard precautions
- iii) Health Worker Safety – Occupational Health and Safety
- iv) RCCE – Risk Communication and Community Engagement; Screening of Cases

Training materials used were those developed and approved by the government. This was to ensure consistency of the message and expectations. Trainees were able to gain knowledge and skills in risk communication, surveillance, contact tracing

AFROHUN-Kenya observed that there were other partners who were engaged in COVID-19 capacity building. This was observed from various forums including the GHSA partners meeting. Subsequently, and borrowing on the USAID call to harness existing synergies, AFROHUN-Kenya engaged with MTaPS who had already trained ToTs on COVID-19. This is the list that was initially used. Upon discussion with the PHOTC and the indication of the training need, it was observed that it would be important to source for additional facilitators. AFROHUN-Kenya contacted the ZDU (which is more like the One Health platform in Kenya) who proposed a facilitator from the Public Health Emergency Operations Centre (actively involved in the daily COVID-19 response). AFROHUN-Kenya reached out to a partner well known locally and globally for engagement in disaster response, namely the IFRC.

The training was conducted virtually in two-hour sessions over a period of three days.

The following were some of the sentiments from the participants during and after the training:

“It is clearly coming out that a new algorithm for enabling HCWs to suspect COVID-19 should be generated. Initially

we had just about 3-4 signs & symptoms and this might have left out very many infected persons who did not present with the first signs & symptoms missing out on investigations”

“We as Public Health advocates must not relent on sustained Covid-19 Public Health Risk Communication. The only way to check the possibility of second wave of community infections - local outbreaks”.

Some of the participants felt that the training was key and should have been given earlier, stating “this area is very key and should have been captured in the trainings done when the pandemic had just emerged”, in reference to the first session of the training on COVID-19 overview (as indicated earlier).

“The training was a hallmark achievement. To the conveners, our good regards are duly registered”.

“The information must be cascaded to all health workers”.

This training opened opportunities for enhanced collaborations with government professional regulatory and licensing bodies, which paves the way for discussion of sustainability strategies including promoting CPD courses.

Kenya Moves toward Formation of National Students One Health Innovations Club

The definition of One Health as given by the American Veterinary Medical Association (2008) was a reference point in the formation of the national SOHICs, specifically, the need to have the different institutional SOHICs working collaboratively at the local, national and global stage. This would enhance synergy among the schools and promote the harnessing of creative efforts of the different schools, to the benefit of all.

With the advent of COVID-19, it was not possible to hold the face to face meeting as had initially been planned. Subsequently, the activity was converted to be held virtually/online, with each member participating from wherever they were.

The AFROHUN Country Office planned for the meeting and sent out invitations, together with the agenda, to all executive members of the SOHICs in the participating schools, the faculty mentors and the deans. The first meeting was then held officiated by the deans Faculty of Veterinary Medicine, University of Nairobi and the School of Public Health at Moi University.

The SOHIC team leaders were requested to make presentations and inputs on what they felt regarding the National

SOHIC. Similarly, the faculty mentors made their submissions regarding the National SOHIC platform.

The consensus from the first meeting was that it would be important to establish the National SOHIC. Subsequently, a draft constitution was developed, involving the students and a second meeting held to deliberate on the same for ratification.

The formation of the National SOHICs will:

- i) Ensure that available information and opportunities trickle to individual SOHICs and their members uniformly and equitably.
- ii) Provide a better platform for engagement of partners in student activities.
- iii) Facilitate better opportunities for resource mobilization including through grants, fundraising events, etc.
- iv) Ensure that One Health activities continue running throughout the year, thereby speaking into sustainability and impact.
- v) Foster better interdisciplinary and wider inter-institutional collaborations among the participating institutions.

- vi) More active participation from the students.

Some of the concerns that came to the fore during this process include;

- i) disruption of the individual institutional SOHIC identities.
- ii) reduction in individual institutional drive and dependence on direction from the national SOHIC platform.
- iii) support for the students to participate in the One Health events.

Nevertheless, the need to fast-track the implementation of the National level SOHIC came out as the key issue.

It was proposed that the Patron/Sponsor of the National level SOHIC will be the deans of the AFROHUN participating institutions, held on a rotational basis amongst the different institutions.

The National level SOHIC would be guided by a constitution agreed and approved by the deans and the country office. A calendar of events would be developed to guide implementation of activities.

Approval of the National SOHIC constitution, development of a calendar of events and implementation are the next steps of action.

Students in Kenya Engage in Developing an Innovative One Health App to Support frontline Health workers

This exciting activity aimed at supporting students in the Students One Health Innovations Clubs (SOHIC) to come up with innovative ideas of developing a national-based App that can be used by frontline community workers in addressing One Health problems to disease outbreak prevention, detection and response.

Participation in the hackathon followed a rigorous selection process; a call deadline, 13 teams with a total of 85 students had applied. After review of the proposals, 9 teams of 62 students were accepted. The teams were composed of students from various disciplines: telecommunications engineering, industrial engineering, electrical engineering, textile engineering, chemical engineering, Medicine, Veterinary medicine, computer science, environmental health, dentistry, nursing, ICT, pharmacy, medical laboratory

science, applied bioengineering, medical psychology and community health nursing education and research. These came from University of Nairobi, Moi University, Egerton University, Jomo Kenyatta University of Agriculture and Technology (JKUAT), Mount Kenya University, University of Eldoret, Kenya Medical Training College (KMTTC) and Africa Nazarene University. *"It was a pleasure to note that we attracted students from universities where we currently have no programs as AFROHUN. This indicates that our reach is actually beyond the confines of the universities where we are currently active"*, said Sam Wanjohi, AFROHUN – Kenya Country Manager. 4

This would turn out to be the first virtual hackathon conducted by the Makerspace STP and the first ever conducted by the AFROHUN Network.

The process took six (6) weeks to implement, though there were approximately two to three weeks of planning that were undertaken.

AFROHUN offered support for internet connectivity for the students. This was highly appreciated by the participants. They even made a poem for the Country Administrator for the timely disbursement of internet bundles.

Implementing this activity offered much to the AFROHUN - Kenya team to learn in many areas, including adaptive management and partnership management. *"The activity was initially planned to be conducted physically, however, with the advent of COVID-19, that had to be changed to online/virtual event, which would be run as a hackathon. In one of the deans' monthly meetings, the deans proposed working with a*

partner who is experienced in facilitating activities involving software and hardware design. Makerspace Science and Technology Park was identified, contact was made, and planning meetings initiated. This was the first time we were working in this kind of partnership”, Dr. Wanjohi adds.

The students were taken through several strategic workshops including:

i) Introductory workshop

– where presentations on innovations and solving difficult problems, among others were made.

ii) Design thinking

– where presentations on human-centred design among others were made and participants invited to start thinking about the frontline workers they would wish to interact with as they designed the apps.

iii) Problem definition

– where the participants outlined the problem they would wish to solve and made presentations to the facilitators on the same. This was done in two workshops

iv) Ideation

– where the participants started developing ideas to the apps, after presentations on how to go about it, including on the problem statement.

v) Prototyping

– presentations on prototyping among others were done. This process of developing prototypes took two weeks.

The students utilized various collaborative platforms including Google Docs, Slack and Miro to work on the prototypes and achieve their objectives. Discussions were also held via WhatsApp and Zoom, with the mentors and facilitators guiding the students along. Along the way, as the going got tough for many, some participants and teams ended up dropping off.

Only 8 teams made it to the final.

The teams were able to make friends and even make jokes for instance there was a joke about one team member who was requested to meet at zoom and he said he couldn't as he was in Busia, an apparent reference to him not knowing what zoom was and how to use it.

Teams had long meetings to ensure the outputs were achieved and the participants made fun of those who would fall asleep through the night long meetings. The participants are hopeful that the solutions developed would have impact in the country and beyond. *“We came in with our own proposal only to meet the team of facilitators and be told redraft the proposal we had. This was discouraging at first, but the ends justified the means. After going through the sessions, especially human centred design, which was a totally new lesson and experience, it was understandable and appreciated why we needed to redraft our initial proposal”, one noted.*

Some teams experienced various challenges including critical team members dropping off without warning e.g. a team had a computer programmer drop off at the beginning leaving the team weak, and prone to failure. These challenges sharpened the One Health competencies for the participants including teamwork and team building and One Health leadership among others.

Teams sought motivation and encouragement from all angles. One of the teams resonated well with a song by the late Michael Jackson *“Make it a better Place”* and especially the video which has a dolphin. This reminded the team to navigate through the challenges. *“We had slack channels but where the drama went down was in the WhatsApp forums where we*

formed two groups, one with the coordinators and the other without, so that we can fight and be ourselves and agree”, said one of the students.

Despite not having met some of the team members, the entire process ensured that participants were able to make friends in the end. *“It was a joy and really enjoyable working in the teams and especially with people we've never met before and from different faculties”, one student pointed out.*

Teams had sleepless nights working through the challenge and at one point in time, some felt like they would give up. *“Some of the sessions were long but the commitment from team members was palpable”, said one of the participants.*

The teams had to learn to be comfortable with each other considering they were forming from the unknown. *“I had never had of One Health until I joined this activity, as our University (JKUAT) does not have a SOHIC or One Health set up”.*

For some teams, it was challenging at the beginning, but they kept going. Some members were saying they didn't know it would be that difficult and they didn't sign up to such an activity. *“The process was like taking an infant into the deep end”.* The participants were nonetheless grateful that they made it through.

The faculty mentors indicated that the process was a good experience inasmuch as at first it appeared that it would not be possible to undertake it online. The faculty mentors faced a lot of challenges including sieving through “1001” WhatsApp messages first thing in the morning after the teams had conversed all through the night, to get a feel of how the process was going and to guide the teams through.

For the facilitators, the potential in the students made them push them more to

achieve the expected outputs. The facilitators had to play the role of ensuring the teams kept moving and were grateful for the students' resilience, diligence, persistence, and endurance. At first, they didn't think it would work especially considering the teams had never met and would be working together virtually. Amazingly, they had rejected another offer to carry out a similar activity online with another entity. It was a learning process and for them they looked at it as probably the future of innovation teams.

The facilitators had to innovate to run a hackathon with a One Health approach twist in it; something they had never done before. They were also learning as they moved along. This offered them an opportunity to see how the future would look like, including innovatively working in multidisciplinary teams. They were ever grateful to the students for trusting them with the process.

Pre-judging of the prototypes was done in a closed audience workshop, where participants presented their ideas and prototypes to the judges derived from the AFROHUN Secretariat, MTaPS, IFRC, CORE Group, Child Development Foundation (UK), FAO, and the PI for the Health IT project that presently operates and supports DHIS2 on behalf of MOH and the health ministries of the counties who is also a Professor in Computing and Informatics.

The eventual winners were announced in a close out workshop.

The winning teams developed apps that would address the following challenges:

- 1) Increased access to healthcare** – facilitating community health care providers work efficiently while simultaneously increasing access to health care.
- 2) Coordinated response**

to outbreaks – facilitating rapid response teams during events.

3) **Data sharing** – providing a solution that would enable data sharing across identified sectors which would facilitate further

action.

These apps have potential and promise to positively impact the country's health sector and beyond.

The winning teams are now starting a mentorship program sponsored by the Child

Development Foundation (UK), which will also serve to equip the students with skills for the future as they also refine the prototypes. The Makerspace STP also offered space for the students to practice innovating solutions around various

challenges.

"We still have to undertake IP registrations, pilot the Apps, process them for approvals with medical and other regulatory bodies and finally deploy for use by frontline workers", Sam Wanjohi.

Mbarara University of Science and Technology in Uganda integrates One Health competencies in preparation for Community Based Training for Medical Students (COBERS) One Health field attachment



Participants during a workshop on integration of One Health into the COBERS program at Mbarara University of Science and Technology

Mbarara University of Science and Technology now has a blended Community Based Education, Research and Service (COBERS) course with One Health competencies incorporated. Faculty of Mbarara University of Science and Technology (MUST) engaged in the Community based Education, Research and Service (COBERS) training, have therefore been trained with support from faculty from Makerere University, to deliver the blended course.

This was a phased activity and approach. The first phase was a face-to-face training which lasted three days. This involved integration of One Health in the COBERS where 60 faculty from MUST participated in this training.

The second phase of the training was the conversion to online of the blended course. Zoom meetings were held with 60 faculty from MUST as they gained pedagogical skills of delivering the course on-line but also realigning their learning materials to suit E-learning. It is expected that the 8-module course

will be available on the MUST E-learning platform; CALROLINE.

The MUST team led by Dr. Gad Ruzaaza, visited the AFROHUN website and selected One Health- Modules they thought could be incorporated into the COBERS program as per their needs. Selected modules included; Outbreak Investigation (Led by Dr. Tamale-COVAB), Response and Ecosystem, One Health Concepts (Dr. Peninah Nsamba-COVAB), Community Entry and Engagement (Dr. Anthony Mugeere-CHUSS), Partnership, Systems Thinking and Collaboration (Prof. Samuel Majalija).

AFROHUN-Uganda Country Office then identified technical persons from Makerere University with experience in these areas to support the course blending. These were paired with co-facilitators from MUST, as a capacity strengthening approach.

Interaction between team members was conducted both virtually and in-person with discussions on how to go about the task conducted online, while actual work

was conducted during a face-to-face meeting held in Mbarara for three days. This meeting resulted in successful integration of the course, marking the end of the first phase.

The Makerere University College of Education and External Studies (CEES) team was contacted to support the faculty in transforming the course to on-line format. After a six-week process, the ONE HEALTH –COBERS Course is now available on-line on the MUST Website (CARLORINE). This activity is a good demonstration of effective collaboration of the two institutions on the integration of the modules successfully. MUST supported the training by providing training rooms

which accommodated all the participants. The involvement of IT personnel at MUST was a key feature of the training, who also offered full support during the training.

Approximately 500 students (Medical students, Nursing, Pharmacy, Pharmaceutical education, Laboratory Sciences) go through the COBERS training. This training targets final year students in the faculty of medicine, MUST. These are medical students majorly. The training is done during recess team in preparation for field work for six weeks.

This orientation gave the faculty at MUST an opportunity to challenge themselves to update the course content (student evaluation and case studies updated), share and adopt best practices with colleagues from Makerere University, among things.

In Year 2 of the One Health Workforce Next Generation project, AFROHUN-Uganda is planning to train community supervisors for students trained under OH-COBERS, to ensure that they are also knowledgeable in One Health and can support students adequately.



Group Discussions moderated by Dr. Joseph Ngonzi – Deputy Dean & Thematic Lead.

The Road to inclusion of One Health competencies in Continuous Professional Development certification requirements in Rwanda

This activity was organised to get a feel of what is provided for in the CPDs in terms of the One Health competencies included.

6 professional councils participated in the exercise;

- ⦿ Rwanda Council of Veterinary Doctors
- ⦿ Rwanda Medical and Dental council
- ⦿ Rwanda Nurses and Midwives council
- ⦿ Rwanda Association of Midwives
- ⦿ National Pharmacy council
- ⦿ Rwanda Allied Health Professions council

Over ten CPD providers participated in this scanning exercise.

Several issues emerged from this scanning exercise, and they included the

following;

That the majority if not all CPD providers have not included One Health competencies in their training curricula

Following training, all CPD providers expressed wish to include OH competencies in their training, apportion it credit points for registration and licencing

“When we were planning for the activity, we were not sure about the importance professional councils would give it especially the Medical and Dental council, but to our great satisfaction, everyone acknowledged that the training was overdue”, Dr. Juvenal Kagarama – Country Manager, Rwanda.

Long term prospect of OH competency acceptance by regulatory councils is promising because they all intend to

make it a permanent feature in their training program and in this context a request suggestion for a ToT support by AFROHUN was floated and supported by all council representatives present.

As a result of this enthusiasm, there was fast follow-up, in the form of a training workshop organized by one of the professional councils, in One Health competencies for a large audience of their members.

This training workshop, facilitated by AFROHUN Rwanda faculty, marked a milestone in the collaboration between AFROHUN and professional councils. Future trainings must be leveraged on to strengthen this collaboration. Leveraging on this, more trainings will be conducted to strengthen this collaboration.

Students' One Health Innovations Club (SOHIC) members in Rwanda join Government efforts to Mitigate the Spread of COVID-19

Phase One of this activity involved a two-day residential training for five teams of 4-5 students each from every campus of UR and UGHE. The facilitator came from the Ministry of Health. In attendance was a representative from each District, who is responsible for Health Promotion and Disease Management. These accompanied and oriented students in the field throughout the campaign, helping to identify appropriate sites and communities to engage. Phase two of this activity involved deployment of each team in their respective district for community sensitization, education and possible tracking of infected persons, although this is not a major responsibility for the students. Before deployment, everyone participating was tested for COVID -19. All guidelines recommended to protect against COVID-19 will be strictly observed by all. PPE and hand sanitizer solution will be distributed.

The activity was implemented by a multidisciplinary team of SOHIC members

from all campuses of University of Rwanda (medical, veterinary and environmental health students). Field activities were preceded by a two-day training for all participants (students, faculty mentors and district representatives). The training was conducted by a Ministry of Health facilitator.

The training featured scientifically known facts about COVID-19, current WHO, and National guidelines on mitigating the

spread of the pandemic and practical knowledge needed for community entry including community engagement communication skills among others.

Sensitization strategies used to send out messages included face to face talks, role plays by students and radio talks through community radio stations – these stations are very popular and are tuned into by the mass and as such they offer important tools to reach out to a big audience.



Members of the University of Rwanda SOHIC delivering COVID-19 messages at a client waiting area at Remera Health Centre



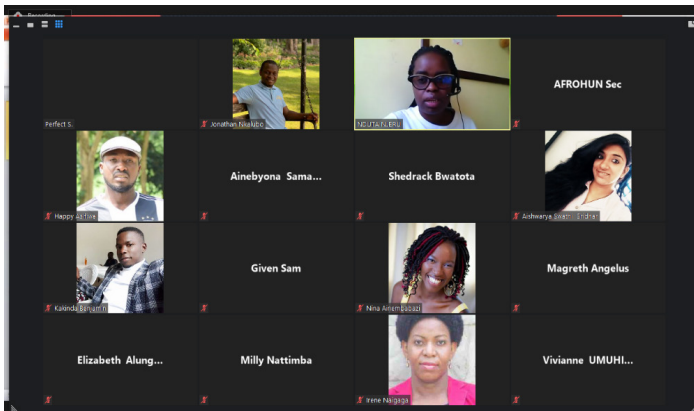
Students demonstrating to security guards how to put on some PPEs

Reports coming from the field indicate that;

- ⦿ The community was very receptive, and the impact of students' awareness creation was noticeable because for example everyone was now beginning to appreciate the need to wear face masks and hand washing, something that was not given due attention before.
- ⦿ However, social distancing and hand washing were still a problem and very difficult to enforce at community level
- ⦿ Students observed that despite these difficulties, the community members nevertheless appreciated their importance in fighting COVID-19
- ⦿ The youth generally believe that COVID-19 is a disease of the old and as such this group is potentially a source of spread and perpetuation of infection and should be targeted with special interventions.

Cross-Country Experience Sharing about the COVID-19 pandemic: A student-led Webinar

By Jonathan Nkalubo, AFROHUN SOHIC Intern



On March 11, 2020, the World Health Organization declared COVID-19 a pandemic. Today, the world continues to grapple with this deadly virus that has killed many people and affected all regions of the world causing enormous health, economic, and social impact. To curb the spread of this virus, many countries around the world instituted mandatory lockdowns which left many educational institutions closed. However, despite these adverse effects, many students belonging to Student One Health Innovation Clubs in the different AFROHUN member institutions across Africa have been part of several frontline initiatives such as national taskforces and responses and engaged in many activities through their SOHICs. AFROHUN highly values knowledge and experience exchange among network members and therefore saw this as an opportunity for institutions and students at the forefront of the outbreak to share knowledge as they mount collaborative efforts in addressing the pandemic in their countries. A webinar was therefore organized to facilitate this sharing.

The webinar took place on September 26, 2020 and its objectives were; a) To enable shared learning on the COVID-19 pandemic experiences among students at the frontline of the outbreak in different countries b) To assess how engagement of students in outbreak response builds competencies and c) To build a student community of practice on COVID-19. This webinar had 4 student panelists including Nduta Njeru (Moi University, Kenya), Happy Asifiwe (University of Rwanda), Sikanda Perfect (Sokoine University of Agriculture, Tanzania) and Muganzi David (Mbarara University, Uganda) who shared their experiences. The webinar was chaired by Jonathan Nkalubo (AFROHUN Secretariat SOHIC Intern) and had 44 participants (21 female and 23 male) coming from Uganda, Kenya, Tanzania, Rwanda, Senegal, Algeria, and India.

Panelists highlighted several impacts of the pandemic on implementation of SOHIC activities whereby they had to change tactics and accept the new normal for example having to shift to use of virtual platforms such as zoom webinars and other social media avenues. However, the Tanzania SOHICs engaged in physical activities such as outreaches to promote awareness and prevention measures in markets and schools. Some panelists engaged in collection of samples from suspected COVID 19 patients and contact tracing while others worked on innovations that were going on in their countries, and as research assistants. All the panelists acknowledged AFROHUN staff including the Secretariat, Country Managers/Administrators and faculty/SOHIC patrons/sponsors, for continued mentorship and support to their activities. One further commended them for taking an extra step to source mentors even outside AFROHUN. A key lesson was that students should always take an initiative to reach out to potential mentors.

Panelists mentioned several competencies they gained from their

engagement in several COVID 19 activities including organizing, communication & research skills, experience & information sharing, leadership, planning & virtually coordinating people in different geographical locations and of all ages and from diverse fields, development of documentaries & other online materials, working with different stakeholders, teamwork, resource mobilization and innovativeness. All speakers said that they have appreciated the multidisciplinary principle of One Health and that when people come together, great things are achieved. This experience has prepared them to respond to future pandemics. Panelists encouraged other students to step up and safely engage in the response to COVID-19, through utilizing their social media platforms to promote awareness, volunteering at the call centers and through social responsibility e.g. helping vulnerable people especially the elderly by picking home supplies/groceries or doing chores for them. They also encouraged them to join teams to work on innovations. Above all, students should act as role models by practicing the COVID-19 preventive measures such as hand washing.



Panelists further highlighted the challenges they have encountered while at the frontline including lack of self-confidence i.e. minimizing their efforts to contribute and hence informed students that starting helps to increase this confidence. The panel discussion was followed by a Q & A session where participants appreciated the organizers for such an informative and interactive session. Participants suggested that SOHICs should be extended to other institutions/countries and should find ways to connect more often and learn from each other. The Alumni who participated requested that platforms to engage and track their progress should be put in place as well.

The webinar was crowned with closing remarks from Dr. Irene Naigaga, the AFROHUN Regional Program Manager, who thanked participants for their work in the response to COVID- 19 and for sparing time to join the webinar. She stressed AFROHUN's contribution in preparing students with One Health principles that have positioned them better to contribute towards different outbreak responses in their communities. She ended by encouraging participants to continue with efforts to protect themselves and their communities from COVID-19 and other infectious diseases.



Dr. Irene Naigaga, AFROHUN Regional Program Manager speaking at the end of the Webinar

Tanzania In-service personnel receive Capacity Strengthening for COVID-19 Prevention and Response using a One Health Approach

This was a successfully executed collaborative undertaking in Tanzania led by AFROHUN. AFROHUN Tanzania in collaboration with the Tanzania Public Health Association (TPHA), Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDEGEC) and the Prime Minister's Office (PMO), One Health Coordination Desk implemented three phases of the same activity as follows:

- 1) Training of Trainers (TOTs) teams at national level during a series of planning meetings and orientation on the presentations (Emerging Pandemic Threats (EPTs), One Health concept, description of the activity TZ 1.3.3, and Information on COVID – 19) at the TPHA headquarters in Dar es Salaam on how to conduct this activity in the selected regions;
- 2) Training/re-orientation of selected in-service professionals in the seven regions by the teams of national TOTs on COVID-19 as a resource to undertake immediate community education as part of their training and subsequently to train others in their regions and districts to routinely provide community education on COVID 19 and other wicked health problems using the One Health approach
- 3) In collaboration with the trained in-service personnel conducted awareness campaigns on COVID 19 prevention and response activities in selected urban areas of the seven regions of Dar es Salaam, Mbeya, Kigoma, Arusha, Mwanza, Kagera and Dodoma.

The exercise involved Training of Trainers on COVID-19 preventive measures as well as other infectious diseases among in-service personnel followed by field practicals to educate the public in high risk areas (bus stops and terminals, markets, health facilities and other crowded areas).

Four teams of 2 experts each were prepared from Tanzania Public Health Association, Muhimbili University of Health and Allied Sciences and Prime Minister's

Office and travelled to 7 regions with educational materials including public address system (PA system).

Regions visited include Kigoma, Mwanza, Kagera, Dodoma, Mbeya, Dar es Salaam and Arusha.

The training was conducted over 3 days. The first day was spent on presentations to sensitize and orient participants on Emerging Pandemic Threats (EPTs), antimicrobial resistance and the concept of One Health approach. This was a face-to-face interactive session of presentations and plenary discussions. The first day also focused on practical exercises on the use of the miniature public address system to deliver verbal messages to the public especially in crowded places. The COVID-19 verbal messages were combined with other short educational messages on prevention of communicable diseases and popular music interludes to draw attention. The second day was spent in the field in selected public places that included markets, bodaboda centers, food vendors and bus stands/stations. The third (last) day of the activity was a debriefing meeting where the teams presented their experience to the regional leaderships and charted out the way forward in terms of sustainability of the activity. The public address system was handed over to the Regional Medical Officers of each region (representing the Regional Administrative Secretary) to be used by the region to remind them of the event and to mobilize resources for sustaining this education both at regional and sub-regional levels. All the regions indicated plans to procure additional PA's for delivering future public education because they found the system handy and inexpensive.

Participants were drawn from multi-disciplinary professions that included the human health, Environmental and Animal health (health, environment, community development and Animal health sectors)

- 1) Health Promotion Officers
- 2) Environmental Health Officers
- 3) Veterinary Health Personnel
- 4) Social Welfare Officers
- 5) Community Development Officers
- 6) Public Health Personnel (Regional Medical Officers, Municipal Medical Officers of Health etc.) and
- 7) Communities in seven selected regions

The training content focused on;

- ⊙ On Emerging Pandemic Threats (EPTs) and antimicrobial resistance
- ⊙ The concept of One Health approach in solving complex health problems
- ⊙ Information on COVID -19 prevention and response
- ⊙ Discussing the approved educational materials (COVID-19 Revised Guidelines, Fliers and Posters) and where to fix them in targeted places
- ⊙ Practical exercises on the use of the miniature public address system to deliver verbal messages to the public in crowded places
- ⊙ Field visit in selected public places and how to conduct debriefing meetings to the regional authorities for future funding from local sources and sustainability

The training was designed to build the following skills and competences in the trainees;

- 1) Knowledge on emerging pandemic threats (EPTs) including COVID-19, antimicrobial resistance and the concept of One Health approach to their solution also
- 2) Knowledge on prevention and response to emerging pandemic threats including COVID-19 and
- 3) Capacity and skills on how to conduct awareness campaigns at Regional and council levels on prevention and response to emerging pandemic threats including COVID-19 using miniature public address systems, posters, brochures and/or leaflets

The trained personnel went out to the communities, equipped with specific messages to share, including the need to adopt the One Health approach in emergency preparedness and response. They provided health education and raised community awareness on various health issues including COVID-19.

Specific education on COVID-19 to the public focused on:

- ⊙ Regular handwashing with soap and running water or use of hand sanitizers when hand washing facilities are not available.
- ⊙ Promotion of physical distancing (at least 6 feet) from one person to the other or wearing of cloth face masks whenever they leave home, when using public transportation, in markets and in any other crowded areas.

In addition, the print materials containing educational messages on how to prevent COVID-19 were distributed to individuals and posted in public places for people to read on their own. Other materials were posted on various places such as walls, doors and stems of trees that can easily be seen and read by passers-by. These



Handing over the public address system (PA system) to the regional leadership

included the following:

- 1) Environmental sanitation,
- 2) Personal hygiene,
- 3) Rabies and
- 4) Improved Community Health

This interaction with the communities brought up some issues in areas of learning for the in-service professionals.

To enlist the cooperation of the local leaders, the team paid courtesy calls to the leaders of each site visited to inform them about the activity and to obtain permission to implement the activity in their premises. In many places the local leaders were excited and accompanied the team in the field.

Trainees also had some great moments and experiences, both during the sit-in training and in the field.

- 1) Participants were eager to learn and understand about Emerging Pandemic Threats, antimicrobial resistance and prevention, detection and response using the One Health approach.
- 2) In one voice, participants recommended to scale up the trainings to sub-regional levels on One Health approach in solving complex health problems using locally generated funds. They requested AFROHUN to initiate similar activities throughout the country covering all regions that were not included this time round.
- 3) The One Health approach was

seen to be a new concept to many. However, as training continued most understood the concept as very important in dealing with prevention and control of complex health problems such as EPTs (especially COVID-19) and antimicrobial resistance.

- 4) The Miniature public address system was recommended as a useful tool for Community Health Workers in their localities for health education and promotion. The professionals found this to be the most exciting experience in the field.
- 5) Sensitization of policy makers at regional and district levels on EPTs and antimicrobial resistance should be made by the trained regional teams to ensure that the One Health

approach is reflected in the Regional and Council plans and budgets to sustain such activities in future.

- 6) Communities visited during the fieldwork were quite attentive to the given health education through the miniature public address system and very eager to learn, demanded more leaflets of the messages mentioned in the PA system (Diseases-Diarrhoea, Rabies and improved Community Health Fund), which were not available during the visit.
- 7) This activity earned AFROHUN and TPHA increased visibility to the One Health Coordination Desk and the regional leadership in One Health Workforce Development and the One Health approach in solving complex problems.



The TOT team preparing to travel to the seven regions

Tanzania Students' One Health Innovations Club engaging communities for environmental sanitation awareness to commemorate the World Environment Day



MUHAS Student demonstrating proper handwashing techniques to locals in a market



One of the students distributing educational materials at a market

AFROHUN Tanzania commemorated World Environment Day (Wednesday; 5th June 2020) by mobilizing SOHIC students to deliver public presentations relevant to environmental sanitation and personal hygiene, especially handwashing, to mitigate the spread of COVID-19. The public talks were conveyed through a miniature public

address system. Forty-five (45) SOHIC students from MUHAS and SUA volunteered to conduct awareness campaigns on environmental sanitation for three days. The campaigns were conducted in selected urban communities including primary schools, public markets and public bus terminals located in different districts within Dar

es Salaam and Morogoro region. To reduce risk of exposure, the mobile team of SOHIC students had soap and water for handwashing as well as hand sanitizers. They also wore cloth face masks all the time. The campaign was preceded by an introduction seminar to the selected club members on, 1) precaution regarding prevention of

COVID 19, 2) Introduction to One health approach and, 3) setting of logistics necessary for implementation of the planned activity. The seminar was conducted in two locations: MUHAS and SUA.

The campaigns covered five primary schools, two SUA campuses, six open markets, two bus terminals and one health centre; both in Morogoro Municipality and Dar es Salaam. The engaged the communities on environmental sanitation and personal hygiene.

Local leaders at the premises were very receptive and promised to adhere to what they learned from the students. Local participants appreciated the students for sharing such useful knowledge and manage to demonstrate what was taught like practicing handwashing before the students.

This work involved undergraduate and postgraduate students pursuing different disciplines including Veterinary Medicine, Molecular Biology, Medicine, Nursing, Environmental Health, Wildlife, Food Science and Nutrition, Aquaculture, Biomedical Laboratory and Animal Sciences.

For the engagement and awareness creation, students used prepared leaflets as well as a miniature public

address system. Students also demonstrated hand washing and this was done using on-site hand-washing vessels or vessels carried by the project students in One Health. Students also had opportunity to talk to individuals in their workplaces on importance of hygiene and environmental cleanliness.

This activity impacted the students in various ways. This was the first time the students were interacting with communities as experts. They enjoyed the campaign and realized that there needs to be a continuous awareness programs of this nature for better community health.

This activity also strengthened their communication skills as they engaged in communication linking science to daily life and interpreting English technical terms into non-technical Swahili.

The activity shaped their professional skills as they practiced communication for behaviour change instead of general hygiene knowledge like what should be done by people in markets, patients in hospital, travellers in public transport.

The students observed several environmental and hygiene challenges that they think need to be addressed urgently.

In primary schools, students observed unavailability of hand-washing facilities, while some were empty with no water and some were fewer than the number of students.

In the markets, some raw food was placed on unhygienic surfaces like on the floor that may create room for contamination.

Students also observed improper disposal of surgical masks and despite the awareness creation it was difficult to locate waste bins or points for biohazard waste disposal. There were single waste bins for all kinds of waste.

Use of soap and water in handwashing was not a common practice in most communities especially open public places, where transmission is highest, before the COVID-19 pandemic. However, during the pandemic it became the norm. Previously the emphasis was not on use of soap in hand washing but rather water only. This changed with the engagement by the students.

Students proposed to make a follow up visit during their holidays to assess the impact of the campaign. There was also a suggestion from a headteacher in one of the primary schools to prepare another program for disabled pupils in the school.



Students take a break from the training to pose for a socially-distanced group photo



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This newsletter is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of One Health Workforce Next Generation implementing partners (AFROHUN) and do not necessarily reflect the views of USAID or the United States Government.