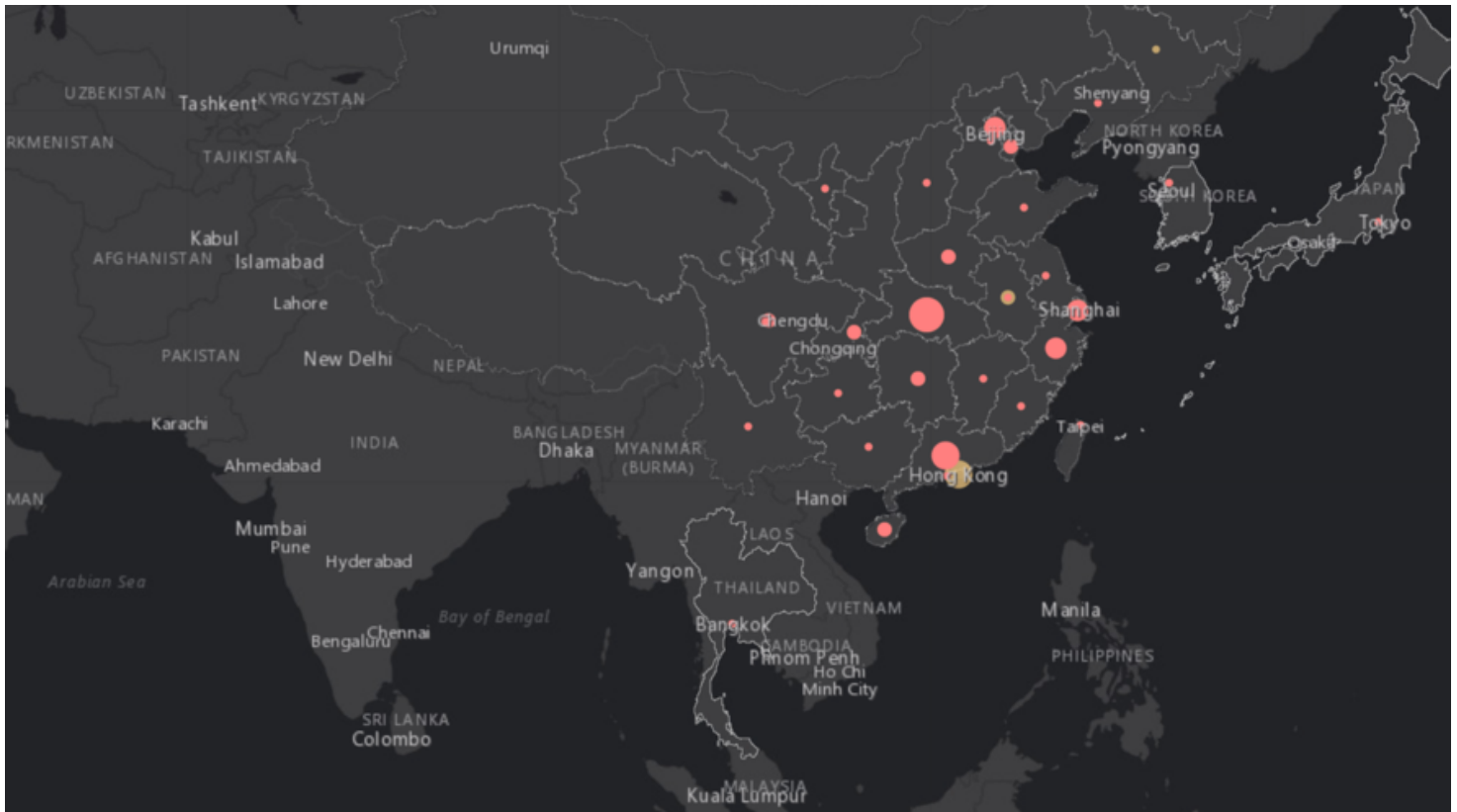


Tracking the spread of deadly new coronavirus with a map

By PBS NewsHour, adapted by Newsela staff on 01.29.20

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This map created by Johns Hopkins University's Center for Systems Science and Engineering on January 22 tracks the spread and location of the deadly novel coronavirus. Map: John Hopkins University Center for Systems Science and Engineering

A map created by U.S. researchers tracks the spread of a virus in China in real-time. The virus is a new strain in the coronavirus family of viruses. It has sickened almost 6,000 people and resulted in 132 deaths as of January 29. It is linked to an outbreak of pneumonia.

Global health officials are concerned about its potential to spread around the world. They are closely tracking the virus. Researchers at Johns Hopkins University's Center for Systems Science and Engineering launched the map that tracks the virus on January 22. The researchers suggest that the virus may be spreading faster than sources have reported.

A Map To Track The Virus

Lauren Gardner is a professor in civil and systems engineering at Johns Hopkins University. She led the team that produced the map tracking the virus.

"We think it is important for the public to have an understanding of the situation as it unfolds, with transparent data sources," Gardner said.

The map shows the official global number of people that have died from the virus. It also plots out a higher infection rate. It shows that the virus has made 555 people sick as of January 22.

Centered In Wuhan, China

The outbreak is centered in Wuhan, China, where the virus was traced back to a market that sold live animals. Outside of China, cases have been reported in the U.S., Taiwan, Thailand, South Korea and Japan, the Centers for Disease Control and Prevention (CDC) reported this week. The CDC is the primary public health institute in the United States.

The virus spreads through water droplets that spew into the air when an infected person sneezes or coughs. Those droplets spread the virus when they are inhaled through a person's nose or mouth or wiped into their eyes, according to Daniel Kuritzkes. Kuritzkes leads the branch of infectious diseases at a hospital in Boston, Massachusetts. The coronavirus is infectious because it can spread from person to person through the environment.

Gardner said the map is a very simple collection of reported cases gathered from local sources.

Making The Map

To make the map, Gardner and her team gathered and combed through local Chinese media reports. Those reports were then translated into English and their locations were mapped. As new reports come in, the map is updated, Gardner said.

Since there is much the public health community still does not know about novel coronavirus, she said it is hard to keep the map up to date. People may not know they are infected until they show symptoms. Another important thing to keep in mind is that novel coronavirus resembles the common flu. As a result, many people may not realize they have it.

"There's not a lot of other global cases reported yet," Gardner said. However, global cases will increase because people travel.

Lunar New Year: A Dangerous Time

The virus happened at a dangerous time. This week, millions of people are embarking on international travel, particularly in and out of East Asia, for Lunar New Year celebrations, which is the world's largest annual human migration.

In China, authorities have taken extreme measures to prevent further spread of the virus. They suspended train and airplane travel from Wuhan along with bus, subway and ferry travel, a Chinese news agency reported. These measures effectively quarantine the city, isolating it from the rest of China.

"Public transport and other mass gatherings should be avoided," said World Health Organization (WHO) Director-General Tedros Adhanom.

Two Cases In The U.S.

As of January 24, there were two reported cases of the coronavirus in the U.S. One person in Washington state has been infected with the virus after traveling to Wuhan. A woman in Chicago, Illinois, was also diagnosed with the virus after traveling back to the U.S. from Wuhan.

The CDC increased its travel warning to U.S. residents. Great Britain also issued an advisory against all, except essential travel to Wuhan. A travel advisory provides information to citizens about the safety of traveling to certain areas of the world.

As the outbreak spreads beyond China, Gardner said her team will rely on data from WHO and CDC to keep their map up to date.

Quiz

1 Which section from the article BEST explains why novel coronavirus might be difficult to detect?

- (A) "A Map To Track The Virus"
- (B) "Centered In Wuhan, China"
- (C) "Making The Map"
- (D) "Two Cases In The U.S."

2 Read the following paragraph from the section "Lunar New Year: A Dangerous Time."

The virus happened at a dangerous time. This week, millions of people are embarking on international travel, particularly in and out of East Asia, for Lunar New Year celebrations, which is the world's largest annual human migration.

Which conclusion is BEST supported by the paragraph above?

- (A) It is probable that many people traveling for Lunar New Year celebrations will unknowingly contract coronavirus.
- (B) The Chinese government should not allow anyone to travel into or out of China until the novel coronavirus outbreak is fully contained.
- (C) More people than usual will travel to places in East Asia other than China for Lunar New Year celebrations this year.
- (D) It is irresponsible for people to travel to China for Lunar New Year during an active outbreak of novel coronavirus.

3 According to the article, WHY did Lauren Gardner's team develop their map of the novel coronavirus outbreak?

- (A) to contradict official Chinese reports that the virus is under control and not a threat to international health
- (B) to provide the public with the most reliable, up-to-date information about the spread of the virus
- (C) to demonstrate how quickly novel coronavirus can spread through air travel
- (D) to understand the environmental factors that contribute to the spread of novel coronavirus

4 How has the novel coronavirus outbreak affected the city of Wuhan?

- (A) It has forced many people to flee the city and leave behind their things in order to avoid the virus.
- (B) It has caused the city to cancel and prohibit all Lunar New Year gatherings and celebrations.
- (C) It has infected or killed many residents and caused the government to quarantine the city.
- (D) It has bankrupted most of the animal and meat vendors in the city due to fear of contamination.