03 May, 2024.

To: The African Union

From: David Yakubu

SUBJECT

Joint Task Force: Strategies and Lessons from the Ebola Virus Disease (EVD) in Africa. The need for urgent unified system of disease surveillance.

RECOMMENDATION

In response to the threats posed by the Ebola Virus Disease (EVD) to the health and stability of African nations, I strongly recommend that the African Union takes decisive action to establish a unified and robust surveillance system for EVD across the continent. This should involve the creation of a dedicated Joint Surveillance Task Force comprising representatives from member states and relevant stakeholders to coordinate surveillance activities and facilitate information sharing. The Union should support the development of regional surveillance networks, leveraging existing partnerships and organizations such as the Africa Center for Disease Control and Prevention (Africa CDC) and the East African Community (EAC). Investment in technology and infrastructure, including digital platforms for data collection and laboratory facilities for rapid diagnosis. Capacity building and training programs for healthcare workers and emergency responders should be prioritized, alongside the exploration of sustainable financing mechanisms and advocacy efforts to garner political commitment. By implementing these measures, African countries can strengthen their capacity to detect, respond to, and prevent future outbreaks of EVD, ensuring the health and well-being of their populations.

BACKGROUND

The Democratic Republic of Congo (DRC) has faced several outbreaks of Ebola Virus Disease (EVD) in recent years. Actually Between May 2018 to September 2022 DRC has recorded seven EVD outbreaks within its borders posing significant challenges to regional and global health security[1][2]. The 10th EVD outbreak in the region (2018–2020) was particularly severe, prompting a WHO risk assessment that identified nine neighboring countries at moderate to high risk of cross-border importation[3]. While these countries implemented various preparedness interventions,

[1] World Health Organization. Ebola virus disease fact sheet. 2021. https://www.who.int/news-room/fact-sheets/detail/ebola-virus-disease. Accessed 1 May 2024.

[2] World Health Organization. Disease Outbreak News item. Ebola virus disease – Demographic Republic of the Congo. 2022. https://www.who.int/emergencies/disease-outbreak news/item/2022-DON404 Accessed 1 May 2024.

[3] Ryan, Caroline S., Roseline D. Belizaire, Miriam Nanyunja, Olushayo O. Olu, Yahaya A. Ahmed, Anderson Latt, Matthew T. Kol et al. "Sustainable Strategies for Ebola Virus Disease Outbreak Preparedness in Africa: A Case Study on Lessons Learnt in Countries Neighbouring the Democratic Republic of the Congo." *Infectious Diseases of Poverty 11*, (2022). Accessed May 8, 2024. https://doi.org/10.1186/s40249-022-01040-5.

shortcomings persist. This policy memo aim to address and propose a measure to enhance EVD preparedness in bordering countries.

ANALYSIS

Ebola virus disease (EVD) is a brutal illness, often claiming the lives of both humans and non-human primates. This highly contagious disease, caused by a ruthless RNA virus, spreads primarily through contact with the blood or bodily fluids of infected individuals or deceased animals. Contaminated objects like needles and the consumption of infected bush-meat have also been identified as transmission routes. EVD first emerged in 1976, with two major outbreaks erupting simultaneously in South Sudan and the Democratic Republic of Congo (DRC). Since then, the world has witnessed further outbreaks in Uganda (1994, 1995) and the DRC (1995). The 21st century has seen a surge in large-scale EVD outbreaks, with Gabon, Uganda, Guinea, Liberia, Sierra Leone, and Nigeria all experiencing significant events. Even isolated outbreaks have occurred in South Africa, the USA, UK, and Italy[4].

In 2014, an Ebola outbreak spilled over from Guinea, devastating a remote area of Sierra Leone. Weak disease surveillance in Guinea and Sierra Leone allowed the virus to spread unchecked throughout the country and beyond. By the time the epidemic ended two years later, nearly 4,000 lives were lost[5]. This tragedy served as a wake-up call, prompting the nation to completely overhaul its disease surveillance system.

Before the Ebola outbreak, Sierra Leone's disease surveillance relied on the Integrated Disease Surveillance and Response (IDSR) system, a paper-based approach. This system had its limitations e.g. coverage wasn't universal, with some health facilities lacking IDSR altogether. Even in facilities with the system, reporting rates were low. Weekly disease counts were relayed verbally to district health facilities, then manually entered into national spreadsheets, this process was slow and prone to errors. And this is the case with almost all of the other African countries.[6]

Recognizing these issues, Sierra Leone's Ministry of Health teamed up with partners like the CDC and WHO to revamp the IDSR system in 2015. They implemented improvements like:

- **Organized system tools:** Streamlined processes and better data collection methods.
- **Refined disease notification list:** Defined the specific diseases that required reporting.
- **Standardized reporting procedures:** Established clear guidelines for tracking and reporting.

---

[4] Rugarabamu S, Mboera L, Rweyemamu M, et al Forty-two years of responding to Ebola virus outbreaks in Sub-Saharan Africa: a review BMJ Global Health 2020;5:e001955 https://gh.bmj.com/content/5/3/e001955

[5] Ebola Outbreak Sparks Disease Surveillance Transformation in Sierra Leone https://www.cdc.gov/globalhealth/healthprotection/fieldupdates/fall-2019/sierra-leone-surveillance.html#print

[6] Ebola Outbreak Sparks Disease Surveillance Transformation in Sierra Leone https://www.cdc.gov/globalhealth/healthprotection/fieldupdates/fall-2019/sierra-leone-surveillance.html#print

The biggest change came in 2016 with the launch of the web-based e-IDSR system. This system offers several advantages:

- **Real-time data entry:** District officials can directly enter data from health facilities into the system.
- **Centralized database:** Data is automatically uploaded to the national DHIS2 database.

Paper systems left weekly reporting below 40% in 2015. However, the updated e-IDSR and user-friendly app, skyrocketed weekly reporting to a remarkable 99% by May 2019.[7]

Countries that shared borders with the DRC were evaluated by the World Health Organization as moderate to high-risk and are referred to as "priority countries". Priority countries were further divided into priority one and priority two based on their geographic proximity to the outbreak epicenter, the volume of cross-border movement, and the use of shared transport routes. As a result, Burundi, Rwanda, South Sudan, and Uganda were identified as priority one countries, and Angola, Central African Republic (CAR), Congo, Tanzania, and Zambia as priority two.[8] Despite lessons learned from previous outbreaks, including the unprecedented West African EVD pandemic, most countries at risk were unprepared for the largest of these seven outbreaks[9]. As part of the revised International Health Regulations (IHR 2005), countries worldwide must establish functional emergency preparedness and response capabilities for all emergency events that pose serious threats to human life. Before developing the legal and regulatory mechanisms, physical infrastructure, human resources, tools, and processes necessary to comply with IHR 2005, it is essential to have a functional health system. Ebola-endemic areas in the DRC and its bordering countries are quite far from this reality.

In Conclusion, the SARS-Cov 2 (COVID-19) pandemic demonstrated to the world that policy guidelines for response capacities, even in high-income countries with assumed robust health systems, did not necessarily translate into practice. As we prepare for future pandemics, it is imperative that we address not only the technical aspects of preparedness but also the political dimensions that influence the effectiveness of our response efforts. By implementing the recommendations outlined above and collaborating closely with other countries and international organizations, we can strengthen our collective resilience and ability to respond effectively to the next big pandemic. Together, we can build a healthier and more resilient Africa for future generations.

---

[7] Ebola Outbreak Sparks Disease Surveillance Transformation in Sierra Leone https://www.cdc.gov/globalhealth/healthprotection/fieldupdates/fall-2019/sierra-leone-surveillance.html#print

[8] Ryan, Caroline S., Roseline D. Belizaire, Miriam Nanyunja, Olushayo O. Olu, Yahaya A. Ahmed, Anderson Latt, Matthew T. Kol et al. "Sustainable Strategies for Ebola Virus Disease Outbreak Preparedness in Africa: A Case Study on Lessons Learnt in Countries Neighbouring the Democratic Republic of the Congo." *Infectious Diseases of Poverty 11*, (2022). Accessed May 8, 2024. https://doi.org/10.1186/s40249-022-01040-5.

[9] Buseh, Aaron G., Patricia E. Stevens, Mel Bromberg, and Sheryl T. Kelber. "The Ebola Epidemic in West Africa: Challenges, Opportunities, and Policy Priority Areas." Nursing Outlook 63, no. 1 (2015): 30-40. Accessed May 8, 2024. https://doi.org/10.1016/j.outlook.2014.12.013.