Impacts of 1918 Spanish flu pandemic (H1N1) in India

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Abstract
The period from 1870s and end of the 1910s can be called ‘the age of famines and epidemics’ in British India. In this period, the death toll from these epidemics was high. Similarly, the influenza pandemic of 1918-1919 known as the greatest medical holo-caust in history and counted the mother of all pandemics. It learnt from Spanish flu of 1918 that how pandemics interact with social divide across communities. It was revealed that India was the only country where more women died than men. Also, India was the country which bore the greatest burden due to this suffering. It was an estimated that 18 million casualties which accounted for about 6 per cent of the country’s population at the time. weekly death rate in three key Indian cities, Bombay, Madras, and Calcutta. Bombay, the westernmost of the three cities, was thought to be the entry point of the virus into India. Paper explores a question what were the impacts of 1918 pandemic in India.

Keywords: Pandemic, British India, agriculture stagnation, health services, women and H1N1, impact on society

Introduction
The period from the beginning of the 1870s to the end of the 1910s can be called ‘the age of famines and epidemics’ in British India. The population growth rate was very low (0.37%) due to the many mortality crises such as famines and epidemics. Eleven famines occurred during the second half of the nineteenth century. At least three (1876–78, 1896–97, and 1899–1900) out of the eleven were great famines, resulting in millions of deaths. For example, it is estimated that about 5 million people died in the 1876–78 famine, though one estimate puts the total at 8 million. During this period, there occurred many epidemics, such as cholera, malaria, smallpox, plague, and influenza. The death toll from these epidemics was extraordinary (Kohei, 1996; McAlpin, 1983b, Maharatna, 1996) [6, 7]. At the time of the pandemic, India had been under British colonial rule for over 150 years. The fortunes of the British colonizers had always been vastly different from those of the Indian people, and nowhere was the split more stark than during the influenza pandemic. When the first wave of the pandemic arrived, it was not particularly deadly. The only notice British officials took of it was its effect on some workers.

How this Pandemic became havoc for Indian Society?
The influenza pandemic of 1918-1919 has been called the greatest medical holo-caust in history and the mother of all pandemics. Most of the research indicates that global mortality during this pandemic exceeded 21.5 million (Chandra et al. 2012) [4]. It was found that there is massive over-reaction of body’s immune system and this is considered to be the main reason of death in many cases. So, this must have caused a more vulnerability in young population. However, studies have proved otherwise. Inter-group and Inter-regional patterns in India depicts greater mortality among the weaker sections of populations. In Bombay City, mortality was three times more among lower caste Hindus (presumably poorer) than other Hindus. It was a grim situation when compared with Europeans. There is also a strong correlation among mortality in 1917 and mortality in 1918. There is a vivid indication that in areas where negative shocks already existed were more vulnerable to epidemic.

One of the most salient aspects of the flu pandemic of 1918-1920 was the heavy toll on the young adult population. The pandemic is recognized as having generally taken place in three waves, starting in the northern spring and summer of 1918. The first wave was relatively mild. So, It didn’t attract much attention.
The second wave engulfed the world in the northern autumn and was followed by another, less-severe wave in early 1919 (Johnson and Muller, 2002). A final wave of the Spanish flu was witnessed in the early months of 1919 and finally it vanished in March 1920. The Indian experience of the deadly Spanish flu of 1918 depicts how pandemics interact with social divide across communities. A ship carrying Indian troops reached the shores of Bombay on the 29th day of May in 1918. It remained anchored to the city’s docks for about 48 hours. The world was on its last leg of the First World War, so the Bombay ports were usually busy with the movement of troops and goods back and forth from England. The ship, thus, remained an inconspicuous visitor on its waters among the humdrum of activity around it. However, the city was not prepared for some unusual cargo that had come unknown to anyone on the ship: lethal strains of the H1N1 influenza virus right from the trenches on the Western front (Kapoor, Apr 03, 2020).

From the hilltops of Shimla to the isolated villages of Bihar, every nook and corner of the country was affected. The speed and devastation wreaked by this pandemic was overwhelming. In single day, In Bombay, 768 people died on the 6th of October in 1918. At that time, renowned Hindi poet, SuryakantTripathi who is known as ‘Narula’, wrote in his memoirs that “Ganga was swollen with dead bodies.” He lost his wife and many members of his family due to this pandemic but could not find enough wood to perform their last rites. Even at that time, Mahatma Gandhi was also infected with the flu in its second wave. With the Spanish flu, there were many other anomalies who were infected at that time (The Economic Times, 2020). Apart from gender, the divisions in mortality rates from the Spanish flu also ran across community lines. The mortality numbers from the second wave show the stark impact that birth and affluence can have on surviving an epidemic. Over 61 lower caste Hindus died per 1,000 in the community while merely 18.9 caste Hindus (sic) per 1,000 from the community lost their lives. Lower caste Hindus were mostly engaged as sweepers and scavengers, so it made them highly vulnerable to the spread of the virus. Also, they were usually housed in crowded, unhygienic conditions, and had less access to medical facilities. While exposing the deep vulnerabilities that existed across colonial India, the flu left some long-lasting effects as well. The British found them incapable of handling a crisis at this scale. So, a lot of local and caste organizations collectively mobilized themselves to assist relief efforts. Such grassroots organizations had existed across India for a while but the flu united them across the country for a single cause (The Economic Times, 2020).

Death totals for British India, which included modern Pakistan and Bangladesh, are by far the highest for any single country and provide the largest single source of uncertainty for Asian and World mortality totals. The first British estimates were that about 6 million died, but the authorities later revised this to 12.5 million (Patterson and Gerald F. Pyle, 1991). Instead, the virus wreaked havoc through the subcontinent, following trade and postal routes. Catastrophe and death overwhelmed cities and rural villages alike. Indian newspapers reported that crematoria were receiving between 150 to 200 bodies per day. According to one observer, “The burning ghats and burial grounds were literally swamped with corpses; whilst an even greater number awaited removal.” Geography wasn’t the only dividing factor, however. In Mumbai, almost seven-and-a-half times as many lower-caste Indians died as compared to their British counterparts - 61.6 per thousand versus 8.3 per thousand. Among Indians in Mumbai, socioeconomic disparities in addition to race accounted for these differing mortality rates (Chunn, 2020).

Although there did not seem to be any economically disruptive ‘lockdowns’ in 1918 like the ones we are currently witness to in 2020, the period saw serious economic dislocations, as workers and professionals were grounded by the disease. Unlike COVID-19, which is known to attack relatively older people more severely, the ‘Spanish’ flu in India severely affected people in the working age group who were between 20 and 40 years of age. From mines to textile manufacturing units and agricultural fields to the docks, workers belonging to most sectors of the Indian economy were directly affected by the disease. In Bombay presidency, the aforementioned monsoon failure and the reduction in workforce that this illness lead to meant a 19% reduction in the area under food crop cultivation, thus contributing further to food shortage in the country. The pandemic left deep scars on an already battered war-time Indian economy (Vishwanathan, 2020).

Even within countries, it was the poor and the deprived that bore the brunt of the disease, as examples from British India will amply indicate. In 1918, vast parts of India faced famine-like conditions due to the failure of the south-west monsoon. Famine was officially declared in two Indian provinces— Central Provinces (includes parts of today’s Maharashtra, Chhattisgarh and Madhya Pradesh) and the United Provinces (today’s Uttar Pradesh)— while the lack of rains also seriously affected areas in Bombay presidency. It was these famine-stricken regions which were most severely affected by the disease.

For instance, the Central Provinces registered the highest mortality per 1000 people due to the disease at 67.6, followed by the Bombay Presidency at 54.3 and the United Provinces at 47.2. The corresponding rates for Madras Presidency (15.8) and Lower Burma (16.2) were in the range of the global average rate of between 13.6 and 21.7 per 1000 people (ibid).

Surprisingly, it is the fact that India was the only country where more women died than men across all age groups. Scholars stated that it might have been due to the fact that women usually ate less well than men. So, the women were more likely to be malnourished than men in Indian society. Moreover, it was also argued that women were more likely to treat the sick and, hence, more prone to the disease.

In drastic impact of Spanish flu in Indian economy and society, this flu killed an estimated 18 million Indians that was the largest in any country in the world. It was also becoming an instrument in uniting the people against the British rule. It became very clear in the mindset of Indians that the British government had ignored the healthcare in the country. The medical infrastructure was a disaster. Spanish flu caused widespread suffering. It disrupted the economy and infrastructure (Krishna, 2020).

“Spinney, author of Pale Rider: The Spanish Flu of 1918 and how it changed the world, says: “People were dying in droves and in the absence of any British doctors. The British doctors...were very often at the front as well the hole was even more glaring” (Krishna 2020).”
The impact of the disease was exacerbated due to prior encounter with bubonic plague, by military recruitment and the war, and by food shortages and price rises that pushed India to the brink of famine. Subsumed within a dominant narrative of political unrest and economic discontent, the epidemic barely found any expression in official documentation, public debate and/or even private correspondence (Arnold, 2019) [1]. The colonial authorities also paid the price for the long indifference to indigenous health, since they were absolutely unequipped to deal with the disaster. Also, there was a shortage of doctors as many were away on the war front. However, most of the NGOs and volunteers started to help weaker sections’. This was a silver lining in the gloomy skies of those times. They set up dispensaries, removed corpses, arranged cremations, opened small hospitals, treated patients, raised money and distributed clothes and medicine. Civil Society also played a vibrant role i.e. most of the citizens formed anti-influenza committees and it was s realized that never to before, perhaps, in the history of India, have the educated and more fortunately placed members of the community, come forward in large numbers to help their poorer brethren in time of distress. This was essential example of ‘Service of Mankind’ which is deeply rooted in the cultural ethos of our great nation. It was mentioned in most of the reports (Biswa, 2020). Negative repercussion of this flu can also be seen on financial markets where higher flu death rates led to reduced real rates of return on stocks and on short-term government bills, as well as to higher inflation rates. The overall flu death rate of 2.0 per cent corresponds to an estimated decline in real returns by 26 percentage points on stocks and 14 percentage points on bills (Baroo, 2020) [3]. Astonishingly, studies stated that in India, the disease didn’t affect the British and the privileged much, as they lived in large spacious houses. But among the rest of the country, there was devastation. It led to shortage of wood for cremation and rivers and drains were filled with bodies. It reduced the birth rate in next year by up to 30 percent. Thus the resentment enhanced which was already brewing against the British. This have played a crucial role in stirring up anti-colonial sentiment among Indians (Chandra et al., 2012) [4]. Excessive stimulation of the immune system culminated in more deaths in young adults. Thus, young adults with a stronger immune system were more prone to die from the disease in the 1918-19 pandemic. The constant genetic mutation of the antigens of the influenza virus determines its variable epidemiology manifestations from place to place.

Responses to the pandemic
The colonial government’s response was directed along two lines – relief and research. However, on both these counts, its efforts proved inadequate to handle the severe onslaught of the virus. In 1918, India’s medical system was in urgent need of expansion and it was concentrated in its cities. Wartime deployment meant that even this system was further depleted of its personnel. Private medical practitioners were available but they charged exorbitant charges, using the pandemic as an opportunity to make money, thereby making medical care even more expensive to the general populace. A large section of medical practitioners were themselves struck down by the disease, and were incapacitated at a time when they were needed the most, highlighting the importance of providing adequate protection to the health workers at the forefront of treating contagious diseases.

In Bombay city, as the incidence of the disease began to peak, hospitals were overflowing with patients and crude versions of dispensaries were raised on the road sides to provide medical relief in an effort that roughly parallels the construction of makeshift hospitals in many parts of the world following the recent outbreak. The colonial government met the virus outbreak with a lackadaisical attitude and helplessness, and found isolating a large number of patients affected by the virus ‘impracticable’. The Bombay city’s municipal corporation gave a call for volunteers to help as it faced paucity of health workers. Cheap grain shops were opened to provide foodstuff such as milk for free to the patients.

The government’s scientific research work was geared towards developing a vaccine to treat the disease. This effort did not create a big impact as there was lack of clarity in the medical knowledge of that period on disease causation. There was a lack of consensus on what the specific germ that was responsible for this outbreak was. The speculation was ripe at that time that the disease was caused by bacteria, bacillus influenza, and it was not until 1933 that the virus that caused this pandemic was isolated.

Fortunately for India, the pandemic rapidly lost its virulence from December 1918, although, not after claiming millions of lives. One contemporary estimate of the morbidity of the disease put the figure at between 50% and 80% of the population of India. As the epidemic receded in Bombay city, its health officer gave his gratitude to the city’s private individuals and non-official organizations for their voluntary services in carrying out relief work in the city. This effort during the 1918 pandemic was an early precedent to the impressive relief efforts undertaken by a huge number of volunteers in different places in India.

It has been more than 100 years since the devastating Spanish influenza outbreak happened in India. We can certainly learn from the 1918 Pandemic and the one we are facing today that the virus cannot be fought without first fighting Poverty and Hunger. While at the same time, this examination of the past also emphasizes the importance of providing adequate protection to health workers. This examination also shows that co-operation of the state with non-governmental outfits such as civil society groups, NGO’s, trade unions, peasant organizations and the like can certainly be used as important vehicles to direct and deliver short term relief. In the longer term however, huge investments in Public Health Infrastructure should be prioritized to vastly increase capacity to effectively respond to epidemics. In this regard, it seems that even supposedly richer countries seem to have forgotten this very important but basic lesson from the ‘Spanish’ flu.

Conclusion
Thus, the Spanish flu of 1918 was a once in a century happening. It exacerbated the already volatile situation in the Indian sub-continent. People were disillusioned with the self-proclaimed benevolent rule of the Britishers. National sentiments reached all-time high in the sub-continent. This flu was also unique due to its anomalous nature. One of the peculiarities of the 1918–19 influenza pandemic was the unusual age pattern of incidence and mortality, hitting the usually healthy young adults in the 20 to 40 age group most
severely, in whatever part of the globe it struck. The massive relative rises in mortality in young adults and the greater potential economic impact have led to these age groups receiving the lion’s share of attention in the literature.

References
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