

World War I era flu pandemic was worst in the 20th century

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From the Centers for Disease Control

When many of us with disabilities have been practicing social distancing and staying in our homes in the wake of COVID-19, it may be a time to look back on the deadliest pandemic in the 20th century. The 1918 influenza pandemic was caused by an H1N1 virus with genes of avian origin. It spread worldwide during 1918-1919.

In the United States, it was first identified in military personnel in spring 1918. It is estimated that about 500 million people or one-third of the world's population became infected with this virus. The number of deaths was estimated to be at least 50 million worldwide with about 675,000 occurring in the United States. It's not known how many victims had pre-existing disabilities, but what we'd now consider to be primitive medical care likely contributed to deaths. Entire families died.

The pandemic occurred as World War I was winding down, with soldiers in tight quarters in barracks and on ships. Movement and mobilization of troops placed large numbers of people in close contact and living spaces were overcrowded. Health services were limited. Up to 30 percent of U.S. physicians were deployed to military service.

Medical technology and countermeasures at the time were limited or nonexistent. No diagnostic tests existed that could check for influenza infection. In fact, doctors didn't know influenza viruses existed. Many health experts at the time thought the 1918 pandemic was caused by a bacterium called "Pfeiffer's bacillus," which is now known as *Haemophilus influenzae*.

Influenza vaccines did not exist. Antibiotics had not been developed yet. Penicillin was not discovered until 1928. Likewise, no flu antiviral drugs were available. Critical care measures, such as intensive care support and mechanical ventilation also were not available in 1918. Without these medical countermeasures and treatment capabilities, doctors were left with few treatment options other than supportive care.

In terms of national, state and local pandemic planning, no coordinated pandemic plans existed in 1918. Some cities managed to implement community mitigation measures, such as closing schools, banning public gatherings and issuing isolation or quarantine orders, but the federal government had no centralized role in helping to plan or initiate these interventions during the 1918 pandemic.

When considering the potential for a modern era high severity pandemic, it is important to reflect on the considerable medical, scientific and societal advancements that have occurred since 1918, while recognizing that there are a number of ways that global preparations for the next pandemic still warrant improvement.

To better understand this deadly virus, an expert group of researchers and virus hunters set out to search for the lost 1918 virus, sequence its genome, recreate the virus in a highly safe and regulated laboratory setting at CDC, and ultimately study its secrets to better prepare for future pandemics.

Read how the origins of the 1918-1919 pandemic were found, many years later, at [the CDC's "Deadliest Flu" website](#).

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