New Ebola Outbreak in Africa Is a Major Test for the WHO

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“The suspicions are born of a forgone era,” said Rose, director of the Duke University Center for Smoking Cessation, who has received funding over the years from PMI and Philip Morris USA. “The real enemy is death and disease caused by smoking,” not the tobacco industry.

Today, Rose said, his center is funded exclusively by National Institutes of Health grants. Still, he said, “I would not hesitate to apply for funding from the foundation. The merits of accepting funding to do public health [research] outweigh the risks.”

However, recent reports suggest that long-held suspicions may still be well-founded. Shortly before the foundation was formally launched, Reuters News Agency published an investigation, based on internal PMI documents, that concluded the company has been trying to weaken Framework Convention on Tobacco Control provisions curbing tobacco use. Ironically, Yach helped develop the tobacco control convention, which coordinates global efforts to combat tobacco use.

Informed Decision
In a recent JAMA Viewpoint, published a few months before the formal launch of Yach’s foundation, Sandro Galea, MD, DrPH, dean of the Boston University School of Public Health, and his coauthor wrote: “Schools of public health should not accept money if doing so pushes them to be something that is not consistent with their mission to promote the health of the public.”

However, Galea says he needs more information about the smoke-free foundation before deciding whether to sign a statement that his school will not accept its money. “I think all money comes with conflicts,” he said. “Should we take money from large conglomerates where part of their manufacturing goes to building parts of weapons? To help inform him and his faculty and students, Galea said, he has invited Yach and Daube to speak at a symposium on campus in the fall.

As of mid-June, the foundation had not yet announced the recipients of its first round of grants. “My guess is that they’re going to fund some of the zealous supporters of e-cigarettes and people who haven’t really worked intensely on tobacco,” said Matthew Myers, president of the Washington, DC-based Campaign for Tobacco-Free Kids, which works in about 25 countries around the world.

While PMI may be developing smoke-free alternatives, Myers said, he has never seen the company market combustible cigarettes as aggressively as it is now.

“One of my strongest criticisms of the foundation is they did not demand, as a condition of accepting the money, a real change in Philip Morris’s business practices,” Myers said. “In the absence of Philip Morris agreeing to do that, it is obvious that this grant is a diversion to make it appear that they are part of the solution, not the problem itself.”

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The JAMA Forum

New Ebola Outbreak in Africa Is a Major Test for the WHO

Lawrence O. Gostin, JD

On May 8, the Democratic Republic of Congo (DRC) notified the World Health Organization (WHO) of a confirmed outbreak of Ebola in Bikoro, on the shores of Lake Tumba in Équateur Province. Ebola in the DRC is not unexpected. The first-ever identified Ebola outbreak occurred in the DRC—then Zaire—in 1976. This is the ninth of DRC’s outbreaks, which until now have been confined mainly to rural areas. With high fatality rates, earlier outbreaks quickly burned out due to the natural firewall of remoteness.

Bikoro and a nearby village, Ikoko-Impenge, are rural, but on May 16, the WHO confirmed spread to Mbandaka, home to 1.2 million people. Peter Salama, MD, MPH, head of the WHO’s Emergencies Program, called urban spread a game changer that could spill over porous borders. Lake Tumba flows to the Congo River, connecting 2 capital cities (Kinshasa, DRC, and Brazzaville, Republic of the Congo) along the waterway. The WHO warned that 9 neighboring countries, including the Central African Republic, are at high risk.

The DRC outbreak is the WHO’s first major test since the West African Ebola epidemic (2013-2016), which infected 28,600 and killed 11,325. Four global commissions sharply critiqued the WHO’s response. The agency took 4 to 5 months after international spread before declaring a Public Health Emergency of International Concern (PHEIC) under the International Health Regulations (IHR). The WHO’s staffing and budget cuts had so badly weakened its capacity for a rapid response and exhibited such poor coordination of local and international actors that the epidemic spun out of control.

This time the WHO’s response has been swift and comprehensive. It operationalized the Emergencies Program and Contingency Fund for Emergencies, 2 crucial WHO reforms in the wake of the 2013-2016 epidemic. The WHO deployed an experimental vaccine called rVSV-ZEBOV, marking a paradigm shift. Director-General Tedros Adhanom Ghebreyesus and Dr Salama flew to Bikoro, partnering with DRC’s Ministry of Health, a powerful symbol of political commitment.

Lessons Learned by the WHO

The WHO transformed its work on pandemic preparedness and response, learning major lessons:

Declaring a PHEIC Under the IHR. On May 18, only 2 days after urban spread, the director-general convened an emergency committee under the IHR. The committee decided not to declare a PHEIC but urged the WHO to be on high alert, promising to reconvene if the virus spread internationally. The committee urged against travel or trade restrictions, which had devastated West Africa during the 2013-2016 Ebola epidemic. The region faces key challenges: cases in a congested city; multiple outbreaks in remote, hard-to-reach locations; health professionals infected, posing a risk for amplification; and logistical challenges of poor infrastructure (for example,
unpaved roads, lack of electricity, and limited telecommunications). The outbreak’s epicenter is remote and impoverished. These factors pose challenges for surveillance, case detection and confirmation, contact tracing, and access to vaccines and therapeutics.

**Emergency Response.** Traditionally, the WHO has been primarily a normative and technical organization, with weak operational capacity to respond to health emergencies. The organization quickly activated its Incident Management System, created in the wake of the West African epidemic, to place responders, equipment, and supplies on the ground, while coordinating local, national, and international actors. The WHO’s Global Outbreak Alert and Response Network and Emergency Medical Teams initiative will offer additional coordination and technical support. The organization released $2.6 million from the new contingency fund for health emergencies to provide vitally needed resources. It has empowered the DRC’s Ministry of Health, while partnering with international organizations (Gavi, the Vaccine Alliance; United Nations Children’s Fund (UNICEF); the International Federation of Red Cross and Red Crescent Societies (IFRC), and civil society (Médecins Sans Frontières). International partners have improved logistics so health workers, medical equipment, and vaccines can move to areas of critical need.

**Vaccine.** The WHO, with partners, has sent rVSV-ZEBOV vaccine to the DRC. Merck provided it without charge, while Gavi donated $1 million for health workers and logistics. The rVSV-ZEBOV vaccine is not officially licensed, but the DRC authorized its compassionate use pending regulatory approval. It proved highly effective in trials in Guinea and Sierra Leone toward the end of the West African epidemic. Subsequent trials in Africa, Europe, and the United States reinforced the vaccine’s effectiveness. Marking a turning point, vaccination transforms the response from a strategy of containment to one of prevention and protection. The vaccination campaign targets frontline responders, health workers, and contacts of infected persons. Using a “ring” strategy, vaccination creates a buffer of immune individuals to prevent virus transmission.

The WHO and the DRC also must decide whether to approve and deploy experimental medicines. During the West African epidemic, aid workers often got preferential access to investigational drugs such as ZMapp. Giving priority to foreign responders generated distrust. Another vital lesson was to give the host country greater ownership of medical countermeasures.

<table>
<thead>
<tr>
<th>2014-2016 Total Funding for Ebola Virus Disease Outbreak Response*</th>
<th>Humanitarian Funding, 2014-2016, US $</th>
</tr>
</thead>
<tbody>
<tr>
<td>US government</td>
<td>2,396,694,509</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>363,798,934</td>
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<tr>
<td>Germany</td>
<td>166,555,655</td>
</tr>
<tr>
<td>World Bank</td>
<td>139,988,831</td>
</tr>
<tr>
<td>European Commission</td>
<td>118,947,563</td>
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<tr>
<td>France</td>
<td>108,358,081</td>
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<tr>
<td>Sweden</td>
<td>87,372,415</td>
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<tr>
<td>Japan</td>
<td>78,941,052</td>
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<tr>
<td>Canada</td>
<td>78,020,740</td>
</tr>
<tr>
<td>Netherlands</td>
<td>72,866,893</td>
</tr>
<tr>
<td>Total</td>
<td>3,611,154,673</td>
</tr>
</tbody>
</table>

*Funding figures as of January 21, 2016. All international figures are according to the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) Financial Tracking Service and are based on international commitments during 2014, 2015, and to date in 2016. According to the US government, its figures reflect its commitments from fiscal years 2014, 2015, and 2016, which began October 1, 2014, and October 1, 2015, respectively.


Although vaccination could be transformational, the campaign faces enormous challenges, including surveillance, laboratory confirmation, and locating contacts. Affected populations are difficult to reach and include diverse ethnic communities speaking a dozen languages. Vaccine distribution requires cold storage (−70°C to −80°C), which requires reliable roads, electricity, and generators. Fostering public trust is essential, requiring deep understanding of local cultures and genuine listening to community concerns.

**Challenges to Emergency Preparedness**

The WHO’s Strategic Response Plan estimates that $26 million is required for DRC Ebola funding, a target already reached. The World Bank will distribute money for the first time from its Pandemic Emergency Financing Facility. The resources required to quell this outbreak through proactive measures pale in comparison to the well more than $3 billion the West African epidemic cost the global community (see table). Although the health emergencies program and contingency fund are innovative reforms, both are significantly underfunded. The United States was the top donor during the West African epidemic, yet the Trump administration is now seeking to vastly scale back pandemic preparedness. Member states need to act as stakeholders in the WHO’s success to ensure preparedness, but thus far the organization has been chronically underfunded.

Beyond global governance, robust national health systems are the foundation of global health security. The IHR requires all states to maintain core health system capacities, but most have not complied. Investing in health systems is lagging, both from domestic governments and international donors. The Joint External Evaluation to objectively assess health system capacities was another post-Ebola reform, and has assessed 67 countries. Yet significant gaps persist, affecting countries’ surveillance and response.

Countries also frequently fail to comply with IHR recommendations to avoid unnecessary quarantines and trade and travel restrictions, with many disregarding WHO recommendations during the West African epidemic. Fearing reductions in travel, tourism, and trade, governments may not rapidly report disease outbreaks.

The World Health Assembly recently underscored the urgency of containing the DRC outbreak. Beyond expressions of concern, countries must commit to a global push to implement IHR core capacities, strengthen health systems, and empower the WHO.

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