Ebola declared a public-health emergency

World Health Organization announcement could shift focus to basic public health.

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Spanish Defense Ministry/AP

A Spanish man who contracted Ebola in Liberia arrives at an airbase near Madrid.

The escalating Ebola outbreak in West Africa poses an international threat and all countries must work together to contain it, the World Health Organization (WHO) said today (8 August). The announcement comes amid a debate over the use of experimental drugs in the outbreak: a leading epidemiologist hopes the announcement will shift international focus toward relying on basic public-health measures to control the disease.

The WHO has formally declared the outbreak to be a "public health emergency of international concern," director-general Margaret Chan said after a two-day meeting with experts in Geneva. The declaration means that experts have concluded that the outbreak could spread beyond the West African states where it is concentrated — Guinea, Sierra Leone and Liberia — unless nations coordinate their efforts to stop it.

"What this tells us is that this is a really serious problem right now in West Africa that requires a full-court press by the international community to get it under control," says epidemiologist Jeffrey Duchin, chief of the communicable disease epidemiology and immunization section of the public-health department in Seattle and King County, Washington.

To control the epidemic, the WHO makes a host of recommendations to nations where there is already Ebola transmission, including:

- Give communities a central role in identifying cases, contact tracing and risk education by engaging local, religious and traditional leaders and healers
- · Ensure healthcare workers are adequately protected and paid on time
- · Screen everyone leaving the country
- · Ensure funerals and burials are conducted so as to reduce the risk of infections, and consider postponing mass gatherings
- · Make emergency funds available, and activate emergency measures for infection prevention and control, and community awareness

To stop the outbreak from moving across international borders, the WHO recommends that all countries should be prepared to detect and manage Ebola cases, and to manage travellers originating from known Ebola-infected areas who arrive with unexplained fever.

Epidemiologist Michael Osterholm, head of the Center for Infectious Disease Research and Policy at the University of Minnesota in Minneapolis, said he hoped that the WHO declaration would shift international focus away from experimental vaccines and medicines, and toward using basic public-health measures to quell the outbreak.

Ethical concerns

After two infected Americans were treated with a cocktail of antibodies made by Mapp Biopharmaceutical of San Diego, California, three UK-based international health experts called on 5 August for such drugs to be made available to Africans. The WHO said on 6 August that it will convene an expert meeting next week< to discuss the ethics of using untested treatments against the outbreak, and the US Food and Drug Administration (FDA) removed a barrier to the use of another experimental medicine, TKM-Ebola, made by Tekmira of Burnaby, Canada. The FDA had halted early clinical trials of the drug on 3 July, but said on 7 August that the drug could potentially be given to infected patients.



Nature special: Ebola outbreak in West Africa

Tropical medicine physician Jeremy Farrar — head of the London-based Wellcome Trust, and one of the expert trio who had called for use of the medicines — said that the WHO's decision to hold a discussion on the ethical use of experimental Ebola treatments "a very welcome step in the right direction."

"It is essential that rigorous protocols for the study of experimental interventions are developed quickly so that African countries have the same opportunities to consider them that Western ones would, and that there is equitable access to any that prove effective," Farrar said in a statement.

Regulators have permitted the use of unapproved drugs in previous infectious disease epidemics — for instance, during the 2009 H1N1 epidemic, when the FDA allowed the emergency use of the antiviral drug peramivir. But the current situation is different because the experimental Ebola medicines have not been as thoroughly tested in people.

"These drugs don't have an established safety record in humans, so it becomes much more complicated," says Amesh Adalja, an infectious-disease physician at the University of Pittsburgh Medical Center in Pennsylvania. "It would be unprecedented to use these types of medications in an outbreak."

Curtailing the epidemic

But Osterholm says that the discussion of such experimental drugs and vaccines is diverting international attention away from the measures that he says are needed to stop the outbreak — for instance, tracing the contacts of infected individuals and deploying teams of health workers to make sure all affected individuals are diagnosed.

"We're so fixated on vaccines and medicines, but the way they're going to reduce morbidity and mortality is not through vaccines and medicines," Osterholm says. "We're talking about how many boots on the ground the world can bring in there to help."

Epidemiologists say that the public-health emergency declaration can help to control the epidemic by convincing wealthy countries to send more health workers and basic medical supplies to countries where Ebola is present. Because the hardest-hit nations do not have strong health-care systems, non-governmental organizations (NGOs) have been providing a vast amount of care for those affected.

Officials in Nigeria said on 6 August that two people have now died of the disease there. A man has also died of Ebola in Saudi Arabia, but officials have not yet reported additional cases there. By 6 August, 932 people had died in the current outbreak, most in Sierra Leone, Guinea and Liberia.

Affected countries have already taken some steps to try to stop the virus from spreading within their borders; on 6 August, Ellen Johnson Sirleaf, the president of Liberia, declared a state of emergency and began using soldiers to enforce quarantines of infected people and communities, and Sierra Leone deployed police to blockade two severely affected districts, forbidding all traffic from entering or leaving them.

But Osterholm questions whether such actions will convince communities to work with health officials. "One of the things we have to do is build trust in communities that if they cooperate they won't be penalized for it," he says.

The WHO's declaration of a global public health emergency is the third ever made under international regulations enacted in 2007; the

first came in 2009 during the H1N1 influenza epidemic and the second in May, warning of the potential for international spread of the polio virus.

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