**Abstract:**

In early of December 2019, a cluster of patients that presented with an unidentified form of viral pneumonia, caused by a newly identified β-coronavirus, with shared history of visiting the Huanan seafood market in Wuhan, China. The coronavirus was initially named as the 2019-novel coronavirus (2019-nCoV) on 12 January 2020 by World Health Organization (WHO). Later **on February 11, 2020 the WHO renamed the novel coronavirus as COVID-19.** As of April 20, 2020, COVID-19 has affected more than 2.3 million patients with about 170 thousand deaths in 200 countries/regions. Thus, it has become a major global health concern. The global impact of this new epidemic is yet uncertain; however, there is no doubt that has collapsed the entire world. This study briefly depicts the transmission of the COVID-19 presented through some brief description and a transmission graph.

**Introduction:**

Since mid-December of 2019, coronavirus disease 2019 (COVID-19) has been spreading from Wuhan, China. Soon it was rapidly spread across China and many other countries [[2]](https://www.sciencedirect.com/science/article/pii/S0924857920300674" \l "bib0002), [[3]](https://www.sciencedirect.com/science/article/pii/S0924857920300674" \l "bib0003), [[4]](https://www.sciencedirect.com/science/article/pii/S0924857920300674" \l "bib0004), [[5]](https://www.sciencedirect.com/science/article/pii/S0924857920300674" \l "bib0005), [[6]](https://www.sciencedirect.com/science/article/pii/S0924857920300674" \l "bib0006), [[7]](https://www.sciencedirect.com/science/article/pii/S0924857920300674" \l "bib0007), [[8]](https://www.sciencedirect.com/science/article/pii/S0924857920300674" \l "bib0008). On 11 February 2020, the World Health Organization (WHO) announced a new name for the epidemic disease caused by 2019-nCoV: coronavirus disease (COVID-19). Regarding the virus itself, the International Committee on Taxonomy of Viruses has renamed the previously provisionally named 2019-nCoV as severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) [[3]](https://www.sciencedirect.com/science/article/pii/S0924857920300674#bib0003).

Although early studies reported a link between a single local fish and wild animal market and most cases of infection, indicating possible animal-to-human transmission, studies have increasingly demonstrated human-to-human transmission of SARS-CoV-2 through droplets or direct contact [[2](https://www.sciencedirect.com/science/article/pii/S0924857920300674#bib0002),[[8]](https://www.sciencedirect.com/science/article/pii/S0924857920300674#bib0008), [[9]](https://www.sciencedirect.com/science/article/pii/S0924857920300674" \l "bib0009), [[10]](https://www.sciencedirect.com/science/article/pii/S0924857920300674" \l "bib0010).

**Transmission Stories of COVID-19:**

Since December 2019, an increasing number of cases of novel coronavirus have been identified in Wuhan, a large city of 11 million people in central China.[1-3](https://www.nejm.org/doi/10.1056/NEJMoa2001316) [1078].

Soon the coronavirus was transmitted from Wuhan, China to cities outside mainland China via air travel between 25 December 2019 and 19 January 2020 [198]. By January 13, 2002 five other relatives loved in Anyang, China were infected by one of their relatives of lived and got infected in Wuhan [191].

**On January 11, 2020 China reports 1st novel coronavirus death. January 23, 2020 China imposes strict lockdown in Wuhan.** Japan, South Korea and Thailand also report their first cases on January 20, 2020. **Jan. 30, 2020: WHO declares global health emergency.**

On Jan. 30, the Centers for Disease Control and Prevention (CDC) had confirmed the**first case of person to person transmission in the U.S.:** the husband of the Chicago, Illinois case who had returned from Wuhan, China on Jan. 13 and who tested positive for the virus on Jan. 24). **Feb. 26, 2020: 1st case of suspected local transmission in United States.** The first COVID-19 death is reported in Washington state, after a man with no travel history to China dies on Feb. 28 at Evergreen Health Medical Center in Kirkland, WA. **March 13, 2020: Trump declares national emergency. March 17, 2020: Coronavirus now present in all 50 states**

The CDC confirms the first case of COVID-19 in a patient in California [with no travel history to an outbreak area](https://abcnews.go.com/International/us-military-coronavirus-patient-cases-surge-italy-south/story?id=69225004), nor contact with anyone diagnosed with the virus. It's suspected to be the first instance of local transmission in the United States. Oregon, Washington and New York soon report their own cases of possible community transmission.

Based on virus genome sequencing results and evolutionary analysis, it was inferred that the coronavirus spreads mostly through direct contact with infected people and with infected large respiratory droplets, which is about 0.0002 inches in diameter. The hefty droplets fly from a person's mouth when they cough or sneeze, falling to the ground by the time they’ve traveled only a few feet. [x222]

The unknown acute respiratory tract infection of coronavirus broke out first in Wuhan, China, since 12 December 2019. On December 29, 2019, the first 4 cases were reported. These initial coronavirus infected people were linked to the Huanan Seafood Wholesale Market in Southern China.

They were identified by local hospitals using a surveillance mechanism for “pneumonia of unknown etiology” [1078]. Several studies suggested that bat might be suspected as natural host of the coronavirus origin that might be transmitted from bats via unknown intermediate hosts to infect humans [200, [9](https://link.springer.com/article/10.1186/s40779-020-00240-0#ref-CR9), [10](https://link.springer.com/article/10.1186/s40779-020-00240-0#ref-CR10)].

On January 19, 2020, a 35-year-old man presented to an urgent care clinic in Snohomish County, Washington, with a 4-day history of cough and subjective fever. On checking into the clinic, the patient put on a mask in the waiting room. After waiting approximately 20 minutes, he was taken into an examination room and underwent evaluation by a provider. He disclosed that he had returned to Kirkland, WA, United State on January 15 after traveling to visit family in Wuhan, China. The patient stated that he had seen a health alert from the U.S. Centers for Disease Control and Prevention (CDC) about the novel coronavirus outbreak in China and, because of his symptoms and recent travel, decided to see a health care provider. Further, the first case of human-to-human transmission of COVID-19 was reported in the US on January 21, 2020

On 20 January 2020, National IHR Focal Point (NFP) for Republic of Korea reported the first case of novel coronavirus in the Republic of Korea. The case is a 35-year-old female, Chinese national, residing in Wuhan, Hubei province in China.

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[x222] <https://www.livescience.com/covid19-coronavirus-transmission-through-speech.html>

# First Case of 2019 Novel Coronavirus in the United States

<https://www.nejm.org/doi/full/10.1056/NEJMoa2001191>

Wuhan, China to Snohomish, WA, January 19, 2020

<https://www.sciencedirect.com/science/article/pii/S0896841120300469>