Children's Hospital of Philadelphia
PolicyLab

Ebola and Misplaced Preparedness?

Population Health Sciences

Date Posted:

Jan 06, 2015

Since April 2014, West Africa has been ravaged by the largest Ebola outbreak in history - a public health emergency that is becoming a humanitarian catastrophe. To date, there have been an estimated 17,551 cases and 6,202 deaths, primarily in Liberia, Guinea and Sierra Leone. In these countries, already struggling public health systems have not been able to effectively respond, and control efforts have also been hampered by fear and misperceptions about how the disease is acquired. International support is crucial to containing the outbreak, but the international relief community has had difficulty establishing governance and coordinating efforts. Front-line clinicians are in short supply and face significant risks – many are shunned in their homes and communities and many have contracted the Ebola virus and died.

Although a small number of countries have been most affected by Ebola, today's global society means that an infected traveler could arrive in any country. There have been two imported and two locally acquired cases in the U.S. since the outbreak began, and regional treatment centers have also cared for several healthcare workers who were infected and became ill while abroad. Among these cases, there has been one death and no sustained transmission to other contacts. All other affected patients have recovered. Clearly, no country is immune to these seemingly far-away events. However, the breadth of our response suggests a far greater risk; fear and misperception have played a large role in U.S. preparedness efforts. While the ability to limit transmission is influenced by our vigilance and a strong, easy-to-mobilize public health infrastructure, what are the unintended consequences of our resource allocation and policy decisions?

There is no doubt that Ebola is a frightening disease. Infection can be dramatic, with significant fluid loss and bleeding, and about half of infected individuals during an outbreak will die. Management relies primarily on supportive care, as there are currently no widely available treatment options, and there is not yet an available vaccine. Despite the dramatic clinical presentation, transmission is difficult in most cases, and requires direct contact with infected body fluids. Close contacts without personal protective equipment are most at risk when caring for severely ill patients who produce significant output from vomiting and diarrhea. Importantly, affected individuals must be symptomatic to be contagious – notably, the family members of the patients diagnosed in the U.S. did not become infected. *It is much easier to transmit diseases such as measles, pertussis, or influenza, which are spread through respiratory droplets and can sometimes spread before symptoms are evident.*

Therefore, unless you are a healthcare worker taking care of a severely ill patient or you are close to someone with Ebola who is actively vomiting, the likelihood of exposure is extremely small. Yet we have disinfected airplanes and buses and barred children who have returned from non-affected African countries from school. We have required strict quarantine for healthcare workers after their return from providing care in a physically and emotionally intense setting. There are times when individual rights may be subverted for public health, but this principle was arguably over-applied when returning asymptomatic healthcare workers who do not pose an immediate public health threat were quarantined. We would argue that self-monitoring is a more prudent policy.

Certainly, vigilance is important – we are likely to have more imported cases – but this needs to be informed vigilance and not decision-making driven by "what if." Without a more measured response, we are in danger of diverting resources away from important public health priorities that imminently affect more people; we have not mobilized in a similar matter to address influenza, pertussis, or measles despite ongoing outbreaks. We are

also in danger of diverting resources from the front lines of the outbreak where they are needed most. Our response has at times promoted isolation and alienation when a global response is needed now more than ever. We do live in a global community. This means that prevention is as important abroad as it is here. This means supporting efforts of the international community as well as our neighbors and colleagues who travel to West Africa to donate their time and skills. Lastly, this means sustaining our energy and attention with an emphasis on the needs of the international community, as an outbreak continues in full force overseas even as the few cases in our communities become a distant memory.

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