

IN FOCUS

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Novel Coronavirus (2019-nCoV): Developments in China and International Response

Overview

On December 31, 2019, China's government notified the World Health Organization (WHO) of patients with pneumonia of unknown cause in the central Chinese city of Wuhan. On January 7, 2020, Chinese scientists isolated a previously unknown coronavirus (2019-nCoV) in the patients. On January 12, China's government shared the genetic sequence of the virus with WHO and international partners. By January 30, the virus had spread across China and to four continents (see Figure 1). As required by the International Health Regulations (IHR), a legally binding instrument of international law under which countries work together for global health security, the global health community is closely monitoring 2019-nCoV and seeking to limit its spread. WHO is coordinating the global response; the United States is aiding as a member of WHO and through its own agencies, such as the U.S. Centers for Disease Control and Prevention (CDC). (See also CRS Insight IN11212, Another Coronavirus Emerges: U.S. Domestic Response to 2019-nCoV.)

The Virus: 2019-nCoV

Coronaviruses are a large family of zoonotic viruses (viruses transmissible between animals and humans) that can cause illness ranging from the common cold to more severe diseases such as Middle-East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most common symptoms among confirmed 2019nCoV patients include fever, cough, and shortness of breath. Of nearly 10,000 2019-nCoV cases identified in China as of January 30, China's National Health Commission said just over 15% of patients are severely ill and 2% have died. Health experts are still seeking to understand the origins of the disease and its epidemiology, including the intensity of human-to-human transmission. Chinese Health Minister Ma Xiaowei has stated the virus can be infectious even before patients show symptoms, but CDC has not verified this claim. If confirmed, such transmission could increase the challenge of controlling the virus's spread.

No specific treatments or vaccines are available for 2019nCoV. Researchers are studying whether antivirals, such as those that effectively treated HIV and MERS cases, can be used to treat 2019-nCoV. The U.S. National Institutes of Health, China CDC (CCDC), and others have said they are working on vaccines.

Developments in China

Reviews of China's response to the outbreak are mixed. WHO Director-General Tedros Adhanom Ghebreyesus has praised China's leaders for "the transparency they have demonstrated, including sharing data and [the] genetic sequence of the virus." In contrast, Secretary of Health and Human Services Alex Azar has urged China to embrace "more cooperation and transparency." Some have questioned the efficacy of China's containment efforts, including city lockdowns.



Figure 1. Locations with Confirmed 2019-nCoV Cases Globally as of January 30, 2020

Source: Centers for Disease Control and Prevention, https://www.cdc.gov/coronavirus/2019-ncov/locations-confirmed-cases.html. Note: The 2019-nCoV virus was first identified in patients in Wuhan, capital of China's Hubei Province. The first known cases of 2019-nCoV emerged in Wuhan, capital of China's Hubei Province. According to a paper by Chinese scientists in the medical journal The Lancet, the first of 41 confirmed 2019-nCoV patients in their dataset began displaying symptoms on December 1, 2019. Wuhan authorities say the first hospitalization of a patient with unknown pneumonia was on December 12, 2019. On December 30, 2019, Wuhan's Health Commission released two "urgent notices" to the local medical community with instructions for responding to cases of "pneumonia of unknown cause." The next day, Chinese authorities alerted the WHO office in China of the cases. On January 1, 2020, Wuhan authorities closed a local wildlife market, a suspected source of the infection. Although the first three patients in The Lancet authors' dataset had no contact with the market, it was a common link among 27 later cases in the dataset. Chinese experts believe the virus may have originated in bats and jumped to humans via another animal, but no source has been confirmed.

With a meeting of China's cabinet, the State Council, on January 20, 2020, China's leaders appeared to pivot from publicly downplaying the outbreak to elevating its containment to an urgent national priority. The same day, China's National Health Commission declared "novel coronavirus-caused pneumonia" a "Class B" infectious disease, to be handled as a "Class A" disease, triggering prevention and control measures including mandatory quarantine of patients. On January 23, 2020, the day before families around the country were due to gather for Lunar New Year's Eve feasts, Wuhan, a city of 11 million people and a major national transport hub, abruptly announced it was suspending public transportation and sealing off the city. Other cities across the province rapidly instituted their own travel restrictions, putting much of the province of 59 million people under forms of quarantine. Both the scale and the speed of the lockdown appear to be unprecedented globally. Wuhan Mayor Zhou Xianwang later acknowledged that approximately 5 million residents left his city before the travel restrictions went into place. The disclosure raised questions about how effective the later move to seal off the city would be in stemming transmission of the virus.

On January 27, 2020, Mayor Zhou told China's state broadcaster that because of the sudden lockdown, "many people in this closed city despise us." Unusual for an official in China's authoritarian political system, the mayor also acknowledged he had not disclosed information "in a timely manner" and implicitly blamed China's central government. He said China's Law on Prevention and Control of Infectious Diseases restricted Wuhan from sharing information without permission from higher-ups.

China's Premier Li Keqiang is leading a new Communist Party "leading group" on controlling the virus, and visited Wuhan on January 27, 2020. Hubei hospitals are struggling with shortages of staff and supplies. China has deployed military medics to Wuhan and begun the rapid construction of dedicated 2019-nCoV hospitals. Local governments across China have banned large public gatherings. Many schools and workplaces have delayed reopening after the Lunar New Year holiday in a bid to limit person-to-person contact. In a blow to the global tourism industry, China has suspended all outbound overseas group tourism.

Global Cases and WHO Response

According to WHO, as of January 30, 2020, nearly 20 countries have reported 2019-nCoV cases. Many countries are seeking to help their nationals leave China and are screening visitors arriving from China. Several of China's neighbors, including Mongolia, Nepal, Russia, and Tajikistan, have ordered the partial closure of their borders with the country. International airlines have reduced or suspended service to China.

On January 30, the WHO convened a second meeting of its IHR Emergency Committee for Pneumonia due to the Novel Coronavirus 2019-nCoV and declared that the novel coronavirus constitutes a Public Health Emergency of International Concern (PHEIC). WHO defines a PHEIC as an extraordinary event that constitutes a risk to other countries and requires a coordinated international response. Declaring a PHEIC may release emergency funding and trigger more restrictive protocols, as well as affect trade, travel, and other international commerce activities. The 15person committee, which includes a CDC expert, plans to reconvene regularly. (See also CRS In Focus IF10022, The Global Health Security Agenda and International Health *Regulations*, by Tiaji Salaam-Blyther.) Following a January 28, 2020 meeting in Beijing between Chinese President Xi Jinping and WHO Director-General Tedros, China accepted WHO's offer to send an international expert team to China to work with China's National Health Commission on outbreak control.

U.S. Global Funding and Response

CDC is leading the U.S. government response to 2019nCoV, in collaboration with the Department of State and international partners. CDC is currently using funds made available through the Infectious Disease Rapid Response Reserve Fund (IDRRRF), first established in FY2019 appropriations (P.L. 115-245). Secretary of Health and Human Services Azar has issued a determination making available \$105 million from the IDRRRF for the 2019nCoV response.

CDC has staff based in China who work with CCDC on disease control and prevention, developing lab capacity, and disease surveillance. CDC expects to participate in the WHO team that is preparing to go to China to work on 2019-nCoV. On January 27, 2020, CDC raised its China travel warning to Level 3 ("avoid nonessential travel"). On January 30, 2020, the State Department elevated its travel advisory for China to Level 4 ("do not travel"). The State Department's advisory advised that those currently in China "consider departing using commercial means." A week earlier, on January 23, 2020, the State Department ordered the mandatory departure of nonemergency U.S. personnel and family members from the U.S. consulate in Wuhan. On January 29, 2020, it authorized the voluntary departure of nonemergency personnel and family members of U.S. government employees from other posts in China.

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