Correspondence

Is Guinea meeting the challenges to control the new ebola virus disease outbreak in West Africa?

Dear Editor

On February 14, 2021, Guinea declared an outbreak of the Ebola Virus Disease (EVD), after a case was identified in the Gouéké locality in the N’Zérékoré region (World Health Organization. New Ebola outbreak declared in Guinea, 2021). This new EVD outbreak creates much fear as memories of the 2014–2016 epidemic, the largest and deadliest EVD outbreak ever, are still fresh (World Health Organization. New Ebola outbreak declared in Guinea, 2021). It occurs in the context of the ongoing COVID-19, measles, and yellow fever outbreaks and raises questions on the emergency preparedness of Guinea and its neighboring countries and their capacity to stop its spread rapidly (Agence nationale de sécurité sanitaire. Réunion hebdomadaire d’information épidémiologique, 2021).

On February 20, eight confirmed or suspected cases had been recorded in Guinea with a lethality rate of 71%, and a total of 360 contacts identified, of whom 94% were traced (Agence nationale de sécurité sanitaire. Réunion hebdomadaire d’information épidémiologique, 2021; Nationale, 2021). The index case was identified in an area close to the village of Womey, where seven health care workers were killed in September 2014 during an awareness-raising rally about EVD (Guardian, 2014). This raised fears that local communities might still be reluctant, even resistant to EVD response measures such as vaccination, secure burials, and other personal preventive measures (Camara et al., 2020). In fact, most transmissions to date occurred during a burial (World Health Organization. New Ebola outbreak declared in Guinea, 2021) and the area where the first case was identified is close to Liberia, raising fears of cross-border transmission. Moreover, Guinea had no stocks of the Ebola vaccine or investigational drugs to treat EVD cases when the epidemic started.

Despite these challenges, Guinea seems better prepared to face this new epidemic than the totally unexpected first epidemic (2014–2016). Indeed, the way the authorities have reacted quickly upon notification of the suspected epidemic is illustrated by the following observations.

First, the health system was able to detect and diagnose EVD rapidly and to trigger a decision-making cascade that led to the timely declaration of the outbreak. As soon as the suspected cases arrived at the Gouéké Health Center on February 12, a preliminary investigation was conducted, and samples were sent immediately to the Gueckédou European Mobile Laboratory (about 186 miles away), where the Ebola virus was identified. The Ministry of Health (MoH) was notified the same day and additional samples were sent to two laboratories in Conakry, where the virus was identified. The Ministry of Health (MoH) was notified the same day and additional samples were sent to two laboratories in Conakry, which confirmed EVD on February 13. The outbreak was officially declared on February 14 (World Health Organization. New Ebola outbreak declared in Guinea, 2021).

Second, the outbreak response has been swift. On February 14, a national support team from the National Health Security Agency (ANSS) was deployed in the region with the aim to conduct a thorough investigation around the confirmed case (Agence nationale de sécurité sanitaire. Réunion hebdomadaire d’information épidémiologique. 17 Février, 2021). The team was reinforced by experts from ANSS technical partners, including the African Field Epidemiology Network, German Cooperation, Médecins Sans Frontières, WHO Guinea Office and International Organization for Migration. Besides, all response coordination mechanisms were activated at central and peripheral levels including the deployment of graduates from the Ministry of Health Field Epidemiology Training Program (FETIP) originating from N’zérékoré who were mandated to conduct contact tracing and other surveillance activities (Agence nationale de sécurité sanitaire. Réunion hebdomadaire d’information épidémiologique. 17 Février, 2021). Furthermore, an emergency request was submitted to the World Health Organization (WHO) to acquire EVD vaccines. On February 16, a request for two investigational drugs (Mab 114 and Regeneron Ebola) was sent to the United States (US) Biomedical Advanced Research and Development Authority (BARDA), which shipped 50 doses of each drug to Guinea, where a cold chain was established as the repository for vaccines and investigational drugs.

As a result, the disease incidence and lethality have been reduced. As of April 20, only 23 confirmed or suspected cases in total have been recorded in the country with an overall lethality rate of 52% (a reduction of 19 percentage points as compared to the epidemic start). Besides, a total of 7,545 people have been vaccinated against EVD, including about 32% of frontline health care workers (Nationale, 2021).

Third, the WHO and MoH have rapidly set up a 30-person vaccination team, mainly composed of health professionals who implemented the “Ebola ça suffit!” trial in 2015 in Guinea and supported the vaccination strategy during the recent EVD epidemics in the Democratic Republic of the Congo from 2018 to 2020 (World Health Organization. New Ebola outbreak declared in Guinea, 2021; Henao-Restrepo et al., 2017).

Fourth, neighboring countries have already activated EVD emergency plans and to date, no cross-border transmission has been notified. International donors, including the United Nations (UN) and the US, have rapidly committed to supporting efforts to stop the current EVD outbreak γ (Busari and Gigova, 2021).

However, despite the above-mentioned strengths, not everything has been perfect. The health system failed to diagnose EVD in the nurse who died at the regional hospital in N’Zérékoré and whose burial led to transmissions that revealed the disease. While the most likely source of epidemic resurgence currently explored is sexual transmission from the 2014/2016 Ebola epidemic recovered patient, informal medical sources reported at times that this nurse was probably infected while caring for her late mother-in-law in January 2021 in Gouéké. Also, a suspected case escaped the surveillance system and reached the capital city Conakry and had contacts in the neighboring health district of Dubreka.
However, the system was reactive enough to locate him before he reached Conakry, and FETP graduates were dispatched in all the places where he had stopped along his way to conduct contact tracing. An additional suspected case who travelled from N’Zérékoré has been identified in Sigui health district (Kankan region) on February 20. Surprisingly, despite all resources spent on infection prevention and control measures during 2014–2016 epidemic, five of the first EVD cases were among health care workers. Therefore, one can wonder whether the health system keeps the memory of, and has learned from, the previous epidemic, given continuous shortages of personal protective equipment in health facilities (Delamou et al., 2020). This emphasizes the need for paradigm change to build a more sustainable model of IPC that would integrate institutionalization of training through academic institutions and more accountability at individual and facility levels.

Finally, public reluctance in some places has slowed down the vaccination campaign and contact tracing, especially in Soulouta village where the last two confirmed cases originated from.

In conclusion, Guinea seems to be much better prepared to face the current EVD epidemic despite the ongoing burden of COVID-19. However, current response and coordination efforts need to be further strengthened and sustained. Particular emphasis should be put on keeping and expanding national disease surveillance capacities and designing a more sustainable IPC approach. Also, whether communities will be receptive to additional epidemic response measures on top of keeping and expanding national disease surveillance capacities and that would integrate institutionalization of training through academic institutions and more accountability at individual and facility levels.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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