

Is Enterovirus America's Ebola?

As the deadly Ebola virus sweeps across Africa, Americans continue to be assured that there is no real danger of the epidemic spreading to the United States. Aside from the fact that that is a total lie, the truth is that Americans have more immediate infections they should be worried about.

As the long-term effects of the economic breakdown assert themselves, health officials are sounding the alarm as previously dormant infections are not only reasserting themselves, but doing so in a far more virulent form than seen previously. One such case is enterovirus D68.

Enteroviruses are a genus of positive-sense single-stranded RNA viruses associated with several human and mammalian diseases, the best known being polio. Serologic studies have distinguished 68 human enterovirus serotypes on the basis of antibody neutralization tests. The D68 strain is a severe respiratory infection that strikes primarily children. The rare strain starts out with symptoms similar to the common cold: a runny nose and a cough. It quickly turns more serious, especially in children with asthma, landing its victims in the intensive care unit of the hospital. In recent cases, the virus has also caused paralysis, leading infectious disease specialists to wonder if they are dealing with a new, even more virulent strain than D68.

Although the Centers for Disease Control and Prevention has only reported a couple of hundred confirmed enterovirus cases, public-health officials and medical practitioners warn that this number does not in any way reflect the true number of people who are infected or sick, since the CDC doesn't require hospitals and labs to report cases of enterovirus D68 (EV-D68) infection.

According to Dr. Claudia Hoyen at UH Rainbow

Babies and Children's Hospital in Cleveland, Ohio, enterovirus D68 has probably affected thousands of children in that city alone. She says about 20 children typically go to the intensive care unit each month with respiratory symptoms indicating enterovirus D68 infection at her hospital alone. Hoyen says the ICU there has treated 80 children each month for the last two months.

Reports from Alabama, Colorado, Georgia, Illinois, Iowa, Kansas, Kentucky, Michigan, Missouri, Oklahoma, and Utah tell similar stories.

A Low Profile

Until now, EV-D68 was an uncommon member of the enterovirus family of microorganisms. You may be familiar with a few of its relatives—Rhinovirus (culprit for the common cold), Coxsackievirus (famous for hand-foot-mouth disease) and, as mentioned, poliovirus. Discovered in 1962, EV-D68 has kept a relatively low profile, causing only six small outbreaks between 2005 and 2011 in the Philippines, Japan, the Netherlands, and the United States. Because it was rare, very few laboratories are set up to test for EV-D68, which also explains why we have no idea as to the full scope of this emerging epidemic.

Health officials continue to tell parents "not to panic" if their children begin to exhibit severe wheezing and/or difficulty breathing, *but* they urge them to visit an urgent care center or hospital emergency department with experience treating children immediately. If that isn't possible, parents are urged to call 911.

There was a time, not so long ago, when viral-mediated diseases like smallpox, measles, and polio wreaked havoc on American children. Thanks to immunizations, those days seemed largely behind us. However, the rapid-fire spread of EV-D68 is a clear example of how fast and furiously infectious disease can roam through an unprotected community. The rapid spread of this dangerous virus, for which there is no vaccine or anti-viral medication available, should serve as a wake up call for all of us.

—Debra Hanania-Freeman