

4.2.1 The first reported cases

In December 2019, a number of patients with pneumonia of unknown origin were admitted to hospitals in Wuhan, China. Later tests on a cohort of patients admitted between 16 December and 2 January found 41 with COVID-19. On 24 December, doctors concerned about a pneumonia patient not responding to the usual treatments sent a sample to a private laboratory for testing. Clinicians noticed that a number of patients – although not all – had attended the Huanan Seafood Market in Wuhan. For example, in a family group, a woman who was treated on 26 December had attended the seafood market, while her husband and son, whose chest scans were conducted shortly thereafter and showed similar patterns, had not. While the market was the initial focus of investigation, two later studies^(29, 30) of the early laboratory-confirmed cases linked only 55–66% of cases to exposures there, suggesting that the market may have been a site of amplification of the virus rather than its origin. The evidence of human-to-human transmission of a new pathogen was not definitive in December 2019 but by the end of the month there were signs of it being likely.

On 30 December 2019, the *Wuhan Municipal Health Commission* issued two urgent notices to hospital networks in the city about cases of pneumonia of unknown origin linked to the Huanan Seafood Market. The market was closed and cleaned between 31 December and 1 January. On the morning of 31 December, Chinese business publication *Finance Sina* reported on one of the notices issued by the Wuhan Municipal Health Commission. This report was replicated and picked up by several disease surveillance systems, including the Centers for Disease Control, Taiwan, China, which in turn contacted WHO via email through the IHR (2005) reporting system, requesting further information. A machine translation of the *Finance Sina* report was published on the website of the Program for Monitoring Emerging Diseases (ProMED). This report was picked up by the Epidemic Intelligence from Open Sources (EIOS) system and alerted WHO Headquarters to the outbreak. Later in the afternoon of 31 December, the Wuhan Municipal Health Commission issued a public bulletin describing 27 cases of pneumonia of unknown origin. The WHO Country Office in China took note of the bulletin shortly after it was posted and immediately informed the IHR focal point in the WHO Western Pacific Regional Office (WPRO).

The Wuhan Institute of Virology sequenced almost the entire genome of the virus on 2 January 2020. On 5 January 2020, the complete genetic sequence was submitted to the open-access website GenBank from a sample sequenced by the Shanghai Public Health Centre and this was made public on 11 January⁽³¹⁾, and further sequences were uploaded by the China CDC. The China CDC successfully isolated the virus by 7 January 2020. Chinese scientists developed a PCR testing reagent for the virus by 10 January 2020⁽²⁹⁾.

One of the urgent notices issued on 30 December 2019 by the Wuhan Municipal Health Commission.

武汉市卫生健康委员会

市卫生健康委关于报送不明原因肺炎救治情况的紧急通知

各有关医疗机构:

根据上级紧急通知,我市华南海鲜市场陆续出现不明原因肺炎病人。为做好应对工作,请各单位立即调查统计近一周接诊过的具有类似特点的不明原因肺炎病人,于今日下午4点前将统计表(盖章扫描件)报送至市卫健委医政医管处邮箱。

附件:相关信息上报表(表格、图)

