

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 Wuhan, China. On January 7, 2020, Chinese scientists isolated a previously unknown coronavirus (2019-nCoV) in the patients, and on January 12 made its genetic sequence available to WHO and international partners. By February 5, the virus had spread to every province in China and to 24 other countries (see Figure 1). The outbreak remains concentrated in China, with fewer than 200 of all cases having occurred outside of the country. As required by the International Health Regulations (IHR), a binding international law on global health security, countries are closely monitoring and reporting emergent 2019-nCoV cases. 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 CRS In Focus IF10022, The Global Health Security Agenda and International Health Regulations, and 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 25,000 2019-nCoV cases identified worldwide as of February 4, WHO reports 3,219 patients are severely sick and 492 patients have died, with all but two of the deaths being in mainland China. Health experts are still seeking to understand the origins of the disease and its epidemiology, including the intensity of human-tohuman transmission.

No specific treatments or vaccines are available for 2019nCoV. Scientists from around the world, including the United States, China, Russia, and Australia, are reportedly working to develop 2019-nCoV diagnostic tests, treatments, and vaccines. WHO has developed a disease commodity package that lists essential biomedical equipment, medicines, and supplies needed for 2019-nCoV care. The U.S. National Institutes of Health (NIH) indicated in late January that a candidate vaccine for 2019-nCoV could be ready for early-stage human testing within three months, compared to the 20 months it took to begin early-state development of an investigational SARS vaccine.

Developments in China

In 2002-2003, China's government was widely criticized for initially covering up the SARS outbreak. Critics have faulted China for suppressing critical information about the 2019-nCoV outbreak in its early stages too. They suggest China may have squandered a window of opportunity when an informed Wuhan populace could have potentially changed its behavior to limit the virus's spread. WHO



Figure 1. Locations with Confirmed 2019-nCoV Cases Globally, as of February 5, 2020

Source: Centers for Disease Control and Prevention, https://www.cdc.gov/coronavirus/2019-ncov/locations-confirmed-cases.html.

Director-General Tedros Ghebreyesus has, however, praised "the speed with which China detected the outbreak, isolated the virus, sequenced the genome and shared it" with the world.

Wuhan authorities say the first patient later found to be suffering from "pneumonia of an unknown cause" was hospitalized on December 12, 2019. Wuhan's Health Commission first acknowledged the outbreak publicly on December 30, and Chinese authorities alerted WHO of the cases the next day. From January 1 to January 19, 2020, however, Wuhan authorities publicly downplayed the outbreak. They asserted "no clear evidence of person-toperson transmission," and from January 11-16 reported a constant 41 known 2019-nCoV infections. On January 1, Wuhan authorities announced they were investigating eight individuals for spreading "inaccurate information." Those individuals were later revealed to be medical workers who had sought to warn others about the outbreak.

On January 20, China's leaders pivoted, abruptly elevating containment of the virus to an urgent national priority. That day, state media quoted a renowned doctor as saying for the first time that the virus could be transmitted from person-toperson. China's National Health Commission declared "novel coronavirus-caused pneumonia" a statutory infectious disease under China's Law on the Prevention and Treatment of Infectious Diseases, triggering prevention and control measures.

On January 23, the day before Lunar New Year's Eve, 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 Hubei Province rapidly instituted their own travel restrictions, putting much of the province of 59 million people in a de facto lockdown. Both the scale and the speed of the lockdown are unprecedented globally. On January 27, Wuhan Mayor Zhou Xianwang 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 spread of the virus. The mayor also acknowledged that he had not disclosed information "in a timely manner" and implicitly blamed China's central government. He said Chinese law restricted Wuhan from sharing information without permission from higher-ups.

China's Premier Li Keqiang is leading a new Communist Party committee on controlling the virus. Hubei hospitals are struggling with shortages of staff and supplies; they are reportedly unable to screen everyone seeking care. Across China, schools and workplaces have delayed reopening after the holiday to limit person-to-person transmission. China has suspended all outbound overseas group tourism. Hong Kong, a Special Administrative Region of China, has announced a compulsory 14-day quarantine for all arrivals from mainland China. Several of China's neighbors, including Mongolia, Nepal, North Korea, Russia, Tajikistan, and Vietnam, have ordered partial closure of their land borders with China. Many international airlines have reduced or suspended service to China.

Global Cases and WHO Response

Following the emergence of a disease that might be deemed a Public Health Emergency of International Concern (PHEIC), WHO convenes an advisory group, known as the IHR Emergency Committee, to review data and make recommendations to the WHO Director-General related to the disease. On January 22, WHO convened a meeting of its 15-member IHR Emergency Committee for Pneumonia due to the Novel Coronavirus 2019-nCoV, which includes a CDC representative, Dr. Martin Cetron. The committee agreed on the "urgency of the situation" and said it would reconvene on January 30, at which time the committee concluded the outbreak had become a PHEIC. The same day, WHO Director-General Tedros issued a PHEIC declaration, prompting countries to take specific actions, including heightening surveillance and reporting of the disease. In the case of the United States, Department of Health and Human Services (HHS) Secretary Alex Azar declared "a public health emergency for the entire United States to aid the nation's healthcare community in responding to 2019 novel coronavirus." He also announced the department would make available up to \$105 million from the Infectious Disease Rapid Response Reserve Fund for domestic and international 2019-nCoV responses. A PHEIC declaration can also prompt countries to provide additional resources for global and domestic response and enable WHO to access certain emergency funding, such as from the United Nations (U.N.) Central Emergency Response Fund (CERF) and the World Bank Pandemic Emergency Financing Facility (PEF).

Following a January 28, 2020, meeting in Beijing between Chinese President Xi Jinping and the WHO Director-General, China accepted WHO's offer to send an international expert team to China to work with Chinese counterparts on control of the 2019-nCoV outbreak. China says it is working with WHO on "the relevant arrangements" for the China-WHO joint expert group.

U.S. Response

On January 29, President Donald Trump announced the formation of the President's Coronavirus Task Force, led by HHS and coordinated by the National Security Council. The Department of Homeland Security has issued instructions for quarantining U.S. citizens and permanent residents returning to the United States after stays in China, and barring the entry of other foreigners with recent travel to China. China has criticized those measures and called on the United States to "react in an objective, fair, calm and evidence-based manner, rather than excessively." CDC experts will be part of the China-WHO joint expert group on 2019-nCoV.

The State Department has evacuated nonemergency U.S. personnel and their family members and private U.S. citizens from Wuhan. It has also authorized the voluntary departure of nonemergency personnel and family members of U.S. government employees from other posts in China, and ordered the mandatory evacuation of family members under age 21. The Department has issued a Level 4 ("Do Not Travel") advisory for China.

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