How novel coronavirus compares to SARS, MERS and other recent viral outbreaks

A look at how COVID-19 stacks up against recent viral epidemics.

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The novel coronavirus has understandably caused a lot of people to worry. Others, however, casually report a feeling of déjà vu. It seems like we’ve been down this road before with SARS, MERS and the swine flu.

So how does COVID-19 actually stack up against these recent viral epidemics?

SARS, MERS and COVID-19 are all respiratory illnesses that are caused by the same large family of viruses called coronavirus. Coronaviruses are actually quite common. They cause many of the common colds that people get and recover from every day.

Coronaviruses are also common in many different animal species. Occasionally, the virus from an animal can infect humans and then rapidly spread among people. This was the case for MERS, SARS, and COVID-19, which are all thought to have originated in bats.

Similarly, the H1N1 Influenza virus that caused the swine flu is believed to have come from pigs.

The first cases of SARS (severe acute respiratory syndrome) were reported in Asia in 2003. From November 2002 to July 2003, more than 8,000 probable SARS cases were reported to the World Health Organization from 29 countries. There were only 8 laboratory confirmed cases in the U.S.
Most people with SARS became ill within 2-10 days after exposure. The death rate was nearly 10%, but could increase to over 50% in adults older than 60.

No cases of SARS have been reported anywhere in the world since 2004.

MERS (Middle Eastern respiratory syndrome) was first reported in Saudi Arabia in 2012. Of the 27 countries affected globally, 10 countries are in or near the Arabian Peninsula and 17 countries are outside of the Arabian Peninsula. Only 2 patients in the U.S. ever tested positive for MERS.

To date, there have been nearly 2,500 laboratory confirmed cases of MERS with a death rate of about 34%.

Influenza is another contagious respiratory illness with symptoms that are similar to SARS, MERS and COVID-19. It is caused by the influenza A and influenza B viruses. Different strains of influenza are responsible for the flu season that occurs every year. The CDC estimates that there have been 18,000-46,000 flu deaths so far this season.

The swine flu, or influenza A (H1N1) virus caused the 2009 global pandemic. An estimated 151,000-575,000 people worldwide died from the H1N1 virus in 2009. Of those, there were an estimated 12,400 deaths in the U.S. The estimated global death rate was very low at 0.02%. This strain continues to circulate as a seasonal flu virus each year, but can be prevented with a flu vaccine.

In comparison, COVID-19 has spread to more than 50 countries and infected more than 85,000 people worldwide since January of this year. In the United States, there have been about 70 cases, and two people have died. Globally, there have been less than 3,000 confirmed deaths.

Right now, experts estimate that COVID-19 has a death rate of about 2%, but that might change as we learn more about the virus.

While COVID-19 seems to spread easily, the symptoms tend to be mild, particularly for people who are relatively young and healthy. The SARS and MERS outbreaks had significantly higher death rates. Meanwhile, seasonal influenza remains an important cause of respiratory illness that can cause hospitalization and death. The CDC continues to recommend that everyone older than 6 months get the flu vaccine.

As Dr. Robert Glatter, emergency physician at New York City's Lenox Hill Hospital noted, “Make sure you get a flu shot. It’s much more likely to contract the flu than the new coronavirus infection.”

He also warns, “Older persons should also make sure they get vaccinated against pneumonia and shingles, since these are more likely if they develop a viral infection such as the coronavirus.”

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