Ebola’s perfect storm

The devastating Ebola epidemic in West Africa is the result of a perfect storm: dysfunctional health services as the result of decades of war, low public trust in government and Western medicine, traditional beliefs and even denials about the cause or existence of the virus, and burial practices that involve contact with contagious Ebola-infected corpses. There are now five affected West African countries: Guinea, Liberia, Nigeria, Sierra Leone, and most recently, Senegal. Ebola has killed around 2000 and infected more than 3500, with over 40% of cases occurring within the past few weeks. The World Health Organization (WHO) predicts that 20,000 may become infected. This fast pace of Ebola’s spread is a grim reminder that epidemics are a global threat and that the only way to get this virus under control is through a rapid response at a massive global scale—much stronger than the current efforts.

West African governments and the international community have been slow to act in a way commensurate to a major threat to health, economies, and societal stability. It took nearly 4 months after the first patient died in December 2013 before the outbreak was confirmed as being caused by the Ebola virus. Despite multiple calls by Médecins Sans Frontières (MSF), WHO and the governments concerned only declared the epidemic a public health emergency in August 2014. Finally, national authorities and international organizations, including WHO, the United Nations, the U.S. Centers for Disease Control and Prevention, and MSF are intensifying their efforts, hopefully in a coordinated manner, with WHO releasing a roadmap to contain Ebola within 9 months.

The immediate needs are enormous. International assistance to the growing local efforts must include support for disease-control activities such as the provision of protective equipment, patient care, and addressing the health, nutritional, and other needs of populations in quarantine. This must be done while dealing with other endemic health challenges: Uninfected people are dying from treatable diseases because of closed or abandoned health facilities, the cancellation of international flights to the infected countries is creating an obstacle to international support, and there are growing concerns about sending medical help without a plan of treatment for these workers (around 150 doctors and nurses have died of Ebola, and 240 medical staff are infected).

This is an opportune time to accelerate clinical evaluation of experimental therapies, vaccines, and diagnostics, while respecting ethical and scientific standards for such trials. Human trials of Ebola vaccines and therapies are about to start. WHO has announced that compassionate use of experimental therapies is ethically justified, even if they have not been tested in humans. An exceptional crisis requires an exceptional response. One of the lessons from the AIDS response is that prevention has little credibility if treatment for those infected is not available. Let us hope that this is the last Ebola outbreak where all we have to offer is isolation and quarantine, instead of a vaccine and treatment.

The impact of this epidemic will last long after its end. Health systems will need to be rebuilt, disease surveillance systems established, trust in health services and authorities rebuilt, orphans educated and protected, and economic losses restored. More Ebola outbreaks will follow, because the populations at risk in Africa are growing, as is their mobility. There is an urgent need to clarify the ecology and reservoir of the Ebola virus, as well as the human behaviors that trigger epidemics.

The tragedy in West Africa demonstrates that where there is a fertile ground of poverty, dysfunctional health systems, and slow response, local outbreaks can turn into major epidemics with major casualties.

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Science 345 (6202), 1221.
DOI: 10.1126/science.1260695