

AFRICA CDC TODAY

Quarterly newsletter of the Africa Centres for Disease Control and Prevention

ISSUE 7 | March 2020

Africa's COVID-19 preparedness and response



Group exercise during a surveillance training held in Uganda

The coronavirus disease 2019 (COVID-19) pandemic took the world by surprise as it spread rapidly from China to Europe, the Americas, and other parts of the globe. Africa seemed to have been spared in the early days of the outbreak and this gave African countries time to plan, prepare and work together to discuss appropriate response activities needed to limit the spread of COVID-19 and associated fatalities in Africa.

Africa CDC has been at the centre of the continental preparedness and response initiatives.

"We started addressing COVID-19 preparedness and response very early through our continental strategy. We started organizing training for our Member States. A week after Egypt reported the first case in Africa, we convened an emergency meeting of Africa health ministers¹. We knew that this was

a significant threat and that it was a question of time before the virus hit the continent," says Dr John Nkengasong, Director of Africa CDC.

With US\$ 5 million seed funding from the Bill & Melinda Gates Foundation, Africa CDC partnered with the World Health Organization (WHO), the International Civil Aviation Organization (ICAO), US CDC, China CDC and many other organizations to facilitate training in different aspects of emergency response and to ensure that laboratories in Africa were capacitated to test for the SARS-CoV-2 virus.

The first laboratory diagnostics training was held from 1 to 4 February 2020 at the Pasteur Institute in Dakar, Senegal, for 16 Member States, in partnership with the West Africa Health Organization (WAHO) and WHO. By 26 February, representatives of 44 laboratories across 40 countries had been trained by Africa CDC and partners in basic SARS-CoV-2 laboratory diagnostics.

As Egypt reported the first case of COVID-19 in Africa on 14 February 2020, Africa CDC doubled its efforts in training Member States. Fourteen training workshops were held concurrently in February

¹ Africa CDC Communique: <https://africacdc.org/download/communique-by-the-emergency-meeting-of-african-ministers-of-health-on-the-coronavirus-disease-outbreak/>

IN THIS EDITION

1 Africa's COVID-19 preparedness and response

3 A public health institute of today and the future

5 How Nigeria prepared for COVID-19 with Africa CDC support

6 A peep into RISLNET in Central Africa Region

7 Meet the new Interim Coordinator for East Africa Regional Collaborating Centre

8 COVID-19 stimulates creativity in African Union Member States

through the beginning of March in different countries and on the different aspects of emergency response, including surveillance, risk communication, infection prevention and control (IPC), and case management. Fifty-nine public health communication officers from 27 Member States were trained in public health risk communication, 23 Member States in enhanced surveillance, and 39 in infection prevention and control.

In addition to training, Africa CDC set up the Africa Taskforce for Novel Coronavirus (AFTCOR) to coordinate preparedness and response by African Union Member States, and convened an emergency meeting of Africa health ministers to develop a joint continental COVID-19 strategy for Africa² among many other guidance documents. Weekly meetings were held and continue to be held with Member States to discuss response and share experience and knowledge. Additionally, Africa CDC produces and circulates daily epidemiology updates, weekly outbreak briefs, and a science and public health policy update to keep Member States informed.³

In his message to the meeting of Africa health ministers, Dr Tedros Ghebreyesus, Director-General of the WHO, said: "Our biggest concern continues to be the potential for COVID-19 to spread in countries with weaker health systems. Our regional office for Africa, in partnership with Africa CDC, is working hard to prepare African countries for the potential spread of the virus to Africa."

Without doubt, the training and coordination by Africa CDC and the WHO has helped Africa to be better prepared to respond to the COVID-19 pandemic.

"Because of the early political engagement with the ministers, there was a continent-wide awareness and alertness to prepare the countries. By the time the disease spread to Africa, many of the Member States had developed their response plans," says Dr Nkengasong.

"Only Africa has a continental strategy for collaboration and coordination of the COVID-19 response," he adds.

This is a clear difference from Africa's experience with the Ebola Virus Disease (EVD) outbreak in West Africa in 2014.

"Since the beginning of COVID-19 outbreak, our coordination in Africa has been anchored by structures developed by Africa CDC, WHO and WAHO. These institutions have created a platform for collaboration, data sharing, training and capacity building," says Dr Chikwe Ihekweazu, Director-General of the Nigeria Centre for Disease Control (NCDC).

At the beginning of the outbreak in January, only two laboratories in Africa had the capacity to test for the virus. Initial samples were taken to Germany and South Africa for testing. However, by the time the outbreak became widespread in Africa, 50 of the 55 African Union Member States had been capacitated to test for the virus. Africa CDC had procured and distributed laboratory diagnostic test kits capable of 77,600 tests to 44 Member States.

This is in addition to kits procured by individual countries and those donated by Jack Ma and Alibaba Foundations, the Chinese Government, WHO, and US CDC.

"The support provided by Africa CDC and partners helped increase the diagnostic capacity in the continent from two countries to 50 within two weeks. We have since distributed a total of 77,600 tests to Member States and we plan to keep feeding that need for test kits. It is because of that capacity that we can now respond in the continent," says Dr Nkengasong.

With support from Africa CDC and partners, 35 SARS-CoV-2 cases were sequenced and the results posted on the Global Influenza website. Equipment and reagents were procured and distributed to build the genomics sequencing capacity of 12 reference laboratories across the continent.

As international travel becomes impossible due to travel restrictions by most countries, Africa CDC continues to provide training to Member States through the digital platforms and will continue to do so until the pandemic is over. Nearly 1000 clinicians, laboratory and IPC experts are connecting virtually every week to exchange knowledge, information and experience on COVID-19.

2 Africa Joint Continental Strategy for COVID-19 Outbreak: <https://africacdc.org/download/africa-joint-continental-strategy-for-covid-19-outbreak/>

3 Africa CDC Updates: <https://africacdc.org/covid-19/>

A PUBLIC HEALTH institute of today and the future



Dr Ilesh Jani

Dr Ilesh Vinodrai Jani is an immunologist with over 22 years of experience in public health research. He has been Director General of the National Institute of Health of Mozambique since 2009 and has held several other positions. In this interview, Dr Jani provides insight into the unique role of the institute in public health emergency response in Mozambique and how the institute positions itself to be a public health institute of the future.

Please tell us a little about the National Institute of Health of Mozambique and its mandate?

Mozambique's National Institute of Health (INS) is an autonomous, science-based institution within the framework of the Ministry of Health. The Director General of the INS is appointed by the Prime Minister and is accountable to the Minister of Health. The core functions of the INS comprise: (i) research, (ii) health surveys, (iii) health observation, (iv) surveillance, (v) public health laboratory, (vi) training, and (vii) information and communication.

In the area of research, the INS has a comprehensive mandate, which includes the definition of the national public health research agenda and supervision of its implementation, performance of research of strategic interest for the country, and promotion of evidence-based public health interventions.

The headquarters of the INS are in Maputo, the capital city of Mozambique, which also includes laboratories for various biomedical disciplines. The INS has 550 staff and approximately 700 field surveyors, including personnel in seven of the 11 provinces of Mozambique.

The mandate of INS has evolved in the last two decades and we aim to continue its transformation into an increasingly comprehensive National Public Health Institute (NPHI).

What unique strategies does the INS adopt in dealing with public health emergencies in Mozambique?

In dealing with health emergencies, all the scientific departments in the INS work collaboratively with the Ministry of Health and the local health authorities. Our reference laboratories deliver the diagnostic strategy, the outbreak investigation teams handle detection of cases, and our research, training and communication teams provide the much-needed science-based framework. I believe that our government and our people very much trust this science-based approach, and there lies our primary strength.

It is important to emphasize that INS implements Mozambique's field epidemiology and laboratory training programmes and the medical postgraduate public health residence programme. The graduates of these programmes are the public health

professionals of tomorrow. Their participation in emergency response constitutes a key hands-on training opportunity and an essential pillar of the country's preparedness efforts.

What role is the institute playing in preparedness and response to COVID-19 in Mozambique?

INS plays several critical roles in preparedness and response to COVID-19. One, in laboratory diagnosis, it is currently the only institution accredited to perform SARS-CoV-2 detection using real-time PCR. It is leading the establishment of diagnostic capacity in other institutions and especially outside the capital city. Two, in surveillance, the institute is working closely with the Ministry of Health and local health authorities in conducting case detection and contact tracing. Three, in information and communication, INS is very active in training health professionals in areas such as specimen collection, diagnosis and biosafety. In addition, the institute co-leads the working group on social communication and hosts the electronic platform for official information on the outbreak in Mozambique (<https://covid19.ins.gov.mz>). Four, the government

has established a scientific advisory board for the COVID-19 pandemic and the Director General of INS is a member and acts as a deputy chair. The board is chaired by the Minister of Health.

With the current level of preparedness do you think that Mozambique can cope with a mass outbreak of COVID-19?

In my view, few African countries, if any, will be able to cope with a mass outbreak. Mozambique is no exception. Our health system and our economy are fragile. Our people are vulnerable and already suffer from poverty and co-morbidities. Our best chance in the fight against this pandemic lies in prevention. Mozambique's government adopted some social distancing measures even before we had a confirmed case. As of today, we have eight confirmed cases of which two were through local transmission. We have been working hard at contact tracing – it is strenuous detection work that is critical in breaking transmission chains. The recent adoption of some additional measures, just announced by the government, may give us the stretch we need to prevent widespread community transmission.

What organizations currently partner with the INS?

Collaboration, coordination and solidarity are very important for the success of health responses during emergencies. We work closely with many organizations. I acknowledge the danger of not mentioning important partners and I apologize in advance for possible mistakes. Some of our most important partners include WHO, Africa CDC, US CDC, the International Association of Public Health Institutes and Clinton Health Access Initiative. I would like to specially mention the NPHIs of other countries which are part of this big NPHI family.

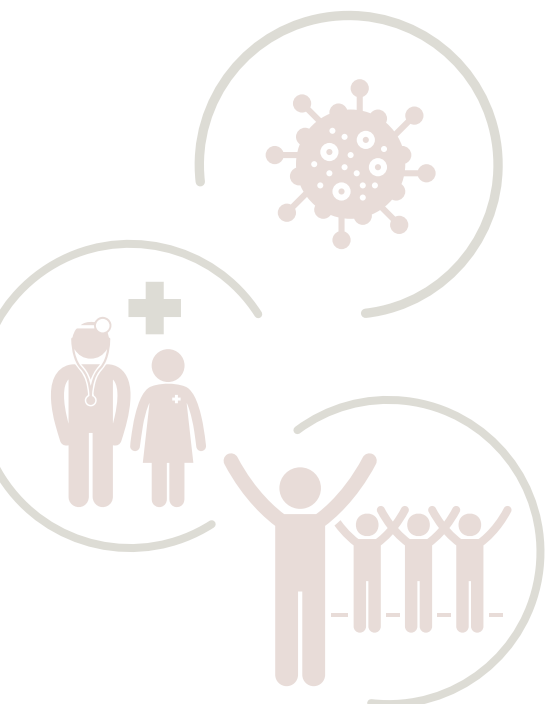
How do you think NPHIs can better contribute to the ability of African countries to respond to public health emergencies?

NPHIs drive public health through science. In settings with limited resources, such as in African countries, it is of paramount importance that public health decisions are informed by high quality scientific evidence. NPHIs are the only institutions within the health system that can provide this

type of guidance to governments and society. Therefore, NPHIs need to be investing in better legal frameworks, human resources for tomorrow, strategic planning and institutional development, scientific and public health agendas that combine both short-term gains and long-term impact, and smart multi-sectorial partnerships.

Where do you envision the INS in the next few years?

Our 2016–2025 strategy continues to build upon our term vision of transforming the INS into a world class comprehensive NPHI that serves the people of Mozambique and contributes to health innovations internationally. We realize that we live in a dynamic world with fast-moving targets – COVID-19 is a reminder of the challenges we must increasingly face. INS must continue to mature as an NPHI, acquiring novel technical and scientific capabilities to face current battles while also preparing itself for the long-term future. We have the responsibility of, through science and innovation, contributing to the creation of a healthier life for the most vulnerable people in our country. The INS must rise to the challenge. This will certainly keep us busy for the next few years.



A laboratory training session

How Nigeria prepared for COVID-19 with Africa CDC support

Nigeria reported its first COVID-19 case on 27 February 2020, two days after a training on IPC organized for African Union Member States concluded in Abuja, and two communications staff of the Nigeria Centre for Disease Control (NCDC) started a training in risk communication in Tunis, Tunisia.



Practise section during the training in laboratory diagnostics

In his address to participants in the IPC training, the Honourable Minister of State for Health of Nigeria, Dr Adeleke Mamora, said: *“This training is a great step towards strengthening preparedness and response by Africa to COVID-19. We are pleased to welcome those who have come from outside Nigeria, particularly the 16 African Union Member States. We are also grateful for the collaborative effort of the Africa Centres for Disease Control and Prevention, the WHO and the Infection Control Network Africa towards building the capacity of Member States on COVID-19.”*

For Disu Yahaya, Head of Risk Communication at NCDC, it was like a reality show. *He said: “Just yesterday we were practicing how to write press releases and organize a press conference. Same day we were informed that there was a case in Nigeria. We became very busy in the night writing a press release to inform the public about the case. The lessons we learnt were very useful, we applied them immediately.”*

These and other training organized by Africa CDC in partnership with WHO and WAHO have helped prepare Nigeria and other countries to respond to the COVID-19 pandemic.

“Our preparedness and response for COVID-19 has had a whole of government approach and strong collaboration with partners. Through Africa CDC, colleagues from Member States have been trained in various areas: laboratory diagnosis, infection prevention and control, point of entry surveillance, and risk communication. The use of regional resources for these training is exemplary,” said Dr Chikwe Ihekweazu, Director General of NCDC.

Africa CDC began specific interventions to prepare African Union Member States for the COVID-19 pandemic before the first case was reported in Africa. These interventions targeted thematic areas necessary for an outbreak response on the continent, including diagnostic and medical kit stockpiling, laboratory testing, point of entry and event-based surveillance, and risk communication.

Three experts from Nigeria attended the training on laboratory diagnostics held in Senegal and this helped capacitate three laboratories in the country for COVID-19 diagnosis. Immediately after the training, Africa CDC provided PCR test kits for 2000 tests for the country and later additional kits for 4000 tests.

Nigeria is one of the few countries that is also benefitting from the deployment of Africa CDC staff to support frontline workers in their response. A principal medical epidemiologist and an IPC expert deployed to the country supported the review and implementation of the first and subsequent country incident action plans for COVID-19. The two experts have been participating in

the national Emergency Operations Centre (EOC) and have facilitated coordination with the continental EOC in Addis Ababa and connection with other countries. Their support for enhanced coordination has been evident in the timely delivery of COVID-19 supplies to Nigeria despite the closure of international airports in the country.

At the sub-national level, the Africa CDC experts conducted stepdown training for more than a thousand healthcare workers in Lagos and Ogun States alone, in collaboration with the government and other partners. They have supported the Lagos State EOC and assisted the Lagos State Government in developing an incident action plan for COVID-19.

Africa CDC experts are also supporting response in other states in Nigeria. The epidemiologist is embedded in the team of experts deployed by NCDC to coordinate response in Kaduna State, the first state in north-western Nigeria to confirm a case of COVID-19. The Africa CDC IPC expert continues to support response in Lagos State.

Working with other partners, Africa CDC has supported coordination between the Kaduna EOC and the national EOC and this is having a positive impact on response in the state. Africa CDC continues to support training on IPC and case management for healthcare workers in Nigeria as well as in critical problem-solving and learning needed for COVID-19 response.

“We are training healthcare workers, developing guidelines, and learning from each other. The leadership of Africa CDC is great, and it means progress for health security in Africa,” said Dr Ihekweazu.

A peep into RISLNET in Central Africa Region



Dr Jean Akiana

The Regional Integrated Surveillance and Laboratory Network (RISLNET) was established by Africa CDC in 2018 to coordinate and integrate all public health laboratory, surveillance and emergency response assets, including public health data, at the regional level to effectively support prevention, rapid detection and response to current and emerging public health threats within defined geographic regions of Africa. Dr Jean Akiana, Chair of RISLNET Central Africa Bureau, highlights how RISLNET has prepared Member States in Central Africa for the ongoing COVID-19 outbreak.

Please tell us a little about RISLNET in Central Africa.

RISLNET is a scientific and systematic approach to pooling resources in epidemiological, biological and medical disciplines in the Central Africa Region for integration, networking and the ability to better combat public health emergencies. It is long overdue, and the establishment of Africa CDC has helped bring together public health assets of the Central African Region through RISLNET. I am delighted to be the first President of the network, and this will forever be in history as the first RISLNET to be established.

How has RISLNET impacted public health in Central Africa?

Unity is strength. Central Africa is fortunate to be the first to have a valuable platform for tackling its public health challenges. RISLNET is becoming a platform for promoting thinking at the regional level and it can help generate evidence data that our health systems need to intelligently carry out disease surveillance and control measures based on globally acceptable standards. RISLNET is contributing to human resource capacity building by fostering relationships among healthcare professionals for experience sharing and skill building necessary for the effective design and implementation of disease control strategies and policies. This

has proved valuable over the past two years in the development of national response and control plans for Ebola Virus Disease, chikungunya, Integrated Disease Surveillance and Response (IDSR), joint external evaluations of the International Health Regulations (IHR), and the development of national laboratory policies and plans. It has helped in laboratory mapping, cross-border surveillance and laboratory specimen transport. For example, patient specimens can now be transported from Bokoma in the Republic of the Congo to the Centre International de Recherches Médicales de Franceville in Gabon. Such experience is a motivation to some countries and it's making specimen transportation faster, safer and more efficient.

How has RISLNET been of value in the response to COVID-19 in Central Africa?

RISLNET has facilitated health information sharing through the various platforms (WhatsApp, emails, ECHO meeting on Zoom, etc.). RISLNET Central Africa members and specialists have been capacitated to design, validate and implement strategies to respond to COVID-19 in their countries.

What other plans does RISLNET have for emergency response to COVID-19 in Central Africa?

RISLNET plays an advisory role to Member States and is available to

offer guidance and ideas on actions they can take to support the fight against COVID-19.

What lessons can we learn from implementing RISLNET in Central Africa?

Any disease control that does not consider microbes at the human-animal-environment interface will miss the requirements for disease surveillance in our context. Ebola, COVID-19 and some other zoonotic diseases have shown the shortcomings of conventional surveillance systems. We must recognize the importance and inclusion of social scientists, veterinarians and ecologists in addition to those in the public health field in the fight against diseases that affect multiple populations and have epidemic potential, if we want to always achieve effective control.

The laboratory is essential. It is an essential starting point for health systems that will protect the health of populations. Africa CDC has understood this and made laboratory capacity building a priority on the continent. This laboratory support helped African countries to detect COVID-19 early, despite the supposed fragility of the health systems of Member States in the Central Africa Region and in Africa. I congratulate in the warmest possible way the Director of Africa CDC and his team for understanding this and taking the actions they have taken.

Meet the new Interim Coordinator

for Eastern Africa Regional Collaborating Centre



Dr Martha Muthami

While the world struggles to find immediate and lasting solution to the COVID-19 pandemic, a new Interim Coordinator was appointed for the Eastern Africa Regional Collaborating Centre (RCC) of Africa CDC. Dr Martha Muthami assumed office on 9 March 2020, taking over from Dr David Soti, the founding Interim Coordinator. She is a medical doctor with six years of experience in clinical practice and 12 years of experience as an epidemiologist. Dr Muthami specializes in health sector planning, policy development, and monitoring and evaluation. In this interview, Dr Muthami speaks about her vision to help strengthen the public health system in East Africa.

What is your opinion about Africa's public health system, particularly in the Eastern Africa region?

Our communities are still not totally safe from diseases and premature death; this is an indication of a developing public health system. Our Member States grapple with a massive burden of infectious diseases, and non-communicable diseases are on the rise. Emerging and re-emerging diseases pose a significant threat to an already overburdened healthcare system in most countries. This scenario plays out in an environment of scarce resources and poverty.

Research has shown that the public health system in Africa is fragile in the face of outbreaks. What do you think are the challenges?

I believe one of the major challenges is low prioritization of promotive and preventive departments by health systems. A lot of resources are put into the curative and rehabilitative processes, but more emphasis ought to be on prevention and control. There are challenges of leadership and governance, poverty, and low investment in public health research.

However, Africa is rapidly embracing new technology, which is being harnessed and used for health care, particularly health information and telemedicine, which in turn can significantly improve efficiency and evidence-based decision-making. There has been significant investment in training of health workers in areas like epidemiology, and this creates a good pool of health workers to tackle public health challenges.

In what way do you think the Africa CDC and its RCCs can help improve the public health system in the continent?

Poor infrastructure and limited resources are some of the obstacles to the development of the public health system in Africa. I'm happy that our African leaders gave an African solution by establishing the Africa CDC. Most importantly, collaboration among Member States and putting efforts together to fight one common enemy while maximizing scarce resources is one way to combat public health problems. By collaboration I mean harnessing integrated disease surveillance and response to influence change in the social

determinants of health in Member States, such as education, income, physical environment, and access to healthcare.

Africa CDC creates a vast pool of knowledge and public health workforce that Member States on their own may not be able to gather. This will allow Member States to benefit from African tailored solutions in disease surveillance, emergency preparedness and response, laboratory diagnostics, and clinical care.

I firmly believe that Africa can benefit from an integrated approach to epidemic threats because diseases know no borders.

What is your message to the 14 Member States in Eastern Africa RCC to ensure that they are better prepared and can respond to disease outbreaks?

Member States must ensure that their health systems are functioning properly: all the building blocks of the healthcare system. They will do well to adapt a primary healthcare approach. They should be united, because together we shall overcome, even this COVID-19 pandemic.

COVID-19 stimulates creativity

in African Union Member States



Some of the locally produced face masks

As the COVID-19 outbreak spreads across the world, there is a surge in the demand for diagnostic, medical and personal hygiene and protective equipment. This surge in demand has led to a shortage of supplies and is stimulating creativity among African Union Member States. Some Member States have started to look inwards, using locally available materials to manufacture needed commodities such as alcohol-based hand rubs, disinfectants, face masks, and even ventilators.

Sahrawi Arab Democratic Republic (also known as Western Sahara) is a small country in North-Western Africa. The majority of the population lives in camps and depend a lot on humanitarian support by the United Nations High Commissioner for Refugees (UNHCR). For this population, it is increasingly impossible to get supplies from outside and almost impossible to afford the often-imported alcohol-based hand rubs and face masks.

“Our people have been resiliently struggling for over 45 years under tents in harsh weather conditions, with limited resources,” said Moilemnin Embarec.

The communities are partnering with their government to produce alcohol-based hand rubs, face masks and other protective clothing for themselves.

The alcohol-based hand rubs are being produced by the National Pharmaceutical Laboratory, while the masks and other protective clothing are produced by community volunteers and distributed to community members for free.

“As a result of the global challenges, we had to rely on ourselves to get the necessary medical supplies. The alcohol-based hand rubs are produced by the National Pharmaceutical Laboratory, the disinfectants and sterilizers for surfaces, hospital equipment, streets, and government buildings are produced by the Ministry of Water, and the volunteers produce the face masks, face shields and tissue gowns that can be re-used after being washed and sterilized,” said Moilemnin.

As of 10 April 2020, Sahrawi was among the three African countries that had not reported any case of COVID-19; however, the government has taken preventive measures to ensure that the country remains without cases. The government has closed all borders with neighbouring countries; restricted movements between the five regions, the liberated territories and districts; closed all offices except those that are deemed essential; closed schools, mosques, and restaurants; and limited attendance at social and public gatherings.

The government has created a specialized COVID-19 committee under the Ministry of Health to coordinate and manage all preparedness and response activities, including establishment and management of quarantine centres, follow-up of suspected cases, disinfection and cleaning of public places, provision of preventive medical supplies for health professionals, and awareness-raising.

“Now every country has this problem, so we have to make efforts to help ourselves. We live in camps and we don’t have medications, so we must pay attention to prevention,” said Moilemnin.