



Coronavirus: A Public Health Emergency

Summary

The coronavirus was declared a public health emergency on 30 January 2020 by the World Health Organisation (WHO), only the sixth such emergency since 2009. The declaration followed reports on 31 December 2019 of an unknown virus causing a number of pneumonia cases in Wuhan, a city in eastern China. The virus was later identified as a new strain of coronavirus (Cov). The WHO named this new strain: a novel coronavirus (2019-nCoV). In declaring the emergency, the WHO also provided advice about the virus but has since expressed concern about the spread, and impact, of disinformation surrounding the outbreak.

The initial source of 2019-nCoV remains unknown. However, earlier this month the National Health Commission China provided information to the WHO that linked the outbreak to a seafood market in Wuhan. The market was closed for cleaning. However, the virus had already spread. Human-to-human transmission of 2019-nCoV has since been proven, with cases confirmed outside of China. The WHO has been tracking the spread of the disease. Data reported by 4 February 2020 showed:

- Globally, 20,630 cases have been confirmed.
- In China, there have been: 20,471 confirmed cases; 2,788 severe cases; and 425 deaths.
- Outside of China, there have been 159 confirmed cases across 23 countries, with one death (in the Philippines).
- In the UK, 416 tests for the disease have been carried out, with two confirmed positive.

After initially delaying the decision, on 30 January 2020, the WHO declared that 2019-nCoV had met the criteria for a public health emergency of international concern. Explaining the decision, the director-general of the WHO, Tedros Adhanom Ghebreyesus, referred to fears for countries with weaker health systems, rather than concerns about what is happening in China. Currently, there is no approved vaccine or antiviral treatment available.

In response to the WHO's decision, the UK's four chief medical officers recommended the UK raise the risk level from low to moderate. The Government has also taken a range of actions aimed at preventing the spread of the disease.

Since the outbreak, various organisations and commentators have raised concerns about the spread of disinformation relating to 2019-nCoV. The WHO has labelled the issue an 'infodemic' and has acted to address the issue. Social media companies have also responded.

Nicole Winchester | 5 February 2020

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What is the Coronavirus?

On 31 December 2019, the World Health Organisation's (WHO) China office received reports of an unknown virus causing a number of pneumonia cases in Wuhan, a city in eastern China with a population of 11 million.¹ The virus has since been identified as a strain of coronavirus (CoV), a large family of zoonotic viruses.² The strain currently causing concern is a new type, which had not previously been identified in humans. The WHO named this new strain: a novel coronavirus (2019-nCoV).³

A zoonotic disease (or a zoonosis) can be transmitted naturally from animals with a backbone to humans. They may be bacterial, viral or parasitic.

(Source: WHO, '[Zoonoses](#)', accessed 31 January 2020)

Both the NHS and WHO have confirmed that 2019-nCoV is a respiratory disease.⁴ However, as a new disease, how 2019-nCoV spreads has not been confirmed.⁵ Previously, similar viruses have been transmitted by air through cough droplets. Common signs of the virus in humans include respiratory symptoms, such as fever, cough, shortness of breath and breathing difficulties.⁶ In more severe cases, the infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death. Currently, there is no approved vaccine or antiviral treatment available.⁷

Similarities have been identified between 2019-nCoV and other strains of coronavirus, such as Middle East Respiratory Syndrome (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV).⁸ Both of these strains are known to infect both upper and lower airways and cause severe respiratory illness and other complications in humans.⁹

Where Did 2019-nCoV Come From and How Far Has it Spread?

The initial source of 2019-nCoV remains unknown.¹⁰ However, earlier this month the National Health Commission China provided information to the WHO which linked the outbreak to a seafood market in Wuhan.¹¹ Various press reports have stated that wild animals—including marmots, birds, rabbits, bats and snakes—were traded illegally from this market.¹² It is thought that the first people infected,

¹ World Health Organisation, [Novel Coronavirus \(2019-nCoV\): Situation Report 1](#), 21 January 2020, p 1; and *Guardian*, '[Wuhan: the City of 11 Million at the Heart of the Coronavirus Outbreak](#)', 24 January 2020.

² World Health Organisation, '[Coronavirus](#)', accessed 31 January 2020.

³ *ibid.*

⁴ NHS, '[Coronavirus \(2019-nCoV\)](#)', 3 February 2020; and World Health Organisation, '[Q&A on Coronaviruses: How Does This Virus Spread?](#)', accessed 4 February 2020.

⁵ NHS, '[Coronavirus \(2019-nCoV\)](#)', 3 February 2020.

⁶ World Health Organisation, '[Coronavirus](#)', accessed 31 January 2020.

⁷ World Health Organisation, '[Q&A on Coronaviruses: Are There Any Specific Medicines to Prevent or Treat 2019-nCoV?](#)', accessed 4 February 2020.

⁸ World Health Organisation, '[Coronavirus](#)', accessed 31 January 2020.

⁹ *ibid.*; and Haitao Guo et al, '[Snakes Could be the Original Source of the New Coronavirus Outbreak in China](#)', *The Conversation*, 22 January 2020.

¹⁰ World Health Organisation, [Novel Coronavirus \(2019-nCoV\): Situation Report 3](#), 23 January 2020, p 1.

¹¹ World Health Organisation, [Novel Coronavirus \(2019-nCoV\): Situation Report 1](#), 21 January 2020, p 1.

¹² Phoebe Weston and Michael Standaert, '[Make Ban on Chinese Wildlife Markets Permanent, Says Environment Expert](#)', *Guardian*, 30 January 2020; Matt Reynolds, '[How China's Coronavirus Outbreak Started, Explained](#)', *Wired*, 5 February 2020; and Steven Lee Myers, '[China's Omnivorous Markets Are in the Eye of a Lethal Outbreak Once Again](#)', *New York Times* (£), 28 January 2020.

primarily stallholders from the market, contracted 2019-nCoV from these animals. Recent research supports this theory, linking both snakes and bats to the new strain of the disease.¹³ In addition, there has been no evidence of a coronavirus infecting aquatic animals, with researchers ruling out the fish sold at the market as the source of the disease.¹⁴

Chinese authorities closed the Huanan seafood wholesale market on 1 January 2020 for cleaning and disinfection, with inspections also taking place at other markets.¹⁵ However, by this point, 2019-nCoV had already started to spread beyond the market itself. The disease has since been transmitted between humans, with medical staff treating patients with the virus becoming infected.¹⁶

The disease has also spread internationally. Despite the Chinese government placing Wuhan and nearby cities (with a combined population of over 30 million people) under a de-facto quarantine, human-to-human transmission of the disease has been confirmed in several other countries, including Taiwan, Germany, Vietnam, Japan and the UK.¹⁷ Some of these cases involved patients who have not been to China, providing further evidence of human-to-human transmission.

What Has the Impact Been So Far?

International

The WHO has been tracking the spread of the disease, publishing information on the number of those infected and the number of deaths in a series of situation reports.¹⁸ Data reported by 4 February 2020 stated:¹⁹

- Globally, 20,630 cases have been confirmed.
- In China, there have been: 20,471 confirmed cases; 2,788 severe cases; and 425 deaths.
- Outside of China, there have been 159 confirmed cases across 23 countries, with one death (in the Philippines).

UK

In the UK, a total of 416 tests for the virus had been carried out as of 4 February 2020.²⁰ Of these, two were confirmed positive. The two patients who tested positive are members of the same family

¹³ Wei Wang et al, '[Homologous Recombination Within the Spike Glycoprotein of the New Identified Coronavirus may Boost Cross-Species Transmission from Snake to Human](#)', *Journal of Medical Virology*, 22 January 2020.

¹⁴ Haitao Guo et al, '[Snakes Could be the Original Source of the New Coronavirus Outbreak in China](#)', *The Conversation*, 22 January 2020.

¹⁵ World Health Organisation, '[Novel Coronavirus \(2019-nCoV\): Situation Report 1](#)', 21 January 2020, p 3.

¹⁶ World Health Organisation Western Pacific, '[Official Twitter Account](#)', 21 January 2020.

¹⁷ World Health Organisation, '[Novel Coronavirus \(2019-nCoV\): Situation Report 14](#)', 3 February 2020; and Matt Reynolds, '[How China's Coronavirus Outbreak Started, Explained](#)', *Wired*, 5 February 2020.

¹⁸ World Health Organisation, '[Novel Coronavirus \(2019-nCoV\) Situation Reports](#)', accessed 31 January 2020.

¹⁹ World Health Organisation, '[Novel Coronavirus \(2019-nCoV\): Situation Report 15](#)', 4 February 2020, p 1.

²⁰ Department of Health and Social Care and Public Health England, '[Coronavirus: Latest Information and Advice](#)', 5 February 2020.

and have been receiving specialist NHS care.²¹

Case Fatality Rate

When measuring the deadliness of an infection, epidemiologists use the case-fatality rate (CFR) as a measure.²² However, the CFR is hard to establish early on in an epidemic as many patients have not yet recovered and may not recover. Recent estimates in China are that 21% of patients get severely ill and 3% die. The first 17 people who died were aged 48 to 89 years, with an average age of 73. Many of them had underlying health conditions. Generally, coronavirus can cause more severe symptoms in people with weakened immune systems, older people, and those with long term conditions, such as: diabetes; cancer; and chronic lung disease.²³

What Action Has Been Taken to Combat the Spread of the Virus?

World Health Organisation

After initially delaying the decision, on 30 January 2020, the WHO director-general and the emergency committee declared 2019-nCoV had met the criteria for a public health emergency of international concern.²⁴ In making this assessment, the WHO sounded its highest level of alarm, a step reserved for events that pose a risk to multiple countries and require a coordinated international response.²⁵

As part of the announcement, the WHO praised the actions taken by China in relation to the disease.²⁶ It also proposed advice—to be issued as temporary recommendations²⁷—respectively to: China; all countries; the global community; and itself.²⁸

Definition of a Public Health Emergency of International Concern

The term is defined as “an extraordinary event” which:

- constitutes a public health risk to other states through international spread of the disease; and
- potentially requires a coordinated international response.

(WHO, [International Health Regulations](#), 2005, p 9)

²¹ Public Health England, '[Novel Coronavirus \(2019-nCoV\): What You Need to Know](#)', Public Health Matters Blog, 23 January 2020.

²² House of Commons Library, '[Coronavirus: What Do We Know So Far?](#)', 28 January 2020.

²³ Public Health England, '[Novel Coronavirus \(2019-nCoV\)—What You Need to Know](#)', Public Health Matters Blog, 23 January 2020.

²⁴ World Health Organisation, '[Statement on the Second Meeting of the International Health Regulations \(2005\) Emergency Committee Regarding the Outbreak of Novel Coronavirus \(2019-nCoV\)](#)', 30 January 2020.

²⁵ There have only been five declarations of international public health emergencies since 2009: swine flu pandemic in 2009; polio outbreak in 2014; Ebola outbreak in western Africa in 2014; zika outbreak in 2015; and Ebola outbreak in the Democratic Republic of the Congo in 2019 (Nicola Davis, '[Coronavirus: What Other Public Health Emergencies has the WHO Declared?](#)', *Guardian*, 30 January 2020).

²⁶ World Health Organisation, '[Statement on the Second Meeting of the International Health Regulations \(2005\) Emergency Committee Regarding the Outbreak of Novel Coronavirus \(2019-nCoV\)](#)', 30 January 2020.

²⁷ Temporary recommendations are defined by the WHO as “non-binding advice issued by the WHO pursuant to article 15 for application on a time-limited, risk-specific basis, in response to a public health emergency of international concern, so as to prevent or reduce the international spread of disease and minimise the interference with international traffic (World Health Organisation, [International Health Regulations](#), 2005, p 10).

²⁸ World Health Organisation, '[Statement on the Second Meeting of the International Health Regulations \(2005\) Emergency Committee Regarding the Outbreak of Novel Coronavirus \(2019-nCoV\)](#)', 30 January 2020.

Explaining the decision, the director-general of the WHO, Tedros Adhanom Ghebreyesus, stated:

The main reason for this declaration is not because of what is happening in China, but because of what is happening in other countries. Our greatest concern is the potential for the virus to spread to countries with weaker health systems, and which are ill-prepared to deal with it.²⁹

Public health experts have welcomed the move. Mark Woolhouse, professor of infectious disease epidemiology at the University of Edinburgh, labelled the decision “entirely appropriate and proportionate”.³⁰ However, he also stated that in some respects, the declaration changes little, with the UK and other countries having already started their preparations should they have an epidemic. Dr Nathalie MacDermott, National Institute for Health Research academic clinical lecturer, agreed that it may not change anything directly. However, she also argued that “it heightens awareness of the situation throughout the world and opens up potential financial support through donor funds which are restricted only to emergencies”.

Jeremy Farrar, the director of Wellcome, a London-based medical charity, also supported the move. However, he has argued that the international community must step up to “make sure no one is left behind”, with all interventions, including public health measures, diagnostics, treatments and vaccines made available to everyone.³¹ The need for a better understanding of how the virus is behaving has been highlighted by Jonathan Ball, professor of molecular virology at the University of Nottingham, who contended a “concerted and increased international effort is the best way to achieve this”.³²

UK Government

In response to the WHO’s decision, the UK’s four chief medical officers recommended the UK raise the risk level from low to moderate.³³ Explaining their decision, they argued it was prudent for the government to escalate planning and preparation in case of a more widespread outbreak. However, they stated that this did not mean that the risk to individuals in the UK had changed.

Detailing the actions taken in response to the outbreak so far, the Department of Health and Social Care and Public Health England stated that the UK has:³⁴

- introduced advanced monitoring at airports with direct flights from China;
- established a team of public health experts at Heathrow to support anyone travelling in from China who feels unwell; and
- issued clinical guidance for detection and diagnosis of 2019-nCoV, as well as guidance on infection prevention and control.

²⁹ Clive Cookson, ‘[WHO Declares International Emergency Over Coronavirus](#)’, *Financial Times* (£), 31 January 2020.

³⁰ Science Media Centre, ‘[Expert Reaction to WHO’s Decision to Declare the Wuhan Coronavirus Outbreak a PHEIC \(Public Health Emergency of International Concern\)](#)’, 30 January 2020.

³¹ Clive Cookson, ‘[WHO Declares International Emergency Over Coronavirus](#)’, *Financial Times* (£), 31 January 2020.

³² Science Media Centre, ‘[Expert Reaction to WHO’s Decision to Declare the Wuhan Coronavirus Outbreak a PHEIC \(Public Health Emergency of International Concern\)](#)’, 30 January 2020.

³³ Department of Health and Social Care, ‘[Statement from the Four UK Chief Medical Officers on Novel Coronavirus](#)’, 30 January 2020.

³⁴ Department of Health and Social Care and Public Health England, ‘[Coronavirus: Latest Information and Advice](#)’, 5 February 2020.

The chief medical officer in England, medical director of Public Health England and medical director at NHS England and Improvement have also issued advice to frontline staff via a central alerting system to increase awareness of the situation and any actions which should be taken.³⁵ In addition, a government-funded public information campaign has been launched to advise the public on how to slow the spread of coronavirus and reduce the impact on NHS services.³⁶

The Government has announced a donation of £20 million to help speed up the development of a vaccine for the disease.³⁷ The Government made the donation to the Coalition for Epidemic Preparedness Innovations (CEPI), a global body which aims to fast-track a vaccine within six to eight months. While CEPI chief executive Dr Richard Hatchett welcomed the donation, he also warned that the timescale is “extremely ambitious” and that he could not guarantee success. The Government has also stated that it is in initial stages of talks between the National Institute for Health Research and UK Research and Innovation regarding plans to run a rapid research call to support the global response to 2019-nCoV.

In terms of travel, the Foreign and Commonwealth Office (FCO) has advised against all travel to Hubei province (where the city of Wuhan is located).³⁸ It has also advised against all but essential travel to the rest of mainland China. In addition, the Government has arranged transport for UK citizens who were in Wuhan to return to the UK where they have been quarantined for two weeks.³⁹

Is Disinformation a Problem in Relation to the Outbreak?

Since the outbreak of the disease, various organisations and commentators have raised concerns about the spread of disinformation relating to 2019-nCoV.⁴⁰ In general, much of the disinformation on the topic has focused on: false cures (for example, drinking bleach); the spread of the disease (that it is a bioweapon); and speculation as to its origin (one suggested cause is 5G).⁴¹ The scale of the problem is such that the WHO has labelled it an ‘infodemic’: an over-abundance of information that makes it hard for people to find trustworthy sources and reliable guidance.⁴²

An example of the issues disinformation has caused can be seen in Malaysia. Here a claim that was made on social media that the virus turns those infected into the walking dead gained so much traction that it had to be addressed by Dzulkefly Ahmad, the country’s minister of health.⁴³ The scale of the problem has also led to the Malaysian communications and multimedia commission debunking

³⁵ Department of Health and Social Care and Public Health England, ‘[Coronavirus: Latest Information and Advice](#)’, 5 February 2020.

³⁶ Department of Health and Social Care, ‘[Coronavirus Public Information Campaign Launched Across the UK](#)’, 3 February 2020.

³⁷ Department of Health and Social Care, ‘[£20 million Announced to Fund Vaccines for Coronavirus and Other Infectious Diseases](#)’, 3 February 2020.

³⁸ Foreign and Commonwealth Office, ‘[Foreign Travel Advice: China](#)’, 4 February 2020.

³⁹ Foreign and Commonwealth Office, ‘[British Nationals Depart Wuhan on Flight to the UK](#)’, 31 January 2020; and BBC News, ‘[Coronavirus: More Britons Evacuated from Wuhan on French Flight](#)’, 2 February 2020.

⁴⁰ BBC Trending, ‘[China Coronavirus: Misinformation Spreads Online About Origin and Scale](#)’, 30 January 2020; and Julia Carrie Wong, ‘[As the Coronavirus Spreads, Misinformation is Spreading Even Faster](#)’, *Guardian*, 1 February 2020.

⁴¹ Josh Taylor, ‘[Bat Soup, Dodgy Cures and ‘Diseasology’: the Spread of Coronavirus Misinformation](#)’, *Guardian*, 31 January 2020.

⁴² World Health Organisation, *Novel Coronavirus (2019-nCoV): Situation Report 13*, 2 February 2020, p 2.

⁴³ Channel News Asia, ‘[Coronavirus Won’t Turn You into a ‘Zombie’, Says Malaysia](#)’, 2 February 2020.

false claims through its Twitter feed on a daily basis. Similar issues have been experienced in the US, with various reports from California of public officials having to respond to reports of disinformation.⁴⁴

Commenting on the issue, Dzulkefly Ahmad stated that the spread of disinformation surrounding coronavirus was a “more critical” issue than the virus itself.⁴⁵ This problem has also been raised by Amesh Adalja, a senior scholar at the Johns Hopkins University Centre for Health Security. Ms Adalja has argued that disinformation can mean officials spend time on disinformation, when they could be focusing on other issues. She points to the 2014 Ebola outbreak, stating that misplaced fear meant that public health officials spent “more time dispelling rumours than dealing with the problem at hand”.⁴⁶

In response to the issue, the WHO has stated that its technical risk communication and social media teams have been tracking and responding to myths and rumours.⁴⁷ Working 24 hours a day, the teams have focused on identifying the most prevalent rumours and those which can potentially harm the public’s health, for example, false prevention measures or cures. The teams have then used evidence-based information to refute such claims, with myth-busters available on its social media channels across a variety of platforms.

Social media firms have also set out actions they are taking to address the spread of disinformation. Facebook has said it will use existing fact-checkers to review and expose misinformation.⁴⁸ It also stated that it would notify individuals who had shared information flagged as false. Twitter has also acted, launching a prompt which encourages users to visit official channels (such as the WHO and the Department of Health and Social Care) for information when they search coronavirus.⁴⁹

Further Information

- World Health Organisation, ‘[Novel Coronavirus \(2019-nCoV\) Situation Reports](#)’, accessed 4 February 2020; and ‘[Dashboard for Novel Coronavirus \(2019-nCoV\)](#)’, accessed 4 February 2020
- *Lancet*, ‘[2019-nCoV Resource Centre](#)’, accessed 3 February 2020
- The Conversation, ‘[Articles on Coronavirus](#)’, accessed 3 February 2020

⁴⁴ Faith Karimi and Sarah Moon, ‘[Coronavirus Hoaxes Are Spreading in the US as the Outbreak Grows Worldwide](#)’, CNN Health, 31 January 2020.

⁴⁵ Koh Ewe, ‘[The Malaysian Government Had to Assure People That the Coronavirus Won’t Turn Them into Zombies](#)’, Vice News, 3 February 2020.

⁴⁶ Jacob Passy, ‘[How Facebook and Twitter Could Speed the Spread of Coronavirus](#)’, Market Watch, 4 February 2020.

⁴⁷ World Health Organisation, *Novel Coronavirus (2019-nCoV): Situation Report 13*, 2 February 2020, p 2.

⁴⁸ Kang-Xing Jin, ‘[Keeping People Safe and Informed About the Coronavirus](#)’, Facebook Newsroom, 30 January 2020.

⁴⁹ Jun Chu and Jennifer McDonald, ‘[Helping the World Find Credible Information About #Coronavirus](#)’, Twitter Blog, 29 January 2020.