Expanding the EBOLA vaccination target in the DRC

What you should know

In June 2019, the Ebola response team in the Democratic Republic of Congo decided to expand the vaccination target to include some previously excluded population groups. In this interview, Dr Stéphane Hans Bateyi Mustafa, Expert in Applied Vaccinology and Coordinator of the Sub-Commission on Vaccination against Ebola Virus Disease (EVD) in North Kivu and Ituri, explains the rationale.

Can you tell us about the new features that have been announced in the EVD vaccination protocol?

Indeed, the vaccination against EVD now includes the vaccination of pregnant women, nursing mothers and children under one year of age, those who were excluded when this ring vaccination started.

Why did you decide to expand the target group, at this time?

It was necessary to have enough evidence before including (these groups) in this vaccination. The experiences accumulated from West Africa, particularly in Guinea, and even in the DRC, have allowed us to include this cohort in the vaccination ring. It was also done at the request of the population and because of the incidence rate in this cohort, which should not be neglected.

What was the basis of the decision by the National Ethics Committee to revise the vaccination protocol?

As this is a study of ring vaccination on a compassionate basis, each act performed must be mentioned in the study protocol and approved by the Ethics Committee. This is what has been done. Now, after the decision of the Ethics Committee of the School of Public Health, it is up to us field technicians to scale-up vaccination to this cohort … by also following the Standard Operating Procedures in accordance with good clinical practice.

Have there been any previous analyses of the possible side effects in pregnant women?

Indeed, after vaccination the pregnant women and children under one year of age will be followed up but in the meantime we have to respect their antenatal care and other prenatal examinations. An obstetrician/gynaecologist will monitor them throughout the period of pregnancy until delivery. And after birth, all essential examinations will be performed by the neonatologist paediatrician on the child.
Are you targeting a certain period of the pregnancy?
We start from the second trimester of pregnancy.

Are there any people targeted by this vaccine who can be declared ineligible for certain reasons?
We remind you that this is a compassionate vaccination and that informed consent is required. If someone thinks they don’t want to get vaccinated, they won’t be forced to do so. This is the most important step. In addition, there are chronic diseases such as cancer, HIV/AIDS, immune deficiency, and other degenerative diseases … which can create complications, we therefore will exclude these candidates from vaccination.

Will women be able to continue breastfeeding after receiving the vaccine?
They must continue to breastfeed normally, there are no special instructions.

What precautions have been taken to manage possible side effects in children under one year?
There is no major incident here. This vaccine protects children within this age group.

What assurance is there regarding this revision of the vaccination protocol?
The assurance is that, thanks to this vaccination, with the belt vaccination strategy, we have succeeded in limiting the outbreak in TChomia, Mangina, Kayna, Mutwanga, Oicha and other health areas. Even if there is a reintroduction of the disease, the vaccine is immunizing the population against the disease but also stopping the transmission chain if you vaccinate before the symptoms of the disease appear. The vaccination is preventive, so when an infection is detected through surveillance, the contacts and contacts of contacts are informed, reported and vaccinated immediately to quickly stop the disease transmission chain.

Although the vaccination target has been extended, the strategy remains ring vaccination, so is it true that not all pregnant women and children under one year of age are vaccinated?
Of course, the strategy remains ring vaccination, but we have also used other innovative strategies such as instant vaccination (pop-up vaccination) and geographical vaccination in the extended ring. With this ring vaccination, it is a good thing to have a critical mass protected immunologically to have a barrier against the disease. And if there is a pregnant woman in the first trimester or a child under six months of age, high-risk or suspicious contact, surveillance and other committees will continue the care.

Are there any other points of interest that you would like to share with us?
Ebola virus disease exists, and it is decimating our populations, but we have the necessary tools to help contain it. These include vaccination, which is proving its worth. With vaccination we have succeeded in limiting the spread of the disease, particularly in TChomia, Mangina, and other places, and we are evolving. If we vaccinate within the time limit, it stops the transmission chain of the disease. To date, more than 130,000 people have been vaccinated. This means that if this vaccination did not exist many more people would have died, and some of the villages would have been wiped out as it was in the previous epidemics in Kikwit. So, this vaccination really protects and contributes to the immunization of the population and can stop the transmission chain of EVD.

This interview was conducted by Cedric Mulumba and translated from French into English.
After almost a yearlong battle with Rift Valley Fever (RVF), the Minister of Health declared the disease outbreak over in Kenya in April 2019. The outbreak affected 20 counties and claimed 11 lives out of the 21 confirmed human cases. A total of 199 animal cases were also confirmed.

Kenya has experienced recurrent episodes of RVF since the virus was first discovered in the Rift Valley area in the early 1900s. Between June 2018 and April 2019, the country had two outbreaks of the fever.

Africa CDC played a significant role in the country’s response to the recent outbreak. Through its Eastern Africa Regional Collaborating Centre, Africa CDC deployed 17 public health experts to support response efforts and trained 123 national, county and sub-county disease surveillance officers and 52 laboratory managers and officers in event-based surveillance (EBS) and the One Health approach to early detection of diseases.

Africa CDC procured and supplied laboratory reagents and kits (human anti-RVF virus IgG ELISA quantitative kits; human dengue virus IgM ELISA kits; chikungunya virus IgM human ELISA kits; and zika virus IgM human ELISA kits) and trained laboratory officers in biosafety and biosecurity so they could safely handle and transport highly dangerous pathogens.

Africa CDC also supported surveillance, contact tracing, awareness and risk communication at the community level. More than 60,000 copies of fact sheets and posters providing information about RVF were printed in Swahili and English and disseminated through the Ministry of Health and other channels.

RVF is an acute fever caused by a viral infection, most commonly observed in domesticated animals but also with the ability to infect and cause illness in humans. Apart from Kenya, its occurrence has been reported in some other eastern and southern Africa countries.

Africa CDC is currently supporting finalization of the laboratory training curriculum so it can be adopted and used for expanded training in Kenya and other countries. It will also support capacity building in other geographical areas to strengthen preparedness and surveillance in the region and the ability to respond promptly to future outbreaks.
Countries Need to Develop National ACTION PLANS for Biosafety and Biosecurity

Speaking during the 2nd Global Biosecurity Dialogue held in Addis Ababa, 8–11 May 2019, Dr Mark van Passel, Chair of the Global Health Security Agenda (GHSA), said: “We want to increase health security and for this to happen national action plans need to be switched on. More and more countries are conducting joint external evaluation, which is a tool to measure health security, but after these evaluations few action plans are funded and implemented, and with few national action plans for health security being implemented we cannot realistically expect joint external evaluation scoring to increase.”

Dr van Passel expressed the commitment of GHSA to support countries in building capacity for their health security but said it is unfortunate that only few countries are benefiting from this support.

During the opening session of the Dialogue, Her Excellency Amira Elfadil Mohammed Elfadil, African Union Commissioner for Social Affairs launched Africa CDC’s Biosafety and Biosecurity Initiative to protect African countries against dangerous pathogens.

“Today, at the opening of the Global Biosecurity Dialogue, I am happy to announce Africa CDC’s initiative to advance biosafety and biosecurity in the continent through a series of regional consultative meetings intended to identify and close priority biosecurity and biosafety capacity gaps and make progress towards measurable improvements,” said the Commissioner.

Through the initiative, Africa CDC is partnering with the Nuclear Threat Initiative, Global Affairs Canada, Open Philanthropy Project, US CDC, and US Defense Threat Reduction Agency to hold a series of workshops and consultations with experts across Africa aimed to improve compliance with biosecurity and biosafety-related targets and commitments. Africa CDC will support the development of a consensus list of high-consequence pathogens and agents, as well as guidance documents, by Member States so they can protect themselves against the release of such pathogens and agents.

“As biological threats continue to evolve, Africa is uniquely positioned to get ahead of global catastrophic biological risk. If we start now, we can institute practices that reduce the risk of deliberate or accidental events while also bolstering capability to manage daily outbreaks and epidemics,” said Dr John Nkengasong, Director Africa CDC.

Nearly 100 government representatives and experts from around the world participated in the Dialogue.
In his opening address to a nine-day training of trainers on the management and operations of Public Health Emergency Operations Centres (PHEOCs), Dr John Nkengasong, Director of Africa CDC, charged participants to ensure that their EOCs are embedded within the national public health institutes.

“My wish and hope is that we do not make the EOC a standalone entity, it should be an integral part of the national public health institutions or the mini CDCs, replicating the US CDC approach. They should be used in supporting response to ongoing endemic disease challenges.” said Dr Nkengasong.

Dr Nkengasong told the participants that the EOC is a relatively new concept and encouraged them to avoid the tendency to create a parallel system which would be difficult to manage and sustain. He also told them to ensure that their EOCs are operational even in the absence of an emergency.

“We don’t want an EOC that will be waiting only for an outbreak, we should be asking ourselves how to maintain an EOC in peace time to respond to routine challenges such that when there is an emergency we can use it to respond,” he said.

Thirty-one trainees from 21 African Union Member States and Saudi Arabia attended the workshop, which was facilitated jointly by the West Africa Health Organization (WAHO), WHO, US CDC and Africa CDC.

The workshop aimed to strengthen the capacity of Member States to coordinate, prepare for and respond to public health emergencies appropriately through efficiently operated EOCs.

Using the standardized modules for PHEOC, participants learnt the fundamentals of the functioning and operations of an efficient EOC, including the legal and administrative procedures for their establishment, and how to transfer the skills they have acquired to others. They participated in practical sessions on how to conduct and manage public health emergency simulation exercises.

“The main functions that are happening at the PHEOC are preparedness, readiness and response to public health related events including leadership, operations, logistics, planning and administration, and these are the things that we dealt with in the training,” said Dr Agerry Bategereza, Interim Representative at WHO Ethiopia country office.

“I’m highly impressed with the training. We’ve learnt the principles and strategies of emergency preparedness, how to operate an EOC, how to develop emergency documents, and how to conduct different types of simulation exercises,” said Abraham Nyenswah, a participant from Liberia.

Following the training, participants formed a network of EOC experts who can be called upon at anytime to provide support at the country level. They are expected to develop and submit a training plan for their respective countries and will be involved in the development of a technical document that will guide countries in developing their EOC software.

“We now have a roster of EOC experts in Africa, and we can call upon them to provide country support anytime there is a need. Some of them will be deployed to countries that were not represented in the training,” said Senait Fekadu, EOC Technical Officer at WHO AFRO.
The course was administered online, with participants spending 10–20 hours a week to complete tasks and engaging in group discussions led by their instructors. The modules and discussions focused on ethical and legal issues in public health surveillance, health governance, the International Health Regulation, cross-border surveillance, application of information technology to public health surveillance, and lots more. There were productive conversations on ways to transform public health surveillance and advance public health in Africa.

“The entire course was well organized and has given me in-depth understanding of how public health surveillance can be transformed to meet current demands. It has inspired me to continue seeking more information on how to deal with new or emerging health issues. As an epidemiologist, I will use the information to improve public health surveillance at my workplace,” said one of the trainees.

“This course has greatly improved my understanding of public health systems and stirred the desire to see my country achieve a transformed public health surveillance system. We discussed what to do to fill the public health gaps, the need for better health governance, better informatics, and interoperability. These are things my country currently lacks,” said another trainee.

IWD was launched in response to the growing need for a well-trained and well-equipped public health workforce to tackle the rising disease burden across Africa. It is being implemented in partnership with Emory University, the African Field Epidemiology Network (AFENET) and the Eastern Mediterranean Public Health Network (EMPHNET).

“The first iteration of the TPHS course was an outstanding performance. The quality of contribution and engagement by the pioneer students was far beyond the expectation for a first class. They demonstrated great enthusiasm and in-depth understanding of the course content. We are confident that they will apply this additional knowledge and skill to measurably transform the public health surveillance system in their countries,” said Dr Chima Ohuabunwo, a faculty member.

“I am impressed by the level of engagement and interest shown by the first cohort of participants of the TPHS course. The participants were very keen to learn, think innovatively and contribute. I am excited about the prospects of the course and look forward to the time knowledge from this course will be translated to improvements in national public health institutes,” said Dr Chikwe Ihekweazu, Director General, Nigeria CDC and Faculty Member.

The institute courses will be conducted online, at Africa CDC headquarters in Addis Ababa, at other locations, or through a combination of online and face-to-face channels depending on the curriculum.

Three other priority courses will be offered during 2019: Introduction to Antimicrobial Resistance, Proposal Writing, and Leadership and Management.
A New Partnership to 
ENHANCE HEALTH SECURITY 
in Africa

Africa CDC has begun a new partnership with Public Health England (PHE) to enhance health security in Africa and contribute towards enhancing global health security.

The collaborative engagement between Africa CDC and PHE began in August 2017 and a letter of intent was signed in October 2018. Through this agreement, PHE is supporting Africa CDC’s work in emergency preparedness and response, workforce development and training, and in strengthening NPHIs and regional networks.

In this regard they will contribute to the training and capacity building of rapid response teams, support the development of a directory of country-level capacity for emergency response, deliver training on the use of behavioural science for behaviour change and risk communication in public health emergencies, and work with Emory University and the International Association of Public Health Institutes (IANPHI) to support the development of the Africa CDC Institute for Workforce Development. They will also support Africa CDC’s efforts to strengthen networking among NPHIs in Africa and strengthen regional resilience networks for prevention, detection and response to public health threats.

PHE is an executive agency of the UK Department of Health and Social Care and is the national public health institute for England. It is a member of IANPHI.

In December 2015, the Government of China had expressed willingness to support strengthening of Africa’s public health system by investing in the construction of Africa CDC headquarters building in Addis Ababa. A series of consultations followed, leading to the signing of this Agreement.

H.E. Elfadil, on behalf of the African Union Commission, thanked the Government of China for offering to construct the building and for their continuous support to the African Union. She said the Department of Social Affairs would work with other African Union departments and units to ensure speedy processing of all documents and approvals required to commence the project.

This Exchange of Letters of Agreement is an important step towards actualization of the construction project. It paves the way for the signing of an Agreement on the Economic and Technical Cooperation for the provision of the grant aid for the construction, commencement of the project design, and subsequent laying of the foundation.
Representatives of Africa CDC and the East, Central and Southern Africa Health Community (ECSA-HC) met at the African Union headquarters on Thursday, 2 May 2019 to discuss areas of partnership.

In his welcome remarks to the ECSA-HC delegation, Dr Benjamin Djoudalbaye, Head of Policy, Health Diplomacy and Communication at Africa CDC and leader of Africa CDC delegation to the meeting said a strong and active partnership between ECSA and Africa CDC was essential and would allow Africa CDC to broaden its scope and impact in responding to the public health needs across Africa.

Prof. Yoswa Dambisya, leader of the ECSA-HC team to the meeting, thanked Africa CDC for convening the meeting, and presented ECSA-HC’s technical areas, including family health and infectious diseases; non-communicable diseases, food security and nutrition; health systems and capacity building; and knowledge management, monitoring and evaluation.

Both organizations agreed on areas of partnership, including capacity building for surveillance, preparedness and response; threats and hazard identification risk assessment; antimicrobial resistance; joint outbreak and cross-border disease surveillance; and enhancement of diagnostic capacities within country networks.

Following the meeting, Africa CDC and ECSA will sign a letter of intent for collaborative work and develop a memorandum of understanding and a joint work plan.

ECSA-HC is a regional intergovernmental organization that fosters and strengthens regional cooperation and capacity to respond to the health needs of its nine Member States: Eswatini, Kenya, Lesotho, Malawi, Mauritius, Uganda, United Republic of Tanzania, Zambia, and Zimbabwe. Other non-Member State countries supported by the organization include Botswana, Burundi, Eritrea, Mozambique, Namibia, Rwanda, Seychelles, Somalia, and South Sudan.
In a new partnership aimed to prevent infections at health facilities, Africa CDC and WHO convened a workshop on 10–11 April 2019, involving over 50 experts from around the world, to define minimum standards and develop guidelines for infection prevention control (IPC) at health facilities in Africa.

“We’ve brought a lot of expertise and experience to tackle a very difficult task. The goal is to come out with an essential list of minimum standards for infection prevention at healthcare facilities,” said Benederta Allegranzi from the WHO Global IPC Unit.

Among the participants were representatives of African Union Member States, US CDC, China CDC, West African Health Organization (WAHO), Eastern, Central and Southern African Community (ECSA), African Society for Laboratory Medicine (ASLM), Mapping AMR & AMU Partnership (MAAP), Africa Union Taskforce on AMR, Africa CDC, and other technical partner organizations.

“We’re involved in the international infection control programme because we realized there is a lot of investment in health but not much in safety, and there is a need to close this gap. Infection prevention control is one area where clinical medicine overlaps with public health and an area that must be strengthened. We need to have safeguards that use advanced technologies more effectively,” said Benjamin Park of US CDC.

Participants in the workshop discussed how to integrate the Africa CDC Framework for Antimicrobial Resistance Control with the WHO and other partner guidelines in defining the scope for a policy framework and standards for safe healthcare facilities in Africa. They identified priority issues for minimum standards at the national, sub-national and facility levels.

Following the meeting, Member States are working together with the support of WHO and Africa CDC to finalize the draft guidelines.
Convened by Africa CDC and led by the African Society for Laboratory Medicine (ASLM), the consortium consists of IQVIA, Center for Disease Dynamics Economics and Policy (CDDEP), West African Health Organization (WAHO), East, Central and Southern Africa Health Community (ECSA-HC), Innovative Support to Emergencies, Diseases and Disasters (InSTEDD), and some departments and units of the African Union. The consortium brings together a unique combination of technical expertise, strategic coordination and political leadership to advance the collection and productive use of AMR data across Africa.

“Africa CDC is a continental public health institution and we are looking at sustainability. Our desire is to ensure that we harmonize and coordinate better,” said Dr John Nkengasong, Director Africa CDC.

“Our work is really about partnerships, bringing together resources and finding ways to most effectively harness all of the public health capacity in Africa,” said Dr Jay Varma, Chief of Science at Africa CDC.

MAAP will work with Member States to retrieve retrospective AMR and AMU data, which can provide more insight into health system gaps and guide capacity strengthening for data collection and use for policy improvements at the country and regional levels.

“What gets measured is what can get fixed. We’re all talking about the quality of data and this is very important for the future. We’re going to map every available data so we can know the gaps we have to close. The goal is to plan an advocacy with the data we will generate,” said ECSA-HC representative to the meeting.

Participants in the April workshop discussed the need for digitalized data surveillance systems for mapping AMR and AMU and for supporting public health decision-making. They also discussed the development of implementation and operational plans for a sustainable AMR surveillance system using relevant country-specific and systems information.

Information that can guide the establishment of AMR surveillance systems and targeted interventions for the control of AMR is imperative for Africa, and through MAAP Africa CDC is accelerating efforts to strengthen AMR surveillance in the continent.
Participants shared experiences and received training on the identification of outbreaks, contact tracing, writing and reviewing of protocols and abstracts, and reviewed multi-country Population-based HIV Impact Assessment (PHIA) data. They learned how to use modern technology for the rapid detection and response to emerging infections.

Following the training, the participants are expected to develop action plans for implementing the lessons learnt in their respective countries.

“This training has strengthened our capacity, it has increased our knowledge and we’re better skilled and better prepared to support the control of HIV in our countries and across Africa,” said Prichard Mapondera, a participant from Zimbabwe.

The Lab-Corps Fellows programme is a PHIA project that seeks to strengthen capacity in laboratory testing of blood samples and maintain the laboratory and clinical interface. It uses an innovative approach to increase access to critical laboratory services while ensuring quality of the services.