The U.S. Response to the Spanish Flu of 1918 and COVID-19

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Introduction

When news of a new strain of coronavirus hit the United States in the first days of 2020, few could have imagined the effect the virus would have on the global economy, international travel, and human life. On March 13, President Donald Trump declared COVID-19 a national emergency, an action that spurred many states to issue stay-at-home orders and lockdown their residents. Only one year later, and the virus has just eclipsed the apex of daily new positive cases. So far, over 25 million people have tested positive for coronavirus, and over 425,000 people have died from it in the United States. Due to the lockdowns, the economy has slipped into a recession, capping off what is being said as the longest bull market in history from the third quarter of 2009 to the first quarter of 2020. Unemployment at its height sat at around 15%, and many were wondering how long it would take to return to its pre-pandemic level of 3.5% (FRED, 2021).

However, almost exactly a century earlier, another global pandemic ravaged both the world and the United States. The Spanish Flu of 1918 broke out towards the end of the Great War and devastated divisions of soldiers in German and Allied trenches. The virus also spread to people all over the world— partially accelerated by the end of the war and the soldiers returning to their homes. According to the CDC, the Spanish Flu killed around 675,000 Americans. The COVID-19 pandemic is still not over, and yet it seems that the virus has had a similar impact on the country to the Spanish Flu 100 years earlier. Based on this observation, one would think that the policymakers, medical community, and the executors of the law would have incorporated meaningful lessons from the previous pandemic to help solve the current one.

However, the United States failed to learn three key lessons from the Spanish Flu pandemic: lockdowns were not enacted quickly enough to be effective, the population of the United States is not especially receptive to restrictions for the purpose of curtailing a disease, and the federal system of the US prevents a centrally-administered response across multiple states.

Spanish Flu: Outbreak and Response

Scientists are not totally united on where the virus began, but scientists agree that it quickly came to ravage most of North America and Europe. Conservative estimates have the Spanish Flu pandemic's death toll around 50 million, with the highest estimates of infection at an enormous 500 million (CDC, 2019). According to a mathematical study done by the Proceedings of the National Academy of Sciences of the United States of America, in a hypothetical Spanish Flu pandemic that had no response or effort to curtail it would have seen around 80% of the entire United States population infected. While this number with no effort seems high, experts suspect that still around 1/3rd of the global population contracted the virus—even with all of the actions and regulations undertaken to diminish the effect of the flu. Applying this to United States population numbers, we can estimate around 30 million people were infected in the United States, a quantity of cases that would cause public health policymakers to be met with criticism by modern standards. (Bootsma & Ferguson, 2007). In total, around 675,000 people in the United States were killed from the Spanish Flu of 1918. Working theories have the culpability of the high death toll in Europe to the coordination of the disease with the end of World War 1, when troop counts in the Western Front of Europe were at their highest. The population of the United States at the end of World War 1 were already experiencing the pandemic wash across the country. For example, in Philadelphia, a war parade was held to voice popular support for troops fighting abroad. However, this event caused thousands of new infections in the city (Smithsonian, 2018).

Contrarily, different policy making bodies in the United States did make a good attempt to curtail the effects of the virus. In what is often seen as a foil to Philadelphia's response, St. Louis implemented good social distancing guidelines that were, for the most part, abided. Roos (2020) showed:

> When a flu outbreak at a nearby military barracks first spread into the St. Louis civilian population, Starkloff wasted no time closing the schools, shuttering movie theaters and pool halls, and banning all public gatherings. There was pushback from business owners, but Starkloff and the mayor held their ground. When infections swelled as expected, thousands of sick residents were treated at home by a network of volunteer nurses.

Dr. Max Starkloff was the health commissioner of St. Louis and implemented the infrastructure required to appropriately tackle the disease wave that he knew was coming. Still, the disease made its way through the population of the US, with around 30% of all deaths occurring in October. In a separate example

to both Philadelphia and St. Louis, the city of Chicago did make an earnest attempt to implement regulations to fight the disease. However, the general city lockdown was implemented on October 18; at this point the disease was already so saturated in the Chicagoan population that the quarantine was ineffective.

Covid-19: Outbreak and Response

A century later, the United States would face another threatening pandemic. On January 6, 2020, a strange new form of coronavirus was detected in Wuhan, China. On January 21, the first US case was recorded. Only two days later, Wuhan, the original location of the virus, went into quarantine. In only a month from the first case—now February 6, 2020—over 40,000 people were infected in China. However, the first US lockdown would occur in California on March 19. At this point, over 250,000 people had already been infected with the virus worldwide (AJMC, 2021). The virus had taken the globe by storm, and now nearly every country on earth was crafting policy to inform people on the virus, curtail the spread of the virus through mask campaigns and social distancing guidelines, and combat the virus through vaccine research grants. After the California lockdown, more states started to respond, and the Federal Reserve worked with the Treasury to provide financial support to American citizens and businesses hurt by the lockdowns. The CARES Act, which provided 2 trillion dollars in aid, was passed on March 27, 2020. More economic aid would not be proposed until the HEALS Act that was passed by Senate Republicans on July 27. However, House Democrats did not pass the bill (AJMC, 2021). By July 2, many states were considering wholly reopening their economies, but ultimately decided against it as cases continued to rise. However, daily infections increased in the face of the restrictions, with a then all-time high of 75,600 cases in one day on July 16. According to the Scientific American, this was in part due to coronavirus "rulebreakers" who chose to disobey COVID regulations for various reasons (Bélanger, 2020). Undoubtedly, the coronavirus was a challenge to respond to. As Young (2020) put it:

SARS-CoV-2 is something of an anti-Goldilocks virus: just bad enough in every way. Its symptoms can be severe enough to kill millions but are often mild enough to allow infections to move undetected through a population. It spreads quickly enough to overload hospitals, but slowly enough that statistics don't spike until too late.

In comparison, the response to the coronavirus by the United States was much better than the Spanish Flu pandemic of 1918. However, this is to be expected. The US in 2020 had an entire century's-worth of development in communication and education infrastructure, epidemiology, manufacturing output for protective equipment, technology, and most importantly-- historical knowledge to learn from. However, health officials largely agree that the US has had a comparatively worse response to the coronavirus than other countries. In fact the United States represents only 4% of the global population but 25% of its confirmed cases and deaths.

Comparison of US Responses to Spanish Flu and Covid-19

Timing of Lockdowns

The first major lesson the United States failed to learn from the Spanish Flu pandemic is the speed at which lockdowns and quarantines must come into effect in order to be effective. When a city or area implements a lockdown or even social distancing guidelines, they can be effective, like in the case of St. Louis during the Spanish Flu. However, they must be implemented before the virus takes a large hold on the population in order to have any effectiveness. Lockdowns come at a steep economic cost, as stated earlier, so they need to be implemented at the right time to trade any benefit of less infections from the price of unemployment and negative economic growth. Nevertheless, the cost of delaying a lockdown is even higher. As Kaylor found quoting a study from Tellis, Sood, and Sood:

> The researchers used this method of natural experiments to identify six cohorts of similar neighboring states with different lockdown dates. The comparison of these cohorts yielded the following results. On May 5, they found delaying lockdowns increased total cases by as much as 25%, while failing to lock down a state at all increased the number of positive cases of COVID-19 by as much as 128%.

In a pandemic, the timing of lockdowns is of absolute necessity. Especially in the case of COVID-19, which already had over 250,000 people worldwide by the time the first state locked-down. For a future pandemic, lockdowns must come earlier to truly dampen the damage of the disease.

Public Resistance to Policies

The second major lesson from the Spanish Flu that the United States failed to learn from or implement is the notable public resistance to policies that curtial the virus. People tend to resist public health measures during a pandemic because they are inherently restrictive. The average person in the United States does not understand the complexity of epidemiology nor possible counterfactuals where abiding by regulation decreases the morbidity and mortality of the virus they are currently facing. At the ground level, restrictions are uncomfortable and impede on the liberties that people are used to; the American people are especially used to these traditions compared to other societies around the globe.

For example, take the San Francisco Anti-Mask League during the Spanish Flu of 1918. The city of San Francisco had implemented a city-wide mask ordinance that mandated the public donning of cotton or gauze masks. Naturally, some people in the city were so against the mandate that they actually formed a city special interest group to battle the new infringement on their liberty. This is only one instance of what is probably dozens of similarly-minded groups dedicated to fighting policymakers for their old liberties. Since public resistance to masks happened in 1918, it is no surprise that there was also notable public resistance to masks in 2020 during the coronavirus pandemic. COVID-19 "rulebreakers" had various motivations for the disregard for the regulations. According to Bélanger (2020):

> What can we make of these early findings (people breaking COVID-19 regulations)? A common thread could be what behavioral scientists call "psychological reactance," more commonly known as reverse psychology. In 1966, the American psychologist Jack W. Brehm published a classic theory positing that people believe they have specific behavioral freedoms and when these freedoms are threatened or eliminated, they become motivated to reassert them. In other words, when somebody tells you to do something, you do the opposite.

The underlying issue behind the tendency to revert to reverse psychology for rulebreakers is a lack of trust in the rulemakers. People do not mind relinquishing control or liberty when they have confidence that the person to whom they are relinquishing some control will fulfill the intended desire of the original person relinquishing control for a specific purpose. In other words, people trust the local weather channel when it says that a major storm is coming and they need to stock up on supplies to withstand it.

In an analogous situation, policymakers need to build trust for people when they also say to stock up on supplies and weather the incoming storm. The lack of trust was the catalyst for the reverse psychology. To remedy this problem, policymakers must communicate in language that is understandable to the average citizen, and communicate through trusted figures of cultural significance to build more credibility that the solution is limiting one's own liberties. In many ways, the battle against the coronavirus was like a major nation versus nation war. Sayings like "loose lips sink ships" were commonplace among friends and family that were in correspondence with soldiers on the front. Similarly, efforts to purchase war bonds to assist the war effort were present in television and sports games, which led individual communities to adopt the belief that it was socially expected for them to buy war bonds. In warfare, if public support in the home country is low, the war has already been lost on the front before it has begun. Similarly, for the next battle against the pandemic, if the country is not unified in its willingness to restrict its own individual liberties for the greater good, the war has been lost before it has even begun.

State vs Federal Administration

The third lesson that was neither learned nor incorporated is not apparent at first glance, but is actually the root cause of a higher number of cases. The United States government is organized in a federal format, where powers and duties are split between individual state governments and the overall federal government. In times of peace and tranquility, this proves beneficial as locales are more wired to solve local problems than an overarching federal government. However, in a pandemic, it can prove problematic. Because of the federal system, there can be no centralized legislation or regulation that applies to citizens in all fifty states dedicated to curtailing a virus; it would simply be unconstitutional. The only hope for a unified response is by gathering individual governors or actors on behalf of governors together to consent to a unified plan.

Since, for example, Ron DeSantis (R) of Florida and Andrew Cuomo (D) of New York have vastly different political beliefs, views about the virus, and convictions on the best way to deal with the pandemic for their individual states, a solution like this is unlikely to happen. Because of the lack of a unified federal response, states are left with an "uneven" and mismatched response that can prove detrimental to each state's plan to reopen. For example, California

might hypothetically initiate a lockdown that heavily restricts each resident of California's ability to participate in unessential events that could spread the virus. However, because the neighboring state of Arizona has less population density and is not a major location of international travel, therefore lessening the need for a more draconian lockdown, Californians might choose Arizona as an ideal spot to ride out the worst parts of the pandemics and flee the undesirable restrictions of their home state. Unfortunately, this risks Arizona's individual plan since it was created for Arizona, and not Arizona plus an influx of Californian refugees. Meanwhile, California's own plan could also end up being too restrictive for the state's needs since less people currently reside in it. Similarly, responsibilities become far less clear when the pandemic becomes a real threat. Selin (2020) states the following:

> This accountability problem only amplifies when unelected administrators are thrown into the mix. For example, what if the Food and Drug Administration moves too quickly in approving a coronavirus vaccine that has harmful side-effects? The president will undoubtedly blame faceless bureaucrats in the "deep state," state governors will blame the Trump administration (and likely the president himself) for fast-tracking dangerous drugs, and voters will be left wondering why the government seems dysfunctional. As the 2020 presidential election approaches and voters begin to evaluate elected officials, the ability to hold politicians responsible for their actions is particularly important.

Fortunately, the federal republic we live in has a built-in solution for this problem: democracy. Though the federal system is currently inefficient and lacks a clear provision for pandemics in the constitution, it can be changed for the next pandemic. As of February 2021, an entire year after the coronavirus pandemic has begun, there have been around 2.25 million deaths due to COVID-19. Around 450,000 deaths have occurred in the United States, or around 0.1% of the population in 2021 (330 million) (Johns Hopkins).

Conclusion

Although the pandemic looks to be lessening in terms of daily new cases, it still is not yet over, and vaccine distribution has recently begun. It is uncertain when the current pandemic will officially end, what the casualties will be, or if it will truly "end" at all. What is known for sure is that there will be another pandemic. Perhaps in a century, perhaps less, but when the next pandemic comes, the United States and its policymakers at every level have to incorporate failures from previous pandemics in their full response to the next one.

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