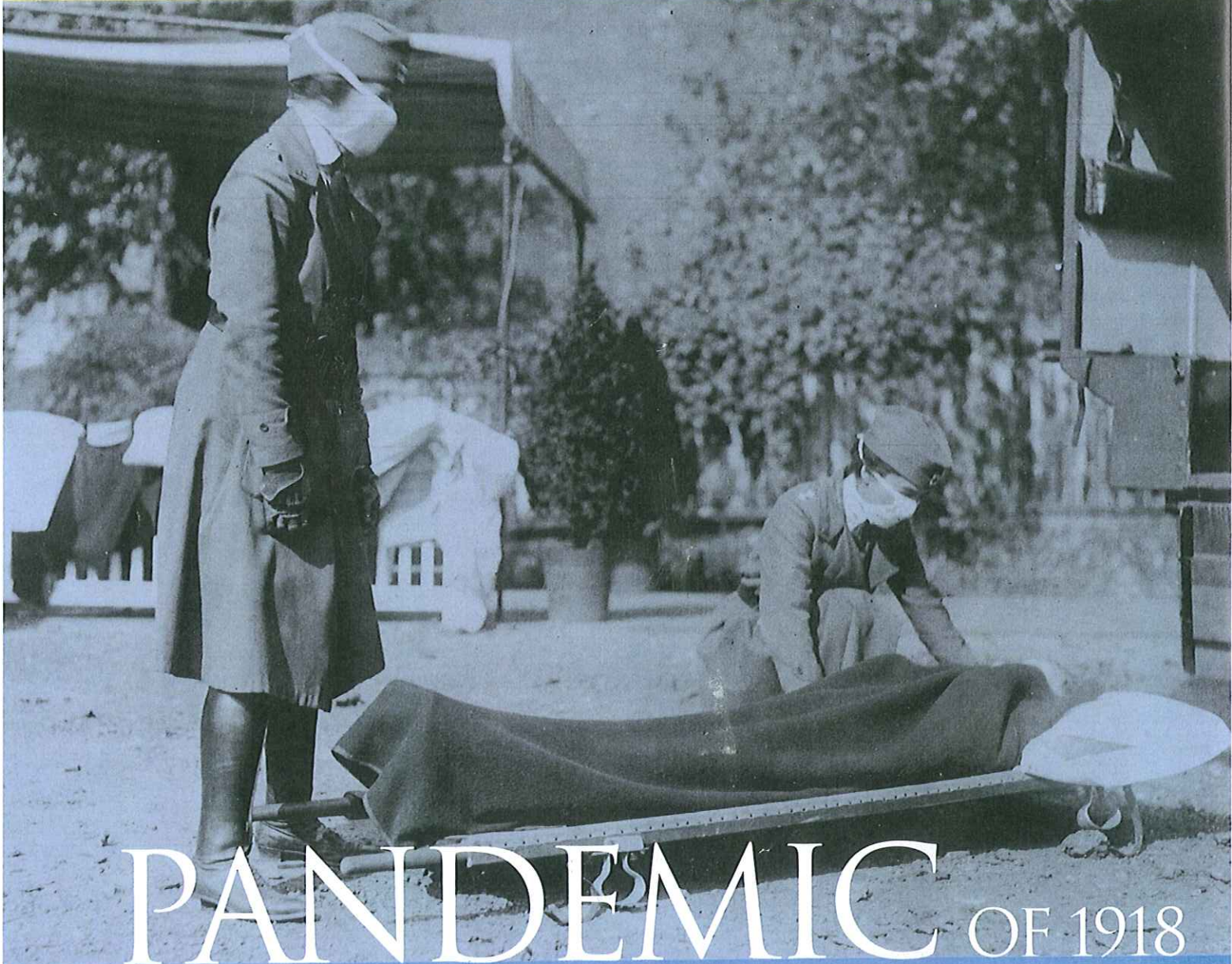


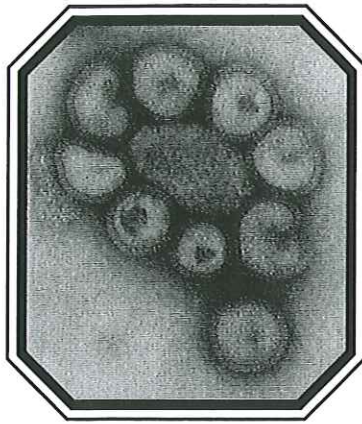
MILESTONES OF HISTORY

# THE INFLUENZA



# PANDEMIC OF 1918

How one strain of the flu virus killed 50 million people in just four months



BY EUGENE FINERMAN

**I**n 1910, any physician in Vienna, London or New York would have boasted that epidemics were a thing of the past. Perhaps plagues were still a danger in backward cultures where medicine was rare or little more than witchcraft. But the industrialized societies of the 20th century had nothing to fear. Modern medicine was working wonders. It found the cures for smallpox, rabies and diphtheria, and was making major advances in the treatment of tuberculosis, yellow fever and malaria. Civilization had come too far to worry about plagues. ... That sense of confidence would not survive the decade, and neither did 50 million people. The influenza pandemic of 1918 taught a costly and humbling lesson.

Influenza never had been considered a threatening disease. Hippocrates described it, and nothing had changed in almost 2,500 years. The disease certainly was infectious, easily spread by coughing and sneezing, but was regarded as just a common illness of winter. The coughing, fever, sore throat, muscle pains and fatigue added up to a week of misery. At worst, influenza could lead to pneumonia and so was dangerous to infants and the elderly, but the overall mortality rate was one in a thousand cases. The “flu” seemed so inconsequential that the U.S. Public Health Service did not monitor any outbreaks of the disease.

So when and where did this lethal form of influenza originate? A study, sponsored by the American Medical Association, traced the epidemic to Haskell County in western



**Influenza victims crowd into an emergency hospital at Camp Funston, a subdivision of Fort Riley in Kansas.**

Even if a third of the Doughboys were sick: the healthy ones could help turn back the German tide. Besides, conventional wisdom reasoned, it was only the flu; within a week or two, the sick could be expected to recover. In late April, U.S. troops arrived in France. Our Doughboys proclaimed “Lafayette, we are here.” So was influenza. American troops were rushed to the front, and they stopped the Germans with more than just courage. The Germans, too, came down with the flu. By June, the disease had sapped the German offensive and the kaiser’s last hope of victory.

In May, the flu had spread to Britain. The royal navy curtailed its operations that month; 10,000 sailors were sick. By June, the disease was in Spain, where it acquired its notorious name: the Spanish Flu. Spain had not started the disease but it was the first to publicize it. The country was not involved in the

Kansas. This was an agricultural community, population 1,720, and we can surmise that some animal virus mutated and infected a human. A sneeze or a cough did the rest. In January 1918, many of the county’s young adults came down with a severe case of flu. Young adults were usually the least susceptible to the disease; but this strain seemed to target them. Worse, this influenza had a greater likelihood of leading to pneumonia. Some people were dying. But after two months, the outbreak appeared to be over. Influenza was only a disease of winter.

The United States had entered World War I in April 1917. Any soldiers from Haskell County would have reported to Fort Riley in eastern Kansas. On March 4, 1918, the first soldier reported ill with influenza. Within three weeks more than 1,100 soldiers were hospitalized; and 50 died. Their symptoms were so severe and atypical of influenza that the doctors initially misdiagnosed the disease, thinking it cholera, typhoid or meningitis.

Fort Riley had 56,000 soldiers. In the normal course of military operations, thousands had been transferred to other camps and now they were spreading the disease. On March 18, Army camps in Georgia reported the first cases of influenza. By the end of April, 24 of the 36 main Army bases had epidemics. The Army estimated that 36 percent of the soldiers were infected. Despite this, the Army was preparing to send 1 million soldiers—healthy or not—to fight in Europe.

In March, the Germans had begun an all-out offensive to break the British and French lines before American reinforcements arrived. The Americans were desperately needed.

World War, and so was free of the military censorship that suppressed news of influenza in France and Britain. Eight million Spaniards—including the king—had the flu. Business came to a standstill in Madrid; one-third of the populace was ill while the rest stayed home to avoid the disease. Yet, in one way Spain’s bad name was also its good luck. Being stricken by the flu at this time, the Spaniards would be resistant to the disease in its more virulent phase that autumn.

During the summer of 1918, the flu virus mutated again and became far more deadly. Traditional influenza would kill one in a thousand; this Spanish Flu would kill one in 40. People could be suddenly stricken—within hours they were too feeble to walk. In addition to the usual afflictions of flu, the victims hemorrhaged and coughed up blood. Many developed pneumonia and suffocated.

This flu strain infected India; an estimated 17 million people died. It also returned to America. On August 31, the first cases of Spanish Flu were reported in a Navy yard of Boston: 26 sailors were dead. By September 11, the epidemic had reached Washington, D.C. The government should have declared a national health emergency, but the war effort seemed more important. In fact, the war encouraged crowds. Thirteen million men were required to report to government offices to register for the draft: long lines awaiting infection. Hollywood stars were appearing at war bond rallies; who wouldn’t want to see Mary Pickford and Charlie Chaplin? Soldiers paraded through the streets of

New York and Philadelphia; and hundreds of thousands went to cheer them on. The spread of the disease was effortless.

Millions of Americans became ill: at least one-quarter of the population. The epidemic could no longer be ignored, and government belatedly responded but had little to offer but advice: avoid crowds and wear gauze facemasks. In fact, those masks were useless; the flu virus was so small that

it easily passed through the porous gauze. However, there was one service that government could provide: burying the dead. More than 500,000 Americans died. In many communities, there were just too many bodies, and too few healthy or brave undertakers. The government would collect the corpses and dispose of them in mass graves.

There was no cure or treatment for the flu: only fortitude, hope and luck. At the time, medicine had only the vaguest knowledge of viruses. The microbes were too small to be seen even by a microscope. In the face of this global epidemic, mankind was helpless. During the five years of World War I, 9 million men died. In 16 weeks in 1918, from

TREASURY DEPARTMENT  
UNITED STATES PUBLIC HEALTH SERVICE

# INFLUENZA

Spread by Droplets sprayed from Nose and Throat

Cover each COUGH and SNEEZE with handkerchief.

Spread by contact.  
**AVOID CROWDS.**  
If possible, **WALK TO WORK.**  
Do not spit on floor or sidewalk.  
Do not use common drinking cups and common towels.

Avoid excessive fatigue.  
If taken ill, go to bed and send for a doctor.  
The above applies also to colds, bronchitis, pneumonia, and tuberculosis.

September to December, 50 million people died of the Spanish Flu. An estimated quarter of humanity had become ill.

That winter, a time when influenza usually occurs, the pandemic slowed and then ended. Even now, we do not know why the Spanish Flu stopped. Had the virus mutated again into a less lethal strain? That is a matter of conjecture best left to physicians, statisticians and theologians.

Today, medicine has a strategy against influenza, using vaccines derived from killed viruses. However, viruses mutate so the vaccines then have to be reformulated—and medicine always seems to be a step behind. Another health care measure is to quarantine and kill flu-infected livestock. The fear of Avian Flu or Swine Flu is that the animal virus could mutate into a form deadly to humans. Isn't that what happened in 1918?

Modern medicine has learned its limitations against the virus. The prospect of a new pandemic, perhaps one as dangerous as the Spanish Flu, is not an abstract hypothesis. Today, any physician would say that it is only a matter of time. ●