

## *Editorial: Health workforce strengthening in the light of the pandemic*



**Prof. Fatima Suleman**

### *Dear AFREhealth Community*

We are well into the COVID-19 pandemic, and across Africa, there is a call to ease lockdown measures and restart the economy. However, it still falls to us as scientists, researchers, health care professionals, and leaders to keep up the message of physical distancing, use of masks and washing hands frequently.

Pandemics come without a rule book. We do not know how the disease will progress, as we are still understanding the virus, and effective therapies. In the interim however, we can continue to strengthen our workforce, and provide them with the tools to provide quality and effective care.

AFREhealth has engaged in a series of activities to do just that. Webinars, publications on websites and in scientific journals

and even animations are being used. We can however, only build on this by having members share their experience and expertise.

Write to us, either for the newsletter, or in the AFREhealth blog. Tell us what you need. Share with us your best practices. Share your frustrations and successes.

It is up to African researchers, scientists and healthcare workers, together with economists and social scientists to define and respond to this challenge so that we can work for solutions for Africa ourselves and strengthen our systems for our people by understanding our local contexts.

This newsletter presents some of the COVID-19 work. It does present other activities as well. A reminder that though we are dealing with a pandemic, other activities and other diseases still deserve our attention. Stay safe and healthy!

## *AFREhealth Leadership, Partners, and Lagos State Government Officials at the 3rd Annual Symposium in Lagos, Nigeria, 2019.*



## Message from the President

*"I am very proud of what our health workers in Africa, and all over the world, are doing to help people to overcome the various challenges posed by the pandemic."*



PROF. MARIETJIE DE VILLIERS  
PRESIDENT, AFREHEALTH

Dear AFREhealth members, partners, funders, collaborators and students

It is indeed a pleasure for me to write this message to you as part of the second AFREhealth Newsletter. The AFREhealth newsletters will keep you up to date with all the developments in AFREhealth, provide useful information and resources for you to use, and create a vibrant AFREhealth community of practice.

In these times of the SARS CoV2 pandemic, we are in need of supporting each other not only through capacity development and shared learning, but also as human beings who are living through an extraordinary global event. I am very proud of what our health workers in Africa, and all over the world, are doing to help people to overcome the various challenges posed by the pandemic. I sincerely hope that you will be healthy, strong and resilient in these time, supported by your convictions, faith and ways that work for you to find peace and acceptance.

AFREhealth has taken steps to help our members and community to access learning materials and information on the COVID issue. These include regular monthly webinars (including French and Portuguese speakers); a blog on our website, and a repository of resources on the website. Please see more in the insert from the Secretariat in this newsletter.

A STRIPE module on COVID has been developed in collaboration with the University of California, San Francisco and the STRIPE expert panel. We have started to roll out this module as a virtual workshop, and hope to reach many of your countries and institutions in the next few months. Please contact the Secretariat if you would like to have the workshop come to your place of work or study.

In addition, we have been in contact with several organisations inside and outside Africa who are interested in working with AFREhealth in various ways, participating in grant applications with current and new partners, and strengthening and widening our networks.

AFREhealth has moved on to the second phase of the implementation of our Strategic Business Plan.

In communication and collaboration with Health Workforce 21 (HW21), our partners from Jhpiego, two consultants have been appointed to assist with strategic membership development, as well as resource mobilisation. We aim to enhance the value that AFREhealth will deliver to its members, as well as national governments, private sector players, professional associations, academic and research institutions and health professionals who may want to become members. These could include the following:

- Present a selected bundle of products and services that provide clear value-added;
- Solve a member problem or satisfies a need;
- Explain convincingly why members should join AFREhealth over another similar organization.

We welcome any ideas on these plans, please contact the Secretariat with your contributions. Until next time, stay safe and enjoy each day and moment of your life.

**Marietjie de Villiers**

- Introduce AFREhealth's brand by telling members what AFREhealth stands for and why it deserves membership in the organisation;



## *Uganda celebrates International Day of the Midwife and International Nurses Day in style*

***By Dr. Rose Chalo Nabirye***

Every year, the International Day of the Midwife (IDM) and International Nurses day (IND) are celebrated on 5th and 12th May respectively. Each year, The International Confederation of Midwives (ICM) and International Council of Nurses (ICN) share Themes that guide the celebrations worldwide. The ICM Theme for this year 2020 is: "Celebrate, Demonstrate, Mobilize, Unite", while that for ICN is "Nurses: A voice to Lead – Nursing the World to Health".

In previous years, these two important days have been celebrated by organizing scientific conferences, having a nurses' walk, annual general meetings and other activities. Normally, a district is chosen for the national celebrations and nurses and midwives have to travel from their stations to that district, in order to participate in the celebrations. Institutions are required to sponsor their nurses to go to these national venues. This means that not many nurses can attend as the numbers must be limited. These celebrations are always graced by a guest of honor, who may be the head of state, a Minister or any other important official. This means that during these celebrations, nurses and midwives talk to each other, not involving the public or other stakeholders.

However, this year, due to Covid-19 lockdown, nurses and midwives celebrated the two important days in style because gatherings are not allowed. Each hospital or facility celebrated differently.

The IDM activities, held at Mulago Women's specialized hospital included touring the hospital and to see the midwives' work by dignitaries who

included the Minister of State for Primary Health Care, the Ambassador of Sweden to Uganda, The UNFPA country Representative, the Midwifery Advisor and the Asst. Commissioner Nursing Services in the MoH. The President of Midwives Association also presented to the team the challenges midwives face while doing their work especially during the Covid-19 lockdown. The Hon. Minister highlighted the need to recruit more midwives.

Find highlights of the IDM at <https://youtu.be/1YYeJuMRwKc>

On the other hand, the IND activities included holding webinars, making presentations on media including national TV (UBC), nurses educating communities on hand hygiene and prevention of Covid-19, nurse managers educating nurses on various topics, sharing cakes and writing articles on blogs to mention but a few. The webinar organized by Nurse Leaders under Nursing Now Campaign Think Tank, with support of Jhpiego and Seed Global discussed the topic: The future directions for nursing workforce and its policy. The subtopics were: i) Strengthening the evidence base for planning, monitoring and accountability ii) Developing and supporting the nursing workforce iii) Building institutional capacity leadership skills for effective governance iv) Catalyzing investment for the creation of nursing jobs and v) Research and Evidence Agenda. The panelists were senior nurses holding high positions in clinical, academia and leadership and management offices. In addition, the Uganda Nurses and

Midwives Union organized a meeting where nurses were appreciated for their work and Nurses' challenges were discussed and presented to the authorities.



Construction of Tippy tap at Namugongo Church



Nurses articulate issues on TV

On the same occasion, nurses with outstanding performance were appreciated. The Nurse of the year, Nurse Doris, who wheeled a patient from a Health Center to a Regional referral Hospital 5 kms away was declared "Nurse of the Year" and presented a gift from fellow nurses. This young Nurse had earlier on been recognized by the Hon. Minister of health.



Doris, Nurse of the year!

In conclusion, this year's celebrations were more inclusive as many nurses had a chance to celebrate from their places of work, the public was sensitized and made more aware of nurses' work through newspapers, social media and television. During the pandemic, Nurses have also learnt to work as one family. Bravo Uganda Nurses and Midwives! To Love and Serve!!

*Perspective Piece**Chloroquine and Hydroxychloroquine for the Prevention or Treatment of Novel Coronavirus Disease (COVID-19) in Africa: Caution for Inappropriate Off-Label Use in Healthcare Settings*

Novel coronavirus disease (COVID-19), caused by the novel severe acute respiratory syndrome-coronavirus-2 (SARSCoV-2), has rapidly spread into a global pandemic. Africa initially appeared spared, but as of this writing, all countries except Lesotho have confirmed cases. As of April 15, 2020, there were 11,367 confirmed COVID-19 cases, with 523 deaths (4.6% case fatality) reported across the WHO African region.<sup>1</sup> In other settings such as the United States, Europe, and China, morbidity and mortality have been highest in those older than 60 years and with underlying comorbidities such as arterial hypertension, heart disease, diabetes, and chronic lung disease; young adults and children seem to have relatively mild disease and low mortality.<sup>2,3</sup> To date, there are no proven, clinically effective pharmacological treatments against COVID-19, but multiple ongoing trials are evaluating novel and repurposed drugs.<sup>4</sup> Among the repurposed drugs being rapidly investigated are the commonly used antimalarial and anti-inflammatory drugs chloroquine (CQ) and hydroxychloroquine (HCQ).<sup>5</sup> These drugs have become the focus of global scientific, media, and political attention despite the lack of randomized controlled trials supporting their efficacy against COVID-19.<sup>6</sup> Chloroquine has been used worldwide for about 75 years, and it is listed by the WHO as an essential medicine for malaria, whereas HCQ is widely used to treat autoimmune diseases such as systemic lupus erythematosus (SLE) and rheumatoid arthritis (RA).<sup>7</sup> Both drugs have an established clinical safety profile,<sup>8</sup> but their efficacy and

safety for COVID-19 treatment or prevention remain to be defined.<sup>9,10</sup>

Chloroquine is a 4-aminoquinoline that was synthesized in Germany by Bayer in 1934 and emerged in the 1940s as an effective substitute for quinine, an antimalarial therapy used for centuries.<sup>11</sup> Once a frontline drug for the treatment and prophylaxis of malaria, the efficacy of CQ was mostly lost because of the emergence of CQ-resistant *Plasmodium falciparum* strains in all endemic regions including sub-Saharan Africa. Since about 2005, CQ has been replaced by artemisinin based combination therapy to treat uncomplicated *P. falciparum* malaria across Africa, but it is still widely used to treat nonfalciparum malaria, primarily outside of Africa.<sup>12</sup> After CQ was found to have persistent immunomodulatory effects after cessation of short-term treatment, Winthrop developed and patented HCQ, which has an N-hydroxyl-ethyl side chain in place of the N-diethyl group, and therefore less tissue accumulation and a more favorable safety profile than CQ.<sup>13,14</sup> There are rational arguments, preclinical evidence of activity, and long-term evidence of safety for other indications to justify CQ/HCQ trials for the treatment and prevention of COVID-19.<sup>15</sup> Their mechanisms of action are incompletely understood but may include fusion and uncoating blockade,<sup>17</sup> lysosomal alkalization,<sup>18</sup> interaction with the angiotensin-2 converting enzyme receptor,<sup>19</sup> and immune modulation.<sup>20</sup> However, in vitro antiviral activity of

CQ/HCQ has not yet been translated into efficacy for any viral infection, and these drugs have been detrimental in some studies (e.g., for the treatment of chikungunya).<sup>16</sup> Of note, for SARS-CoV-2, the in vitro activity of HCQ appears to be greater than that of CQ, which might allow for a lower dosage for HCQ.<sup>21,22</sup> To date, the quality of available evidence for the clinical effectiveness of CQ/HCQ alone or in combination with other drugs (e.g., azithromycin) is low, because of small sample size, poorly defined clinical outcomes, and lack of randomization in published studies.<sup>23–26</sup> Thus, the results of early clinical studies cannot yet be considered conclusive. There remains an urgent need for high-quality evidence on the clinical value of CQ/HCQ alone or in combination with other drugs for the treatment of COVID-19. One global-scale effort is the ongoing WHO Solidarity trial, a large, adaptive, five-arm multinational (including South Africa) trial comparing four potential COVID-19 regimens: remdesivir, HCQ, lopinavir-ritonavir, and lopinavir-ritonavir plus interferon beta, all of which are compared with optimal supportive care, with in-hospital mortality as the primary end point. Secondary end points will be the duration of hospital stay and proportion of patients requiring intensive care unit admission or mechanical ventilation. The adaptive study design allows for dropping poorly performing arms and including additional promising therapeutics.<sup>27</sup> Discovery is a component of the Solidarity trial, with identical arms and more complex end points, and is funded by the “Institut National de la Santé et de la Recherche Médicale,” France’s national

health and medical research agency. More than 500 patients have already been enrolled in the Discovery trial, and preliminary analysis is ongoing. Also, the Recovery trial (for randomized evaluation) is a UK component of Solidarity, with more than 1,500 participants already enrolled.<sup>27</sup> Also, CQ/HCQ Prevention of COVID-19 in the Healthcare Setting (COPCOV), a large (n = 40,000) multicentric trial in which participants will be randomized to receive either CQ or HCQ versus placebo, is being launched in Europe and Asia, and participation of African sites is being considered.<sup>28</sup>

Unfortunately, indiscriminate promotion of CQ/HCQ (with or without azithromycin) based on the aforementioned low-quality data for COVID-19 treatment has led to widespread shortages, self-use, and fatal overdoses.<sup>29</sup> Chloroquine (and to a lesser extent HCQ) has been used for decades with few major safety issues at the usual antimalarial dosages in short-course regimens (2.5g in 3 days for 60kg adults).<sup>30</sup> Although rare, cardiac toxicity (corrected QT interval [QTc] prolongation leading to torsades de pointes and ventricular fibrillation) is a serious, life threatening complication, especially in patients with underlying cardiac disease, concurrent use of other drugs with QTc effect, or with supratherapeutic dosing.<sup>26</sup> The therapeutic window is however larger with HCQ, which is mainly used in chronic administration for rheumatic disorders, usually at dosages of 200 to 400 mg/day in adults. The major toxicity of chronic CQ/HCQ use is retinopathy.<sup>31</sup>

### Perspective Piece

## *Chloroquine and Hydroxychloroquine for the Prevention or Treatment of Novel Coronavirus Disease (COVID-19) in Africa: Caution for Inappropriate Off-Label Use in Healthcare Settings*

Other important adverse effects associated with CQ/HCQ are listed in Table 1.<sup>31–36</sup> Of great concern are frequent drug–drug interactions between CQ/HCQ and other medications used for prevalent chronic diseases in Africa, such as HIV infection and tuberculosis, and the concurrent use of antibiotics such as fluoroquinolones (Table 2).<sup>37–44</sup> As an example, coadministration of azithromycin with CQ/HCQ should be cautiously approached and closely

monitored because of additive risk for QTc prolongation and subsequent cardiac complications.<sup>32</sup>

Of note, *P. falciparum* resistance to CQ is widespread in sub-Saharan Africa, and artemisinin-based combination therapy has been the first-line treatment for uncomplicated malaria in all African countries for more than 10 years.<sup>11</sup> Although currently inappropriate, widespread CQ/HCQ use for

prevention should therefore have little impact on *P. falciparum* treatment outcomes. However, this may increase selection of resistance to CQ in *P. falciparum*, which has decreased in recent years, or in other *Plasmodium* species, for which CQ remains the treatment of choice.<sup>45</sup> Furthermore, we call for caution regarding the widespread use of azithromycin (coadministered with CQ/HCQ) for treatment of COVID-19, as it may increase selection of bacterial

resistance to this macrolide. In sub-Saharan Africa, azithromycin is an important treatment for bacterial infections including typhoid fever, especially where multidrug resistance (ampicillin, chloramphenicol, trimethoprim–sulfamethoxazole, and fluoroquinolones) in *Salmonella typhi* is on the rise.<sup>46,47</sup>

Other concerns regarding the promotion of untested therapies for COVID-19 include fraud related to the growing

TABLE 1  
Main side effects of Chloroquine and Hydroxychloroquine<sup>31–36</sup>

System	Chloroquine	Hydroxychloroquine
Cardiovascular	QTc prolongation and cardiomyopathy	QTc prolongation and cardiomyopathy
Gastrointestinal	Nausea, vomiting, and abdominal pain	Nausea, vomiting, and abdominal pain
Dermatologic	Pruritis	Pruritis
Musculoskeletal	Myopathies and myasthenia-like syndromes	Sensorimotor disorders
Nervous	Seizures, tinnitus, and dystonia	Headache, dizziness, and tinnitus
Psychiatric	Depression and psychosis	Emotional lability
Ocular	Maculopathy and macular degeneration, and retinopathy	Blurred vision and retinopathy
Metabolic	Hypokalemia, hypercalcemia, and hypoglycemia	Hypoglycemia

OFF-LABEL USE OF CQ AND HCQ FOR COVID-19 IN AFRICA

TABLE 2  
Drug interactions between CQ/HCQ and antituberculous or antiretroviral therapies

Medicine	Potential interaction with CQ/HCQ
Efavirenz	Limited clinical data. May increase (inhibition of CYP2C8) or decrease (induction of CYP3A4) exposure. Concurrent use may increase the risk of QT interval prolongation.
Lopinavir/ritonavir or atazanavir/ritonavir	Limited clinical data. May increase exposure by inhibition of CYPs 2C8, 3A4, and 2D6. Concurrent use may increase the risk of QTc interval prolongation.
Rifampicin	Limited clinical data. Induces phase-I and phase-II enzymes and transporters. Induction of CYP3A4 may decrease CQ/HCQ exposure.
Levofloxacin and moxifloxacin	Concurrent use may increase the risk of QTc interval prolongation.
Bedaquiline	Concurrent use may increase the risk of QTc interval prolongation.

CQ = chloroquine; HCQ = hydroxychloroquine. The metabolism of HCQ and CQ is predominantly mediated by the hepatic cytochrome P450 (CYP) enzymes 3A4 and 2D6, but 2C8 and 3A5 are also important. Any drug that induces or inhibits these CYP enzymes may potentially alter CQ/HCQ concentrations.<sup>37–44</sup>



### Perspective Piece

## *Chloroquine and Hydroxychloroquine for the Prevention or Treatment of Novel Coronavirus Disease (COVID-19) in Africa: Caution for Inappropriate Off-Label Use in Healthcare Settings*

market of substandard and falsified drugs<sup>48</sup> and diversion of CQ/HCQ from other chronic conditions for which they are medically indicated, in particular SLE and RA.<sup>49</sup> Safety issues are especially concerning for Africa because of relatively weak monitoring systems for off-label drug use and adverse events; these systems are robust in countries with strong national insurance schemes or with adequate private sector medical insurance. In addition, the promotion of CQ/HCQ for COVID19 may lead to shortages and/or increased market prices of these medicines for malaria, SLE, and RA. One strategy to protect African countries from these threats is to leverage a collaborative network like the African Vaccine Regulatory Forum to coordinate cross-continental production, distribution chains, and post-marketing surveillance. Another model for quick, low-cost distribution of a COVID-19 drug or vaccine (once proven efficacious) would be to piggy-back on platforms currently supported by the Global Fund, the U.S. President's Emergency Plan for AIDS Relief, and other organizations. African countries should also establish and strengthen prescription-monitoring schemes to ensure that off-label use of any drug(s) is appropriate and beneficial in this pandemic. For example, in South Africa, prescribers are required to inform the regulatory agency about off-label use of existing drugs in COVID-19 treatment. This process will help gather information on treatment outcomes pending results from clinical trials.

Importantly, patients at risk of COVID-19 complications are also those most at

risk of drug-drug interactions and drug associated toxicity. These include the following patients: 1) older than 60 years (estimated at 10–20% of the African population)<sup>50</sup>; 2) with comorbidities, such as arterial hypertension (30% of African adults),<sup>51</sup> diabetes (4% of African adults),<sup>52</sup> chronic lung disease, malignancies, and immunosuppressive conditions; and 3) concurrently receiving medications with potential for drug interactions or additive toxicity. For these vulnerable populations, off-label CQ/HCQ use should be considered with the utmost care, ideally following monitored research protocols in hospital and outpatient settings.

In conclusion, there is currently no evidence that CQ or HCQ, two low-cost drugs for which we have extensive experience for treatment of malaria and rheumatic disorders, has beneficial effects on the clinical course of COVID-19 patients. There are more than 80 ongoing trials of CQ or HCQ, used alone or in combination with a variety of other drugs registered on ClinicalTrials.gov. The results of these studies, including Solidarity and its companion trials (Discovery and Recovery) as well as COPCOV are eagerly awaited. Meanwhile, the off label use of CQ and HCQ to prevent or treat COVID-19 in Africa and elsewhere must be viewed with greatest caution, considering potential serious toxicities and benefit versus risk. If the effectiveness of these and other drugs is established in global trials, therapeutics for COVID-19 will require

further operational evaluation in Africa.

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## Perspective Piece: Chloroquine and Hydroxychloroquine for the Prevention or Treatment of Novel Coronavirus Disease (COVID-19) in Africa: Caution for Inappropriate Off-Label Use in Healthcare Settings

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*Perspective Piece*

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*AFREhealth members support to WHO*

AFREhealth co-signed an open Letter of Support to World Health Organization (WHO) and Secretary-General Dr Tedros that was published in the BMJ on 15 April 2020. The signatories noted with concern the personal and institutional attacks against the WHO. “We want to let you know that the world and humanity needs the institution of the WHO now more than ever.

In the wake of the COVID -19 pandemic the technical guidance and leadership of the WHO that you and the leadership team in Geneva, Regional and Country Offices round the world is valued and appreciated.” <https://www.bmj.com/content/369/bmj.m1502/rr> .



## The SARS-CoV-2 Pandemic: Scaling up contact tracing in San Francisco

San Francisco responded early to the COVID epidemic; city officials took early and decisive action, implementing early and city-wide social distancing policies and closing schools and workplaces. As part of the city's response the UCSF STRIPE team was asked to help scale up key programmatic activities that will be essential before the City loosens its 'Shelter in Place' requirement. In particular we were asked to support implement a contact tracing capability and train a diverse workforce to perform that work. While the clinical impact of this expansion has not yet been fully assessed, here we highlight important prerequisites to successful scale-up, including the role of forced multipliers such as interprofessional training capabilities and parallel expansion of effective containment programs.

### Contact Tracing Preconditions

On February 25, San Francisco was the first city in the United States to file for a state of emergency in order to mobilize internal resources to focus on COVID-19 preparedness.<sup>1</sup> On March 17th, responding to recognition that there was widespread community transmission, San Francisco's Mayor ordered that all of San Francisco should Shelter in Place (SIP). By then there had been 58 cases and 1 death in a city of 900,000 people<sup>2</sup> and the San Francisco Public Health Laboratory was performing approximately 260 RT-PCR tests per day.<sup>3</sup> Despite the relatively lower burden of disease in SF compared to other US jurisdictions, resources were focused on increasing access to testing. In tandem with this increase, SFPDH mobilized additional staff to undertake disease case investigation, deploying health workers from across the department to work on the COVID-19 response, of which approximately two-

thirds had no prior experience in disease investigation. Isolation and quarantine capacity was also expanded between March 31st and April 26<sup>th</sup>. As these other key elements were being scaled up with sufficient capacity to meet the needs of the city's population, plans were instituted to implement an ambitious plan to mobilize a workforce of contact tracers sufficient to address the projected increase in cases anticipated if shelter in place requirements were to be loosened.

### Determinants of successful Contact Tracing Scale up

#### Mobilizing an expanding workforce

Recognizing that there was a pressing need to rapidly scale the workforce dedicated to contact tracing work, San Francisco looked to other countries and epidemiologic modeling to estimate the number of individuals who would be needed to undertake contact tracing. In Wuhan China, 9000 personnel were mobilized for a population of 11 million<sup>4</sup>; Canada activated 2700 thousand persons to support their contact tracing effort.<sup>5</sup> Using the experiences of these countries as illustrative of the kind of scale up necessary, the San Francisco contact tracing planning team estimated that between 100 and 150 contact tracers might be necessary in a population of approximately 900,000. Given that San Francisco had already activated several existing staff to work on COVID related activities, there was immediate discussion about where else sufficient personnel might exist to meet this pressing human resource need. The UCSF STRIPE team, in partnership with the city's Department of Health proposed a plan to rapidly train a workforce of medical students and retired

clinicians as well as CCSF librarians and other civil servants, who were unable to fulfil their normal duties due to the social distancing policies.

#### Knowledge management - STRIPE-COVID

In recognition of the pressing need to train civil servants and health care workers to undertake this work, a distributed, interprofessional learning program, incorporating didactic training, role-play, and self-assessment was developed. In addition, specific training to address specific responsibilities related to contact tracing, such as motivational interviewing and HIPAA and confidentiality, was provided. Most of the training was performed on Zoom, and included the basics of disease transmission, the principles of case isolation and quarantine for contacts, the ethics of public health data collection, the importance of cultural sensitivity, the specifics of local processes and data collection as well as the San Francisco healthcare system. Completion of training on confidentiality, privacy and HIPAA compliance was required for all participants. Mentorship and supervision for new contact tracers were also required, ensuring that all initial calls were reviewed and feedback was provided. Plans to monitor tracer calls, so as to continuously improve the quality of the service and its outcomes were also developed.

Between April 8 and April 26, 240 people have been trained and 105 have been activated, including 11 medical students, 44 UCSF faculty and staff and 50 City employees. This workforce includes both paid staff and volunteers. Over the coming months, plans are in place to continue to train a diverse workforce so that there is capacity to respond to surge in cases and contacts, and given recognition that not all of the current trained workforce will continue to be avail-

able to contact trace once the SIP health order is rescinded.

#### What does success look like?

Given the significant resource investment to scale-up and sustain a team to provide comprehensive case and contact investigation and tracing, it is essential to consider objectives and measures of success a priori. We chose to adopt metrics developed as part of similar case/contact follow-up that measure the impact of syphilis and HIV partner services to in order to evaluate how case/contact investigation efforts are contributing to COVID-19 containment. Primary measures of success include: 1) number and percent of new cases interviewed, 2) number of new cases that identify by name and with contact information at least one contact 3) number and percent of cases with at least one contact reached, 4) number and percent of cases with at least one contact tested, and 5) number and percent of cases with at least one contact newly diagnosed with COVID-19.

#### Conclusion

The San Francisco model for contact tracing -- *deploying a diverse workforce and leveraging interprofessional training modalities to rapidly scale an army of workers* -- offers a solution that is relevant to other settings. The model highlights the importance of strategic management, training and support for this workforce, and technology as a force multiplier. However, the San Francisco experience also highlights that contact tracing is not a silver bullet. Contacts can not be expected to safely self-quarantine unless there are supportive services in place to ensure their success. Contact tracing is a prerequisite of a robust COVID-19 containment response, but it will be futile unless implemented as part of an expansive

## The SARS-CoV-2 Pandemic: Scaling up contact tracing in San Francisco

vision to scale a broader set of public health solutions to control the spread of COVID-19.

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## GEMx<sub>SM</sub> Student Elective Exchange Program: In Partnership with AFREhealth and its Member Institutions

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### Introduction

Global exposure in health professional training through short-term electives is a key component in promoting transformative educational approaches.<sup>1,2</sup> Training is provided through electives and internships at African institutions, hospitals, and non-governmental organizations (NGOs).<sup>2</sup> Africa has served as a host to various health professional students from all regions of the world. However, health professional students from African countries have limited access to international learning opportunities compared with health professional students from more developed countries, due to the high costs to go on an exchange in a developed country.<sup>3,4</sup> To address this gap, GEMx—the Global Educational Exchanges in Medicine and the Health Professions—a service of ECFMG® | FAIMER® launched a student elective exchange program, in partnership with the African Forum for Research and Education in Health (AFREhealth) and its member institutions.

The goal of the program was to provide health professional students in Africa with access to affordable international opportunities on the African continent ("South-South" model) with the objectives for students to: 1) gain global exposure; 2) enhance global perspectives; 3) acquire transferable knowledge and skill sets, and 4) advance personal and professional development.

### Method

The framework used to develop the program was:

The formation of institutional partnerships among AFREhealth member institutions that can offer electives and host students;

A GEMx web-based system to centralize elective placements and student application processes;

The GEMx Charter, a multi-lateral agreement governing participation;

Waived fees by participating institutions to decrease student costs; ECFMG | FAIMER mini-grants to students to defray costs; and

Logistical support provided by a GEMx Coordination Office based in Uganda.

### Participating Institutions

In 2017-2018, we conducted a pilot by forming institutional partnerships among 8 schools of medicine and 5 schools of nursing; a total of 13 institutions in 8 countries. In 2019, GEMx expanded the program to include 4 additional schools of nursing, 5 additional schools of medicine and expanded into 3 additional countries. By December 2019, there were 22 institutions in 11 countries participating in the program. Participating AFREhealth Institutions are shown in the next page - Figure 1.

### Student Elective Exchanges

GEMx facilitated 129 student elective exchanges: 69 medical students, 52 nursing students, 8 pharmacy students. The average duration was 4 weeks, and the average cost of a four-week elective was 1,250USD.

The Figure 2 provides a breakdown of the elective specialties taken by students.

### Outcomes

AFREhealth Leadership and Participating Institutions ECFMG | FAIMER surveyed AFREhealth leadership, deans, faculty members, and GEMx program managers. There were 19 respondents to 31 surveys sent (61.3% response rate). All of the respondents (100%) agreed that GEMx contributed to enhancing international exposure for their students. All respondents (100%) agreed there is a need for GEMx to continue its role as a facilitator. Almost all respondents (90%) agreed that GEMx contributes to breaking mobility barriers that exist in various African countries. AFREhealth leadership agreed that GEMx added value to AFREhealth.<sup>2</sup> Source: 2018-2019 ECFMG | FAIMER Survey

# GEMx<sub>SM</sub> Student Elective Exchange Program: In Partnership with AFREhealth and its Member Institutions

Figure 1: Participating AFREhealth Institutions

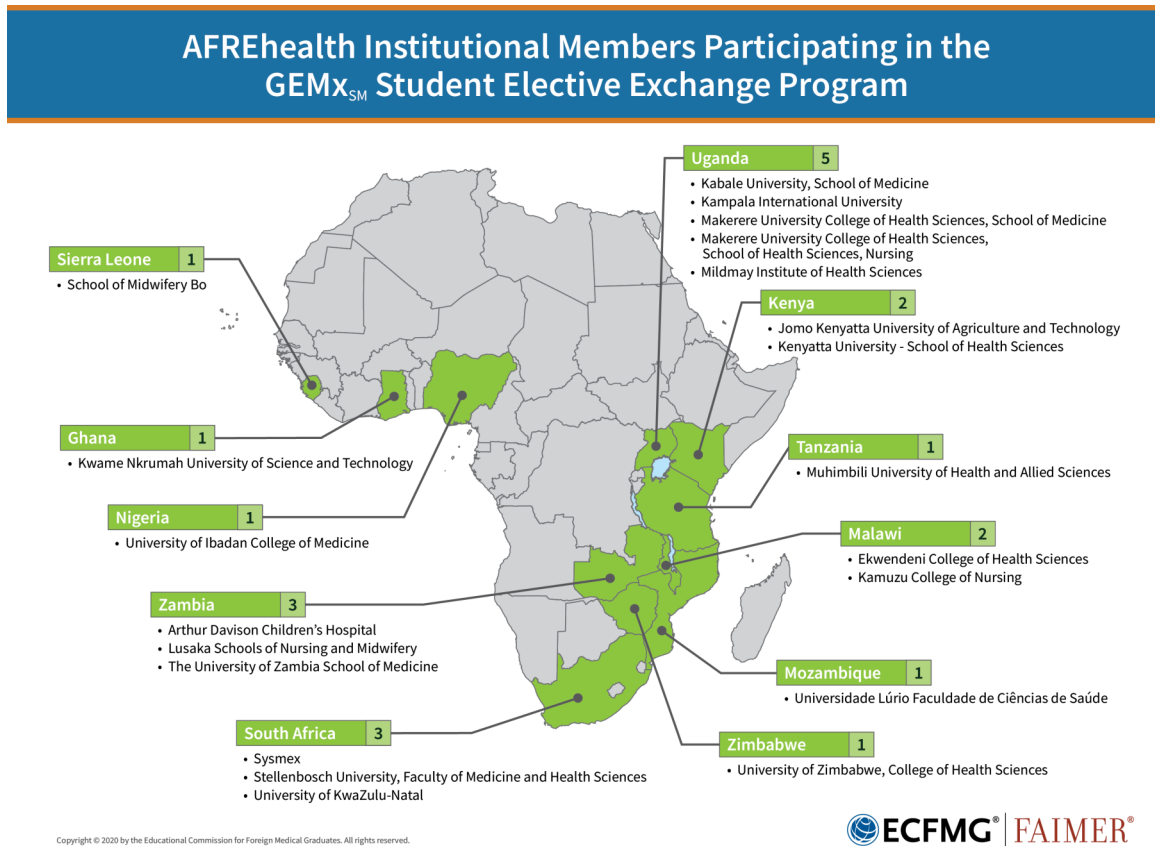
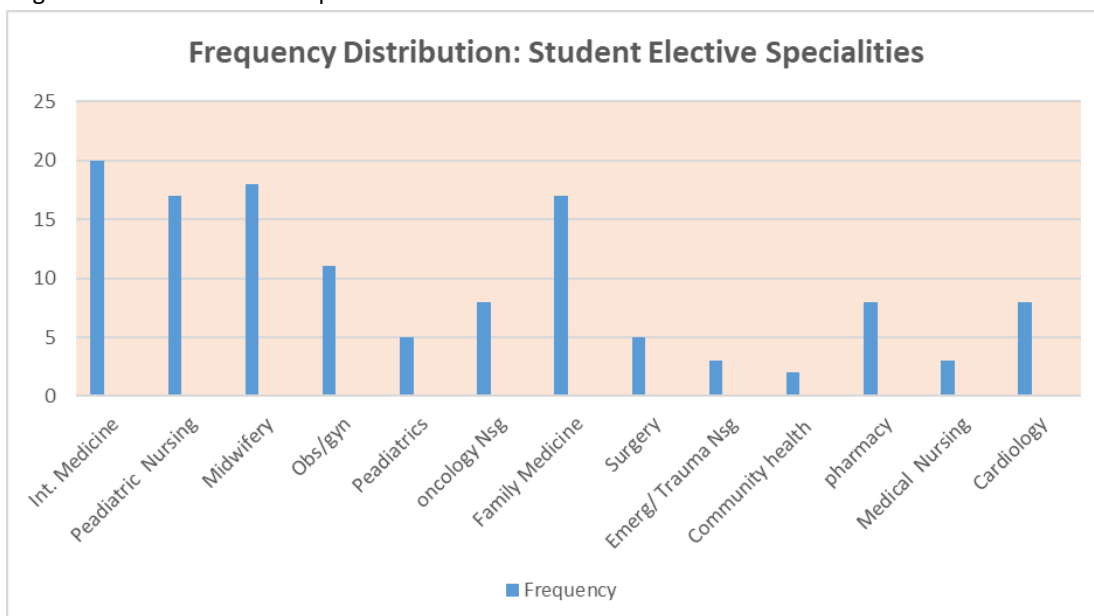


Figure 2: Students Elective Specialties



Source: ECFMG|FAIMER GEMSAAdmin Application



## *GEMx<sub>SM</sub> Student Elective Exchange Program: In Partnership with AFREhealth and its Member Institutions*

### Student Feedback

The ECFMG|FAIMER Post-elective Student Survey was developed to collect feedback from exchange students (n = 129). The survey had a 99.2% response rate. From the results, 127 (98.4%) of the students confirmed that GEMx provided them with their first international experience and exposed them to a different health system outside their home country. One hundred twenty (93%) of the students surveyed confirmed that they gained knowledge that was transferable back home. One hundred eighteen (118) of the students surveyed agreed that they received adequate faculty supervision during their exchange. One hundred twenty (120) students (93%) agreed they had opportunities to voice challenges.

Additionally, a review of 128 individual student reports was conducted. We then categorized student learning outcomes into four areas: 1) personal and professional development; 2) clinical knowledge and skills; 3) global perspectives; and 4) positive attitude gain toward health care delivery. Sixty (60) students (47%) reported to have formed professional networks and relationships that will contribute toward their future career paths.

Eighty-four (65.6%) reported to have developed clinical skills and learned various procedures; 20 (15.6%) students reported a need for increased reliance on history-taking for proper disease diagnosis. Sixty-eight (53.1%) students recognized similarities in health care systems compared to their home country. Fifty-two (41%) students appreciated the different cultures and how culture influences health outcomes. Seventy-six (59.3%) students reported that they gained skills and confidence to perform procedures more efficiently, and 23 students (18%) were inspired to play an advocacy role for positive change back home.

Source: 2018-2019 ECFMG|FAIMER Student, Post-Elective Survey

### Conclusion

The GEMx student elective program provided accessible and affordable international learning opportunities to 129 health professional students across Africa. Students gained a transformational experience and transferable knowledge and skills. Students gained global perspectives that will contribute toward their professional and personal development. Commitment and trusted partnerships was the foundation for an effective student exchange program.

### 2020 Updates

Due to COVID-19, student exchange is on hold. ECFMG|FAIMER was awarded funding through AFREhealth's NIH grant to implement a multidisciplinary, student exchange model that incorporates interprofessional education competency training. GEMx is in the final process of recruiting AFREhealth institutional members to be part of this project.

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Sample of pictures of students on the GEMx Student Elective Program



## News, Upcoming Events & Updates

### AFREhealth Webinars

In line with the objective of providing strong professional skills development and shared learning to augment the quantity and quality of health workers at the forefront in Africa, AFREhealth has built an infrastructure for webinars at its Secretariat in Kumasi-Ghana as a means to achieving this objective. The Zoom Application is employed, and can host up to 500 participants per webinar. A Standard Operating Procedure (SOP) was developed to guide the smooth coordination and running of webinars on the AFREhealth platform. This, together with a webinar flyer template for packaging the information on a webinar for dissemination, can be obtained from the AFREhealth Secretariat via [afrehealth@gmail.com](mailto:afrehealth@gmail.com) or [info@afrehealth.org](mailto:info@afrehealth.org). The individuals, professional groups, Technical Working Groups, stakeholders & collaborators of AFREhealth, all the constituents of the AFREhealth community, are passionately invited to submit requests to run webinars on the AFREhealth platform following the guidelines provided in the SOP. Webinar requests should be submitted to either of the email addresses above.

### AFREhealth response to COVID-19

In response to the COVID-19 pandemic, AFREhealth took steps to educate its community and provide up to date information on the global fight against the virus, especially trends and developments on the African continent. The following mechanisms, systems, or initiatives have been put in place in this response:

#### COVID-19 Webinar Series

The first webinar of this series dubbed "COVID-19 Outbreak in Africa: What You Need to Know and How to Stay Safe" was ran on the 19th March 2020 following the declaration of COVID-19 as a pandemic by WHO on 11th March 2020. So far, AFREhealth has hosted 4 webinars of this series. Speakers/panelists were mostly distinguished African scholars. A conscious effort is made to feature speakers from the various linguistic divides (i.e. Anglophone, Francophone, and

Lusophone) of the continent. This has been largely successful with each divide featuring in at least one webinar so far. The recordings of these webinars and the speakers' power point slides are available at the AFREhealth website and the link is <https://afrehealth.org/mediapage/webinar>.

#### COVID-19 Resources at the AFREhealth website

A repository is available at the AFREhealth website with a suite of COVID-19 resources. These include WHO resources on COVID-19, publications – some of which are authored/co-authored by AFREhealth members, and links of other useful materials. The links to this repository is <https://afrehealth.org/activities/covid19/covid-19>; <https://afrehealth.org/activities/covid19/documents>.

#### STRIPE COVID-19 Module

This module was developed by the STRIPE project expert panel and is available for delivery as an online workshop. The workshop is designed to be split over 2 days for a duration of one and half hours for each workshop day. In order to roll this out at the various STRIPE project sites, the PIs and facilitators of the STRIPE projects participated in a trainer of trainers online workshop on the module hosted on the AFREhealth platform with support from the SUNSTRIPE team of the Stellenbosch University, South Africa. The aim was to enable facilitators of all the STRIPE sites to be able to present the workshop in their own context.

#### Podcast for facilitators of STRIPE workshops

The SUNSTRIPE team made a series of podcasts for facilitators of the STRIPE workshops. These are available on the AFREhealth website at the media page (<https://afrehealth.org/mediapage/podcast>).

#### Postponement of the 4th AFREhealth Annual Symposium

The Symposium, scheduled to take place in August, 2020 in Addis Ababa, is postponed to August 2021 at the venue due to the COVID-19 pandemic. The specific dates will be announced when confirmed.

#### Recruitment of an Executive Director

Delin HR Consult, the recruitment firm in Ghana supporting AFREhealth with

the Executive Director recruitment presented four (4) probable candidates to AFREhealth. The interview panel has been formed and preparations underway for commencing the interviews.

#### AFREhealth Interprofessional Student Elective Program

This is a joint partnership between AFREhealth and ECFMG FAIMER through the GEMx. Student exchanges within the context of Interprofessional Education (IPE) is a priority for AFREhealth in moving forward its capacity building efforts through student electives placements in African nations and developed countries. AFREhealth has partnered with ECFMG FAIMER through its GEMx program, to develop an IPE student exchange model to provide a cohort of African students from various health disciplines with a platform to engage in a four-week elective placement in another country to gain global exposure, taking a multi-disciplinary learning approach that cultivates collaborative practice among future health professionals. A call for institutional participation in this program was made in January 2020 which recently came to a close on the 1st of March 2020. Given the COVID-19 pandemic, student exchange is on hold. However, preparatory work is ongoing in terms of the program set-up. In this edition, we have a full article on this program on page 10 above provided updates of the work in the previous years as well as 2020.

#### AFREhealth in the media

**Prof Fatima Suleman** on the use of Chloroquine and Hydroxychloroquine for COVID-19. "UKZN academic calls for prescription monitoring of medication to treat Covid-19" - available at: <https://bereamail.co.za/238011/ukzn-academic-calls-for-prescription-monitoring-of-medication-to-treat-covid-19/>

**Prof Jean Nachega** - coverage of Chloroquine/Hydroxychloroquine publication in American Journal of Tropical Medicine and Hygiene

1. **English:** Haelio/Infectious Diseases News (Broad coverage in US, Europe and Africa) <https://www.healio.com/infectious-disease/emerging-diseases/news/online/%7Bdb9c9bbe-7a12-48bf-9221-5acadafa4f7e%7D/off-label-hydroxychloroquine-chloroquine-use-for-covid-19-poses-threat-to-africa>

2. **French:** Radio France International (Broadcasting in French from Paris with wide coverage in Europe and West and Central Africa Francophone Countries) <http://www.rfi.fr/fr/podcasts/20200506-traitement-covid-19-afrique-alerte-13-medecins-ajcmh-abena-chloroquine>

## *AFREhealth Membership*

**AFREhealth Membership:** The expansion of AFREhealth's membership (institutional and individual) is a key priority of the organization's business in the year 2020. AFREhealth recognizes that achieving its vision of contributing to a responsive health workforce for providing relevant high quality, evidence-based healthcare in Africa very much depends on a wide reach of members on the continent and beyond. We thus encourage all institutions and individuals, both within and outside of Africa, who are committed to the mission of building strong, self-sustaining, health systems in

Africa to sign up as members. To apply for membership, please complete the appropriate application form on our website <https://www.afrehealth.org/>. A range of Technical Working Groups (TWGs) are available for individual members to select and join. Applicants are encouraged to limit their selection to a maximum of two (2) TWGs. For more information about AFREhealth and membership application, visit our website provided above. You can also contact us via email ([info@afrehealth.org](mailto:info@afrehealth.org) or [afrehealth@gmail.com](mailto:afrehealth@gmail.com)) or by phone (+233508351306 / +233322496882 ).

## *The Technical Working Groups (TWGs) and how to get involved*

AFREhealth TWGs are a key means to achieving the organization's goal of ***serving as a platform for knowledge generation, sharing and learning by building vibrant, relevant and impactful communities of practice in various areas related to education and research in health in Africa.*** Based on the success of the eight MEPI Technical Working Groups (TWGs) in contributing to this goal, the AFREhealth Executive Committee (ExCo) and Governing Council decided to revitalize

the TWGs and form new ones as the need arise. AFREhealth has prioritized the following TWGs: E-learning, Community Based Education, Competence Based Education, Graduate Tracking, Library and Information Science, Health Professions Education Research, Research Support Centers, and Monitoring and Evaluation. To accelerate the revitalization of the TWGs, discussions are currently underway for each TWG Lead to facilitate their

respective groups to develop a workplan and a budget which will inform how and what kind of support AFREhealth should provide to each group to become more active. The workplans are envisaged to define simple but impactful 2 to 3 activities which can produce tangible results that can be disseminated at the August 2020 Symposium. However, the timeframe for implementation of the plans may go beyond August 2020. Already registered

AFREhealth members who don't belong to any of the TWGs can get involved by sending an email to [info@afrehealth.org](mailto:info@afrehealth.org) or [afrehealth@gmail.com](mailto:afrehealth@gmail.com) indicating not more than two (2) TWGs they want to sign up to. For new membership application, provision is made in the application form for choosing the TWGs of interest. This is also limited to a maximum of two (2) TWGs. For more info visit [www.afrehealth.org](http://www.afrehealth.org) or send us an email.

## *AFREhealth Blog*

Dear Colleagues,

COVID 19 came into the world and struck at the very core of global health, having been declared a pandemic by WHO. Considering the definition of health by WHO, health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. At the moment many have lost the state of complete physical wellness, fear has gripped the whole world affecting the mental wellbeing of the populations and our social wellbeing has been disrupted by physical/ social distancing.

Travel restrictions have been imposed and academic gatherings banned so this has touched at the core of the academics whose communication revolves around conferences and academic meetings. However for every cloud there is a silver lining as online interactions are still possible.

AFREhealth as a network of networks recognizes the need for us to continue being connected, as human connection is vital for our wellbeing as health professionals. Now many AFREhealth members are at the frontline fighting the pandemic under difficult

conditions, facing enormous challenges especially considering the risk of being infected. At the same time education and training has been disrupted.

In addition to our regular webinars, AFREhealth has introduced an online blog on our website [www.afrehealth.org](http://www.afrehealth.org) to: keep us connected, allow us to share experiences, share up to date information, dispel myths, hear from and utilize expertise in the AFREhealth community, fill in the gap between the webinars, respond to some questions that may not have been

dealt with at the webinar because of lack of time, share research ideas and much more. To find out how this works please go to <https://afrehealth.org/blog/>

**Elsie Kiguli-Malwadde**  
**Secretary, AFREhealth**

AFREhealth invites all members to contribute a blog post on their experiences in research, education and health systems strengthening in Africa.

**SIGN UP TODAY**  
<https://afrehealth.org/blog>





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