Uncontrolled Spread

What’s in it for me? Find out what went wrong when COVID-19 showed up on US shores.

Managing a highly contagious coronavirus pandemic was always going to be difficult – but it didn’t have to be an impossible scenario. There’d been plenty of warnings. In the years leading up to 2020, there were outbreaks of the Zika, avian flu, SARS, and Ebola viruses. Some nations paid attention and made preparations that would protect them in case of future crises. The US was one of many that didn’t. A number of things went wrong in the US. Some of these things were due to poor planning and decision-making, while some were out of officials’ control. But together, they created a perfect storm that allowed a new coronavirus to spread throughout the country, largely unchecked, for months. In these blinks, you’ll learn

why the US’s CDC was ill-equipped to manage the crisis; the reason South Korea was better able to control its outbreaks; and why public health is becoming a matter of national security.

Early information on the COVID-19 outbreak was hard to come by.

On January 18, 2020, the author, Scott Gottlieb, traded worried messages with Joe Grogan of the White House’s Domestic Policy Council. Both men were wondering about a new viral pneumonia outbreak in China, and both had previously worked at the Food and Drug Administration, the FDA. Gottlieb, having worked there since 2003, had just stepped down as commissioner in April 2019. In all those years, Gottlieb had tracked various SARS, MERS, Ebola, and Zika outbreaks. Some hit close to home, while others kept their distance. But on January 18, Gottlieb let Grogan know that he wasn’t so sure about the outbreak they were currently facing. Truth be told, he was worried. The key message here is: Early information on the COVID-19 outbreak was hard to come by. One of the first red flags that Gottlieb noticed was that the information coming out of China was unreliable. The number of infected patients was hard to pin down, as was the question of whether this virus was capable of spreading person-to-person. Both China and the WHO – that is, the World Health Organization – were sticking to the claim that the outbreak had only infected people who’d been exposed to a particular zoonotic source at an outdoor food market in the city of Wuhan. In other words, they were suggesting that people had caught the virus directly from an animal. But the Center for Disease Control and Prevention in the United States, the CDC, was already picking up evidence that the virus was spreading among these people’s family members and infecting others who hadn’t gone anywhere near the food market. Gottlieb wasn’t surprised at China’s withholding of information. In 2005, the Chinese government had tried to hide the SARS-1 outbreak from the world at large, as well as its own people. Now, it seemed, it was doing it again. In mid-December, multiple people had shown up at hospitals throughout Wuhan with mysterious and aggressive pneumonia-like symptoms. Unable to identify the cause, doctors sent lung fluid samples out for genomic sequencing analysis. One of the first results came back on December 27. Confirmation: this was a new respiratory virus, one that looked a lot like SARS-1, which had killed

around 800 people worldwide. The news was cause for concern, but rather than raise the alarm, Beijing's National Health Commission instead ordered that all sequencing data be kept secret. Weeks later, China and the WHO continued to minimize the threat, repeating the claim that there was "no clear evidence" of person-to-person transmission.

Delays and withheld information compounded with insufficient testing to create a real problem for the US.

Fortunately, not everyone in the Chinese medical community adhered to the order not to publish the sequencing information for the virus, which had been named SARS-CoV-2. The severity of the threat was clear – this was a new coronavirus and it appeared to be highly contagious. Some concerned doctors took to social media and published the genetic sequence themselves. But even after the information got out, there was still resistance to warning people. The WHO continued to defer to Chinese authorities, who pushed back against the idea of calling the outbreak either a Public Health Emergency of International Concern – a designation that would signal the need for international attention – or an official pandemic, a move which would have triggered health protocols in many nations. That declaration didn't happen until March 11, 2020. By then it was too late. The key message here is: Delays, withheld information, and insufficient testing all added up to big problems in the US. By early March, the virus had already left China. It arrived in Thailand on January 13. It was in the US on January 15, and in South Korea by January 20. Delays of months, or even weeks, can make a huge difference in controlling an outbreak. By the time the WHO moved to declare a pandemic, the spread of SARS-CoV-2 was already well underway. And given how much China had been downplaying the virus's severity, many in the US still thought it wouldn't be a big problem in America. Of course, it already was. Just days after the first infected patient was discovered in Seattle, cases popped up in Chicago and California. This immediately raised concerns about testing. How could doctors and health officials test their patients, and the people who'd been in contact with their patients, in order to try to contain the spread? At the time, there was only one way: the CDC. The CDC was the only agency in the US that had access to copies of the virus, against which new cases could be tested. But for a long time, the CDC tightly guarded this information. Anyone who wanted a test had to send their sample to the CDC and wait to get the result, which took time. It wasn't long before there was a bottleneck of submissions that far exceeded the CDC's processing capabilities. The US was heading for trouble.

The US was ready for flu-like outbreaks and bioterrorism, but unprepared for a coronavirus.

Early on, the US government's approach was to treat the pandemic like a flu outbreak, an approach that had originated in 2005 with President George W. Bush. At the time, there were fears around the threat of the H5N1 avian flu virus. Bush read the book The Great Influenza, which explained how pandemics are a recurring inevitability,

happening around once a century, and it made an immediate impact. He quickly assembled a team to come up with a better national strategy. Over the next few administrations, the emphasis remained on how to deal with a pandemic flu or an act of bioterrorism, such as a chemical or anthrax attack. But as the US would discover, SARS-CoV-2 and the disease it causes, COVID-19, don't act like either of these things. The key message here is: The US was ready for flu-like outbreaks and bioterrorism, but unprepared for a coronavirus. Key to fighting any new virus is understanding and detecting it. But because of the lack of information available about SARS-CoV-2, there wasn't much understanding in the early days of the outbreak – only a great deal of speculation. Given that the US's preparations were based on a flu-like virus, initial government advice stressed the importance of washing hands and cleaning surfaces. But the virus that causes COVID-19 isn't like influenza, especially in the way it moves and spreads. It took nearly a year before the CDC updated its guidelines to reflect the fact that this virus was primarily contracted through respiratory passages and not by touching contaminated surfaces and then touching your face. The US also relied heavily on a system designed to pick up on flu outbreaks. The CDC uses the Influenza-like Illness Network (ILI) to monitor the number and whereabouts of patients with flu-like symptoms. Early on, this was the only nationwide tool available to spot COVID outbreaks. But as we now know, many people who become infected with the disease remain asymptomatic while continuing to spread the virus. What was needed was more testing. Officials needed a way to test people, get quick results, find out who had been in contact with a positive case, and then share that information to a nationwide database. But none of this was possible. The US was plunging headlong into a COVID crisis.

The CDC was ill-suited to managing the COVID crisis.

In April 2000, President Bill Clinton labeled the global spread of AIDS a threat to US national security. It was a huge step, and the first time an infectious disease had received such a designation. Unfortunately, it never led to a federal program that looked at other contagions in the same way. For a long time, researchers had warned that the US should no longer expect to be protected from diseases that once seemed rare or confined to remote parts of the world. Then, in 2006, after an attention-grabbing SARS outbreak, Congress earmarked some money for creating a public health awareness network. The money was meant to enable the CDC to share information nationwide, allowing for rapid response and pandemic-related crisis management. But the CDC never followed through. The key message here is: The CDC was ill-suited to managing the COVID crisis. The CDC has always been a backward-looking agency. It collects data, analyzes it, and makes recommendations on controlling or preventing a problem that's already underway. Its internal systems aren't suited to detecting something like a novel coronavirus or to stopping its spread. Yet the US government leaned on the agency to lead the response to the rapidly-worsening crisis. Consider its approach to testing. The government asked the CDC to develop a rapid COVID test even though the agency had no history of being able to do so. The CDC is built to do methodical investigations and research. Speedy design and manufacturing are not its strong suit. As a result, getting those much-needed rapid tests produced was a fiasco. Looking back, the CDC should have seen the writing on the wall in February, when the first community spread was identified in California. This outbreak made it clear that the policy of having the CDC control every test would slow things down and make matters worse. At this point, new

guidelines could have been created and the CDC could have licensed out testing capabilities to clinics around the country. Instead, it was dealing with the burden of both processing the tests that were being submitted to it for analysis and trying to do something it had never done before: create a mass-produced testing kit.

It wasn’t just the CDC. Government leadership also caused problems during the crisis.

You need two kinds of tests when dealing with a pandemic: PCR tests and antigen tests. For a while, the CDC was in charge of handling both but unable to meet the demands of either. Generally speaking, PCR tests, which are handled in a lab, are the more accurate of the two. To help it track the virus, the CDC wanted to process all of these itself, but this meant lots of delays because of the sheer volume of cases. Antigen tests are quicker. They don’t require a lab for analysis and can deliver results in 30 minutes. They may be less accurate, but their ease of use and quick results make them a crucial tool in managing a crisis. In this, the CDC failed again: after months of waiting, the CDC’s antigen testing kits were contaminated and ineffective. It was more wasted time. The key message here is: It wasn’t just the CDC. Government leadership also caused problems during the crisis. Finally, the government turned to the private sector for help. On May 9, 2020, the first antigen tests began to be approved by the FDA. The government was the biggest buyer of the new tests. By September, it had spent around $760 million on over 150 million tests. Unfortunately, the problems persisted. There’s a science in knowing which tests to use on which people. With no coordinated plan, many antigen tests were sent to facilities like nursing homes, whose higher-risk population were better served by the more accurate PCR tests. This meant that, out of 13,000 facilities that received the antigen tests, 30 percent didn’t use them. Then there were the mixed messages being sent by the White House. Given the threat that asymptomatic carriers presented, and the lack of widespread testing, one of the best defenses the US had was from “nonpharmaceutical interventions” – things like masking, social distancing, closing non-essential services, and working from home. Researchers had used modeling exercises to show that these steps could significantly limit the spread of disease, depending on how timely, how fast, and how coordinated the effort was. But the response was none of those things: lockdown rules were left to individual states and governors to decide on, and when it came to masks and social distancing, even the people working in the White House didn’t obey safety measures with any degree of consistency. As we’ll see in the next blink, it didn’t have to be this way.

South Korea had the testing, stockpiles and surveillance needed to manage a pandemic.

In stark contrast to the US’s chaotic and poorly thought-through response, one country in particular stood out. In South Korea, the COVID crisis was progressing very differently. Both the US and South Korea had identified their first cases of COVID-19 in mid-January. But, unlike the US, South Korea was prepared in all the right ways. This

was due in part to its experience with a serious MERS outbreak in 2015, which led to 82 cases, the largest outbreak outside the Middle East. As a result of this prior event, South Korea made a series of decisions that would show the world exactly what pandemic readiness should really look like. The key message here is: South Korea had the testing, stockpiles, and surveillance needed to manage a pandemic. After the MERS outbreak, South Korea created hundreds of testing sites. They'd also made sure that there was a stockpile of equipment ready so that each of these facilities would have everything they needed to operate at full capacity in the event of another crisis. They also set up a fast-track process for the approval, manufacture, and distribution of testing kits. So when the initial cases of COVID were confirmed in late January, developing those tests was the very first order of business. There were just four cases at the time, but two companies immediately went into full production. And the South Korean CDC was ready to share its viral samples so that the manufacturers could independently confirm the accuracy of their tests. Meanwhile, in the US, the CDC held onto its samples like they were intellectual property. It took months before testing kits were made and distributed. On top of that, the US stockpile couldn't even cover the amount of testing swabs needed once the kits were distributed. In a matter of weeks, South Korea had ramped up to 20,000 tests per day – it would take the US four months to reach that number. As a result, South Korea kept its outbreaks largely contained. South Korea also had ready a nationwide testing and tracking database. This relied on some privacy-infringing surveillance that wouldn't be possible in the US, but America could have employed a workforce of hundreds of epidemiological investigators to some effect. If these agents could have tracked down and traced a fraction of the cases early on, it's likely that things would have turned out a lot better.

The US needs to start treating public health like it does other forms of intelligence.

If there's been one bright side to the COVID-19 crisis, it's that the technology for producing vaccines has proved ready to meet the challenge. Traditionally, vaccines are made through a cultivation process that requires lots and lots of chicken eggs. But now, all the biotech company Moderna needed was the sequence of the virus's genetic information, called RNA. Six weeks after it had that, it had a vaccine it could start testing. The Moderna and Pfizer-BioNTech vaccines, as well as others, use what is known as mRNA technology. This creates a vaccine that causes a person's immune system to produce antibodies to target a specific virus. What's especially impressive is that mRNA vaccines are not only quick to make in large batches, they're also easy to alter when a virus mutates. But, even as the world's scientists were being lauded for producing vaccines at record speeds, the whole process was showing itself to be highly political. In fact, it was becoming a matter of national security. The key message here is: The US needs to start treating public health like it does other forms of intelligence. Just as the US was developing its vaccines, both Russia and China were caught spying and trying to steal information. Russia also embarked on a smear campaign against the Pfizer vaccine, in an effort to promote its own version, Sputnik. What's more, given how freely travel bans have been used during the pandemic, it's hard to imagine that countries won't continue to act in their own interests, or, like China, hesitate to be transparent about the next outbreak. Being isolated by other countries can obviously be damaging in more ways than one. But as we've seen, withholding vital information is

also damaging. Given China's refusal to share samples of the virus, many countries were left vulnerable and at a disadvantage. We will likely never know for sure where the outbreak truly started, though there is a lot of evidence to suggest it may have stemmed from an accident at a lab in Wuhan that was handling coronaviruses. All of this points to the conclusion that public health is a matter of national security. The US needs a federal program that can both manage outbreaks and prevent them by being informed about what's happening in the rest of the world. The US collects plenty of intelligence on other perceived threats. It needs to begin treating things like coronaviruses just as seriously.

Final summary

The key message: The US was badly affected by the spread of COVID-19 for a number of reasons. First, a lack of information coming from China left Americans unaware of how contagious and deadly the virus was. But, second, the US was also woefully unprepared. There were no plans or systems in place for producing the necessary tests or tracking infections, and there was no strong central agency to take control. While tests and vaccines did eventually come out, the delay was so severe that it allowed the virus to run rampant. To be prepared for the next pandemic, the US needs to create a strong federal agency to manage a stockpile of supplies and coordinate a response that uses testing and tracing to minimize the damage.