

Ebola Arrives in a U.S. That's Totally Unprepared

by Debra Hanania-Freeman

Oct. 4—This past week, the inevitable occurred. The first case of Ebola, the deadly virus that is ravaging West Africa, was diagnosed in a patient in the United States. On Sept. 30, the CDC confirmed that laboratory tests showed that Thomas Duncan, a person who had traveled to Dallas, Texas, from West Africa, had Ebola. They said that the patient did not have symptoms when leaving West Africa—important, they stressed, because the victim is only contagious when symptomatic—but developed symptoms approximately five days after arriving in the United States.

In an effort to maintain public calm, Centers for Disease Control (CDC) Director Tom Frieden vowed to “stop Ebola in its tracks in the United States,” while acknowledging that the Dallas outbreak could become larger than one isolated case.

“I’m not going to promise that we can stop this at just one case, but I can tell you we have the advantage because the right steps are being taken. The fact is that CDC has been preparing for this day, working around the clock with local and state health departments. . . . I am therefore confident we will stop Ebola in its tracks here in the United States.”

Texas Gov. Rick Perry echoed Frieden’s remarks at a press conference at Texas Health Presbyterian Hospital in Dallas, where Duncan was being treated. “Rest assured that our system is working as it should. Professionals on every level of the chain of command know what to do to minimize this potential risk to the people of Texas and this country.”

Even the White House got into the act, after facing a barrage of questions about the virus and efforts to contain it.

The reassurances have done little to stem a panic. Some called for America to close its borders until the epidemic is over. “We should allow no-one—*no one*—to enter this country from any West African nation,” Bill O’Reilly said on his Fox News show. Rumors spread online about Ebola cases being kept secret in various communities. Hospitals began contacting the CDC about cases they suspected might be Ebola. And a nationwide AP poll indicated that 9 out of 10 American were not confident that the government could protect them.

As more details emerged about the mishandling of even this one single case, that lack of confidence seemed to be justified.

The Duncan Case

Thomas Duncan got the Ebola virus when he helped to get his landlord’s pregnant 19-year-old daughter into a cab in Monrovia, Liberia, along with the girl’s brother. No ambulance would come for her, and she was very ill and convulsing. Duncan rode with her twice, because she was turned away at the hospital, both at a maternity ward and at one meant for Ebola patients, and he and her relatives had to turn around and take her home. Duncan helped her father and brother carry her back into the house. The *New York Times* reported that both she and her brother are now dead, and the father is very ill.

Soon afterward, Duncan flew out of Monrovia, changed planes in Brussels, and again at Dulles Airport near Washington, D.C. Finally, he arrived in Dallas, a city with a community of about 10,000 Liberians, where he has family. He was greeted with a cookout. Six days later, Duncan went to the emergency room at Texas Presbyterian running a high fever and complaining of severe abdominal pain. He also told the emergency room triage nurse that he had recently arrived from Liberia. He was told that it was nothing serious and was discharged with a diagnosis of low-grade viral gastroenteritis and sent away. He went home for two days and potentially exposed a number a reported 100 or so people, including five schoolchildren, others in his family, and two emergency medical workers.

It was literally minutes after Rick Perry had delivered his assurances that hospital officials confessed that, in fact, the professionals hadn't done what they had to do. The hospital had prepared for the possibility that Ebola would arrive in its emergency room. It had adopted a CDC screening checklist to identify patients with fever who had travelled from the region of West Africa beset by Ebola. The staff had rehearsed the event. The triage nurse who saw him actually asked the proper questions and flagged in the medical chart that he was a potential concern for Ebola.

"Regretfully, that information was not fully communicated throughout the care team," the hospital's chief quality office said. The physician seeing the patient didn't read the chart, and Duncan seemed like just another of the thousands of patients who don't have access to primary care physicians, and visit the emergency room because of fever and abdominal pain.

Despite Frieden's vow that they would "stop Ebola in its tracks," it wasn't long before CDC officials began contradicting themselves. First, when he was finally diagnosed after coming back to the hospital, they said that Duncan had potentially exposed 18 other people, before revising that estimate to nearly 80 people a few hours later, then to 100 people the next day.

Public health officials have now put the patient's



The first case of Ebola in the United States, in Dallas, Tex., created a "perfect storm" of inadequate communication and outright disinformation by officials responsible for dealing with the epidemic.

contacts under 21 days of surveillance, and Duncan's immediate family as well as his girlfriend have been placed in quarantine. But it took more than five days for public health workers to arrive to disinfect the homes and to remove the medical waste. In fact, President Obama had to issue an Executive Order allowing the medical waste to actually be removed, so it could be transported to one of only three facilities authorized to handle medical waste with this level of potential hazard.

Bad Policy and Disinformation

None of this inspires confidence. The hospital's initial mistake is hardly unusual in our health-care system, and other hospitals might not have been any better prepared to avoid it. But what is far more disturbing, is the mishandling that is *not* the result of error, but the result of bad policy and the conscious dissemination of disinformation.

Both the CDC and the National Institutes of Health are insisting that U.S. hospitals are fully prepared to screen, diagnose, and treat Ebola, and that state public health agencies are completely prepared to proceed with tried and true methods to control any possible spread of the virus should it pop up.

There's no question that the U.S. health-care system is better equipped than those in West Africa, but the truth is that there are *only four sites* in the United States cleared to treat Ebola. Those are hospitals with the Level 4 isolation and care units required to provide care

for patients infected with exotic agents, which may or may not have cures available, or appear in highly concentrated or modified forms from a research institution. Those sites are in Missoula, Mont.; Omaha, Neb.; Bethesda, Md.; and Atlanta, Ga.

Level 4 units require a separate area with doors that are secured to keep out other hospital traffic. Each room has an anteroom—a double-doored chamber where medical staff can put on or take off their personal protective gear before and after tending to the patient. The double doors also preserve negative air pressure inside the patient's space, so air is always being sucked into

the room from the ventilation system, instead of floating out.

Inside the room, more complicated air circulation and filtration systems blow air from the ceiling across the patient and staff and into filters that remove any infectious organisms before release to the atmosphere on the hospital roof. Otherwise, the room has the usual equipment needed for critical care: ports for administering breathing oxygen and medicines, draining fluids and related treatments. Outside, a separate nursing station has all the regular ICU medicines, equipment, and supplies.

Chikungunya Virus In the Americas

Oct. 4—While the world's attention is focused on the Ebola epidemic in Africa, it is not the only sudden epidemic borne of conditions of economic breakdown. An excruciating mosquito-borne illness that arrived in the Americas less than a year ago, is leaping from the Caribbean to the Central and South American mainland, and has infected more than 1 million people. Cases have also emerged in the United States.

While the disease, called Chikungunya, usually is not fatal, 100 deaths have been recorded so far, and the epidemic has overwhelmed hospitals, cut economic productivity, and caused its sufferers days of pain and misery. And the count of victims is soaring.

In El Salvador, health officials report nearly 30,000 cases, up from 2,300 at the beginning of August, and hospitals are filled with people with the telltale signs of the illness, including joint pain so severe that it makes it impossible to walk.

Venezuela reported at least 1,700 cases last week and the number is expected to rise. Neighboring Colombia has around 4,800 cases, but the Health Ministry projects there will be 700,000 by the end of the year. Brazil has now recorded the first locally transmitted cases, which are distinct from those involving people who have contracted the virus while traveling in an infected area.

Hardest hit has been the Dominican Republic, with half the cases reported in the Americas. According to the Pan American Health Organization, Chikungunya has spread to at least two dozen countries and territories across the Western Hemisphere since the first case was registered in 2013.

Chikungunya has been around for a while. It was first identified in Tanzania in 1952 and has bedeviled Africa and Asia. No explanation has been provided for why it has suddenly appeared in the Western Hemisphere.

About a dozen cases have been confirmed as originating in Florida, spurring concern that this may be the beginning of the type of explosive growth seen elsewhere from a disease that has no vaccine or cure. According to Walter Tabachnick, the director of the Florida Medical Etymology Laboratory, it is likely that Chikungunya will infect 10,000 in Florida alone.

Medical and environmental experts are debating how best to quell the Florida outbreak before it takes off. In the Caribbean and Latin America, authorities have been spraying pesticide and encouraging people to remove water containers where mosquitoes tend to breed. Conditions vary widely in the region, but economic conditions have caused a shortage of insect repellent and pesticide sprayers. In the United States, the most effective pesticides are banned.

While it is too early to project how many will get sick or whether Chikungunya will become endemic, past outbreaks have affected as much as 30% of a population. In acute cases, the pain caused by the virus is debilitating for months.

—Debra Hanania-Freeman

Major teaching hospitals have, at best, Level 3 units that can handle infectious diseases spread by air, like influenza, bubonic plague or yellow fever—that have known cures.

A survey of 700 RNs from 250 hospitals in 31 states indicates that U. S. hospitals are not as prepared as CDC claims:

- 80% say their hospital has not communicated to them any policy regarding potential admission of patients infected by Ebola;
- 87% say their hospital has not provided education on Ebola that allows nurses to interact and ask questions;
- one-third say their hospital has insufficient supplies of eye protection (face shields or side shields with goggles) and fluid resistant/impermeable gowns;
- nearly 40% say their hospital does not have plans to equip isolation rooms with plastic-covered mattresses and pillows and to discard all linens after use; less than 10% said they were aware their hospital does have such a plan in place;
- more than 60% say their hospital fails to reduce the number of patients they must care for in order to accommodate caring for an “isolation” patient

Also of grave concern is the fact that Americans

continue to be told that Ebola doesn’t spread easily because “it isn’t airborne.” While there is no evidence that the Ebola virus can survive “independently” in the air, it is present in significant concentration in *all* body fluids of sick patients, including the saliva emitted when an infected individual sneezes or coughs.

What does that mean? Well, if you are exposed on one single occasion to one sneeze from someone who is infected, you are not likely to become infected. However, if you are repeatedly exposed, especially in a confined space, to the aerosol spray of an infected individual, the likelihood of infection rises dramatically. As the reservoir of the infection increases in any population, so does the likelihood of infection.

Health-care workers continue to question why, if it is true that the virus doesn’t spread easily, two American health-care workers who were transported back to the United States for treatment were kept in biohazard tubes during transport, and those handling them were dressed in full bio containment gear. Simply put, just because such equipment is not readily available doesn’t mean it isn’t necessary.

But, perhaps the most compelling question is also the most obvious one: If Ebola doesn’t spread easily,

Budget Cuts ‘Eroded Our Ability To Respond’

On Sept. 16, the U.S. Senate Committees on Appropriations and Health, Education, Labor, and Pension held a hearing to discuss the resources needed to address the Ebola outbreak. Sen Patty Murray (D-Wash.) asked National Institutes of Health (NIH) representative Anthony Fauci about budget sequestration’s effect on the efforts.

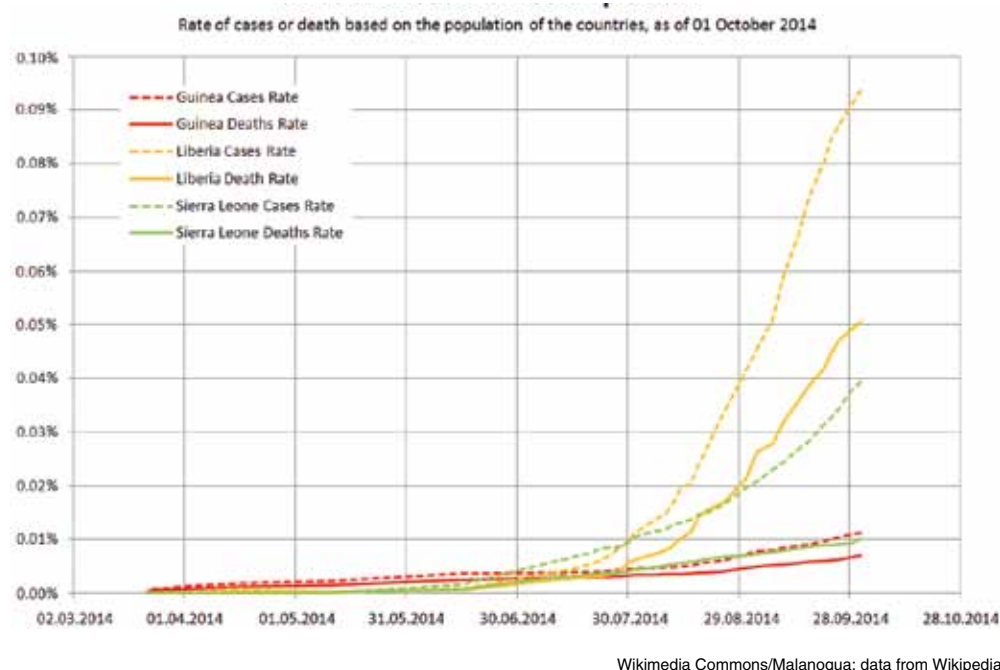
“I have to tell you honestly it’s been a significant impact on us,” said Fauci. “It has both in an acute and a chronic, insidious way eroded our ability to respond in the way that I and my colleagues would like to see us be able to respond to these emerging threats. And in my institute particularly, that’s responsible for responding on the dime to an emerging infectious disease threat, this is particularly damaging.” Sequestra-

tion required NIH to cut its budget by 5%, a total of \$1.55 billion. Cuts were applied across all of its programs, affecting every area of medical research.

Dr. Beth Bell, director of the CDC’s National Center for Emerging and Zoonotic Infectious Diseases, also testified before the committee. Her department, which has led the U.S. intervention in West Africa, was hit with a \$13 million budget cut as a result of the sequestration cuts.

Bell argued that the epidemic could have been stopped if more had been done sooner to build global health security. International aid budgets were hit hard by the sequester, reducing global health programs by \$411 million and USAID by \$289 million. “If even modest investments had been made to build a public health infrastructure in West Africa previously, the current Ebola epidemic could have been detected earlier, and it could have been identified and contained. This Ebola epidemic shows that any vulnerability could have widespread impact if not stopped at the source.”

FIGURE 1
2014 West African Ebola Epidemic



then why are all attempts to contain its spread in West Africa so tragically ineffective?

Catastrophic Proportions

As of this writing, five new cases of the infection are identified every hour in Sierra Leone alone. World Health Organizations (WHO) officials admit that this doesn't nearly reflect the reality of the rate of spread. It is still the case that 74% of those identified die within 72-96 hours. Overall, in the two countries hardest hit—Sierra Leone and Liberia—the number infected is not only increasing, but the rate at which it increases continues to pick up steam. At present, the numbers infected is doubling every nine days.

On Sept. 16, Obama ordered 3,000 U.S. soldiers into West Africa, and in a speech at the United Nations the next day, he pompously criticized the international response as too slow and too small. But, it was Obama who failed to act much earlier, despite pleas from African heads of state and various relief agencies. Two weeks later, the soldiers still had not arrived, although troops already on the ground did begin to level swampy grassland, unload supplies, and build tents. Once completed, the hope is they can train the necessary thousands of nurses necessary just in Sierra Leone and Liberia to treat Ebola.

Infectious disease specialists from both the CDC and the WHO say that the epidemic will continue to worsen until 70% of Ebola patients can find a room in a treatment center where they can't transmit the disease to others. Currently, less than 15% manage to do so. The United Nations estimates that any effective treatment and containment operation will require at least \$1 billion in additional funds.

None can dispute that the Ebola epidemic is a tragedy that has reached catastrophic proportions. Nor can one argue that the response to it has been a gross failure. But, more

than that, far more serious questions are being raised. Is it possible that all the governments and agencies could possibly be as shortsighted and incompetent as to have let things get to this point? Or was the inaction intentional?

And, that question has to be asked, especially in an environment where the entire world has witnessed Queen Elizabeth II and her husband Philip calling for the reduction of the global population by several billion, where Philip has said that to ensure such a result, he would hope to be reincarnated as a deadly virus. It is also the case that the United States has never repudiated Henry Kissinger's infamous National Security Study Memorandum 2000, which called the increase of population in the developing sector a threat to U.S. security.

Some have gone so far as to not only question why the epidemic was allowed to escalate until it was out of control, as it now is, but have charged that the virus itself is a product of biological warfare.

While those questions remain unanswered, the fact is that any claim that the U.S.—or any other nation—is safe from an Ebola pandemic is a lie. Even the CDC's Frieden has admitted that until and unless the epidemic in West Africa is contained, the United States is at risk.

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