San Franciscans celebrating Armistice day, 11 NOV 18

Lasting Impact of 1918-1919 Influenza

Studies of the lasting results and lessons learned from the 1918-1919 influenza are wide spread and at times contradict each other over best prevention practices. Efforts that worked within one U.S. city or Army Camp were not as effective or applied in the same way at another. The most dramatic non-pharmaceutical interventions during this time came in the form of city wide quarantines, wearing masks, regulating businesses as well as education as to better hygiene practices. Medical community studies of the 1918-1919 influenza pandemic combined with growing information about pandemics back to the 16th century, have led to a general consensus that influenza viruses generally have a pattern of three waves. The major difference between earlier pandemics, prior to 1918, was that the multiple waves occur over multiple years. The 1918-1919 pandemic had three waves (peaks) largely within a ten month period. For the U.S. these waves were: March to May; September to December; and January to March 1919. While all three of these waves are connected by a common base strain of influenza virus, the strain had mutated or combined with others at least once during the ten months which increased its virulence and/or ability to spread rapidly. The second wave of the virus became the deadliest of all three especially among a younger and healthier population aged 18-40. The cause of this is still debated. The same strain of influenza would be noted in human patients as late as 1929. However, due to many factors, largely herd immunity, better hygienic practices, and improved medical practices, the death toll would be greatly reduced in years following 1919.

A 36 city study was conducted and concluded that, with a few exceptions, the cities who had implemented and enforced social distancing earlier and longer fared better by 30 to 50 percent lower morbidity rates. Each city had different factors that came into play, such as enforcing face coverings, gathering sizes and what schools, churches and businesses remained open. Medical treatments also varied such as ability to meet the need for medical capacity and following the Army's lead in determining the open air and sunlight improved affected patients health in establishing outdoor field hospitals.

Just like today, as additional layers of protective orders were implemented by these cities so came community push back. The San Francisco Board of Health reported its first case of influenza on 23 September, 1918. Within two days there were over 2,000 newly reported cases. The city recommended citizens avoid street cars, and public gatherings, pay better attention to their personal hygiene, and mandated the wearing of face masks or coverings. The infection continued to spread rapidly making the mayor compel to the public's "conscience, patriotism and self-protection demand immediate and rigid compliance" with an order to wear masks. While the vast majority of San Franciscans followed the order, police arrested 110 people on 27 October alone for failure to either wear or keep their masks properly adjusted. Each was charged with "disturbing the peace," and the majority given a $5 fine, with the money going to the Red Cross. There was even a report of a health officer shooting three people after one refused to wear a mandatory face mask. An Anti-Mask League was even formed in an attempt to legally fight the city on the "unconstitutional masks."

On 21 November with flu deaths declining and public outcry growing louder, the Mayor rescinded the order for wearing ace masks and lifted the partial quarantine. However, the celebrations were short-lived. On 7 December, infection rates increased dramatically, the city once again publicly declared that influenza was an epidemic in San Francisco and requested (not ordered) that residents once again don their masks. The epidemic finally slowed by early February but not before there were nearly 45,000 cases of influenza and over 3,000 influenza deathsh. The city would deal with higher than average flu deaths well into April prior to returning back to normal levels.

Open air court, San Francisco 1918

The Army dealt with its own share of problems during the pandemic as it tried to control outbreaks at its training camps and mobilization centers. These camps were a perfect breeding ground for influenza. In some cases the outbreaks were so wide spread that entire camps were quarantined and units were restricted from leaving the U.S. The American First Army Chief Surgeon in France commented that "influenza so clogged the medical services and the evacuation system, [and] rendered 'ineffective' so many men in the armies that it threatened to disrupt the war." Of these influenza cases, nearly one third developed pneumonia, and the mortality rates varied from 20 to 40 percent at different points of the epidemic.

As was discussed earlier, the wide variety of differences in Army Camps caused different responses and treatments. Most Army camps began to require Soldiers to be quarantined 14 days prior to movement into or out of camps and attempted to isolate civilians from entering the camps as well. It is of note that Jefferson Barracks, located north of St. Louis, had a bad outbreak of influenza and a civilian congressman from the state decided to visit against medical staff advice. He ended up being one of St. Louis's first deaths from the flu. Many of the camps began requiring soldiers to wear gauze or cloth face covering, however due to shortages in many locations the rule was not enforced. Isolation, hygiene, and treatment of Soldiers in open air camps were the major factors that seemed to have some impact upon the Army's attempt to slow the spread.

In conclusion, it is difficult to accurately pinpoint, specific practices that seemed to have had a universal impact due to the many layers and outside influences on each location in reducing the spread of the flu. However, it is felt that the cities and Army Camps that started strictly enforcing quarantines and social distancing as well as facemasks early fared better. These cities also tended to be quick reinstate the regulations if cases began to rise again.

U.S.ARMY

ON THE LINE

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