The coping mechanisms the DRC is putting in place as it faces Ebola, measles and COVID-19

23 June 2020, by Yap Boum

Ebola virus. Credit: NIAID

Ebola, a viral haemorrhagic fever of humans and other primates, has become endemic in the Democratic Republic of Congo (DRC). The country has had 10 outbreaks in 40 years and has recently declared the 11th.

This is almost certainly due to the co-existence of humans and animals (primates and bats) carrying the Ebola virus. When humans come in contact with these animals—or fruit that's been partially eaten by them—they face an increased chance of contracting the virus.

On top of this, the country has a measles outbreak of more than 300,000 cases and more than 6,000 deaths since 2019. Now the DRC is facing the COVID-19 pandemic, with 4,637 confirmed cases and 101 deaths at 13 June 2020.

This raises the question of how a country with limited resources can handle all the outbreaks at the same time. The same question applies to many African countries. For example, cholera, measles and COVID-19 outbreaks are happening in Cameroon and Nigeria, among other countries.

It also raises the question of whether earlier outbreaks prepare a country's health system better or weaken it.

When faced with an outbreak such as Ebola, a country will put all its financial, human, and material resources into responding to—and ending—the crisis. This results in countries responding to one crisis at a time.

African governments should start shifting their attention to strengthening health systems. By doing so they will be better placed to respond to any pandemics while providing quality healthcare services to all.

The DRC has begun to make this shift in mindset. DRC community engagement, research and testing capacity that has been strengthened during the recent outbreaks has put the country in a better position to respond simultaneously to the most recent Ebola outbreak, as well as the measles outbreak and COVID-19.

But this requires significant financial resources.

How the DRC is changing its approach

The DRC has systematically gone about strengthening health infrastructure, engaging the community and doing better research.

Two steps stand out. Firstly, there is significant investment in laboratory capacity, as seen by the scale of testing in DRC by the Institut National de Recherche Biomédicale.
The second has been the development of genomic surveillance with DNA databases to perform surveillance. This provides the country with the opportunity to transform the way it responds to outbreaks including Ebola, COVID-19, cholera and measles.

In classic surveillance, epidemiologists track people and try to understand the links between them during an outbreak. Genomic surveillance allows researchers to quickly connect people affected by the same virus. They can then quickly tell the story of its transmission in the community. This helps explain the dynamic of the outbreak and how the virus moves from one person to another and from one community to another.

A third major development has been the building of community engagement to ensure that the community contributes to the response. This includes the work done by community health workers and the place given to community leaders in the response.

In the case of Ebola, members of the community are part of the team of people tracing the cases of Ebola during an outbreak. Their knowledge of their community speeds up the tracing of people who have been in contact with Ebola patients. They also facilitate the acceptability of national and international response teams to the community.

This is crucial especially in rural settings where there is usually a lack of trust of government.

The DRC has also strengthened its research system. Through various partnerships and collaborations with Epicentre, the United States National Institute of Health and the London School of Tropical Medicine and Hygiene, the DRC Institut National de Recherche Biomédicale led by Professor Muyembe has made Ebola a curable disease. They implemented a randomised, controlled trial of Ebola virus disease therapeutics showing that the antibodies MAb114 and REGN-EB3 were superior to ZMapp in reducing mortality from Ebola.

Beyond the results of the trial the DRC has managed to create the capacity to run clinical trials including vaccine trials in the middle of an emergency.

These capacities should now be used to evaluate new therapeutics against COVID-19. This should include traditional medicine as well as diagnostic tools and vaccines that are critical to improving the response to COVID-19 while addressing cholera and measles at the same time.

Quality healthcare as a just cause

The steps the DRC has taken to improve the response to pandemics, including prevention of outbreaks, can also lead to universal health coverage that aims to provide quality healthcare services for all.

My hope is that the COVID-19 epidemic will force powerful people to realise they are part of the same world as people with less power. And that it will encourage authorities to reassign resources to health systems.

The DRC is one of many African countries that has not complied with the Abuja declaration they signed 19 years ago in which they committed to spend 15% of their gross domestic product on health. Only Ethiopia, Gambia and Malawi have in fact surpassed the 15% Abuja target. The DRC spends less than 4% of its GDP on the health sector.

Disease outbreaks should serve as an accelerator to provide quality healthcare for all people who live on the continent.

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