

A Case Study on the Spanish Flu 1918 - How it burrowed Into the City of New Orleans

Nabanita Mukherjee

Indian Institute of Health Management and Research (IIHMR) University, Jaipur – 302029, India

Abstract: *The influenza outbreak killed more people in New Orleans than had died even in the very worst yellow fever epidemics. How did the outbreak turn into this destructive form initially, health workers misjudged the virus' threat. Citizens have not heeded advice to stop public demonstrations, and have opted to attend parades and protests. Victims died instantly, often within hours following an illness. The advent of the ship represented New Orleans' first exposure of a disease that eventually killed at least 40 million people around the world — and forced health care providers here and beyond to enforce the same kind of social distancing steps that officials have requested in the face of the current coronavirus threat: quarantine of the infected, quarantining those exposed to them, the prohibition of mass gatherings and public interactions. They acquire time to study, physicians, and hospitals to treat the current patients without comorbidities collapsing in the health care system, researchers to develop vaccines for others, and drug companies to generate and administer the vaccination. But New Orleans took longer than many other large U.S. cities in 1918 to begin implementing social distancing measures — seven days after the local death rate rose on Oct. 1. And New Orleans had their sanctions lifted fairly early: after 78 days. Social distancing may be the best solution if viewed purely from the viewpoint of public health, they say, but these are the decision-making government officials, and they have to calibrate public health, timing, economics, and common opinion. The epidemic that lasted until 1918-1919, is considered the deadliest pandemic in human history. Today, as the world is grinding to a halt in reaction to the coronavirus, the 1918 epidemic is being examined by scientists and historians as clues to the most successful way to avoid a global pandemic. The then-implemented attempts to curb the spread of flu, may give lessons for combating the curb the illness.*

Keywords: Influenza Flu, New Orleans, Social distancing, pandemic, public health, coronavirus

1. Introduction

The dawn of the outbreak in New Orleans

An oil tanker arrived at New Orleans port on September 16. Five crew members were on board sick with influenza. Another crew member, who worked the ship's radio, was confirmed to have died from pneumonia while at sea. The ship was inspected by city health inspectors who promptly quarantined the vessel in the river across from the immigration station upon finding the ill persons. Two days later, influenza had spread to five additional crew members aboard the ship. The sick men were expelled from the tanker and brought to hospital Belvedere. The United Fruit Company cargo ship Metaphan arrived in New Orleans laden with bananas from Colón, Panama the next day, 19 September. Fifty citizens had 86 crew on board, and fifty soldiers, among whom 11 had developed influenza. Influenza was now in New Orleans. New Orleans newspapers reported the city's first regional death from influenza on September 29. A steamer with 56 contagious people arrived on October 2, at the naval station in New Orleans' Algiers portion.

An advertisement in the October 17 Times-Picayune admonishes readers to stay home. (THNOC, 82-099-L)

The infected men were sent to an isolated building on the Belvedere Sanatorium; the naval station had already more than 150 cases and could no longer handle them. It was clear by the end of the first week of October that the influenza situation in New Orleans was fast growing out of hand. The New Orleans Board of Health officially made influenza a compulsory reportable disease with 7000 active cases on October 7. Despite this, a total of 4,875 more cases were recorded in just the two days of 12 and 13 October.

Spanish Flu – How it engulfed the crescent city?

The rapid spread in three deadly weeks

The influenza outbreak killed more people in New Orleans than had died even in the very worst yellow fever epidemics. How did the outbreak turn into this destructive form? Initially, health workers misjudged the virus' threat. Citizens have not heeded advice to stop public demonstrations, and have opted to attend WWI relief parades and protests. Victims died instantly, often within hours following illness. There were 3,362 influenza-related fatalities in New Orleans between September 8, 1918 and March 15, 1919—nearly one percent of the town's population and about twice the average rate. On 5 October the outbreak spread quickly through the South, and around mid-October the disease exploded in New Orleans. Since overcrowding has been identified the primary culprit of contagion, health authorities have suggested every way of keeping people isolated. Doctors and the media warned people to stay home from the scheduled Canal Street parade on September 28 for the Fourth Liberty Loan — an attempted social distancing — although Americans were



widely encouraged to indulge in all of these war recovery efforts. Such notices were not heeded by citizens and Canal Street and the parade path filled over. A war rally at Lafayette Square on October 5 attracted 50,000 people, and a few days later thousands packed up the Orpheum-St Charles Theatre to purchase Liberty bonds. With fresh cases of influenza, the city was washed within days. Most families had at least one member who was ill. Several provisional hospitals on influenza decided to open to care for the critically ill. The epidemic had also taken on an economic toll. Sellers recorded lower revenue, small-scale businesses and restaurants attracted fewer customers.

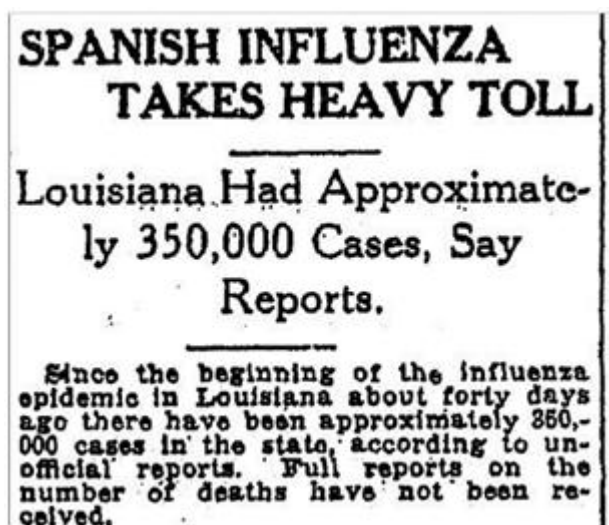


Nurses in Washington, DC, demonstrate how to carry an influenza patient on a stretcher. (Library of Congress)

The events as they occurred in New Orleans – The rolling out of the disease in the city of Louisiana

September 16, 1918

A wireless operator from an oil tanker anchored near New Orleans had died at sea from pneumonia. When representatives of the City Board of Health visited the ship, they found five cases of influenza. The ship was quarantined for the time being.



Headlines show the impact of Spanish flu in Louisiana. (National Archives)

September 19, 1918

The oil tanker crew members suffering from influenza were transferred to Belvedere Hospital.

September 28, 1918

The quarantine of the isolation ward at Charity Hospital was lifted. There were six patients sick with influenza, one of whom died. The remaining patients had recovered.

September 30, 1918

There were 150 cases of influenza at the Algiers Naval Station, and three cases at Charity Hospital. A steamship, El Monte, arrived that day with eight cases of influenza aboard.

October 2, 1918

New Orleans had 150 cases. Algiers Naval Station reported 45 new cases, and Camp Martin had 40 new cases.

October 8, 1918

All public schools were to be closed to counteract the spread of influenza.

October 9, 1918

The authority to close schools, places of amusement, and churches, and to prevent people from congregating in public. Dr. Dowling estimated that there are 7,000 cases of influenza in New Orleans.

October 26, 1918

It was thought that the epidemic is improving. The influenza vaccine was then available for general use.

October 30, 1918

New Orleans reports 326 cases that day. This was the lowest number reported since the epidemic arrived.

February 7, 1919

Based on the number of new cases reported, it appeared that influenza is nearly eradicated in New Orleans.



Soldiers in New York are shown wearing masks to slow the spread of the pandemic. (National Archives)

New Orleans had not absolutely controlled the pandemic. The mitigation measures that were in place were although enough, but not at all followed by the citizens of New Orleans. People preferred to go to rallies and protests despite the pandemic situation. The hospitals got more and more overwhelmed by the rise in the number of cases and the health authorities continues to impose several restrictions on the citizens. The schools and workplaces remained closed for months after the outbreak. The town witnessed a small rise in the number of new influenza cases

registered by doctors in early December. The spike continued all through winter of 1919, with at its peak on January 14 with 524 cases recorded. New Orleans has had so many infections that administrators at the Charity Hospital have handed their services completely over to treat the victims of influenza. Through early February, New Orleans' number of new cases had at last reduced to some extent. Robin, Corput and Dowling were the three doctors that worked tirelessly for getting the city rid of the pandemic situation and managing the overwhelming patient flow in the hospitals.

By the time the pandemic ended the next year, New Orleans had reported 734 more deaths from influenza and pneumonia than usually anticipated per 100,000 people — a rate higher than all U.S. cities, according to the 2007 report. Works to the church resumed on 3 November. Soon thereafter schools and other businesses opened. New Orleans observed a shorter lockdown, i.e., of 78 days following the first death by the pandemic in the city. Spanish flu returned in January to claim out 763 lives. But the misnamed flu had gone down with the start of spring. This outbreak in New Orleans portrayed the effective working of the health organizations and authorities at times of health emergencies that insists us to take a peek in the New Orleans model of controlling the pandemic.

Special Stories – The Spanish Flu

The Armstrong Story – survival during the Spanish Flu

After surviving through the First World War, Louis Armstrong witnessed the Spanish flu epidemic, the great depression, World War II, the cold war, and the Vietnam conflict.



Armstrong's explanations of his 1918 influenza pandemic experience — as he recalls on his typescript page in 1954. Yet he recalled it from the viewpoint of a vigorous, 17-year-old musician — who appeared to be fighting the flu in some way. He devotes no more than two pages to the flu, which in October of that year struck the town hard. According to the Influenza Wiki, New Orleans city officials "acted immediately," having discovered the epidemic, arrived the month before by cargo ship. The closing of "other places of entertainment" took a significant toll on a poor young artist making a living playing clubs and riverboats. The loss of income is what appears to have affected Armstrong the most when he returned from travelling to the area, still uncertain whether the Great War would end. Whatever "physic" helped Armstrong escape illness; it wasn't due to lack of exposure. Instead of playing

the trumpet, he began caring for the ill, because all the hospitals were totally overcrowded, including those that would accept black patients. These things, not even a flu pandemic, do not get him down. He was one of the lucky ones but for him one has to imagine how hard it must have been.

The story of three men who lead the way to make amends amidst the pandemic –

Robin, Corput and Dowling

Three men – Robin, Corput, and Dowling – all played a significant role in the pandemic response, continuing to work at the local, state, and federal levels to organize assistance and resources and enforce health policies. Amid the frequent opportunities for resentment involving them, the team seemed to always serve together very well. When the United Fruit Company cargo ship arrived in New Orleans on September 19, there were 86 crew of fifty people on board, and fifty troops, 11 of whom had acquired influenza. The sick personnel were transferred to a post-hospital in the Lower 9th Ward in the city's Jackson Barracks. Dr. Oscar Dowling, President of the Health Board of Louisiana, instantly quarantined the ship for 48 hours while Dr. William H. Robin, Health Superintendent of New Orleans, collected throat specimens from those onboard for influenza screening. The New Orleans Health Board decided to make the influenza a compulsory reportable disease on October 7. Dowling estimated that there were at least 7,000 active cases in New Orleans in the state health departments, and felt it was time to take action. He issued a circular that afternoon to all local health officials across Louisiana, urging them to consider closing public gathering places. Robin and the Board of Health of New Orleans immediately acted. The next day, 9 October, Dr. Robin ordered that all school theatres, cinemas and other places of entertainment be closed and that public gatherings be prohibited. Hospitals began overwhelming with cases of influenza and pneumonia. Local Americans Representative of the Public Health Service Dr. Gustave M. Corput sought to obtain extra hospital space for those in operation at nearby naval and military facilities dedicated to the treatment of the influenza. Corput, also interested in looking for military hospital beds, extended his work with the Red Cross to ensure that civilians still had adequate emergency medical services, personnel, and supplies.

Responses from the Public Health team – Managing the outbreak

2. Public Health Measures

Corput and the Red Cross shifted their focus to the Sophie Gumbel building on the alms-house land in Touros-Shakespeare, a suitable choice for transformation into a 300-bed urgent care centre. Because the city health authority did not hire nurses, the National Defence Council's Women's Committee and the Red Cross collaborated together to hire the emergency room nurses along with physicians. Sadly, such new facilities have not been nearly adequate. On October 20, the day the Gumbel emergency hospital opened, more than 2,000 cases of influenza were registered, and subsequent days saw only a

rise in that number. The Benevolent and Protective Order of Elks set up a free dispensary to provide the poor with medicine and food, and organized 18 doctors to provide their services. Scientists at Tulane University produced and manufactured a local-use vaccine. At Corput's order, Surgeon General Blue named fourth year medical students to support New Orleans during the crisis as an assistant to the United States Public Health Service surgeon. When doctors reported 1,474 cases on October 25, Robin claimed the epidemic peak had been reached and warned residents to remain vigilant, the same was reported by nurses and doctors at the hospitals and emergency facilities in the city. Corput, Robin, and Dowling met on Friday, October 29 to discuss the possibility of permitting the churches to reopen. Dowling agreed the churches must reopen in the state. A week later, the trio convened again, on November 6. In mid-November Corput proposed the lifting of all remaining bans across the state. Robin released a declaration later that afternoon allowing this date for New Orleans, while this ban on public wakes remained unchanged for some time. On November 11, against the background of a wildly celebrated Armistice Day, Louisiana's War Finance Brigade declared that it would assemble daily at New Orleans' Hotel Grunewald, considering the fact that public events were still prohibited for another five days. Acting Governor Mouton bared this act of defiance, telling workers that if they disobeyed Dowling, they would not face arrest. With the order to close due to expire soon, Dowling, Corput, and Robin simply let the matter rest. On November 18, Corput declared the outbreak over with the New Orleans Company and schools returning to their regular operations once again. The town witnessed a small rise in the number of new influenza cases in early December. The spike lasted throughout the winter of 1919.



Headlines from 1918 show the steps taken to stop the spread of the Spanish flu in New Orleans. (National Archives)



Seattle police officers don masks to fight the spread of the virus. (Wikimedia Commons)

New Orleans has seen so many outbreaks that administrators at the Community Hospital have turned their facilities completely over to care for the victims of influenza. Also, with the disease Dowling himself became ill. Believing that selectively closing some areas while encouraging the public to gather in others would be pointless, Dowling simply let the epidemic run its course. The number of new influenza cases in New Orleans had gradually reduced by early February. The situation wasn't troubling in New Orleans, Robin and Corput agreed, and affirmed that existing institutions were adequate to provide treatment. The spike was treated very well by New Orleans, and on February Robin proclaimed this war with influenza to be over.

Medical services

Since there were no antiviral drugs to treat the virus and no antibiotics to treat secondary bacterial infections, doctors would rely on a random range of effective medicines such as aspirin, quinine, arsenic, iodoquin, strychnine, Epsom salts, castor oil, and iodine. Traditional medicine treatments were also applied, such as bloodletting, Ayurveda, and kampo.

Information dissemination

Several nations participated in wartime censorship because of World War I, and discouraged pandemic news. Of example, it was forbidden for the Italian newspaper *Corriere Della Sera* to publish death tolls every day. Additionally, the newspapers of the time were typically paternalistic and worried with mass hysteria. Misinformation was spreading alongside the disease, too.

3. Conclusion

Lessons learnt from the fight of New Orleans

The advent of the ship represented New Orleans' first exposure of a disease that eventually killed at least 40 million people around the world — and forced health care providers here and beyond to enforce the same kind of "social distancing" steps that officials have requested in the face of the current corona virus threat: quarantine of the infected, quarantining of those exposed to them, prohibition of mass gatherings and public interactions. Such initiatives were not eradicating the flu or other illnesses. But there's wide consensus they can help greatly to restrict the

spreading. They acquire time to study, physicians and hospitals to treat the current patients without comorbidities collapsing in the health care system, laboratory researchers to develop vaccines for others, and drug companies to generate and administer the vaccination. An analysis of how 43 major U.S. cities responded to the influenza pandemic of 1918-19 revealed that those using numerous "nonpharmaceutical treatments" and promoting them for extended durations appeared to be more likely to reduce the number of fatalities. Just at time, Louisiana and New Orleans had some of the country's finest public health officials, said John Barry, who wrote the bestseller, "The Great Influenza: The Epic Tale of the Deadliest Plague in History." and besides, the city had a strong record of yellow fever epidemics, and only four years earlier had experienced a highly infectious threat of plague that killed ten. But New Orleans took longer than many other large U.S. cities in 1918 to begin implementing social distancing measures — seven days after the local death rate rose on Oct. 1.

The town leaders then shut schools, churches and theatres and banned large-scale gatherings such as sporting activities and public funerals and weddings, but left open lounges and restaurants. In late hopes of keeping passengers safe from each other's coughs and sneezes, they waited four more days to reduce the passenger cap on streetcars. And New Orleans had their sanctions lifted fairly early: after 78 days. According to the 2007 report, by the time the pandemic ended the following year, New Orleans had reported 734 more deaths from flu and pneumonia than predicted per 100,000 people — a higher rate than all U.S. cities except Philadelphia and Pittsburgh. Compulsory social distancing, to be sure, will upend society. More worrying is that school delays are wrecking work schedules and budgets for parents. In the meantime, if company staff and consumers are quarantined for two weeks or more, the economy may be nose diving. According to historians and public policy experts, this is what makes the decision to claim it so difficult. Social distancing may be the best solution if viewed purely from the viewpoint of public health, they say, but these are the decision-making government officials, and they have to calibrate public health, timing, economics and common opinion.

The epidemic that lasted until 1918-1919, is considered the deadliest pandemic in human history. Today, as the world is grinding to a halt in reaction to the corona virus, the 1918 epidemic is being examined by scientists and historians as clues to the most successful way to avoid a global pandemic. The then-implemented attempts to curb the spread of flu in cities across America, may give lessons for combating the current crisis. The lessons so far learnt from

the 1918 pandemic, in light of the current pandemic can be summarized as;

- The Spanish flu pandemic, as destructive as the current pandemic might be, remains the worst in world history — by far, as said by Thomas Ewing, a Virginia Tech history professor in Blacksburg. By 1918 and 1919, when three waves of Spanish flu spread through the world, at least 50 million people had died, including 675,000 Americans.
- Main variations exist between 1918 and the pandemic at COVID-19. They didn't actually understand that it was a virus. There had been years of microbe studies, and they knew that it was transmitted person-to-person by respiratory drops, coughing and sneezing, but viruses were not identified until the 1930s, because they didn't have enough strong microscopes. As a result, testing wasn't only difficult to get through. It had simply not originated. Also, Spanish flu was more contagious than COVID-19, triggered symptoms even more quickly and was much more lethal. And contrary to COVID-19, which presents the greatest danger to the aged, Spanish flu has indeed been affecting the young.
- Notwithstanding these variations the similarities are still compelling between 1918 and 2020. For both cases, there was also no vaccine and no cure for the disease, along with an overwhelming fear that a healthcare sector under pressure might collapse.
- The most powerful immediate response to both pandemics has been social distancing, Nichols said. Back then it was called 'crowding' control but whatever one could term it, in 1918 it worked to restrict communication. So, the sooner systematic closures so social distancing is enforced, the faster a pandemic can be put under regulation.
- Many who have lived through the Spanish flu learned the hard way to learn the lesson. In 1918 you were witnessing a conflict between biological reality and social reality. Biology is not immune to transition but behavior is. So indeed, in 1918 social distancing was completely a thing and it succeeded where it was done.

Such statements, taken together, provide a sobering reminder of the risks of disease outbreaks and the shortcomings of our preparation and reaction. Although there were many developments since 1918, the threat of emerging infectious diseases remains, as does the danger of both despair and negligence. I believe that remembering the experiences we have gained and those we are still striving to learn will help us to stop the loop, so that the tragedies of 1918 can never repeat themselves.



Author Profile



I am **Dr. Nabanita Mukherjee**, a former dental surgeon currently pursuing my post graduation in Indian Institute of Health Management and Research Jaipur. I have been keenly associated with the health research domain since my under graduation studies in KIIT University, Bhubaneswar. I am looking forward to working and contributing towards vital health research in future.