

‘We cannot just be testing grounds’: COVID prompts African scientists to call for homegrown vaccines



African scientists say that the COVID-19 pandemic should be a wake-up call that prompts the continent to produce more of its own human vaccines. As a first step, they are urging more African countries to participate in trials of the COVID-19 vaccines currently under development.

“Though we have not made these products in Africa, we must be able to move very fast with our own governments [...] and begin clinical trials in our own communities to find out if these vaccines are safe and efficacious. Because at the end of the day, if we are going to administer these vaccines in our own communities, there will be the need to have some local data on safety and efficacy,” Omu Anzala, a professor of virology and immunology at the University of Nairobi – Kenya, said in a recent [AfS Live!](#) session.

[According to the World Health Organization](#), there are currently 191 vaccines under development. None of these are being developed in Africa. The closest Africa has gotten to working on COVID-19 vaccines is South Africa’s participation in trials of vaccines produced in the USA and the UK. Egypt is also preparing to undertake trials of Covid-19 vaccines produced in China.

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A volunteer receives an injection from a medical worker during South Africa’s first human COVID vaccination. Felix Dlangamandla/Beeld/Gallo Images

“In terms of where we are as a continent on COVID-19 vaccines, I’m sorry to say that Africa is not doing very well,” Anzala said.

He questioned why African governments have not invested more in developing vaccines over the years.

“Where are our scientists? Where are African investments in terms of research and development? We cannot afford to just be testing grounds. We should be part and parcel of research; we should be part and parcel of innovation and begin to engage and produce and create and make these products in Africa,” the professor noted.

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Although Africa is inhabited by 14 percent of the world’s population, less than 0.1 percent of human vaccine production happens in Africa. Most of that occurs in Senegal, Morocco and Tunisia. Dr. Michael Owusu, a clinical microbiologist at Ghana’s Kwame Nkrumah University of Science and Technology, wants Africa to move beyond merely testing vaccines and start producing its own.



Dr. Michael Owusu. Credit: CfHSS

“It is good to have expertise in trials, but the goal should be to have the industries in Africa where they can manufacture their own vaccines and test it on their own population. Covid-19 has shown us that it is not healthy to completely rely on Western partners to continue giving us things we need,” he said.

“My fear is that if we don’t use this opportunity to build the structures, the next phase of a pandemic is something we will not be able to solve,” Owusu added.

Owusu said that initial efforts to build capacity for human vaccine development in Africa 50 years ago have long since been abandoned.

“Vaccine manufacture is not a one-day event, it is a process. Over the years, we have not been able to establish the systems to be able to support vaccine development,” he said. “In Ghana for example, in the 1960s, previous governments began manufacturing vaccines for animals with our veterinary health services. The plan was to gradually develop a crop of scientists who would be able to build a whole infrastructure, research and development unit, a huge pharmaceutical industry to be able to zoom into the manufacture of human vaccines. Along the line this collapsed, and now even manufacturing vaccines for animals is not happening.”

Dr. Owusu says Africa has the human resource capacity to undertake more vaccine development projects. The only challenge is a lack of funding by governments and other agencies. “We have quite a number of experts who have trained over the years and are serving as collaborating principal investigators in countries where trials are being done. We also have very good investigators and leading scientists, so we have experienced people who are conversant with these vaccines. I am confident our own local scientists can lead these trials and ensure their safety,” he said.

Anzala said steps have been taken to ramp up human vaccine production across the continent, including the Africans Vaccine Development Initiative, which aims to create regional blocs that can specialize in manufacturing certain types of vaccines.

Safety and misinformation

Earlier this month, researchers at the University of Oxford and the pharmaceutical firm AstraZeneca, suspended ongoing human trials of their Covid-19 vaccine candidate following an adverse reaction involving one of the volunteers who had received it in the UK. The trials resumed a few days later after scientists concluded there was no cause for alarm.

Anzala said putting a vaccine trial on hold “is a good thing because it shows you that the data safety monitoring board is reviewing the data unblinded. They have seen a problem and they are telling you straight away. Investigations are being done.”

Anzala, who has been involved in vaccine trials for more than 20 years, said it’s important to remain focused on the bigger picture. He sees misinformation as a much larger threat than vaccine safety.

“I have never seen an infectious agent that has received so much misinformation as Covid. My advice is that we educate the communities to differentiate between what is information, what is data and what is knowledge. There is a lot to be done and each country would have to deal with it in their own community,” he said.

[Dr. Mercy Korir](#), a health journalist and editor with The Standard Group in Kenya who moderated the discussion, called for African solutions to the Covid-19 pandemic.

“We really need to do a lot of research and do our own home-grown capacity building and research to be able to tackle the next disease,” she said.

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