

# **The Spanish Flu: How the 1918 Influenza Pandemic Impacted Boston, the US, and the World**

**By Ethan Han**

## **Introduction**

Diseases have been a part of humanity ever since its conception. The various pandemics throughout history have both divided people through fear and suspicion and have united communities in order to come to a collective solution. Disease has long been an agent of change in the world, and the Spanish Flu of 1918 was no different. With a staggering body count of 50 million people, and over 500 million infected worldwide, this version of the H1N1 virus was extraordinarily deadly, so much so that even a hundred years later it holds the title of the most lethal flu pandemic ever recorded. With such a powerful disease, the need for an equally forceful response was needed, and that is exactly what happened. Countries had to swiftly refocus their priorities on the preservation of their own citizens instead of the slaughter of their enemies, unfolding in the aftermath of World War I, the most devastating and brutal war ever seen. The Spanish Flu of 1918 broke domestic and international barriers and led to advancements in medicine and public health, as all countries affected had to simultaneously focus on the survival and well-being of their own citizens amid a global military conflict.

## **Background**

There was clearly something different about the 1918 flu season. The virus that caused so much death would later be identified as a different strain of the usual H1N1 virus. This new strain held multiple advantages over the normal H1N1, namely having a much faster replication rate. During a test, it was determined that the 1918 virus multiplied almost 50 times faster than the

conventional flu.<sup>1</sup> This contributed to its rapid spread across the world, resulting in a third of the human population being infected at the time. The 1918 virus had a particularly high mortality rate for those under 5 years old, between 20 and 40 years old, and 65 years or older.<sup>2</sup> Moreover, the first reported cases of the flu were in army training facilities, where tens of thousands of recruits were trained by the US. These young soldiers would then be transported around the world to fight in World War I, allowing the disease to truly have a global reach. The various properties of the virus and the circumstances of international conflict allowed it to become what it is known as today.

## **Response**

As expected, the US was hit hard by the Spanish Flu. By nature, the flu is a virus, meaning a proactive solution isn't possible. As a result, the only preventative measures were effective against the viral aspect of the epidemic. Antibiotics were tried, but ultimately failed to cure patients of the disease. Another crucial aspect of the pandemic was the shortage of medical staff, specifically nurses. Since the US had just entered World War I, many nurses were transported to Europe to treat the wounded soldiers in the war. This meant that domestically, there was a massive shortage of personnel to properly care for all the flu victims [Appendix C]. After the first wave of infection, many cities and communities took action to try and lessen the damage. The flu was put on a list of diseases that were being reported for the first time in decades, and those who were infected were expected to isolate themselves from the general populace in order to prevent further spread of the virus. Many citizens, like those in San Francisco, chose to wear

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<sup>1</sup> "History of 1918 Flu Pandemic." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 21 Mar. 2018, [www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm](http://www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm).

<sup>2</sup> "History of 1918 Flu Pandemic." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 21 Mar. 2018, [www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm](http://www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm).

face masks to lessen their chances of catching the disease through airborne transmission.<sup>3</sup> Public assemblies were also banned for a short time in many American cities. In the end, the flu forced businesses to shut down, factories closed due to workers being too sick, and the economy as a whole suffered as a result of an undermined workforce.

### **Three Waves**

The Spanish Flu hit the US in an interesting pattern which medical professionals now call “waves.” The first of these waves occurred in the training camps, where many young soldiers were infected during March of 1918. In Camp Funston in Fort Riley, located in Kansas, one hundred cases were reported, and the numbers were similar across the 32 other large training facilities throughout the country.<sup>4</sup> Overall this was the least lethal wave of the pandemic, but it raised awareness for the possibility of widespread infection. The second wave was by far the most deadly of the three. During the fall of 1918, most of the aforementioned responses were enacted, and the body count rose to nearly 600,000 in the US, with 195,000 deaths in October alone.<sup>5</sup> This was the period of time when citizens realized the gravity of the disease, as before this, reports of the flu were exclusive to military personnel and locations overseas. This was their first time experiencing the disease domestically, and it left people devastated. The third and final wave of the virus within American borders occurred during the winter of that same year. By this point, the disease had become much less lethal, as the more dangerous strains killed off their

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<sup>3</sup> Milsten, Andrew. “1918 Influenza Pandemic: A United States Timeline.” *ACEP // Home Page* [www.acep.org/how-we-serve/sections/disaster-medicine/news/april-2018/1918-influenza-pandemic-a-united-states-timeline/](http://www.acep.org/how-we-serve/sections/disaster-medicine/news/april-2018/1918-influenza-pandemic-a-united-states-timeline/).

<sup>4</sup> “History of 1918 Flu Pandemic.” *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 21 Mar. 2018, [www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm](http://www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm).

<sup>5</sup> Milsten, Andrew. “1918 Influenza Pandemic: A United States Timeline.” *ACEP // Home Page* [www.acep.org/how-we-serve/sections/disaster-medicine/news/april-2018/1918-influenza-pandemic-a-united-states-timeline/](http://www.acep.org/how-we-serve/sections/disaster-medicine/news/april-2018/1918-influenza-pandemic-a-united-states-timeline/).

hosts too quickly to spread to others. In total, 675,000 people were left dead in the United States.<sup>6</sup>

### **Boston: A Local Perspective**

Boston was one of the first cities to suffer from the second wave of the Spanish Flu. Being located on the east coast, many of the wounded soldiers from the frontlines of World War I returned there, and after receiving their necessary treatments, go back to their homes. This made Boston, along with several other Atlantic cities like New York City, extremely vulnerable to the oncoming disease. The first cases of Spanish Flu in Boston were two dozen sailors afflicted with the disease. From its first reported diagnosis on August 28th, the disease spread from a little over twenty infected people to a staggering two of the twenty one thousand sailors stationed at Receiving Ship by mid-September.<sup>7</sup> Soon after the sailors, the civilian cases began pouring in: “By September 16, there were hundreds of influenza cases in the city, causing overcrowding in both City Hospital as well as Massachusetts General.”<sup>8</sup>

The initial response from authorities was half-hearted at best. Local medical figures believed that since the disease spread so quickly, it would weaken just as fast without any intervention necessary. Schools were closed after fierce debate, but no other public facilities were forcibly shut down. However as the number of infected only continued to skyrocket, the now official epidemic could no longer be ignored. Governor Samuel McCall held a conference with the Public Safety Commission to develop an effective way to combat the current situation. Their main issue: after the massive mobilization that occurred for America’s entry into World War I,

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<sup>6</sup> “History of 1918 Flu Pandemic.” *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 21 Mar. 2018, [www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm](http://www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm).

<sup>7</sup> “Influenza Encyclopedia.” *Boston, Massachusetts and the 1918-1919 Influenza Epidemic | The American Influenza Epidemic of 1918: A Digital Encyclopedia*, University of Michigan Center for the History of Medicine and Michigan Publishing, University of Michigan Library, [www.influenzaarchive.org/cities/city-boston.html#](http://www.influenzaarchive.org/cities/city-boston.html#).

<sup>8</sup> Ibid

the vast majority of physicians and nurses were enlisted by the military to participate in the war effort. This left a gaping hole in Massachusetts' medical personnel, and the collective came to a decision: on September 24th, Governor McCall issued a statement to every capable individual who was medically trained to assist in caring for the sick. Two days later, he made another announcement that closed the doors on Boston's theaters, movie halls, and dance halls, as well as prohibiting public assembly until 7:00 AM on October 7th.<sup>9</sup> Various physicians and nurses tasked with the care of now thousands of influenza patients were tired and overworked from the sheer number of sick, and thirty two nurses from Brigham Hospital became ill themselves.

### **Aftermath**

The disease ravaged the planet for a grueling 6 months, killing 50 million and infecting a third of the global population.<sup>10</sup> However, not all results were negative from this ordeal. Because of the magnitude of the pandemic, various governments around the world realized that better disease control policy was necessary to prevent yet another worldwide pandemic. In the US in particular, the production of vaccines became incredibly important. While the flu itself cannot be vaccinated by nature, the secondary bacterial infections associated with it can be, and they contributed to a large portion of the body count of the 1918 Spanish Flu as well. A vaccine was actually synthesized for many of these secondary infections, but vaccine production took far too long to be practical. Even by today's standards, manufacturing a vaccine takes upwards of 10 weeks, and during the early 20th century that time was nearly doubled. The push for vaccines to be both created and replicated faster was underway, and there is now a much more rigid system in place

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<sup>9</sup> "Influenza Encyclopedia." *Boston, Massachusetts and the 1918-1919 Influenza Epidemic* | *The American Influenza Epidemic of 1918: A Digital Encyclopedia*, University of Michigan Center for the History of Medicine and Michigan Publishing, University of Michigan Library, [www.influenzaarchive.org/cities/city-boston.html#](http://www.influenzaarchive.org/cities/city-boston.html#).

<sup>10</sup> "History of 1918 Flu Pandemic." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 21 Mar. 2018, [www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm](http://www.cdc.gov/flu/pandemic-resources/1918-commemoration/1918-pandemic-history.htm).

to prevent mass infection. Another key factor to the rapid spread of Spanish Flu was the increasingly connected world, and how transportation caused greater dangers when dealing with the disease. Many soldiers, either bearing the disease to the frontlines or returning from the trenches of World War I, brought the pestilence with them, causing their homes to fall victim to the disease. This led to the beginning of modern travel: in order to take certain flights, passengers now must complete a few vital vaccinations and be cleared by a doctor to travel. These measures were enacted after the Spanish Flu disaster tore across the world.

## **Conclusion**

The 1918 influenza epidemic is remembered as the most lethal influenza outbreak in human history. The horrific loss of life caused by this one disease was unique for influenza, but with modern advancements in medicine, society can be better prepared for the next pandemic. During the outbreak, many medical devices and treatments now considered necessities were not even invented yet. Diagnostic tests to determine if a person was infected with influenza were not available, and doctors at the time didn't even know that the influenza virus existed. Other essential features to hospitals today, like mechanical ventilation throughout the building, were not implemented yet. The response by government leaders was also lackluster; no plans for a possible pandemic were drafted. Compared to the world of 1918, modern human society is far more prepared to combat disease. With the lessons learned from one hundred years ago, and responsive government cooperation, a pandemic of this magnitude can be avoided. During those few months however, influenza truly broke domestic and international barriers between all people, and for a moment, unified the world against a common threat.

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*National History Day Special Award for his essay “The Spanish Flu: How the 1918 Influenza Pandemic Impacted Boston, the US, and the World.” Ethan enjoys volunteering with the Red Cross, Boston Cares, local news station WGBH, and is the founder of BLS Connect, a community outreach organization that bridges the Boston Latin student community with the Brighton Civic Association.*

## Appendix A



“Soldiers at Camp Funston in Fort Riley Kansas Sick with Influenza.” *1918 Pandemic*

*Influenza Historic Timeline*, 2018, [www.cdc.gov/flu/pandemic-resources/1918-commemoration/pandemic-timeline-1918.htm](http://www.cdc.gov/flu/pandemic-resources/1918-commemoration/pandemic-timeline-1918.htm).



This is a photograph of Camp Funston after influenza had infected many of the soldiers stationed there. Hundreds of patients were packed into this room, where care was administered.

## Appendix B



“Picture of Soldiers at Fort Riley, the Location of the First Influenza Outbreak.” 1918 *Pandemic Influenza: Three Waves*, 2018, [www.cdc.gov/flu/pandemic-resources/1918-commemoration/three-waves.htm](http://www.cdc.gov/flu/pandemic-resources/1918-commemoration/three-waves.htm).

This picture showcases two soldiers relaxing at Fort Riley, where the epidemic would first take root in America.

## Appendix C



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“Advertisement for Becoming a Nurse during the 1918 Flu Epidemic.” *1918 Historical Image Gallery*, 2018, [www.cdc.gov/flu/pandemic-resources/1918-commemoration/historical-images.htm](http://www.cdc.gov/flu/pandemic-resources/1918-commemoration/historical-images.htm).

This is an advertisement for nursing as a career during the pandemic. Because of the massive personnel shortage which made new nurses highly sought after, many heavily affected cities posted similar fliers to encourage women to take up the occupation.

#### Appendix D



“Red Cross Workers in Boston Making Anti-Influenza Masks in 1918.” *The History List*,  
[www.thehistorylist.com/events/boston-and-the-1918-flu-epidemic-boston-massachusetts](http://www.thehistorylist.com/events/boston-and-the-1918-flu-epidemic-boston-massachusetts).

This picture shows several nurses creating masks for the people of Boston during the time of the epidemic. The massive amount of people infected required a lot of equipment, and masks were one of many items that were in high demand.

### Appendix E



Corbis, Bettmann. “‘Fresh Air Cure’ for the New Flu. Outside Rows of Hospital Tents Outdoor in the Sun.” *SciencePG*,  
[article.sciencepublishinggroup.com/html/10.11648.j.ejcb.20160204.11.html](http://article.sciencepublishinggroup.com/html/10.11648.j.ejcb.20160204.11.html).



This is a photograph of a hospital setting up tents outside in order to accommodate all their patients. It really conveys how overcrowded some of these places were during the peak months of the outbreak.

## Appendix F



“Like Many Infectious Diseases, Influenza Capitalizes on Overcrowded Conditions, Which It Found on Troopships during the First World War.” *Hakai Magazine*,

[www.hakaimagazine.com/features/from-berth-to-death/](http://www.hakaimagazine.com/features/from-berth-to-death/).

This picture shows a military transport ship coming back from Europe during the First World War. The image effectively displays how crowded these vessels could get, and how they would provide the ideal breeding ground for a disease like influenza.

## Appendix G



“A Baseball Player Wearing a Mask during the Flu Epidemic of 1918.” *Chron*, 17 Jan. 2018, [www.chron.com/news/houston-texas/houston/article/worldwide-influenza-epidemic-100-years-ago-Houston-12498843.php](http://www.chron.com/news/houston-texas/houston/article/worldwide-influenza-epidemic-100-years-ago-Houston-12498843.php).

This photograph shows a professional baseball player during a game in 1918. The fact that influenza prompted professional athletes to wear masks during games is telling of the fear that the people had of this disease.

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