COVID-19 and the United States' Flawed Response

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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In 2020 and 2021, COVID-19 killed 343,566 and 475,059 people in the US, respectively (Ortaliza et al., 2022). In 2022, “COVID-19 was the underlying (primary) or contributing cause in the chain of events leading to 244,986 deaths” (Ahmad et al., 2023, p. 493). While the Centers for Disease Control and Prevention (CDC) has reported a decrease in COVID-19 deaths in recent years, a new form of disability caused by COVID-19 infection has become a major problem. Currently, about 17 million Americans are disabled from what is now called Long COVID (Burns, 2024). Most of those killed or disabled from COVID-19 in the United States were made casualties after the creation of vaccines, implementation of contact tracing, and expansion of mask availability. This would indicate the United States’ response to COVID-19 is failing due to social factors rather than technical solutions. I intend to analyze this flawed response by applying the Social Construction of Technology framework. It explains that society and technology influence the development of each other (Pinch and Bijker, 2012). While there are many social groups impacting the use of technology to prevent COVID-19 infection, none are more important than the government. Throughout this paper, the flaws of the US government’s response to COVID-19 will be identified and critiqued.

While the government’s focus on COVID-19 has diminished, the threat it poses has not. On top of the previously stated death tolls which total to over a million in the first three years alone, Long COVID poses a threat to the population. The Long COVID definition used by the CDC is, “a chronic condition that occurs after SARS-CoV-2 infection and is present for at least 3 months.” (CDC, 2024a) This condition has 200 different symptoms which include, “[t]iredness or fatigue that interferes with daily life… [d]ifficulty breathing or shortness of breath… [d]ifficulty thinking or concentrating (sometimes referred to as "brain fog")… [d]iarrhea… [and] [j]oint or muscle pain” (CDC, 2024b). The full list of symptoms is ever expanding as Long

COVID infections (and reinfections) continue to reveal new aspects of the chronic condition. On top of the symptoms brought by Long COVID, COVID-19 infection increases the chance for other chronic illnesses to form in a former host. These illnesses include, "[d]iabetes, [h]eart condition, [and] [b]lood clots" (CDC, 2024b). Currently, there are no clinical tests available to determine if chronic symptoms are due to COVID-19 (CDC, 2024a). This means people with Long COVID could go undiagnosed and suffer further. People with Long COVID may also experience poor treatment by other members of society due to their disability. Sarah MacEwan and their team of researchers interviewed 21 people experiencing Long COVID (2024). From these interviews, they learned Long COVID devastated the interviewees' work-life balance and mental health. One participant said, "I started stammering over words. … I politely explained that, 'Hey, I'm sorry. I suffer from Long COVID, so it takes me a little bit here.' And [they] didn't care. … My credibility had been immediately diminished." (MacEwan et al., 2024, p. 1072) This makes COVID-19 unlike any common, respiratory virus previously experienced and worthy of a clear explanation to the people residing in the US.

Instead of communicating the full severity of COVID-19 and pushing for technical solutions to be accepted and applied, politicians and public institutions in the US have routinely downplayed the virus' harm. In 2002, the CDC created a manual on how public figures and institutions should communicate to effectively handle a health crisis called the Crisis and Emergency Risk Communication (CERC) (Sauer et al., 2021). It provided a framework with 6 key principles: be the first source to respond, be right in your responses, be credible, express empathy, promote action, and show respect (Sauer et al., 2021). At the beginning of the pandemic, the Trump administration undermined all of these core tenants. Molly Sauer and their peers note that Trump and his team were slow to respond, wrong about the effectiveness of

masking, lost credibility by lying about COVID-19 going away on its own, and were apathetic to the needs of children when they forced underequipped schools to reopen or risk losing funding (2021). I agree with Sauer and company's assessment, but I also believe it does not go far enough in its critique of Trump's pandemic response. Trump told people in the US dozens of times COVID-19 would go away without any need for masking or a vaccine (Wolfe and Dale, 2020). By doing this, Trump was trying to coerce people in the US into disregarding the family, friends, and community members dying around them. On top of this, Trump showed little respect for those losing family members by continuously peddling the lie of spontaneous COVID-19 disappearance when he could have been giving tangible solutions and aid.

Biden has also intentionally miscommunicated the threat of COVID-19 and how it should be addressed. Unlike Trump's method of lying about the virus magically disappearing, Biden misrepresented the situation by proclaiming the vaccine to be a silver bullet that would stop COVID-19 entirely. This mentality was put on full display in 2022 when he claimed, "We still have a problem with COVID-19. We're still doing a lot of work on it. But the pandemic is over. If you notice, no one's wearing masks." (Archie, 2022) This statement was wrong as there were still millions of cases around the world and Long COVID had impacted millions of people in the United States alone. By brushing off the impact COVID-19 was having at the time, Biden showed a lack of empathy for those suffering and a lack of action for his constituents to take in order to diminish said suffering.

In order to control COVID-19, the federal, state, and county governments of the country need to communicate clearly the current danger of COVID-19 as they are the social group most capable to influence public reception of the virus. This should be done using the CERC framework provided as it addresses all the areas in which a pandemic response can go wrong.

There should also be a depoliticizing of responses to natural disasters such as COVID-19 so the science can shine through and care can take place. A glimpse of this was seen when the Republican Governors of Maryland and Vermont (Larry Hogan and Phil Scott, respectively) put aside political allegiances to endorse masking in the early years of the COVID-19 pandemic (Sauer et al., 2021). This attitude needs to be elevated from the county and state levels into federal governance so that funding for research into how to cure Long COVID and contact tracing of who has COVID-19 can take place. While Sauer and their team note John Hopkins University and the University of Washington tracked COVID-19 cases and provided forecasts of infection early in the pandemic, they have since discontinued such services (2021). If we wish to stop Long COVID in its tracks and save lives from acute infection, politicians need to refocus their discussions on COVID-19 from lies about normalcy to accurately communicating the number of cases of both COVID-19 and Long COVID.

Proponents of a "new normal" when it comes to COVID-19 will take issue with this solution. One reason may be the belief that talking about COVID-19 accurately and with intention would cause people to panic more than is necessary. Trump claimed this when justifying why he lied about COVID-19 evaporating into thin air with enough time (Sauer et al., 2021). But, the reality of our current situation is that millions are being made into casualties by COVID-19. If public officials do not communicate this threat to our collective safety, the threat will never go away. It will only mutate around our vaccines while people become too complacent to get the newest booster shot.

Communicating how COVID-19 spreads is essential to communicating the threat it poses to the American public. There are many ways COVID-19 spreads from one person to another. The Illinois Department of Public Health (IDPH) states, "COVID-19 spreads when an infected

person breathes out droplets and very small particles that contain the virus." (n.d.) Droplets tend to be small, but can be visible to the naked eye. They spread only within a few feet of the person spewing them. The very small particles, on the other hand, can spread much farther away from the infected host. These particles are called aerosols. They are so small they cannot be observed without magnification gear, are light enough to spread yards away from the host through the air, and can potentially linger in the air waiting to infect someone. Both mediums of infection are spread when the host breathes, coughs, talks, or does any action involving air leaving their mouth and/or nose. While both asymptomatic and symptomatic COVID-19 hosts can spread the virus, those with symptoms tend to spread more droplets and aerosols due to their coughing and sneezing.

When it comes to the spreading of COVID-19, aerosols are particularly dangerous as a host can infect another person without getting into close contact with them. This has been documented numerous times in the form of superspreader events where a single infectious person spreads the virus to numerous others attending. An early instance of this occurred in restaurant in Guangzhou, China. In this restaurant, three tables were arranged in a line with an AC unit blowing air across all three (Lu et al., 2020). At these tables, 10 out of the 21 people seated were infected with COVID-19 in a similar timeframe (Lu et al., 2020). The first to be found with COVID-19 was a member of the middle table's family (Lu et al., 2020). The authors of the report attributed the spread of COVID-19 to droplet transmission (Lu et. al., 2020). But, it must be noted this was a study done in the early stages of the pandemic before aerosol transmission was understood. With yards of distance between the tables' occupants, droplets would not be able to reach the other tables unless they were aerosolized.

Another instance that illustrates perfectly how a host can infect someone without close contact to them occurred in 2021 at a quarantine hotel in Taiwan. Researchers found that the air in the hotel was, “100% recirculated; no fresh air is brought in from outside of the building.” (Wei et al., 2022, p. 2377) On top of this, the bathrooms for the suites contained fans which provided no air filtration (Wei et al., 2022, p.2377). The ceilings and walls of the rooms also had gaps which allowed air to flow between suites (Wei et al., 2022, p.2377). All of this culminated in 3 people getting infected despite the fact they never spent time together (Wei et al., 2022, p. 2374).

When describing how COVID-19 spreads, United States politicians and public institutions initially ignored the virus’ ability to spread through the air via aerosols. This can be seen by the initial recommendations coming out of Trump’s executive branch at the Pandemic’s outset. “On February 29, 2020, US Surgeon General Dr. Jerome Adams communicated that masks were not effective in preventing COVID-19 infection” with Dr. Anthony Fauci following close behind to cosign this statement (Sauer et al., 2021). The reason for this diagnosis was because the Center of Disease Control and Prevention (CDC) did not believe COVID-19 was airborne. The CDC later cleared this up by reversing the advice and instructing people in the US to mask for protection. But, the institution continues to misrepresent COVID-19’s dominant means of infection. The CDC’s recommendation on how to protect against COVID-19 illustrates this. Instead of emphasizing the need for respirators, The CDC advises people to, “Stay up to date with COVID-19 vaccines” and, “[p]ractice good hygiene” (CDC, 2024c). While COVID-19 vaccines are a major preventative measure that minimizes the risk COVID-19 poses, it is not effective enough as vaccinated people can still get infected. Good hygiene is also unlikely to stop the spread of COVID-19 as the virus’ main way of spreading is through the air.

The aerosols released by infected people can be dealt with in numerous ways. The cheapest solution is through respirators such as the N95 (American), KN95 (Chinese), and KF95 (Korean). Since the Omicron strain began to dominate all other COVID-19 variants, cloth have become obsolete due to their lackluster seals and filtration (Dillinger and Bonifield, 2022). The CDC recommended that KN95s be used to offer more protection and N95s be used for the highest level of protection (Dillinger and Bonifield, 2022). Air filtration units in public areas also need to be updated so that they can, "remove small airborne particles (in the size range of 0.1-1 um)" as that is the size of COVID-19 aerosols (EPA, 2024). If renovating a building's entire air filtration system is not an option, it must be communicated that small, air cleaning units can also be utilized (EPA, 2024). It is up to politicians and public institutions to communicate this to the public as many look towards them for guidance in matters of health.

Some might argue that implementing these strategies to contain COVID-19 are excessive. With vaccines diminishing COVID-19 cases and severe COVID-19 cases, it would appear calling on people to take precaution towards COVID-19 is not needed. The problem with this logic is that COVID-19 continues to mutate around previously established immunities. By failing to communicate the risk of COVID-19 transition, public officials open the general public to constant reinfection. Each of these infections can result in the contraction of Long COVID. In order to ensure large swaths of our nation do not succumb to this chronic illness, the government must take steps to communicate. By effectively communicating the threat of Long COVID, millions of people can be saved from losing work and pay that sustains a family due to chronic disability.

On top of communicating the danger COVID-19 poses and how it spreads, trust and accessibility to vaccines must be bolstered. Vaccines play a critical role in limiting the spread of

viruses as they prevent people from getting infected in the first place. This not only saves the person from the ailment's symptoms, but it also limits the virus's ability to mutate uncontrollably. Despite the fact that many vaccines have come out to address COVID-19, vaccine hesitancy in the United States drastically reduces the number of people seeking them out. Vaccine hesitancy "refers to delay in acceptance or refusal of vaccination despite availability of vaccination services." (MacDonald and The SAGE Working Group, 2015, p. 4163) Vaccine hesitancy is not complete vaccine denial. It includes people who get some vaccines but not others. This is especially important for understanding vaccination rates for COVID-19. Farah Yasmin and a team of scientists reviewed dozens of published papers to evaluate the US population's vaccine hesitancy towards the first COVID-19 vaccines (2021, p. 2). These scientists found vaccine hesitancy fluctuated greatly in the early years of the pandemic. In November and December 2020, only 56% of respondents saying they are somewhat or highly likely to receive the vaccine (Yasmin et al., 2021, p. 2). On the flip side, from October 2020 to March 2021, vaccine hesitancy decreased by 10.8% (Yasmin et al., 2021, p. 12). They speculated that as the pandemic became more severe, people would be more accepting of the COVID-19 vaccine and receive it more. Our current vaccination rates seem to disprove that hypothesis, though. In the fall of 2024, most Americans surveyed said they would not receive the latest COVID-19 vaccine (Tyson et al., 2025). A 2023 survey also found 57% of Americans felt the statement, "we don't really know yet if there are serious health risks from COVID-19 vaccines' described their sentiment towards the vaccines, "at least somewhat well (Funk et al., 2023). This abundance of vaccine hesitancy after over a million COVID-19 related deaths and over 17 million disabilities due to Long COVID firmly rebukes the theory that vaccine hesitancy found early in the pandemic is due to the virus not being serious enough.

There are many reasons that can feed into the vaccine hesitancy seen with COVID-19. One major reason vaccine hesitancy has persisted to be a problem is because of political influences. This can be seen by the fact that there is a major partisan split in perception of COVID-19 and the harm it brings. Despite common concerns about the COVID-19 vaccines' health risks, 62% of Democrats either received the latest vaccines or plan on taking them (Tyson et al., 2025). This is compared to 8 out of 10 Republicans saying they probably would not get the latest vaccines (Tyson et al., 2025). This divide is understandable given how the two parties talk about COVID-19. While Biden's comments about the pandemic being over were blatantly wrong, he received push back from medical professionals trusted by Democratic constituents such as Dr. Anthony Fauci (Archie, 2022). On top of this, Biden and the Democratic party pushed for Americans to get vaccinated. When the first vaccines were made available, Biden showed his trust for the vaccine by getting the shot himself in front of the media (Edelman and Shabad, 2020). On the other hand, Trump has routinely placated the anti-vaccine movement, even going so far as to nominate staunch anti-vaccination activists such as Dr Jay Bhattacharya and Robert F Kennedy Jr to key health positions in his second term (Boyd, 2025).

Both political parties must push Americans to get vaccinated routinely so that vaccination rates rises. This is especially true for conservatives as the Republican party has been particularly antagonistic towards vaccinations in recent years. Some may say this is not necessary as the number of COVID-19 cases have decreased. While that is true, the only way that is currently known to stop Long COVID infection is by not getting COVID-19 to begin with. Others may critique the COVID-19 vaccines as being unsafe because they are specifically mRNA vaccines. This is the argument made by Trump's National Institutes of Health nominee, Dr. Jay

Bhattacharya, who claims they cause excessive death (Boyd, 2025). These claims have been found to be false, though (CDC, 2025).

Even though there are a plethora of technical solutions to COVID-19, there are many social flaws holding back the United States' response. The confusing communication of public health officials and politicians is one. Lies about how COVID-19 spreads most of the time is another. Politicizing of vaccines which leads to partisan divides of their acceptance is the final part. By communicating more effectively, telling the truth about how terrible COVID-19 and Long COVID are, and pushing for bipartisan vaccination COVID-19 can finally be managed or eliminated. If this were to be done with COVID-19, it could also be done for other respiratory diseases such as the flu and common cold. Eliminating any or all of these diseases would greatly increase the health of our people and the productivity of our workers. But, doing so would also require cooperation with international bodies and other countries. This is because diseases and viruses do not respect borders. They could easily spread to another land, mutate, and then come back worse than before. Since my research focuses on the United States and the problems seen domestically, it cannot be used to advise the actions of other nations. That being said, having a nation as big as the United States clear away its COVID-19 problem could provide others with the inspiration needed to follow suit. In the end, the United States should still take the prescribed action to finally put COVID-19 behind us.

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