

# Getting ahead of the curve on Ebola epidemic

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(From left) Laura Holgate, the National Security Council; Keiji Fekuda, the World Health Organization; Steve Morrison, Center for Strategic and International Studies, give opening remarks at GW's conference on global health security.

The Ebola virus could be contained before it kills hundreds of thousands of people in West Africa, but it would take a coordinated effort from organizations around the world—and they'd need to act fast, global health experts said at the George Washington University on Thursday.

"It is clear that this is probably the most difficult [global health](#) security challenge that we have faced in our lifetime currently related to infectious diseases," said the World Health Organization's Keiji Fekuda, assistant director-general for health security. "We have a logarithmically increasing curve of cases. We have had a linear increase in terms of support.

"We're going to try to make sure that the linear increase speeds up and beats the other curve."

The Ebola virus that has killed at least 2,800 people in Liberia, Guinea and Sierra Leone could potentially infect 1.4 million by the end of January, according to predictions released this week by the Centers for Disease Control and Prevention. And the current death rate for those infected is about 70 percent, according to WHO.

In a speech to the United Nations Thursday, President Barack Obama said the disease could cause a "humanitarian catastrophe" if the transmission of the virus is not stopped and pleaded with U.N. leaders to "move fast, even if imperfectly."

The CDC estimate is a worst-case scenario based on computer modeling. But if the numbers are even "close to true," it is clear that the medical infrastructure is "entirely insufficient to handle this ongoing outbreak," [Lynn R. Goldman](#), the Michael and Lori Milken dean of [public health](#), said on Thursday, kicking off a conference on global health security at GW.

"We need to be taking action now, so that we do not attain those worst-case projections," she added.

Ebola was a central topic at the all-day conference held in the Milken Institute School of Public Health building just two days after the release

of the CDC report. Private sector representatives and global health leaders convened at GW to discuss the core objectives of the Global Health Security Agenda (GHSA).

Twenty-nine nations launched the GHSA in February with a goal of accelerating progress toward a world safe and secure from infectious disease threats. Since the launch of the agenda, the U.S. has been working with more than 50 countries on the GHSA's nine objectives to prevent, detect and effectively respond to infectious diseases.

The GW conference—titled "GHSA: Non-Governmental Perspectives on Addressing Emerging and Evolving Biological Threats"—preceded a governmental meeting being held at the White House on Friday. The White House will host a meeting with officials and health ministers from 44 countries to make specific commitments to implement the GHSA. The global leaders will also work toward a commitment to assist West Africa with needed global [health security](#) capacity within three years.

Speakers at Thursday's conference stressed that the Ebola epidemic stands as the outstanding example of why an initiative such as the GHSA is critical.

"We didn't know at that time of the GHSA launch that we would be facing a threat of the kind that we face today with Ebola. But it seems to me, looking back, that this was a very prescient time for this initiative," said Steve Morrison, senior vice president at the Center for Strategic and International Studies, which co-sponsored the event.



Lynn R. Goldman, the Michael and Lori Milken dean of public health at the Milken Institute School of Public Health, addresses attendees at Thursday's conference.

Graphs from the CDC show exponential growth of the Ebola epidemic. Cases double every three to four weeks, which means, if growth rates stay the same, 6,000 cases in September could turn into 12,000 by October and 24,000 by November.

In order to "bend the curve," health workers in West Africa will need to stop the transmission of the disease, and that will require international support, Dr. Fekuda said.

WHO released its own estimates on future Ebola cases last week, predicting that 20,000 people would be infected by Nov. 2.

Dr. Fekuda has visited West Africa six times in the past four months and

has seen firsthand the unprecedented challenges that make controlling the epidemic extremely challenging. The disease is spreading quickly and is highly lethal, Dr. Fekuda said. The region of West Africa infected by Ebola has gone through years of conflict, and their public health care infrastructures are weak, he added.

Ron Waldman, a physician and professor in the Milken Institute SPH Department of Global Health, said another key challenge in controlling the epidemic has been the inability to find qualified healthcare personnel to send to the areas.

In mid-September, President Obama announced that he would help President Ellen Johnson Sirleaf of Liberia construct as many as 17 Ebola treatment centers in the region with about 1,700 treatment beds. But even with that aid, Dr. Waldman said he wonders how those centers will be staffed.

"Even within organization like Save the Children, those people who normally rush to the forefront to respond to emergencies, are hesitant in this case," Dr. Waldman said. "It's unclear to me as to how the 17, 100-bed hospitals that President Obama has promised are going ultimately to be staffed."

Dr. Waldman, who has worked for WHO and the CDC, currently represents Save the Children International as a team leader in its efforts to respond to Ebola in Liberia. During a panel discussion at Thursday's conference, Dr. Waldman outlined the organization's response strategy to the Ebola epidemic.

He said that the large 100-bed hospitals exist in small and inadequate numbers in West Africa. The number of cases that are occurring far exceeds the number of beds available. In order to alleviate the pressure on these large hospitals, Save the Children plans to provide 20-bed units

with intermediate levels of care closer to small communities, rather than in the large cities.

Another one of the main components of the Save the Children plan is to educate people living in the impacted regions about Ebola.

"People have a poor understanding of the disease. They're afraid of it, they stigmatize those who have it and attack those who come to prevent it," Dr. Waldman said. "These are all situations that can be reversed."

Despite the grim realities, speakers at the conference said they remain hopeful that the 1.4 million cases of Ebola infections that the CDC projects will not become a reality.

Dr. Fakuda reminded attendees that there is a rapidly increasing level of international attention on the virus. He also reassured them that there are people who survive the disease.

Melvin Korkor, a Liberian physician, is a testament to that. Dr. Korkor visited Thursday's conference to tell his story of recovering from an Ebola virus infection.

He contracted the virus when a woman came into his hospital suffering from diarrhea. She lied about the fact that she came from a nearby county that had been hit hard by the Ebola outbreak. The virus infected nine of his colleagues. They all died. Dr. Korkor was the lone survivor.

"We need to stop the transmission of Ebola. How can we go about this? We need training on infection control. We need to provide supplies," Dr. Korkor told attendees at the conference.

Dr. Waldman said that the response to the Ebola epidemic was not quick enough, but there is still an opportunity to make up for lost time before

the lethal epidemic evolves into an uncontrollable disaster.

"I think that we can get ahead of the curve. It's going to take a considerable amount of work—more work than would have been required. It's still very doable," Dr. Waldman said. "But the window is closing very quickly."

Provided by George Washington University

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