

The epidemic in West Africa



IN SEPTEMBER 1976 scientists in Antwerp received a Thermos out of Yambuku, in what was then Zaire, with two samples from a nun who was fatally ill. One of the vials had smashed, but after scooping the other out of a pool of icy water, blood and broken glass, they discovered that they were handling a deadly and unknown virus. To spare Yambuku from infamy, they named the infection after a local river, the Ebola.

The next 36 years saw about 20 Ebola epidemics. Each was in a village or small town in central Africa and subsided after claiming fewer than 300 lives. Today's crisis is of a different order. It has struck down three countries—Guinea, Liberia and Sierra Leone—with a combined population of over 20m. Almost 4,500 deaths have been recorded: the actual total is much larger. The epidemic is still rampant, destroying communities as it goes. It has spread sporadically to other African countries and to Spain and America.

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The World Health Organisation (WHO) fears up to 10,000 new victims a week by December, perhaps 70% of whom will die. Its chief calls the epidemic “the most severe acute public-health emergency in modern times”. Now that the world has woken up to the danger, the task is to stop the toll reaching hundreds of thousands, if not millions. That is feasible only with sustained international collaboration. And so far, collaboration is something the response has tragically lacked.

This time it's different

Like any epidemic, Ebola is best stopped early. It kills health workers by exposing them to patients who, by the end, exude up to ten litres of virus-laden fluids a day. The number of infections seems to be doubling every two to four weeks. As health-care workers fall ill and the infection grows exponentially, a society's defences against Ebola are rapidly overwhelmed.

This time the response has been fatally slow. One reason is that an Ebola epidemic had never been seen in that

part of Africa. The disease may also have been helped by urbanisation and development, which strengthen the transport links that shuttle virus from villages to the town and back into uninfected country. Perhaps it was only a matter of time before Ebola would find its way into a slum too chaotic and vast to cope.

Recrimination is for later. The effort now must go into defending against Ebola's spread. The disease poses only a slight risk in rich countries, because tracing, diagnosing and isolating scattered cases is within the scope of their health systems. Officials are minimising the threat by screening travellers, though apparently healthy people can be incubating Ebola.

But to quarantine an entire chunk of west Africa would be both wrong and futile. Borders would be permeable. People would flee and pay bribes. As the virus conquered west Africa unchecked, more untraceable emigrants would carry it inside their bodies. When the epidemic spread, would you then slam the door on Ivory Coast and Nigeria? Dhaka? Mumbai?

The way to make the world safe is vigilance outside west Africa and to drain the reservoir of infection within it. Because the disease kills fast and spreads only via direct contact with body fluids, patients infect an average of just 1.5-2.2 others. If you reduce that ratio, the epidemic will slow; if you can get it below one, it will subside (see [article](#)).

Science can help. If instant-diagnosis kits work, health-care workers can isolate patients early on, when the disease is hard to tell from malaria or cholera. Eventually, new vaccines could offer protection for the general population—though they will not be ready for many months. Instead the first doses should be used to try to ensure that medical staff are safe, helping to eliminate today's grave shortage of people willing to put themselves forward as carers. Other ideas include new antiviral medicine. Serum from survivors is promising, too: more could be done to get it to patients. But different treatments need to be tested against each other in a systematic way to see which ones work and which will not.

A bad feeling

In the meantime, the world must strive to turn back Ebola the old-fashioned way. The WHO has set the goal: 70% of burials must be safe and 70% of cases isolated locally or in clinics, both within 60 days. It is a daunting task.

The plan will fail if people mistrust health advice. But fear and suspicion spread even faster than the virus. Some who try to teach people about the disease have been attacked. Conspiracy theories are rife. Some try to avoid the stigma of Ebola, by pretending they have caught something else. There is a black market in death certificates, so that families can bury their members in local graves. The good news is that safer behaviour is spreading—in the way people greet each other, and in rapid burials that shun rituals of touching and kissing.

[Ebola in graphics: examining the data behind the crisis so far](#)

The plan will also fail without more treatment centres. Liberia has 620 beds but needs five times that number—and the demand is growing exponentially. By one reckoning, a 70-bed clinic costs \$1m a month to run and needs two to three staff for each patient. America, Britain and the World Bank have between them promised almost \$2 billion. Pledges are coming in fast. If more cash is needed, it will be found. Much harder is to get the treatment centres rapidly built, supplied and staffed.



In desperation, planners are resorting to makeshift clinics and training local people to mind them—one idea is to recruit survivors, who have immunity. For the moment, more patients will use these than proper centres. Untested, and clearly second-best, their success will depend on how well the authorities can explain how to treat the sick. Nobody can say how easy that will be. It has never been tried.

Ebola infects everything. People keep away from fields and markets—so the price of cassava has more than doubled and there is a risk of hunger. Children are orphaned, businesses close, political and tribal resentments flare up. All that will only make Ebola harder to beat. It is a test for the people of west Africa. But it is also a test for

a globalising world. The slums of Freetown are closer to the streets of London than they have ever been. Some, like Cuba and Médecins Sans Frontières, have risen to the occasion. Too many still have not.