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Infectious-disease expert offers primer on Ebola virus

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Dr. Arthur Reingold, professor of epidemiology and associate dean for research at the UC Berkeley School of Public Health, has worked for more than 30 years on prevention and control of infectious diseases at the national level and globally in developing countries. On Sept. 30, the first case of Ebola to be diagnosed in the United States was confirmed in a person who traveled to Dallas from West Africa. In light of this news, we talked to Reingold about what this might mean for the epidemic, and any possible risks to the UC Berkeley campus and others in the Bay Area.

According to the Centers for Disease Control and Prevention (CDC), Ebola does not pose a significant risk to the U.S. public. Ebola is spread through direct contact with blood or body fluids of a person who is sick with Ebola, objects (like needles and syringes) that have been contaminated with the virus, and infected animals. Ebola is not spread through the air or by water, or in general, food. The disease is not communicable unless the exposed person is symptomatic.

Does the news of the first patient diagnosed with Ebola in the United States signal a significant change in the course of this epidemic?

It changes nothing; it was entirely predictable. We will undoubtedly have more such individuals. We live in an interconnected world—people get on airplanes incubating diseases, including Ebola—and we can expect to

have more such introductions.

How concerned should we be about Ebola spreading in the United States?

We should not be concerned. While we will have occasional introductions like this, in an advanced health care system, pretty much all accredited hospitals—including hospitals in every major city in the United States—have all the facilities, equipment, materials and competence needed to isolate someone with Ebola and prevent transmission to health care workers and other individuals. As Dr. Tom Frieden [director of the CDC] said correctly last week, we know how to contain Ebola, and we have the equipment and materials to do it. I don't expect there to be sustained transmission or outbreaks of Ebola here. That's not to say we might not get a transmission to an individual, but I don't think there's any risk of having an outbreak of the kind that we're seeing in West Africa.

Do we need extra precautions for people returning to the Bay Area—and to our campus—from countries affected by Ebola?

There are CDC criteria and guidelines. The University of California Office of the President has been involved in distributing information about how the UC campuses should deal with individuals. I'm involved with that group here at Berkeley with University Health Services, the City of Berkeley and others. There's been a lot of planning and a lot of discussion. I think it's clear, based on the CDC recommendations at the moment, that non-essential travel to the badly infected countries—Sierra Leone, Liberia and Guinea—should not be undertaken, whether for teaching, research or family visits. We don't want people going unless they have a really, really important reason to go and are willing to risk

several weeks of quarantine and other potential problems. But if we have someone come back, we do have plans in place to deal with such individuals.

Are there greater risks for people living in close quarters, such as in a college dorm, if they are exposed to a person infected with Ebola and exhibiting symptoms?

If someone is exhibiting symptoms, in particular vomiting and diarrhea, that means the virus is present and transmittable. The main issue is being in touch with those bodily fluids and that body. Whether it is in a hotel room, dormitory or a private home, there is a risk to people who would be in close contact and have exposure to those fluids. I'm not sure why it would be a greater risk in a dorm room than other places. I understand that dorm rooms are not commodious, but I think the real issue has to do with physical contact with bodily secretions.

What can the Berkeley campus do to protect the community in such situations?

The main thing to know is that we have plans in place for dealing with an individual if the need arises. If someone does develop signs and symptoms of Ebola and has a relevant exposure, they're going to be isolated. There will be support from the City of Berkeley, Alameda County, the State of California and from the CDC, just like there is in Dallas. We will appropriately isolate the individual until we are sure they don't have Ebola or, if they do have Ebola, until they are rendered noninfectious. All the plans are in place to do that. I don't think people need to be worried that this poses a threat.

What precautions should we take as individuals, if any?

If we're not talking about healthcare providers, but the general public, I think the quick answer is, you don't need to do anything; you should go about your business. Other than avoiding travel to the affected areas, I think people should pretty much do what they were always doing in regard to their health.

Provided by University of California - Berkeley