

# “No More War, No More Plague”

## The Spanish Influenza Pandemic Toll on Montana

by Todd S. Harwell, Greg S. Holzman, and Steven D. Helgerson

The 163rd Infantry parades through Helena on October 24, 1917, before leaving for France. While Montana men and women risked their lives serving in World War I, their families at home also battled with a life-threatening enemy: an influenza pandemic that would claim thousands of lives across the state in just ten months' time.

MHS Photograph Archives, Helena, 953-646

Nature chose to rage in 1918, and it chose the form of the influenza virus in which to do it. This meant that nature first crept upon the world in familiar, almost comic form. It came in masquerade. Then it pulled down its mask and showed its fleshless bone.

—JOHN M. BARRY, *The Great Influenza*

The Spanish influenza pandemic in 1918–1919 was the most devastating epidemic of the twentieth century. One-third of the world population, approximately 500 million people, were infected. The causative agent is now known to have been the Influenza A H1N1 virus. Over 50 million people died of this disease.<sup>1</sup> In the United States, approximately 675,000 influenza deaths occurred, of which 550,000 were “excess” deaths—deaths due to this influenza beyond the number expected in a nonpandemic period.<sup>2</sup> The impact in Montana was enormous. This

article describes the state’s extraordinary mortality experience and efforts to control the inadequately understood pandemic.

### Background

The pandemic did not occur during an ordinary time. The eighteen months leading up to the October 1918 explosion of epidemic illness in Montana were filled with dramatic events that dominated the attention of leaders and the general population in communities across the state. In April 1917, the United States entered World War I against Germany in alliance with England, France, Belgium, and Russia. The patriotism stimulated by the declaration of war was intense; the xenophobia accompanying the patriotism was zealous. Many Montanans eagerly enlisted, and others responded to the military draft enacted in June 1917. A shortage of health care providers developed in some communities as physicians enlisted in the U.S. Army Medical Corps and nurses joined the U.S. Army Nurse Corps or volunteered to serve at American Red Cross-funded hospitals in Europe. Montanans also grew more and more wheat in response to demands to feed troops and populations in war-torn Europe. At the same time, people who were hesitant to support war with Germany (German Americans) or an alliance with England (Irish Americans) were severely criticized by their neighbors.<sup>3</sup>

By February 1918, after a national espionage law seemed an inadequate remedy, a special session of the Montana legislature passed a sedition act that was used to charge, convict, and imprison dozens of Montanans who had been less than enthusiastic about the war effort as well as a number of radical labor union leaders. Legislators in the special session also enacted authority for county commissioners to issue bonds to raise funds to purchase wheat seed after seed prices skyrocketed. In the months preceding October 1918, county commissioners and farmers in many counties



Courtesy, Carol Cooper Ferguson

**The war created a shortage of physicians in Montana as many doctors volunteered for military service. The president of the Montana State Health Officers Association, Dr. Lawrence Stevens of Laurel (above), addressed that association in Butte in June 1918 and entered the U.S. Army Medical Corps a month later to serve as the commanding officer for the 263rd Ambulance Company of the 16th Sanitary Train of the 16th Infantry Division.**



Left, Red Cross nurses march through Lewistown. Skilled nurses and new recruits joined the American Red Cross or the U.S. Army Nurse Corps and were stationed overseas or at military camps. Their absence meant public health officials were forced to recruit female schoolteachers and other capable women to combat the growing influenza pandemic at home.

were consumed by the work to organize bond elections and issue bonds. In addition, legislators enacted a gun registration requirement. County sheriffs were responsible for adding enforcement of this new requirement to their other duties. Finally, as a result of a November 1916 state referendum, Montanans were preparing to implement prohibition of alcohol

sales on December 31, 1918. The months leading up to October 1918 were no ordinary time, and, unsurprisingly, little thought was given to the possibility of another extraordinary event—the largest pandemic of the twentieth century.<sup>4</sup>

Medical science and public health were ill equipped to deal with the pandemic. Preparedness specific to an influenza epidemic was largely absent. The symptoms of illness due to influenza—sometimes called gripe or la gripe—had long been recognized, as had the seasonal occurrence of the syndrome. However, the cause of influenza had not been identified. No effective vaccine had been developed, and neither preventive medications nor specific treatment were available. During this pre-antibiotic era, available treatment for complications of influenza, notably bacterial pneumonia and severe respiratory distress syndrome, had only modest effect. Care provided by nurses, including fluid to keep patients hydrated and cold, wet compresses to decrease body temperatures, likely saved some lives. For many patients, though, the duration of illness from a sudden onset of fever to death was only a few days.



To support the war effort, Americans ate less of staple foods like meat, wheat, and sugar. Left, a man in Butte—with a little help from a cat—prepares to transport sacks of Montana-grown wheat claimed by the federal government for use by the Red Cross.



**Rupert Blue, above in 1914, was the civilian surgeon general and directed the U.S. Public Health Service (USPHS) during the pandemic. Because the USPHS was focusing all its attention on the war, neither the surgeon general nor the agency were prepared to handle the oncoming pandemic in the United States. Influenza was not declared a reportable disease in Montana until October 1918, the month fatalities peaked in the state.**

Disease occurrences that would be considered epidemic in the early twenty-first century were endemic in the early twentieth century. Clusters of diphtheria, measles, typhoid, and scarlet fever cases often occurred. In 1917, the frequency of smallpox prompted the State Board of Health to require proof of smallpox vaccination for students and staff in public schools.<sup>5</sup> Thus, even if Montanans had been aware of unusually severe influenza occurring elsewhere, their repeated experience with endemic diseases might have dulled dread or a sense of urgency. However, awareness of the coming danger did not emerge for most Montanans until the disease descended on the state in autumn 1918.

Where and exactly when the pandemic began is a matter that stimulates academic debate. Evidence

strongly suggests the pandemic spread in three distinct waves during a period of approximately twelve months in 1918–1919.<sup>6</sup> Some evidence suggests the pandemic virus may have emerged in the United States.<sup>7</sup> The occurrence in February 1918 of unusually severe cases of pneumonia prompted a Kansas physician, Dr. Loring Miner, to contact the United States Public Health Service (USPHS), which included the following one-sentence note in its weekly journal, *Public Health Reports*: “On March 30, 1918, the occurrence of 18 cases of influenza of severe type, from which 3 deaths resulted, was reported at Haskell, Kans.”<sup>8</sup> Military recruits or visitors from Haskell County may have transmitted the virus to Camp Funston (Manhattan, Kansas), where a significant outbreak occurred.<sup>9</sup> From there, the virus may have spread to other military camps and cities.

During the spring 1918, outbreaks of this illness were recorded in military training camps, institutional settings, and some large East and West Coast cities. In retrospect, the disease and deaths occurred at notably high rates in young adults in contrast to the very young and older age groups typically affected. By summer 1918, the disease abated in the United States although severe illness continued to occur in some military camps and in the midst of war in Europe.<sup>10</sup>

Not until August 1918 did United States public health authorities begin to take notice of the spread of the virus in Europe. On August 9, the U.S. Bureau of Medicine and Surgery in Washington, D.C., issued a precautionary bulletin warning that “influenza is prevalent in Europe, Hawaii, and elsewhere” and provided information on the symptoms and treatment. On August 16, U.S. Surgeon General Dr. Rupert Blue “ordered medical officers in charge of the quarantine stations in the United States to be especially alert for influenza on vessels from European ports and to hold ships with ill passengers on board until local health authorities were notified.” The first cases of the second wave of the pandemic were identified on August 27, 1918: seven in Boston among sailors at the Commonwealth pier. The infection spread like fire; in one week, hundreds of sailors had become ill. Approximately 5 to 10 percent of these cases developed severe pneumonias, thirty-five died, and ten to twenty more were critically ill. On September 3, the first civilian was hospitalized with influenza. While these events were taking place, thousands

of sailors, navy and shipyard workers, and civilians marched in the streets of Boston in a “Win-the-War-for-Peace” parade, likely spreading the disease. The first three deaths associated with influenza in that city occurred on September 8. Sixteen days later, the first autumn death attributed to influenza was reported in Montana. The spread of the second wave of the epidemic had begun, but it wasn’t until October—when the fatalities reached their peak—that influenza was declared a reportable disease in Montana.<sup>11</sup>

### Assessing Influenza Mortality in Montana

Previous studies of the Spanish influenza epidemic in Montana have used documentation from newspapers, letters and diaries, interviews with survivors, and information from the Montana State Board of Health’s biennial reports to describe the impact of the epidemic.<sup>12</sup> Information regarding the number of deaths and the mortality rate associated were limited to the total number of deaths reported in the State Board

of Health’s annual reports and aggregate state-level mortality rates from the U.S. Bureau of the Census.<sup>13</sup> No detailed analysis of Montana death records had been conducted to delineate the impact of epidemic on Montana. In 2017, the authors reviewed all the Montana death records for 1918 and 1919 to identify deaths associated with influenza. Records for 1928 and 1929 were also reviewed to identify deaths associated with influenza. These data were used to compare influenza mortality during the pandemic to that in a nonepidemic period.

The first Montana death during the initial wave of influenza occurred at the Carbon County poor farm in Red Lodge on January 16, 1918, when 103-year-old Silva Whitmore died. The next four deaths were scattered across the state. On January 20, Three Bear, a sixty-seven-year-old rancher from Browning, perished. On February 2, Fusaye Sato, a two-month-old Japanese infant girl from Geraldine, died and on February 19, John Woods, a one-year-old from Anaconda, died. On February 25, Lloyd Kelly,

National Archives and Records Administration, College Park, Maryland, American Unofficial Collection of World War I Photographs 165-WW-2699G-26



**The second wave of influenza erupted in Boston, Massachusetts, at the end of the summer of 1918 and quickly spread across the nation. Red Cross nurses and volunteers, such as these women in Boston, made thousands of masks in an effort to suppress the spread of influenza among military personnel and civilians. In some Montana cities, streetcar operators, policemen, and other public servants were required to wear the masks.**

## Methodology

Death records from the Montana Office of Vital Records for the years 1918, 1919, 1928, and 1929 were reviewed to identify deaths whose underlying or contributing causes were determined to be influenza (also recorded as flu, grippe, and la grippe). Deaths where the underlying or contributing cause of death was influenza in combination with pneumonia were also collected. Deaths where the underlying or contributing cause was pneumonia but where there was no indication of influenza were not collected. Stillborn deaths (babies dying prior to birth) from influenza were not included. During this time period, Montana death records included the deaths of state residents, out-of-state residents in Montana, and institutionalized persons (persons dying at the state prison and the state hospital). The death records did not include information regarding deaths among Montanans serving in the armed forces overseas who died of diseases ( $n=124$ ) during World War I.<sup>1</sup> County of death, the decedent's residence (city, town, or village), sex, race (color), marital status, age, occupation, if the female decedent was pregnant at the time of death, and the date of death were collected for each case.

We compared the demographic characteristics of influenza deaths in January through June 1918 (first wave of the pandemic) to those in January through June 1928, and from September 1918 through June 1919 (second and third waves of the pandemic) to those in the corresponding months in 1928–1929. The 1920 and 1930 census data were used as denominators to calculate crude mortality rates (rates per 1,000 and rates per 100,000) overall, by county, and for selected characteristics (see table 1, page 34).<sup>2</sup> The 1920 and 1930 census provided population counts for cities with  $\geq 10,000$  residents, and towns with 2,500 to 9,999 residents. We classified counties with 1920 census populations  $\geq 10,000$  as larger population counties and those with  $< 10,000$  population as smaller population counties to compare the influenza mortality rates between larger and smaller counties. The excess deaths that occurred in 1918–1919 due to influenza overall and by selected characteristics were calculated by subtracting the number of deaths in 1928–1929 from the number of deaths in 1918–1919.

an eighteen-year-old student at the Montana Agricultural College in Bozeman, succumbed to lobar pneumonia of five days duration and “La Grippe” of fifteen days duration.<sup>14</sup>

In all, there were fifty-three influenza deaths during the first wave of the pandemic between January and June 1918. Of these, 25 occurred in Silver Bow County (47 percent), 6 in neighboring Deer Lodge County (11 percent), and 3 or fewer deaths in each of sixteen other counties. Twenty-five counties had no documented influenza-associated deaths. In 1928 during the same time period, 165 deaths associated with influenza occurred. The crude mortality rate during the first-wave period in 1918 (9.7 deaths per 100,000 population) was lower than the rate in the first half of 1928 (30.1 deaths per 100,000). The crude mortality rate during the first wave of the pandemic may have been lower than the comparable period

in 1928 because the influenza virus had not yet fully mutated into the more lethal form that would appear in the fall of 1918.<sup>15</sup>

There were, however, some hallmark differences in the characteristics of decedents during January through June 1918 compared to those during the same period in 1928. The 1918 decedents were significantly younger (mean age 33.5 years versus 42.8 years), more likely to live in larger population counties (79 percent versus 42 percent), and more likely to be male (68 percent versus 56 percent). Of the fifty-three deaths during this period in 1918, 55 percent were aged fifteen to forty-five years compared to 24 percent in 1928.<sup>16</sup>

The second and third waves of the epidemic came in the fall of 1918 and the spring of 1919 and generated a much higher mortality rate. The first fatality was a three-year-old Blackfoot Indian boy, Woodrow Lazy-boy, who died on Tuesday, September 23, 1918, in



A three-year-old boy from the Blackfeet Indian Reservation was the first reported fatality in the second wave of the pandemic. Throughout the West, American Indians experienced higher mortality rates from the disease than did other groups, likely due in part to the scarcity of medical facilities on the reservations, yet they continued to do their part to support their communities and the war effort. Members of the Browning Red Cross chapter (above), from left to right: Mrs. Sarah D. Wilbur (field matron), Mrs. Medicine Owl, Mrs. Last Star, Mrs. Louise Chanipine, Wades in the Water, Julia Wades in the Water, Wolf Tail, Mrs. Wolf Tail, Mrs. Bull Calf, Mrs. Mary Powell.

Browning. September 25 brought two more deaths—those of a fifteen-year-old girl in Scobey and an eighty-six-year-old farmer in Great Falls. On September 29 and 30, five additional deaths occurred, all in northeastern counties: two in Scobey (a twenty-nine-year-old housewife and a forty-year-old farm hand), one in Hinsdale (a twenty-seven-year-old pregnant housewife), one in Wolf Point (a thirty-seven-year-old railroad man), and one in the village of Homestead (a six-month-old infant).<sup>17</sup>

These eight mortalities began a tsunami of death across Montana. During the second and third waves of the pandemic, 4,187 deaths occurred. Figure 1 displays the number of influenza deaths in two-week increments beginning with the week of September 22, 1918, through June 30, 1919, and in corresponding months in 1928 and 1929. The two-week period with the largest number of influenza deaths was October 20 to November 2, 1918 (908

deaths). In October, November, and December, 1,085, 1,565, and 741 influenza deaths occurred, respectively. The number of deaths per month declined through February 1919 (n=124) but then rose again in March (n=220) before resuming a month-by-month decline through June 1919.

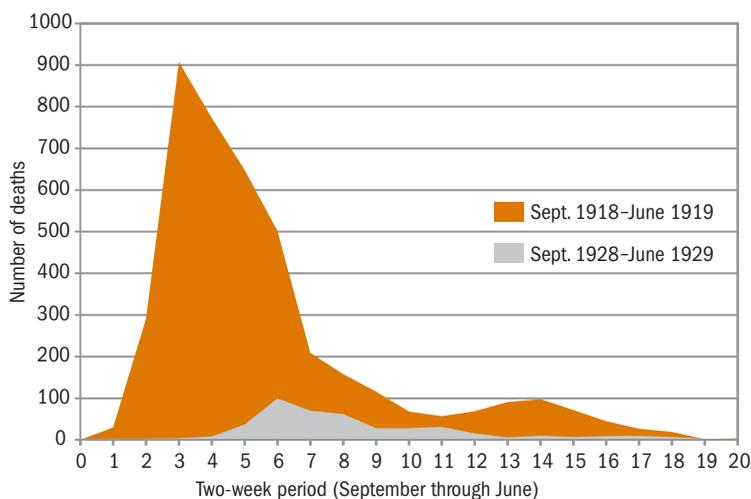


Figure 1. Montana influenza and influenza/pneumonia deaths during two-week periods, September 1918–June 1919 and September 1928–June 1929

Figure 2. Influenza deaths by Montana county, 1918–1919, rate per 1,000 cases (number of deaths)

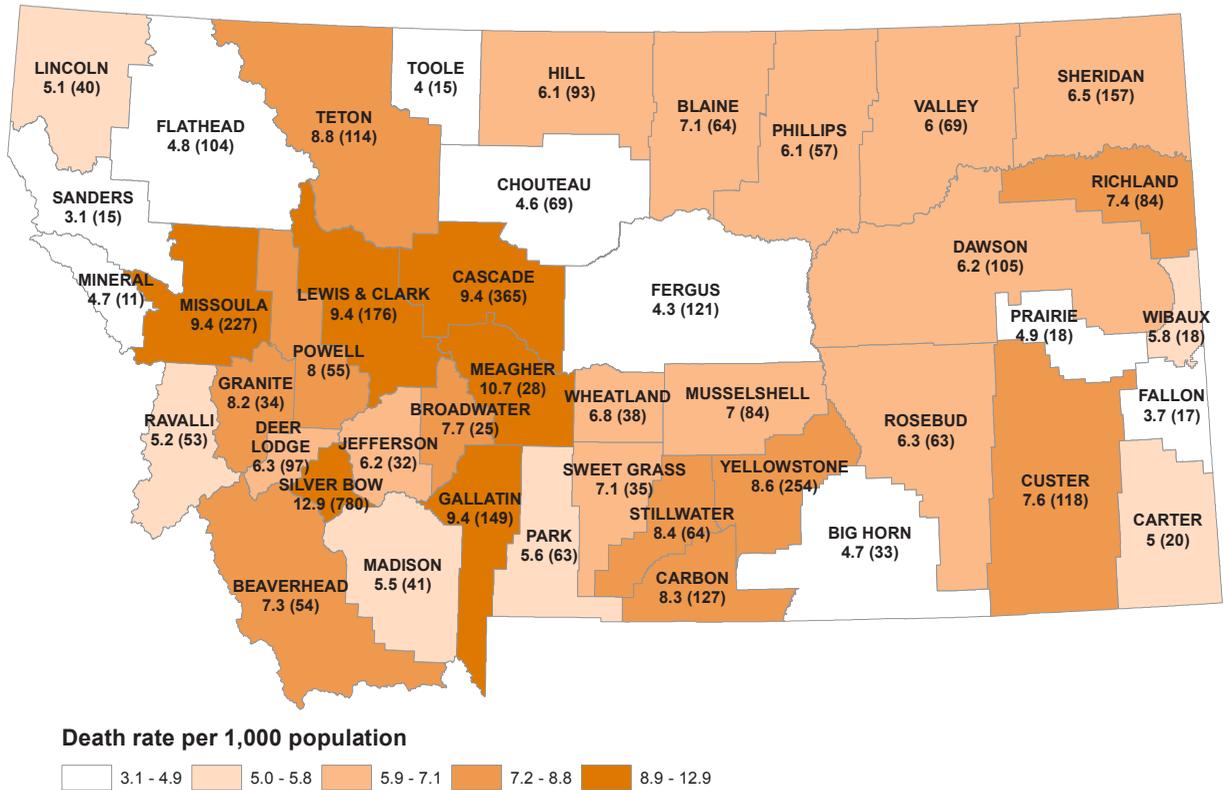


Table 1. Influenza and influenza/pneumonia deaths and crude mortality rates, by selected characteristics, Montana, 1918–1919 and 1928–1929

	Deaths [Sept. 1918–Jun. 1919] n (%)	1920 census population	Rate per 100,000	Deaths [Sept. 1928–Jun. 1929] n (%)	1930 census population	Rate per 100,000	Excess number of deaths in 1918–1919
<b>Sex</b>							
Male	2,642 (63)	299,941	880.8	259 (57)	293,228	88.3	2,383
Female	1,544 (37)	248,948	620.2	193 (43)	244,378	79.0	1,351
<b>Race</b>							
White	4,024 (96)	534,260	753.2	408 (90)	517,327	78.9	3,616
American Indian	110 (3)	10,936	1,004.0	43 (10)	14,798	290.6	67
<b>Age (years)</b>							
<1	163 (4)	12,746	1,278.8	57 (13)	9,833	579.7	106
1–4	197 (5)	54,626	360.6	36 (8)	39,430	91.3	161
5–14	196 (5)	111,401	175.9	25 (6)	110,388	22.6	171
15–24	709 (17)	82,513	859.3	26 (6)	93,888	27.7	683
25–34	1,597 (38)	101,877	1,567.6	37 (8)	73,671	50.2	1,560
35–44	853 (20)	82,830	1,029.8	48 (11)	86,686	55.4	805
45–54	263 (6)	52,766	498.4	37 (8)	63,468	58.3	226
55–64	119 (3)	31,385	379.2	41 (9)	37,205	110.2	78
65+	87 (2)	16,808	517.6	144 (32)	26,700	539.3	-57
<b>Total</b>	<b>4,184</b>	<b>548,889</b>	<b>762.3</b>	<b>451</b>	<b>537,606</b>	<b>83.9</b>	<b>3,733</b>



**One notable characteristic of the 1918–1919 influenza pandemic was that mortality rates were highest among adults in the prime of life. The disease claimed the lives of many young parents, such as thirty-year-old farmer Loyal Stewart (left), who succumbed in 1918 in Stillwater County.**

tion estimates for 1920 and 1930, and the crude mortality rates for September 1918 through June 1919 compared to those same months in 1928 and 1929. During the second and third waves of the pandemic in Montana, mortality rates were higher for men compared to women and for American Indians compared to whites. Across the United States, males had significantly higher influenza-related mortality rates compared to women. Although the reason for this is not known, it has been speculated that this higher mortality rate was associated with co-infections with tuberculosis. A previous study has also shown that American Indians had significantly higher influenza-related mortality compared to whites. The overall death rates for American Indians between October 1918 and March 1919 was 20.6/1,000 and was highest in the Mountain West states

(38.9/1,000).<sup>18</sup>

The second and third waves of the pandemic did not affect counties across the state equally (figure 2). The overall mortality rate per 100,000 population was 762.3. (or 7.62 per 1,000), and it ranged from 12.9 per 1,000 in Silver Bow to 3.1 in Sanders County. Thirteen counties had mortality rates greater than the overall state rate. Silver Bow County had the largest number of deaths ( $n=780$ ). Other counties with 100 or more influenza deaths were Cascade ( $n=365$ ), Yellowstone ( $n=254$ ), Missoula ( $n=227$ ), Lewis and Clark ( $n=176$ ), Sheridan ( $n=157$ ), Gallatin ( $n=149$ ), Fergus ( $n=121$ ), Carbon ( $n=127$ ), and Custer ( $n=118$ ). Larger population counties had a higher influenza-associated mortality rate (8.0 deaths per 1,000; 3,409/424,268) compared to smaller population counties (6.2 deaths per 1,000; 777/124,622). The higher mortality rate may have been due to the higher population density, which may have increased an individual's likelihood of being exposed to and infected by influenza.

Table 1 displays the number of deaths overall and by selected characteristics, the census popula-

The twenty-five to thirty-four-year-old age category had the highest mortality rate in Montana. The statewide mortality rate for September 1918 to June 1919 was approximately nine times higher (762 deaths per 100,000) compared to the mortality rate from September 1928 to June 1929 (83.9 deaths per 100,000). The mortality rate for each age, sex, and race subgroup in 1918–1919 was also considerably higher than the rate for each subgroup in 1928 to 1929, except for the mortality rate among persons aged sixty-five years and older. Seventy-five percent of influenza deaths during the Spanish influenza pandemic occurred among persons aged fifteen to forty-four years, while only 11 percent occurred among adults aged forty-five years and older. In contrast, during the nonepidemic 1928–1929 period, 25 percent of the influenza deaths occurred among persons aged fifteen to forty-four years, while forty-nine percent occurred among adults aged forty-five years and older.

## STALCUP SISTERS ARE FLU VICTIMS

### Pass Away Within a Few Hours of Each Other

At their home in this city, on Thursday, December 12, 1918, occurred the death of Jennie and Ruth Stalcup, death being caused by the influenza.

Jennie, aged 32 years, 2 months, 1 day was a graduate of the State Normal at Beloit, Kansas and came to Montana with the family about ten years ago. She had been teaching a successful term of school on Wisconsin Creek up until she was taken sick on Dec. 4

Ruth, aged 27 years 1 month 10 was taken sick on Nov. 30 and was on the road to recovery when a relapse was taken. She was also a successful teacher having taught many terms of school in different parts of the country.

Winnie Iona answered the final summons this morning at 7 o'clock. She was 23 years old and had been teaching at Renova Mont. before being taken sick.

They are survived by their parents Mr. and Mrs. W. S. Stalcup and one brother Thos. W.

The funeral will be held Saturday afternoon at 2. P. M. with interment in the Masonic cemetery.

The bereaved parents have the sympathy of this entire community.

The influenza pandemic took a heart-wrenching toll on families. Sisters Winnie, Ruth, and Jennie Stalcup died within days of one another. All three were teachers in Madison County.

Twin Bridges Independent, December 13, 1918

Figure 3. Montana influenza and influenza/pneumonia mortality rates, by age, September 1918–June 1919 and September 1928–June 1929

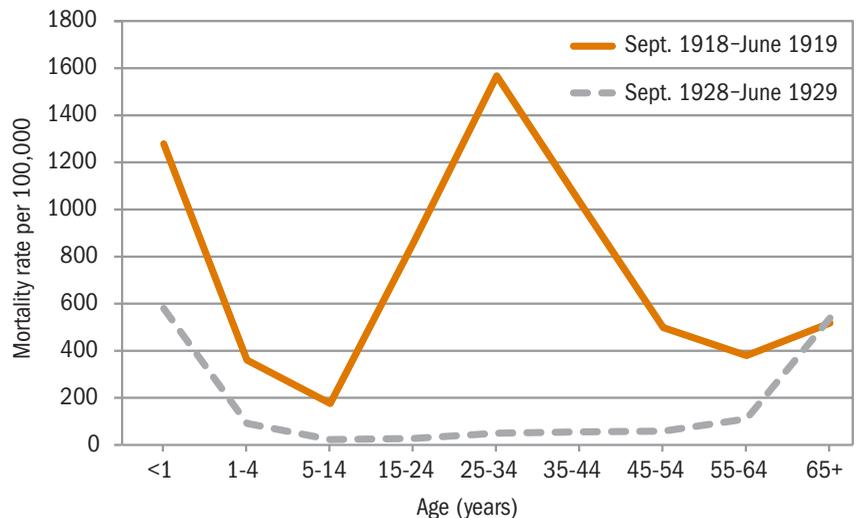


Figure 3 displays the mortality rates by age from September 1918 through June 1919 in comparison to September 1928 through June 1929. The U-shaped curve depicting the 1928 and 1929 mortality rates is the characteristic pattern that continued the remainder of the twentieth century: higher mortality rates among the very young and older persons.<sup>19</sup> The W-shaped curve seen with the mortality rates of 1918 and 1919 reveals the hallmark of the Spanish influenza pandemic: exceedingly high death rates among young adults. Using the number of deaths from September 1928 through June 1929 as the expected number of influenza deaths in a nonpandemic year, an estimated 3,733 excess deaths occurred during the second and third waves of the Spanish influenza pandemic in 1918 and 1919. Three thousand forty-eight (82 percent) of those excess deaths were among Montanans aged fifteen to forty-four years.

During the second and third waves of the 1918–1919 pandemic, 3,503 deaths occurred among Montanans aged eighteen years and older. The most frequently listed occupations on the death records were housewife (n=899, 26 percent), farmer/rancher (n=751, 22 percent), miner (n=422, 12 percent), laborer (n=242, 7 percent), and railroad man (n=142, 4 percent). Thirty-four soldiers and one sailor died as well. Of note, twenty-five physicians, nurses, and hospital staff and forty teachers, many of whom were volunteering to care for the ill, died during the second and third waves of the pandemic. During this period, there were 1,141 deaths among women of childbearing age (fifteen to forty-four years of age), with 10 percent of those deaths (n=112) among pregnant women. During the pandemic, pregnant women and their fetuses were at significantly high risk for poor outcomes. Thirteen studies that assessed the outcomes of pregnant women hospitalized with influenza in the United States in 1918 found exceedingly high death rates, ranging from 23 percent to 71 percent. Among women who survived, 26 percent lost their child.<sup>20</sup>

During the second and third waves, nearly 8 of every 1,000 Montanans died from influenza. In comparison to other states, Montana had one of the highest influenza-associated mortality rates in 1918, behind only Pennsylvania and

Maryland.<sup>21</sup> If an influenza epidemic of this magnitude were to occur in Montana now, when the state's estimated population (as of July 2016) was 1,042,520, then 7,981 people would die of influenza. In 2018, the estimated number of deaths from all causes in Montana is approximately 10,000 persons, meaning that a pandemic on proportion with that of 1918 would nearly double the number of annual statewide deaths.

The pandemic cut a swath across Montana and touched every aspect of people's lives. Individual death records and newspaper stories provide examples of the devastating effect it had on families and communities. Many families lost multiple members. The Stalcup sisters (Winnie, Ruth, and Jennie, aged twenty-six, twenty-seven, and thirty-two) were teachers in schools in Madison County. All three died of influenza in mid-December 1918. Similarly, brothers Albert and George Oline, aged twenty-nine and thirty-two, who lived in Roy, were found dead on Christmas Eve that year. The cause of death recorded on the death certificate for each was "Apparently influenza. Found dead in bed with his brother who was also dead."<sup>22</sup>

The epidemic's toll on families was devastating. In some cases, entire families died; in other cases, both parents died, leaving their children orphans; and in still other cases, an individual parent died leaving the family without a husband or a wife to provide, run the household, and take care of the children. In Miles City, a neighbor found a family of five all dead after they became so ill that they starved to death. The November 29, 1918, *Glasgow Courier* reported the deaths of Leon Garrison and his wife, who had been sick for some time and unable to obtain medical assistance. A neighbor found them severely ill, just prior to their deaths, leaving "two children who will be cared for by Mr. Garrison's sister in South Dakota." On December 13, the *Glasgow Courier* reported the deaths of two Ebersold children in Genevieve; one was a twelve-year-old daughter and the other an infant born on Thanksgiving. Both parents had been so ill they were unable to attend the funeral services for their children. A month and a half later, the February 7, 1919, paper reported that Mrs. Ebersold died on a train en route to Minnesota to get treatment at a Saint Paul hospital. She was survived by her husband and one remaining child. The February 7 *Glasgow Courier* also reported the death of Mrs. Ed Cassidy,

who was survived by her husband and their four children aged three, six, eight, and ten. The funeral service was postponed because the priest, Father Dineen, was ill from the flu.<sup>23</sup>

A November 19, 1918, *Helena Independent* story described the level of desperation some Montanans felt. A physician traveling twenty miles out of town to visit a patient was flagged down by a ranchman, who indicated that members of his family were very ill from the flu, and he asked the doctor to see them at once. The doctor responded that he would visit his patient first and be back in half an hour to the ranch. The distraught rancher said, "I tell you that you must look at my family right now," and he "pulled out a wicked looking six gun from his shirt and pointed it straight at the medico." The physician promptly saw the rancher's family; in turn, the rancher apologized and paid his bill. The severity of the illness, with its related complications such as pneumonia, is illustrated in the accounts of two men, ages forty-four and fifty-seven, one of whom died on November 8 in Musselshell County and the other in Philipsburg on November 28. Their death records described



Courtesy/ Western Heritage Center, Billings

**Dr. Louis W. Allard (above) served as the city-county health officer for Yellowstone County and as a physician in Billings, where the pandemic forced the city to open auxiliary hospitals in the high school and churches. Overworked and under strain, Dr. Allard contracted influenza and was hospitalized in a state of delirium. He survived and, after a brief respite, resumed his medical practice.**



MHS Research Center Library, Helena, U.S. Department of Justice Records, SC 2729

During the war, German immigrants who were in the United States but not naturalized citizens were required by the U.S. Department of Justice to register as alien enemies. Joseph Herman (pictured above on his alien registration card) was a twenty-two-year-old ranch hand working in Geraldine when he died of influenza in October 1918.

their causes of death: “Delirious from fever; caused by Spanish influenza; and drowned himself in the Musselshell River” and “Drowned while temporarily insane—influenza.”<sup>24</sup>

Physicians and nurses, some of whom were likely infected while caring for patients, were not spared. The November 1, 1918, *Dillon Tribune* reported on the death of thirty-three-year-old Dr. Charles Robert Blake Sr., who had moved to Butte to intern at the Murray Hospital and then to Dillon to start his medical practice. “When the present epidemic of Spanish influenza broke out there were only 4 physicians in the city. In addition to his regular practice he answered calls from many of the stricken ones and was on the go almost constantly. The overwork



Ancestry.com

Corporal Auguste Raphael “Ralph” Sauve (on the right) was gassed while serving as an interpreter for officers on the front line in France. He returned to Malta, Montana, in early October 1918 and two weeks later died of influenza.

made him easy prey to the disease.” Dr. Blake was survived by his thirty-two-year-old wife Elizabeth and two children, Elizabeth and Charles, ages three and one. The shortage of medical personnel in Montana likely contributed to the high mortality rate in some communities.<sup>25</sup>

World War I not only created conditions that helped influenza spread but also affected how the United States responded to the disease at home. After the United States entered the war, the U.S. Department of Justice required all noncitizen German immigrants to register as alien enemies. These individuals were required to carry a card and to register with the local postmaster to receive approval to travel from one registration district to another. Joseph Herman, a twenty-two-year-old German immigrant and ranch hand, registered as an alien enemy and on October 27, 1918, died of influenza in Geraldine. The October 18 *Glasgow Courier* reported on the death of Corporal Auguste Raphael “Ralph” Sauve. Corporal Sauve was aged twenty-nine and of French Canadian descent. He saw action early in the war in France, acting as a French interpreter for officers on the front line. He was gassed by enemy forces, hospitalized in France, eventually transferred to Baltimore, and discharged due to disability. He returned to Montana in early October 1918, and just two weeks after his return, “he took sick from influenza and since so much of his lungs were destroyed by the gas his chances for living were handicapped from the very first.” Corporal Sauve died of influenza on October 18 in Malta.<sup>26</sup>

### Public Health Responses

By October 1918, public health officials knew they had to coordinate a statewide effort to combat influenza, but the state and local public health workforce was small and resources to conduct vital work limited. Montana’s State Board of Health collaborated with county and city health officers, public health nurses, and local physicians. In 1918, the board consisted of D. J. Donohue, MD (Butte), president; W. J. Butler, MD (Helena), vice president; Governor Sam V. Stewart; Attorney General S. C. Ford; E. F. Maginn, MD (Butte), and Maria M. Dean, MD (Helena). Dr. William F. Cogswell, the executive secretary, supervised the handful of state public



MHS Photograph Archives, Helena, Plc-96-1-3

**As executive secretary to the State Board of Health in 1918, Dr. William F. Cogswell supervised the state public health workers and directed public health activities. Cogswell worked with U.S. Public Health Service and the American Red Cross to bring more doctors and nurses to the state.**

health workers and directed public health activities statewide. In 1918, counties and even some cities employed or contracted with physician health officers who, working under the leadership of Dr. Cogswell, coordinated local public health activities. They were aided by sixty-nine public health nurses.<sup>27</sup> The State Board of Health had significant authority based on state law and on regulations it adopted to implement measures to protect the health of Montana communities. City and county health officers also had these broad powers to take action when necessary (for example, isolating ill persons and quarantining those exposed). Local physicians were required by law and board regulations to report specific communicable diseases to the city and county health officers. The health officers, in turn, were required to report these cases to the State Board of Health.

Complicating the situation was the fact that the State Board of Health, the county and city health officers, and the public health nurses were dealing

with numerous communicable disease cases across the state; more than fifteen thousand were reported to the board in 1918. These included 1,104 cases of smallpox, 179 cases of typhoid fever, 309 cases of diphtheria, 1,609 cases of scarlet fever, 218 cases of tuberculosis, and 12,086 cases of measles. From January to August, the board focused on a number of critical issues (including smallpox outbreaks in Butte, Bozeman, Laurel, and Anaconda), prompting it to issue an order to vaccinate all schoolchildren and school employees against smallpox in towns where outbreaks occurred—spurring an anti-vaccination campaign in Butte. At the same time, the board developed a statewide campaign to try to control the increasing number of venereal disease cases. At the February 18, 1918, meeting, it passed a regulation allowing health officers to order the closure of all theaters, schools, churches, and any other place for public gatherings in cities and towns when an epidemic of a reportable, communicable disease or other diseases occurred. No documentation suggests this regulation was enacted in response to the first wave of the Spanish influenza, but in October 1918, when the full extent of the pandemic was recognized, this regulation was implemented by many county and city health officers.<sup>28</sup>

The first wave of the pandemic likely hit Butte during the third week of March 1918. Health officials in Butte reported that 20 percent of the city’s population was ill with influenza and colds. On March 27, 1918, the *Butte Miner* described the severity of the illness: “Pneumonia is claiming many—deadly disease follows epidemic of la grippe, which swept over the city last week; many victims called.” The story emphasized that local physicians had declared the situation critical and noted that there were dozens of deaths attributed to pneumonia, with scores of people afflicted with the disease. During the last week of March, reports in the *Butte Miner* indicated that the outbreak had become so severe that many businesses were struggling because so many workers were at home ill. Telephone operators at the Mountain State Telephone and Telegraph Company were out with the grippe, prompting the newspaper to remind citizens making telephone calls to be patient. By the end of the month, nearly 1,400 Butte miners were afflicted with colds, grippe, or pneumonia and consequently unable to work. Lieutenant Governor William Wallace McDowell, who was visiting Butte on behalf of Governor Samuel Stewart, also came down with a severe case of la grippe. Although the Butte newspapers



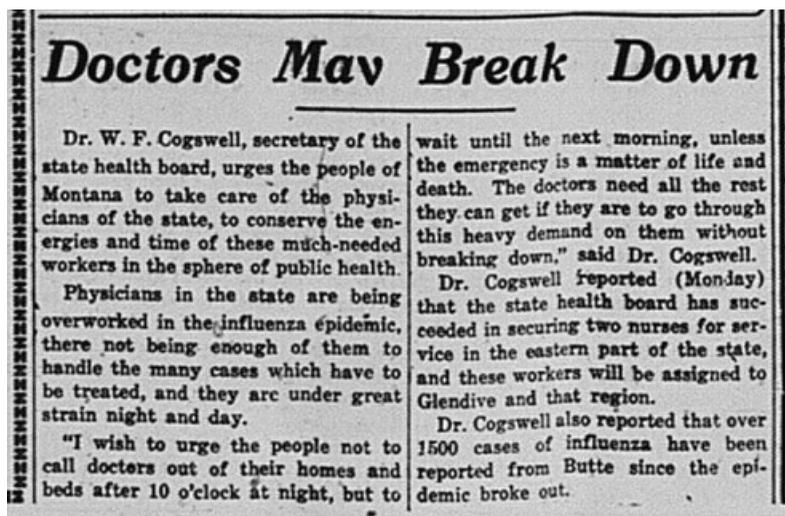
Paul Fugleberg Collection, Courtesy North Lake County Public Library, Polson PF0038

Few communities in Montana had sufficient hospital space to accommodate the extraordinary number of influenza sufferers. Schools, churches, businesses, fraternal organizations, and even private residences served as makeshift hospitals during the epidemic. Above, the East Side Hotel in Polson was converted to a hospital that billeted eleven patients at a time.

reported extensively on the outbreak, no mention of its severity was recorded in the minutes of the Silver Bow County Board of Health's meetings that spring.<sup>29</sup>

While Dr. Cogswell and the State Board of Health were likely aware of the pneumonia outbreak, Board of Health records contain no hint of concern that the Butte outbreak could be a harbinger of more lethal influenza. There is no indication that either Cogswell or the State Board of Health were aware of the initial cases in Haskell County, Kansas, and at Camp Funston, Kansas, or cognizant that these were the first in a wave of illness outbreaks portending a pandemic. The number of deaths attributed to influenza was small and does not seem to have raised alarm. In its *Ninth Biennial Report*, the State Board of Health noted, "It was in the later days of September that the disease made its first appearance in Montana, appearing in the northeastern part of the state, and spreading rapidly to different towns of the State." In hindsight, the board suggested that some precursor might have occurred as early as the fall of 1917 and in early 1918: "In 1917 there occurred a sharp rise of pneumonia deaths, and most physicians were agreed that the type of these pneumonias varied considerably from the usual. This unusual type prevailed during the early months of 1918. By many physicians it was designated as 'interstitial pneumonia,' but in general symptomology corresponded to what was later known as 'influenza-pneumonia.'"<sup>30</sup>

On September 20, 1918, the *Helena Independent* first announced the influenza epidemic in the United States, reporting that the disease was spreading on the East Coast, with many cases and deaths in Boston. The story indicated that the disease onset was very sudden and fatality likely unless properly treated. Surgeon General Rupert Blue recommended bed rest, fresh air, plenty of food, and calling a physician. On October 4, 1918, the *Glasgow Courier* heralded the arrival of the epidemic in northeastern Montana and announced that a severe form of la grippe was sweeping Valley County. The newspaper article reported numerous cases, including fifty in Wolf Point and one hundred in Scobey, noting that quarantine measures were in effect in army camps throughout the nation.



On October 25, the *Glasgow Courier* reported a new crisis emerging at the peak of the pandemic: the stress of overwork was taking its toll on Montana's nurses and physicians. Montana lost several doctors, including Charles Blake of Dillon, Wilmer Everett Toney of Redstone, and William Rupert Bebout, who had just begun his practice in Browning a month before his death.

Nonetheless, the same story admonished community members not to be needlessly alarmed, stating, "There was no reason for the community to become panicky. There is nothing mysterious about this germ, which is well recognized, and it is only the complications, apparently, that result fatally." Just two weeks later, as influenza-related deaths skyrocketed, the article's overly optimistic assessment of the situation became apparent.<sup>31</sup>

Alarmed by the growing reports of infection and escalating number of fatalities, the State Board of Health took decisive action on October 9 when it approved emergency regulations that granted city and county health officers the authority to close schools and public gathering places and to require isolation of ill patients. Implementation did not come without controversy in Butte, where businesses such as saloons ignored the order. Dr. Cogswell and the board had to intervene between the Butte City Council, which was against enforcing the second closure of businesses after a resurgence of cases and deaths in the middle of November, and the Silver Bow County Board of Health, which was trying to implement it. Dr. Cogswell was able to negotiate a truce that gave the final say to the Silver Bow County Board of Health.<sup>32</sup>

The State Board of Health's emergency regulation also required, for the first time in Montana, the

# DR. DOGGE TELLS OF BATTLING INFLUENZA

FOR HELENA PHYSICIAN FOUND  
BAD CONDITIONS AT  
RAPELJE, MONT.

## FARM WAGON AMBULANCE

People Stood in Line Pleading for  
Medical Attention to Relatives.  
Mortality Was Held Low.  
Epidemic Is Now About  
Stamped Out.

Dr. Alfred C. Dogge, a former physician now located at Polson, who was here Saturday en route home from Rapelje, in Stillwater county about 80 miles west of Billings, told interestingly of the battle which was successfully waged against the influenza epidemic in that locality.

### Flu in Every Home,

Dr. Dogge went to Rapelje early in November at the request of Dr. Cogswell of the state board of health. Arriving there, he found the community without a physician and nurses, and the disease in every home—more than 300 people were down with it at the time.

Dr. Dogge took charge of the situation, first converting the school house and church building into emergency hospitals, and enrolling women who had had some experience in nursing the sick into volunteer nurse service.

The first two or three days, a large farm wagon was used for ambulance purposes. Later on, a couple of automobiles were made available, and Dr. Dogge kept the machine going night and day bringing people in from surrounding districts to the emergency hospitals—he worked the chauffeurs in three shifts of eight hours each.

### People Stood in Line.

People stood in line at his headquarters, pleading for medical attention for the sick in their homes. Dr. Dogge worked single-hand for 10 days, with the conditions pressing on all sides, before a physician was found by the state board of health who could be spared from his own community. During the second week Dr. Rundle of Billings came to Rapelje and gave valued assistance in combatting the epidemic.

One physician who responded to Cogswell's appeal was Dr. Alfred C. Dogge of Polson, who traveled to Rapelje in Stillwater County where he found "flu in every home." His extraordinary efforts and the cooperation of local citizens limited the number of deaths in Rapelje.

reporting of influenza cases to the board. From October through December, 37,567 cases of influenza were reported. The board realized that this staggering tally—approximately 7 percent of the statewide population—did not represent the complete number of cases because physicians and health officers were too overwhelmed to report every incident and because not all those infected were able to confirm a diagnosis. The board noted dismally, "In many places of the State, during the epidemic, the local health department completely broke down on account of the fact that the local health officer was too busy responding to the calls of the sick to attend to his duties as a health official." On October 25, the *Glasgow Courier* summarized the crisis from a public health standpoint, stating candidly, "Doctors may break down." The newspaper highlighted a plea from Dr. Cogswell to communities to take care of their physicians whose numbers were too few and who were being overworked and under great strain night and day.<sup>33</sup>

At the same time, Cogswell appealed to those few physicians in Montana who might be spared from their own communities to assist in others. At least twelve responded. One was Dr. Alfred C. Dogge, who in November left Polson, where the influenza outbreak was not severe, to go to Rapelje in northern Stillwater County, where he found "flu in every home." Dr. Dogge helped convert a school and a church into an emergency hospital, identified volunteer nursing aides, and used a farm wagon as an ambulance. A newspaper reported, "The mortality was held to five deaths from the disease—a wonderfully low ratio to the large number of cases of the disease in virulent form." Local chapters of the American Red Cross helped establish emergency hospitals and provided volunteer nursing aides. The need for aid was so great and the scarcity of nurses so high in Glasgow that the *Glasgow Courier* made a plea to all women in the community who were not ill to volunteer. The story praised the efforts of the schoolteachers who were working night and day to care for the sick, but it also called out a few women who, according to the newspaper, were "slackers" who refused to volunteer and save lives.<sup>34</sup>

Steps public health authorities could take to address the influenza pandemic in 1918–1919 were very limited. The U.S. Public Health Service, which was responsible for communicable disease prevention and control nationally and oversight of the quarantine stations, marine hospitals, and the hygienic laboratory, had done little to prepare the country for a pandemic. The epidemic was already well underway by late September when the surgeon general offered recommendations to avoid the spread of influenza.

The USPHS did respond to requests from states to assign additional health care personnel. Shortly after the epidemic hit Montana, Dr. Cogswell requested from the USPHS six doctors and twenty-five nurses. The American Red Cross Nursing Service, already stressed by enormous demand for nurses in Europe, managed to assign nurses to many states for care of influenza patients. Ultimately, eight USPHS physicians and seven Red Cross nurses were assigned to work under Dr. Cogswell.<sup>35</sup>

Reports of an experimental vaccine developed by Dr. E. C. Rosenow of Rochester, Minnesota, led the Montana State Board of Health to request a supply and to provide it to local health departments, which were to administer it for free. Dr. Rosenow claimed it might prevent complications such as pneumonia and death, not that it would prevent influenza. In December, three hundred Havre residents were

immunized, as were residents in other communities. Dr. Cogswell did not urge use of the vaccine because available evidence had not demonstrated its efficacy. In retrospect, of course, he was correct; only after the influenza virus was isolated in the 1930s were effective vaccines developed.<sup>36</sup>

Although influenza was not yet well understood from a scientific standpoint, it was regarded as a “crowd disease,” so local health authorities generally complied with the regulation to close schools and other public places. The use of facial masks made by Red Cross volunteers to prevent the spread of disease was widely promoted. Beginning in October, Dr. Max Barbour, the health officer for the Helena City Board of Health, required some public workers, including police and transportation conductors, to wear facial masks. When the city board recognized that the order was not being followed, it requested that police



**A Red Cross car makes its way through the Montana countryside. With a shortage of medical personnel in the state, Montana relied on Red Cross nurses, USPHS physicians, and numerous volunteers to canvas the rural counties and check on isolated families.**



Walter Dean, Jr., photographer. Courtesy Gordon Dean and Rosebud Public Library, Forsyth

**When the influenza epidemic struck Montana, Rosebud County had no hospital. The local Masonic Temple and school temporarily housed affected residents in Forsyth. Despite the hard times, community members raised substantial funds during the pandemic to begin construction on the Rosebud County Deaconess Hospital, above, which opened its doors in 1921.**

arrest violators. Due to numerous complaints that the masks were causing headaches and eyestrain, the board rescinded the requirement and made the use of masks optional. By October 1918, the State Board of Health admitted that available prevention efforts were likely to fail and reoriented its approach: “[R]ealizing that such control measures had not prevented the epidemic in other states, and that the state of Montana was in for a serious epidemic, the State Board of Health centered its energies on relief work.”<sup>37</sup>

During a time of extraordinary historic events, the most deadly epidemic of the twentieth century struck Montana and exacted a dramatic toll. Medical science and public health entities were not prepared to grapple with the deluge of morbidity and death. Although the response in communities around the state included many inspirational efforts, the epidemic ran its course with little hindrance. In 1920, when the State Board of Health reflected on the experience, it was able to

muster only modest optimism: “Our memories of this and other epidemics should not fail. Let us hope that through preparedness in health organization and in the education of new generations we may prevent a repetition of the terrific losses which influenza has cost in the past three years.”<sup>38</sup>

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**The Masonic Temple in Forsyth was utilized as a temporary hospital for Rosebud County residents stricken with influenza. Today, the building and the hospital constructed during the epidemic are listed on the National Register of Historic Places.**

*ment of Labor and Industry, 1913–1914* (Helena, MT, n.d.), 195–203.

40. E. E. Russell Tratman, *Railway Track and Tract Work* (New York, 1909), 284–85, 291–93, 296–97.

41. Hal Borland, *Country Editor's Boy* (Philadelphia, 1970), 259–60.

42. Thomas Bell, *Out of This Furnace* (1941; repr., Pittsburgh, 1976), 20–21.

43. Northern Pacific Railway, “N. P. Ry. Standard Plan of Bunk House for 16 Men with Living Room,” Plan S-39–80 (1905), in “Note” below title block, copy in author’s collection.

44. Harry Bedwell, “Back in Circulation,” *Railroad Magazine*, Aug. 1940, 92.

### “No More War, No More Plague”

The epigraph comes from Katherine Anne Porter’s *Pale Horse Pale Rider* (New York, 1939), 208.

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1. Jeffrey K. Taubenberger and David M. Morens, “1918 Influenza: The Mother of All Pandemics,” *Emerging Infectious Diseases* 12 (Jan. 2006): 15–22. The title of this article, “No More War, No More Plague,” comes from the last paragraph of a short story by Katherine

Anne Porter titled *Pale Horse Pale Rider* describing her experience surviving influenza and the death of her fiancé, a soldier, from Spanish influenza: “No More War, No More Plague, only the dazed silence that follows the ceasing of the heavy guns; noiseless houses with the shades drawn, empty streets, the dead cold light of tomorrow” (p. 208).

2. Alfred W. Crosby, *America’s Forgotten Pandemic: The Influenza of 1918* (Cambridge, UK, 2003), 206.

3. Michael P. Malone, Richard B. Roeder, William R. Lang, *Montana: A History of Two Centuries* (Seattle, 1976), 270, 268–79.

4. Clemens P. Work, *Darkest before Dawn: Sedition and Free Speech in the American West* (Albuquerque, NM, 2005), 181–227; Malone, Roeder, Lang, *Montana*, 276. The Montana law later in 1918 served as the model for a national law.

5. Montana State Board of Health, meeting minutes, Jan. 30, 1918, Feb. 18, 1918, Apr. 6, 1918, RS 238 (29:8–1), MHS.

6. Taubenberger and Morens, “1918 Influenza,” 16.

7. John M. Barry, “Site of the Origin of the 1918 Influenza Pandemic and Its Public Health Implications,” *Journal of Translational Medicine* 20:2 (2004): 1–4.

8. “Influenza,” *Public Health Reports* 33 (Apr. 5, 1918): 502. The journal *Public Health Reports* was a mechanism used to alert public health officials and clinicians of communicable disease outbreaks happening in the United States and worldwide. Dr. Miner’s warning regard-

ing influenza was the only reference to influenza in that journal worldwide during the first half of 1918. The next mention of epidemic influenza in the journal came in July 1918 and described an outbreak in England. “Great Britain Epidemic Influenza—Birmingham,” *Public Health Reports* 20:2 (July 26, 1918): 1259.

9. Barry, “Site of the Origin of the 1918 Influenza Pandemic,” 1–4.

10. Carol R. Beverly, “The U.S. Military and the Influenza Pandemic of 1918–1919,” *Public Health Reports* 125: Supplement 3 (2010): 82–91; L. L. Stanley, “Influenza at San Quentin Prison, California,” *Public Health Reports* 9 (May 9, 1919): 996–1008; Crosby, “*America’s Forgotten Pandemic*,” 20–21.

11. Crosby, *America’s Forgotten Pandemic*, 31, 39.

12. Pierce C. Mullen and Michael L. Nelson, “Montanans and the ‘Most Peculiar Disease’: The Influenza Epidemic and Public Health,” *Montana* 36 (Spring 1987): 50–61; Volney Steele, “The Flu Epidemic of 1918 on the Montana Frontier,” *Journal of the West* 42 (Fall 2003): 81–90.

13. *Ninth Biennial Report of the State Board of Health, 1917–1918*, S 353.6 H34BR, MHS; *Tenth Biennial Report of the State Board of Health, 1919–1920*, S 353.6 H34BR, MHS; Crosby, *America’s Forgotten Pandemic: The Influenza of 1918*, 210, 214. Crosby presented mortality statistics for Montana, which was one of twenty-four registration states in the United States. This information was cited



**Butte Armistice parade. When the war ended in November 1918 and soldiers began to return, Butte and Missoula residents turned out in force to welcome them with parades.**

from the *Bureau of the Census, Mortality Statistics, 1919* (Washington, DC, 1921), 28–2. These analyses used the 1910 and 1920 census and an arithmetical method to calculate the denominators for the mortality rates. They may have included deaths from pneumonia without influenza in the numerators.

14. Office of Vital Records, Montana Department of Public Health and Human Services, Helena, MT.

15. *Ibid.*

16. *Ibid.*

17. *Ibid.*

18. Andrew Noymer and Michel Garenne, *Population Development Review* 26:3 (2000): 565–81; “Influenza among American Indians,” *Public Health Reports* 34:19 (May 9, 1919): 1008–9. The 1918 influenza epidemic’s effects on sex differentials in mortality in the United States.

19. Taubenberger and Morens, “1918 Influenza,” 19–20, 31.

20. John M. Barry, *The Great Influenza* (London, UK, 2004), 239–40.

21. Crosby, “America’s Forgotten Pandemic,” 210.

22. *Twin Bridges Independent*, Dec. 13, 1918; file numbers 138790 and 138791, Office of Vital Records, Montana Department of Public Health and Human Services, Helena, MT (hereafter MDPHHS.)

23. Mullen and Nelson. “Montanans and the ‘Most Peculiar Disease,’” 57; *Glasgow Courier*, Nov. 29, 1918; Dec. 13, 1918; Feb. 7, 1919.

24. *Helena Independent*, Nov. 19, 1918; file numbers 1371122 and 137498, MDPHHS.

25. *Dillon Tribune*, Nov. 1, 1918, 1. American Medical Association, *Directory of Deceased American Physicians 1804–1929*, 71, 1679.

26. *Glasgow Courier*, Oct. 18, 1918, 1.

27. *Ninth Biennial Report of the State Board of Health, 1917–1918*, 13.

28. *Ibid.*, 6–7; Montana State Board of Health meeting minutes, Apr. 16 and Feb. 18, 1918, S 353.6 H34BR, MHS.

29. *Anaconda Standard*, Mar. 21, 1918; *Butte Miner*, Mar. 27; Mar. 24; Mar. 30,

1918; *Helena Independent*, Apr. 2, 1918.

30. *Ninth Biennial Report of the State Board of Health, 1917–1918*, 8; *Tenth Biennial Report of the State Board of Health, 1919–1920*, 61.

31. *Helena Independent*, Sept. 20, 1918; *Glasgow Courier*, Oct. 4, 1918.

32. Montana State Board of Health, meeting minutes, Oct. 9, 1918, RS 238 (29:8–1), MHS; *Helena Independent*, Dec. 2, 1918.

33. Montana State Board of Health meeting minutes, Oct. 9, 1918, MHS; *Ninth Biennial Report of the State Board of Health, 1917–1918*, 10; *Glasgow Courier*, Oct. 25, 1918, 3.

34. *Glasgow Courier*, Oct. 25, 1918; *Helena Independent*, Dec. 16, 1918, 3; Barry, *The Great Influenza*, 313; *Glasgow Courier*, Oct. 18, 1918.

35. Barry, *The Great Influenza*, 311; *Ninth Biennial Report of the State Board of Health, 1917–1918*, 10.

36. Mullen and Nelson. “Montanans and the ‘Most Peculiar Disease,’” 60; *Ninth Biennial Report of the State Board of Health, 1917–1918*, 11–12.

37. *Helena Independent*, Oct. 27; Oct. 29, 1918; *Ninth Biennial Report of the State Board of Health, 1917–1918*, 10.

38. *Tenth Biennial Report of the State Board of Health, 1919–1920*, 63.

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