

# THE TRUMP FILES

Gratis Sample  
Part V: COVID-19

by  
Jack Hassard

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**Part V. COVID-19**

Chapter 10. SARS-CoV-2

Chapter 11: Trump's COVID-19 Response

Chapter 12: School in the Age of COVID-19

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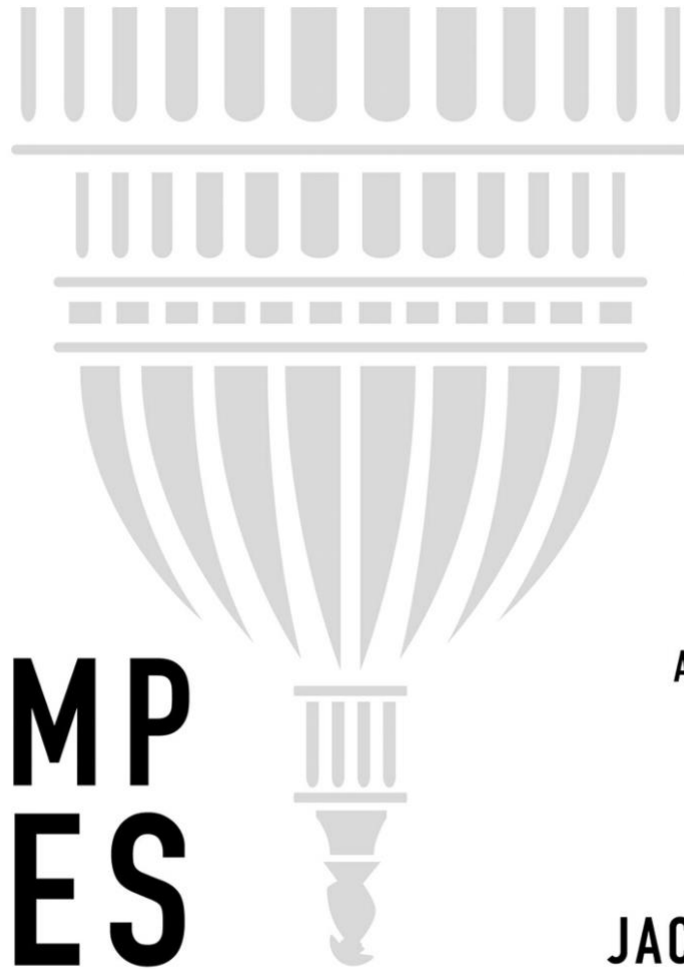
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AN ACCOUNT OF  
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EFFECT ON AMERICAN  
DEMOCRACY,  
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JACK HASSARD

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# PART V: COVID-19

And then I see the disinfectant, where it  
knocks it out in a minute. One minute. And is  
there a way we can do something like that,  
by injection inside or almost a cleaning?

—Donald J. Trump, April 23, 2020

## INTRODUCTION

ON JANUARY 28, 2020, A MEETING WAS HELD IN THE OVAL Office. Donald Trump met with some of his national security team. He was told by National Security Advisor Robert O'Brien that the virus outbreak in China "will be the biggest national security threat you face in your presidency."<sup>345</sup> Another person in the room at the time said that this virus would not be anything like the 2003 SARS outbreak. SARS, or severe acute respiratory syndrome, is a viral respiratory illness caused by a coronavirus. According to Bob Woodward, O'Brien disagreed and defended his position of the virus being serious.

Indeed, Assistant National Security Advisor Matt Pottinger, who was also in the room, agreed with O'Brien. Pottinger had been in the Trump administration as a national security advisor since September 2019. He previously was a journalist and US Marine Corps officer. As a reporter, he wrote more than three dozen stories on the SARS epidemic. He spoke Mandarin Chinese and did reporting from China for seven years. He understood infectious diseases. During this meeting in the

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<sup>345</sup> Woodward, *Rage*, xiii.

Oval Office, Pottinger explained to Trump that the virus in China would be as bad as the 1918 flu pandemic. He knew this outcome because he had been in touch with Chinese contacts whom he trusted and with whom he worked while he was in China.

So on January 28, Donald Trump found out that he would be facing the most serious health emergency in more than a century. Pottinger spoke out in the meeting and said to the president, "My contacts in China told me that there three factors that were accelerating the transmission of the disease. They said that contrary to some reports from the Chinese government, people were getting the disease easily from other people and it was being spread by people who didn't show any symptoms. This means a once-in-a-lifetime health emergency, a virus that's out of control."<sup>346</sup>

From this point on, Americans were put at risk by the failure of President Trump to heed the advice from his national security team. Instead of calling in the CDC and the National Institute of Allergy and Infectious Diseases (NIAID) for the latest research on the outbreak in China, he downplayed the disease and sidelined hundreds of scientists.

### THE GREAT 1918 INFLUENZA PANDEMIC

A century ago, the world experienced the most lethal respiratory virus in human history. Early estimates were that 20 million people globally (about the population of New York) died from the disease. But recent research estimates that between 50 and 100 million people died out of a world population of 1.8 billion. Evidence shows that the influenza pandemic originated in Haskell County, Kansas, a small and remote area in the southwest corner of the state.<sup>347</sup> The first case was reported there. Camp Funston, a US Army training camp located on Fort Riley, southwest of Manhattan, Kansas, was visited by friends and family of the soldiers in the camp; some brought the influenza there, and it spread among the troops. Because Camp Funston was a training center, soldiers moved to other bases in the US and then to France, where WWI was

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<sup>346</sup> Conversation based on Woodward, *Rage*.

<sup>347</sup> John M. Barry, "The Site of Origin of the 1918 Influenza Pandemic and Its Public Health Implications," *Journal of Translational Medicine*, January 20, 2004, retrieved April 5, 2022, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC340389/>.

raging. American soldiers traveling to France brought with them the virus that had already spread throughout the US. More than 650,000 Americans died in a matter of months.

The lessons from the 1918 flu pandemic are clear. Nonpharmaceutical methods, including keeping students out of school, banning public gatherings, and using isolation and quarantine are effective. They can mitigate the spread of a virus.

John Barry, author of *The Great Influenza: The Story of the Deadliest Plague in History*, says that truth is the most important lesson we can learn from the Great Influenza.<sup>348</sup> People need to tell the truth about the outbreak. Information from all levels of government needs to be based on facts and truthfulness. Anything short will result in alienation and suspicion.

The CDC has web pages about how to communicate during an outbreak or public health crisis. An important consideration for health officials is to realize that individuals will perceive the risk posed by the disease and then decide how they will deal with mitigation recommendations or orders by the government. During the coronavirus pandemic, the United States' messaging was incomplete and inconsistent, resulting in mixed messages by local and state governments. Some states were on lockdown, while other states were open for business. Florida, Georgia, and Texas lead the way in ignoring CDC guidelines. Some of my friends thought it was ironic that Georgia is on this list, given that the CDC is in Atlanta. Gatherings of hundreds of people at beaches and bars were common and resulted in what are known as super-spreader events.

School closures, limits on public gatherings, isolation, and quarantine were used during the Great Influenza in the United States. As I show Chapter 10, isolation and quarantine seem to be the most effective at preventing the disease, but mask wearing and social distancing are also important. The evidence today is that facial coverings may provide the most protection for yourself and others who might be in close contact with infected persons.

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<sup>348</sup> John M. Barry, *The Great Influenza: The Story of the Deadliest Pandemic in History* (New York: Penguin Books, 2004).

However, in 1918, wearing masks was not an effective mitigation method, according to Barry.<sup>349</sup> Many western states enacted mask-wearing ordinances, yet people resisted wearing them. Most masks were homemade and lacked the quality that was needed to prevent exposure to the flu.

The face mask was pioneered by Dr. Wu Lien-teh, an epidemiologist who designed and used face masks after investigating a deadly disease outbreak in northeastern China in 1910.<sup>350</sup> Dr. Wu learned from this experience that the disease could be spread by respiratory droplets. A bacterium was responsible for the disease, which he identified as *Yersinia pestis*, known from earlier bubonic plagues. He produced a mask made from cotton and gauze with extra layers of cloth, a much-improved design over the one-layered “mouth bandage” developed by Johannes von Mikulicz in Breslau, Germany, around 1900.<sup>351</sup> Dr. Wu recommended that medical staff wear masks to protect themselves from disease carried by their patients. Mask wearing introduced by Dr. Wu was met with some resistance. But, as is so often the case, a colleague who refused to wear a mask died from a respiratory disease.

One of the most important things in the COVID-19 pandemic is that people need to be told the truth about the virus. The president of the United States avoided telling Americans how serious the disease was, and he obstructed the advice of science advisors on the White House Coronavirus Task Force.

## THE GREAT 2019 CORONAVIRUS PANDEMIC

The first case of coronavirus is thought to be an individual in the Hubei Province in China. The case dates to November 17, 2019, which, of course, is earlier than the cases that were later found in December 2019 in Wuhan, China. The Chinese considered the viral disease so serious they quarantined 11 million people (about twice the population of Arizona) in Wuhan.

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<sup>349</sup> Barry, *The Great Influenza*.

<sup>350</sup> Sam Wong, “Dr Wu Lien-teh: Face Mask Pioneer Who Helped Defeat a Plague Epidemic,” *New Scientist*, March 10, 2021, retrieved March 13, 2021, <https://www.newscientist.com/article/2270735-dr-wu-lien-teh-face-mask-pioneer-who-helped-defeat-a-plague-epidemic/>.

<sup>351</sup> Christiane Matuschek et al., “The History and Value of Face Masks,” *European Journal of Medical Research*, June 23, 2020, retrieved November 27, 2021, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7309199/>.



During this time the CDC and the NSC were in contact with each other about the coronavirus outbreak in Wuhan. The CDC tried to send some of its infectious disease scientists to Wuhan, but they were blocked by the Chinese government.

On January 9, the World Health Organization (WHO) announced that pneumonia-like cases in Wuhan could be a new coronavirus. Chinese scientists confirmed that a novel coronavirus had killed four and infected more than two hundred. On January 23 the WHO declared a global health emergency.

The United States had its first reported case January 20, 2020. *The New England Journal of Medicine* published a detailed study of the first case on January 31, 2020. According to the study, a thirty-five-year-old man with a four-day history of cough and fever checked into an urgent care clinic in Snohomish County, Washington, which is located north of Seattle. The man put on a mask and waited for about twenty minutes before being examined. He said he returned to Washington state on January 15 after visiting family in Wuhan, China. He indicated that he did not visit the Huanan seafood market and didn't meet persons who were ill. He came to the clinic because he had seen a health alert from the CDC about the novel coronavirus outbreak in China.<sup>352</sup>

They sent nasal swabs to the CDC to test for SARS-CoV-2 using overnight polymerase chain reaction testing (PCR). The PCR test is used to detect genetic material from a specific organism, such as a coronavirus. The CDC confirmed that he tested positive for the novel coronavirus. Although the patient had been discharged, he was later admitted to an airborne-isolation unit at a regional medical center for clinical observation.

## ORIGIN OF SARS-COV-2

On January 23, 2020, twenty-five people had died from SARS-CoV-2. By October 15, 2021, more than 4.8 million worldwide had died from the virus.

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<sup>352</sup> Michelle L. Holshue et al., "First Case of 2019 Novel Coronavirus in the United States," *New England Journal of Medicine*, May 7, 2020, retrieved February 24, 2021, <https://www.nejm.org/doi/full/10.1056/NEJMoa2001191>.

SARS-CoV-2 raises many questions. For example, what is its origin? Was a human infected by the virus from an animal, or was it the result of a laboratory accident?

The origin of the virus has not been determined and has sparked a controversy highlighting the “lab leak” thesis. Could a shattered container in a lab in Wuhan, China, result in a worldwide pandemic? As you will read ahead, the WHO and US Intelligence Community doesn’t think it started in a lab. Most scientists, including Dr. Anthony Fauci, director of the NIAID, believe the virus began naturally jumping from animals to humans. Yet the research on the origins of SARS-CoV-2 that I uncovered does not dismiss the lab accident cause of the pandemic. In the end, what is important is how and where the virus infected humans and spread throughout the world.

A paper published in *Nature Medicine* says that despite what has been said about the lab leak theory, there is no credible evidence that SARS-CoV-2 was ever known to virologists before it emerged in 2019. The paper’s author, A. L. Rasmussen, researcher at the Center for Global Health Science and Security, Georgetown University, went on to say that it appears as if SARS-CoV-2 evolved in a bat host until a spillover event into humans occurred.<sup>353</sup>

Rasmussen also points out that there is considerable research on the history of pathogens (viruses, bacteria, fungi, protozoa, and worms) emerging by natural means. She writes that the laboratory origin of SARS-CoV-2 has become political propaganda. Some, including Senator Tom Cotton, have suggested that the virus is a biological weapon,<sup>354</sup> while others have claimed that it was engineered followed by a government coverup. The US Intelligence Committee investigation in the spring of 2021 of COVID-19 dismissed each of these ideas. Misinformation published in anti-science print media blames scientists for covering up the origins of the virus. In some cases, scientists that dispute such claims are subject to harassment, violence, and sexual assault.<sup>355</sup> Pseudoscience

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<sup>353</sup> Angela L. Rasmussen, “On the Origins of SARS-CoV-2,” *Nature News*, January 13, 2021, <https://www.nature.com/articles/s41591-020-01205-5>.

<sup>354</sup> Amy Maxmen, “US COVID Origins Report: Researchers Pleased with Scientific Approach,” *Nature News*, August 27, 2021, <https://www.nature.com/articles/d41586-021-02366-0>. The Unclassified Intelligence Community report, although inconclusive, finds that SARS-CoV-2 wasn’t weaponized and was unlikely to have been engineered.

<sup>355</sup> Rasmussen, “On the Origins of SARS-CoV-2.”

and conspiracy theories are attractive to media outlets, but they are dangerous because we need to know how and where the virus originated to help deal with future pandemics.

Another report indicated that there is near-consensus view that SARS-CoV-2 has a natural zoonotic origin.<sup>356</sup> However, the authors of this paper don't think we should discount a laboratory origin of COVID-19. They identify several characteristics of SARS-CoV-2 that are not easily explained by natural zoonotic origin hypothesis. And no unmistakable evidence of zoonotic transfer from a bat or intermediate species yet exists. Very few papers counter the lab theory with data analysis.<sup>357</sup>

In February 2020, a group of twenty-four physicians, veterinarians, epidemiologists, virologists, biologists, ecologists, and public health experts from around the world joined together to support the work being done by Chinese colleagues to find the origin of SARS-CoV-2. They also spoke out to support the idea that the virus originated in nature and not in a lab.<sup>358</sup>

In July 2021, the same group of scientists published another article in *The Lancet* reaffirming their original idea of a natural origin of COVID-19 based on genetic analysis of the virus and previous research on SARS-CoV and MERS-CoV.<sup>359</sup> Several peer-reviewed studies are cited by the scientists supporting the virus emerging from an animal to a human.<sup>360,361,362</sup> They also cite research that shows the lab theory of origin doesn't hold up.<sup>363</sup>

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<sup>356</sup> Rossana Segreto et al., "Should We Discount the Laboratory Origin of COVID-19?" *Environmental Chemistry Letters* 19 (March 25, 2021): 2743–4757, <https://link.springer.com/article/10.1007/s10311-021-01211-0>.

<sup>357</sup> Segreto et al., "Laboratory Origin of COVID-19?"

<sup>358</sup> Charles Calisher et al., "Statement in Support of the Scientists, Public Health Professionals, and Medical Professionals of China Combatting COVID-19," *The Lancet*, February 19, 2020, [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30418-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30418-9/fulltext).

<sup>359</sup> Charles Calisher, Dennis Carroll, and Rita Colwell, "Science, Not Speculation, Is Essential to Determine How SARS-CoV-2 Reached Humans," *The Lancet*, July 5, 2021, accessed July 6, 2021, [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01419-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01419-7/fulltext).

<sup>360</sup> Diego Forni et al., "Molecular Evolution of Human Coronavirus Genomes," *Trends in Microbiology* 25, no. 1 (January 1, 2017): 35–48, <https://doi.org/10.1016/j.tim.2016.09.001>.

<sup>361</sup> H. Zhou et al., "Identification of Novel Bat Coronaviruses Sheds Light on the Evolutionary Origins of SARS-CoV-2 and Related Viruses," *Cell* 184, no. 17 (2021): 4380–4391, <https://pubmed.ncbi.nlm.nih.gov/34147139/>.

<sup>362</sup> Robert F. Garry, "Early Appearance of Two Distinct Genomic Lineages of SARS-CoV-2 in Different Wuhan Wildlife Markets Suggests SARS-CoV-2 Has a Natural Origin," *Virological*, May 3, 2021, <https://virological.org/t/early-appearance-of-two-distinct-genomic-lineages-of-sars-cov-2-in-different-wuhan-wildlife-markets-suggests-sars-cov-2-has-a-natural-origin/691>.

<sup>363</sup> Justin Ling, "The Lab Leak Theory Doesn't Hold Up," *Foreign Policy*, June 15, 2021, <https://foreignpolicy.com/2021/06/15/lab-leak-theory-doesnt-hold-up-covid-china/>.

**Laboratory Incidents.** Laboratory accidents or incidents have a long history stretching back to the early twentieth century. It is possible that dangerous or lethal pathogens can be accidentally released from a lab or during transport from field sites. One case involved a laboratory worker getting exposed and infected simply by a pin prick. In 2007–2008, foot-and-mouth disease was spread from a drainage pipe leak at a UK lab, even with the highest biosafety rating of BSL-4. At that time, I was traveling often to the UK to purchase antiques with my wife, and whenever I entered a farm or a large commercial field, it was necessary to walk through disinfectant pools as a safety precaution. Biosafety levels range from BSL-1 to BSL-4 based on the risk of microbes from low to high.<sup>364</sup> Biosafety means that safety precautions are applied that reduce the laboratory's risk of exposure to a potentially infectious microbes and to limit the contamination of the work environment.

Compromising biosafety protocols can result in infection and community spread. In 2015 a female lab worker in South Korea who was at a BSL-2 lab (a biosafety level similar to your dentist's office) was infected with dengue by a needlestick injury. In 2016, thirty staff members were exposed to a toxic bacterium in a lab in Canberra, Australia.

**Initial Research Papers.** One of the first papers on the origin of SARS-CoV-2 was reported by Dr. Francis Collins, director of the NIH, on the director's blog. The research Dr. Collins cites, "The Proximal Origin of SARS-CoV-2,"<sup>365</sup> shows that the virus arose naturally, not in a lab. It was published in *Nature Medicine*, a journal in the *Nature* portfolio of publishing. The paper was also cited in Rasmussen's "On the Origins of SARS-CoV-2" research, and it too counters the laboratory origin theory of SARS-CoV-2.

In the study published in *Nature Medicine*, two scenarios are postulated. The first is natural selection in an animal host before zoonotic transfer. Given the similarity of SARS-CoV-2 to SARS-CoV-like

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<sup>364</sup> "CDC LC Quick Learn: Recognize the Four Biosafety Levels," Centers for Disease Control and Prevention, <https://www.cdc.gov/training/quicklearns/biosafety/>.

<sup>365</sup> Kristian G. Andersen et al., "The Proximal Origin of SARS-CoV-2," *Nature Medicine* 26 (2020): 450–452, <https://doi.org/10.1038/s41591-020-0820-9>.

coronaviruses in bats, the researchers suggest it is likely that bats serve as reservoir hosts for its progenitor.

The second scenario is natural selection in humans following zoonotic transfer. In this scenario, the virus crossed from animals to humans long before it could cause human disease. Anderson's team thinks that through gradual evolutionary changes over years or decades, the coronavirus developed the ability to spread from human to human, which could cause a serious disease.

The researchers' analysis show that SARS-CoV-2 is probably not a laboratory construct or a purposefully manipulated virus.

Finding the origin of the SARS-CoV-2 will only happen with more scientific data determined by using evidence-based approaches. Knowing the origin of the virus, whether it's a lab or not, will only advance our knowledge and surveillance of viruses that infect humans.

**The 2021 WHO Study.** In January 2021, a WHO international scientific and collaborative mission traveled to China and worked with scientists there for four weeks to investigate the origins of the SARS-CoV-2. The report, *WHO-Convened Global Study of Origins of SARS-CoV-2: China Part*, was published in March 2021.<sup>366</sup>

According to the report, it's highly unlikely that the coronavirus escaped from a lab at the Wuhan Institute of Virology. To scientists involved in the study, most say the evidence favors SARS-CoV-2 having spilled over from animals into humans. However, a few still back the idea that the virus was intentionally or accidentally leaked from a lab. When the team visited the virology lab, they found no workers at the lab with antibodies against SAR-CoV-2, which rules out the idea that someone there had been infected and then spread the virus. However, it's been reported that three workers at the lab fell sick in November 2019 and had to be hospitalized. They had COVID-19-like or seasonal symptoms.

Because of the scrutiny by the Chinese government during their time in Wuhan, some scientists went on record saying they wouldn't

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<sup>366</sup> WHO-Convened Global Study of Origins of SARS-CoV-2: China Part, World Health Organization, March 30, 2021, <https://www.who.int/publications/i/item/who-convened-global-study-of-origins-of-sars-cov-2-china-part>.

trust the outcome of the investigation. The WHO-led team had little power to conduct a thorough and impartial study of the virus's origins. The Trump administration withdrew from the WHO, a decision that made it difficult to have American scientists as part of the WHO-led team to China. Although some American names were put forward, none were ever extended an invitation to join the WHO team.<sup>367</sup>

These journalists reported that the WHO-led team was only mandated to design and recommend scientific studies. It was not prepared to do scientific investigations and did not have laboratory forensic capabilities. This omission was unfortunate because it sheds doubt on the WHO report.

Challenges remaining include finding the animal that carried the virus from bats to humans and determining how that spillover into people occurred. To what degree can the report's findings meet the test of scientific viability?

The WHO investigation zeroed in to identify the zoonotic source of the virus and the route of introduction to the human population, including the role of intermediate hosts. The early cases of COVID-19 were associated with the Huanan market, and some other markets as well. Some cases were not associated with markets at all. The WHO research team also suggested cases might have existed before the first case in Wuhan. Investigating possible earlier events might be important.

Environmental sampling in Huanan market showed out of 923 samples in the market, 73 samples were positive. WHO researchers said this result revealed widespread contamination of surfaces with SARS-CoV-2, meaning the virus was spread by infected people, infected animals, or contaminated products. In addition, supply chains to the Huanan market included cold-chain products and animal products from twenty countries, including some samples that were reported as positive for SARS-CoV-2. The researchers also suggested evidence existed that some domesticated wildlife products sold in the market are susceptible to SARS-CoV-2.

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<sup>367</sup> Jeremy Page, Betsy McKay, and Drew Hinshaw, "How the WHO's Hunt for Covid's Origins Stumbled in China," *Wall Street Journal*, March 17, 2021, retrieved May 24, 2021, <https://www.wsj.com/articles/who-china-hunt-covid-origins-11616004512>.

The joint international team proposed four scenarios for introduction of the virus into humans:<sup>368</sup>

1. Direct zoonotic transmission to humans (spillover)
2. Introduction through an intermediate host followed by spillover
3. Introduction through the (cold) food chain
4. Introduction through a laboratory incident

Using qualitative risk assessment, each pathway was investigated considering available evidence. This kind of assessment is an estimate based on qualitative data rather than quantitative data. Although quantitative data are preferred to make risk assessments, the WHO team did not have sufficient quantitative data to incorporate into their assessments.

The WHO joint team postulated the following as the likelihood of each pathway:

1. Direct zoonotic spillover is a possible to likely pathway.
2. Introduction through an intermediate host is a likely to very likely pathway.
3. Introduction through (cold) food chain products is considered a possible pathway.
4. Introduction through a laboratory incident is an extremely unlikely pathway.

It's important to note that the joint team visited nine locations, including hospitals, infectious disease centers, wholesale markets, Wuhan CDC, Wuhan Institute of Virology, and a community center in Jianxinyuan. The major finding of the joint team is that direct zoonotic spillover is a possible to likely pathway of the SARS-CoV-2.

However, scientists still do not know which animal might have carried the virus from bats to humans. The WHO report suggests that

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<sup>368</sup> Page, McKay, and Hinshaw, "How the WHO's Hunt for Covid's Origins Stumbled in China."

the start of the virus outbreak might have been a month or two before mid-December 2019. Much research is needed to track down how the virus spilled over into humans.

**US Intelligence Community Report.** On May 26, 2021, President Biden ordered a ninety-day US Intelligence Community investigation into where the SARS-CoV-2 came from. The Intelligence Community report, which consisted of several teams of investigators, concluded that two hypotheses are plausible: natural exposure to an infected animal and a laboratory-associated incident.

The groups assessed with low confidence that the initial SARS-CoV-2 infection was most likely caused by natural exposure to an animal infected with it or a close progenitor virus—a virus that probably would be more than 99 percent like SARS-CoV-2. The low confidence emerged because of the lack of foreknowledge from the Chinese government. One group assessed with moderate confidence that the first human infection with SARS-CoV-2 most likely was the result of a laboratory-associated incident, probably involving experimentation, animal handling, or sampling by the Wuhan Institute of Virology. These analysts give weight to the inherently risky nature of work on coronaviruses. This US government report keeps the door open to a lab accident but does not have research to support its idea.

**Wuhan Institute of Virology.** Ever since the virus was identified in Wuhan, initial claims were that the virus leaked from the Wuhan Institute of Virology. The institute was founded in 1951 as the Wuhan Microbiology Laboratory, and over time its name changed, but the nature of its work progressed so that in 2003, it became the first BSL-4 lab in China. A BSL-4 lab is one that can contain the most dangerous biological agents using training, technology, and secure systems to prevent accidental laboratory events.

By 2018, the lab was accredited by the China National Accreditation Service for Conformity Assessment. The institute's BSL-4 allows it to investigate dangerous viruses such as SARS, influenza H5N1, Japanese encephalitis, and dengue, as well as anthrax.



The initial claims of a lab leak waned throughout 2020, but as new information surfaced in 2021, such as three employees of the institute being hospitalized with COVID-19-like symptoms in December, the lab leak gained more attention.

When Trump promoted an anti-China and anti-Asia campaign, most officials and scientists did not believe that the lab leak was a viable hypothesis. However, after the WHO's investigation of the virus was published in 2021, the hypothesis was revived. The WHO scientists were not given wide access to documents and details of the Wuhan Institute of Virology. Some of the scientists were not impressed and thought that the institute should be pressed to be more transparent with what they know about the disease. Although most of the scientific community believes the virus originated in nature, they support further work to examine the lab leak hypothesis.

**The Lab Leak Idea.** The Trump administration pushed the lab leak theory in the press to take the heat of their own bungling in dealing with the spread of the virus in the United States. No evidence existed then for a lab leak, and it is more unlikely now based on recent research reported in peer-reviewed journals and newsletters.

The major perpetrator of the lab leak theory is the media; it makes for good television. It also enables the media to present two sides of the origin of COVID-19, which is very similar to the media's enchantment of presenting two sides of other issues, such as evolution versus intelligent design. In a *Los Angeles Times* article, Michael Hitzik describes how CNN propped up the lab leak idea by bringing together a group of four panelists, only one of whom was a medical expert—Sanjay Gupta.<sup>369</sup> The lab leak side had no one with any experience in virology. The two ideas, a natural spillover and the lab leak, as equals is the unfortunate approach the media takes. There are many research studies in scientific journals about the origin of COVID-19

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<sup>369</sup> M. Hitzik, "Column: New Evidence Undermines the COVID Lab-Leak Theory—but the Press Keeps Pushing It," *Los Angeles Times*, September 28, 2021, retrieved October 11, 2021, <https://www.latimes.com/business/story/2021-09-28/evidence-against-a-lab-leak-as-covid-source>.

that support a natural spill from animal to human.<sup>370,371</sup> There are no studies that support a lab leak.

**Spillover Infection Events.** Pathogens such as SARS-CoV-2 are the result of spillover infection events.<sup>372</sup> Spillover occurs when a reservoir population (rats, bats, mosquitos) encounters a novel host population, such as humans. This is an example of zoonosis, an infectious disease caused by an agent such as a bacterium, parasite, or virus that has spilled over or jumped from an animal (normally a vertebrate) to a human.

According to many scientists around the world, a spillover occurred somewhere in China from a bat to an intermediate animal and then to a human. A SARS-CoV-2 infection can spread from human to human. The infection can spread asymptotically. Dr. Anthony Fauci, director of the NIAID, says 40 percent of Americans with SARS-CoV-2 are asymptomatic, meaning they show no symptoms of the disease. According to the CDC, people can be infectious for ten to fourteen days. South Korean researchers estimate those infectious with symptoms were contagious for up to twenty days.

The most likely place that the spillover happened was the Huanan market. It's been reported that a third of the 168 COVID-19 cases reported in December 2019 were linked to the market. It was also discovered that many of the early cases were not only linked to the market, but the western part of the market where live animals, such as raccoon dogs, were housed. Raccoon dogs are a potential intermediate host to transmit SARS-CoV-2 to humans.<sup>373</sup>

The SARS-CoV-2 pandemic was not a surprise to most infectious disease scientists and journalists who specialize in studying or reporting human diseases, as well as ecological and environmental issues caused by human invasion. David Quammen's 2012 book, *Spillover: Animal*

<sup>370</sup> Smriti Mallapaty, "Closest Known Relatives of Virus behind COVID-19 Found in Laos," *Nature News*, September 27, 2021, retrieved October 11, 2021, <https://www.nature.com/articles/d41586-021-02596-2>.

<sup>371</sup> Garry, "Early Appearance of Two Distinct Genomic Lineages."

<sup>372</sup> Corrie Brown, "Spillover: Animal Infection and the Next Human Pandemic," review of the book by David Quammen, *Emerging Infectious Diseases* 19 no. 2 (2013): 349, <https://doi.org/10.3201/eid1902.121694>.

<sup>373</sup> Michael Le Page, "Analysis of Earliest COVID-19 Cases Points to Wuhan Market as Source," *New Scientist*, November 25, 2021, retrieved November 28, 2021, <https://www.newscientist.com/article/2298195-analysis-of-earliest-covid-19-cases-points-to-wuhan-market-as-source/>.

*Infections and the Next Human Pandemic*, reads like a fictional tale of someone's idea of how to kill off one another, either humans or other animals, on Earth.<sup>374</sup>

One of the important points that Quammen makes is that humanity is responsible for the large pattern of outbreaks of new zoonotic diseases. I was talking with Mike Dias, professor of biology at Kennesaw State University, on a Zoom call recently. He said as we live in closer proximity to wild animals, we should expect more zoonotic outbreaks. Think about how the Earth's population has changed over the past century. The human population was 2 billion a century ago. Now it is 7 billion. Many of us live in large and dense cities.

As Quammen says, we have penetrated and we continue to penetrate the last great forests and other wild ecosystems. This invasion has disrupted the physical structures and the ecological communities of these places.

One of the most significant spillover species is bats. Quammen described how a handful of scientists who knew little about bats but a lot about infectious diseases decided to do a review of published and unpublished research on bats. They published their paper with the title "Bats: Important Reservoir Hosts of Emerging Viruses."<sup>375</sup> They described the characteristics of bats and information regarding sixty-six viruses that have been isolated from bats. In 2006, they made it clear that not enough is known about bat conservation, and many questions need to be explored regarding the role of bats in disease emergence. Their paper resulted in requests for hundreds of reprints and cited thousands of times in the literature.

Bats are the major hosts for the evolution of the two previous coronaviruses, severe acute respiratory syndrome (SARS, 2002 in China) and Middle East respiratory syndrome (MERS, 2012, Saudi Arabia). The new coronavirus, SARS-CoV-2, originated in bats. Much of the early research focused on Wuhan's open-air wet markets, where customers bought

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<sup>374</sup> David Quammen, *Spillover: Animal Infections and the Next Human Pandemic* (New York: W. W. Norton & Company, 2021).

<sup>375</sup> Charles Calisher et al., "Bats: Important Reservoir Hosts of Emerging Viruses," *Clinical Microbiology Reviews* 19, no. 3 (2006): 531-545, retrieved March 12, 2021, <https://doi.org/10.1128/CMR.00017-06>.

fresh meat and fish, including animals killed on the spot. Some wet markets sell wild and banned species. Crowded conditions allow viruses to spill over, spreading to and infecting other animals and humans. However, some of the people who got sick never went near the open-air market. And the first case reported in the United States was a man who had returned to the US after spending time in Wuhan and who said that he did not visit any of the markets in Wuhan.

### TRUMP'S RESPONSE

Trump's history of denial and untruths about COVID-19 was disgraceful. Trump's first public denial occurred on January 21, 2020, in Davos, Switzerland, when he answered a reporter's question about the virus. Trump said, "We have it totally under control. It's one person coming in from China. We have it under control. It's going to be just fine." Trump also said he trusted the information coming out of China. He said that he has a great relationship with President Xi. "The relationship is very good."

Later in the year, Trump changed his tune about China. Trump stigmatized COVID-19 by blaming it on the Chinese and calling the virus the China virus or Chinese virus. Trump started using this racist terminology as early as March 2020. He's persisted with this racist connotation. The damage done to the Asian American community was appalling. According to various reports, Asian Americans have faced racist violence at a much higher rate since the pandemic began. Violence and hate crimes against Asian Americans took place nationwide. On March 16, 2021, a series of mass shootings occurred at three spas in the metropolitan area of Atlanta, only a few miles from where I live. Six Asian women were killed.

Donald Trump knew in early January 2020 that the coronavirus outbreak in China was serious. Parts of his government, especially the intelligence agencies, were telling him that the virus was a threat to national security. Trump ignored and denied the information that he was receiving, even when he received the President's Daily Brief.

On March 13, 2020, Trump announced a national emergency for COVID-19. His announcement came more than two months after

coronavirus was identified as a serious disease by China and the WHO and was spreading across the world. By this time, more than 80,000 cases had been recorded in China and at least 600,000 cases around the world. US coronavirus cases had reached 1,678, with a death tally of 41. By the end of Trump's term in office, coronavirus cases in the United States reached 24.24 million. More than 406,000 deaths had been reported.<sup>376</sup>

The United States government failed its citizens not only in protecting them, but also in educating them and explaining what mitigation methods should be implemented. Trump deserves the most blame, but the NIH and at least two of its agencies should bear some responsibility as well. However, after I completed more research to investigate the relationship between the White House and the CDC, I found the relationship is not pretty.

### THE CDC VERSUS THE WHITE HOUSE

The purpose of the Centers for Disease Control and Prevention is to protect the safety, health, and security of America from threats here and around the world. The CDC is in my backyard, as it's located on Clifton Road in Atlanta. Years ago when I lived in that part of Atlanta, I would drive by the agency's campus. Up until the COVID-19 pandemic, the CDC had a reputation as the world leader in disease control and prevention. However, a ProPublica investigation exposed an ugly chapter in the history of CDC. In fact, the authors of the report said this:

When the next history of the CDC is written, 2020 will emerge as perhaps the darkest chapter in its 74 years, rivaled only by its involvement in the infamous Tuskegee experiment, in which federal doctors withheld medicine from poor Black men with syphilis, then tracked their descent into blindness, insanity, and death.<sup>377</sup>

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<sup>376</sup> Will Stone, "On Trump's Last Full Day, Nation Records 400,000 Covid Deaths," *Kaiser Health News*, January 20, 2021, retrieved April 5, 2022, <https://khn.org/news/nation-records-400000-covid-deaths-on-last-day-of-donald-trump-presidency/>.

<sup>377</sup> James Bandler et al., "Inside the Fall of the CDC," ProPublica, October 15, 2020, retrieved March 14, 2021, <https://www.propublica.org/article/inside-the-fall-of-the-cdc>.

How could the authors of the ProPublica article make such an assessment? Part of the answer lies in mistakes that were made in one of the laboratories on the campus of the CDC in Atlanta. But the laboratory mistakes, which I'll explain in a bit, pale in comparison with how the Trump administration took over the CDC's COVID-19 decision-making and public communication. Here are a few examples that shed light on the CDC's fall from grace:<sup>378</sup>

- Senior CDC staff describe waging battles protecting science from the White House as protecting the public from COVID-19.
- White House officials with no public health experience meddled in important CDC meetings on COVID-19, including Trump's daughter Ivanka, Stephen Miller, and "protégés of Jared Kushner, wearing blue suits with red ties and beards."
- There was a loss of faith in CDC director Dr. Robert Redfield.
- Veteran CDC specialists with global reputations were marginalized, silenced, or reassigned. If these top scientists spoke out, they disappeared.
- Trump appropriated the CDC, a public enterprise, and turned it into a propaganda regime.

Several points that should be made at this point in the story. The first has to do with the agency's initial intelligence about news reports of coronavirus cases in Wuhan, China. What did the agency find out, and what did its leading scientists and directors do? The second has to do with the agency's initial messaging to the public and the media about the coronavirus. And the third is Trump's reaction to the CDC announcement and what he did because of the CDC's public statements.

It is during this time that Trump brought the CDC to its knees and removed the agency from the public sphere. The public lost confidence in the CDC. But as important as that loss of confidence is, Trump's

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<sup>378</sup> Bandler et al., "Fall of the CDC."

decision to take over the messaging of COVID-19 resulted in the most chaotic and disastrous health crisis in United States history.

What follows will probably make you as angry as it did me. The United States could have avoided much of the harm that came about because of the negligence of the president of the United States. Let me explain.

On December 31, 2019, Dr. Anne Schuchat, the CDC's top career scientist, emailed Dr. Jay Butler, later to become the CDC's coronavirus response head. Schuchat asked Butler if any of his colleagues knew anything about the "unknown pneumonia" in Wuhan. According to the ProPublica study, Dr. Dan Jernigan, the flu chief, and his boss, Dr. Nancy Messonnier, met at CDC headquarters in Atlanta. That same day, they learned about twenty-seven cases in China, some of them severe. These patients had difficulty breathing and suffered a buildup of abnormal substances in the lungs. Messonnier immediately realized this could be a SARS virus. She contacted Dr. Martin Cetron, director of the Division of Global Migration and Quarantine at the CDC. While he was with on vacation in New Hampshire, he told those around him about the new virus in China and that he was concerned it could affect the entire world.<sup>379</sup>

Normally Schuchat's team of infectious experts would have been in touch with the CDC's office located within the Chinese CDC in Beijing. But that office no longer existed because of budget cuts going back to the Great Recession of 2008 and, later, Trump's decision to close it down. Remember the CDC had stopped the Ebola epidemic in 2014 when Obama was president, but it now found its global influence waning because of losing as many as three hundred overseas posts.

Robert Redfield, the new director of the CDC, reached out to his close ally in China, according to the ProPublica investigators. The close ally was George Gao, director of China's CDC. Gao was a microbiologist educated at Oxford and Harvard. Redfield hoped he would obtain detailed information about the infections in Wuhan. He didn't. In fact, communications with Gao lessened and eventually ended. Gao was muted by Chinese government officials.

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<sup>379</sup> Bandler et al., "Fall of the CDC."

The CDC felt an obligation to communicate with the American public. At first they indicated that the public had no reason to panic about the virus detected in China. In the meantime, Trump was told by his intelligence agencies and his national security advisors that the virus in China was serious and would be the most significant national security threat he'd face as president. "What should I do?" Trump asked. Matthew Pottinger told him to stop all flights from China. Trump ordered all flights from China stopped on January 31, 2020. Scientists at the CDC did not see closing borders as helpful because it restricts the flow of medical experts and goods.

Then on February 25, Messonnier, the CDC's director of the National Center for Immunization and Respiratory Diseases, held a press conference in Atlanta about the coronavirus and what steps should Americans take to prevent it. The virus, she said, moves quite rapidly through community spread. As the virus spreads, containment becomes more difficult. The CDC urged American businesses and families to start preparing for a bigger outbreak.

I happened to be watching TV and saw her press conference. At the end, reporters asked her if she was taking any precautions considering the novel virus. "Disruption to everyday life might be severe," Messonnier said, adding that she talked to her children about the issue Tuesday morning. "While I didn't think they are at risk right now, we as a family ought to be preparing for significant disruption to our lives." She had even called her children's school to ask about their plans for online learning.

The stock market and the White House were shocked. One fell and the other screamed. Messonnier was removed from public appearances after her warning about the coronavirus. Unfortunately, instead of listening to Messonnier, the Trump administration silenced her and covered up the actual nature of the virus as early as February 2020.

Trump put Mike Pence in charge of his Coronavirus Task Force, replacing Alex Azar, secretary of health and human services. Trump became the communicator-in-chief. For the next month or so, Trump decided to have daily press conferences and used this forum to play down COVID-19 and sideline the CDC and its scientists. The scientists



that he did involve during these TV news conferences were Dr. Anthony Fauci, director of the NIAID, and Dr. Deborah Birx, United States Global AIDS Coordinator. Although Redfield, the director of the CDC, was on the task force, he rarely spoke at these press meetings.

Trump never fully embraced—at least publicly—the pandemic and its effects on the United States. The task force stopped meeting in April and didn't hold a meeting again until June 30. All the while Trump downplayed the disease and spoke only about how well his administration was doing with the virus. He spent most of his time insisting that states open their economies while he played golf.



*President Trump, with hands in pockets, visits the CDC on March 6, 2020, in Atlanta. He is joined by Health and Human Services Secretary Alex Azar, left; Dr. Robert Redfield, director of the CDC, speaking; and Dr. Stephen Monroe, associate director of the CDC. And lurking in the background is former Georgia Senator David Perdue. The CDC by this time was being undermined by the Trump administration, and soon the White House took over all communications coming out of the CDC. Source: Public Domain Mark 1.0; no copyright.*

## BOTCHED TEST KITS

The CDC had the responsibility for developing a COVID-19 test. It developed a coronavirus kit in the Respiratory Viruses Diagnostic Team lab on its Atlanta campus in January 2020, and it was ready for shipment on February 6. The lab that developed the kits learned that the final quality control test suggested the kits were failing 33 percent of

the time. However, Stephen Lindstrom, the head of the lab, decided to sign off on the quality control report and ship the kits. A later investigation found that the lab had many quality standard and organizational problems. Laboratory officials were not allowed to make any public comments by the CDC management. By February 6, one hundred or more clinics and public labs across the United States began receiving the kits. Within days labs were reporting that they were getting inconclusive results. The CDC was notified, and their first idea was possible contamination due to quality preparations in the Atlanta lab.

The CDC claimed that one of the chemicals needed for the test got contaminated. None of the test kits that were sent out could be used. It took five weeks for the CDC to correct and produce new test kits. At this point in the pandemic, testing was one of the most important tools for tracking, tracing, and controlling the virus. The United States was unable to take these steps, which were taken in South Korea and Germany. Early in the pandemic, these countries were able to keep the virus under control.

Recall that the first coronavirus case in the United States was identified on January 20, 2020. At that time, the only place in the United States to have a sample tested for COVID-19 was in Atlanta at the CDC headquarters. And for a local clinic to be able to send the samples, they needed to get approval from the CDC. In the first cases detected, the sample was flown to Atlanta, where it was tested. Meanwhile, South Korea had already initiated a testing and tracking program, which led it to control the virus at an early stage.<sup>380</sup>

As described in Chapter 11, Donald Trump failed as a leader to respond to the COVID-19 pandemic. He was unable to face reality and tell the American people the truth. His administration interfered with the scientific community. Scientists were dismissed and their ideas, which would have helped Americans deal with the virus, were ignored or compromised.

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<sup>380</sup> Katherine Faulders, Matthew Mosk, and John Santucci, "Coronavirus Testing: What Top Officials Say Went Wrong," ABC News, July 29, 2020, retrieved March 14, 2021, <https://abcnews.go.com/Health/coronavirus-testing-top-officials-wrong/story?id=71973919>.

## THE DEVELOPMENT OF SARS-COV-2 VACCINES

Viruses are tiny bits of genetic material inside a protein shell. They are able to make their way into a cell of an organism and take over the cell's machinery in order to replicate themselves. SARS-CoV-2 is an RNA molecule that Chinese scientists had analyzed and publicly reported the genetic sequence of on January 9, 2020. With this information available, scientists worked to find treatments and vaccines that would block the ability of the virus to hook on to human cells.<sup>381</sup>

SARS-CoV-2 vaccines were developed so rapidly in 2020 because of decades of research, developmental, and clinical work by federally funded research scientists at NIH and at research labs at universities around the country, as well as with collaboration with scientists in other countries, especially China. The groundwork for the Moderna, Pfizer-BioNTech, and Johnson & Johnson/Janssen vaccines was laid out previously and was ready to implement.<sup>382</sup>

Most of the development of vaccines for SARS-CoV-2 has been in North America, with 36 (46%) developers as compared to 14 (18%) in China, 14 (18%) in Asia and Australia, and 14 (18%) in Europe.<sup>383</sup>

According to an article in *Nature Reviews*, the response to global vaccine development has been unprecedented. Normally vaccines take between two and ten years to be developed and approved for use on humans. However, the timeline for COVID-19 vaccines has been reduced to months.

In a *Scientific American* article, Arthur Allen describes how pioneering work by several scientists and their lab associates led to what are called mRNA vaccines. According to the CDC, mRNA vaccines are a new type of vaccine to protect against infectious diseases.<sup>384</sup> These

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<sup>381</sup> Walter Isaacson, *Code Breaker: Jennifer Doudna, Gene Editing, and the Future of the Human Race* (New York: Simon & Schuster, 2021), 403–404.

<sup>382</sup> Arthur Allen, "For Billion-Dollar COVID Vaccines, Basic Government-Funded Science Laid the Groundwork," *Scientific American*, November 18, 2020, retrieved May 2, 2021, <https://www.scientificamerican.com/article/for-billion-dollar-covid-vaccines-basic-government-funded-science-laid-the-groundwork/>.

<sup>383</sup> Tung Thanh Le et al., "The COVID-19 Vaccine Development Landscape," *Nature Reviews Drug Discovery*, April 2020, retrieved May 2, 2021, [https://www.researchgate.net/profile/Tung-Le-10/publication/340535627\\_The\\_COVID-19\\_vaccine\\_development\\_landscape/links/5ead65c5a6fdcc7050a1c089/The-COVID-19-vaccine-development-landscape.pdf](https://www.researchgate.net/profile/Tung-Le-10/publication/340535627_The_COVID-19_vaccine_development_landscape/links/5ead65c5a6fdcc7050a1c089/The-COVID-19-vaccine-development-landscape.pdf).

<sup>384</sup> Allen, "For Billion-Dollar COVID Vaccines."

mRNA vaccines teach our cells how to make a protein that triggers an immune response inside our bodies.

Scientists at the NIH pioneered the groundbreaking research that led to the development of multiple SARS-CoV-2 vaccines. One of the earliest pioneering researchers is Dr. Kati Karikó, a Hungarian biochemist and senior vice president with BioNTech who specializes in RNA mechanisms. She and American immunologist Drew Weissman, Pearlman School of Medicine at the University of Pennsylvania, hold the patents for the technology enabling the modification of RNA. This discovery has been licensed by BioNTech and Moderna to develop their COVID-19 vaccines.<sup>385</sup> Karikó and Weissman were awarded the Rosenstiel Award for Distinguished Work in Basic Medical Research by Brandeis University in January 2021.<sup>386</sup>

Another of the early pioneers was Dr. Barney Graham, deputy director of the Vaccine Research Center and the chief of the Viral Pathogenesis Laboratory at the NIH. Graham and his colleague Jason McLellan, along with Chinese scientists, developed in 2013 the “bioengineered protein” that led the way to designing vaccines against emerging pandemic viruses. Graham’s NIH lab began working with Moderna in 2017 to design rapid manufacturing systems. During the COVID-19 outbreak in China, the Moderna/Graham group switched goals to work on the novel virus. They produced a vaccine in six weeks and started a 30,000-volunteer late-stage trial. It showed 95 percent effectiveness.<sup>387</sup> My wife and I received the first of two Moderna vaccine shots in early January 2021 and the second in early February, plus a Moderna booster in August 2021.

After Joe Biden was inaugurated, vaccine distribution of SARS-CoV-2 exceeded 3 million people (about the population of Arkansas) per day, and within one hundred days, more than 200 million people were vaccinated in the United States. However, many developing countries still need help, and some developed countries are still experiencing

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<sup>385</sup> Gina Kolata, “Kati Kariko Helped Shield the World from the Coronavirus,” *New York Times*, April 8, 2021, retrieved November 28, 2021, <https://www.nytimes.com/2021/04/08/health/coronavirus-mrna-kariko.html>.

<sup>386</sup> Lawrence Goodman, “Rosenstiel Award Given to Pioneering Scientists behind COVID-19 Vaccines,” *BrandeisNOW*, January 21, 2021, retrieved November 28, 2021, <https://www.brandeis.edu/now/2021/january/rosenstiel-covid-vaccine.html>.

<sup>387</sup> Allen, “For Billion-Dollar COVID Vaccines.”

coronavirus outbreaks. Now is the time for a lend-lease or patent-free distribution of the vaccine to any country that needs assistance. The virus needs to be mitigated globally, not just locally. Biden announced at the 2021 G7 summit in the UK that the United States would begin donating vaccines to poorer countries, starting with 500 million doses. Other countries have promised a total of 500 million doses.

Another fundamental problem is the growing anti-vaccination movement. This movement is especially troublesome when the world is trying to manage, control, and rid the Earth of the virus, although that is very unlikely. Fauci thinks that herd immunity will not be reached primarily because of anti-vaxxers. Vaccine hesitancy has been around for decades. Many people refuse to let their children be vaccinated against any contagious disease. Others believe that vaccines cause autism in children. In the United States, some groups are filing lawsuits against companies and organizations that require COVID-19 vaccinations and making themselves available to individuals who wish to refuse the vaccination. They will be happy to file a lawsuit for you.

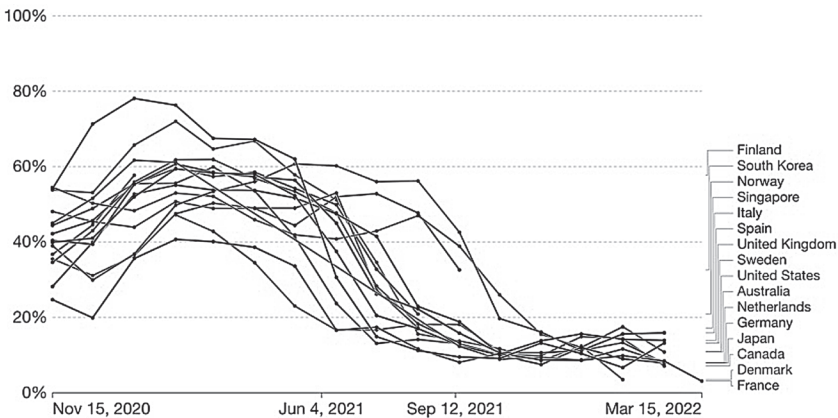


Figure 13. Share of survey respondents who have not received a COVID-19 vaccine and who agree with the statement: "If a COVID-19 vaccine were made available to me this week, I would definitely get it." Source: Our World in Data, CC BY 4.0.

The WHO views vaccine hesitancy as one of the top ten global health threats. In the United States, a recent poll indicated that one in four Americans will refuse the COVID-19 vaccine. Leading the list of

anti-vaxxers are Republican men, 49 percent of whom say they will refuse the vaccine. As of fall 2020, Georgia had the lowest percentage of adults and children over twelve vaccinated against COVID-19. Figure 13 shows that even after two years of the pandemic, only 20% of those who are unvaccinated would be willing to be vaccinated. And anti-vaccination is not just a problem in the United States, as shown in the graph.<sup>388</sup>

A connection exists between anti-maskers and anti-lockdown protesters and the anti-vax movement. The anti-masker and anti-lockdown groups include QAnon conspirators as well as ordinary people who don't like being told what to do. QAnon is a far-right conspiracy theory based on false claims made by an internet individual known as "Q." Followers believe that a cannibalistic cabal has conspired against former President Donald Trump. Followers of this cult claim their freedom is being curbed. And there are some anti-maskers who don't believe their children should have to wear masks while at school. However, in some states, governors have lifted mask mandates. You guessed it: Florida, Georgia, and Texas led the way.

The history of anti-vaccinations reveals a thriving movement. Edna Bonhomme, a historian of science and writer who lives in Berlin, writes that in Germany, for instance, anti-science sentiment, right-wing politics, and racism have been entwined since before Jews were accused of spreading the bubonic plague in the fourteenth century.<sup>389</sup> She concludes that anti-science sentiments are tangled with racial prejudice.

Blaming ethnic minorities for viruses and other diseases has also been part of America's racist and anti-science movement. It's been a part of American history, including blaming Irish Catholic immigrants for the 1882 cholera outbreak in New York, quarantining San Francisco's Chinatown in 1876 for smallpox and disease, and screening at Ellis Island in the nineteenth and early twentieth centuries to prohibit "physically inferior" immigrants. In our time, Donald Trump has cast Central American immigrants as disease carriers. And calling COVID-19 the

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<sup>388</sup> View this chart at <https://ourworldindata.org/grapher/covid-vaccine-willingness>.

<sup>389</sup> Edna Bonhomme, "Germany's Anti-Vaccination History Is Riddled with Anti-Semitism," *The Atlantic*, May 2, 2021, retrieved May 3, 2021, <https://www.theatlantic.com/health/archive/2021/05/anti-vaccination-germany-anti-semitism/618777/>.

“China virus” has stigmatized the virus and led to some people blaming Chinese Americans for the pandemic.<sup>390</sup>

Underlying refusals to be vaccinated are conspiracy theories. As mentioned, some claim that vaccines cause autism. No scientific evidence supports this concern. For others, anti-scientific conspiracy theory fosters a disregard for the work of scientists in preventing disease. A distrust of science is also a factor. In the age of Trump, truthfulness is in short supply. Fake news, alternative facts, and distortions of reality impact people’s beliefs in facts, reasoning, and science. Millions of people refuse vaccinations because of their denial and refusal to know the science. Naomi Oreskes, in her book *Why Trust Science?*, suggests science confront a public crisis of trust. Suspicion and motivation of scientific theories are abundant but not new.

To remove the threat of the coronavirus, we must prevent the virus from spreading. If people think they won’t get the virus or they simply don’t believe in putting anything into their bodies, then the virus will be able to spread. There have been at least ten variants of SARS-CoV-2. If the virus is left to spread, new variants are sure to evolve, as we’ve seen with the Delta and Omicron variants. But if more people get vaccinated, we have a strong possibility of containing SARS-CoV-2.

### SCHOOL IN THE AGE OF A GLOBAL PANDEMIC

As soon as the coronavirus was considered a global health emergency, schools across the world closed their doors to face-to-face learning. At the time schools closed their doors, the virus was spreading rapidly. The nature of the virus was understood, but governments hesitated. Even the CDC hesitated in explaining how people could protect themselves from catching the virus. It was a wise decision to close schools, yet mixed messaging created problems for local school districts, often pitting parents against school officials.

The decision to close schools to face-to-face learning led to the question of when should schools open? How can we open them

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<sup>390</sup> Catherine E. Shoichet, “What Historians Hear When Trump Calls Coronavirus ‘Chinese’ and ‘Foreign,’” CNN, March 17, 2020, retrieved May 3, 2021, <https://www.cnn.com/2020/03/12/us/disease-outbreaks-xenophobia-history/index.html>.

safely? When schools closed, all teaching and learning was moved to online frameworks. Virtual learning led to a host of problems, including the lack of availability of computers in families in low socio-economic communities, lack of access to reliable networks, and lack of instruction for teachers to learn how to use online resources, plus the effects of learning at home on students and parents. Online learning pushed teachers and students to use multiple technologies, including email, websites, Zoom, and other video services. Many were not prepared.

With respect to school, I was concerned about safety as well the effects of online learning. How could schools manage a safe environment, considering the community spread of the coronavirus? Who would benefit from online learning? Who wouldn't?

For example, in Georgia where I live, more than 360,000 college and university students are enrolled across the state. I used coronavirus data that Ed Johnson compiled using the Georgia Department of Public Health statistics to answer questions about the opening of universities. Johnson is a fellow resident of Georgia and an advocate for public education who published a daily newsletter focusing on public education in Atlanta. He also has been tracking COVID-19 since early March 2020 and publishing his findings on his newsletter. I used his research findings on my blog, and you'll find some of his data in Chapters 10 and 12.

Early in the pandemic, not much was known about the effect of bringing students back to their respective schools. Even now, the safety of students in school is an open question. The question can be answered if the primary consideration is safety, health, and welfare of students and teachers, as well the families of each group.

In the summer of 2021, Fauci supported sending kids back to school, but only if the COVID-19 rate positivity rate is 5 percent or less than 5 per 100,000 population. This is referred to as the green zone. Yellow zones have positivity rates between 5% and 10%. Red zones have positivity rates above 10%. In December 2020, there were only four states in the green zone, meaning that the positivity rate



was less than 5%. More than half the states have a positivity rate of more than 10%. Fauci says that to open schools in the yellow and red zones, we've got to lower the positivity rates in the community of these schools. As more people get vaccinated, COVID-19 positivity rates will go down.<sup>391</sup>

In the initial stages of the pandemic, not much research was made available to help school and university officials make decisions on whether to open schools and under what conditions. That omission is beginning to change in late 2021.

However, some medical experts have raised questions about the methodology used in some studies that might become influential in directing schools to open or not. In Chapter 12, several posts raise questions about the relationship between community spread of the virus and the spread in schools. Little data exist on the spread of the virus in schools. Most states provide data on coronavirus cases for each county. I used this type of data to raise questions about returning students to school.

Based on data from MCH Strategic Data, 13,597 of 14,944 US school districts provided school reopening plans for fall 2020. Of those districts, 24% were completely online, 51% were using a hybrid model, and 17% were fully open for in-person instruction. Slightly more than half had students participating in school sports programs. Most school districts required students to wear masks, but on further inspection of the data, only 7% required middle and high school students to wear masks, and only 2% of high schools required masks.<sup>392</sup>

A review of some research on school opening and SARS-CoV-2 infection rates was reported by CDC researchers. The findings reported in the study are of the authors and not the CDC. Crowded conditions in adult living environments or meatpacking facilities are ripe for spreading COVID-19. Schools also risk the possibility of spreading SARS-CoV-2, though one study in North Carolina that involved 90,000 students

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<sup>391</sup> Kristina Fiore, "Fauci: Here's How Schools Can Safely Reopen," *Medical News*, August 13, 2020, retrieved April 5, 2022, <https://www.medpagetoday.com/infectiousdisease/covid19/88065>.

<sup>392</sup> MCH Strategic Data, retrieved March 16, 2021, <https://www.mchdata.com/>.

and staff for a nine-week period found that within-school transmissions were rare (32 infections in schools, whereas 773 community-acquired infections).

However, Stephen Friedman, MD, MPH, and adjunct professor, Department of Medicine, Rutgers University, commented that the infection rates reported for students were limited to the local school data dashboard rather than systematic testing of students. He also noted that comparing students to community spread data was comparing students to adults.<sup>393</sup> School-related activities have increased the risk of SARS-CoV-2 infection, especially in after-school sports programs. One example of how contact sports can lead to infection was a study of a high school wrestling tournament. Among 130 tournament participants, 38 (30 percent) had a lab-confirmed SARS-CoV-2 infection.<sup>394</sup> Only 50 percent of the participants were tested. Secondary transmission was identified through contact tracing in households and in school (classrooms and athletics). Some states banned after-school sports. However, in Georgia, where I live, there is little evidence of schools reducing after-school activities.

The researchers concluded that schools need to take into account community spread and ensure safe environments for students during and after school. Masks, social distancing, and handwashing are essential and should be required. However, in some school districts, parent groups are filing lawsuits opposing mask wearing for students.

Stephanie Jones, distinguished teaching professor in the Department of Educational Theory and Practice at the University of Georgia, expressed a concern I share that too few schools were mandating masks and social distancing to provide safe learning environments, especially for students in grades K–6. Children this age could not be vaccinated until fall 2021 and were very susceptible to being infected with the Delta variant of COVID-19 before that point.<sup>395</sup>

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<sup>393</sup> Margaret A. Honein, Lisa C. Barrios, and John T. Brooks, "In-Person Education and the Spread of SARS-COV-2 Infection," *JAMA*, March 2, 2021, retrieved February 12, 2022, <https://jamanetwork.com/journals/jama/fullarticle/2775875>.

<sup>394</sup> Honein et al., "In-Person Education."

<sup>395</sup> Stephani Jones, "We Must Protect Students from Storms and Pandemics," *Atlanta Journal-Constitution*, August 28, 2021, retrieved September 10, 2021, <https://www.ajc.com/education/get-schooled-blog/uga-professor-we-must-protect-students-from-storms-and-pandemics/KFF7LLXA5F2JISDTEPKZTPFNU/>.

She wondered what students would think about the fact that we knew about the seriousness of the pandemic. Would they wonder why didn't we go out of our way to provide the protection they needed? As she suggested, we've put teachers and students in the "center of a political and ideological battlefield where children's and youth's best interests are not being prioritized." She continues, "Maybe now, in the quiet after the storm, we can reflect on the dangerous position we forced our young people and teachers into as they waited out our tornado warnings."<sup>396</sup>

In 2022 we find schools in a difficult situation because of the rapid spread of the Omicron variant of COVID-19. Positivity rates are beyond 20 percent in the United States, suggesting that sending kids into schools should only be done with extreme caution. In some school districts, teachers have gone on strike. But in most districts around the country, teachers have little say about whether schools should open for face-to-face instruction or go online.

The CDC's recommendations in early fall 2021 were stated as essential elements of safe K-12 school in-person instruction. They are universal and call for the use of masks, physical separation (six feet), handwashing and respiratory etiquette, cleaning facilities, and contact tracing in combination with isolation and quarantine. These were used successfully during the 1918 flu pandemic, by the way.

Throughout the pandemic, a disconnect existed between CDC guidance for operational strategies for K-12 schools and local and state government COVID-19 guidelines. For instance, the CDC recommended mask wearing and physical separation in schools, while some governors, as noted above, lifted mask mandates. This disconnect is a problem. Some parents continue to say they do not want their children vaccinated. Some parents are not sure what the long-term effect of mRNA vaccines will have on children's brain development, for instance. Other parents are committed anti-vaxxers and won't allow their children to be jabbed.

If the virus is in circulation, then unvaccinated children, teens, and adults can be infected and can pass the infection on to others.

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<sup>396</sup> Jones, "Protect Students."

## PREVIEW

Ahead are seventeen blog posts that I wrote about the SARS-CoV-2 pandemic. In Chapter 10, the nature of the pandemic is explored. What are the facts about SARS-CoV-2? What can we learn about the pandemic we are living through from previous pandemics, especially the 1918 flu pandemic? The United States has registered the greatest number of cases and deaths in the world caused by SARS-CoV-2. How can this knowledge be used to prepare for future pandemics, which are sure to happen?

Chapter 11 includes several posts that show how Donald Trump failed to lead the nation at a time when leadership would have been the difference between failure and success, life and death. Throughout his presidency, Trump ignored the science and scientists that were all around him and instead played down the virus to the detriment of all Americans. More than 800,000 people (about two-thirds the population of Maine) have died, most of whom would not be dead if Trump had done his job.

Chapter 12 explores schooling in the age of SARS-CoV-2. COVID-19 has presented unique problems for educators, parents, and students. Schools operated for months entirely online, with many schools continuing to teach online to this day. Many questions are still unanswered about how safe it is to return all students to school for face-to-face learning.

## CHAPTER 10: SARS-COV-2

### 10.1. BLOG POST, 3 MARCH 2020: IS THE US PREPARED FOR COVID-19?

Two days ago, I was in a local computer store. I go there often, so the employees recognize me. A young man assisted me with my smartphone. But while we talked, the subject of the coronavirus outbreak came up. He said he was concerned because he needed to work. If he was sick and stayed home, he wouldn't be paid. He also said that he didn't have health insurance. I realized that he was scared not only about getting the coronavirus, but also about what would happen to him and his family if they were to get sick.

More than 27 million Americans (8.5 percent of the population) do not have health coverage. In addition, only eleven states and Washington, DC, provide sick leave pay. In this case, all businesses in sick leave states provide paid leave for sick employees.

### THE UNINSURED

Prior to the Affordable Care Act, about 44 million Americans were without health coverage. Because of the Affordable Care Act, the number of uninsured dropped to 27.8 million in 2018 and rose slightly to 28.9 million in 2019. The uninsured are typically non-elderly. They are individuals and families with incomes below the poverty level. They are non-Hispanic whites (41%), but people of color make up 43% of the non-elderly population and account for half of the uninsured. Coronavirus can infect anyone. But seeking adequate care is

dependent on a range of factors. Leading the list is not having health coverage.

### PAID SICK LEAVE

Does paid sick leave affect communicable diseases such as influenza? The *Washington Post* reported on the research by Stefan Pichler and Nicolas Robert Ziebarth, who looked at the pros and cons of sick leave schemes. Their study showed how paid sick leave has affected the spread of diseases, namely the flu. They used data from Google Flu and influenza-like illnesses (ILI rate). Using this data, they showed ILI rates decreased in cities and states that mandated sick pay by about 5 percent. Moreover, they found that during a flu wave, the sick leave policy reduced the flu rate by up to 40 percent. They report that in the two years before the sick leave mandate, ILI rate in the cities with a mandated sick pay (the treatment group) was comparable to the ILI rate in cities with no sick pay (the control group). After the introduction of sick pay, the ILI rate decreased significantly for the treatment group.<sup>397</sup>

### UNIVERSAL HEALTH CARE

The US is one of only a few countries that does not provide universal health care. The US also has the most incompetent president and vice president in the world. Each of these men has a disdain for science. Trump and Pence lack the leadership to handle the COVID-19 outbreak. However, the US has a strong research-based medical community. The CDC and NIH, if left to their own competence, are able deal with this global threat. However, the Trump administration has impaired the work of professionals in these government health agencies.

In the meantime, the best that the American public can do is:

- Do not listen to anything Donald Trump says about diseases, especially the flu or coronavirus. He is not competent to lead a scientific effort to solve the coronavirus outbreak.

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<sup>397</sup> Stefan Pichler and Nicolas Robert Ziebarth, "The Pros and Cons of Sick Pay," *VoxEU*, May 12, 2018, retrieved February 25, 2021, <https://voxeu.org/article/pros-and-cons-sick-pay>.

- The same goes for the vice president.
- Do listen to reports from professionals who work at the CDC.
- Get a flu shot. If you have not already, wash your hands.  
And don't touch your face.

## **10.2. BLOG POST, 1 APRIL 2020: SOCIAL DISTANCING LESSONS FROM THE 1918 GREAT INFLUENZA**

Americans have mixed views about social distancing. Yet evidence shows social separation is an effective nonpharmaceutical measure taken to prevent the spread of a contagious disease, such as COVID-19. Social distancing means keeping your distance from other people and reducing the number of times you might encounter other people.

Infectious diseases spread in a typical pattern approximating a bell-shaped curve. Right now, the US is in the “acceleration” phase of the COVID-19 pandemic. We haven't reached the peak. Depending on where you live, the nature of this curve will depend upon conditions on the ground. For example, if no intervention is undertaken, then the height of the curve will likely be much higher than in locations that implement social separation. Some people think letting the disease run its course is an option they prefer. This approach is called herd immunity. Herd immunity is based on immunity after a high proportion of individuals either become infected or vaccinated. The president of the United States, up to a day or so ago, wanted to send people back to normal life on Easter Sunday. Perhaps he was intending a preference for herd immunity. Experts on the task convinced him not to go ahead with this policy or he would face a disaster.

### **NONPHARMACEUTICAL MEASURES**

Since no medicines or vaccines are available yet for the coronavirus, nonpharmaceutical public health intervention measures are the only way to mitigate the risk and impact of this infectious disease. Although not all states have adopted the same measures, most have implemented some form of social distancing. As shown in the graph below, an intervention of social separation would “flatten the curve” of the pandemic

outbreak. If the curve is not flattened, health care is threatened, and hospitals face a severe disruption. We are witnessing horrific scenes in New York hospitals because of the influx of COVID-19 patients.

### WHERE’S THE EVIDENCE THAT SOCIAL DISTANCING WORKS?

Does social distancing influence the spread of an infectious disease? Research supports the use of social separation. One source of evidence is research that was done to find out what happened when US cities used social distancing to mitigate the effects of the 1918 flu pandemic. By the end of the pandemic, between 50 and 100 million people were dead worldwide, including more than 500,000 Americans.

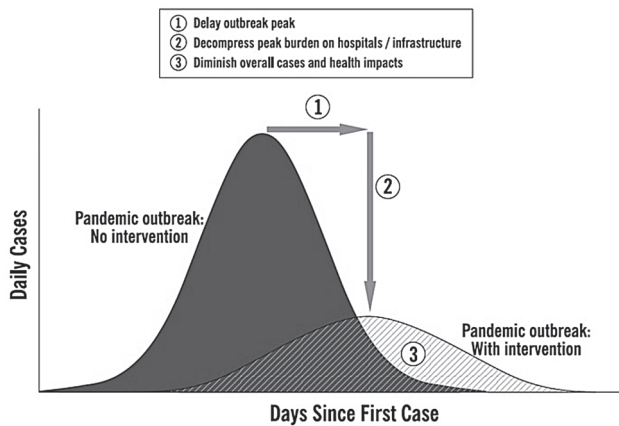


Figure 14. Pandemic influenza or Covid-19 graph of no intervention compared to intervention. Source: CDC

A study published in *The Journal of the American Medical Association* examined the effect of social distancing used during the 1918–1919 influenza pandemic. No computers or online databases were available in 1918, but paper documents were kept by municipalities during this period. The researchers used public health documents and the type of nonpharmaceutical interventions implemented around the country including school closures, cancellation of public gatherings, and isolation and quarantine.<sup>398</sup>

<sup>398</sup> Howard Markel et al., “Nonpharmaceutical Interventions Implemented by US Cities During the 1918–1919 Influenza Pandemic,” *JAMA* 298, no. 6 (2007): 644–654, <https://doi.org/10.1001/jama.298.6.644>.



They looked at the weekly “excess death rate” (EDR)—time from the activation of nonpharmaceutical interventions to the first peak EDR, the first peak weekly EDR, and cumulative EDR during the entire twenty-four-week study period. Mitigation interventions for forty-three cities in the continental United States were studies from September 8, 1918, through February 22, 1919.

They found 115,340 excess pneumonia and influenza deaths in the forty-three cities for the twenty-four-week period. Every city adopted at least one of the three major nonpharmaceutical interventions:

- School closure
- Public gathering ban
- Isolation and quarantine

School closures and public gathering bans were the most often used combination by cities. Using a minimum of four weeks (range was one to ten weeks) was significantly associated with reductions in weekly EDRs. Cities that implemented these mitigations earlier had lower peak mortalities and lower total mortality. According to the authors of the study, “These findings demonstrate a strong association between early, sustained, and layered application of nonpharmaceutical interventions and consequences of the 1918 influenza pandemic in the US.”<sup>399</sup>

You’ve heard Dr. Deborah Birx and Dr. Anthony Fauci tell Americans that we need to flatten the curve. What this study of the 1918 pandemic found was that the curve can be flattened if communities practice social separation. However, in 1918, it took several months to flatten the curve. To mitigate the virus, social distancing can work, but it must be implemented over a longer time than the White House Coronavirus Task Force would like to admit.

The most effective measure appears to be isolation and quarantine, as used in New York City. From the date of the first case detected in New York September 8, 1918, it took until December 1 for the curve to flatten.

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<sup>399</sup> Markel, “Nonpharmaceutical Interventions.”

It took much longer for Denver to flatten the curve. They implemented school closures and banned public gatherings. However, in mid-November, they relaxed these methods, and the number of cases increased, resulting in a second peak. After they took kids out of school for a second time and implemented isolation and quarantine, the curve was again flattened.

The lessons from the 1918 flu epidemic are clear. Nonpharmaceutical methods, including keeping students out of school, banning public gatherings, and isolation and quarantine are effective. They can mitigate the spread of a virus.

Masks were not as effective during the 1918 flu because most masks were homemade and not effective in preventing the spread of droplets or protecting the user from others' droplets.

### **10.3. BLOG POST, 22 APRIL 2020: CORONAVIRUS DAILY STATUS REPORTS**

Ed Johnson, a public school advocate in Atlanta, explains that the Georgia Department of Public Health (GADPH) offers COVID-19 updates on its website twice daily, one update around noon and the other around early evening. Johnson's presentation is meant to supplement the latest or a recent GADPH COVID-19 noon update.

If you live in Georgia, his reports are one of the most informative and important sources of information about the status of coronavirus in the state. In these daily reports, he provides several graphical summaries of COVID-19 in Georgia. His reports include pareto charts, control charts, and prediction charts.

#### **COVID-19 PARETO CHART**

A pareto chart (Figure 15) is a combination bar graph and a line graph. Individual values (such as number of infections in a county) are represented in descending order by bars, and the cumulative total is represented by the line. The purpose of the chart is to highlight the most important among many cases. The pareto chart in Figure 15 is helpful in identifying areas in the state that share 80% of the cases while making up only 20% (32) of the 160 counties in Georgia. Note the seven

vertical lines on the left of the horizontal axis. These seven counties represent 52% of the COVID-19 cases in the state. Five of the counties are in the metro Atlanta area, while two are more rural. I have lived in three of them: DeKalb County, Fulton County, and Cobb County.

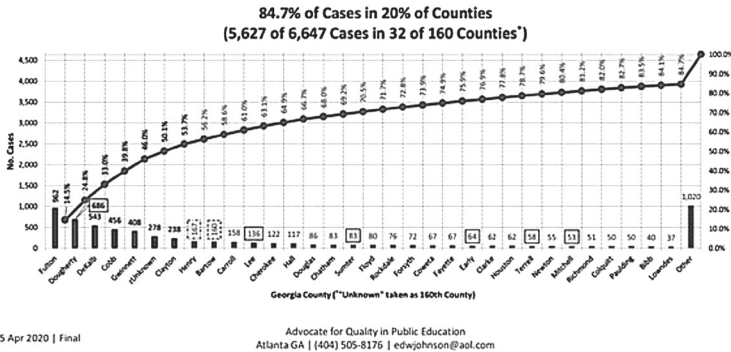


Figure 15. Pareto chart of confirmed coronavirus cases in Georgia. Source: Ed Johnson; used with permission.

### COVID-19 CONTROL CHART

A control chart is a graph used to study how a process (infection in this case) either changes over time or compares from one area to another. In the control chart in Figure 16, Georgia counties are plotted on the horizontal, and number of infections per 10,000 people are plotted on the vertical. The line in the center of the graph is the average of infections and the two dashed lines are the upper control limit and the lower control limit. Notice that some of the points fall outside the two horizontal dashed lines, but most are within the control lines. Let's consider these points of departure as unusual. As Johnson states within the notes of the chart, the more distant a county's number of cases or deaths (refer to a death chart) from the upper limit of 14.87 cases, the more unusual its rate. Which county's rate is most unusual? How about your county? Why?

We have a severe problem in the United States. The president is supporting and riling up Americans who want their governors and local officials to open their states for business. We know people are hurting. People have lost jobs. They've lost their health insurance in some cases. However, they could lose their lives and put other people at risk if they

don't consider the implications of their actions. Coronavirus is a deadly virus. COVID-19 has already killed more than 2.5 million people (about twice the population of Hawaii) around the world and more than 250,000 people in the United States. We need to tread carefully. Breaking the six-foot barrier and discarding facial masks are sure to cause a resurgence of the virus. We know from the 1918 flu epidemic that when mitigation measures were relaxed, the virus came roaring back. I know it is a tough time for all of us. But for the health of kids, of your family and friends, your coworkers, and others that you meet every day, play it safe. And listen and search for the facts about the coronavirus.

### COVID-19 No. Cases per 10,000 Persons

Current day as of 04/05/2020 11:27 AM

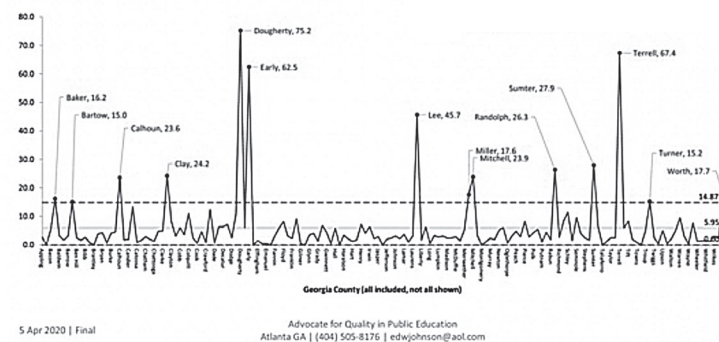


Figure 16. Control chart of coronavirus cases per 10,000 persons for Georgia. Source: Ed Johnson; used with permission.

#### 10.4. BLOG POST, 22 APRIL 2020: CONTACT TRACING

According to the CDC, contact tracing is part of the process of supporting patients with suspected or confirmed infection. Public health staff work with patients to help them recall everyone they have had close contact within a brief time (a week or two). Staff or hired workers then contact the exposed individuals.

The identity of the patient is kept confidential. Contacts are provided with information to monitor themselves for illness and to let them know that they could infect others. Contacts are asked to stay home and maintain social distance from anyone for fourteen days. The CDC recommended

checking your temperature twice a day and watch for coughing and shortness of breath. If so, you should be evaluated by medical staff and tested.

### CONTROLLING THE SPREAD

Contact tracing is one way we can control the spread of coronavirus. However, getting the results quickly, in a day or two, is necessary to carry out a robust COVID-19 contact tracing program, which has been shown to control the spread of the virus. It requires a lot of people to implement and carry out a contact tracing program. Unfortunately, the Trump administration has failed us in this regard. They announced today that no new funds will be allocated for testing and contact tracing. This is one more part of the national coronavirus failure. Trump thinks that more testing makes him look bad, even if more people are getting infected and more are dying.

Contact tracing has been shown to work in other countries. South Korea implemented an effective contact tracing program soon after the coronavirus began infecting people. However, contact tracing, which many states have begun, is having serious problems. The underlying problem is lack of cooperation. If you are called by the state's health department or designated provider, will you pick up the phone? And if you do, will you answer the interviewers' questions about COVID-19? When they call, they know that you are infected or met someone with COVID-19. They want to know how you are feeling. Do you have any of the symptoms associated with COVID-19? But they also want to know who you have been in contact with recently. They will ask for information on these people, and then they will call them and ask them to get tested. The process continues trying to identify those who might be infected followed by testing and quarantine.

Massachusetts launched a contact tracing effort to contain the coronavirus. As of today, Massachusetts is one of the few states in the country conducting widespread contact tracing, according to Massachusetts Governor Charlie Baker. According to chief strategist and cofounder of Partners in Health Dr. Paul Farmer, the goal of contact tracing is to stop, not just slow, the spread of the virus in Massachusetts.

Chief medical officer and associate professor with the Division of Global Health Equity at the Brigham and Women's Hospital and the

Department of Global Health and Social Medicine at Harvard Medical School Dr. Joia Mukherjee helped organize similar projects to fight Ebola in West Africa and cholera in Haiti. She argues that we must go on the offensive against the virus, otherwise “we’re going to get creamed.” Instead, “Let’s use tools that can reach into that silent epidemic and start to cut that off.”<sup>400</sup>

The contact tracing program in Massachusetts hired 2,000 contact tracers and then provided training. However, over the past three months, about half of these folks were laid off. Problems developed between Partners in Health, an international health care company, and local community agencies. Some local health agencies said that it was taking too long for Partners in Health to contact people who were initially infected. Trying to identify people who met the initially infected persons was even more difficult. And the purpose of contact tracing is getting to those people who were near the infected and get them tested. Without this contact happening, stopping the spread is difficult.

In his Twitter feed, Dr. Anthony Fauci explains what is not working with contact tracing. He points out that many people simply do not know they are infected. In fact, when I visited my doctor two days ago, she said that most people who come into her office and test positive for COVID-19 are asymptomatic. And that is a big problem with contact tracing. It is a big problem in trying to rein in the spread of the virus.

In an article in Axios, Bryan Walsh explains that contact tracing is the best tool to stem the spread of the virus.<sup>401</sup> And according to public health standards, each state should have at least thirty contact tracers per 100,000 people. According to Walsh’s research, only seven states have reached this capacity. And many states are now experiencing their biggest surges in infections. They are unable to keep up with additional contact tracers. Walsh points out that the US would need 100,000 contact tracers. Right now, there are about 28,000.

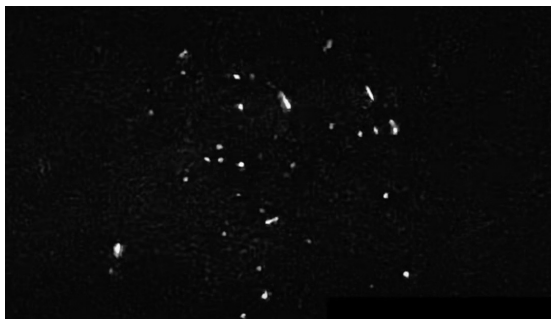
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<sup>400</sup> Martha Bebinger, “COVID-19 Contact Tracing Has Launched in Mass. Here’s How the Effort Is Going So Far,” WBUR, April 18, 2020, retrieved February 25, 2021, <https://www.wbur.org/commonhealth/2020/04/18/contact-tracing-massachusetts-covid19-coronavirus>.

<sup>401</sup> Bryan Walsh, “Coronavirus Contact Tracing Efforts Are Understaffed, Underfunded—and Aren’t Working,” Axios, June 27, 2020, <https://www.axios.com/coronavirus-contact-tracing-isnt-working-0d8ec92c-e1c-4b46-a736-844649b760dd.html>.

## 10.5. BLOG POST, 7 JULY 2020: FACE MASKS FOR HEALTH

Wearing a face mask is the most effective way to protect others and yourself from being infected by COVID-19. In this post I'll discuss how face masks are not only a crucial health standard, but their use is also supported by research.



*Scientists, using laser light, have been able to show droplets expelled while talking. In the case shown here, the speaker says: "Stay Healthy." If droplets come from a person with COVID-19 or any virus, they can be inhaled by others close to the speaker, possibly spreading the disease. Source: National Institutes of Health, CDC.*

Using laser light scattering, researchers from the NIH have been able to illuminate droplets of saliva of a person talking and without a mask. When a mask is worn, the droplets of saliva nearly disappear. Although tiny particles can be seen in the laser light show, cloth masks are effective in reducing the spread of these smaller particles. The science of face masks shows how wearing them reduces the spread of coronavirus.<sup>402</sup>

Dr. Anthony Fauci, director of the NIAID, says that not wearing a face mask increases the risk of the virus being transmitted. He also says that not wearing a mask is irresponsible. We know now that wearing a face mask not only protects others from being infected, but also protects the mask wearer as well.

The health of Americans is at risk. The COVID-19 virus has not been controlled in the United States. In early March 15,000 cases of COVID-19 were reported each day. By early July 2020, nearly 60,000 new cases were being reported. The virus is spreading faster than it did

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<sup>402</sup> Jeremy Howard, "Masks Help Stop the Spread of Coronavirus—the Science Is Simple and I'm One of 100 Experts Urging Governors to Require Public Mask-Wearing," *The Conversation*, May 25, 2021, <https://theconversation.com/masks-help-stop-the-spread-of-coronavirus-the-science-is-simple-and-im-one-of-100-experts-urging-governors-to-require-public-mask-wearing-138507>.

in the earliest stage of the pandemic. Not only is the virus spreading faster, but those getting infected are younger Americans. In Florida, twenty-one-year-olds are getting sick.

**Author's Update:** The CDC now recommends that we should wear either N95 or KN95 face masks. Cloth masks do not give the level of protection that these masks do.

### 10.6. BLOG POST, 19 JULY 2020: DO I HAVE COVID-19?

About 1.1 million people in Georgia have been tested for COVID-19, and 21,000 new cases were reported today. Although the number of positive tests has been about 10 percent, today's results indicated that 16 percent of the tests were positive.<sup>403</sup>

The question for this post is, do I have COVID-19? Am I one of the 10 percent who tested positive? Whether I do or not is something I cannot tell you right now. I will not know my results for about ten days.

### IS COVID-19 OUT OF CONTROL?

At the present time, COVID-19 spread is out of control in the US. It is spreading rapidly in the South and the West, and as a result, openings of businesses are being scaled back. More than 70,000 new cases are being reported every day. More than 3.7 million Americans have been infected. More than 140,000 have died. And in many states, especially Florida, Texas, California, South Carolina, and Georgia, the rate of increase is playing havoc with these state's health care systems—again.

Masks are being mandated in some states. And many national-brand companies will not let you in the door to shop without a face covering. In Georgia, Governor Brian Kemp sued Atlanta Mayor Keisha Lance Bottoms to block the city's mask order. At the end of a contentious battle, the governor decided to drop the lawsuit. The governor of Georgia has threatened other mayors for mandating masks. He hesitated to close

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<sup>403</sup> "Coronavirus in Georgia: Latest Numbers for Sunday, July 19," 11Alive.com, July 19, 2020, retrieved April 15, 2022, <https://www.11alive.com/article/news/health/coronavirus/coronavirus-numbers/coronavirus-cases-georgia-july-19-2020/85-6e96f6f4-1d67-4054-87e6-9db7f93e01b2>.



the state down and then opened much earlier than other governors did. Even the president thought Kemp opened too early. Believe it or not, Kemp thought opening the state early would earn him sycophant points. Instead he was ridiculed by Trump and other politicians.

### GETTING TESTED

The question I raised at the beginning of this post is: do I have COVID-19? Let me explain. About three weeks ago I occasionally had chills. I wondered what was causing them. I have written quite a bit about the COVID-19 pandemic on this blog, and I have followed the recommendations of science, which included wearing a mask, keeping at safe distances from others, washing my hands, and using hand sanitizers frequently. For most of the day, I am at home.

According to the CDC, people with COVID-19 have reported a wide range of symptoms, from mild symptoms to severe illness. Symptoms may appear two to fourteen days after exposure to the virus. These symptoms include fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, new loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea.

The only symptom on the list that applied to me was chills. I had none of the others. I got in touch with my primary care physician. He scheduled a virtual appointment on June 29. At the time of the video visit, I was feeling fine. And he said, "You look good!" He said just to monitor my condition and keep him informed of any further episodes of chills.

The next week, the chills once again appeared. I decided to make a face-to-face visit with him and was all set to see him at his office on July 6. But at about 8:00 a.m. that day, he called to tell me that I should get a COVID-19 test before coming to see him. He suggested two urgent care centers in the area.

I was able to get an appointment with one of the urgent care centers for July 13. I had assumed it would be a COVID-19 testing center, but after I waited for about half an hour, I was told that they didn't do COVID-19 testing at this center. Fortunately I had contacted the Piedmont Urgent Care system and was able to get a virtual appointment

for July 20 at 5:45 a.m. I assumed they would follow this online meeting with a face-to-face meeting to get tested. But I had no idea when.

But over the past few days, I kept getting chills, and not only that, but I was also getting tingling in my hands and feet! Tingling can be a sign of nerve damage or a sign of a viral infection. Viral infection? COVID-19, I thought. It also could be a sign of diabetic neuropathy. But I could not get a test. I logged into both sites I identified above and spent hours trying to book a COVID-19 test. No luck. But I still had the virtual appointment on July 20.

I was concerned about the previous night's episode of chills and tingling, so I decided to go a local health care center about one mile from our home in Marietta, Georgia. I had visited their website and then called their office because they advertised that they do COVID-19 testing! But when I listened to their phone recording, they indicated they temporarily were not doing COVID-19 testing because they were out of test kits.

I still went to the clinic. After filling out the necessary paperwork, I was greeted by a nurse who checked all my vitals. I explained what I thought was going on, and when one of center's doctors came in and listened, she said yes, it was diabetic neuropathy that was causing the tingling. But we talked mostly about COVID-19. She said that all the folks that come to her that test positive for COVID show no signs whatsoever. No chills, no fever, no cough. She said, what good does it do to check people's temperature before they get on or off an airplane?

I told her that I had tried to get a COVID-19 test at her clinic. She said, "Would you like a test?" I was shocked. I had spent days trying to get tested to no avail. I quickly said, "Yes!" She then said, "We had several cancellations, and we have a few test kits in stock." I was in luck. A few minutes later, a nurse appeared and gave me a COVID-19 nasal swab test. No long stick on this test. Just a normal swab of both nostrils. It took about ten seconds, and I was off.

But I will not hear from the clinic for about ten days. I would not be a suitable candidate for COVID-19 contact tracing. But I got tested.

In the end, I tested negative.

# CHAPTER 11:

## TRUMP'S COVID-19 RESPONSE

### 11.1. BLOG POST, 19 MARCH 2020: THE TRUMP-COVID-19 TIMELINE

The first cases of the coronavirus were diagnosed in Wuhan, China, in November or December 2019. By January 19, 2020, the first case in the United States was diagnosed in Washington state. He was a male in his thirties who had just returned from Wuhan.

By the end of January, there were more than 11,000 cases of COVID-19 in China, and 250 cases in other countries. By the end of February, China reported 79,300 cases, with an additional 6,800 cases in other countries. Numbers were also going up in the US.

During this two-month period, Donald Trump did nothing to address the global spread of the disease. He said things like, "Well, we pretty much shut it down from coming in from China." He added later in February, "The numbers are going to get progressively better." They did not.<sup>404</sup>

### THE TRUMP-COVID-19 TIMELINE

The timeline I have put together tracks the real world of the COVID-19 compared to the world of Donald Trump and his administration. The Trump-COVID-19 timeline covers the period from May 2018-January 20, 2021. I've also use quotation marks to highlight Trump's statements about the coronavirus.

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<sup>404</sup> Linda Qiu and Mikayla Bouchard, "Tracking Trump's Claims on the Threat from Coronavirus," *New York Times*, March 6, 2020, retrieved November 28, 2021, <https://www.nytimes.com/2020/03/05/us/politics/trump-coronavirus-fact-check.html>.

**Author’s Update:** The original Trump–COVID-19 timeline covered the period up to March 19, 2020. To make the timeline complete, I’ve extended the timeline to Trump’s last day in office.

Date	COVID-19 World	Trump’s World
5/2018		Trump disbands White House pandemic response team.
7/2019		CDC staff in Chinese disease control center eliminated by Trump.
11/2019	First cases of a coronavirus circulating in Wuhan, China.	Trump’s impeachment hearings are underway.
1/7/2020	First novel coronavirus case confirmed by Chinese authorities in Wuhan, China.	Meeting with prime minister of Hellenic Republic.
1/19/2020	First COVID-19 infection in Washington State (male who traveled to Wuhan and returned to US).	Trump at International Golf Club (West Palm Beach). Speech in Austin to Farm Bureau; self-congratulatory; no mention of virus.
1/22/2020	Confirmed cases in China: 547 WHO confirms human-to-human spread of coronavirus.	Trump in Davos, Switzerland: “The virus is totally under control; it is going to be fine.”
1/24/2020	Confirmed cases in China: 916	Trump tweet: “It will all work out. China working very hard to contain the Coronavirus. I want to thank President Xi.”
1/26/2020	Confirmed cases in China: 2,700	Nothing to report; he was in the White House.
1/28/2020	Confirmed cases in China: 6,000	Trump learns from his national security team that this virus will be the biggest national security threat in his presidency.
1/29/2020	White House Coronavirus Task Force established; led by Alex Azar, director HHS; in February Vice President Pence replaced him as head of task force.	
1/30/2020	6 cases in the United States	Trump rally speech: “We have it very well under control. We have little problem in this country at this moment—five. And those people are all recuperating successfully.”

Date	COVID-19 World	Trump's World
1/31/2020	WHO declared coronavirus a public health emergency of international concern. Confirmed cases in China: 8,124; other locations: 113	Barred foreigners traveling from China, but not Americans.
2/2/2020	Confirmed cases in China: 17,200; other locations: 183	Trump on Fox News: "Well, we pretty much shut it down coming in from China."
2/5/2020	CDC shipped test kits to labs; failed; produced unreliable results.	Trump blames lab kits on previous administration—simply not true. They were botched by current CDC lab.
2/10/2020	Confirmed cases in China: 42,300; other locations: 457	Trump rally speech: "Looks by April, you know, in theory, when it gets warmer, the virus miraculously goes away."
2/11/2020	WHO names the disease causing coronavirus infection: COVID-19	
2/19/2020	Confirmed cases in China: 74,500; other locations: 1,109 cases	Trump on the radio: "The numbers are going to get progressively better as we go along."
2/23/2020	WHO announces virus in thirty countries, 78,800 cases (fivefold increase in three weeks).	Trump: "Very much under control. We had twelve; but they have gotten better."
2/25/2020	Cases around the world continue to increase.	Trump blames CNN and MSNBC for panicking markets, Democrats for their open borders, and Obama for slowing down test kits.
2/26/2020	Confirmed cases China: 78,100; other locations: 3,319 cases Dr. Nancy Messonnier holds tele-briefing saying the novel virus with spread in the community and warns of disruption to everyday life may be severe.	Trump says of numbers of cases, "They are going down, not up."
2/27/2020	Confirmed cases in China: 78,500; other locations: 8,200	Trump: "It's going to disappear."
2/29/2020	Confirmed cases in China: 79,300; other locations: 8,800	Trump: "Vaccine will be available very quickly; my administration is acting aggressively; more than anyone."
3/6/2020	Confirmed cases in China: 80,600; other locations: 21,385	Trump: "Anyone that wants a test can get one."
3/7/2020	Confirmed cases in China: 80,700; other locations: 25,200	At a tour of CDC, Trump says, "People are surprised that I understand it; how much I know."

THE TRUMP FILES

Date	COVID-19 World	Trump's World
3/10/2020	WHO reported 119,100 cases in one hundred countries.	Administration still has its head in the sand; claimed it had millions of test kits—not true; said risk for getting the virus was low.
3/11/2020	Confirmed cases in China: 80,900; other locations: 44,900 WHO declares COVID-19 a pandemic.	White House speech: self-congratulation, blame-shifting, misinformation.
3/12/2020	WHO: 142,000 cases; scientists predict up to 215 million Americans will be infected. The virus may have originated from bats or pangolins.	White House staff corrects Trump's misinformation from last night's speech. Trump continues to say, "It's the China or Chinese Virus."
3/13/2020	Confirmed cases in China: 80,900; other locations: 146,960	White House declares a national emergency. European travel ban. Trump claims Google has national website ready for COVID-19 (not true); Drs. Birx and Fauci speak about testing and containment; Trump claims labs are developing kits. Trump: "Don't blame me. I rate myself a ten for what we've done to fight the virus."
3/15/2020	Some states begin to shut down to prevent spread of virus. Forecasts for UK and US from Imperial College COVID-19 Response Team: 510,000 cases in UK; 2.2 million cases in USA now through July 20.	White House briefing: The Google site is not up and it won't be. Trump uses racist taunt, it's the Chinese virus, and blames fake news for Google debacle.
3/18/2020	British researcher says US is behind Italy by two weeks; COVID-19 could be with us until there is a vaccine (1 to 1.5 years). CDC recommends social distancing, groups of no more than ten, close restaurants and bars, assume you have COVID-19.	Trump, although optimistic, is not trustworthy; his history of misinformation and pathological lying is difficult to dismiss in the COVID-19 era. Coronavirus Task Force does not practice what it preaches. Trump in the middle, others shoulder to shoulder. Practice social distancing? Not us. Trump: "I will be having a news conference to discuss news from FDA concerning the Chinese virus!" "I don't take responsibility at all." "There is fake and corrupt news, day and night."

Date	COVID-19 World	Trump's World
3/19/2020	Total confirmed cases globally: 246,833 Total deaths: 9,785	Coronavirus Task Force adopts British coronavirus recommendations: 1. Social distancing 2. Groups of no more than ten 3. Stay in place Trump: "The virus just snuck up on us!" "It's the Chinese virus."
3/30/2020	Total confirmed cases: 503,341 Total deaths: 35,392	Coronavirus Task Force paints grim picture that 100,000–200,000 Americans could die from coronavirus. They convince Trump to extend lockdown thirty days to the end of April.
4/6/2020	US death toll: 22,000	Trump: "I see light at the end of the tunnel."
4/12/2020	Fauci says that US death toll is an underestimate.	On the coronavirus response, Trump says: "I couldn't have done it any better."
4/23/2020		Trump: "So, supposing we hit the body with a tremendous—whether it's ultraviolet or just very powerful light, and then I see the disinfectant where it knocks it out in a minute. One minute. And is there a way we can do something like that, by injection inside or almost a cleaning?"
5/5/2020	US death toll: 80,000	Trump: "Well-run states should not be bailing out poorly run states, using coronavirus as the excuse."
5/29/2020	US death toll: 110,000	"We will be terminating our relationship with the World Health Organization."
6/18/2020	US death toll passes 120,000.	Trump: "It's fading away. It's going to fade away. And it is dying out. The numbers are starting to go down."
7/1/2020	US death toll passes 130,000.	Trump: "I think we're going to be very good with the coronavirus. I think that, at some point, that's going to disappear. I hope."
7/8/2020	CDC rules on return to school.	Trump tweets: "I disagree with @CDCgov on their very tough & expensive guidelines for opening schools. While they want them open, they are asking schools to do very impractical things. I will meet with them!"

Date	COVID-19 World	Trump's World
8/1/2020	Fauci says US has more cases than Europe because it only shut down a fraction of its economy amid the pandemic.	Trump responds to Fauci: "Wrong! We have more cases because we have tested far more than any other country. If we tested less, there would be less cases."
9/10/2020	US approaches 200,000 deaths.	Trump: "If you take out the blue states, we're at a level I don't think anybody in the world would be at!"
10/3/2020	US death toll over 210,000.	Trump taken to Walter Reed Hospital for three-day COVID-19 treatment. The unhinged Trump tells America (after more than 210,000 deaths): "Don't be afraid of COVID. Don't let it control your life."
10/12/2020	<i>New England Journal of Medicine</i> criticizes Trump's COVID-19 response; states see spikes. Global cases top 40 million.	Trump repeats: "It's China's fault. They allowed this to happen."
11/3/2020	Trump loses election, Joe Biden is president-elect.	Trump launches the Big Lie: the election was stolen.
12/8/2020	Cases in US increasing.	Trump holds holiday parties at White House despite warnings by CDC.
12/31/2020	Trump claims the federal government distributed vaccines to the states. Now it is up to them.	Promised 20 million shots by end of December 2020; only about 2 million in arms by month's end.
1/6/2021	US death toll passes 360,000.	Trump incites mob to storm the US Capitol.
1/20/2021	Trump flees to Florida. US total COVID-19 cases: 25.8 million Deaths: 452,000	Joe Biden and Kamala Harris are sworn in as president and vice president of the United States.

Table 4. The Trump–COVID-19 timeline.

## 11.2. BLOG POST, 23 MARCH 2020: INTERVIEW WITH DR. ANTHONY FAUCI ON THE PANDEMIC

Jon Cohen's (staff writer for *Science*) interview with Dr. Anthony Fauci shows how difficult it is to deal with truth in the daily coronavirus press conferences.

Like many of you, I've tuned into these daily White House Coronavirus Task Force press briefings. I don't know about you, but I'm usually



infuriated by Trump. His history of lying and misrepresenting the truth is fed to us on live TV, and unfortunately the media is contributing to this. They, like Trump, watch the ratings.

The only inkling of truth and accurate information occurs when Dr. Anthony Fauci, director of the NIAID, or Dr. Deborah Birx, coordinator for the Coronavirus Task Force, take the podium.

I've wondered how Drs. Fauci and Birx have dealt with being front and center during the worst pandemic that the world has experienced since the great flu pandemic of 1918. In that pandemic, the only approach that stemmed the growth of the virus was social distancing and isolation. We are at the same point in the COVID-19 pandemic. Now, however, we know that wearing a mask is the most effective way to protect ourselves and others from the virus.

Trump's COVID-19 response was too late, and as a result, governors are scrambling to do the right thing and get the medical tools hospitals need. And the right thing is to tell people to stay at home. The federal government needs to provide frontline health care workers with the tools and equipment they need to deal with the surge of patients that are overcrowding our hospitals.

How do these two scientists who interact daily with Trump as members of the Coronavirus Task Force deal with the mixed messages, untruths, and real concerns of the American people?

### INTERVIEW WITH DR. ANTHONY FAUCI

I came across this interview with Dr. Anthony Fauci that was conducted yesterday by Jon Cohen and published in *Science*. The interview brings out some of the frustration but also the resolve of Fauci as he deals with Trump's view of this disease. As he said to Jon Cohen, "So, I'm going to keep pushing."

Here is one of the questions that Cohen asked in his interview with Fauci.<sup>405</sup>

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<sup>405</sup> J. Cohen, "'I'm Going to Keep Pushing.' Anthony Fauci Tries to Make the White House Listen to Facts of the Pandemic," *Science*, March 26, 2020, retrieved February 25, 2021, <https://www.science.org/content/article/i-m-going-keep-pushing-anthony-fauci-tries-make-white-house-listen-facts-pandemic>.

**Q:** You stood nearby while President Trump was in the Rose Garden shaking hands with people. You're a doctor. You must have had a reaction like, "Sir, please don't do that."

**A:** Yes, I say that to the task force. I say that to the staff. We should not be doing that. Not only that—we should be physically separating a bit more on those press conferences. To his credit, the vice president [Mike Pence] is really pushing for physical separation of the task force [during meetings]. He keeps people out of the room—as soon as the room gets like more than ten people or so, it's, "Out, everybody else out, go to a different room." So, regarding the task force, the vice president is making sure that we don't crowd thirty people into the Situation Room, which is always crowded. So, he's adhering to that. The situation on stage [for the press briefings] is a bit more problematic. I keep saying, "Is there any way we can get a virtual press conference?" Thus far, no. But when you're dealing with the White House, sometimes you have to say things one, two, three, four times, and then it happens. So, I'm going to keep pushing.

### **11.3. BLOG POST, 25 MARCH 2020: WHAT EXPERTS SAY ABOUT TRUMP'S CORONAVIRUS EASTER PLAN**

What do experts say about Trump's coronavirus Easter plan? For most of us, Trump's idea of opening large swaths of the country for "business as usual" is a preposterous idea. As Fauci said right after Trump made the claim, "You need to evaluate the feasibility of what you are trying to do. You must think what kind of metrics, what kind of data are you going to look at. Obviously, no one is going to want to tone down things like in New York City."

### **CORONAVIRUS CLUSTERS IN THE US**

Trump is pushing the idea of returning to what it was like in the US in February. He must be blind to what has happened since then and in denial about the current spread of the virus in the country. A link exists

between population density and the metrics of the COVID-19 disease. If you look at COVID-19 global cases by the Center for Systems Science and Engineering at Johns Hopkins University, you can investigate how the virus has populated the world. It's in clusters. If you go to their map on their website<sup>406</sup> and expand it, you will see the clusters of infection. Even in states that have just a few dots, many people would be at risk if we suddenly lifted the social distancing and isolation principles.

We also know that one person who is exposed or has been infected can easily infect many others. The evidence is that the infection spreads, especially in families and groups, such as a church choir. Social distancing and isolation are crucial to stop the spread of the virus.

#### **11.4. BLOG POST, 5 APRIL 2020: WHY HAVE WE WAITED TO IMPLEMENT COMMUNITY MITIGATION?**

The goal of community mitigation is to slow the spread of a novel influenza. Coupled with the fact that social distancing and other mitigation methods work, why have we waited to implement community mitigation throughout the United States?

Georgia implemented a statewide stay-at-home order on March 31, 2020. Why did Georgia's governor wait so long when the evidence was clear that coronavirus cases were accelerating at separate locations in the state? The state has several hotspots, and they are not only in the metro Atlanta area.

The White House Coronavirus Task Force has been slow to take urgent action, primarily because of Trump. He refuses to embrace personally what experts on the task force recommend. Even today, after the task force recommended that Americans cover their faces with masks of some sort when they go out, all Trump would say was, "Well, I know I won't wear one."

The task force should immediately tell all states to put a stay-in-place order now. The evidence is clear that these mitigation strategies can work.

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<sup>406</sup> COVID-19 Dashboard, Center for Systems Science and Engineering and Johns Hopkins University, <https://gisanddata.maps.arcgis.com/apps/dashboards/bda7594740fd40299423467b48e9ecf6>.

## STATE ORDERS OF COMMUNITY MITIGATION

Not all states have stay-in-place orders. The states that have resisted are simply keeping people in harm's way. They are all led by Republican governors. The virus is in those states, and unless they use some form of mitigation, the coronavirus will spread.

Alabama has just put into practice a stay-at-home order. But what about other states? Do those states think they are immune to COVID-19? In some states, even those with stay-at-home orders, scattered locations are open.

## LESSONS FROM OTHER COUNTRIES

While we waited, other countries were putting into practice a variety of mitigation plans. There are three that I would like to shine a light on, and they are Spain, Italy, and South Korea.

You can check global coronavirus cases at the Center for Systems Science and Engineering at Johns Hopkins University to learn about COVID-19, including the number of confirmed cases, deaths, and recovered cases. Table 5 is a chart displaying coronavirus data on Spain, Italy, South Korea, and the United States as of April 3, 2020.

Country	Confirmed Cases	Deaths	Recovered
Italy	119,827	14,681	19,758
Spain	119,199	11,198	30,513
South Korea	10,062	174	6,021
United States	275,586	7,406	9,707

Table 5. Coronavirus cases by country as of April 3, 2020.

COVID-19 has hit Italy and Spain hard. Ten percent of people with confirmed cases in these two countries died because of COVID-19. Each country ordered stay-at-home mitigation strategies, as well isolation of individuals who tested positive.

Dennis Adams has shared data and graphical analyses that are pertinent to this discussion about mitigation, as well as previous posts on the coronavirus epidemic. Adams, a retired civil engineer living in the Canary Islands, was introduced to me by Jean Sanders, a colleague in Massachusetts.

The first graph I received from Adams is shown in Figure 17. It shows that Spain might be beginning to turn the corner. For the first time since beginning mitigation, the coronavirus cases are starting to lessen. Notice that the actual Spanish data are beginning to depart from the theoretical expected growth. If you look at the smaller graph superimposed on the larger graph, the trend in daily cases is down. This is what we want. This means that Spain’s mitigation strategies are getting ahead of the virus.

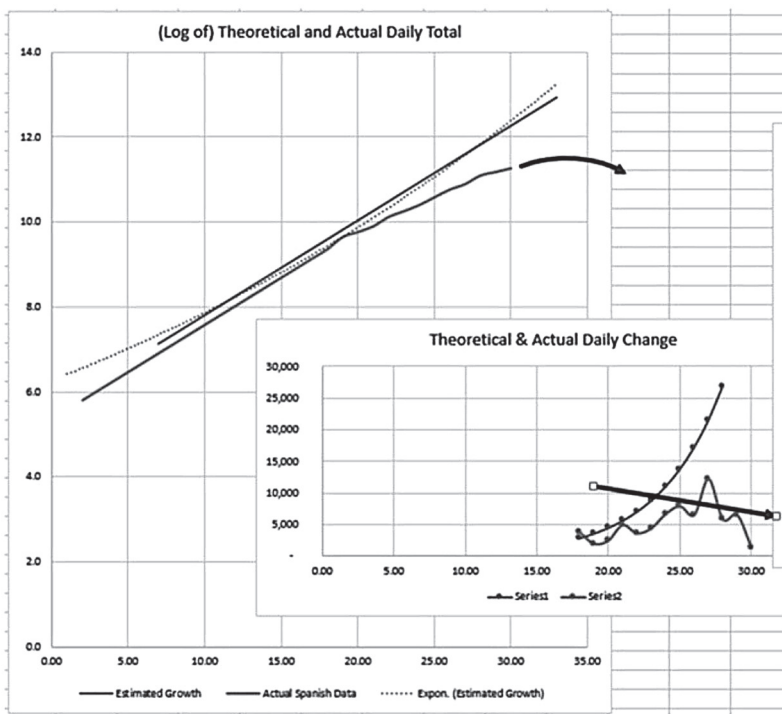


Figure 17. Theoretical and actual daily total of COVID-19 cases in Spain. Source: Dennis Adams; used with permission.

### COMPARISONS AMONG FOUR COUNTRIES

The United States should pay attention to the efforts to contain the pandemic in Spain, Italy, and South Korea. The United States has more than 300,000 COVID-19 cases, more than any nation in the world.

First, let’s look at this graph (Figure 18) provided by Adams comparing these three countries. South Korea, Italy, and Spain are compared

to the theoretical predicted coronavirus cases (identified by an arrow). Italy and Spain are beginning to show progress. According to Spain’s prime minister, the current stay-at-home mitigation will be extended until at least April 11. Although evidence shows that the virus spread is slowing, the prime minister said that nothing would change until the curve of the coronavirus pandemic is flattened.<sup>407</sup>

South Korea flattened the curve very soon after diagnosing its COVID-19 cases. You can see in Figure 18 that the line for South Korea is flat and has been for more than twenty days. Korea implemented an extensive contact tracing and testing approach, followed by isolation. According to one report, as soon as the first cases were reported in late January and then surged a few weeks later, the government launched a contact tracing and testing regime to identify and then isolate infected people.

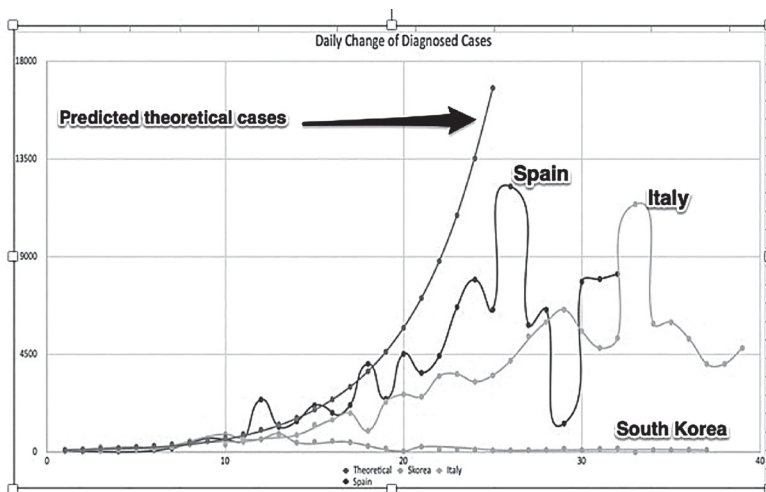


Figure 18. Daily change of diagnosed cases in South Korea, Spain, and Italy. Source: Dennis Adams; used with permission.

South Korea has tested more people per capita than any other country in the world. South Korea had about 10,000 cases (Figure 18) as of April 3, but only a few deaths. Some human rights groups have cautioned that South Korea’s disclosure of confidential information to

<sup>407</sup> Tim Lister and Isabel Tejera, “Spain’s Coronavirus Death Toll Shows Signs of Flattening,” CNN, April 4, 2020, retrieved February 24, 2021, <https://www.cnn.com/2020/04/04/europe/spain-coronavirus-death-toll-intl/index.html>.

do contact tracing is a concern. On the other hand, in one survey, South Korea's public supports the publishing of individuals' movements.

### COMMUNITY MITIGATION IN THE UNITED STATES

The first COVID-19 case in the US was reported on January 19, 2020, in the state of Washington. An analysis of the first case was reported in the *New England Journal of Medicine*.<sup>408</sup> Now, seventy-seven days later, the US has 301,902 diagnosed cases of the coronavirus. The implementation of mitigation strategies in the US has been shoddy. The lack of thought and organization at the federal level has put the US in a dangerous situation.

Although the White House has a Coronavirus Task Force with three scientists, it also has Donald Trump. Trump's history on the coronavirus has been careless and continues to be so to this day. The Trump–COVID-19 timeline (Blog Post 11.1) shows how he disregarded and denied the seriousness of the coronavirus for more than seventy days after the first cases were reported in Wuhan, China. Even now, he disrespects the scientific advice from the task force. After they suggested that people use face masks when they go out of their homes, Trump said, "Remember it's optional, and I won't be wearing a face mask."<sup>409</sup>

As a science educator I've been appalled by not only Donald Trump, but also the White House Coronavirus Task Force. Except for the three scientists on the task force, we've not heard from medical doctors, virologists, epidemiologists, or geneticists unless you watched TV or used social media. A lack of a scientific approach dominated our dealing with the pandemic in the United States. It could have been different.

A lot of people in the US don't think the coronavirus is any different from the flu. This belief is simply not true. Eight governors still have not ordered stay-at-home mitigation strategies.

We need to listen to Fauci and his colleagues. We need to seek the truth about the virus from scientists and physicians. Fauci is urging

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<sup>408</sup> Holshue, "First Case of Novel Coronavirus."

<sup>409</sup> Y. Abutaleb et al., "The US Was Beset by Denial and Dysfunction as the Coronavirus Raged," April 4, 2020, retrieved February 25, 2021, <https://www.washingtonpost.com/national-security/2020/04/04/coronavirus-government-dysfunction/>.

Americans to work together to mitigate the virus. He commented that the country is “struggling to get the novel virus outbreak under control.” He put it this way:

“So, on the one hand, things are going to get bad, and we need to be prepared for that,” Fauci, director of the NIAID, said. “It’s going to be shocking to some. It’s certainly really disturbing to see that. But that’s what’s going to happen before it turns around. So just buckle down, continue to mitigate, continue to do the physical separation because we’ve got to get through this week that’s coming up because it is going to be a bad week in the neighborhood.”<sup>410</sup>

Even if you don’t live in a state that has its citizens staying home except to get food or medicine, you might follow the lead of states that have done this. California was the first state to issue a directive for people to stay at home.

### **11.5. BLOG POST, 29 MAY 2020: HOW TRUMP LED THE US TO AN ABSOLUTELY CHAOTIC COVID-19 DISASTER**

The lack of leadership by the United States government, led by Donald Trump, has put all Americans into a chaotic COVID-19 disaster. As of this writing, more than 102,000 Americans have died from the coronavirus. It keeps rising at a rate of more than 1,000 per day. The country has fallen into an abyss without the kind of leadership that we see in some other countries, such as Germany and New Zealand, each with a woman as leader.

### **A PROFOUND DANGER**

We are also witnessing the aftermath of the murders of two African American men. Ahmaud Arbery was shot to death by three white men

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<sup>410</sup> Allan Smith, “Fauci: ‘We Are Struggling’ to Get the Coronavirus Outbreak Under Control,” NBC News, April 6, 2020, retrieved February 25, 2021, <https://www.nbcnews.com/politics/donald-trump/fauci-we-are-struggling-get-coronavirus-outbreak-under-control-n1177131>.



while he was jogging in Brunswick, Georgia, on February 23. George Floyd was murdered by a white police officer in Minneapolis on May 25. Trump has done nothing but issue threats, such as a tweet in which he wrote, "When looting starts, the shooting starts." Twitter blocked it.

Yet Governor Mike DeWine said on May 29 that the protests across Ohio are not only understandable, but they are also appropriate. He even encouraged people to exercise their First Amendment rights. Trump doesn't know how to say things like this. Why? Read on:

Donald Trump is a profound danger to Americans and to the rest of the world. He will remain a profound danger until he is no longer president, since the dangers clearly result from Trump's serious mental impairments that are untreated and are most likely impervious to treatment.<sup>411</sup>

These are lines from Dr. Brandy X. Lee's book *The Dangerous Case of Donald Trump*. I don't know about you, but every day this man behaves as being unfit for the office he holds, more than anyone before him.

Trump spews erratic, unpredictable, and mostly dangerous ideas. He especially relishes doing so in front of the cameras or by tweeting his nonsense. He has created a chaotic COVID-19 disaster. How does this play out, and what are the ramifications? Are we just to sit by and let him continue lying, breaking the law, and creating chaos? We not only need to speak out. We need to be witnesses to this unacceptable behavior, plus we need to vote.

### TRUMP'S LIES

Trump is a menace to the American people during the COVID-19 pandemic. At the center of his incompetence is his lying. In an article in *Forbes*, David Markowitz, a professor of language and technology, said that very few of us are prolific liars. He points out that most of us say about one or two little lies a day. Donald Trump, however, lies at a rate

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<sup>411</sup> Lee, *The Dangerous Case of Donald Trump*, xix.

of more than twenty-three per day. Unbelievably, Dr. Markowitz analyzed more than 18,000 reported Trump lies. He analyzed Trump's lies over time by topic and location. Trump seems to lie about everything from his biography to the Ukraine probe and from campaign rallies to Twitter. Dr. Markowitz concludes his analysis in this way:

Trump's lies are problematic because they force us to question our institutions and the value of information. Their consequences might also bleed into our everyday meaningful relationships. Our trust in government, media, and other institutions remain quite low, but we still tend to trust one another. What happens when our distrust in government affects our trust in family or friends? When we fail to value truth and instead prioritize alternative facts or self-serving discourse, the fabric that holds our relationships together begins to fray.<sup>412</sup>

### CONTRADICTION OF FACTS AND AGREEMENTS

Before the pandemic, we already knew how Trump would act. Ever since he took office, he has shown his disdain for science, rational thinking, and intelligence. Too many examples of his contempt for these exist to list. However, here are a few that stand out.

He has consistently discredited, blinded, and overridden the intelligence community. Joshua Geltzer, executive director of the Institute for Constitutional Advocacy and Protection at Georgetown Law, and Ryan Goodman, editor in chief of the blog *Just Security*, analyzed Trump's attacks on the intelligence community. They conclude that Trump's demeaning of US government employees is a genuine national security threat. They point out that Trump is better at spreading misinformation than protecting information.<sup>413</sup>

Trump and his cronies have assailed the EPA and have persisted in a wholesale repeal of rules that had been established and were designed

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<sup>412</sup> Markowitz, "Trump Is Lying More than Ever: Just Look at the Data."

<sup>413</sup> Joshua Geltzer and Ryan Goodman, "The Pattern and Practice of Trump's Assaults on the Intelligence Community," *Just Security*, February 11, 2020, retrieved February 24, 2021, <https://www.justsecurity.org/66035/the-pattern-and-practice-of-trumps-assaults-on-the-intelligence-community/>.

to protect the American people's environment. They have censored scientists, often silencing them, with the result being the loss of veteran scientists across a wide swath of the EPA and other departments. A former employee and scientist at the EPA, Dr. Elizabeth Southerland, described the nature of Trump's assault. From climate change to drinking water standards, Trump has inflicted severe harm to the nation's efforts to protect the environment.<sup>414</sup>

Trump and his surrogates have aggressively attacked and pulled the US out of important international agreements. The most flagrant is Trump's withdrawal from the Paris Agreement, a climate agreement that all but two nations joined. Trump and his surrogates claimed that the Paris Agreement would undermine the US economy and put the country at a permanent disadvantage. Trump also withdrew the US from the Iran nuclear deal (Joint Comprehensive Plan of Action). Trump said that the Iran deal was a fatally flawed agreement.<sup>415</sup> And today, he announced that the US would be withdrawing from the WHO.<sup>416</sup> These actions, taken together, have endangered citizens around the world.

## SCIENCE DENIER

One behavior that Trump has exhibited is his denial of science facts, scientific and medical research, and opinions of medical experts. We call this science denialism.<sup>417</sup>

Although Trump isn't the first to be a science denialist,<sup>418</sup> he's in first place in terms of the number of denials per day. Trump's denial of science has led the United States into an absolutely chaotic disaster. COVID-19 is the latest example of Republican science denialism.<sup>419</sup> In this case, however, that denialism has caused tens of thousands

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<sup>414</sup> Elizabeth Southerland, "The Trump Administration's Assault on Science and the Environment," The Century Foundation, September 16, 2019, retrieved February 24, 2021, <https://tcf.org/content/commentary/remarks-trump-administrations-assault-science-environment/>.

<sup>415</sup> Mark Landler, "Trump Abandons Iran Nuclear Deal He Long Scorned," *New York Times*, May 8, 2018, retrieved February 24, 2021, <https://www.nytimes.com/2018/05/08/world/middleeast/trump-iran-nuclear-deal.html>.

<sup>416</sup> Brianna Ehley and Alice Miranda Ollstein, "Trump Announces US Withdrawal from the World Health Organization," Politico, May 29, 2020, retrieved February 24, 2021, <https://www.politico.com/news/2020/05/29/us-withdrawing-from-who-289799>.

<sup>417</sup> David L. Levine, "Science Denialism in the 21st Century," *Scientific American*, July 19, 2018, retrieved February 24, 2021, <https://blogs.scientificamerican.com/observations/science-denialism-in-the-21st-century/>.

<sup>418</sup> George W. Bush's presidency undermined climate science and spread misinformation leading to the war in Iraq.

<sup>419</sup> Mooney, *The Republican War on Science*.

of Americans to die. The poster child of science denialism is Donald Trump, one of the most dangerous persons we must face each day.

### PETULANT CHILD

Trump's behavior on May 22, 2020, at the Michigan Ford plant was obnoxious. In front of Ford executives and the people who are the heart of the plant, Trump kept his face bare, spewing droplets as he rejected Ford's policy of mask wearing. He showed us his little mask and claimed he put it on over there, but away from the cameras. Except someone did snap a photo of Trump wearing the mask.

Dana Nessel, Michigan's attorney general, said that Trump threatened the health and safety of her state's residents through his coronavirus response by refusing to wear a mask and supporting those who are protesting Michigan's stay-at-home orders.<sup>420</sup>

Nessel compared the president to a "petulant child" for not wearing a mask while visiting the Ford plant. I think she's correct. There are other words that might describe the petulant Trump. Here are few: perverse, fault-finding, bullying, whiny, mean, pouting, brooding, whining, ungracious, rude, combative, and on and on.

### PANDEMIC DEBACLE

Trump is responsible for the awful milestone of 100,000 Americans dying from COVID-19. If he had acted earlier, and if he had consulted his predecessor, he might be staved off tens of thousands of deaths.

He told his followers that the virus would go away with the warm weather. No, it didn't. And he blamed problems with equipment and lab tests on the previous administration. Again, not true. The Obama administration embraced science and insisted that scientists and medical experts lead efforts during a pandemic during his administration. Medical experts have been pushed to the side by Trump, and he refuses to wear a mask, fueling discord in society and creating

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<sup>420</sup> Alana Wise, "Michigan AG Says She 'Will Not Remain Silent' as Trump Risks Public Health," NPR, May 22, 2020, retrieved February 24, 2021, <https://www.npr.org/sections/coronavirus-live-updates/2020/05/22/861373885/michigan-ag-says-she-will-not-remain-silent-as-trump-risks-public-health>.

groups of mask wearers and non-wearers. Trump's refusal to wear a mask, as well as his tweets siding with Michigan protestors who opposed Michigan Governor Gretchen Whitmer's stay-at-home order, fueled violence in the state. The anti-lockdown protestors attacked the Michigan State House with an intent to disrupt the government as well as kidnap the governor.<sup>421</sup>

Trump thinks he knows more than physicians who have worked on infectious diseases for decades. He suggested that injecting bleach directly into the body would be like "a cleaning" and would kill the virus.<sup>422</sup> And most recently Trump has claimed he is taking the controversial drug hydroxychloroquine. This is an antimalarial drug that the FDA has warned against its widespread use. Trump said, "What have you got lose?" Well, according to research,<sup>423</sup> the drug is linked to serious and even fatal heart attacks and is not effective in treating COVID-19.

What is Trump's deep research into this and other remedies he suggests? He's heard good things about it!

He's threatened scientists in government departments. He ignored all the work that been done during the Obama administration on preparing for a pandemic. He has walked away from the WHO, a crucial organization that is doing research on global health issues. He's ignored much of what was said by Dr. Anthony Fauci, director of the NIAID. Fauci recommends that we all wear face masks. Trump refuses to wear them.

It is a constant battle with the likes of Donald Trump.

## 11.6. BLOG POST, 2 OCTOBER 2020:

### THE SUPER-SPREADER RELEASED FROM HOSPITAL

For eight months Donald J. Trump, aka "the super-spreader," lied about COVID-19. He ignored and dismissed the health advice of the country's

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<sup>421</sup> Andrew Solender, "Armed Protesters Storm Michigan State House over COVID-19 Lockdown," *Forbes*, May 1, 2020, retrieved February 24, 2021, <https://www.forbes.com/sites/andrewsolender/2020/04/30/armed-protesters-storm-michigan-state-house-over-covid-19-lockdown/?sh=236f0cbf69b5>.

<sup>422</sup> Matt Flegenheimer, "Trump's Disinfectant Remark Raises a Question about the 'Very Stable Genius,'" *New York Times*, April 26, 2020, retrieved February 24, 2021, <https://www.nytimes.com/2020/04/26/us/politics/trump-disinfectant-coronavirus.html>.

<sup>423</sup> Center for Drug Evaluation and Research, "FDA Cautions Use of Hydroxychloroquine/Chloroquine for Covid-19 outside of the Hospital Setting or a Clinical Trial Due to Risk of Heart Rhythm Problems," US Food and Drug Administration, retrieved February 11, 2022, <https://www.fda.gov/drugs/drug-safety-and-availability/fda-cautions-against-use-hydroxychloroquine-or-chloroquine-covid-19-outside-hospital-setting-or>.

top infectious disease experts. He admitted playing down the serious nature of the disease. Meanwhile more than 1 million Americans are infected. Over 210,000 people have died. Now he has the disease. Or so we've been told.

The president of the United State acted recklessly. He put many people at risk by foolishly holding meetings and attending rallies and fundraisers. He also attended the presidential debate knowing he was infected.

### **SUPER-SPREADER-IN-CHIEF**

I believe Trump's behavior has been stupid, foolish, dumb, ludicrous, laughable, half-baked, absurd, pointless, irrelevant—you name it.

Trump's senseless behavior over the entirety of the COVID-19 pandemic has put the country at risk. More specifically, he has caused harm to people in his orbit. Those put in harm includes his Secret Service detail (many of whom have tested positive for COVID-19), his White House staff and employees, and many others who attended his rallies and fundraisers.



*The Trump/Barrett super-spreader event in the Rose Garden at the White House, September 26, 2020. Eight persons came down with COVID-19 after this event. Source: Amy Rossetti, CC PDM 1.0.*

On September 26, Trump held a gathering in the Rose Garden to announce the nomination of Amy Coney Barrett to the Supreme Court.

Specifically, this was the start of a week in which a string of people who had attended this gathering tested positive for the coronavirus.

In photos of the gathering, Trump and Barrett are standing on a stage looking out at two large arrangements of chairs full of people sitting shoulder-to-shoulder. Days after this meeting, one person after another reported they tested positive for the virus. Those infected included senators, the president of the University of Notre Dame, former New Jersey Governor Chris Christie, and White House officials including Hope Hicks and press secretary Kayleigh McEnany. And of course, the president and first lady.

In other words, Trump may be a COVID-19 super-spreader, or super-spreader-in-chief. Trump could be responsible for tens of people being infected, directly or indirectly. Indeed, evidence exists that his denial of scientific infectious disease advice may have caused between 40,000 and 50,000 deaths.<sup>424</sup>

### HOSPITAL AS A SHOW STAGE

Donald Trump was admitted to the Walter Reed National Medical Center. He spent three days in the hospital. He was given multiple drugs, including dexamethasone, a steroid; REGN-COV2, two monoclonal antibodies; remdesivir, an antiviral drug; famotidine, an antacid; vitamin D; melatonin, a sleep hormone; and aspirin. Remdesivir is an experimental drug and has been shown to modestly treat COVID-19 by reducing hospital stays. It's also the kind of treatment not available to the general population.

However, Trump has used this experience to turn COVID-19 into a television dramedy, and all the major media outlets fell for it hook, line, and sinker. It appeared to me that this entire episode was planned to create photo ops for use in the next month's election.

I don't believe what he says while he's hospitalized. He's turning the hospital into a show stage. Trump has not taken responsibility for

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<sup>424</sup> Apoorva Mandavilli and Tracey Tully, "White House Is Not Tracing Contacts for 'Super-Spreader' Rose Garden Event," *New York Times*, October 5, 2020, retrieved February 25, 2021, <https://www.nytimes.com/2020/10/05/health/contact-tracing-white-house.html>.

contracting the disease. He deliberately put those near him in harm's way. Fear was instilled in those who worked in the White House and extended to the public sphere, especially while speaking to reporters. He spewed this message and the virus at his rallies. And he went on television to try to embarrass and threaten people. Indeed, he may have spread the disease to innocents that attended a fundraiser at his golf course in New Jersey.

In my view, the hospital visit was nothing more than a plan for Trump to gain an upper hand with the way he has dealt with the COVID-19 pandemic. On Wednesday his closest advisor, Hope Hicks, showed signs of being COVID sick. Trump knew she was sick. She went home having tested positive. After being on an airplane with Hicks, he attended two events with hundreds of people, most of whom were not wearing masks.

During this time, he was showing signs that he was sick with the virus. Remember, this man refused a mask. Trump never said that people should wear facial coverings. He had the nerve to engage with people in close quarters without wearing a mask. He never encouraged people around him to wear a mask. What's the big deal? Well, the big deal is that the top infectious disease doctor in the federal government said he would trust using a face mask more than any experimental vaccine. Wearing a mask is a proven nonpharmaceutical treatment against the virus.

### A SICK MAN

In short, Trump is a sick man. Now he's sick with COVID-19. Donald Trump has been a nightmare for over three years. For the past 240 days, he has refused to lead the nation out of this pandemic. Instead, he has pushed the country into the worst health crisis in over a hundred years. His actions have been criminal and evil. While thousands of people were getting sick daily, Trump was telling us that things were going great with the virus.

He urged people to take hydroxychloroquine. He said he was taking the drug. Dr. Anthony Fauci, the leading scientist on the White House Coronavirus Task Force, said the drug was not effective against the virus.



Then Trump recommended “injecting bleach” to kill the virus. As he said, it would act as “almost a cleaning.” He made this comment at a Coronavirus Task Force news conference on April 23, 2020. Over the next few days, companies that manufactured disinfectants and bleach had to message that people should not inject or drink these liquids. Really.