

■ Saving Communities: Atlanta

Located in north-central Georgia, Atlanta had a population of nearly 90,000 in 1900 and was still growing in 1918, prospering from its textile and automotive industries. Seeing itself as the leading business center of the Southeast, it prided itself on its healthfulness and on what was known as the “Atlanta Spirit,” a positive, optimistic outlook.

The first wave of influenza in spring 1918 hardly seemed to strike Atlanta, receiving no notice in the press. The severe second wave first struck the week of October 2, 1918, at the army camp of Fort Gordon southwest of the city. By the second week of October, the number of cases at the camp had risen to 2,941.

Atlanta’s health department, which had a record of strong intervention against public health problems, worked fast to try to prevent the flu from spreading. Soldiers were required to wear gauze masks and forbidden to come within Atlanta city limits. Roads in the camp were oiled with antiseptic, on the theory that dust might carry germs. Soldiers were required to sleep outdoors rather than in barracks, on the theory that germs would spread less easily in the open air than in the close confines of indoor housing. Even so, deaths happened every day, with coffins said to be “stacked like cordwood.”

Within the city, throughout October, official sources gave contradictory accounts of the seriousness of the epidemic. Health Officer J. P. Kennedy claimed one day that the city was all but free of influenza. Four days later he said that each doctor in Atlanta was treating 15 to 20 flu patients a week. One newspaper called influenza a “great and terrifying menace to the public health.”² Another claimed everything was under control. Though the government presented an upbeat image, one citizen remembered: “They were dying just like leaves off of them trees.”³

Because gathering in confined spaces was considered dangerous, streetcars and buses were required to travel with their windows

open. Schools, churches, theaters, dance halls, and pool rooms were closed by public ordinance. The courts closed for a month. Yet, under the influence of the Chamber of Commerce, most businesses were allowed to stay open.

The annual Southeastern Fair, which attracted visitors and dollars from all over the Southeast to its exhibition buildings and amusement tents, was staged on schedule in October. Run by the Chamber of Commerce, the fair attracted the largest crowds in its history. The Health Board considered canceling the event, but finally decided only to require attendees to wear face masks. Representatives of the closed theaters and churches complained that they were being treated unfairly. Why was the fair safer than a church?

Factory and shop workers and downtown shoppers were required to wear face masks (an ordinance that was not as strict as that found in cities such as San Francisco, but stricter than cities such as Boston). Police enforcement of antisputting ordinances was stepped up. Garbage removal and street sweeping were forbidden during busy hours in downtown (for fear that flu germs hidden within disturbed filth would infect the crowds of shoppers and workers).

Physicians were required to report all cases of flu. City welfare nurses had to visit all flu patients to assess the cases and give advice. Grady Memorial Hospital closed its doors to flu patients after several nurses fell ill from flu.

Numerous flu preventives were advertised and purchased: throat sprays, nose douches, eucalyptic salve, Listerine-Dioxagen for gargling. One doctor suggested placing sulfur in the bottom of each shoe. Another suggested that a positive attitude would help to ward off the disease.

On October 25, the City Council considered whether to lift the closing ordinances. Some Health Board staff argued that the epidemic was still serious. But Health Officer Kennedy argued that the epidemic had stabi-

lized. The mayor and theater managers also wanted to reopen closed businesses. The council decided to lift the closing ordinances.

There is no exact record of how many Atlantans caught influenza or died from it. The City Health Department records have been lost. The city never filed a 1918 report with the State Health Department. From the beginning, Kennedy claimed that death rates were low and the situation was getting better. His estimate of only 3,000 influenza cases by the time

the epidemic waned near the end of October seems suspiciously low. A relatively mild third wave struck Atlanta in January.

African Americans, who composed 33.45 percent of the population, suffered 34.57 percent of Atlanta's influenza deaths. Overall, the city experienced three deaths per 1,000 population in the last four months of 1918. Most other American cities suffered far worse in the same period. Boston's figure, for example, was 6.7, and San Francisco's 5.4.

Notes

1. Quoted in Francine King, "Atlanta." In *The 1918-1919 Pandemic of Influenza: The Urban Impact in the Western World*, edited by Fred R. van Hartesveldt (Lewiston, N.Y.: Edwin Mellen, 1992), 110.
2. The Atlanta Semi-Weekly Journal, October 15, 1918. As quoted in Francine King, "Atlanta." In *The 1918-1919 Pandemic of Influenza: The Urban Impact in the Western World*, edited by Fred R. van Hartesveldt (Lewiston, N.Y.: Edwin Mellen, 1992), 111.
3. Clifford M. Kuhn, Harlan E. Joye, and E. Bernard West, *Living Atlanta: An Oral History of the City, 1914-1948* (Athens, Ga. and London, 1990), 28. As quoted in Francine King, "Atlanta." In *The 1918-1919 Pandemic of Influenza: The Urban Impact in the Western World*, edited by Fred R. van Hartesveldt (Lewiston, N.Y.: Edwin Mellen, 1992), 108.

■ Saving Communities: Frankfurt

Located in western Germany on the Main River, Frankfurt in 1918 was an important manufacturing and transportation center, a channel for troops and materiel. Like many Germans, the citizens of Frankfurt were malnourished and exhausted, suffering from war and related shortages of food, labor, fuel, and medical help.

In June and July 1918, the first wave of Spanish influenza became epidemic. The flu caused many absences at work, slowing down production and delivery of goods, making supplies even scarcer. The city and national government did not acknowledge that the flu was serious and claimed that the number of cases had been exaggerated. The authorities distributed information on how to prevent and treat the disease, but made little effort to close public places or quarantine sick troops and civilians. Newspapers were censored to avoid spreading negative news that might lower morale or aid the enemy.

The government also refused to grant supplemental food rations or extra medical supplies. This caused people, who believed that the flu was in part caused by hunger and scarce medical care, to panic. A medical conference did not help matters by concluding that almost nothing could be done to fight the flu.

The first wave of influenza waned in late July. In August and September, Frankfurt took steps to reform its food distribution system, allowing the food ration to rise. Then, in late September and October, the second wave of influenza struck. Much more virulent than the first, it sickened an estimated 10 percent of Frankfurt's adult population by October 12 (still the early stage of the second wave).

Again, trains and factories began to slow down as a result of employee absences.

This time, the city authorities responded actively. They raised the food ration twice within two weeks. They closed schools, banned public meetings and performances, and made more quarantine space available for hospitals. They offered advice on how to avoid the flu: stay away from crowded places and streetcars, disinfect, and gargle often. As hospitals became overcrowded, they urged families to care for the sick at home and called for more volunteer nurses. They also required local registrars to issue daily reports on flu cases.

Gauze masks, common in the United States, were not widely used by the general public in Germany. The mortality rate was devastating. Of flu patients brought to city hospitals, 27.3 percent died (compared with 14 percent during the first wave). By the end of October, the second wave was waning. In November, schools reopened and the ban on public gatherings was lifted. But chaos began to descend as the German government collapsed and World War I came to an end. The flu epidemic flared again in late November and early December, just when political disorder throughout the country was disrupting the flow of supplies, making food and fuel shortages even worse. Funerals of flu victims were often accompanied by demonstrations and the looting of food shops. Still, the city government managed to stay in power.

Exact figures for Frankfurt are not available, but the death toll from flu in Germany in 1918-19 is estimated at 5.9 per 1,000 population—considerably higher than the estimate of 4.2 for the United States in the same period.

■ Saving Communities: Lyon

In 1918, Lyon was the third largest city in France. Located on the Rhône River about 170 miles inland from the Mediterranean coast, it had a history of vigorous public health activism that had helped make it a healthier place to live than Marseille. Its mayor, Edouard Herriot, was known for his commitment to health care and sanitation, even at a time of war-induced shortages in physicians, medicine, and hospital space.

Like Marseille, Lyon was struck by a relatively mild wave of influenza in the spring and early summer. Then, in mid-September, the Lyon area was struck by Spanish influenza at its most severe. Deaths from influenza climbed from 22 in August to 85 in September to 956 in the peak month of October. Struck by the death toll among young adults, one physician stated: "I have lost in these five weeks more young mothers than I saw die in the previous ten years."¹

On September 26, the mayor's office in Lyon announced that influenza was epidemic. On the advice of the City Hygiene Bureau and the National Public Health Committee, Mayor Herriot issued orders prohibiting the beating of rugs and requiring that floors be dampened before being swept. This was in accord with the theory that dust and filth might harbor flu germs. The mayor's office also issued advice on preventing flu: gargle with and inhale disinfectants, wash face and hands often, do not spit in public, do not drink much alcohol, avoid crowded or poorly ventilated places. Following the recommendation of the National Education Ministry, the opening of school was delayed.

On October 14, as the death count rose, the mayor took firmer action. A corps of visiting

nurses was organized, with money allocated to hire nurses. All theaters were closed. All public amusements banned. Funeral processions were forbidden; dead bodies had to be buried within 24 hours (with the city expanding its burial aid program for the poor). All public conveyances and public places, including stores and restaurants, were to be disinfected daily. The sickrooms of the dead and of those who had suffered secondary infections were to be disinfected by the city. Herriot tried to get the national government to help assemble an emergency cleanup of city streets, but had no success.

Some critics argued that not all of Herriot's measures were necessary. Herriot responded that medical experts did not know exactly how influenza was caused and transmitted; therefore he was willing to try anything plausible.

As in Marseille, physicians and the general public tried many different methods to combat the disease—antifever remedies, laxatives, herbs, disinfectants. Gauze masks were not widely used by the general public. The city made sure that emergency supplies of quinine, a fever-reducing drug, were delivered to pharmacies for purchase by patients. As in Marseille, the epidemic in Lyon began to wane in November, and was over by spring 1919. On November 5, the ban on theaters and funeral processions was lifted.

Herriot was proud of Lyon's vigorous action against the epidemic. But the City Council was surprised to note that morbidity and mortality in nearby villages, where there were no crowds to control or theaters to ban, had been as bad or worse than in Lyon. From June 1918 to May 1919, Lyon suffered 2,090 deaths, compared with 2,831 in Marseille.

Note

1. Dr. Camescasse, "L'Epidemie de Grippe de 1918," *Revue d'Hygiene et de Police Sanitaire* 41 (1919): 89-90. As quoted in Martha L. Hildreth, "Lyon and Marseille." In *The 1918-1919 Pandemic of Influenza: The Urban Impact in the Western World*, edited by Fred R. van Hartesveldt (Lewiston, N.Y.: Edwin Mellen, 1992), 45.

■ Saving Communities: Marseille

In 1918, France was a nation wearied by four years of war. Physicians, medicine, and hospital beds were all in short supply. They were especially scarce in Marseille, which, historically, had invested little in public health measures, other than maritime quarantine, to protect it from diseases entering from the sea. Located on the Mediterranean coast, Marseille was France's second largest city and the main entry point for soldiers and workers coming from Portugal, the United States, and French colonies in North Africa.

Marseille was struck by a relatively mild wave of influenza in the spring and early summer. Then, in August, physicians were startled by a new kind of infection. In one case, five members of a family fell sick at once; three of them died. At first attributed to typhus or cholera, the deaths from this period were only later identified as due to Spanish influenza. Not until September 12 did the head of the municipal public health council warn Mayor Eugène Pierre that the city might be experiencing an epidemic of Spanish flu, which was then known to be spreading in France. Pierre and the City Council took no action because the weekly death statistics were not above average; national law required no action until they were.

Despite the lack of official action, the public knew from its own experience and from rumor that something deadly was in the air. By September 30, public fear forced the prefect of the department (the region including the city) to act. Information was disseminated, including advice on personal hygiene and on avoiding crowded places. Nothing was specifically prohibited, though the opening of school was delayed following the advice of the National Education Ministry.

On October 10, the mayor's office acknowledged that Marseille was suffering an epidemic. Spitting in public was forbidden, along with beating of rugs (based on the idea

that flu germs might reside in dust and filth). For the same reason, the prefect later authorized daily disinfectant cleaning of cafes and public buildings and vehicles, though the city failed to enforce these measures, claiming that disinfectants were in short supply.

Public terror grew as influenza deaths in Marseille climbed from 126 in August to 537 in September to 799 in the peak month of October. Despite requests from the City Hygiene Bureau and many other concerned people, the city and the department declined to advocate the stricter health measures that Lyon, another French city, had instituted. Many people believed that influenza was spreading because of the open sewage and piles of garbage in the city streets. One person advocated spraying disinfectant directly into the air.

City officials doubted the effectiveness of disinfectants or restrictions on crowds and claimed that the situation in Marseille was not that bad. The mortality rate for influenza, argued Pierre, always went up in the fall. He also thought the rate was inflated by immigrants who were sick before they reached Marseille. Privately, city officials argued that vigorous public health measures would put the citizenry into a panic.

Hospital beds and physicians, already in short supply because of the war, became even scarcer. The city made few attempts to increase the number of beds, though it did set up an emergency medical service that made doctors more accessible, without paying them anything for their additional service.

To combat the disease, physicians and the general public tried many different methods, including anti-fever remedies (quinine, aspirin), purgatives or laxatives, natural herbs, garlic, and disinfectants (mentholated Vaseline for the nose and hydrogen peroxide for the mouth). Gauze masks were not widely used by the general public. Many physicians in France

practiced bloodletting, an old, all-purpose remedy that had become controversial. Medicines of any kind were scarce, and the Marseille government was criticized for not trying to increase the supply.

The epidemic in Marseille began to wane in November and was over by spring 1919. From June 1918 to May 1919, Marseille suffered 2,831 deaths from influenza, compared with 2,090 in Lyon.

■ Saving Communities: San Francisco

In 1918, the West Coast city of San Francisco, an important military center, had a population of 550,000. The city scarcely noticed its first wave of mild influenza in the spring. The first case in San Francisco of the severe second wave was reported in the newspapers on September 24, by which time the city's leaders had heard of the pandemic raging on the East Coast. On September 27, the California State Board of Health made influenza a reportable disease and allowed health officers to isolate cases. City officials did not cancel the next night's Liberty Loan Drive parade, despite the medical profession's belief that crowded conditions encouraged the spread of the disease. Over the next two weeks, many other rallies and marches were held to raise money for the war effort.

Chief Health Officer William Hassler prepared for the worst by designing health districts to make maximum use of personnel, sending nurses to schools to talk about how personal hygiene could prevent flu, and setting aside San Francisco Hospital as an isolation center for flu patients. New cases of flu climbed steadily, although many San Franciscans failed to be alarmed. As late as October 15, the *San Francisco Chronicle* claimed "there is less danger in the Spanish Influenza than in German peace propaganda."¹

On October 18, the Board of Health closed schools and places of amusement and public gathering. On October 20, churches were closed. An atmosphere of panic began to set in. Doctors and nurses were overworked. Hospitals were filled to capacity. Emergency hospitals were set up in churches and auditoriums. Hundreds of telephone operators, policemen, garbage collectors, and others were absent from work, threatening the survival of San Francisco's vital services.

Hassler's health districting system was revised several times, but there were not enough nurses and supplies at the district centers to answer calls for help. By the end of October,

the Red Cross ran ads begging women to volunteer as nurses.

Gauze masks, already widely in use in the eastern United States, became commonplace in San Francisco too. In late October, many people voluntarily donned them, as the Board of Health announced that a mask was "ninety-nine percent Proof against Influenza."² As of November 1, masks were legally required in all public places and wherever two or more people congregated. Exceptions were made only for homes in which only two family members were present and for people eating meals.

The strict mask ordinance was coupled with distribution, after October 22, of a vaccine developed by Massachusetts researcher Timothy Leary, who claimed it would abort flu, prevent pneumonia, and "do away with the death rate almost totally."³

The fall wave of the epidemic peaked on October 25, the day when the greatest number of new cases (2,319) was reported. After that, the number of new cases began to fall. The week ending November 2 produced 7,164 new cases and in the last week of November, there were only 57. The epidemic appeared to be over. Gauze masks and Leary's vaccine seemed to have proved effective in fighting the flu.

On November 21, the mask ordinance was officially revoked. By the first week of December, the number of new cases of flu began to rise again. Chief Health Officer Hassler, who had led the campaign to wear masks, was convinced that lack of masks was the problem. Most San Franciscans refused official calls to resume their masks voluntarily. They were tired of wearing the uncomfortable things, and this new wave of flu did not seem as serious as the last. Still, Hassler pushed on, and on January 17 a new mask ordinance went into effect. From that day forward, the number of new flu cases began to fall. The peak of the December-January wave was reached in the week ending January 18, when the number of new cases was 3,500.

Hassler and many of his public health colleagues were convinced that the masks had been responsible not once but twice for saving San Francisco from a more terrible bout with Spanish influenza. Others, however, disagreed. State Board of Health Officer W. H. Kellogg cited statistics showing that strict mask wearing in Stockton, California, had not prevented a death rate as high as that found in Boston, where masks had hardly been worn at all. One letter writer to the *San Francisco Chronicle* reported that he had come down with flu and

pneumonia despite inoculating himself and his family with Leary's vaccine and despite wearing a mask diligently. He signed himself, "What's the Use?"⁴

Deaths from influenza and pneumonia in San Francisco in the last four months of 1918 numbered 5.4 per 1,000 population. This was a lower figure than some American cities (such as Boston, 6.7), but higher than others (Atlanta, 3.0). San Francisco had the worst epidemic of any city on the West Coast.



During the 1918-19 flu epidemic, citizens in many cities were required to wear masks at all times.

Notes

1. *San Francisco Chronicle*, October 15, 1918. As quoted in Alfred W. Crosby, *America's Forgotten Pandemic: The Influenza of 1918* (New York: Cambridge University Press, 1989), 94.
2. *San Francisco Chronicle*. October 22, 1918. As quoted in Alfred W. Crosby, *op.cit.*, 102.
3. *San Francisco Chronicle*, As quoted in Alfred W. Crosby, *op.cit.*, 100.
4. *San Francisco Chronicle*, December 20, 1918. As quoted in Alfred W. Crosby, *op.cit.*, 108.

■ Saving Communities: The Samoas

Located in the South Pacific, the Samoan Islands were almost completely isolated from the rest of humanity (and its diseases) until the first European contact in 1722. By 1918, the island group was divided into two parts: Western Samoa, administered by New Zealand, and American Samoa, administered by the United States. Previous influenza epidemics had shown that the indigenous people of Samoa were much more susceptible to death by influenza than people of European descent.

On November 7, 1918, the steamer *Talune* arrived in Apia on the island of Upolu, Western Samoa. The *Talune* had sailed from New Zealand, where Spanish influenza was rampant, but no one in New Zealand had radioed a warning to the medical officer at Apia. He did see that the *Talune* was carrying sick passengers and crew, but he took no action to quarantine them. Lieutenant Colonel Logan, administrator of Western Samoa, took no extraordinary measures to prevent or mitigate an epidemic on the islands. He refused a radio offer of medical help from American Samoa, supposedly because he misunderstood the message, but he did permit the arrival of four doctors and 20 orderlies from Australia in early December.

Western Samoa suffered what was perhaps the most lethal epidemic of the entire Spanish influenza pandemic. By early 1919, an estimated 8,500 people (22 percent of the population of 38,302) had died. Many of the deaths were related to malnutrition or starvation because the normal routines of obtaining and distributing food had been interrupted.

Forty miles away, U.S. Navy Commander John M. Poyer, the governor of American Sa-

moa, learned of the pandemic in other parts of the world by reading the daily *Press Wireless*. On November 3, 1918, the S.S. *Sonoma* from San Francisco arrived in Pago Pago on the island of Tutuila, American Samoa, but its two sick people were placed in quarantine, as were three passengers who intended to stay on the island.

On November 23, Poyer ordered a rigorous quarantine on all vessels coming from disease-ravaged Upolu in Western Samoa, along with a ban on travel to the island. Visitors were not allowed ashore until several days had passed in which their temperature and overall health were carefully monitored and pronounced acceptable. Even mail from Western Samoa was quarantined. A Western Samoan craft ordered to pick up and deposit mail at a mail steamer in American Samoa was not allowed to do so until a quarantine of five days had passed, by which time the mail steamer was gone.

Poyer expected that Western Samoans fleeing the epidemic would try to sneak into American Samoa in small boats under cover of night. He therefore requested the help of Samoan leaders in Tutuila to prevent any unauthorized landings on the island. Eager to avert an epidemic, the Samoan people launched a round-the-clock patrol of their own shores.

Other measures besides quarantine were taken. Mail was fumigated. Dockworkers were required to wear masks. A vaccine was administered. Not until 1920 were the quarantine ordinances rescinded.

No cases of, and no deaths from, Spanish influenza were reported in American Samoa.