



CHINA CONFRONTS COVID-19

By DAKE KANG and COLLEAGUES

Associated Press

CRACKDOWN IN CHINA

1. CHINA DIDN'T WARN PUBLIC OF LIKELY PANDEMIC FOR 6 KEY DAYS

April 15, 2020: Top Chinese officials secretly determined they were likely facing a pandemic from a new coronavirus in mid-January, ordering preparations even as they downplayed it in public.

<https://apnews.com/article/68a9e1b91de4ffc166acd6012d82c2f9>

2. CHINA DELAYED RELEASING CORONAVIRUS INFO, FRUSTRATING WHO

June 3, 2020: Even as the World Health Organization publicly praised China, it privately complained about the lack of information it was getting on the new coronavirus.

<https://apnews.com/article/3c061794970661042b18d5aeaaed9fae>

3. CHINA TESTING BLUNDERS STEMMED FROM SECRET DEALS WITH FIRMS

Dec. 3, 2020: Secrecy and cronyism crippled China's testing capacity in the early days of the outbreak, an Associated Press investigation has found. <https://apnews.com/article/china-virus-testing-secret-deals-firms-312f4a953e0264a3645219a08c62a0ad>



Xie Huanchi/Xinhua via • AP

Chinese President Xi Jinping talks by video with patients and medical workers at the Huoshenshan Hospital in Wuhan in central China's Hubei Province in a video released March 10, 2020.

April 15, 2020

China didn't warn public of likely pandemic for 6 key days

By ASSOCIATED PRESS

Associated Press

In the six days after top Chinese officials secretly determined they likely were facing a pandemic from a new coronavirus, the city of Wuhan at the epicenter of the disease hosted a mass banquet for tens of thousands of people; millions began traveling through for Lunar New Year celebrations.

President Xi Jinping warned the public on the seventh day, Jan. 20. But by that time, more than 3,000 people had been infected during almost a week of public silence, according to internal documents obtained by The Associated

Press and expert estimates based on retrospective infection data.

Six days.

That delay from Jan. 14 to Jan. 20 was neither the first mistake made by Chinese officials at all levels in confronting the outbreak, nor the longest lag, as governments around the world have dragged their feet for weeks and even months in addressing the virus.

But the delay by the first country to face the new coronavirus came at a critical time — the beginning of the outbreak. China's attempt to walk a line between alerting the public and avoiding panic set the stage for a pandemic that has infected more than 2 million people and taken more than 133,000 lives.

"This is tremendous," said Zuo-Feng Zhang, an epidemiologist at the University of California, Los Angeles. "If they took action six days earlier, there would have been much fewer patients and medical facilities would have been sufficient. We might have avoided the collapse of Wuhan's medical system."

Other experts noted that the Chinese government may have waited on warning the public to stave off hysteria, and that it did act quickly in private during that time.

But the six-day delay by China's leaders in Beijing came on top of almost



Chinatopix via • AP

Patients rest at a temporary hospital at Tazihu Gymnasium in Wuhan in central China's Hubei province in a photo released on February 21, 2020.

two weeks during which the national Center for Disease Control did not register any cases from local officials, internal bulletins obtained by the AP confirm. Yet during that time, from Jan. 5 to Jan. 17, hundreds of patients were appearing in hospitals not just in Wuhan but across the country.

It's uncertain whether it was local officials who failed to report cases or national officials who failed to record them. It's also not clear exactly what officials knew at the time in Wuhan, which only opened back up last week with restrictions after its quarantine.

But what is clear, experts say, is that China's rigid controls on information, bureaucratic hurdles and a reluctance to send bad news up the chain of command muffled early warnings.

The punishment of eight doctors for "rumor-mongering," broadcast on national television on Jan. 2, sent a chill through the city's hospitals.

"Doctors in Wuhan were afraid," said Dali Yang, a professor of Chinese politics at the University of Chicago. "It was truly intimidation of an entire profession."

Without these internal reports, it took the first case outside China, in Thailand on Jan. 13, to galvanize leaders in Beijing into recognizing the possible pandemic before them. It was only then that they launched a nationwide plan to find cases — distributing CDC-sanctioned test kits, easing the criteria for confirming cases and ordering health officials to screen patients. They also instructed officials in Hubei province, where Wuhan is located, to begin temperature checks at transportation hubs and cut down on large public gatherings. And they did it all without telling the public.

The Chinese government has repeatedly denied suppressing information in the early days, saying it immediately reported the outbreak to the World Health Organization.

"Those accusing China of lacking transparency and openness are unfair," foreign ministry spokesman Zhao Lijian said Wednesday when asked about the AP story.

China's rigid controls on information, bureaucratic hurdles and a reluctance to send bad news up the chain of command muffled early warnings.

THE DOCUMENTS SHOW that the head of China's National Health Commission, Ma Xiaowei, laid out a grim assessment of the situation on Jan. 14 in a confidential teleconference with provincial health officials. A



Wang Yuguo/Xinhua via • AP

A medical worker looks at CT scans at the Huoshenshan field hospital in Wuhan in central China's Hubei Province in a photo released March 17, 2020.

memo states that the teleconference was held to convey instructions on the coronavirus from President Xi Jinping, Premier Li Keqiang and Vice Premier Sun Chunlan, but does not specify what those instructions were.

“The epidemic situation is still severe and complex, the most severe challenge since SARS in 2003, and is likely to develop into a major public health event,” the memo cites Ma as saying.

The National Health Commission is the top medical agency in the country. In a faxed statement, the Commission said it had organized the teleconference because of the case reported in Thailand and the possibility of the virus spreading during New Year travel. It added that China had published information on the outbreak in an “open, transparent, responsible and timely manner,” in accordance with “important instructions” repeatedly issued by President Xi.

The documents come from an anonymous source in the medical field who did not want to be named for fear of retribution. The AP confirmed the contents with two other sources in public health familiar with the teleconference. Some of the memo’s contents also appeared in a public notice about the teleconference, stripped of key details and published in February.

Under a section titled “sober understanding of the situation,” the memo said that “clustered cases suggest that human-to-human transmission is

possible.” It singled out the case in Thailand, saying that the situation had “changed significantly” because of the possible spread of the virus abroad.

“With the coming of the Spring Festival, many people will be traveling, and the risk of transmission and spread is high,” the memo continued. “All localities must prepare for and respond to a pandemic.”

In the memo, Ma demanded officials unite around Xi and made clear that political considerations and social stability were key priorities during the long lead-up to China’s two biggest political meetings of the year in March. While the documents do not spell out why Chinese leaders waited six days to make their concerns public, the meetings may be one reason.

“The imperatives for social stability, for not rocking the boat before these important Party congresses is pretty strong,” says Daniel Mattingly, a scholar of Chinese politics at Yale. “My guess is, they wanted to let it play out a little more and see what happened.”

In response to the teleconference, the Center for Disease Control and Prevention in Beijing initiated the highest-level emergency response internally, level one, on Jan. 15. It assigned top CDC leaders to 14 working groups tasked with getting funds, training health workers, collecting data, doing field investigations and supervising laboratories, an internal CDC notice shows.

The National Health Commission also distributed a 63-page set of instructions to provincial health officials, obtained by the AP. The instructions ordered health officials nationwide to identify suspected cases, hospitals to open fever clinics, and doctors and nurses to don protective gear. They were marked “internal” — “not to be spread on the internet,” “not to be publicly disclosed.”

In public, however, officials continued to downplay the threat, pointing to the 41 cases public at the time.

“We have reached the latest understanding that the risk of sustained human-to-human transmission is low,” Li Qun, the head of the China CDC’s emergency center, told Chinese state television on Jan. 15. That was the same day Li was appointed leader of a group preparing emergency plans for the level one response, a CDC notice shows.

On Jan. 20, President Xi issued his first public comments on the virus, saying the outbreak “must be taken seriously” and every possible measure pursued. A leading Chinese epidemiologist, Zhong Nanshan, announced

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for the first time that the virus was transmissible from person to person on national television.

If the public had been warned a week earlier to take actions such as social distancing, mask wearing and travel restrictions, cases could have been cut by up to two-thirds, one paper later found. An earlier warning could have saved lives, said Zhang, the doctor in Los Angeles.

However, other health experts said the government took decisive action in private given the information available to them.

“They may not have said the right thing, but they were doing the right thing,” said Ray Yip, the retired founding head of the U.S. Centers for Disease Control’s office in China. “On the 20th, they sounded the alarm for the whole country, which is not an unreasonable delay.”

If health officials raise the alarm prematurely, it can damage their credibility — “like crying wolf” —and cripple their ability to mobilize the public, said Benjamin Cowling, an epidemiologist at the University of Hong Kong.

The delay may support accusations by President Donald Trump that the Chinese government’s secrecy held back the world’s response to the virus. However, even the public announcement on Jan. 20 left the U.S. nearly two months to prepare for the pandemic.

During those months, Trump ignored the warnings of his own staff and



Chinatopix via • AP

A doctor checks the conditions of a patient in Jinyintan Hospital, designated for critical COVID-19 patients, in Wuhan in central China's Hubei province

dismissed the disease as nothing to worry about, while the government failed to bolster medical supplies and deployed flawed testing kits. Leaders across the world turned a blind eye to the outbreak, with British Prime Minister Boris Johnson calling for a strategy of “herd immunity” — before falling ill himself. Brazilian President Jair Bolsonaro sneered at what he called “a little cold.”

THE EARLY STORY OF THE PANDEMIC in China shows missed opportunities at every step, the documents and AP interviews reveal. Under Xi, China’s most authoritarian leader in decades, increasing political repression has made officials more hesitant to report cases without a clear green light from the top.

“It really increased the stakes for officials, which made them reluctant to step out of line,” said Mattingly, the Yale professor. “It made it harder for people at the local level to report bad information.”

Doctors and nurses in Wuhan told Chinese media there were plenty of signs that the coronavirus could be transmitted between people as early as late December. Patients who had never been to the suspected source of the virus, the Huanan Seafood Market, were infected. Medical workers started falling ill.

But officials obstructed medical staff who tried to report such cases. They set tight criteria for confirming cases, where patients not only had to test positive, but samples had to be sent to Beijing and sequenced. They required staff to report to supervisors before sending information higher, Chinese media reports show. And they punished doctors for warning about the disease.

As a result, no new cases were reported for almost two weeks from Jan. 5, even as officials gathered in Wuhan for Hubei province’s two biggest political meetings of the year, internal China CDC bulletins confirm.

During this period, teams of experts dispatched to Wuhan by Beijing said they failed to find clear signs of danger and human-to-human transmission.

“China has many years of disease control, there’s absolutely no chance that this will spread widely because of Spring Festival travel,” the head of the first expert team, Xu Jianguo, told Takungpao, a Hong Kong paper, on Jan. 6. He added there was “no evidence of human-to-human transmission” and that the threat from the virus was low.

The second expert team, dispatched on Jan. 8, similarly failed to unearth any clear signs of human-to-human transmission. Yet during their stay, more

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Xinhua via • AP

(Above) Patients rest at a temporary hospital covered from Wuhan Sports Center in Wuhan, China. (Top Left) Medical workers move a person who died from COVID-19. (Top Right) Chinese Premier Li Keqiang, center, speaks with medical workers at Wuhan's Jinyintan Hospital.

than half a dozen doctors and nurses had already fallen ill with the virus, a retrospective China CDC study published in the New England Journal of Medicine would later show.

The teams looked for patients with severe pneumonia, missing those with milder symptoms. They also narrowed the search to those who had visited the seafood market — which was in retrospect a mistake, said Cowling, the Hong Kong epidemiologist, who flew to Beijing to review the cases in late January.

In the weeks after the severity of the epidemic became clear, some experts accused Wuhan officials of intentionally hiding cases.

“I always suspected it was human-to-human transmissible,” said Wang Guangfa, the leader of the second expert team, in a Mar. 15 post on Weibo, the

Chinese social media platform. He fell ill with the virus soon after returning to Beijing on Jan. 16.

Wuhan's then-mayor, Zhou Xianwang, blamed national regulations for the secrecy.

"As a local government official, I could disclose information only after being authorized," Zhou told state media in late January. "A lot of people didn't understand this."

As a result, top Chinese officials appear to have been left in the dark.

"The CDC acted sluggishly, assuming all was fine," said a state health expert, who declined to be named out of fear of retribution. "If we started to do something a week or two earlier, things could have been so much different."

It wasn't just Wuhan. In Shenzhen in southern China, hundreds of miles away, a team led by microbiologist Yuen Kwok-yung used their own test kits to confirm that six members of a family of seven had the virus on Jan. 12. In an interview with Caixin, a respected Chinese finance magazine, Yuen said he informed CDC branches "of all levels," including Beijing. But internal CDC numbers did not reflect Yuen's report, the bulletins show.

Wuhan's case count began to climb immediately — four on Jan. 17, then 17 the next day and 136 the day after.

When the Thai case was reported, health authorities finally drew up an internal plan to systematically identify, isolate, test, and treat all cases of the new coronavirus nationwide.

Wuhan's case count began to climb immediately — four on Jan. 17, then 17 the next day and 136 the day after. Across the country, dozens of cases began to surface, in some cases among patients who were infected earlier but had not yet been tested. In Zhejiang, for example, a man hospitalized on Jan. 4 was only isolated on Jan. 17 and confirmed positive on Jan. 21. Shenzhen, where Yuen had earlier found six people who tested positive, finally recorded its first confirmed case on Jan. 19.

The Wuhan Union Hospital, one of the city's best, held an emergency meeting on Jan. 18, instructing staff to adopt stringent isolation — still before Xi's public warning. A health expert told AP that on Jan. 19, she toured a hospital built after the SARS outbreak, where medical workers had furiously prepared an entire building with hundreds of beds for pneumonia patients.

"Everybody in the country in the infectious disease field knew something was going on," she said, declining to be named to avoid disrupting sensitive government consultations. "They were anticipating it."



Chinatopix via • AP

In this Jan. 27, 2020, photo, workers in protective gears catch a giant salamander that was reported to have escaped from the Huanan Seafood Market in Wuhan in central China's Hubei Province.



Chinatopix via • AP

Travelers wearing face masks walk with their luggage at Hankou Railway Station in Wuhan in southern China's Hubei province on January 21, 2020. Top Chinese officials secretly determined they were likely facing a pandemic from a novel coronavirus in mid-January, ordering preparations even as they downplayed it in public. Internal documents obtained by the AP show that because warnings were muffled inside China, it took a confirmed case in Thailand to jolt Beijing into recognizing the possible pandemic before them.

June 3, 2020

China delayed releasing coronavirus info, frustrating WHO

By ASSOCIATED PRESS

Throughout January, the World Health Organization publicly praised China for what it called a speedy response to the new coronavirus. It repeatedly thanked the Chinese government for sharing the genetic map of the virus “immediately,” and said its work and commitment to transparency were “very impressive, and beyond words.”

But behind the scenes, it was a much different story, one of significant delays by China and considerable frustration among WHO officials over not getting the information they needed to fight the spread of the deadly virus, The Associated Press has found.

Despite the plaudits, China in fact sat on releasing the genetic map, or genome, of the virus for more than a week after three different government labs had fully decoded the information. Tight controls on information and competition within the Chinese public health system were to blame, according to dozens of interviews and internal documents.

Chinese government labs only released the genome after another lab published it ahead of authorities on a virologist website on Jan. 11. Even then, China stalled for at least two weeks more on providing WHO with detailed data on patients and cases, according to recordings of internal meetings held by the U.N. health agency through January — all at a time when the outbreak arguably might have been dramatically slowed.

WHO officials were lauding China in public because they wanted to coax more information out of the government, the recordings obtained by the AP suggest. Privately, they complained in meetings the week of Jan. 6 that China was not sharing enough data to assess how effectively the virus spread between people or what risk it posed to the rest of the world, costing valuable time.

“We’re going on very minimal information,” said American epidemiologist Maria Van Kerkhove, now WHO’s technical lead for COVID-19, in one internal meeting. “It’s clearly not enough for you to do proper planning.”

“We’re currently at the stage where yes, they’re giving it to us 15 minutes before it appears on CCTV,” said WHO’s top official in China, Dr. Gauden Galea, referring to the state-owned China Central Television, in another meeting.

The story behind the early response to the virus comes at a time when the U.N. health agency is under siege, and has agreed to an independent probe of how the pandemic was handled globally. After repeatedly praising the Chinese response early on, U.S. President Donald Trump has blasted WHO in recent weeks for allegedly colluding with China to hide the extent of the coronavirus crisis. He cut ties with the organization on Friday, jeopardizing the approximately \$450 million the U.S. gives every year as WHO’s biggest single donor.

In the meantime, Chinese President Xi Jinping has vowed to pitch in \$2 billion over the next two years to fight the coronavirus, saying China has always provided information to WHO and the world “in a most timely fashion.”

The new information does not support the narrative of either the U.S.



Naohiko Hatta/Pool Photo via • AP

Tedros Adhanom Ghebreyesus, director general of the World Health Organization, left, shakes hands with Chinese President Xi Jinping before a meeting at the Great Hall of the People in Beijing on January 28, 2020. The WHO praised China throughout the month for a speedy response to the new coronavirus.

or China, but instead portrays an agency now stuck in the middle that was urgently trying to solicit more data despite limited authority. Although international law obliges countries to report information to WHO that could have an impact on public health, the U.N. agency has no enforcement powers and cannot independently investigate epidemics within countries. Instead, it must rely on the cooperation of member states.

The recordings suggest that rather than colluding with China, as Trump declared, WHO was itself kept in the dark as China gave it the minimal information required by law. However, the agency did try to portray China in the best light, likely as a means to secure more information. And WHO experts genuinely thought Chinese scientists had done “a very good job” in detecting and decoding the virus, despite the lack of transparency from Chinese officials.

WHO staffers debated how to press China for gene sequences and detailed patient data without angering authorities, worried about losing access and getting Chinese scientists into trouble. Under international law, WHO is required to quickly share information and alerts with member countries about an evolving crisis. Galea noted WHO could not indulge China’s wish to sign off on information before telling other countries because “that is not respectful of our responsibilities.”

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In the second week of January, WHO’s chief of emergencies, Dr. Michael Ryan, told colleagues it was time to “shift gears” and apply more pressure on China, fearing a repeat of the outbreak of Severe Acute Respiratory Syndrome that started in China in 2002 and killed nearly 800 people worldwide.

“This is exactly the same scenario, endlessly trying to get updates from China about what was going on,” he said. “WHO barely got out of that one with its neck intact given the issues that arose around transparency in southern China.”

Ryan said the best way to “protect China” from possible action by other countries was for WHO to do its own independent analysis with data from the Chinese government on whether the virus could easily spread between people. Ryan also noted that China was not cooperating in the same way some other countries had in the past.

“This would not happen in Congo and did not happen in Congo and other places,” he said, probably referring to the Ebola outbreak that began there in



Chinatopix via • AP



Chinatopix via • AP



Salvatore Di Nolfi/Keystone via • AP

(Above) Beds in a convention center that has been converted into a temporary hospital in Wuhan in central China's Hubei Province. (Top Left) Shi Zhengli works with other researchers in a lab at the Wuhan Institute of Virology. (Top Right) Tedros Adhanom Ghebreyesus, second left, director-general of the World Health Organization, speaks during a news update conference regarding COVID-19 on March, 9, 2020.

2018. “We need to see the data.....It’s absolutely important at this point.”

The delay in the release of the genome stalled the recognition of its spread to other countries, along with the global development of tests, drugs and vaccines. The lack of detailed patient data also made it harder to determine how quickly the virus was spreading — a critical question in stopping it.

Between the day the full genome was first decoded by a government lab on Jan. 2 and the day WHO declared a global emergency on Jan. 30, the outbreak spread by a factor of 100 to 200 times, according to retrospective infection data from the Chinese Center for Disease Control and Prevention. The virus has now infected over 6 million people worldwide and killed more than 375,000.

“It’s obvious that we could have saved more lives and avoided many, many deaths if China and the WHO had acted faster,” said Ali Mokdad, a

professor at the Institute for Health Metrics and Evaluation at the University of Washington.

However, Mokdad and other experts also noted that if WHO had been more confrontational with China, it could have triggered a far worse situation of not getting any information at all.

If WHO had pushed too hard, it could even have been kicked out of China, said Adam Kamradt-Scott, a global health professor at the University of Sydney. But he added that a delay of just a few days in releasing genetic sequences can be critical in an outbreak. And he noted that as Beijing's lack of transparency becomes even clearer, WHO director-general Tedros Adhanom Ghebreyesus's continued defense of China is problematic.

"It's definitely damaged WHO's credibility," said Kamradt-Scott. "Did he go too far? I think the evidence on that is clear....it has led to so many questions about the relationship between China and WHO. It is perhaps a cautionary tale."

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WHO and its officials named in this story declined to answer questions asked by The Associated Press without audio or written transcripts of the recorded meetings, which the AP was unable to supply to protect its sources.

"Our leadership and staff have worked night and day in compliance with the organization's rules and regulations to support and share information with all Member States equally, and engage in frank and forthright conversations with governments at all levels," a WHO statement said.

China's National Health Commission and the Ministry of Foreign Affairs had no comment. But in the past few months, China has repeatedly defended its actions, and many other countries — including the U.S. — have responded to the virus with even longer delays of weeks and even months.

"Since the beginning of the outbreak, we have been continuously sharing information on the epidemic with the WHO and the international community in an open, transparent and responsible manner," said Liu Mingzhu, an official with the National Health Commission's International Department, at a press conference on May 15.

THE RACE TO FIND THE GENETIC MAP of the virus started in late December, according to the story that unfolds in interviews, documents and the WHO recordings. That's when doctors in Wuhan noticed mysterious clusters of patients with fevers and breathing problems who weren't improving with

standard flu treatment. Seeking answers, they sent test samples from patients to commercial labs.

By Dec. 27, one lab, Vision Medicals, had pieced together most of the genome of a new coronavirus with striking similarities to SARS. Vision Medicals shared its data with Wuhan officials and the Chinese Academy of Medical Sciences, as reported first by Chinese finance publication Caixin and independently confirmed by the AP.

On Dec. 30, Wuhan health officials issued internal notices warning of the unusual pneumonia, which leaked on social media. That evening, Shi Zhengli, a coronavirus expert at the Wuhan Institute of Virology who is famous for having traced the SARS virus to a bat cave, was alerted to the new disease, according to an interview with Scientific American. Shi took the first train from a conference in Shanghai back to Wuhan.

The next day, Chinese CDC director Gao Fu dispatched a team of experts to Wuhan. Also on Dec. 31, WHO first learned about the cases from an open-source platform that scouts for intelligence on outbreaks, emergencies chief Ryan has said.

WHO officially requested more information on Jan. 1. Under international law, members have 24 to 48 hours to respond, and China reported two days later that there were 44 cases and no deaths.



Mark Schiefelbein • AP

Gao Fu, foreground left, the head of the Chinese Center for Disease Control and Prevention, speaks to journalists after a news conference about a virus outbreak at the State Council Information Office in Beijing on Jan. 26, 2020.

By Jan. 2, Shi had decoded the entire genome of the virus, according to a notice later posted on her institute's website.

Scientists agree that Chinese scientists detected and sequenced the then-unknown pathogen with astonishing speed, in a testimony to China's vastly improved technical capabilities since SARS, during which a WHO-led group of scientists took months to identify the virus. This time, Chinese virologists proved within days that it was a never-before-seen coronavirus. Tedros would later say Beijing set "a new standard for outbreak response."

But when it came to sharing the information with the world, things began to go awry.

On Jan. 3, the National Health Commission issued a confidential notice ordering labs with the virus to either destroy their samples or send them to designated institutes for safekeeping. The notice, first reported by Caixin and seen by the AP, forbade labs from publishing about the virus without government authorization. The order barred Shi's lab from publishing the genetic sequence or warning of the potential danger.

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Chinese law states that research institutes cannot conduct experiments on potentially dangerous new viruses without approval from top health authorities. Although the law is intended to keep experiments safe, it gives top health officials wide-ranging powers over what lower-level labs can or cannot do.

"If the virologist community had operated with more autonomy....the public would have been informed of the lethal risk of the new virus much earlier," said Edward Gu, a professor at Zhejiang University, and Li Lantian, a PhD student at Northwestern University, in a paper published in March analyzing the outbreak.

Commission officials later repeated that they were trying to ensure lab safety, and had tasked four separate government labs with identifying the genome at the same time to get accurate, consistent results.

By Jan. 3, the Chinese CDC had independently sequenced the virus, according to internal data seen by the Associated Press. And by just after midnight on Jan. 5, a third designated government lab, the Chinese Academy of Medical Sciences, had decoded the sequence and submitted a report — pulling all-nighters to get results in record time, according to a state media interview.

Yet even with full sequences decoded by three state labs independently,



Arek Rataj • AP

People wearing face masks walk down a deserted street in Wuhan in central China's Hubei Province.

Chinese health officials remained silent. The WHO reported on Twitter that investigations were under way into an unusual cluster of pneumonia cases with no deaths in Wuhan, and said it would share “more details as we have them.”

Meanwhile, at the Chinese CDC, gaps in coronavirus expertise proved a problem.

For nearly two weeks, Wuhan reported no new infections, as officials censored doctors who warned of suspicious cases. Meanwhile, researchers found the new coronavirus used a distinct spike protein to bind itself to human cells. The unusual protein and the lack of new cases lulled some Chinese CDC researchers into thinking the virus didn't easily spread between humans — like the coronavirus that causes Middle East respiratory syndrome, or MERS, according to an employee who declined to be identified out of fear of retribution.

Li Yize, a coronavirus researcher at the University of Pennsylvania, said he immediately suspected the pathogen was infectious when he spotted a leaked copy of a sequencing report in a group chat on a SARS-like coronavirus. But the Chinese CDC team working on the genetic sequence lacked molecular specialists and failed to consult with outside scientists, Li said. Chinese health authorities rebuffed offers of assistance from foreign experts, including Hong Kong scientists barred from a fact-finding mission to Wuhan and an American professor at a university in China.

On Jan. 5, the Shanghai Public Clinical Health Center, led by famed virologist Zhang Yongzhen, was the latest to sequence the virus. He submitted it to the GenBank database, where it sat awaiting review, and notified the National Health Commission. He warned them that the new virus was similar to SARS and likely infectious.

“It should be contagious through respiratory passages,” the center said in an internal notice seen by the AP. “We recommend taking preventative measures in public areas.”

On the same day, WHO said that based on preliminary information from China, there was no evidence of significant transmission between humans, and did not recommend any specific measures for travelers.

The next day, the Chinese CDC raised its emergency level to the second highest. Staffers proceeded to isolate the virus, draft lab testing guidelines, and design test kits. But the agency did not have the authority to issue public warnings, and the heightened emergency level was kept secret even from many of its own staff.

By Jan. 7, another team at Wuhan University had sequenced the pathogen and found it matched Shi’s, making Shi certain they had identified a novel coronavirus. But Chinese CDC experts said they didn’t trust Shi’s findings and needed to verify her data before she could publish, according to three people familiar with the matter. Both the National Health Commission and the Ministry of Science and Technology, which oversees Shi’s lab, declined to make Shi available for an interview.

A major factor behind the gag order, some say, was that Chinese CDC researchers wanted to publish their papers first. “They wanted to take all the credit,” said Li, the coronavirus expert.

Internally, the leadership of the Chinese CDC is plagued with fierce competition, six people familiar with the system explained. They said the agency has long promoted staff based on how many papers they can publish in prestigious journals, making scientists reluctant to share data.

As the days went by, even some of the Chinese CDC’s own staff began to wonder why it was taking so long for authorities to identify the pathogen.

“We were getting suspicious, since within one or two days you would get a sequencing result,” a lab technician said, declining to be identified for fear of retribution.

The agency did not have the authority to issue public warnings, and the heightened emergency level was kept secret even from many of its own staff.

ON JAN. 8, THE WALL STREET JOURNAL reported that scientists had identified a new coronavirus in samples from pneumonia patients in Wuhan, pre-empting and embarrassing Chinese officials. The lab technician told the AP they first learned about the discovery of the virus from the Journal.

The article also embarrassed WHO officials. Dr. Tom Grein, chief of WHO's acute events management team, said the agency looked "doubly, incredibly stupid." Van Kerkhove, the American expert, acknowledged WHO was "already late" in announcing the new virus and told colleagues that it was critical to push China.

Ryan, WHO's chief of emergencies, was also upset at the dearth of information.

"The fact is, we're two to three weeks into an event, we don't have a laboratory diagnosis, we don't have an age, sex or geographic distribution, we don't have an epi curve," he complained, referring to the standard graphic of outbreaks scientists use to show how an epidemic is progressing.

After the article, state media officially announced the discovery of the new coronavirus. But even then, Chinese health authorities did not release the genome, diagnostic tests, or detailed patient data that could hint at how infectious the disease was.

By that time, suspicious cases were already appearing across the region.



Martial Trezzini • AP

Maria van Kerkhove, head of the Outbreak Investigation Task Force for the World Health Organization speaks during a news conference regarding the COVID-19 coronavirus, at the European headquarters of the United Nations in Geneva, Switzerland on Jan. 29, 2020.

On Jan. 8, Thai airport officers pulled aside a woman from Wuhan with a runny nose, sore throat, and high temperature. Chulalongkorn University professor Supaporn Wacharapluesadee's team found the woman was infected with a new coronavirus, much like what Chinese officials had described. Supaporn partially figured out the genetic sequence by Jan. 9, reported it to the Thai government and spent the next day searching for matching sequences.

But because Chinese authorities hadn't published any sequences, she found nothing. She could not prove the Thai virus was the same one sickening people in Wuhan.

"It was kind of wait and see, when China will release the data, then we can compare," said Supaporn.

On Jan. 9, a 61-year-old man with the virus passed away in Wuhan — the first known death. The death wasn't made public until Jan. 11.

WHO officials complained in internal meetings that they were making repeated requests for more data, especially to find out if the virus could spread efficiently between humans, but to no avail.

"We have informally and formally been requesting more epidemiological information," WHO's China representative Galea said. "But when asked for specifics, we could get nothing."

Emergencies chief Ryan grumbled that since China was providing the minimal information required by international law, there was little WHO could do. But he also noted that last September, WHO had issued an unusual public rebuke of Tanzania for not providing enough details about a worrisome Ebola outbreak.

"We have to be consistent," Ryan said. "The danger now is that despite our good intent...especially if something does happen, there will be a lot of finger-pointing at WHO."

Ryan noted that China could make a "huge contribution" to the world by sharing the genetic material immediately, because otherwise "other countries will have to reinvent the wheel over the coming days."

On Jan. 11, a team led by Zhang, from the Shanghai Public Health Clinical Center, finally published a sequence on virological.org, used by researchers to swap tips on pathogens. The move angered Chinese CDC officials, three people familiar with the matter said, and the next day, his laboratory was

On Jan. 9, a 61-year-old man with the virus passed away in Wuhan — the first known death. The death wasn't made public until Jan. 11.



Deng Hua/Xinhua via • AP

Respiratory specialist Zhong Nanshan attends an oath-taking ceremony via video connections for two new probationary Communist Party members in Wuhan to take the oath of joining the Communist Party of China, in Guangzhou, southern China's Guangdong Province.

temporarily shuttered by health authorities.

Zhang referred a request for comment to the Chinese CDC. The National Health Commission, which oversees the Chinese CDC, declined multiple times to make its officials available for interviews and did not answer questions about Zhang.

Supaporn compared her sequence with Zhang's and found it was a 100% match, confirming that the Thai patient was ill with the same virus detected in Wuhan. Another Thai lab got the same results. That day, Thailand informed the WHO, said Tanarak Plipat, deputy director-general of the Department of Disease Control at Thailand's Ministry of Public Health.

After Zhang released the genome, the Chinese CDC, the Wuhan Institute of Virology and the Chinese Academy of Medical Sciences raced to publish their sequences, working overnight to review them, gather patient data, and send them to the National Health Commission for approval, according to documentation obtained by the AP. On Jan. 12, the three labs together finally published the sequences on GISAID, a platform for scientists to share genomic data.

By then, more than two weeks had passed since Vision Medicals decoded a partial sequence, and more than a week since the three government labs had all obtained full sequences. Around 600 people were infected in that week, a roughly three-fold increase.

Some scientists say the wait was not unreasonable considering the difficulties in sequencing unknown pathogens, given accuracy is as important as speed. They point to the SARS outbreak in 2003 when some Chinese scientists initially — and wrongly — believed the source of the epidemic was chlamydia.

“The pressure is intense in an outbreak to make sure you’re right,” said Peter Daszak, president of the EcoHealthAlliance in New York. “It’s actually worse to go out to go to the public with a story that’s wrong because the public completely lose confidence in the public health response.”

Still, others quietly question what happened behind the scenes.

Infectious diseases expert John Mackenzie, who served on a WHO emergency committee during the outbreak, praised the speed of Chinese researchers in sequencing the virus. But he said once central authorities got involved, detailed data trickled to a crawl.

“There certainly was a kind of blank period,” Mackenzie said. “There had to be human to human transmission. You know, it’s staring at you in the face... I would have thought they would have been much more open at that stage.”

Chinese CDC staff across the country began screening, isolating, and testing for cases, turning up hundreds across the country.

ON JAN. 13, WHO ANNOUNCED that Thailand had a confirmed case of the virus, jolting Chinese officials.

The next day, in a confidential teleconference, China’s top health official ordered the country to prepare for a pandemic, calling the outbreak the “most severe challenge since SARS in 2003”, as the AP previously reported. Chinese CDC staff across the country began screening, isolating, and testing for cases, turning up hundreds across the country.

Yet even as the Chinese CDC internally declared a level one emergency, the highest level possible, Chinese officials still said the chance of sustained transmission between humans was low.

WHO went back and forth. Van Kerkhove said in a press briefing that “it is certainly possible there is limited human-to-human transmission.” But hours later, WHO seemed to backtrack, and tweeted that “preliminary investigations conducted by the Chinese authorities have found no clear evidence of human-to-human transmission” — a statement that later became fodder for critics.

A high-ranking official in WHO’s Asia office, Dr. Liu Yunguo, who attended

medical school in Wuhan, flew to Beijing to make direct, informal contacts with Chinese officials, recordings show. Liu's former classmate, a Wuhan doctor, had alerted him that pneumonia patients were flooding the city's hospitals, and Liu pushed for more experts to visit Wuhan, according to a public health expert familiar with the matter.

On Jan. 20, the leader of an expert team returning from Wuhan, renowned government infectious diseases doctor Zhong Nanshan, declared publicly for the first time that the new virus was spreading between people. Chinese President Xi Jinping called for the "timely publication of epidemic information and deepening of international cooperation."

Despite that directive, WHO staff still struggled to obtain enough detailed patient data from China about the rapidly evolving outbreak. That same day, the U.N. health agency dispatched a small team to Wuhan for two days, including Galea, the WHO representative in China.

They were told about a worrying cluster of cases among more than a dozen doctors and nurses. But they did not have "transmission trees" detailing how the cases were connected, nor a full understanding of how widely the virus was spreading and who was at risk.

In an internal meeting, Galea said their Chinese counterparts were "talking openly and consistently" about human-to-human transmission, and that there was a debate about whether or not this was sustained. Galea reported to colleagues in Geneva and Manila that China's key request to WHO was for



Mark Schiefelbein • AP

Dr. Gauden Galea, the World Health Organization representative in China, speaks during an interview at the WHO offices in Beijing. WHO staffers debated how to press China for gene sequences and detailed patient data without angering Chinese authorities.

help “in communicating this to the public, without causing panic.”

On Jan. 22, WHO convened an independent committee to determine whether to declare a global health emergency. After two inconclusive meetings where experts were split, they decided against it — even as Chinese officials ordered Wuhan sealed in the biggest quarantine in history. The next day, WHO chief Tedros publicly described the spread of the new coronavirus in China as “limited.”

For days, China didn’t release much detailed data, even as its case count exploded. Beijing city officials were alarmed enough to consider locking down the capital, according to a medical expert with direct knowledge of the matter.

On Jan. 28, Tedros and top experts, including Ryan, made an extraordinary trip to Beijing to meet President Xi and other senior Chinese officials. It is highly unusual for WHO’s director-general to directly intervene in the practicalities of outbreak investigations. Tedros’ staffers had prepared a list of requests for information.

“It could all happen and the floodgates open, or there’s no communication,” Grein said in an internal meeting while his boss was in Beijing. “We’ll see.”

At the end of Tedros’ trip, WHO announced China had agreed to accept an international team of experts. In a press briefing on Jan. 29, Tedros heaped praise on China, calling its level of commitment “incredible.”

The next day, WHO finally declared an international health emergency. Once again, Tedros thanked China, saying nothing about the earlier lack of cooperation.

“We should have actually expressed our respect and gratitude to China for what it’s doing,” Tedros said. “It has already done incredible things to limit the transmission of the virus to other countries.”

Dec. 3, 2020

China testing blunders stemmed from secret deals with firms



Ng Han Guan • AP

Zhong Hanneng holds a photo of her son, Peng Yi, and talks about his difficulties in getting tested for COVID-19, eventually dying from the disease, in Wuhan in central China's Hubei province.

By DAKE KANG

Associated Press

WUHAN, China — In the early days in Wuhan, the first city struck by the virus, getting a COVID test was so difficult that residents compared it to winning the lottery.

Throughout the Chinese city in January, thousands of people waited in hours-long lines for hospitals, sometimes next to corpses lying in hallways. But most couldn't get the test they needed to be admitted as patients. And for the few who did, the tests were often faulty, resulting in false negatives.

The widespread test shortages and problems at a time when the virus could have been slowed were caused largely by secrecy and cronyism at China's top disease control agency, an Associated Press investigation has found.

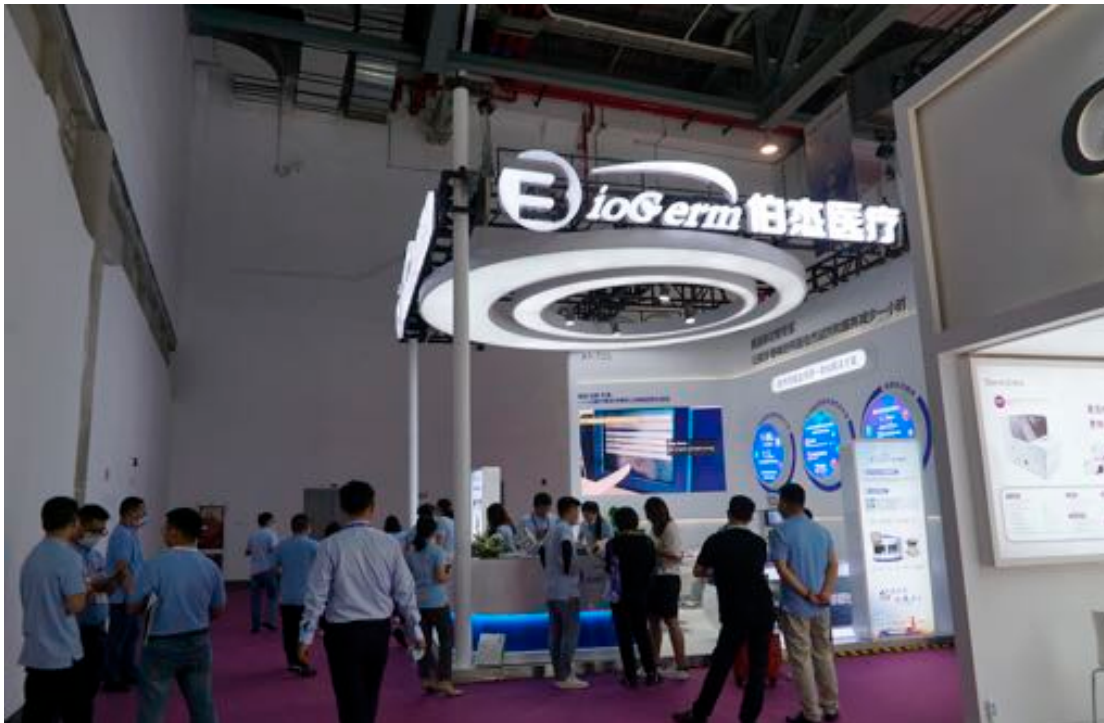
The flawed testing system prevented scientists and officials from seeing how fast the virus was spreading — another way China fumbled its early response to the virus. Earlier AP reporting showed how top Chinese leaders delayed warning the public and withheld information from the World Health Organization, supplying the most comprehensive picture yet of China's initial missteps. Taken together, these mistakes in January facilitated the virus' spread through Wuhan and across the world undetected, in a pandemic that has now sickened more than 64 million people and killed almost 1.5 million.

China's Center for Disease Control and Prevention gave test kit designs and distribution rights exclusively to three then-obscure Shanghai companies with which officials had personal ties, the reporting found. The deals took place within a culture of backdoor connections that quietly flourished in an underfunded public health system, according to the investigation, which was based on interviews with more than 40 doctors, CDC employees, health experts, and industry insiders, as well as hundreds of internal documents, contracts, messages and emails obtained by the AP.

The Shanghai companies — GeneDx Biotech, Huirui Biotechnology, and BioGerm Medical Technology — paid the China CDC for the information and the distribution rights, according to two sources with knowledge of the transaction who asked to remain anonymous to avoid retribution. The price: One million RMB (\$146,600) each, the sources said. It's unclear whether the money went to specific individuals.

In the meantime, the CDC and its parent agency, the National Health Commission, tried to prevent other scientists and organizations from testing for the virus with their own homemade kits. In a departure from past practice for at least two epidemics, the NHC told Wuhan hospitals to send virus samples — from which tests can be developed — only to central labs under its authority. It also made testing requirements to confirm coronavirus cases much more complicated, and endorsed only test kits made by the Shanghai companies.

The flawed testing system prevented scientists and officials from seeing how fast the virus was spreading — another way China fumbled its early response to the virus.



Dake Kang • AP



Shanghai-based testing kit company BioGerm presents a booth at a trade fair in Nanchang in eastern China's Jiangxi province on Friday, Aug. 21, 2020. BioGerm was one of three companies that gained privileged access to crucial information on the coronavirus from the Chinese Center for Disease Control and Prevention at the beginning of the outbreak, allowing them to make kits ahead of competitors. The move delayed China's response to the outbreak and caused critical shortages of kits.

These measures contributed to not a single new case being reported by Chinese authorities between Jan. 5 and 17, even though retrospective infection data shows that hundreds were infected. The apparent lull in cases meant officials were slow to take early actions such as warning the public, barring large gatherings and curbing travel. One study estimates that intervention two weeks earlier could have reduced the number of cases by 86 percent, although it's uncertain whether earlier action could have halted the spread of the virus worldwide.

When tests from the three companies arrived, many didn't work properly, turning out inconclusive results or false negatives. And technicians were hesitant to use test kits that would later prove more accurate from more established companies, because the CDC did not endorse them.

With few and faulty kits, only one in 19 infected people in Wuhan was

tested and found positive as of Jan. 31, according to an estimate by Imperial College London. Others without tests or with false negatives were sent back home, where they could spread the virus.

Days after he first started coughing on Jan. 23rd, Peng Yi, a 39-year-old schoolteacher, waited in an eight-hour line at a Wuhan hospital. A CT scan showed signs of viral infection in both his lungs, but he couldn't get the test he needed to be hospitalized.

When Peng finally got a test on Jan. 30, it turned out negative. But his fever wouldn't drop, and his family begged officials for another test.

His second test, on Feb. 4, turned out positive. It was too late. Weeks later, Peng passed away.

"There were very, very few tests, basically none....if you couldn't prove you were positive, you couldn't get admitted to a hospital," his mother, Zhong Hanneng, said in a tearful interview in October. "The doctor said there was nothing that could be done."

His second test, on Feb. 4, turned out positive. It was too late. Weeks later, Peng passed away.

China was hardly the only country to grapple with testing, which varied widely from nation to nation. Germany, for example, developed a test that became the World Health Organization gold standard days after the Chinese government released genetic sequences on Jan. 12. But in the U.S., the CDC declined to use the WHO design and insisted on developing its own kits, which turned out to be faulty and led to even longer delays than in China.

Other countries also had the benefit of learning from China's experience. But China was grappling with a new pathogen, and it wasn't yet clear how bad the pandemic would be or how many tests would be needed.

"It was very early," said Jane Duckett, a professor at the University of Glasgow examining the Chinese government's response to the coronavirus. She said the government was "just trying to figure it out."

Still, the hiccups and delays in China were especially consequential because it was the first country to detect the virus.

"Because you have only three companies providing testing kits, it kept the capacity of testing very limited," said Yanzhong Huang, a senior fellow for global health at the Council on Foreign Relations. "It was a major problem that led to the rapid increase in cases and deaths."

China's foreign ministry and China's top medical agency, the National Health Commission, did not respond to requests for comment.

“We did a brilliant job, we worked so hard,” said Gao Fu, the head of China CDC, in a videoconference in July. “Unluckily, unfortunately, this virus we are facing, it’s so special.”

NONE OF THE FIRST THREE diagnostics companies tapped to make test kits for the biggest pandemic in a century were well-known in the industry. For one engineer from a Wuhan-based diagnostics firm, the Shanghai competitors popped out of nowhere “like bamboo shoots” – all the more so because his company had the factories and expertise to produce testing kits in the city where the virus was first detected.

“We were surprised, it was very strange,” the engineer said, declining to be named to speak on a sensitive topic. “We hadn’t heard about it at all, and then suddenly there’s test kits from certain companies you have to use, and you can’t use ones from anyone else?”

BioGerm was officially founded just over three years ago in a conference room, where the CEO mulled how to survive in a small and crowded market for test kits. GeneoDx had fewer than 100 employees, according to Tianyancha, a Chinese corporate records database – compared to competitors that employ hundreds or even thousands of staff.

But what the companies lacked in resources or experience, they made up



Ng Han Guan • AP

Zhong Hanneng talks about how her son, Peng Yi, had trouble getting tested for COVID-19 and eventually died from the disease, in Wuhan in central China’s Hubei province on Saturday, Oct. 17, 2020.

for in connections.

Company posts, along with hundreds of internal emails and documents obtained by The Associated Press, show extensive ties between the three companies and top China CDC researchers in Beijing and Shanghai. Chinese regulators barred AP attempts to obtain credit reports on the companies, saying they were classified as “confidential enterprises” during the outbreak.

Despite China’s efforts over the years to reform public health and push for open bidding in a competitive marketplace, medical companies still cultivate personal relationships with officials to secure deals, according to seven executives from different competitors. Under President Xi Jinping, China has cracked down on corruption, but industry insiders say a lack of firm boundaries between public and private in China’s health system can create opportunities for graft.

It’s unclear whether the agreements between the China CDC and the three test kit companies violated Chinese law.

They raise questions around potential violations of bribery laws, along with rules against abuse of authority, self-dealing and conflicts of interest, said James Zimmerman, a Beijing-based corporate attorney and former chairman of the American Chamber of Commerce in China. Even amid the uncertainty of the pandemic, “there is no excuse for the flow of cash from these companies to the CDC,” he said.

Chinese bribery laws also state that any financial transaction has to be recorded and documented clearly. The AP was unable to ascertain whether the agreements between the CDC and the Shanghai companies were documented, but a CDC employee with access to some of the agency’s finances said there was no record of them.

Despite the questions around bribery, other experts caution that the state may have designated the three companies to make test kits under special laws on the procurement of emergency goods during major natural disasters. The Chinese government is pushing to cultivate domestic companies focused on emergency response technologies, including test kits, to protect its national interest.

“Things will be different in the middle of a crisis,” said Lesli Ligorner, a Beijing-based attorney specializing in anti-corruption law. “Anything affecting the national interest can be deemed to be of utmost importance for special

It’s unclear whether the agreements between the China CDC and the three test kit companies violated Chinese law.

Peng Yi, receives treatment for pneumonia at Wuhan City Hospital No. 7 in Wuhan in central China's Hubei province on Friday, Jan. 31, 2020. Peng first started coughing on Jan. 23 at the beginning of the coronavirus outbreak, but because of a shortage of test kits, he wasn't able to get tested for days. His first test result came out negative, barring him access to a hospital bed.



Zhong Hanneng via • AP

regulations... I wouldn't be so quick to rush to judgement.”

China CDC guidelines state that the agency is responsible for maintaining a reserve of testing chemicals to screen for rare pathogens, but do not specify how to procure them. An AP search of CDC procurement bids did not turn up any records, even though some other emergency procurements were publicly documented.

Funding for the China CDC has stagnated in recent years, and researchers there often earn far lower wages than in the private sector. Many employees have departed for private sector jobs over the past decade, draining its labs of talent.

Among those who left was BioGerm's founder, Zhao Baihui, the former chief technician of the Shanghai CDC's microbiology lab. Emails and financial records obtained by the AP show that Zhao first started BioGerm's predecessor through an intermediary in 2012, while she was still at the Shanghai CDC. In the next five years, she sold thousands of dollars' worth of test kits to her own workplace through the intermediary even as she herself was at times in charge of purchasing, internal emails, records and contracts obtained by the AP show.

After quitting the CDC in 2017, Zhao spearheaded lucrative contracts with government officials – such as one worth 400,000 RMB (\$60,000) with Shanghai customs officials where her husband worked, and another worth 55,500 RMB (\$8,400) with CDC officials in Shanghai's Pudong district, the

emails and contracts show. Zhao declined to speak when reached by phone, and did not respond to an emailed request for comment.

Another of the three companies, GeneoDx, enjoyed special access because it is a subsidiary of the state-run firm SinoPharm, which is managed directly by China's cabinet. Before the outbreak, GeneoDx largely imported kits and acquired foreign technology to expand its business rather than develop its own products, according to company posts and a China CDC employee familiar with its operations.

In October 2019, GeneoDx co-organized an internal CDC training conference on emerging respiratory diseases in Shanghai. Tan Wenjie, the CDC official who ran the training, was later put in charge of developing test kits, according to an internal document the AP obtained. In November, the company won a contract to sell 900,000 RMB (\$137,000) worth of test kits to Tan's institute.

GeneoDx did not respond to requests for comment or interviews. The National Health Commission did not respond to a request for a comment or an interview with Tan.

Also in attendance at the invitation-only event was BioGerm, as well as other companies that used the conference to promote their products, blurring the line between the government and the private sector. China CDC staff were invited to join a BioGerm group on WeChat, a Chinese messaging application, which CEO Zhao later used to sell coronavirus test kits, according to a CDC employee and a screenshot seen by the AP.

The last company, Huirui, is a longtime partner with Tan, the CDC official in charge of test kits. Its founder, Li Hui, coauthored a paper with Tan on coronavirus tests in 2012 and "jointly developed" a test kit for the MERS outbreak in 2015 with Tan's institute.

In an interview, CEO Li said the CDC routinely contracted with his company to make emergency testing chemicals. He said Tan's lab at the China CDC had contacted him on Jan. 4 or 5 to make testing chemicals for the coronavirus based on CDC designs. He denied any personal relationship with Tan or any payments to the CDC.

"We've been working with the CDC to respond to emerging new diseases for about ten years, not just for a day or two, it's normal," Li said.

Their connections situated the three little-known companies in prime

She sold thousands of dollars' worth of test kits to her own workplace through the intermediary even as she herself was at times in charge of purchasing.

position in January, when a then-unknown pathogen was about to sweep the country and the world and change their fortunes.

THE FIRST STEP IN MAKING TEST KITS is to get samples of the virus and decode its genetic sequence. This leads to test designs, essentially a recipe for the tests.

In the past, such as with H7N9 in 2013, the China CDC sent test designs to laboratories across the country just days after identifying the pathogen. It also shipped along the chemical compounds needed – in effect the ingredients – for hospitals and CDC branches to mix their own test kits as soon as possible.

At first it looked like the China CDC was using the same playbook this time. The CDC had found the genetic map, or genome, of the virus by Jan. 3. By the next day, under CDC official Tan, the Emergency Technology Center at its Institute for Viral Disease Control had come up with test designs.

But this time, the government held back information about the genome and test designs. Instead, the China CDC finalized “technology transfer” agreements to give the test designs to the three Shanghai companies, according to four people familiar with the matter. The selection process was kept secret.

The CDC did not have the authority to altogether prevent other scientists



Dake Kang • AP

Zhao Baihui, CEO of Shanghai-based testing kit company BioGerm, speaks during a corporate event at a trade fair in Nanchang in eastern China's Jiangxi province on Saturday, Aug. 22, 2020.

with competing agencies and companies from getting samples through back door routes and coming up with their own test recipes. But it tried to stymie such efforts and stop testing from being carried out.

For example, Dr. Shi Zhengli, a renowned coronavirus expert at the Wuhan Institute of Virology, obtained patient samples on her own, found the genome from them and came up with a test by Jan. 3, according to a slideshow presentation she gave in March. But her lab fell under the jurisdiction of a competing agency to the CDC, the Chinese Ministry of Science and Technology. The CDC barred her from obtaining more samples and testing for cases.

“There’s no open collaboration mechanism,” said a public health expert who often works with the China CDC, declining to be named for fear of damaging relations there. “Everyone wants their turf.”

Provincial CDC staff were told that instead of testing and reporting cases themselves, they had to send patient samples to designated labs in Beijing for full sequencing, a complicated and time-consuming procedure. Otherwise, the cases would not be counted in the national coronavirus tally.

“It was absolutely abnormal,” said a CDC lab technician, who declined to be identified out of fear of retribution. “They were totally trying to make it harder for us to report any confirmed cases.”

In secret evaluations of test kits on Jan. 10, the CDC also approved only those from the three Shanghai companies, according to internal plans and instructions obtained by the AP.

The Chinese government finally made its genomes public on Jan. 12, a day after another team published one without authorization. That opened the door for more companies to make their own test kits. However, China’s top health agency, the National Health Commission, still urged medical staff to buy the test kits from Huirui, BioGerm and GeneoDx that the CDC had validated, according to internal instructions obtained by the AP.

The evaluations and selections of test kits were conducted with the knowledge and direction of China’s top health official, Ma Xiaowei, according to a CDC post on Jan. 13.

On Jan. 14, Ma held an internal teleconference to order secret preparations for a pandemic, as AP earlier reported. After that, China’s health

In secret evaluations of test kits on Jan. 10, the CDC also approved only those from the three Shanghai companies, according to internal plans and instructions obtained by the AP.



Dake Kang • AP

The campus of the Hubei Provincial Center for Disease Control and Prevention in Wuhan in central China's Hubei province. Hubei CDC staff carried out evaluations of coronavirus testing kits days before China made sequences of the virus publicly available, allowing three companies to make testing kits ahead of competitors. The move delayed China's response to the outbreak and caused critical shortages of kits.

authorities relaxed the requirements to confirm cases and started distributing the CDC-sanctioned test kits. BioGerm began taking orders from provincial CDC staff across the country on WeChat, a Chinese social media application.

“We’ve been entrusted by the national CDC to issue kits for you,” Zhao said, according to a screenshot of one of the group chats obtained by The Associated Press.

“Quick! Give me, give me,” said one staffer in the Sichuan CDC.

But the kits from GeneoDx kept showing inconclusive results, the CDC technician told the AP, and eventually her superior ordered her to toss them aside. The kits from Huirui were also unreliable, and the only ones that worked consistently were from BioGerm, she said.

“The quality was not good. Bad, poor quality,” said a public health expert familiar with the matter, who declined to be identified to avoid damaging ties with the China CDC. “But because they had a collaboration with the (CDC) Institute for Viral Disease Control and... they paid a million yuan, they were on the list.”

BioGerm’s test kits were more dependable in part because they used chemicals from Invitrogen, a subsidiary of U.S. biotech giant Thermo Fisher. Huirui and GeneoDx used their own mixes instead, with more unreliable results.

Much larger competitors, including Chinese genetics giant BGI and Tianlong, developed their own kits in January, which were later found to be more effective than those made by the Shanghai companies. But those test kits weren't endorsed by the China CDC.

"No test protocol, no primers and probes, then of course there's no way to confirm cases," said another China CDC employee who declined to be identified for fear of retribution. "And then, all of a sudden, you tell all the CDCs: purchase from these companies, now go for it. Then – chaos and shortage. Valuable time wasted."

Chen Weijun, BGI's chief infectious disease scientist, also said the early products recommended by the China CDC had "quality problems." When asked why the China CDC selected the three Shanghai companies, Chen demurred.

"You better ask the CDC this question," said Chen, who collaborated with CDC researchers to publish the first paper on the virus. "But actually, everyone understands what's going on, why this happened, right? You can reach your own conclusions, right?"

'And then, all of a sudden, you tell all the CDCs: purchase from these companies, now go for it. Then – chaos and shortage. Valuable time wasted.'

A DAY AFTER THE FIRST TEST KITS finally arrived in Wuhan on Jan. 16, the case count began to rise again. But test kits were scarce. Some other cities in the same province didn't get kits until Jan. 22, and even those were often flawed.

Samples from 213 patients in February using GeneoDx tests suggested a false-negative rate of over 30 percent, a study by Shenzhen doctors found. A March clinical trial report showed that among the test kits certified at the time, GeneoDx was the worst performer, followed by BioGerm. In general, the rate of false negatives for COVID tests varies widely, from 2% to more than 37%.

Philippe Klein, a French doctor who treated foreign patients in Wuhan during the outbreak, estimated that about 20 percent of the tests turned up false negatives. Still, he said, delays in producing accurate tests kits are natural at the start of an outbreak.

"The Chinese did a lot in a short time," Klein said. "It was a new test, so in the beginning, there was a lack of tests, of course."

On Jan. 22, the National Health Commission quietly removed the names of the three Shanghai companies from its coronavirus guide as preferred

distributors. After the Chinese government ordered Wuhan shut down on Jan. 23, the three companies faced massive logistical hurdles to getting their tests in.

On Jan. 26, officials set up a fast-track “green channel” for companies to get their test kits approved. The National Medical Products Administration approved test kits from seven companies, including BioGerm and GeneoDx but not Huirui. Li, Huirui’s CEO, said it was because his company was inexperienced in obtaining regulatory approvals for commercial tests.

But it took time for other companies to ramp up production and ship tests in, leaving Wuhan struggling to meet demand into early February and depriving many residents of treatment.

Peng died on Feb. 19. His mother now passes the days gazing blankly out her window, sobbing and lighting candles in his memory.

“In the eyes of officials, he was like a grain of sand or a blade of grass. But in our home, he was our sky, he was our everything,” Zhong said. “Without him, we can never be happy again.”

The same pandemic that killed Peng brought the Shanghai test kit companies and related scientists fame and fortune.

In September, Tan, the China CDC researcher in charge of developing test kits, was appointed the inaugural director of a new National Novel Coronavirus Center. In a nationally televised ceremony, GeneoDx’s parent firm won plaudits from President Xi for “outstanding” contributions in the struggle against COVID-19, including developing a test kit.

Huirui has expanded and is now selling commercial test kits for the first time — not in China, but in Latin America, CEO Li said. And the pandemic has allowed BioGerm to “stand out,” reaching its business targets much faster than planned, said top marketing executive Guo Xiaoling at a trade show in late August at a five-star hotel.

“Because of the epidemic, 2020 has been a really special year,” Guo said. “The country and the economy suffered major damage. But for our nucleic acid diagnostics industry, this year has actually been a bonus.”

Associated Press journalists Emily Wang in Wuhan, Maria Cheng in London and Robert Bumsted in South Orange, New Jersey, contributed to this report.



SUPPLEMENTAL MATERIAL

EXAMPLES OF BEAT COVERAGE BY DAKE KANG:

<https://apnews.com/b981ea744ee2a25f89c5abb0e8c1e92f>

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