What if tropical diseases had as much attention as COVID?

As the COVID-19 pandemic threatens to erode huge gains against much more devastating infections, I look for silver linings.

All year, COVID-19 has commandeered the world's attention. It is as if no other disease has ever been more important, more contagious or more deadly.

I founded a non-profit research institute in 2008; we established the first molecular-biology laboratory in the Republic of Congo, at the country's only public university. We monitor pathogens such as those that cause gastrointestinal diseases, malaria, HIV, tuberculosis (TB) and chikungunya — which together infect more than 250 million people each year globally, and kill more than 2.5 million. To keep treatments effective, we assess the development of resistance to antimalarial, antiretroviral and antibiotic drugs.

Our research programmes were already in place, so we could quickly pivot to diagnostic testing and blood-based epidemiological studies to understand how COVID-19 was spreading in Congo and how to keep health-care workers safe. Since March, three-quarters of our time has been spent on COVID-19.

That means I am neglecting my work on other diseases — which are not going away. And it's not only my lab. In October, the World Health Organization (WHO) reported that progress against TB might stall: in the countries with the highest rates of the disease, the number of people diagnosed and directed to care dropped by one-quarter compared with last year's figure. Because many countries have implemented lockdowns, hospitals and health centres have seen a significant drop in the number of people coming for treatment.

In Uganda, maternal mortality rose by 82% from January to March, and because of COVID-19, rates of HIV diagnoses and of people starting antiretroviral treatment (and treatment to prevent TB) will fall by 75% (D. Bell *et al*. *Am. J. Trop. Med. Hyg.* **103**, 1191–1197; 2020). These treatments must be kept on track through active community outreach. In September, researchers at the WHO and elsewhere modelled what could happen if distribution of antimalarial medicine and insecticidal bednets to prevent malaria falls by up to 75% (D. J. Weiss *et al*.

Lancet Infect. Dis. https://doi.org/fg3n; 2020). If this plays out, all the gains made against malaria over the past 20 years could be lost.

My message is not that efforts against COVID-19 are misguided, but that I am disheartened that such efforts have not been rallied and sustained against other infectious diseases.

Sometimes, while running diagnostic tests to track COVID-19 infections in my country, I daydream about a disease I have worked on for 25 years. What if the world had tackled malaria with the energy now dedicated to the coronavirus? Might malaria have been defeated?

Philanthropic organizations, such as the Bill & Melinda Gates Foundation in Seattle, Washington, have accelerated research against malaria and other diseases. Deaths from malaria declined by nearly 31% from 2010 to 2018. Some treatments were developed in Africa (where some trials for the Ebola vaccine were also run). But these exertions do not compare with those against COVID-19.

More than 90% of the global burden of malaria deaths is in Africa. A child dies from malaria every 2 minutes. For survivors, such infectious diseases lock in a vicious cycle. They keep people from work and school, trapping them in poverty and conditions that allow illness to thrive. The people most directly affected do not have the resources to mount a huge effort against them.

To combat this injustice, I try to find a sense of progress — to identify concrete actions to strengthen research capacities in Africa in general and in my country in particular.

One silver lining in this pandemic is that African leaders, who had developed the bad habit of putting all their hopes on development aid, have dug into their own budgets to fight COVID-19. The private sector, including oil companies and local banks, has chipped in. If this alliance can continue after the pandemic ebbs, research capacity will increase across Africa. This might be a case in which we 'build back better' after the pandemic.

During the lockdown, researchers and engineers developed prototypes of respirators made in Congo using recycled components, showing initiative and creativity that should flow into other areas of health research. We need to set up functional, well-equipped labs to boost this work.

I also hope that the dynamism and richness of scientific exchanges since January 2020 will continue and intensify. We need to establish solid collaborations nationally (with other research institutions), regionally (with surrounding countries) and with regional and international networks, such as the Central Africa Clinical Research Network (CANTAM) and the Pan-African Network for Rapid Research, Response and Preparedness for Infectious Diseases Epidemics (PANDORA), both of which I coordinate.

Above all, we must train the next generation of scientists locally. I tell myself that COVID-19 will help in this exercise. I just need to apply to many calls for proposals for coronavirus grants, in collaboration with colleagues from all parts of the world. This funding will be an opportunity to train researchers who will move on to tropical diseases as soon as the need to tackle COVID-19 becomes less pressing.

To get through my work day after day, this is how I see the COVID-19 pandemic: as an opportunity to build structures that will reduce the burden of all tropical diseases. I do not want to think about a world where that does not happen.

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