



OVERVIEW

BIG IDEA

The 1918 flu had a devastating impact on the world.

OBJECTIVE

9.3: Communicate information to the public regarding prevention of a serious infectious disease epidemic.

AGENDA

1. Who Got the Flu of 1918?
2. Influenza Strikes (Reading)
3. The Flu of 1918 in the News (Team)

HOMEWORK

Read about a person who was affected by the 1918 flu and summarize their story.

LESSON 9.3

The 1918 Flu

SUMMARY:

This lesson will help students delve deeper into one particular devastating pandemic in our recent history--the 1918 flu. Students will begin with a gripping graph showing how the 1918 flu affected young, healthy adults disproportionately (unlike other influenza pandemics). Then students will read a comprehensive overview of the 1918 flu. Finally, they will team up to create a news segment about the 1918 flu.

STANDARDS:

CDC NHES 8.12.4: Adapt health messages and communication techniques to a specific target audience

IL Learning Standard 22.A.5b: Evaluate the effectiveness of health promotion & illness prevention methods using data from actual situations



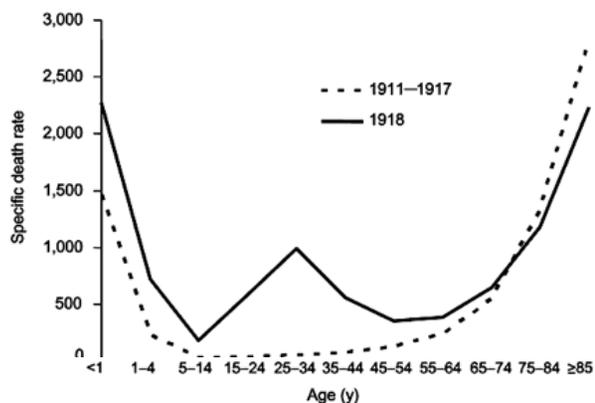
The 1918 Flu

Obj. 9.3: Communicate information to the public regarding prevention of a serious infectious disease epidemic.



Who got the Flu of 1918?

The graph below portrays the difference between the influenza mortality age-distributions of the 1918 epidemic and normal epidemics – deaths per 100,000 persons in each age group, United States, for the inter-pandemic years 1911–1917 (dashed line) and the pandemic year 1918 (solid line).



- 1) Based on the data in this graph, what was unique about the pandemic flu of 1918?
- 2) Why do you think the 1918 flu affected the particular age range shown in the graph?



Predict

What factors do you think may have impacted the spread of the 1918 flu?

DO NOW: Answers:

- 1) The 1918 flu affected young adults (especially age 15-44), unlike normal influenza pandemics which affect the young and old disproportionately.
- 2) The real answer is that scientists hypothesize that the 1918 flu caused the immune system to go into overdrive, overwhelming the body, so those with stronger immune systems (the young adults) had a stronger reaction than those with weaker immune systems. Students will probably not guess this though, so any logical explanations are acceptable.

DISCUSS: Possible answers:

Patterns of social activity, war conditions, health care & public health systems, increasing intercontinental transportation & travel, etc.

**INFLUENZA STRIKES**

Read the following overview of the 1918 Flu from the US Department of Health & Human Services Flu.gov website (http://www.flu.gov/pandemic/history/1918/the_pandemic/influenza/index.html)

Throughout history, influenza viruses have mutated and caused pandemics or global epidemics. In 1890, an especially virulent influenza pandemic struck, killing many Americans. Those who survived that pandemic and lived to experience the 1918 pandemic tended to be less susceptible to the disease.

From Kansas to Europe and Back Again:

Where did the 1918 influenza come from? And why was it so lethal?

In 1918, the Public Health Service had just begun to require state and local health departments to provide them with reports about diseases in their communities. The problem? Influenza wasn't a reportable disease.

But in early March of 1918, officials in Haskell County in Kansas sent a worrisome report to the Public Health Service. Although these officials knew that influenza was not a reportable disease, they wanted the federal government to know that "18 cases of influenza of a severe type" had been reported there.

By May, reports of severe influenza trickled in from Europe. Young soldiers, men in the prime of life, were becoming ill in large numbers. Most of these men recovered quickly but some developed a secondary pneumonia of "a most virulent and deadly type."

Within two months, influenza had spread from the military to the civilian population in Europe. From there, the disease spread outward—to Asia, Africa, South America and, back again, to North America.

Wave After Wave:

In late August, the influenza virus probably mutated again and epidemics now erupted in three port cities: Freetown, Sierra Leone; Brest, France, and Boston, Massachusetts.

In Boston, dockworkers at Commonwealth Pier reported sick in massive numbers during the last week in August. Suffering from fevers as high as 105 degrees, these workers had severe muscle and joint pains. For most of these men, recovery quickly followed. But 5 to 10% of these patients developed severe and massive pneumonia. Death often followed.

Public health experts had little time to register their shock at the severity of this outbreak. Within days, the disease had spread outward to the city of Boston itself. By mid-September, the epidemic had spread even further with states as far away as California, North Dakota, Florida and Texas reporting severe epidemics.

The Unfolding of the Pandemic:

The pandemic of 1918-1919 occurred in three waves. The first wave had occurred when mild influenza erupted in the late spring and summer of 1918. The second wave occurred with an outbreak of severe influenza in the fall of 1918 and the final wave occurred in the spring of 1919.

In its wake, the pandemic would leave about twenty million dead across the world. In America alone, about 675,000 people in a population of 105 million would die from the disease.

Mobilizing to Fight Influenza:

Although taken unaware by the pandemic, federal, state and local authorities quickly mobilized to fight the disease.

On September 27th, influenza became a reportable disease. However, influenza had become so widespread by that time that most states were unable to keep accurate records. Many simply failed to report to the Public Health Service during the pandemic, leaving epidemiologists to guess at the impact the disease may have had in different areas.

NEW INFO:

This is a longer reading taken from the US Dept of Health & Human Services Flu.gov website (http://www.flu.gov/pandemic/history/1918/the_pandemic/influenza/index.html). Students could be directed to the website to read it on their own (at their own pace) and then explore the other great resources and information on the site when finished.



Lesson 9.3 Instructor Guide

MODULE 9: EPIDEMIOLOGY

World War I had left many communities with a shortage of trained medical personnel. As influenza spread, local officials urgently requested the Public Health Service to send nurses and doctors. With less than 700 officers on duty, the Public Health Service was unable to meet most of these requests.

On the rare occasions when the PHS was able to send physicians and nurses, they often became ill en route. Those who did reach their destination safely often found themselves both unprepared and unable to provide real assistance.

In October, Congress appropriated a million dollars for the Public Health Service. The money enabled the PHS to recruit and pay for additional doctors and nurses. The existing shortage of doctors and nurses, caused by the war, made it difficult for the PHS to locate and hire qualified practitioners. The virulence of the disease also meant that many nurses and doctors contracted influenza within days of being hired.

Confronted with a shortage of hospital beds, many local officials ordered that community centers and local schools be transformed into emergency hospitals. In some areas, the lack of doctors meant that nursing and medical students were drafted to staff these makeshift hospitals.

The Pandemic Hits:

Entire families became ill. In Philadelphia, a city especially hard hit, so many children were orphaned that the Bureau of Child Hygiene found itself overwhelmed and unable to care for them.

As the disease spread, schools and businesses emptied. Telegraph and telephone services collapsed as operators took to their beds. Garbage went uncollected as garbage men reported sick. The mail piled up as postal carriers failed to come to work.

State and local departments of health also suffered from high absentee rates. No one was left to record the pandemic's spread and the Public Health Service's requests for information went unanswered.

As the bodies accumulated, funeral parlors ran out of caskets and bodies went uncollected in morgues.

Protecting Yourself From Influenza:

In the absence of a sure cure, fighting influenza seemed an impossible task.

In many communities, quarantines were imposed to prevent the spread of the disease. Schools, theaters, saloons, pool halls and even churches were all closed. As the bodies mounted, even funerals were held out doors to protect mourners against the spread of the disease.

Public officials, who were unaware that influenza was a virus and that masks provided no real protection against viruses, often demanded that people wear gauze masks. Some cities even passed laws requiring people to wear masks. Enforcing these laws proved to be very difficult as many people resisted wearing masks.

Advertisements recommending drugs which could cure influenza filled newspapers. Some doctors suggested that drinking alcohol might prevent infection, causing a run on alcohol supplies. Some folk healers insisted that wearing a specific type of amulet or a small bag of camphor could protect against influenza.

States passed laws forbidding spitting, fearing that this common practice spread influenza.

None of these suggestions proved effective in limiting the spread of the pandemic.

Communications During the Pandemic:

Public health officials sought to stem the rising panic by censoring newspapers and issuing simple directives. Posters and cartoons were also printed, warning people of the dangers of influenza.

Although the Public Health Service was aware that much of the nation's large immigrant population did not speak or read English, posters used English almost exclusively. But even native English speakers found the posters and directives confusing. And limited understanding of influenza, combined with the rapidity of its spread, meant that these directives were often ignored or poorly understood.



Fading of the Pandemic:

In November, two months after the pandemic had erupted, the Public Health Service began reporting that influenza cases were declining.

Communities slowly lifted their quarantines. Masks were discarded. Schools were re-opened and citizens flocked to celebrate the end of World War I.

Communities and the disease continued to be a threat throughout the spring of 1919.

By the time the pandemic had ended, in the summer of 1919, nearly 675,000 Americans were dead from influenza. Hundred of thousands more were orphaned and widowed.



The Flu of 1918 in the News

Challenge: Imagine that television & news programs were widespread in 1918 (*full-scale commercial television broadcasting did not actually begin in the U.S. until 1947*). Create a 3-5 minute news broadcast segment on the 1918 flu that would have aired in mid-March 1918.

Directions:

- 1) Form a team of four and identify roles (two news anchor and two special reporters)
- 2) Gather additional informational resources from the website:
<http://www.flu.gov/pandemic/history/1918/>
- 3) Write a script. Be sure to include information on populations most affected, prevention methods, effects and consequences of the epidemic, treatment options, and trends in geographic spread of the epidemic statewide, nationally, and globally.
- 4) Record your news segment or rehearse in order to present live in class.



The 1918 Flu

1. What percentage of worldwide population was affected by the 1918 flu?
2. Who was most at risk for the 1918 flu? Why?
3. What could be done to do to avoid the 1918 flu?



Stories of the 1918 Flu

Explore the story of one person who was affected by the 1918 Flu. Summarize their story in one paragraph on a separate sheet of paper. Use the following website or any other credible source:

<http://www.flu.gov/pandemic/history/1918/biographies/index.html>

THINK:

The website has a portion dedicated to information on the 1918 flu specific to various states. Have students go to their own state and look up specific information. Encourage students to think about what was known about the 1918 flu pandemic among the general public and what information would help them. Encourage them to think about how the delivery of the information could cause potential widespread panic.

ASSESS: ANSWERS:

1. Estimates show that 3-5% of the population died and a much greater percentage were affected.
2. Young adults were at greatest risk, but no one was excluded from it's scourge.
3. Any answers related to sensible precautions could be accepted. However, students should be aware that there was no flu vaccine (as we have today) back in 1918. Handwashing, avoiding those who are sick, staying inside or away from the public, etc.

HOMEWORK:

The purpose of this homework assignment is to encourage students to see the flu from a different, more intimate perspective.