Many US Health Experts Underestimated the Coronavirus...Until It Was Too Late

American hubris prevented the country from reacting as quickly and effectively as Asian nations.

December 29, 2020 By Liz Szabo and Kaiser Health News

A year ago, while many Americans were finishing their holiday shopping and finalizing travel plans, doctors in Wuhan, China, were battling a mysterious outbreak of pneumonia with no known cause.

Chinese doctors began to fear they were witnessing the return of severe acute respiratory syndrome, or SARS, a coronavirus that emerged in China in late 2002 and spread to 8,000 people worldwide, killing almost 800.

The disease never gained a foothold in the U.S. and disappeared by 2004.

Although the disease hasn't been seen in 16 years, SARS cast a long shadow that colored how many nations — and U.S. scientists — reacted to its far more dangerous cousin, the novel coronavirus that causes COVID-19.

When Chinese officials revealed that their pneumonia outbreak was caused by another new coronavirus, Asian countries hit hard by SARS knew what they had to do, said Dr. Amesh Adalja, a senior scholar at the Johns Hopkins Center for Health Security. Taiwan and South Korea had already learned the importance of a rapid response that included widespread testing, contact tracing and isolating infected people.

The U.S., by contrast, learned all the wrong lessons.

This country's 20-year run of good luck with emerging pathogens —including not just SARS, but also the relatively mild H1N1 pandemic, Middle East respiratory syndrome, Ebola, Zika virus and two strains of bird flu — gave us a "false sense of security," Adalja said.

KHN's in-depth examination of the year-long pandemic shows that many leading infectious disease specialists underestimated the fast-moving outbreak in its first weeks and months, assuming that the United States would again emerge largely unscathed. American hubris prevented the country from reacting as quickly and effectively as Asian nations, Adalja said.

During the first two decades of this century, “there were a lot of fire alarms with no fire, so people tended to ignore this one,” said Lawrence Gostin, director of Georgetown’s O’Neill Institute for National and Global Health Law, who acknowledges he underestimated the virus in its first few weeks.

In a Jan. 24 story, Dr. William Schaffner told KHN the real danger to Americans was the common flu, which can kill up to 61,000 Americans a year.

“Coronavirus will be a blip on the horizon in comparison,” said Schaffner, a professor of preventive medicine and health policy at Vanderbilt University Medical Center. “The risk is trivial.”

The same day, The Washington Post published a column by Dr. Howard Markel, who questioned China’s lockdown of millions of people. “It’s possible that this coronavirus may not be highly contagious, and it may not be all that deadly,” wrote Markel, director of the Center for the History of Medicine at the University of Michigan.

JAMA, one of the most prestigious medical journals in the world, published a podcast Feb. 18 titled, “The 2020 Influenza Epidemic — More Serious Than Coronavirus in the US.” A week later, JAMA published a large infographic illustrating the dangers of flu and minimizing the risks from the novel virus.

Dr. Paul Offit, who led development of a rotavirus vaccine, predicted that the coronavirus, like most respiratory bugs, would fade in the summer.

“I can’t imagine, frankly, that it would cause even one-tenth of the damage that influenza causes every year in the United States,” Offit told Christiane Amanpour in a March 2 appearance on PBS.

President Donald Trump picked up on many of these remarks, predicting that the coronavirus would disappear by April and that it was no worse than the flu. Trump later said the country was “rounding the turn” on the pandemic, even as the number of deaths exploded to record levels.

Caitlin Rivers, an epidemiologist and assistant professor at the Johns Hopkins Bloomberg School of Public Health, worried — and tweeted — about the novel coronavirus from the beginning. But she said public health officials try to balance those fears with the reality that most small outbreaks in other countries typically don’t become global threats.

New sitrep out from Wuhan pneumonia outbreak. 59 cases between 12/12 and 12/29. SARS ruled out, but no other etiology identified. Still no evidence of H2H.

https://t.co/b8ZdEGIzyJ

— Caitlin Rivers, PhD (@cmyeaton) January 5, 2020

“If you cry wolf too often, people will never pay attention,” said epidemiologist Mark Wilson, an emeritus professor at the University of Michigan School of Public Health.

Experts were hesitant to predict the novel coronavirus was the big pandemic they had long anticipated “for fear of seeming alarmist,” said Dr. Céline Gounder, an infectious disease specialist advising President-elect Joe Biden.

Many experts fell victim to wishful thinking or denial, said Dr. Nicole Lurie, who served as assistant secretary for preparedness and response during the Obama administration.

“It’s hard to think about the unthinkable,” Lurie said. “For people whose focus and fear was bioterrorism, they had a world view that Mother Nature could never be such a bad actor. If it wasn’t bioterrorism, then it couldn’t be so bad.”

Had more experts realized what was coming, the nation could have been far better prepared. The U.S. could have gotten a head start on manufacturing personal protective equipment, ventilators and other supplies, said Dr. Nicholas Christakis, author of “Apollo’s Arrow: The Profound and Enduring Impact of Coronavirus on the Way We Live.”

“Why did we waste two months that the Chinese essentially bought for us?” Christakis asked. “We could have gotten billions of dollars into testing. We could have had better public messaging that we were about to be invaded. … But we were not prepared.”

Dr. Fauci Doesn’t Cast Blame

Dr. Anthony Fauci, the nation’s top infectious disease official, isn’t so critical. In an interview, he said there was no way for scientists to predict how dangerous the coronavirus would become, given the limited information available in January.

“I wouldn’t criticize people who said there’s a pretty good chance that it’s going to turn out to be like SARS orMERS,” saidFauci, director of the National Institute of Allergy and Infectious Diseases, noting this was “a reasonable assumption.”

Fauci noted that solutions are always clearer in hindsight, adding that public health authorities lose credibility if they respond to every new germ as if it’s a national disaster. He has repeatedly said scientists need to be humble enough to recognize how little we still don’t know about this new threat.

“It’s so easy to go back with the retrospect-o-scope and say ‘You coulda, shoulda, woulda,’” Fauci said. “You can say we should have shut things down much earlier because of silent spread in the community. But what would the average man or woman on the street have done if we said, ‘You’ve got to close down the country because of three or four cases?’”

Scientists largely have been willing to admit their errors and update their assessments when new data becomes available.

“If you’re going to be wrong, be wrong in front of millions of people,” Offit joked about his PBS interview. “Make a complete ass of yourself.”

Scientists say their response to the novel coronavirus would have been more aggressive if people had realized how easily it spreads, even before infected people develop symptoms — and that many people remain asymptomatic. “For a virus to have pandemic potential, that is one of the greatest assets it can have,” Adalja said.

Although COVID-19 has a lower death rate than SARS and MERS, its ability to spread silently throughout a community makes it more dangerous, said Dr. Kathleen Neuzil, director of the Center for Vaccine Development at the University of Maryland School of Medicine.

People infected with SARS and MERS are contagious only after they begin coughing and experiencing other symptoms; patients without symptoms don’t spread either disease.

With SARS and MERS, “when people got sick, they got sick pretty badly and went right to the hospital and weren’t walking around transmitting it,” Christakis said.

Because it’s possible to quarantine people with SARS and MERS before they begin spreading the virus, “it was easier to put a moat around them,” said Offit.

Based on their knowledge of SARS and MERS, doctors believed they could contain the novel coronavirus by telling sick people to stay home. In the first few months of the pandemic, there appeared to be no need for healthy people to wear masks. That led health officials, including U.S. Surgeon General Jerome Adams, to admonish Americans not to buy up limited supplies of face masks, which were desperately needed by hospitals.

Seriously people- STOP BUYING MASKS!

They are NOT effective in preventing general public from catching #Coronavirus, but if healthcare providers can’t get them to care for sick patients, it puts them and

> our communities at risk!
>
> https://t.co/UxZRwxxKL9
>
> — U.S. Surgeon General (@Surgeon_General) February 29, 2020

"We are always fighting the last epidemic," Markel said. "Our experiences with coronaviruses was that they kind of burn themselves out in warm weather and they didn't have the capacity to spread as viciously as this one has."

Many scientists were skeptical of early anecdotes of pre-symptomatic spread.

"It takes a lot to overturn established dogma," Wilson said. "Jumping on an initial finding, without corroborating it, can be just as bad as missing a new finding."

As evidence of pre-symptomatic spread accumulated, the Centers for Disease Control and Prevention in April changed its advice and urged Americans to mask up in public.

Adalja notes that the CDC's earlier advice against wearing masks was based on research that found them to be ineffective against spreading influenza. New research, however, has shown masks reduce the transmission of the novel coronavirus, which spreads mainly through respiratory droplets but can travel in the air as tiny particles.

Adalja said the U.S. should have learned from its early stumbles. Yet in spite of abundant evidence, many communities still resist mandating masks or physical distancing.

"I continue to be baffled that we keep making the same mistakes," Adalja said. "It's almost like we're doomed to repeat this cycle endlessly."

Some Saw It Coming

There were scientists and journalists who immediately recognized the threat from the novel coronavirus.

"We had to immediately react as if this were going to hit every corner of the Earth," said Adalja, who began blogging about the novel virus Jan. 20. It was clear "this was not a containable virus."

Adalja led a 2018 project identifying the features that allow emerging viruses to become pandemic. In that prescient report, Adalja and his co-authors highlighted the threat of certain respiratory viruses that use RNA as their genetic material.

The more Adalja learned about the novel coronavirus, the more it seemed to embody the very type of threat he had warned about: one with "efficient human-to-human transmissibility, an appreciable case fatality rate, the absence of an effective or widely available medical countermeasure, an immunologically naïve population, virulence factors enabling immune system evasion, and respiratory mode of spread."

Although the CDC set the wheels of its response in motion early, establishing an incident management structure on Jan. 7, the agency's early missteps with testing are well known. The outbreak escalated rapidly, leading the World Health Organization to declare a health emergency on Jan. 30 and the U.S. to announce a public health emergency the next day.

Adalja and other experts dismissed some of the Trump administration's early responses, such as quarantines and a travel ban on China, as "window dressing" that "squandered resources" and did little to contain the virus.

"There was political inertia about the public health actions that could have avoided lockdowns," Adalja said. "We let this spill into hospitals … [and] if you give a virus a three-month head start, what do you expect?"

In a Jan. 7 post on a website of the Infectious Diseases Society of America, Dr. Daniel Lucey labeled the pneumonia "Disease X," using the WHO's term for an emerging pathogen capable of causing a devastating epidemic, for which there are no tests, treatments or vaccines.

Lucey, adjunct professor of infectious diseases at Georgetown University Medical Center, notes that the international response was hampered by misinformation from Chinese officials. "The Chinese government said there was no person-to-person spread," said Lucey, who traveled to China hoping to visit Wuhan. "That was a lie."

When China revealed on Jan. 20 that 14 health workers had been infected, Lucey knew the virus would spread much farther. "To me, that was like Pandora's box," Lucey said. "I knew there would be more."

When the number of infected health workers grew to 1,716 on Feb. 14, Lucey said, "I almost threw up."

Although his blog is read by thousands of infectious disease specialists, Lucey emailed a special warning to journalists and a dozen doctors and public health officials, hoping to alert influential leaders.

"I put this heartfelt commentary in my email and just got silence," Lucey said.

Succeeding With Vaccines

At the National Institute of Allergy and Infectious Diseases, scientists had studied the protein structure of coronaviruses for years.

Researchers had developed a vaccine against SARS, Fauci said, although the epidemic ended before researchers could widely test it in humans.

“We showed it was safe and induced an immune response,” Fauci said. “The cases of SARS disappeared, so we couldn’t test it. … We put the vaccine in cold storage. If SARS comes back, we will do a phase 3 [clinical] trial.”

Dr. Barney Graham, deputy director of the Vaccine Research Center, asked Chinese scientists to share the coronavirus’s genetic information. After the genome was published, Graham went immediately to work.

“We jumped all over it,” Fauci said. “We had a meeting on Jan. 10 and five days later they started [working on] a vaccine.”

Although scientists knew the COVID outbreak might end before a vaccine was needed, “we couldn’t take the chance,” Fauci said.

“We said, ‘We have no idea what is going to happen, so why don’t we just go ahead and proceed with a vaccine anyway?’”

Although his team worried about finding the money to pay for it all, Fauci told them, “‘Don’t worry about the money. I’ll find it, you do it, if we really need it, I’m sure we’ll get it.’”

Health experts hope the U.S. will learn from its mistakes and be better prepared for the next threat.

Given how many novel viruses have emerged in the past two decades, it’s likely that “pandemics are going to become more frequent,” Gounder said, making it critical to be ready for the next one.

Of all the lessons learned during the pandemic, the most important is that “we can’t be this unprepared again,” said Dr. Tom Frieden, who directed the CDC during the Obama administration.

“To me, this should be the most teachable moment of our lifetime, in terms of the need to strengthen public health in the United States and globally,” Frieden said.

But Gounder notes that U.S. public health funding tends to follow a cycle of crisis and neglect. The U.S. increased spending on public health and emergency preparedness after the 9/11 and anthrax attacks in 2001, but that funding has declined sharply over the years.

“We tend to invest a lot in that moment of crisis,” Gounder said. “When the crisis fades, we cut the budget. That leads us to be really vulnerable.”

This article was first published by Kaiser Health News on December 21, 2020.
