

COVID-19 in Context: A Pandemic in Its Historical Context

Christopher Thomas Anglim, J. D.
University of the District of Columbia

doi: <https://doi.org/10.21467/proceedings.148.2>

ABSTRACT

Mindful of history's value in providing context for contemporary issues, this essay compares selected issues surrounding the effectiveness of government messaging during COVID-19 with previous pandemics and epidemics on selected public policy choices, specifically addressing the role of disinformation, misinformation, and information suppression in contending with disease outbreaks. During the Spanish Flu of 1918, governments worldwide ignored the crisis and suppressed information on the pandemic, because they were concerned that it would interfere with the ongoing war effort. Similar to the impacts of COVID-19, leaders dismissed science in favor of ideology which occurred in the cold war era for several reasons, and with profound impacts. In the case of the Cold War, anti-Communist hysteria led Dr. Albert Sabin to test his anti-polio vaccine in the Soviet Union as opposed to the United States. In exploring various historical parallels to COVID-19, this essay also explores racism, ethnocentrism, and various forms of othering that have historically characterized the response to pandemics, often assigning blame to various "outside" groups. The essay concludes by arguing for science-based solutions to pandemic emergencies (as opposed to ideological-oriented objectives) and argues for a fair, prudent, and judicious balancing of cherished individual rights and individual autonomy, a collective science-based response to public health emergencies, and with the intent to protect the public health of all Americans in a fair, inclusive and equitable manner.

Keywords: COVID-19, Social, Economic Political Aspects; Epidemics; Health Care Policy; Medical History; Pandemics.

1 Introduction

Caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), COVID-19 originated in Wuhan, China, in late December 2019. This disease quickly spread worldwide. On March 11, 2020, the World Health Organization (WHO) formally declared that COVID-19 was a pandemic. COVID-19's impact was devastating, immediate, and widespread. By August 2022, the disease had infected more than 594 million people (44% of the world's population), killed nearly 6.45 million people worldwide (including more than one million Americans), and wreaked havoc on global public health, the environment, and the economy. In so doing, COVID-19 became one of the deadliest and costliest pandemics in world history.

In addition to COVID-19, there was an increase in other infectious diseases. This was the first significant increase in over a decade of worldwide TB cases due to the COVID-19 pandemic. An estimated 10.6 million people contracted tuberculosis (TB) in 2021, an increase of 4.5% from 2020 (1.6 million people died from TB including 187,000 among HIV-positive people). The burden of drug-resistant TB (DR-TB) also increased by 3% between 2020 and 2021, with 450 000 new cases of rifampicin-resistant TB (RR-TB) in 2021 (Lindmeier, 2022). COVID-19 was a primary driver of TB increases for two reasons: 1) disruptions in access to



TB services and a reduction in resources. In many countries, human, financial, and other resources were repurposed from treating TB to responding to COVID-19, and 2) TB patients encountered increased difficulty in finding care due to increased COVID-19 lockdowns (World Health Organization, 2021).

This essay places the public response to the COVID-19 pandemic in its historical context by focusing on how American society and government responded to previous major public health crises in the past; the effectiveness of the government and social response to COVID-19, and the effect of the epidemic and response to it on the nation's economy and education system. In covering the various responses to COVID-19, this essay discusses the role of disinformation, misinformation, and information suppression in contending with COVID-19, whether for political or commercial advantage. Finally, this essay compares issues regarding information during the current pandemic to previous epidemics.

In placing COVID-19 in the context of epidemiological history, this essay highlights critical issues that arose during the COVID-19 Pandemic, especially those that dramatically affected the nation's political and social life. While each epidemiological crisis develops in its own time and place and specific contexts, pandemics in the United States and other western nations have tended to have the following characteristics:

1) Pandemics and their public health responses have significantly impacted civil liberties, and there were heated controversies over the extent of government authority to circumscribe normal societal activity to safeguard public health.

2) Pandemics often serve as a "social stress test," which may exacerbate existing social divisions and health disparities. This essay discusses how this stress test impacted the greater society during the COVID-19 Pandemic and previous major disease outbreaks.

3) Pandemics have forced Americans to confront the disease with much uncertainty and imperfect knowledge about the origin, the nature of the disease, the best ways to respond, and how to construct a post-epidemic future.

A full reading of the historical record, as only summarized in this essay, shows the extensive damage caused by pandemics over time on health, the economy, and society due to pathogenic characteristics and a lack of public health resources. Although there continue to be many similarities in disease spread and response patterns for pandemics in general, the most significant of the risks caused by COVID-19 did not solely arise from the pathogen, but some risks were associated with the indirect effects of control measures on health and core societal activities.

Society's understanding of the epidemiology and effective treatment of the COVID-19 virus has rapidly improved, and attention is changing toward identifying long-term control strategies that balance the consideration of health in at-risk populations, social behavior, and economic impact. Policymakers should learn the lessons from previous pandemics and COVID-19 to develop appropriate risk assessments and control plans for future pandemics.

2 Discussion

2.1 An Epidemiological Rampage Begins

This review places COVID-19 in the context of previous pandemics to examine common issues that emerge during significant health crises and their moral, political, social, and

individual implications. However unique each disease is in terms of time and place, there are certain commonalities and specific contexts in which there have been patterns and recurring concerns in the history of pandemics.

(i) The Historical Context of COVID-19 and Its Significance

Even though many contemporary Americans believe that much about the COVID-19 era is unprecedented, some historical context for pandemics exists and is instructive for understanding the present issues. In viewing the disease and its impact, historians must collaborate and contextualize the past and reject inadequate analogies that obscure and confuse the difficult truths of the historical eras. In analogizing previous events to more recent ones, historians and social commentators must understand the similarities and differences between the events being compared.

2.2 Reviewing Selected Large-Scale Epidemics and How They Compare to COVID-19

Most governments have not responded particularly well to pandemics. This is true even for authoritarian regimes with sufficient power to coerce the behavior and movement of the people they control. In most instances, there is often tension in government between the fear of economic disaster and the fear of an epidemic. Throughout history, there have been numerous examples where government officials either failed to or delayed reporting the pandemic outbreak, fearing widespread panic and economic damage.

Several of the following historical parallels indicate that more than new technical solutions, such as a new vaccine, are required to gain the upper hand over the disease. In the United States, implementing a vaccine regime requires an effective communications campaign and widespread public acceptance of the vaccines.

(i) Smallpox Epidemics

European settlers imported smallpox to North America from Europe in the seventeenth century. The consequences were swift and severe, as smallpox killed 90 percent of the Native American population, led to the collapse of Native American society, and facilitated European colonial conquest of the Americas (Archer, 2020); (Fenn, 2001). Edward Jenner developed the first effective vaccine against smallpox in 1796. However, smallpox, a disease similar to COVID-19, continued to take a devastating toll. After killing nearly 300 million people in the 20th century alone, the disease was finally eradicated in 1977 after a massive worldwide effort in the 1960s and 1970s. Humanity's victory over smallpox remains a highly significant victory in epidemiological history.

(ii) Typhoid Fever Epidemics

Typhoid fever is an illness caused by a type of Salmonella bacteria known as Salmonella typhi. The disease is spread when an individual consumes liquid or food contaminated with the bacteria or comes into contact with infected feces. Repeated bouts of typhoid fever often struck the US during the nineteenth and early twentieth centuries before communities had developed effective modern public sewage sanitation (Wolman & Gorman, 1931).

In the past, as in the current COVID-19 era, social and political tensions emerged over various public health measures, like quarantine, in which public health values clashed with commercial interests. The situation was worsened by asymptomatic carriers such as Mary

Mallon, the Irish American cook better known as "Typhoid Mary," who infected 51 people with typhoid fever and was the first person in the United States that health officials identified as an asymptomatic carrier of the disease. As such, Mallon never accepted that she was infected with a disease, defied public health officials' orders to isolate, and resumed working as a cook. As a result, she spent most of her life in mandatory quarantine on North Brother Island, New York (Leavitt, 1996). Typhoid Mary's saga resonates today during the COVID-19 pandemic, as she probably represents the first case of forced isolation to prevent the spread of an infectious disease by an asymptomatic person.

Currently, typhoid fever is very uncommon in North America due to the use of antibiotics to prevent its spread. However, typhoid still strikes approximately an estimated 11–20 million people annually, with between 128,000 and 161,000 people dying from the disease every year (World Health Organization, 2018).

(iii) The 1918 Influenza Pandemic

Before the COVID-19 Pandemic, the 1920 flu was the last major large-scale pandemic and the deadliest in human history. COVID-19 had disrupted everyday life worldwide and was the first disease since the Spanish Flu of 1918 that needed an urgent global healthcare response. The 1918 Influenza Pandemic (commonly known as the Spanish flu or H1N1 flu), which occurred between September 1918 and April 1919, infected about 500 million people (over a third of the world's population at the time and killed an estimated 50 million people worldwide, with 675,000 of these deaths occurring in the United States. There were, then, more flu deaths than combat deaths during World War I (Barry, 2004); (Barry, 2005); (Bristow, 2012). Moreover, within months of the first three waves, the virus had already killed more people than any other illness in recorded history (Centers for Disease Control and Prevention, 2018). No subsequent influenza epidemic in the United States has reached comparable morbidity (illness) and mortality (death) rates.

The etiology (cause or causes) of the 1918 virus is largely shrouded in mystery (Belser & Terrence, 2018), though avian (bird) and swine sources are likely causes (Jester et al., 2018). The flu was extraordinarily virulent, globally transmissible, and deadly. The medical community knew of germ theory at the time but had misidentified the etiological agent. While physicians used palliative care and homeopathy, there were no vaccines, antiviral drugs, ventilators, or antibiotic medicines for secondary pneumonia.

Contemporary commentators frequently compare COVID-19 to the 1918 flu because both are highly transmissible respiratory diseases and because the two public healthcare crises are comparable in terms of gravity, scale, duration, and uncertainty. The first wave of the 1918 flu, often referred to as the "three-day flu," struck quickly but was mild. Most victims quickly recovered. A much more severe second wave broke out in the fall of 1918, followed by a third wave in the winter of 1918 (Centers for Disease Control and Prevention, 2018; Jester et al., 2018).

Wartime conditions, including a shortage of health service personnel because medical personnel were sent to the war fronts, contributing to large-scale death rates (Saunders-Hastings & Krewski, 2016). Overcrowded military camps, cities teeming with individuals seeking wartime work, and extensive transfers of soldiers between the United States and Europe (Stewart, 2010) facilitated disease transmission as medical experts, and public health

officials struggled to identify and control the disease (Friedlander et al., 1918). Treatment mainly consisted of supportive care with no antivirals or antibiotics for secondary infections (bacterial infection caused most deaths in the United States) (Jester et al., 2018).

2.3 The Respective Paradigms of the Spanish Flu Epidemic and the COVID-19 Pandemic

The 1918 influenza pandemic occurred before the development of anti-viral medicines. Further, at the time, physicians were unaware that influenza was a viral infection—and the medical profession had not yet developed effective, efficient, or precise means of diagnosing and documenting the millions of flu cases that suddenly arose. In terms of technology, the pandemic occurred when the world's communication system was very rudimentary (and heavily reliant on telegraph and telegram transmission, with the radio still in development).

2.4 Similarities and Differences between the Spanish Flu and COVID-19

Similar to when the Spanish Flu struck a century before COVID-19 broke out in the United States when there was no vaccine for either disease, medical supplies quickly depleted as a sudden sharp increase in COVID-19 patients overwhelmed the American healthcare system. Given the situation, public healthcare leaders sought to implement actions to "flatten the curve" to ensure that uninfected individuals remained healthy while the ill could receive treatment. Unfortunately, due to the lack of vaccines, the US relied heavily on marginally reliable nonpharmaceutical interventions (NPIs) and public health measures (including masks, social distancing, public closures, and limits on public gatherings). Public health authorities implement social distancing to reduce interpersonal contact and thereby minimize the kind of community transmission. Unfortunately, many of these public health measures were poorly designed, sporadically enforced, ineffectual, and too late.

(i) The Effects of a Lack of International Partnerships During the Spanish Flu.

International health institutions such as the World Health Organization (WHO) did not exist in 1918 to lead a coordinated international response to the crisis, facilitate scientific advancements, isolate viruses, or conduct antiviral testing and sophisticated medical treatments. However, in contemporary times, the international health community was well-organized and well-resourced to respond to the crisis in a generally effective and efficient manner.

(ii) Lack of Accurate, Reliable, and Publicly Available Information.

In contrast to contemporary times, the world in 1918 did not have a 24-hour news cycle to inform global audiences in real time of the most current developments on the disease. Further, national governments largely ignored the crisis instead of keeping their respective publics fully informed of developments during the Spanish flu of 1918. Instead, they either reported selectively or suppressed information on the disease to avoid actions that would detrimentally affect the ongoing war effort. While information technology is much more advanced than in 1918, bad information can spread just as quickly as good information, which is precisely what occurred during COVID-19. Thus, more now than ever, the savvy news consumer is critical and strictly practices "caveat emptor" and critically evaluates what he or she is receiving.

(iii) The Federal Government's Inaction to the Spanish Flu

The US wartime focus left the state and local governments to contend with the virus without federal assistance. For its part, President Woodrow Wilson's administration prohibited public pronouncements that could impede or interfere with the American war effort.

(iv) The Role of Public Health in Response to the Spanish Flu Epidemic

Even before the availability of vaccinations and reliable, nonpharmaceutical interventions (NPI) and other public health measures have been part of the strategic response to the earliest disease crises in the United States. Officials in major cities were concerned about the possibility of mass hysteria when preparing to advise citizens to remain indoors, avoid crowded places, and wear face masks. In addition, because there was no available vaccine, doctors recommended NPIs to control the virus, including isolation, quarantine, school closures, good personal hygiene, disinfectants, and limitations on public gatherings (Markel et al., 2007).

In 1918, the results of two strikingly different approaches that two major American cities (Philadelphia and St. Louis) pursued illustrate the importance and effectiveness of social distancing as effective disease control. In 1918, much like the contemporary United States, social distancing was the most effective public health method for "flattening the curve," reducing fatality rates, and ensuring enough hospital beds were available for those who were seriously ill (Proceeding of the National Academy of Sciences). Even with the flu epidemic spreading rapidly throughout the United States, Philadelphia's health commissioner, Wilmer Krusen, ignored the medical community's advice and allowed a planned Liberty Loan parade to proceed in the name of supporting the war effort. Concerned that canceling the event would cause panic and have a chilling effect on patriotism, Krusen refused to order a quarantine or postpone the parade. Nevertheless, health officials were well aware of the risks. Before the parade, at least 600 soldiers outside the city had influenza.

Nearly 200,000 people crowded into downtown Philadelphia for the parade on September 28, 1918. Shortly after that, all the city's hospitals overflowed with flu patients. Several thousand people died of the illness in what became known as the "deadliest parade in history." When Philadelphia finally imposed social distancing regulations, the virus spread uncontrolled throughout the city. Implementing a timely quarantine would have saved the lives of most of these victims. Thus, the epidemic affected no city in the US worse than Philadelphia.

St. Louis, unlike Philadelphia, issued and enforced public health warnings decisively and expeditiously. Even before the first cases of influenza were reported in the city, Dr. Max Starkloff, the St. Louis health commissioner, had alerted the city's physicians and St. Louis citizens that it was crucially important to avoid crowds. After the first cases were reported, Dr. Starkloff immediately prohibited public gatherings of more than twenty attendees and closed schools, theaters, churches, and other places where large numbers of people assembled. The city then enforced these orders for several weeks. In the end, the fatality rate in St. Louis was less than half, per capita, than that of Philadelphia. St. Louis, thus, had successfully "flattened the curve," reduced the spread of disease and avoided the worst possible outcomes. The lessons of what occurred in these two cities are profound. Government has an essential role to play in health and safety. The citizens have the right to be duly informed according to this

government duty. The government must act competently to carry out its public health duties, as the lives of those it serves to depend on how well the government performs.

(v) Implications of Pandemics for Civil Liberties in the United States

Disease crises throughout US history and public health responses to them have had profound implications for civil liberties and government authority in response to the crisis. Therefore, there must always be a consideration of balancing individual rights in pursuing livelihoods and the government's need to protect the people's health, welfare, and safety.

One of the significant lessons of the 1918 pandemic is that the general public must comply with these public health orders for these orders to be effective and prevent the pandemic from worsening. To effectively persuade people to comply with these guidelines, political leaders must have the trust of the citizens they govern. Unfortunately, this largely failed to happen in 1918. Instead, many government officials prioritized wartime morale over public health, safety, and welfare, failing to be transparent and warning the public of the danger of the pandemic even while cities such as Philadelphia suffered a sudden and significant increase in deaths.

In the face of epidemic outbreaks, public health demands, whether for wearing masks, stay-at-home orders, quarantines, curfews, or mandatory testing, have placed individual freedoms in conflict with public health, safety, and well-being. In the past, as today, controversies have flared over those demands and their lasting consequences.

In parallels to contemporary times, so-called "Anti-Mask Leagues" were formed during the Spanish flu, who argued that there was no scientific evidence for mask use and mandates requiring mask use violated constitutional rights. These examples demonstrate that the public response to pandemics was driven by personal assessment of risks shaped by individual circumstances and belief systems, not government mandates.

In 1918, after San Francisco municipal officials had closed and reopened restaurants and public areas only suffer from another wave of the disease, "Anti-Mask League" members gathered in a skating rink to protest the continued use of NPI (San Francisco Examiner, 1919). The group claimed they were driven by concerns over constitutional and economic rights, although there were issues about NPI efficacy and political self-interest involved (Dolan, 2020). Despite these diversions, San Francisco's health commissioner, Dr. William C. Hassler, and the city stood its ground. The masking debate played out before a frightened and frustrated public, much like how debates over masking during COVID-19 a century later raised questions about the perceived legitimacy of state power and expressing public unease with masking. As Kane explained, "publicly concealing oneself has often been associated with lawlessness and behaviors deemed antisocial or deviant" (Kane, 2020). Examples might include the Guy Fawkes masks associated with the conspiracy against the British Parliament or the face covering of the Ku Klux Klan, to conceal the identities of those who intended to terrorize African Americans.

(vi) Race Relations and the Spanish Flu

The COVID-19 pandemic has revealed stark race-based health disparities throughout the United States. Early in the Pandemic, African Americans were contracting the virus and dying from it at disproportionate rates (Coughlin et al., 2020). The ability to live a long and healthy

life requires access to a range of social and economic resources, including reliable healthcare, which had long excluded African Americans.

This disparity originates in history, including pandemic history. When the 1918 epidemic began, African Americans faced many medical and social obstacles, including racist mythologies of Black biological inferiority and poor health status (Northington Gamble, 2010).

In 1918, the influenza virus overwhelmed African American hospitals and professionals. However, the overall incidence of influenza and mortality rate in the United States was lower in African Americans than in Caucasians. According to historian and physician Vanessa Gamble (2010), statistics published by the Philadelphia Board of Public Health and the National Medical Association (the professional medical association of black physicians) indicate that by 1919 black physicians, white physicians, and the public agreed that the epidemic's mortality rate was lower among African Americans than Caucasian Americans.

These statistics contradicted accepted racial theories of biological difference that claimed Blacks were more susceptible to pulmonary diseases, a contradiction made especially clear since many influenza victims died from complications of pneumonia (Northington Gamble, 2010). Nevertheless, the few explanations were based on racial differences (Love et al., 1919). A study comparing flu rates among black and white soldiers concluded that African Americans were not as susceptible to the disease when they lived under the appropriate hygienic conditions of the military (Vaughan, 1921).

The 1918 flu demonstrated the entrenched nature of racist theories of Black biological inferiority despite evidence discrediting such idea (Northington Gamble, 2010). When the epidemic ended, the major health issues that African Americans confronted mainly remained ignored. Unlike the 1918 flu, the present medical and social crisis affects African Americans and other people of color at much higher rates than Caucasians. As a social "stress test," COVID-19 highlights America's long history of health disparities based on race, sex, and gender. In 1918, "differences in sex-based mortality varied across regions; they were not significant for the aggregate population" (Paskoff & Sattenspiel, 2019; Viboud et al., 2013). During the COVID-19 pandemic, early sex-disaggregated data suggest that fewer women are dying from COVID-19 than men (Gausman & Langer, 2020) though Gausman and Langer of Harvard's T.H. Chan School of Public Health argued that this finding might overlook biological, behavioral, and social and systemic factors that may cause differences to emerge concerning how women and men experience both the disease and its consequences" (Gausman & Langer, 2020) (p.465).

Since women act as caregivers in disproportionate numbers, both formally and informally (Langer et al., 2015), and coupled with the risks posed by COVID-19 on women's reproductive health (Rasmussen et al., 2020), it is important to view the pandemic and its effects by a gender perspective and with sex-disaggregated data.

(vii) Economic Impacts of the Spanish Flu Compared to COVID-19

The Spanish flu struck late in World War I and continued for the immediate post-war period, so the economic impact was limited and obscured by the War. Both events hit young to middle-aged men, which led to a labor shortage and a short-term effect on industry but allowed for new groups to enter the workforce. The Spanish flu caused significant GDP or consumption declines or stock market volatility, as significant fluctuations had already

occurred due to World War I. COVID-19 posed a minimal physical risk to most of the labor force, but the more major economic risk from the unprecedented lockdowns and NPIs used to control the spread of the virus. Demand shifts and movement restrictions led to early labor shortages. Subsequent mitigation measures also resulted in record unemployment. COVID-19-related stock market volatility was unprecedented, as was the sharp decline in the national US Gross Domestic Product.

Police, firefighters, and other employers in the protective services had the highest death rates, followed by food preparation and serving staff, construction and extraction workers; transportation and material moving employees, farming, forestry, and forestry workers. However, healthcare workers with jobs closely assisting the sickest COVID-19 patients had the lowest death rates (Billock et al., 2022).

2.5 Epidemics Between 1919 and 2019

(i) The Post-World War II Polio Epidemic (1952)

Between the Spanish Flu and COVID-19, several severe disease outbreaks broke out in the United States. These involved the issues of the government's ability to competently coordinate a response and persuade an often skeptical public to comply with public health mandates voluntarily. By the mid-20th century, polio had become the most feared disease in the United States. In 1946, President Harry Truman declared polio was a threat to the United States and called on Americans to engage in a nationwide war against it (Williams, 2013). Despite presidential entreaties, polio cases progressively grew from 25,000 cases in 1946 to 52,000 in 1952. Polio surged during America's anti-Communist crusade in the Cold War and the Korean conflict. The disease infected nearly 60,000 children in the United States and killed nearly 3000 of them (Dattani et al., 2017). At the time, there were efforts dismissing the science of polio as somehow devised by atheistic Communism or secularism. However, Dr. Jonas Salk discovered the polio vaccine in 1955, and the US began widespread vaccinations. New cases of polio were eradicated from the United States by 1979. In 1988, the WHO set a goal of eliminating polio, which the world is close to achieving (KLUGER, 2023); (Williams, 2013).

(ii) Swine Flu (1976)

In 1976, a swine flu outbreak at Fort Dix in New Jersey led the Disease Control (Gaydos et al., 2006), the predecessor organization of the current Centers for Disease Control and Prevention (CDC), to believe that a novel strain like the 1918 flu may be spreading and that a pandemic of similar virulence was about to return to the US. The timing of the disease had a role, as the incident occurred during a presidential election year. President Gerald Ford responded by introducing a mass immunization program to vaccinate all 213 million Americans to prevent another Spanish Influenza outbreak. However, when the first people became ill or died after receiving the vaccine, and when a pandemic failed to occur, Ford's plan appeared to fail and may have contributed to his defeat in the election (Waxman, 2020).

(iii) The HIV/AIDS Epidemic (the 1980s)

The medical profession first recognized AIDS in the summer of 1981. Since then, human immunodeficiency virus (HIV/AIDS) has killed more than 700,000 in the US and nearly 33

million worldwide (UNAIDS, n.d.). However, the Spanish Flu was more contagious than HIV, and its onset of an epidemic was sudden and unexpected.

At first, most US political leaders were either largely silent or unresponsive. Even though President Ronald Reagan ignored the epidemic throughout his first term, he won reelection in a landslide in 1984. Reagan publicly discussed AIDS for the first time in 1985 and asserted that dealing with the AIDS crisis was a major national priority during his administration.

Although HIV could have been contained in the 1980s, it was not. Antiretroviral therapy in 1996 dramatically reduced AIDS-related mortality, but the HIV pandemic continues, and there is still no vaccine for it. HIV has killed an estimated 32 million people and infected 75 million, with cases continuing to grow. In addition, striking disparities in AIDS outcomes persist, following disturbingly consistent lines of race, class, and gender.

(iv) Swine Flu (2009)

The Swine flu (an H1N1 virus) outbreak occurred in 2009 and rapidly became a global pandemic that sickened 60 million people and killed over 12,000 people in the United States (Centers for Disease Control and Prevention, 2019). As a result, the Obama administration engaged in a strongly coordinated leadership effort with the CDC, Department of Health and Human Services, Department of Homeland Security, and the White House to convey guidance and strategies based on the best expert advice available.

While much smaller than other influenza pandemics of the 20th century, the 2009 swine flu pandemic and the virus that caused it was a significant concern for public health officials because 1) unlike typical influenza outbreaks, this flu caused proportionately more hospitalizations and deaths among those under age 65, and certain groups, such as people with obesity, appeared to be at risk for severe complications not previously seen in influenza; 2), the WHO believes that this flu could mutate into a more dangerous form, such as the 1918 Spanish flu; and 3) although the 2009 pandemic was not as severe, public health officials discovered problems with their initial efforts to mitigate the spread of the disease and increase support for these efforts. For example, public opinion at the time showed strong support for harsher measures, such as closing international borders, and relatively weak support for more fundamental and more effective policies, such as encouraging sick people to stay home from work. Nevertheless, NPI measures continued to be a crucial part of public health. In recent years, they have been influential in lessening the impact of HIV/AIDS and containing the 2009 Swine flu outbreak, and they were adopted to reduce COVID-19.

2.6 The Commonalities Between Previous Epidemics and COVID-19.

Like previous epidemics, COVID-19 revealed not only disease and mortality but also controversies over the social and economic consequences of the virus and public health measures; conflicts over the continuation of business, quarantines, and forms of “social distancing”; disputes over public health measures’ impact on personal freedom and civil liberties and struggles to understand the disease’s variable impact across populations and regions.

The most crucial pandemic precaution during COVID-19, as in previous epidemics, was "social distancing" or "physical distancing," which sought to reduce interpersonal contact and

therefore minimize the kind of community transmission that could develop quickly in densely populated social areas.

COVID-19 exposed racism, ethnocentrism, and various forms of othering that have characterized the response to pandemics throughout history. The US response must continue to be to follow science-based solutions to pandemic emergencies (as opposed to strictly ideological ones) and argues for a judicious balancing of cherished individual rights and individual autonomy with a collective science-based response to public health emergencies and one intended to protect the public health of all Americans.

When COVID-19 arrived in the United States, it behaved as any airborne virus does, i.e., by first, attaching to cells in the respiratory tract of people, invading the innate immune responses, and then, multiplying. Free of politics or ideology, the pathogen had a reservoir of hosts and found fertile pathways for growth in the inequalities born from centuries of racial animus and class resentment.

Unequal exposure, unequal spread, and unequal treatment concentrated harm in communities that needed protection the most yet had the least. Cumulatively, African American, Latino, and Native American people were 60 percent more likely to die of COVID-19 when the virus first arrived in the United States.

In one example, the City of Philadelphia reported on May 29, 2020, that forty-five percent of people with confirmed COVID-19 infection were African Americans, 15 percent were Caucasian, 9 percent were Latino, 4 percent were Asian, and 23 percent did not specify a race. Thus, the study concluded that African Americans were 1.9-3.5 times more likely to have confirmed infection than Caucasians. Mortality rates, as well, were substantially greater among African Americans (9.4 per 10,000 residents) than Caucasians (6.3 per 10,000).

While the data reported by race/ethnicity were critical, it thoroughly explained the root causes of racial inequities in COVID-19 and did not reveal the complex systems that produced them.

They concluded that the early stages of the COVID-19 pandemic disproportionately impacted Philadelphia's racially segregated communities. Moreover, the most segregated neighborhoods were more likely to have structural characteristics that increased the likelihood of exposure, community transmission, and mortality, making segregation a fundamental driver of racial inequities in Philadelphia.

At the beginning of the Pandemic, African American people were dying at more than three times as likely to perish as Caucasians. As 2020 wore on, however, the death rates narrowed—but not because fewer African American people were dying. Caucasians began dying in increasingly greater numbers as well. In the summer of 2021, the US saw some of the pandemic's worst death rates as vaccines, building up the body's immune response became more widely available.

Delta variant soon followed. The virus mutated and began spreading among the vaccinated, as it did, an erosion of trust in government and medicine --- in an institution -- slowed vaccination rates, negating the protection provided by vaccines against severe illness and death.

After deaths peaked in September 2021, the racial differences in COVID-19 deaths started to decline. African American deaths declined, while Caucasian deaths never eased,

increasing slowly but steadily until the mortality gap changed. From October through the end of December 2021, Caucasians died at a higher rate than African Americans did.

This trend continued except for a period in the winter of 2021-2022 when the omicron variant exploded. The African American death rate increased above the Caucasian death rate when the increase in cases and deaths overwhelmed providers in the Northeastern United States, resulting in a considerable backlog of testing and treatment. When the surge subsided, the African American death rate declined below the Caucasian rate.

The significant gaps in COVID-19 vaccine rates worldwide and increasing divergence between rich and poor caused by the pandemic led to more unrest, increased tension, and insecurity. Despite massive logistical roadblocks, COVID-19 vaccines have proven safe and effective.

Recently, however, there has been a change in the racial imbalance in the nation's death rates among racial and ethnic groups, which had been a defining part of the pandemic since it began. Early in the pandemic, deaths were concentrated in dense urban areas, where African Americans died at several times the rate of Caucasians. Over time, the gap in deaths widened and narrowed, but never disappeared until mid-October 2021, when the US pattern of COVID-19 mortality changed, with the rate of death among Caucasians sometimes exceeding other groups. COVID-19 death data from the CDC found that the racial disparity disappeared from April 2020 through the Summer of 2021, while the overall age-adjusted death rate for Caucasians slightly surpassed that of African Americans and Latinos. The nature of the virus makes the elderly and people with underlying health conditions – including hypertension, diabetes, and obesity, all of which beset African Americans at higher rates and earlier in life than Caucasians—particularly vulnerable to severe illness and death" (Johnson & Keating, 2022).

(v) Role of Disinformation in the COVID-19 Pandemic

The role of mass media and social networks has long been fundamental in managing health-related information. During COVID-19, Americans have been continually searching for information on COVID-19, especially when the information coming through official channels was unclear, contradictory, or found to be incorrect. (Tagliabue et al., 2020). In many cases, people have found themselves overwhelmed with news with blatant falsehoods and misinformation, with those unable to adequately process such data (Tagliabue et al., 2020). Particularly when the pandemic began, the medical community may have unwittingly worsened the situation by disseminating sometimes inaccurate and sometimes contradictory information on the pandemic. Shortly after the pandemic began, non-specialists in infectious-respiratory conditions appeared in mainstream medicine, releasing statements and writing articles as if they were COVID-19 experts.

During the COVID-19 crisis, prominent media personalities various COVID-19 conspiracy theories. Conflicting information about the disease has long been spread (purposely or not) by the news media, sometimes on the government's behalf. For example, the Italian government during World War I forced a Milan newspaper to cease publishing daily death tolls due to the Spanish Flu, for it would demoralize the war effort. In the US, as previously mentioned, public health officials concealed the extent of the disease spread and downplayed the danger the flu posed. This was an attempt to build up morale. Unfortunately, US leaders

inadvertently eroded trust in public institutions in this attempt to build confidence in the official response.

A novel challenge in contemporary times comes with the immediacy of social media, where genuine and fake information is frequently presented with apparently equal credibility. In addition, the numerous collective experiences and cognitive biases innate to people are further challenges that scientists, policymakers, celebrities, and all matter of communicators should be aware of what they communicated and the consequences of such communications. As the COVID-19 pandemic was spreading globally at an alarming rate, the medical profession stressed that widespread inoculation of the vaccine was a crucial step to defeating COVID-19, as verified by randomized controlled trials in the United States and Great Britain (Loomba et al., 2021).

Despite this clear and indisputable evidence, pervasive online misinformation about COVID-19 and the vaccine was significantly impeding efforts to obtain the needed acceptance rate (Loomba et al., 2021) because the best defense to one's health is accepting the vaccination, mis/disinformation promotes unfounded skepticism and a lack of confidence in COVID-19 interventions (Kemei et al., 2022). Furthermore, studies conducted at the time indicated that exposure to online disinformation about COVID-19 resulted in both 1) significantly fewer respondents agreeing to take a vaccine than likely required for herd immunity and 2) fewer respondents who said that they would be inoculated (Loomba et al., 2021). Finally, this is harmful because dis/misinformation contributes to high rates of COVID-19 infection and low rates of COVID-19 vaccination, which would translate into more illnesses and deaths (Kemei et al., 2022).

Several studies written during the pandemic concluded that certain socioeconomic groups were more likely to be targeted by misinformation than others (Loomba et al., 2021). Due to this targeting, African Americans were disproportionately affected by the COVID-19 pandemic because their reliance on misinformation made them less likely to get inoculated. African Americans primarily access and share online disinformation and misinformation through social media platforms such as WhatsApp, Facebook, Twitter, YouTube, and Instagram. dis/misinformation concerns the origins of COVID-19 transmissions, prevention and treatment of COVID-19, claims of race immunity to the virus, distrust in government and health organizations, and intervention research and programming (Kemei et al., 2022).

The rapid spread of COVID-19 did not allow for immediate and certain scientific research and study. In a pandemic, physicians must provide the public only with evidence-based information in plain language and a shared manner to avoid misinterpretation and misunderstanding. Better coordination between the medical community, governments, and the mass media is therefore needed to avoid the spread of disinformation through different channels, limiting the dissemination of fake news and thereby better engaging the general public to adhere to sound, medically sound guidelines (Tagliabue et al., 2020).

(vi) The Use and Promotion of Dubious Cures

Uncertainty and desperation have compelled many people to use dubious protection modes during pandemics. For example, during the Spanish flu, people wore camphor bags and gargled saltwater, while early in the COVID-19 pandemic, many sought protection from zinc lozenges and off-label medications. The examples provided here on disinformation,

dubious cures, and alleged constitutional and civil rights violations are illustrations of the public response to pandemics and personal assessment of risks defined by individual circumstances and belief systems, not necessarily government mandates.

(vii) How Unique Is COVID-19 Compared to Previous Pandemics

One issue is whether the COVID-19 pandemic is unique compared to previous ones. Against the background of a globalized, interconnected world, one crucial issue was what impact this might have on trade and travel in the long term. As nations prioritize national security and health, they may restrict or expel migrants. In the COVID-19 Era, scientific and medical advances have allowed the United States to identify and treat disease in a way that would have been impossible in previous generations. Therefore, the most significant danger Americans face are reactions that are disproportionate to the nature of risks from COVID-19, leading to challenges in core social activities of food protection, provision of education, health care, and primary health needs.

(viii) Economic Costs of COVID-19

The underlying reasoning of disease strategies must be consistent and accessible across government, medicine, and media, and presented to a skeptical public with transparency. As in previous pandemics, illogical decision-making and poor leadership have the potential to multiply the harm caused by the disease. We must minimize the impact of the pandemic by accurately assessing and proportionately responding to the genuine threats of COVID-19 and its deleterious legacy.

Worldwide, there are substantial gaps in COVID-19 vaccine rates and a sharp overall divergence between rich and developing nations caused by the pandemic. This has led to increasing political tensions and instability worldwide. In addition to tragic mortality levels, the pandemic-induced panic has seriously impacted the global economy, trade, and investment. The International Monetary Fund (IMF) estimated that COVID-19 could cost the global economy about \$ 12.5 trillion. At the same time, the IMF projected that the US GDP would increase by about 5.7% in 2021 after shrinking by 3.4% in 2020. The most substantial impact of COVID-19 was on developing countries.

(ix) COVID-19 and Individual Liberties

Governments are responsible for protecting their citizens and ensuring their health and safety. In extreme situations, this protection may even include the temporary suspension or limiting of civil liberties for the sake of public health. The COVID-19 pandemic highlighted the challenges governments confront in balancing civil liberties with the exigencies of public health amidst the chaos of a public health emergency. In the case of the COVID-19 epidemic, many Republicans argued that it was each individual's choice and, as a price of freedom in exercising this freedom, to accept the consequences.

Current and emerging pandemic response strategies may align diverse rights grounded in the civil liberties Americans cherish such as freedom to travel, freedom of assembly, and the freedom of religion. In a pandemic such as COVID-19, it is essential to present a principled agility to ensure that the measures adopted are continually supported by the best evidence and continually modified to avoid unnecessary interference with civil liberties.

For example, most Americans have accepted the need for measures designed to slow the pandemic's spread and gain extra time – time for hospitals to treat cases without being overwhelmed, time to study the disease, develop treatments and develop a vaccine. Measures taken to "flatten the curve," however, have imposed genuinely unintended damage and risked lives in the process. For example, lockdown orders have impacted mental health, causing some to suffer anxiety, depression, and heightened risk of suicide; "sheltering at home" poses an enhanced risk of harm for victims of domestic violence; and worldwide, the disruption of the economy and government services has increased food insecurity, and disrupted supply chains.

Measures taken in response to COVID-19 also involve trade-offs between individual rights and the collective goals of public health. Such trade-offs are common in the federal, state, and local responses to COVID-19.

The term "Civil liberties" refers to a range of activities that citizens are (or should be) generally free to engage in without government restraint – such as the freedom of religion, freedom of expression, and freedom of assembly.

a) Freedom of Expression

There has been a proliferation, on social media, of misinformation and conspiracy theories about COVID-19. This, in turn, has led to some discussion of enacting laws or regulations to stop individuals responsible for spreading pandemic misinformation, which can and do cost lives. This would include First Amendment concerns.

b) Freedom of Assembly

The Federal government and state and local governments impose various time, place, and manner restrictions that directly impact the Constitutional freedom of peaceful assembly but are necessary to stop the spread of diseases.

c) Freedom of Religion

The pandemic response – and specific restrictions on public gatherings – also impinges religious freedom, such as the right to gather and worship together, which is protected by the First Amendment of the US Constitution and many state constitutions. Throughout the United States, there have been outbreaks of COVID-19 linked to specific religious services. However, some of the most vocal pressure to lift lockdown measures has come from religious groups. In addition, President Trump relied heavily on the religious freedom argument in his efforts to "reopen the US economy."

d) Freedom to Travel

The United States limited travel into the country. American nationals and permanent residents were allowed re-entry but required to self-quarantine upon arrival. Some argue that these restrictions considerably interfere with civil liberties, limiting the right to travel. Such restrictions, however, if appropriately drafted are necessary to protect public health and prevent the spread of disease.

e) Privacy Rights

The US Supreme Court has recognized an unenumerated right to privacy. This, of course, refers to the right to make one's own health decisions. During the pandemic, significant testing and contact tracing using cell phone apps were critical to fighting COVID-19, yet these technologies also raise privacy concerns. The requirement for a certain level of uptake for these technologies to be effective adds to the complexities of their use. In some nations, such

as Spain, the police have used drones to monitor their citizens and enforce lockdown measures.

f) *Civil Liberties Under Public Health Emergencies*

In a rapidly spreading Pandemic, governments must often make urgent policy decisions that impact civil liberties during times of great uncertainty. Civil libertarians often argue that when protected rights are involved, the government has the burden of proof to prove that any limitation on recognized rights is justified. Civil libertarians argue that restrictions should be relaxed or removed if the evidence reasonably shows no benefit to the health-related intervention or evidence of a health risk.

American courts and lawmakers must consider both Civil liberties and public health. Decision-makers should continually evaluate the necessity of intrusive measures and endeavor to minimize interferences with civil liberties, In the final analysis, government decision-makers must adopt the means of protecting public health least likely to infringe on recognized rights and revisit public health decisions as new situations and controversies arise. The burden of proof remains on public health officials to justify infringements of fundamental rights. Therefore, they must be able to point to evidence they relied on for their decisions and be responsive to their questions.

A sound public health policy is consistently respectful of civil liberties, both because the law requires it and because it is the best way to win public acceptance of the policy. Rights and freedoms, however, are limited. Therefore, public health officials must implement the least restrictive measures under the circumstances, protecting public health while ensuring maximum individual freedom. Any assessment of a pandemic response must consider how these laws are enforced, specifically, whether marginalized peoples are disproportionately burdened, whether through discriminatory enforcement, or whether they cannot comply. Also, it is essential to recognize that marginalized people have also been disproportionately affected by the pandemic, with much greater mortality rates among all demographic groups.

g) *COVID-19 and the Political System*

The impact of the pandemic was a stress test for political systems, institutional decision-making processes, and public policies. For many countries, the pandemic demonstrated significant problems, particularly with the political response to COVID-19. In several countries worldwide, political institutions failed, others withstood the pressure, and others became more authoritarian and less responsive to the needs of their people. In the case of COVID-19, autocratic leaders such as Jair Bolsonaro in Brazil, Alexander Lukashenko in Belarus, Vladimir Putin in Russia, and Donald Trump in the United States all downplayed the severity of the pandemic's impact on their respective countries, took an explicit "do nothing" position on containment policies, and even sought to prohibit local and regional governments from implementing more stringent containment policies. In the United States, pandemic and containment policies deepened the existing polarization in the US. Democratic-governed states implemented relatively stringent containment policies, while Republicans adopted looser ones.

In contrast, stringent travel restrictions worked reasonably well for island nations such as Australia, New Zealand, and Taiwan. Testing with tracing apps and strictly enforced quarantine policies enabled South Korea, China, and Singapore to keep the pandemic largely under control. The politicization of the pandemic was a major obstacle to controlling the

disease. The Trump administration and its allies tried bullying officials from the Centers for Disease Control and Prevention into providing a “more optimistic view of the pandemic” that Trump supported (as supported by emails, text messages, and interviews that a Congressional committee reviewed). Among those targeted and strong-armed by the Trump administration were former CDC director Robert Redfield and former principal deputy director Anne Schuchat. Trump appointees launched a months-long campaign against Schuchat inspired by the belief that her pessimistic assessments of the pandemic were negative publicity for Trump, causing Schuchat, a 32-year CDC veteran, to be concerned that she would be terminated in the summer of 2020.

More so than any previous pandemic or epidemic, COVID-19 is and should be analyzed and understood for its political dimensions. Resilience is a concept that describes how well an entity, such as a nation, copes with the unexpected. Governments and citizens alike may be unprepared but resilient. It may also be that governments and citizens are prepared but not resilient. One can expect a pandemic, as we should have, and still not cope very well (Barberia et al., 2021).

(x) COVID-19 and Education

Along with COVID-19-related lockdowns that contributed to a downward spiral in the worldwide economy and significantly impacted education systems, schools implemented "social distancing" to that the disease could develop quickly in dense areas such as schools, colleges, and universities. As a social distancing measure to prevent community transmission, the sudden closure of campuses shifted face-to-face classes to online learning systems. In the post-pandemic environment, eLearning and virtual education may have a more significant role in education systems. Educational institutions must plan post-pandemic education to ensure student learning outcomes and standards of educational quality.

Students from more advantaged parents attended schools with better digital infrastructure, and teachers most likely had higher levels of digital technology skills. Some schools can be well equipped with digital technology and educational resources. Disadvantaged students are attending schools with lower ICT infrastructures and educational resources. Following COVID-19, more disadvantaged students are attending schools to adopt online learning. Schools in disadvantaged rural areas lack the appropriate digital infrastructure required to deliver teaching in remote areas.

3 Conclusion

(i) COVID-19 and the Crisis Next Time: Lessons Learned?

Even at the time of this writing, Our understanding of the epidemiology and effective treatment of the COVID-19 virus has rapidly improved, and attention has shifted toward identifying long-term control strategies that balance consideration of health in at-risk populations, social behavior, and economic impact. It is crucial, however, that policymakers should heed the lessons from previous pandemics and COVID-19 to develop appropriate risk assessments and control plans for future pandemics.

Some of the critical lessons that can be learned from the historical context of COVID-19 is the importance of the collective record of the costs of unpreparedness, unclear risk communication, and unequal access to health care during the COVID-19 crisis. The History

of COVID-19 and the record it is based on favor local and individual experiences over a global recollection, making the collective memory of pandemics more challenging to retain (Donahue, 2020). Historians and other scholars have well-documented the tremendous damage of pandemics in the past, yet COVID-19 revealed a profound lack of preparedness on the part of the United States. The issues that arise include: How can our response better preserve and communicate the record of disease crises? How can US society better understand this history so researchers can retrieve it more efficiently and effectively? Contemporary Society will know more about the challenges it must confront and what must be done, what is effective and what is not. COVID-19 will have revealed what society could do better to face future pandemics. If we are knowledgeable and skilled and answer the call to action as a crucial ethical imperative, our society will be much off, better able to prepare ourselves and those who follow us for the next major health crisis.

4 Publisher's Note

AJIR remains neutral with regard to jurisdiction claims in institutional affiliations.

How to Cite

Anglim, C.T. (2023). COVID-19 in Context: A Pandemic in Its Historical Context. *AJIR Proceedings*, 4-23. <https://doi.org/10.21467/proceedings.148.2>

References

- Archer, S. (2020, May 26). *Precedents for a Pandemic | Perspectives on History | AHA*. <https://www.historians.org/research-and-publications/perspectives-on-history/may-2020/precedents-for-a-pandemic-reflections-on-disease-and-indigenous-communities>
- Barberia, L., Plümper, T., & Whitten, G. D. (2021). The political science of Covid-19: An introduction. *Social Science Quarterly*, 102(5), 2045–2054. <https://doi.org/10.1111/SSQU.13069>
- Barry, J. M. (2004). The site of origin of the 1918 influenza pandemic and its public health implications. *Journal of Translational Medicine*, 2(1), 1–4. <https://doi.org/10.1186/1479-5876-2-3/METRICS>
- Barry, J. M. (2005). *The Great Influenza: The Story of the Deadliest Pandemic in History*. Penguin Books. https://books.google.co.in/books?hl=en&lr=&id=Do_vDwAAQBAJ&oi=fnd&pg=PP8&dq=The+Great+Influenza:+The+Story+of+the+deadliest+pandemic+in+history&ots=tqjQWly0dH&sig=Utzrzs3yfYv3wf0itIKCdCeH9Y&redir_esc=y#v=onepage&q&f=false
- Belser, J. A., & Terrence, M. (2018). The 1918 flu, 100 years later. *Science*, 359(6373), 255. https://doi.org/10.1126/SCIENCE.AAS9565/ASSET/82BDC53C-E574-44C7-8E61-76758C17F7BC/ASSETS/GRAPHIC/359_255_F3.JPEG
- Billock, R. M., Steege, A. L., & Miniño, A. (2022). COVID-19 Mortality by Usual Occupation and Industry:46 States and New York City, United States, 2020 . *National Vital Statistics Reports*, 71(6), 1–33. <https://pubmed.ncbi.nlm.nih.gov/36317981/>
- Bristow, N. K. (2012). *American Pandemic: The Lost Worlds of the 1918 Influenza Epidemic*. Oxford University Press. https://books.google.co.in/books?hl=en&lr=&id=4rhoAgAAQBAJ&oi=fnd&pg=PP1&dq=American+Pandemic:+The+Lost+World+of+the+influenza+epidemic&ots=QEOGM43HF&sig=pv86jIE416kF11e8EroUf_v7PL8&redir_esc=y#v=onepage&q&f=false
- Centers for Disease Control and Prevention. (2018, May 11). *1918 Pandemic Influenza: Three Waves*. <https://www.cdc.gov/flu/pandemic-resources/1918-commemoration/three-waves.htm>
- Centers for Disease Control and Prevention. (2019, June 11). *2009 H1N1 Pandemic (H1N1pdm09 virus)*. <https://www.cdc.gov/flu/pandemic-resources/2009-h1n1-pandemic.html>
- Coughlin, S. S., Moore, J. X., George, V., Aaron Johnson, J., & Hobbs, J. (2020). COVID-19 among African Americans: From preliminary epidemiological surveillance data to public health action. *American Journal of Public Health*, 110(8), 1157–1159. <https://doi.org/10.2105/AJPH.2020.305764>

- Dattani, S., Spooner, F., Ochmann, S., & Roser, M. (2017, November). *Polio*. Our World in Data. <https://ourworldindata.org/polio>
- Dolan, B. (2020). UC Berkeley Perspectives in Medical Humanities: Essays and Articles Title. *Perspectives in Medical Humanities*, 5(19). <https://doi.org/10.34947/M7QP4M>
- Donahue, S. (2020). *As collective memory fades, so will our ability to prepare for the next pandemic*. The Conversation. <https://theconversation.com/as-collective-memory-fades-so-will-our-ability-to-prepare-for-the-next-pandemic-137370>
- Fenn, E. A. (Elizabeth A. (2001). *Pox Americana : the great smallpox epidemic of 1775-82*. Hill and Wang.
- Friedlander, A., Mccord, C. P., Sladen, F. J., & Wheeler, G. W. (1918). THE EPIDEMIC OF INFLUENZA AT CAMP SHERMAN, OHIO. *Journal of the American Medical Association*, 71(20), 1652–1656. <https://doi.org/10.1001/JAMA.1918.26020460003010>
- Gausman, J., & Langer, A. (2020). Sex and Gender Disparities in the COVID-19 Pandemic. *Https://Home.Liebertpub.Com/Jwh*, 29(4), 465–466. <https://doi.org/10.1089/JWH.2020.8472>
- Gaydos, J. C., Top, F. H., Hodder, R. A., & Russell, P. K. (2006). Swine Influenza A Outbreak, Fort Dix, New Jersey, 1976. *Emerging Infectious Diseases*, 12(1), 23. <https://doi.org/10.3201/EID1201.050965>
- Jester, B., Uyeki, T., & Jernigan, D. (2018). Readiness for Responding to a Severe Pandemic 100 Years After 1918. *American Journal of Epidemiology*, 187(12), 2596. <https://doi.org/10.1093/AJE/KWY165>
- Johnson, A., & Keating, D. (2022, October 19). *Whites now more likely to die from covid than Blacks: Why the pandemic shifted*. The Washington Post. <https://www.washingtonpost.com/health/2022/10/19/covid-deaths-us-race/>
- Kane, P. L. (2020, April 29). *The Anti-Mask League: lockdown protests draw parallels to 1918 pandemic | Coronavirus | The Guardian*. The Guardian. <https://www.theguardian.com/world/2020/apr/29/coronavirus-pandemic-1918-protests-california>
- Kemei, J., Alaazi, D. A., Tulli, M., Kennedy, M., Tunde-Byass, M., Bailey, P., Sekyi-Otu, A., Murdoch, S., Mohamud, H., Lehman, J., Salami, B., Brook, C., Scotia, N., & Fellow, P. (2022). *A scoping review of COVID-19 online mis/disinformation in Black communities*. 12, 5026. <https://doi.org/10.7189/jogh.12.05026>
- KLUGER, J. (2023, March 17). How Jonas Salk Persuaded People to Trust His Polio Vaccine Trial. *TIME*. <https://time.com/6263567/jonas-salk-polio-cover-history/>
- Langer, A., Meleis, A., Knaul, F. M., Atun, R., Aran, M., Arreola-Ornelas, H., Bhutta, Z. A., Binagwaho, A., Bonita, R., Caglia, J. M., Claeson, M., Davies, J., Donnay, F. A., Gausman, J. M., Glickman, C., Kearns, A. D., Kendall, T., Lozano, R., Seboni, N., ... Frenk, J. (2015). Women and Health: the key for sustainable development. *The Lancet*, 386(9999), 1165–1210. [https://doi.org/10.1016/S0140-6736\(15\)60497-4](https://doi.org/10.1016/S0140-6736(15)60497-4)
- Leavitt, J. Walzer. (1996). *The healthiest city : Milwaukee and the politics of health reform*. 294.
- Lindmeier, C. (2022, October 27). *Tuberculosis deaths and disease increase during the COVID-19 pandemic*. World Health Organization. <https://www.who.int/news/item/27-10-2022-tuberculosis-deaths-and-disease-increase-during-the-covid-19-pandemic>
- Loomba, S., de Figueiredo, A., Piatek, S. J., de Graaf, K., & Larson, H. J. (2021). Measuring the impact of COVID-19 vaccine misinformation on vaccination intent in the UK and USA. *Nature Human Behaviour* 2021 5:3, 5(3), 337–348. <https://doi.org/10.1038/s41562-021-01056-1>
- Love, L.-C. A. G., And, M. C. U. S. A., & Davenport, M. C. B. (1919). A Comparison of White and Colored Troops in Respect to Incidence of Disease. *Proceedings of the National Academy of Sciences*, 5(3), 58–67. <https://doi.org/10.1073/PNAS.5.3.58>
- Markel, H., Lipman, H. B., Navarro, J. A., Sloan, A., Michalsen, J. R., Stern, A. M., & Cetron, M. S. (2007). Nonpharmaceutical Interventions Implemented by US Cities During the 1918-1919 Influenza Pandemic. *JAMA*, 298(6), 644–654. <https://doi.org/10.1001/JAMA.298.6.644>
- Northington Gamble, V. (2010). *“There Wasn’t a Lot of Comforts in Those Days:” African Americans, Public Health, and the 1918 Influenza Epidemic*.
- Paskoff, T., & Sattenspiel, L. (2019). Sex- and age-based differences in mortality during the 1918 influenza pandemic on the island of Newfoundland. *American Journal of Human Biology*, 31(1), e23198. <https://doi.org/10.1002/AJHB.23198>
- Rasmussen, S. A., Smulian, J. C., Lednický, J. A., Wen, T. S., & Jamieson, D. J. (2020). Coronavirus Disease 2019 (COVID-19) and pregnancy: what obstetricians need to know. *American Journal of Obstetrics and Gynecology*, 222(5), 415–426. <https://doi.org/10.1016/J.AJOG.2020.02.017>
- San Francisco Examiner. (1919). Flu On Wane 75 Per Cent Drop Is Noted. In *Influenza Encyclopedia*. Michigan Publishing.

-
- Saunders-Hastings, P. R., & Krewski, D. (2016). Reviewing the History of Pandemic Influenza: Understanding Patterns of Emergence and Transmission. *Pathogens* 2016, Vol. 5, Page 66, 5(4), 66. <https://doi.org/10.3390/PATHOGENS5040066>
- Stewart, R. W. (2010). *American military history, volume II: the United States Army in a global era, 1917-2008* (R. W. Stewart, Ed.; 2nd ed., Vol. 2). Center of Military History (U.S. Army). https://history.army.mil/html/books/030/30-22/CMH_Pub_30-22.pdf
- Tagliabue, F., Galassi, L., & Mariani, P. (2020). The “Pandemic” of Disinformation in COVID-19. *SN Comprehensive Clinical Medicine* 2020 2:9, 2(9), 1287–1289. <https://doi.org/10.1007/S42399-020-00439-1>
- UNAIDS. (n.d.). *Global HIV & AIDS statistics — Fact sheet | UNAIDS*. Retrieved February 17, 2023, from <https://www.unaids.org/en/resources/fact-sheet>
- Vaughan, W. T. (1921). Influenza: An Epidemiologic Study. *American Journal of Hygiene*.
- Viboud, C., Eisenstein, J., Reid, A. H., Janczewski, T. A., Morens, D. M., & Taubenberger, J. K. (2013). Age- and Sex-Specific Mortality Associated With the 1918–1919 Influenza Pandemic in Kentucky. *The Journal of Infectious Diseases*, 207(5), 721–729. <https://doi.org/10.1093/INFDIS/JIS745>
- Waxman, O. (2020, August 25). The Ford Administration Rolled Out a Vaccine Program Right Before the 1976 Election. It Backfired—And Not Just Politically. *TIME*. <https://time.com/5882949/trump-coronavirus-vaccine-election-history/>
- Williams, G. (2013). Paralyzed with Fear: The Story of Polio. In *Paralyzed with Fear: The Story of Polio*. Palgrave Macmillan. <https://doi.org/10.1057/9781137299765/COVER>
- Wolman, A., & Gorman, A. E. (1931). Water-Borne Typhoid Fever Still a Menace. *American Journal of Public Health and the Nations Health*, 21(2), 115. <https://doi.org/10.2105/AJPH.21.2.115-B>
- World Health Organization. (2018, January 31). *Typhoid*. <https://www.who.int/news-room/fact-sheets/detail/typhoid>
- World Health Organization. (2021, October 14). *Tuberculosis deaths rise for the first time in more than a decade due to the COVID-19 pandemic*. <https://www.who.int/news/item/14-10-2021-tuberculosis-deaths-rise-for-the-first-time-in-more-than-a-decade-due-to-the-COVID-19-pandemic>