

# Why We Are Losing the Battle Against Ebola

by Debra Hanania-Freeman

Sept. 12—As the deadly Ebola epidemic in West Africa widens, it has completely overwhelmed and outstripped the ability of humanitarian aid groups and already fragile government health systems to treat the sick and contain the spread. In fact, the opposite has occurred. The spread of the disease, and the deaths resulting from it, are growing exponentially.

Last week, in separate emergency sessions, officials of the World Health Organization, the Centers for Disease Control, the U.S. National Institute of Health, the United Nations, and the medical charity Doctors Without Borders (Médecins Sans Frontières/MSF) all declared that the outbreak is spreading out of control and headed for catastrophe.

The hardest hit countries continue to be Guinea, Liberia, and Sierra Leone, but the virus has begun to spread to other countries, and there is a growing danger that these so far smaller outbreaks will ignite new epicenters. The virus popped up in Nigeria, apparently when an individual who had been infected in Liberia flew to Lagos. Although international officials initially downplayed an outbreak in the Democratic Republic of Congo, they are now being forced to rethink that assessment. The number of cases there has more than doubled in the last week, and over half of those infected have already died.

In an even more worrisome development, a new model from Oxford University, published in the journal *eLife*, predicts that the epidemic is likely to spread to at least 15 additional countries, including Nigeria and

Congo, where cases have already appeared, as well as Cameroon, Central African Republic, Ghana, Angola, Togo, United Republic of Tanzania, Ethiopia, Mozambique, Burundi, Madagascar, and Malawi.

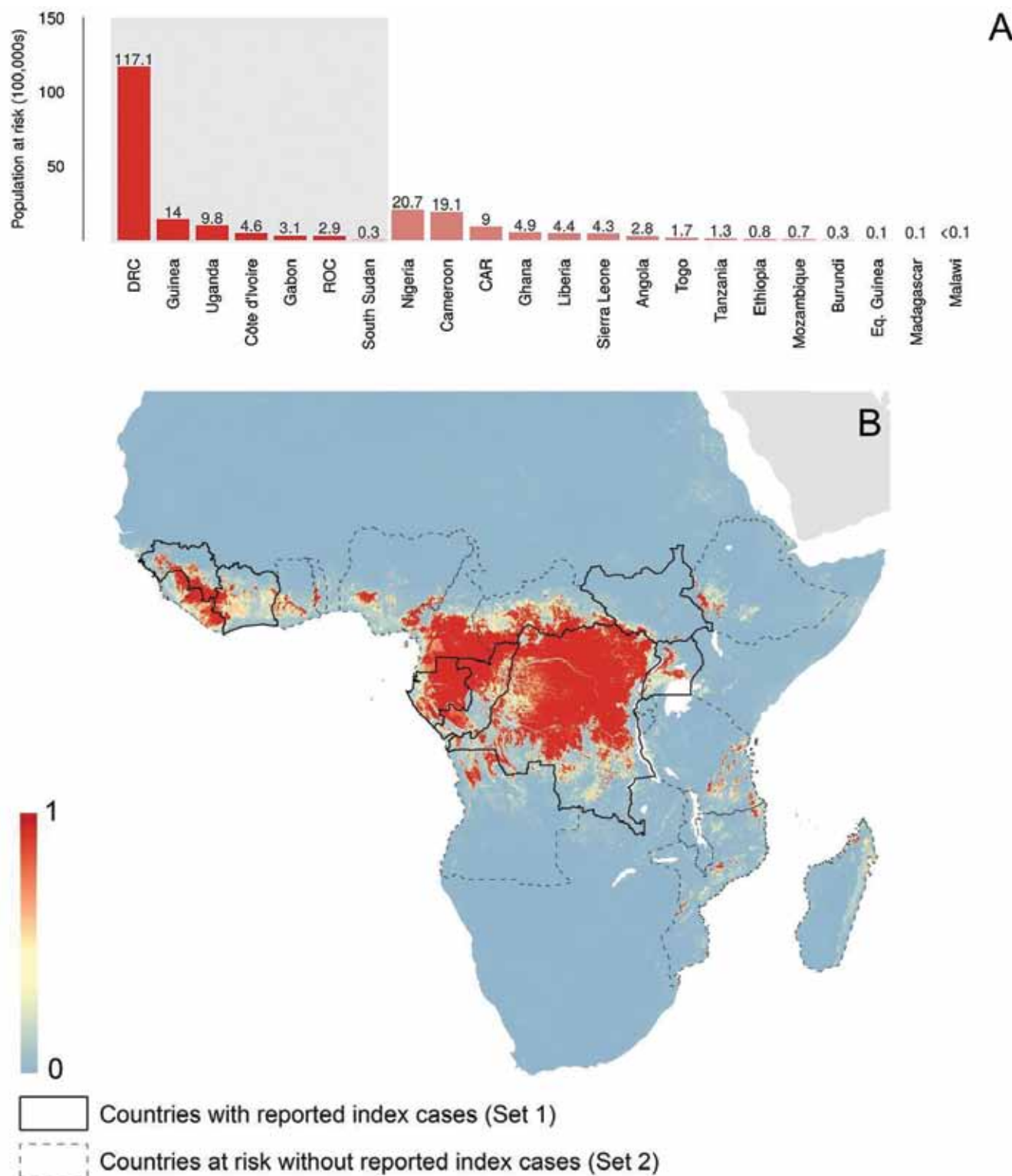
## Where It Came From

Since the disease was first identified in 1976, five known strains of Ebola have emerged, and the one currently causing the West African outbreak, the Zaire strain, is the most virulent. Three other strains—Sudan, Tai Forest, and Bundibugyo—have caused outbreaks in Ivory Coast, Sudan, and Uganda in the past, but those outbreaks were in rural areas and were contained. The fifth strain, the Reston species, has not caused any known outbreaks, according to the WHO.

Until this year's epidemic, Ebola did not exist in West Africa and, even as it rages out of control, scientists still don't understand how Ebola arrived from Central Africa, where outbreaks of this strain of the virus had occurred in the past. Researchers have discovered that the strain of Ebola responsible for this current outbreak apparently separated from a related strain found in Central Africa as early as 2004, and continued to mutate and gain virulence over a decade.

Although the discovery provides some valuable information that can help track emerging viral outbreaks, and inform public health decisions and actions, it is also true that a great deal of time and money has been wasted on advanced genomic sequencing techniques, in an attempt to identify what researchers are referring to as

FIGURE 1  
Oxford Ebola Study



*An Oxford University study of Sept. 8, 2014, predicts that the Ebola epidemic is likely to spread to at least 15 additional countries, beyond Guinea, Liberia, and Sierra Leone.*

Patient Zero. Using this methodologically flawed approach, NIH has announced that a single animal-to-human transmission was responsible for the ongoing outbreak in West Africa.

In truth, the current situation, though catastrophic, is not mysterious.

### **Ebola's Hard Lessons**

As early as 1974, Lyndon LaRouche warned of the potential for a biological and ecological holocaust as a result of the imposition of vicious austerity by the IMF and other international financial institutions aimed at depopulating entire regions of world.

By the 1980s, the consequences of those policies were becoming more and more apparent as the AIDS pandemic began its devastation of Africa, and brought with it the reemergence of new, more virulent forms of old diseases. In 1985, *EIR's* Biological Holocaust Task Force published a Special Report detailing the potential epidemics and pandemics that would arise from collapsing economies in both the industrialized and developing sector nations. At the time, LaRouche and his associates advocated massive water, power, and infrastructure projects, along with the installation of in-depth modern public-health and sanitation systems for Africa and other regions. The failure to do so, we warned, would likely turn these regions into breeding grounds for potentially species-threatening diseases.

Just as AIDS was (and continues to be), the Ebola crisis in West Africa is a case in point. Sierra Leone, Liberia, and Guinea are three exceptionally poor, contiguous countries, each with acutely inadequate public-health and other basic infrastructure (see last week's *EIR*). Civil war and regional conflicts have exacerbated what was already a prescription for disaster. Although the first cases are believed to have occurred in the region as early as December 2013, with surveillance and laboratory capacities virtually non-existent, it wasn't until four months later, on March 21, 2014, that a confirmed case was reported.

The WHO, the lead international body responsible for organizing the response to pathogenic outbreaks, has seen its capacities significantly eroded. Its worsen-



UNDP

*Health workers have made heroic efforts (this photo is from Liberia in August), in attempting to treat Ebola, but nothing short of a full-scale mobilization to rapidly build the necessary health infrastructure will stop the spread of the epidemic.*

ing budget crisis meant that seasoned senior staff who retired were never replaced, and indeed, international health experts have reported that the organization is essentially bankrupt. The NGO Doctors Without Borders has been the only major international organization on the ground, having deployed over 300 personnel into the region. Its efforts have been widely recognized as heroic, but it has reached the outer limits of its capacity. Overall, medical personnel have been violently attacked, suffered high infection rates, and continue to struggle with wholly inadequate protection. Over 250 have died from the virus.

### **Looting Leads to Disease**

But, even this lack of medical and public-health infrastructure doesn't explain how this tragedy unfolded. The Oxford study begins to provide the basis for understanding what is occurring, by first taking a close look at Ebola's animal reservoir—fruit bats. Several species of fruit bats carry Ebola without showing symptoms, whereas humans and other animals who are likely to die from an Ebola infection. The bats can carry the disease and infect other bats and animals, like monkeys and rodents that inhabit the dense forest that spans 22 countries in the region.

Bats, along with other animals, especially monkeys, are one form of "bush meat" increasingly consumed in these countries, where meat is scarce. And, although consuming cooked bush meat is unlikely to spread the virus, hunting and preparing raw meat for consumption vastly increases the likelihood of infection. However,

while this provides some explanation for past contained outbreaks in more rural areas, it doesn't explain why this elusive assassin has moved from deep inside African forests, where it is has been circulating in animals for a long time, into densely populated cities.

The answer lies largely in the policies of looting and primitive accumulation that have been imposed on this region, and which play a major role in the outbreaks of zoonotic diseases (those that jump between animals and humans). Humans are venturing farther and farther into the African forests, putting more and more pressure on local ecosystems through small-scale gold, diamond, and mineral mining, deforestation, and political conflicts, bringing them increasingly into contact with animal reservoirs.

More than half of Liberia's forests have been sold off to industrial loggers under President Ellen Johnson Sirleaf's government. Logging, slash-and-burn agriculture, and chopping down trees to meet increased demand for firewood, since no other fuel is available, are all driving deforestation in Sierra Leone, where total forest cover has dropped to just 4%. According to the United Nations Environment Programme (UNEP), if deforestation continues at current rates, Sierra Leone's forests could disappear altogether by 2018. One overall result of this is that the bats, which are literally everywhere in these forest areas, are being driven to find new habitats among human populations.

The 1994 outbreak of Ebola, which killed 31 people, occurred in gold-mining camps deep in the rainforest. Mining also appears to be a feature of this latest out-

FIGURE 2

## Ebola: West African Distribution (as of Sept. 6, 2014)



break: Its epicenter is in the southeast of Guinea, close to iron ore reserves.

Mining has become an important livelihood activity across Sierra Leone, Liberia, and Guinea, over the last couple of decades. And, according to epidemiologists, that not only means more mines in the forest, but also “immense movement: people going seasonally in and out of mines, coming in and out, young people coming from all over the country.” Guinea is the world's top exporter of bauxite, the raw material used in aluminum production, according to Reuters.

Iron ore mining boomed in Liberia last year after a surge in public and private investment. According to a

Bloomberg report, the nation gets most of its income from mining, with several international players in the market, alongside smaller gold and diamond mines. The international Monetary Fund said mining spurred a 20% growth in GDP in Sierra Leone in 2013, after a flood of investment from British companies into iron ore.

The deforestation has also affected weather patterns in the region. Although much of the picture is yet to be filled in by scientists, there are now more seasonal droughts, strong winds, thunderstorms, landslides, heat waves, floods, and changed rainfall patterns—all thought to drive the bat population to migrate to areas populated by humans.

Another factor that is rarely discussed is the 15 years of thug warfare that has virtually destroyed the governments (and government institutions) of Sierra Leone and Liberia. In an effort to escape the barbarism of thugs like former Liberian President Charles Taylor, people fled to the cities, where they were crammed into slums and shantytowns, with no access to sanitation and clean water and an increasing reliance on bush meat. It has been pointed out by *EIR*'s Africa experts that the map of the initial disease outbreak area overlays very closely with the area in which Taylor's thugs ran their primitive mining operations to finance their assaults.

### **Why Isn't Ebola Containment Working?**

Standard public-health measures that have helped contain diseases like SARS and smallpox are simple enough. Find everyone who had close contact with infected individuals and quarantine them for 21 days. If any of these contacts comes down with the disease in question, isolate them from the community and repeat the process by tracking the contacts' contacts.

But such measures have proven to be completely ineffective and inadequate in this Ebola outbreak. This is partly due to the nature of the disease itself. By the time someone infected with Ebola becomes symptomatic, they are often within days of death. Additionally, the early symptoms of Ebola infection are almost identical to those presenting with malaria and a host of other diseases, themselves at epidemic levels. But, even when an infected individual is identified, there are no contact tracing systems in place in these countries, and even where a database is established, the lack of any viable infrastructure has meant that, at best, only 20% of contacts are even followed.

An effort to quarantine a large slum in Monrovia, Liberia, using troops to keep people penned in, proved a disastrous failure, which probably made things worse. After the years of conflict, people distrust the military. And the government had no means, and still doesn't have the means, to provide food and supplies to containment areas. Health-care workers still lack even the most rudimentary protective clothing when treating sick patients, driving nurses in Sierra Leone to strike, in a desperate effort to get more help. The only thing not in short supply, it seems, are horror stories as to the situation on the ground.

Up to now, the international response hasn't just been inadequate, it has been criminal. In August, when President Obama brought the leaders of 50 African nations to Washington for his much-publicized Africa Summit, an occasion that should have been, at least in part, dedicated to mapping out the emergency measures needed to contain this catastrophe, he refused to even place Ebola on the agenda. Instead, he chided young African leaders for "whining" and not doing enough to help themselves.

And, while the race to develop an effective treatment and vaccine against Ebola is on, to date there is no known effective treatment. About 800 doses of a still-experimental vaccine (VSV-EBOV), which is not known to be effective against the Zaire strain, were delivered to health officials in Liberia, as a donation from the Public Health Agency of Canada, but that donation completely depleted its stockpile.

Mapp Biopharmaceuticals sent its entire stock of the experimental drug ZMapp (the drug used to treat, and apparently cure, the two American medical personnel who were transported back to the U.S. last month) to the government of Liberia. Left undetermined is which individuals will receive the drugs.

Ultimately, however, there is no approved, or scientifically proven treatment, for Ebola, and no vaccine. Whether the setting is a primitive one, or one in a developed country's advanced hospital, existing treatment is primarily supportive: giving fluids, carefully monitoring vital signs, and responding to acute medical crises. The likelihood of successful treatment? There is a very big difference in the effectiveness of experimental drugs like ZMapp combined with supportive care, when the patient is a relatively healthy American health worker, and when the patient's immune system is already severely compromised due to repeat exposure to a myriad of infections, poor nutrition, and overall ill



health. In either case, these measures do not have the capability to stop the epidemic today.

## What Must Be Done

So, the question remains, is there any effective course of action?

The answer is yes. Last week, *EIR* reported on the recommendations presented by Dr. Joanne Liu, the International President of Doctors Without Borders, to a special briefing at the United Nations on Sept. 2. The emergency international mobilization that Dr. Liu called for is long overdue. A full-scale effort to build the necessary state infrastructure is mandatory. This includes scaling up isolation centers, deploying mobile laboratories to improve diagnostic capabilities, establishing dedicated air bridges to move personnel and equipment to and within West Africa, and building a regional network of field hospitals and establishing MASH units to treat suspected or infected medical personnel.

Timothy Flanigan, an infectious disease researcher at Brown University, put it accurately when he said on National Public Radio Sept. 11: “The U.S. Military is uniquely poised to help with this disease.... The Department of Defense runs a sophisticated health service

for its own troops. Its staff includes infectious disease experts, doctors, and nurses. It can set up massive field hospitals almost anywhere. On top of that, the military can do logistics like no other: It can move fuel, food, and supplies *en masse*.”

Almost all advanced-sector nations, most especially the United States, Russia, and Japan, have invested heavily in biological threat response efforts. The military in both the United States and Russia, and likely, other countries, have developed very advanced expertise in bio-hazard containment in response to the potential threat of biological and/or chemical warfare. Those assets, along with civilian disaster response teams backed by the full weight of available logistical capability, must be deployed, obviously in close collaboration with the sovereign governments in the area.

Nothing short of that scale of deployment has any hope of getting this epidemic under control. A failure to do so will result in an unfathomable catastrophe with social, security, and economic implications, not only for Africa, but for the entire world.

*The author is a Doctor of Public Health, and was a member of EIR's Biological Holocaust Task Force.*

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