

Just after the end of World War I, an unnamed Army medical officer complained, "[recruits] were shifted from camp to camp by the thousands, taking with them such diseases as they were incubating thus infecting all camps...[once in the camps] fatigue, exposure, and crowding made them easier victims for infections, and the infections came."

The 1918 influenza pandemic is believed to be the deadliest in recorded history, even outstripping the fourteenth century's Black Death. One quarter of the world's population was sickened and it is approximated that between two to four percent died from the disease that rapidly spread across the globe. The Centers for Disease Control and Prevention estimated that this devastatingly virulent killer was responsible for the deaths of between fifty and 100 million people worldwide between 1918 and 1919. Groundbreaking work by historian William H. McNeill observed that the influenza

virus is extremely dangerous because of its ability to spread swiftly, the brevity of the immunity it confers, and its capacity to mutate. Historically, influenza epidemics have been evident throughout the ages. German physician and medical historian August Hirsch listed no fewer than ninety-four influenza epidemics between 1175 and 1875; of these fifteen can be classified as pandemics. Medical historian Roy Porter believes that the first recorded New World epidemic

to strike the Native American population was influenza carried by pigs on Christopher Columbus's ships.

In the immediate aftermath of the pandemic, medical historians and epidemiologists have diligently sought to determine the influenza's origin. Prior to 1918, influenza was not a nationally reportable disease and hard numbers of cases are imprecise. Recent scholarship indicate numerous theories as to the point of origin for the pandemic.

In October 1918, during the height of the pandemic, Captain James Joseph King, U.S. Army Medical Corps, wrote that he had discovered similarities between the "present epidemic" and that of pneumonic plague that struck Harbin, China, in October 1910. King's claim fostered a belief that China was the birthplace of the

disease. British researcher, J.S. Oxford argued that a particular virulent strain of the disease emerged in France in 1916 at a huge 23,000-bed British Army hospital at Boulogne-sur-Mer.

The third possible candidate in the search for the flu's origin comes from evidence uncovered by author and historian John M. Barry, who argues that the source of this devastating plague was Camp Funston, Kansas, a sub-installation of Fort Riley. Barry believes that the virus originated in a rural area of Haskell County in western Kansas and then migrated east to Camp Funston, the largest of the sixteen Army cantonments established to train troops for deployment to the Western Front. Camp Funston trained approximately 50,000 troops between the years 1917 and 1918. Like the sixteen other major military cantonments, Camp Funston grew up practically overnight and consisted of hastily built wooden barracks, mess halls, headquarters, community buildings, and latrines. It was

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in crowded camps such as these that the Army prepared for war.

Barry notes that in late February 1918, a number of young men left Haskell County for training at Camp Funston. A newspaper account in the nearby town of Copeland reported that in February "Most everybody over the county is having lagrippe or pneumonia." Barry theorizes that Camp Funston became a giant incubator for the disease. Young men from Kansas, Missouri, Nebraska, and Colorado flooded into the camp for training in what became the 89th Division. In 1917, the 46,000 troops that trained at Camp Funston lived in hastily built barracks that provided an ideal setting for the spread of the disease. Each barracks accommodated 250 soldiers who lived in 120-foot by 40-foot non-insulated barracks. Soldiers slept on straw filled mattresses on iron or wooden

Soldiers lived in overcrowded conditions in hastily built barracks like these at Camp Funston and at other cantonments around the country as they trained during World War I. (U.S. Cavalry Museum)



bunk beds that lined the walls of the barracks. However, the housing of soldiers in such conditions was in direct contravention of Medical War Manual No. 1, 1917. and authorized by the Secretary of War. the Surgeon General, and the Council of National Defense that noted "whenever possible the floor space per enlisted man should be 80 square feet, affording 960 cubic feet, and should never be less than 10 by 6 feet, or 60 square feet, which with a ceiling 12 feet high would afford 720 cubic feet." Furthermore, the winter of 1917-18 worldwide was one of record cold, and the Army freely admitted that hastily erected barracks and tents were overcrowded and inadequately heated. The Army also confessed that because of rapid influx of draftees into the training cantonments, it was all but impossible to supply the men with sufficient warm clothing.

The official history of the 89th Division, the first division to train and deploy from Camp Funston, reported that during the fall of 1917 and winter of 1917-18, respiratory diseases such as pneumonia

were the leading cause of deaths in the division. At Camp Funston most soldiers ignored Army health regulations by sleeping in close quarters and huddling around barrack stoves for warmth. However, the 89th's medical personnel began to take note of the incidence of illness and did take some rudimentary precautions to limit the spread of respiratory ailments. Colonel John L. Shepard, the 89th Division surgeon, recommended preventative methods that included abundant outdoor activities and adequate ventilation in the soldiers' sleeping quarters. Shepard ordered that barracks windows remain open throughout the night and that his orders be strictly enforced by company commanders and the officer of the day. Additionally, a



John Jurgen Dykman was one of thirty-eight soldiers who died during the first wave of influenza that struck Camp Funston in March 1918. (Bates County Museum, Butler, Missouri)

medical officer was to inspect every barracks for compliance. Shepard also recommended that tent shelter halves be used as a partition between each soldier's bunk in order to minimize the spread of infection should that soldier show signs of illness. Furthermore, medical professionals were aware that the incidence of influenza and pneumonia had risen dramatically in 1915 and 1916 because of a major respiratory outbreak in December 1915.

On 4 March 1918, Private Albert Getchall, a cook, became the first reported case of the flu at Camp Funston. Getchall complained of symptoms that included a bad cough, fever, a sore throat, headache, and muscle pain. Later that day 107 soldiers reported to the post hospital with similar symptoms. Within three weeks, 1,100 soldiers at the camp were hospitalized with an unknown number of others being treated at various infirmaries located throughout the post. Soldiers began calling this first iteration of the disease "the three day fever" which attacked its victims suddenly. At the onset, body temperature increased rapidly, the face became red, body

aches commenced, and the patient endured a throbbing headache. Symptoms continued for about a week and suddenly subsided after considerable perspiration. In the aftermath, the patient remained weak for about two weeks before making a full recovery.

On 30 March, three weeks after the first reported case, Colonel Shepard sent a telegram from Camp Funston to the Army's Surgeon General's Office in Washington, noting, "Virulent secondary streptococci pneumonia following epidemic pseudo influenza present." Roughly twenty percent of those soldiers hospitalized developed pneumonia but only thirty-eight died of the disease. At the time, the minimal mortality rate was thought to

be a result of Shepard's proactive measures in preventing the initial spread of disease at Camp Funston. (Shepard was later awarded the Distinguished Service Medal for his efforts at combating the flu at Camp Funston.) When a case of the flu was reported, all men of that company were placed under a strict quarantine requiring them to drill separately and not mingle with any other units or individual soldiers on post. Furthermore, medical personnel made frequent inspections of the quarantined unit and obtained throat and nasal cultures of the men. The death toll, while significant, did not cause undue attention either on the post or with the authorities at the War Department. Above average incidences of influenza and



Soldiers assigned to Camp Dix New Jersey gargle with saltwater as a preventive against the flu, 24 September 1918. (National Archives)



Soldiers of the 39th Field Artillery Regiment wear masks supplied by the Red Cross as they march through the streets of Seattle, Washington, in 1918. (National Archives)

pneumonia in the United States had occurred in 1915 and 1916 but dropped significantly in 1917. However, the American public took little interest in the flu epidemic as their attention was focused on the war in Europe. The Metropolitan Life Insurance Company, in compiling statistics for the initial influenza outbreak, reported that few people died from the disease. The insurance company observed to their stockholders, "Quite a Godsend! Everybody ill, nobody dying."

British physician Sir Charles H. Stuart-Harris and epidemiologists Geoffrey C. Schild and John S. Oxford noted that during this initial wave of the disease, significant instances of the flu occurred in numerous American training camps in the United States and that the illness rapidly spread from the military to the civilian population primarily located in the eastern states. Additionally, medical authorities noted that the incidence of this first wave appeared to attack haphazardly throughout the United States, causing little alarm.

Despite the low mortality rate, there were incidences of the disease that provided a terrifying preview of what was to come. While numerous cases of the flu were being reported by military medical authorities at dozens of stateside training cantonments, infected soldiers were still being transported overseas in significant numbers. For example, one soldier, Cid Allen, a member of the 15th Cavalry Regiment, deployed in April from Camp Dix, New Jersey, to Europe. While sick at Camp Dix he was ordered to continue drilling. Allen died shortly afterward while being transported across the Atlantic. Sergeant John C. Acker, 107th Ammunition Train, 32d Division, noted in an April letter home that the disease was already prevalent in France. Among French troops in the field, the first case was reported at Villiers-sur-Coudon on 10 April and swiftly made its way to the front. By early May 1918, influenza was firmly established in Europe. Britain's King George V was stricken with the flu. The Royal Navy's Grand Fleet reported 10,313 of its sailors ill. The British Army on the continent observed that their First and Second Armies experienced sporadic outbreaks in late April in Rouen and Wimereux. In May, the flu reappeared in the British Second Army with great violence before moving on to Britain's Third and Fourth Armies. In June the disease peaked in Great Britain with significant number of flu cases being reported nationwide. At the same time, the flu began to appear in Japan and China where it was referred to as "wrestler's fever."

Influenza also affected the U.S. troops posted on the front lines ready to begin the first American offensive of the war. First Lieutenant Robert Banks Anderson of Company A, 28th Infantry Regiment, 1st Division, battled the flu while preparing to attack German positions near Cantigny. Anderson was the highest ranking officer in his company as his captain and two lieutenants were also incapacitated with the flu. Writing to his mother the day before the battle, the young lieutenant noted,

"Tomorrow we are going to attack. I will be in command of my company, but we'll be miserably handicapped with so many men, noncommissioned officers, and three officers sick." During the battle the next day, Anderson, despite contending with a raging fever, organized his men, successfully weathered repeated German counterattacks, and withstood numerous artillery barrages. During the action, Anderson was mortally wounded and later received a posthumous Distinguished Service Cross and Silver Star.

This variety of influenza infecting Allied troops on the Western Front was extraordinarily contagious and spread with astonishing swiftness. By early summer 1918, the French Service de Santé Militaire ordered all its military units to report any outbreak of la grippe. For most, this strain of flu was relatively mild with the majority quickly recovering. The U.S. Army Surgeon General's report, written three months after the Armistice, noted that the first wave of influenza, affecting front-line troops in the late spring and early summer, was a mild strain that did not seriously affect the activities of American Expeditionary Forces (AEF) in France. The report continued that among the troops "there was much increase in non-effectiveness for a week or so while the disease swept through a command, but the recoveries were prompt, complications rarely occurred and there were very few deaths from the primary infection or from complications." However, German General Erich von Ludendorff blamed the failure of his major 1918 summer offensives on the "Blitzkatarrh" or "Flanders fever" that was incapacitating significant numbers of his troops. It is estimated that during Ludendorff's summer offensives 900,000 German troops were affected by the virus. The Allied forces were also significantly weakened by flu, quietly reporting to their high commands that as many as three quarters of the French Army and more than half of the British forces were affected.

Nevertheless, wartime censorship among the Allied nations limited the public's awareness as to the extent of the disease. By early summer, the flu had jumped the Pyrenees Mountains and sickened a large segment of the Spanish population that included that nation's monarch, King Alfonso XIII, and his entire cabinet. Spain, not being burdened by wartime censorship, reported its

health problems to the world. As a result, the great influenza pandemic of 1918 became known globally as the "Spanish influenza."

During the summer of 1918, America received a respite from the flu. However, in the interim, the flu virus mutated and became more deadly. A prominent feature of this second virulent wave of influenza was the large number of pneumonia-related fatality cases among apparently healthy young adults between the ages of eighteen and forty. Within this age group of young adults, the fatality rate was around fifty percent. Canadian historian Mark Osborne Humphries argues that one possible reason behind this unusual mortality rate may be that this specific strain of the virus turned a young healthy person's typically robust immune system against itself. A recent study published by the Scripps Research Institute describes the 1918 influenza pandemic as a "cytokine storm." Cytokine storms are characterized by a severe overreaction of the body's immune system that sickens and can kill patients infected with specific strains of the flu virus. The body's immune system overproduces activating compounds (cytokines) that infect the lungs causing respiratory distress and fluid buildup that can lead to high incidences of mortality. Historically, influenza epidemics follow a U-shaped curve where the frequency of deaths is greater with the very young and the elderly. However, the 1918 influenza's second wave exhibited an unusual W-shaped curve where young adults were more likely to suffer fatalities than the very young or elderly.

Epidemiologists theorize that this new mutated and more powerful strain originated in three localities: Freetown, Sierra Leone; Brest, France; and Boston, Massachusetts. Freetown, on the west coast of Africa, reported its first cases of this lethal second wave in late August 1918. The busy African port supplied thousands of troops and laborers for British forces on the Western Front. Incidences of the disease soon followed in the ports of Boston and Brest, which were major embarkation and arrival points for thousands of American troops bound for the Western Front. American medical officers in France began to take note of this new, unknown and virulent malady but were not alarmed, believing that flu was an illness common in winter and spring.

This new and more lethal strain arrived in the United States in early August 1918 with "a progressive increase in cases reported as influenza." In the late summer, cases of pneumonia began to rise at

Fort Riley. In a 21 August letter, Major Eugene L. Opie, a medical officer at the post hospital, reported a number of incidences of pneumonia since early August and that thirty-four days was the average a soldier was confined. It is interesting to note that among the incidences of pneumonia at Fort Riley, black soldiers contracted the illness in significantly higher numbers than white troops. Among the 5,982 drafted black soldiers at Fort Riley's Detention Camp No. 2, there were sixty-nine cases of pneumonia while only one white draftee was reported to have taken ill during the same time. Opie also commented that cases were evident in June and July but that there had been little opportunity to review the numbers. In his 1919 Journal of

the American Medical Association article, Opie offered an observation that the rise of pneumonia cases at Camp Funston could have possibly been a harbinger of the second and more virulent wave of flu.

By September, the disease had rapidly spread through naval training facilities in Boston, Philadelphia, Quantico, and the nation's largest naval training base at Great Lakes in Illinois. A 16 September 1918, *Chicago Tribune* article noted that at Great Lakes the greatest precautions were made to prevent the spread of the disease. Among the preventative measures enacted, the 50,000 sailors were given daily throat sprays, sneeze screens were placed in sleeping quarters, and men were ordered to not wear damp clothes. The *Chicago Tribune* article stated that base commandant Captain W.A. Mofitt felt that "as long as the disease could not be avoided, he is exceedingly glad it came at this time and not in the winter months, when the men would be more subject to pneumonia as a result."

The flu arrived in Kansas City on 27 September 1918. The commandant of the Army's two motor corps schools located there placed his command under a strict quarantine after it became apparent that trainees had contracted the disease. Within days nearly 1,000 of his soldiers had become infected with the flu virus.

The flu also began to emerge in the Army's major training cantonments with Camp Devens, Massachusetts, reporting its first case on 8 September 1918. Like many other posts, Camp Devens was seriously overcrowded. Built to house 35,000, it held over 45,000 trainees by the fall of 1918. Within six days, the camp recorded more than 500 cases of influenza. On 18 September, Camp Zachary Taylor, Kentucky, reported 4,000 cases of influenza. Camp Custer, Michigan, saw an additional 800 soldiers stricken.

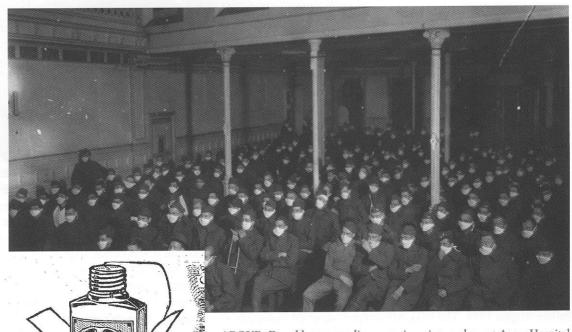
Geographically, the epidemic travelled from the northeast to west and south, striking military cantonments at Camp Dix, New Jersey, Camps Wheeler and Greenleaf in Georgia, Camp Dodge, Iowa, and Camp Kearney, California. A 1927 study conducted by the University of Chicago's School Of Medicine revealed that the second wave of influenza rates at Army camps in the United States exhibited extraordinary variability. Camp Devens reported a significant infection rate of 829 cases per 1,000 soldiers. Camp Dodge and Camp Beauregard in Mississippi also reported omi-

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nously high infection rates of 833 cases and 500 cases per 1,000, respectively. Camp Funston, while affected by the new strain, remained in the midrange of infection rate, reporting 239 cases per 1,000. Other camps revealed similar numbers such as Camp Grant, Illinois, with 250 cases; Camp Custer, Michigan, with 260 cases; and Camp Pike, Arkansas, with 236 cases. Furthermore, the report indicated evidence that the infection rates in the camps were related to camp conditions.

Among the U.S. Navy and its training facilities, influenza rates exhibited the similar variability as the Army. Navy training camp medical officers reported numbers ranging from eightyseven to 474 cases per 1,000 sailors, with the average rate for all stations numbering 205 cases per 1,000. Aboard naval vessels, sailors suffered much less than those sersubmarines and destroyers, eighty-eight for transports; and 117 for miscellaneous vessels.

General John J. Pershing, commander of the AEF in France, observed that incidences of influenza that occurred in the fall of 1918 among deployed American forces reached significant proportions. Nevertheless, the second iteration of the flu's second wave could have played a critical impact on continued American operations on the Western Front. On the eve of the great Meuse-



ABOVE: Doughboys attending a motion picture show at Army Hospital Number 30 in Royat, France, wear masks due to the flu pandemic. (U.S. National Library of Medicine)

LEFT: Wild rumors as to the cause of the influenza outbreak began to spread as the number of cases piled up. One claimed that the pandemic was a form of German biological warfare, with the flu virus inserted into aspirin

manufactured by the German drug company Bayer. (Bayer advertisement in the New York Times, 19 February 1917, ProQuest Historical Newspapers) Argonne offensive, General Peyton C. March, the Army's Chief of

Staff, was approached by President Woodrow Wilson to consider suspending troop convoys to France until the epidemic subsided. March resisted, arguing the AEF's critical demands for troops required that "the shipment of troops should not be stopped for any cause." March attempted to satisfy the president's concerns by having medical personnel at ports of embarkation thoroughly examining soldiers before they boarded ships. Despite the additional precautions, closely packed soldiers became infected and died at an appalling rate. During the first week of October 1918 over 16,000 additional cases were reported. By the time the war ended in November 1918, nearly 70,000 American soldiers were treated for the disease. The mortality rate among soldiers of the AEF reached an astounding thirty-five percent, with some groups reporting numbers as high as eighty percent.

The significant impact of the flu's second iteration in the fall of 1918 is echoed in the Army Surgeon General's report describing the influenza as the greatest contributor of mortality in the AEF. Among American troops, the second wave was devastatingly lethal. Unfavorable weather, the tempo of combat, and the severity of the disease



vicemen on land. However, specific vessels suffered an inordinate number of cases. The USS Pittsburgh reported 800 cases while at port in Rio de Janeiro; the USS Yacoma suffered eight-five cases out of the ship's complement of ninety-five sailors. Rates reported by the Navy varied for different classes of ship: 163 per 1,000 sailors on battleships; 114 for cruisers; 294 for gunboats, 262 for

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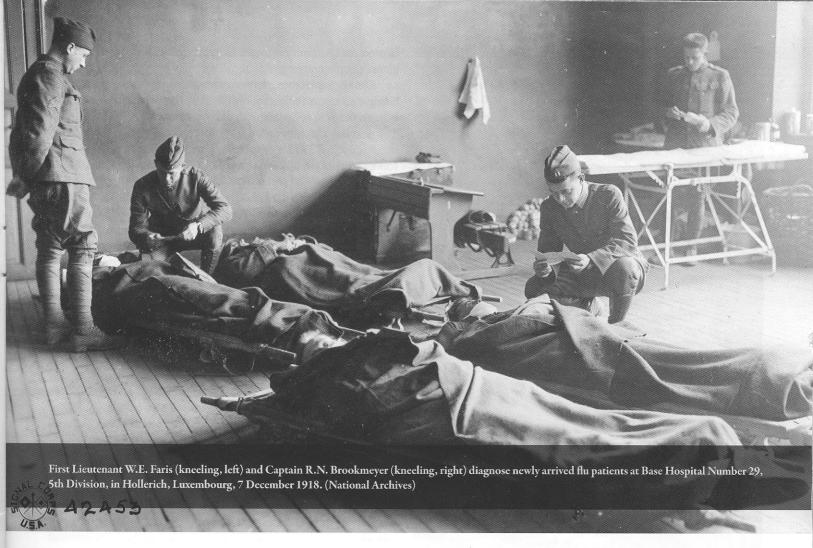
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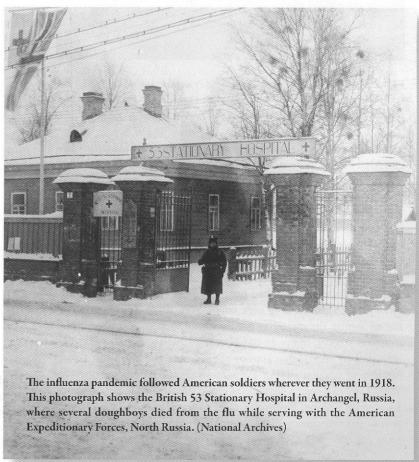
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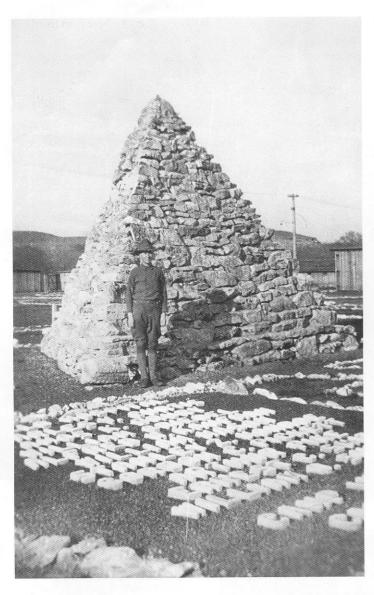
ARMY HISTORY



strained the Army's ability to care for the sick. The report noted that at the time "troop movements were extensive, and urgent, [and] military necessity demanded every sacrifice for offensive operations. These conditions combined to make adequate preventive measures and early and sufficient hospital care well night [sic] impossible." Further, the report notes that exhaustion, the strain of the voyage, and packed conditions aboard troopships caused an estimated two percent of troops transported to become ineffective. Upon arrival in France, the report lists a number of factors that increased infection rates that included "crowding into billets and barracks beyond the limits of safety, unfamiliarity of officers and men with the precautions needed in this climate, ignorance of the part which warmth, dry clothing, sufficient rest and hot food in raising bodily resistance to infection, delayed diagnosis and removal of infected men, and insufficient precautions in hospitals of all kinds to prevent communication of the disease in wards, all contributed to a heavy incidence of pneumonia and high mortality from this common complication."

The flu's impact on combat operations and the units that participated in the fall Meuse-Argonne operation are evident in the reports filed from the front. The war diary of 2d Battalion, 5th Field Artillery, 1st Division, reported several cases of "grippe" on 19 September 1918. Two days later, the battalion noted that twelve soldiers were hospitalized and twenty-five additional





Engineers at Fort Riley, Kansas, erected this monument to soldiers of the 10th Sanitary Train who perished while treating soldiers during the influenza pandemic. (U.S. Cavalry Museum)

men were confined to their quarters ill with the flu. Similarly, Captain Alan M. Chesney, a medical officer posted to the AEF hospital at Valdahon, noted that between 23 August and 8 November, one-third of the soldiers posted to the 6th Artillery Brigade, 1,636 men, were hospitalized with influenza and 151 died.

During this second influenza wave, the American public began to take note of its deadly effect. Wild rumors began to spread with many believing that this influenza outbreak was a new and deadly form of German biological warfare. It was widely believed that the influenza germs had been inserted into aspirin manufactured by the German drug company Bayer. It was said that in taking an aspirin the influenza germs would then be introduced into a person's body. Many in the Northeast believed that a German ship slipped into Boston Harbor and released the germs on an unsuspecting population. An eyewitness corroborated the story by stating she had seen a suspicious cloud float over the city's docks. Lieutenant Colonel Philip S. Doane of the Health Sanitation Section of the Emergency Fleet Corporation reported to the *Philadel-phia Inquirer* that a German submarine inserted agents into the

Boston area with orders to set the germs loose in theaters and other places people congregated.

On 18 September, the virus made its second appearance at Camp Funston with the report of its first case. The flu spread swiftly with the post reporting 785 diagnosed cases on 30 September. The next day the Manhattan Mercury reported "Epidemic Increasing at a Rate of 300 Cases a Day-Dread Disease Spreading in All Camps and Many Cities Throughout the Country-Schools Are Closing." In a 1998 interview, ninety-eight-year-old Jessie Lee Brown Foveaux reported that the flu at Fort Riley came fast, furious, and silently. Foveaux, then an eighteen year old working in Fort Riley's laundry, said that "soldiers were going so fast. They were piling them up in a warehouse until they could get coffins for them." Sergeant Charles L. Johnston, a member of 239th Ambulance Company, 10th Sanitary Train, posted at Camp Funston, recognized that the malady had arrived in a 29 September letter to his future wife, observing, "This has been a very long day indeed to me, for we are quarantined in for the time being. Have been for two days. We are held up because 'influenza,' or some such name is in camp. It is some such a thing as pneumonia, and they seem to think it is pretty bad." One week later, on 6 October, writing that the epidemic had intensified, Johnson stated that "lots of them [the soldiers] go to the base hospital every day and quite a number of them are 'checking in' but there is bound to be as there are between 6 and 7000 cases, in the camp." Johnston administered to the sick, remaining untouched by the disease.

Manhattan, Kansas, near Camp Funston, was not immune to the contagion, reporting on 5 October seventy-two cases of the flu among the Student Army Training Corps (SATC) cadets at Kansas State Agricultural College. The next day, forty-three new cases were diagnosed at the college. The *Manhattan Mercury* reported that some of the cases were serious and that Sigma Alpha Epsilon and Beta fraternity houses were taken over as hospitals. Likewise, a call was sent out from Manhattan requesting additional nurses and supplies from the American Red Cross. On 16 September, three of the college's hospitalized SATC cadets died suddenly due to the disease. Furthermore, that same day the newspaper reported that a city-wide quarantine had been ordered in Kansas City.

As significant portions of the nation's population were stricken, Surgeon General Rupert Blue of the U.S. Public Health Service (USPHS) issued a public health bulletin carried in American papers. Blue noted that "Coughs and Sneezes Spread the Disease that was just as dangerous as poison gas shells" and warned the public that "a proper diet and a balanced proportion of work, rest, and play were beneficial in warding off the disease." Blue also advised all citizens to avoid "crowded and stuffy" places. In line with the Surgeon General's warning, Kansas Governor Arthur Capper ordered that all schools, picture shows, churches, and public gatherings be cancelled until further notice. Churches that remained open were subject to forced closure and the arrest of clergy and churchgoers. Furthermore, the governor required that all stores cease promoting special sales and "should take all special precautions to avoid crowding" until improvement would warrant the lifting of the restrictions. In addition to the restrictions, the Kansas Board of Health required all county and city health officials to require physicians to promptly report all cases of influenza in their area.

Remarkably, local merchants began to take note of the public's fear and preoccupation with the flu by placing public health notifications within their advertisements. Tanalac laxative tablets

was one such ad advising the public to use their product to keep the bowels open, promote a healthy appetite, and prevent the body from becoming rundown and susceptible to the flu. Another ad sponsored by Watson's Shoe Store in Manhattan, Kansas, provided practical hints on how to prevent the flu and what to do if you had the flu.

During the first week of October, the USPHS reported that influenza was prevalent in forty-three states and the District of Columbia. The epidemic was particularly severe at Fort Riley during the first week of October. The Manhattan Mercury reported that on 1 October, a strict quarantine was established at Camp Funston. No visitors were to be admitted to the post and all furloughs cancelled. Major Willard J. Stone, chief medical officer of the post hospital, reported the "largest total number of patients in hospital occurred on October 8 when 5,666 patients were hospitalized. Of these, 2,951 patients were diagnosed with influenza and 719 others were identified with influenza pneumonia." The greatest number of soldiers being treated for pneumonia occurred on 15 October, with 1,338 patients in the post hospital. In a 15 February 1919 Journal of the American Medical Association article, Stone and his associate, Dr. George W. Swift, reported that during the height of this second deadly wave from 15 September to 1 November 1918, there were 15,170 reported cases of influenza at Fort Riley. Of these, 2,624 patients developed pneumonia and suffered a 35.8 percent mortality rate. As evidenced by the numbers at Fort Riley and other military posts during the fall months of 1918, the rapid spread and virulent nature of the infection astounded military medical authorities. Because of the inordinate number of sick, Fort Riley's medical facilities and staffs struggled to accommodate the ill and found it necessary to utilize areas outside of the three main hospitals on post. At Fort Riley, barracks, tents, available administrative buildings, and even the indoor riding halls were utilized.

By late October, Manhattan, Kansas, was reporting a respite from the disease with decreasing numbers of new flu cases. A small front-page story in the 28 October 1918 edition of the *Manhattan Mercury* reported a significant decrease of influenza cases in the area. On that day, Manhattan reported only five cases; Junction City five; Milford three; Riley ten; and no new cases a among the SATC at Kansas State Agricultural College. Fort Riley also witnessed a substantial decline in new cases. Historian John M. Barry attributes the marked decline of the disease to the life span of a virus and humans ability to develop immunity to it. Barry also points out that in 1918, the influenza cycle ran six to eight weeks in cities,

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and three to four weeks in Army cantonments where men lived in extreme proximity with one another. The rapid decrease of incidences of the disease explains one of the reasons why, in November 1918, newspaper reports disappeared from the front page of the local newspapers and from Camp Funston bulletins. By mid-November 1918 the virus had mutated again and began to make another appearance. This time, however, most of the areas that had experienced the first and second waves of the flu remained untouched by the third.

For 100 years, Camp Funston has lived with the notoriety of being the birthplace of one the greatest pestilences in human history. In the immediate aftermath of this catastrophic event, enterprising Fort Riley engineers erected a monument to the soldiers of the 10th Sanitary Train who died treating the ill during the epidemic. The monument no longer exists but is believed to be the only memorial dedicated to the disease. It is unfortunate that this monument has vanished because humans often have a custom of forgetting painful experiences if not constantly reminded of them. In 1918, with the influenza pandemic sickening millions and war raging in Europe, it appeared as if the Four Horsemen of the Apocalypse were rampaging across the world. One reminder of the devastating pandemic comes from the writing of poet C.A. Shively:

INFLUENZA

I cough, I sneeze, I snort, I wheeze, I'm in a perfect frenzy; My head is dough, My nose won't go— I've got the influenza.

I fill my skin
With everything
The pesky neighbors send me,
And vainly hope
With nasty dope
To cure this influenza.

But vain is hope,
And vain is dope—
Let the angels come attend me.
I'll peacefully lie,
And martyr die
Of Spanish Influenza.

About the Author

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