EXHIBIT G-2 DHS Update on the Coronavirus

Arkansas Department of Health

Update on 2019-nCoV

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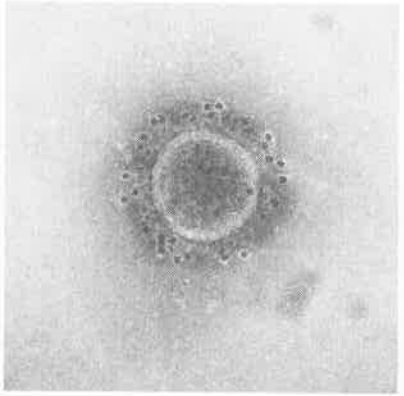
Secretary of Health

Arkansas Department of Health

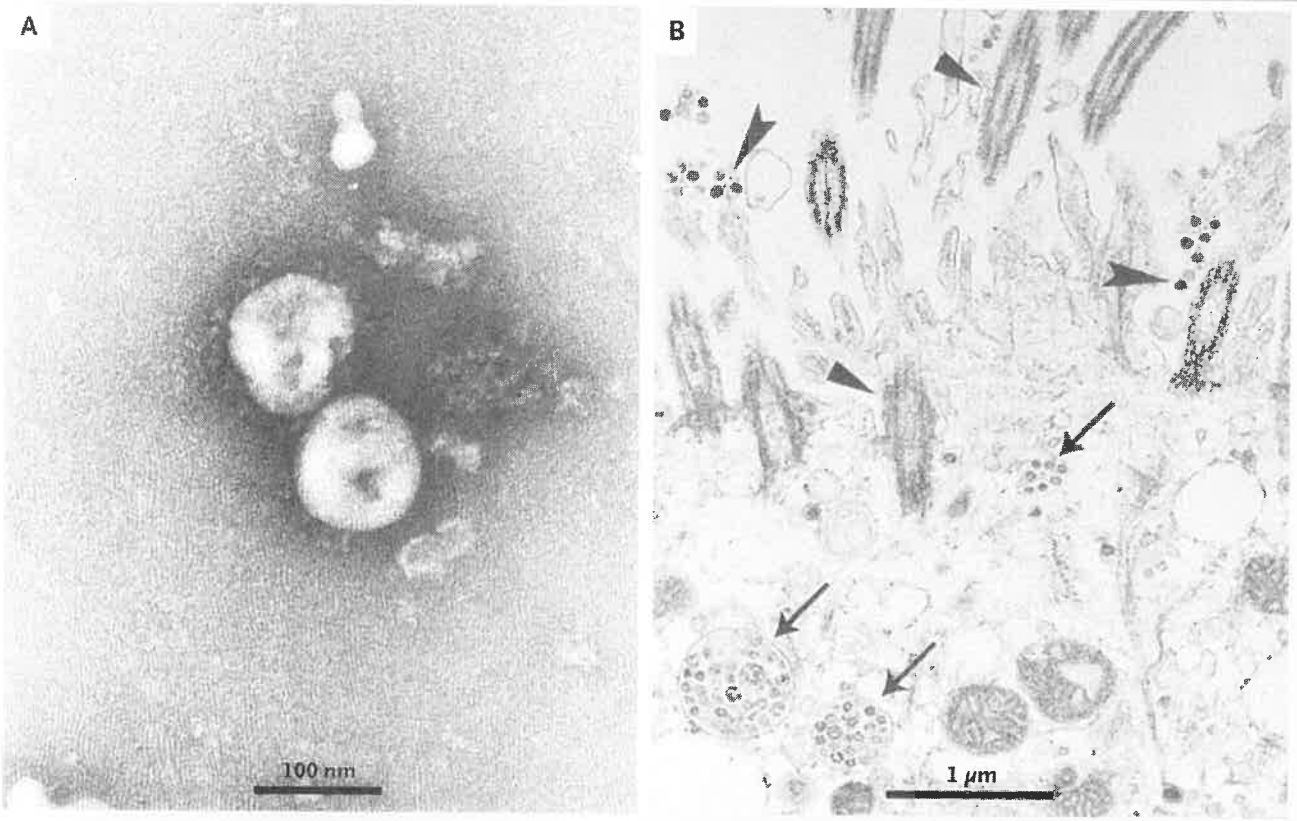
Coronaviruses

- Large family of viruses that usually cause mild to moderate upper-respiratory tract illnesses, like the common cold (10-30% of URTIs in adults)
- 7 coronaviruses are known to cause human disease:
  - 4 of which are mild:
    - 229E
    - OC43
    - NL63
    - HKU1
  - 3 can have more serious outcomes in people:
    - SARS (severe acute respiratory syndrome), which emerged in late 2002 and disappeared by 2004
    - MERS (Middle East respiratory syndrome), which emerged in 2012
    - **2019-nCoV (2019 novel coronavirus)**

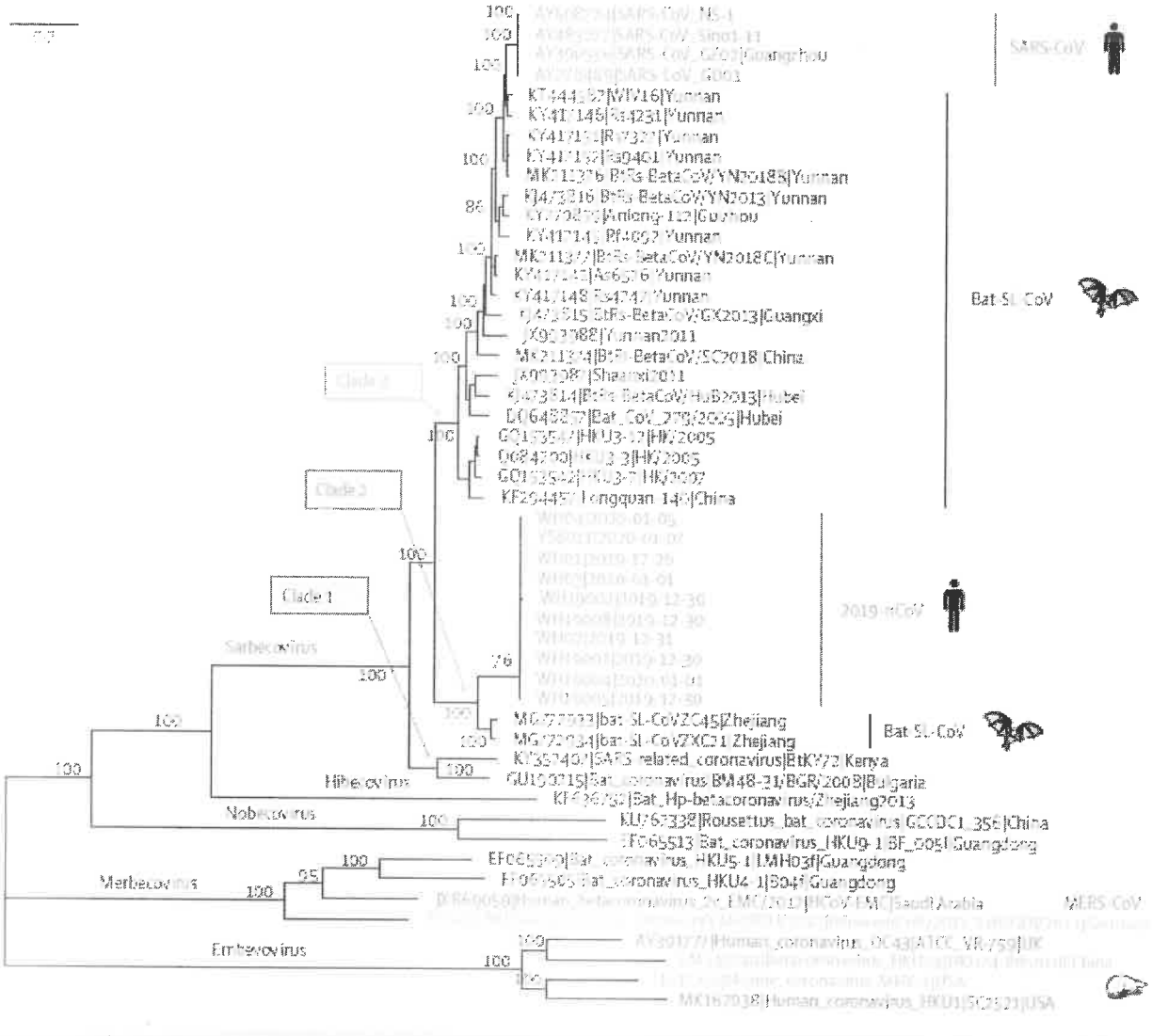


https://www.niaid.nih.gov/diseases-conditions/coronaviruses

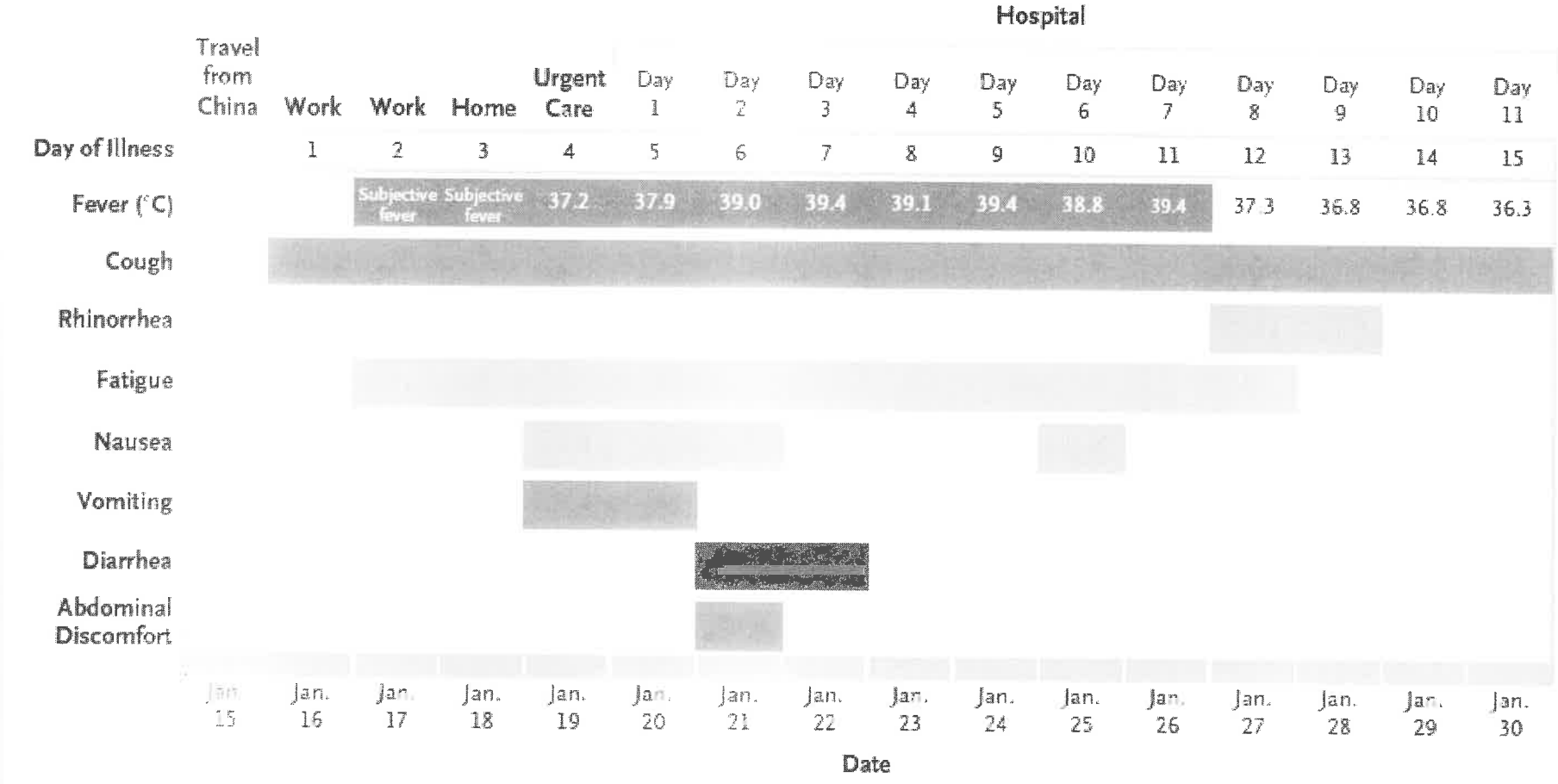
2019-nCoV Transmission Electron Micrograph



A Novel Coronavirus from Patients with Pneumonia in China, 2019. DOI: 10.1056/NEJMoa2001017



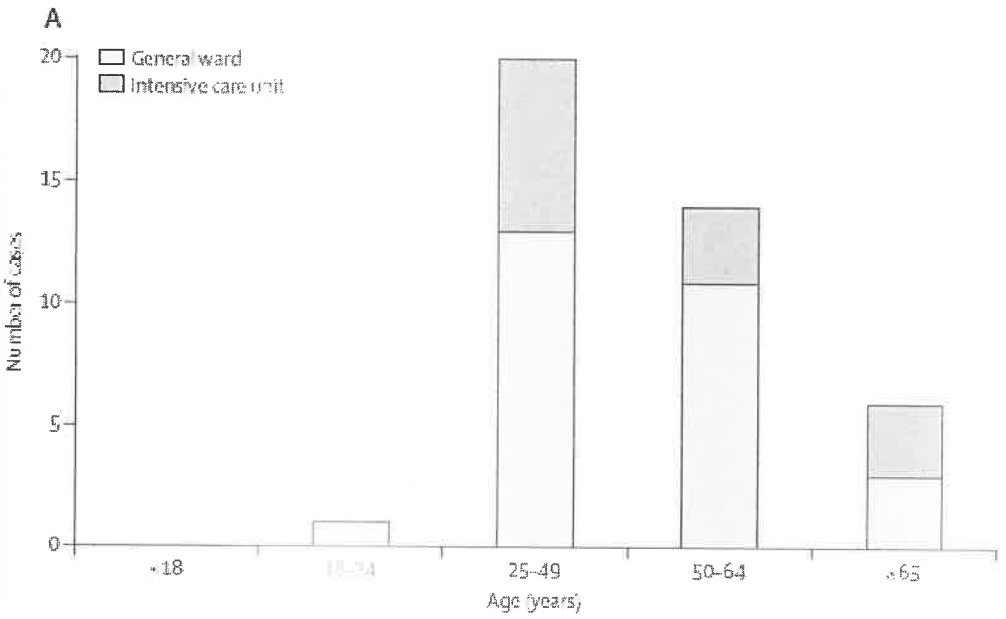
Genomic characterisation and epidemiology of 2019 novel coronavirus. *Lancet*. doi.org/10.1016/S0140-6736(20)30251-8

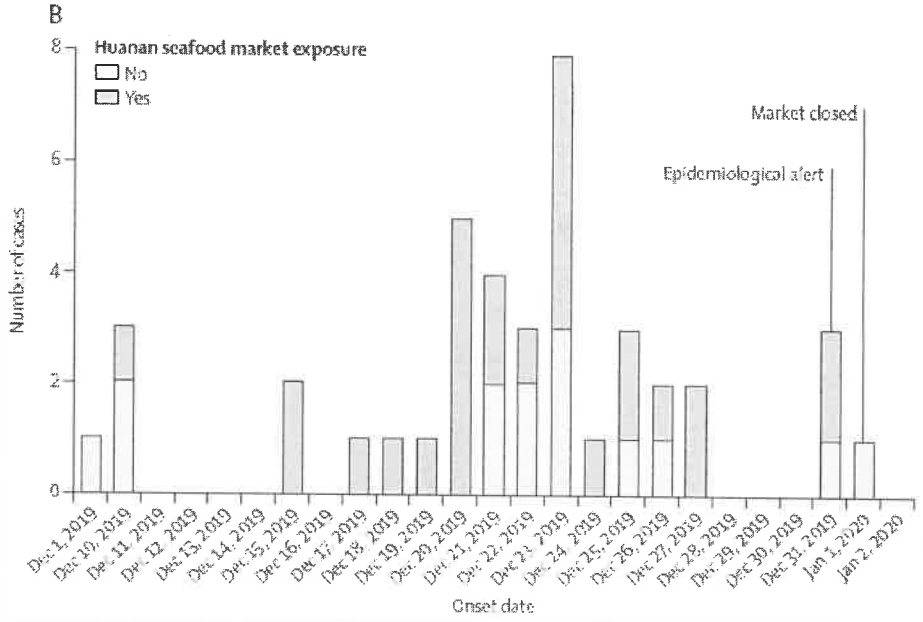


First Case of 2019 Novel Coronavirus in the United States. DOI: 10.1056/NEJMoa2001191

Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China

Chaolin Huang*, Yeming Wang*, [illegible] Li, Lili Ren*, Jianping Zhao*, Yi Hu*, Li Zhang, Guohui Fan, Jiuyang Xu, Xiaoying Gu, Zhenshun Cheng, Ting Yu, Jiaqi Xia, [illegible] Wei, Wenjuan Wu, Xuelei Xie, Wen Yin, Hui Li, Min Liu, Yan Xiao, Hong Gao, Li Guo, Jungang Xie, Guangfa Wang, Rongmeng Jiang, Zhancheng Gao, Qi Jin, Jianwei Wang†, Bin Cao*





www.thelancet.com Published online January 24, 2020 https://doi.org/10.1016/S0140-6736(20)30183-5

Wuhan, China

- Population of 11 million
- Before the travel restrictions, an average of 3,500 passengers per day took direct flights from Wuhan to cities in other countries.
- Wuhan is also a major transportation hub within China, linked to Beijing, Shanghai and other major cities by high-speed railways and domestic airlines.
- In October and November of last year, close to 2 million people flew from Wuhan to other places within China.
- Wuhan's mayor acknowledged that 5 million people had left the city before the travel restrictions began, in the run-up to the Lunar New Year.

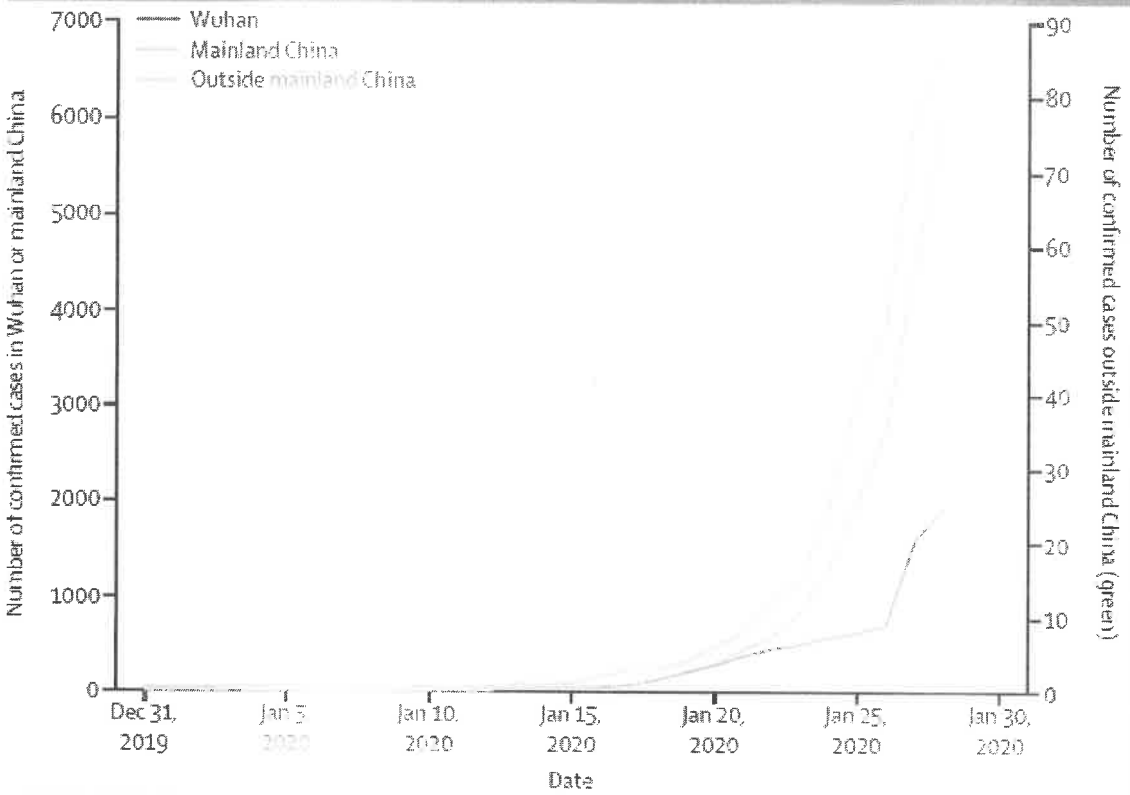
https://www.nytimes.com/interactive/2020/world/asia/china-coronavirus-contain.html

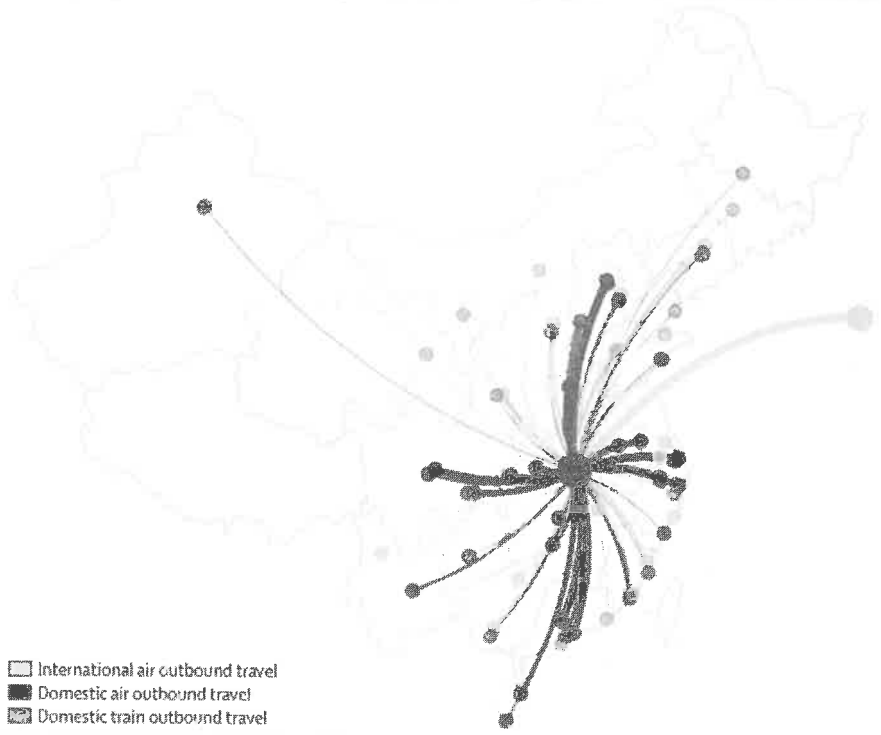
Wuhan, Hubei Province, China

Hector Retamal / AFP / Getty

Wuhan Huanan Seafood Market

Risk of Spread Outside Wuhan





Nowcasting and forecasting the potential domestic and international spread of the 2019-nCoV outbreak originating in Wuhan, China: a modelling study *Lancet*. Published Online January 31, 2020 https://doi.org/10.1016/S0140-6736(20)30260-9

Map of airports at highest risk of 2019-nCoV arriving travelers outside mainland China

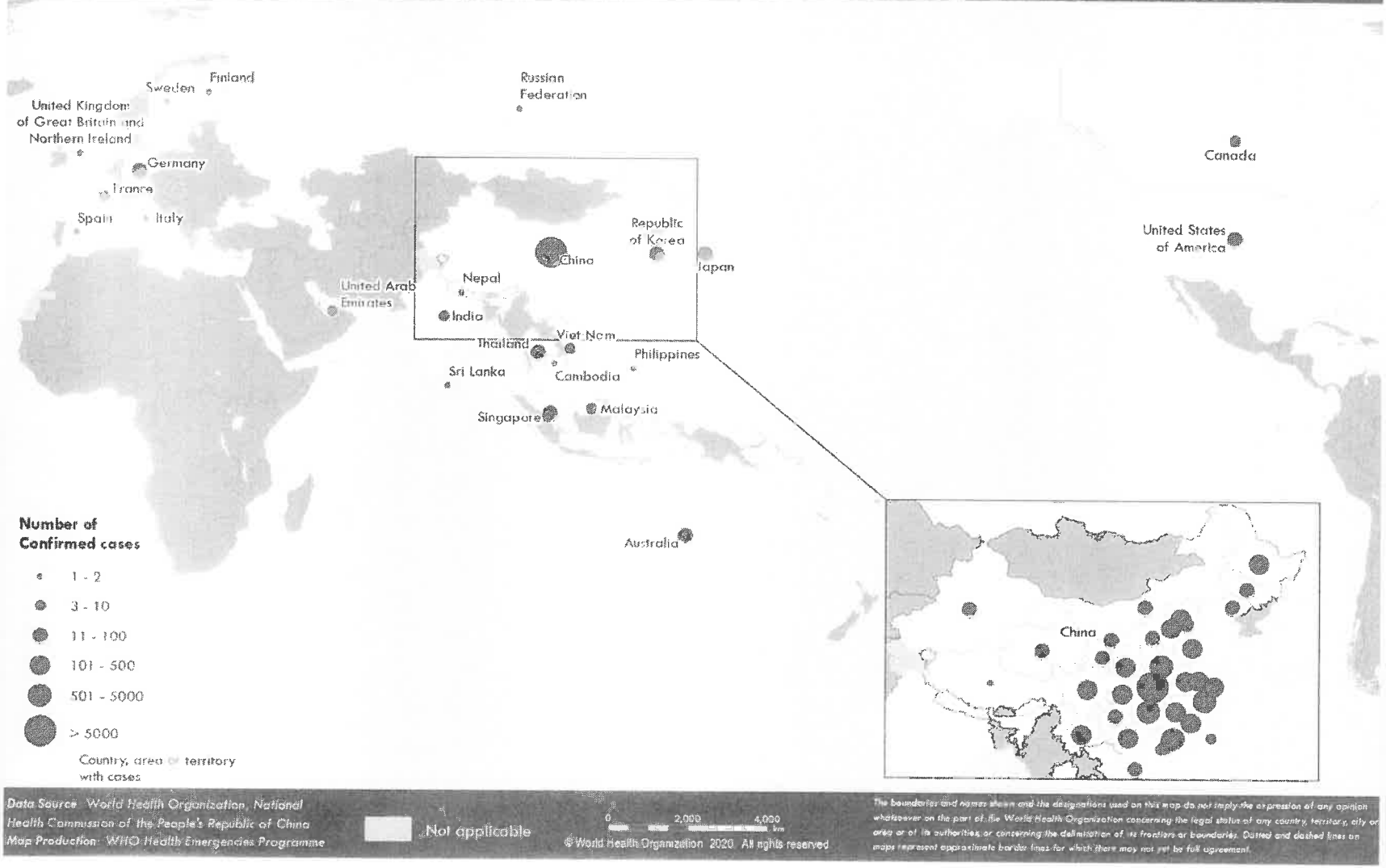
https://systems.jhu.edu/research/public-health/ncov-model-2/

Risk of 2019-nCoV Importation in U.S. Cities

https://systems.jhu.edu/research/public-health/ncov-model-2/

Distribution of 2019-nCoV cases as of 4 February 2020

World Health Organization



Data Source: World Health Organization, National Health Commission of the People's Republic of China
Map Production: WHO Health Emergencies Programme

2019-nCoV Timeline

- Dec. 1, 2019 – first reported patient became ill in Wuhan, China
- Dec. 31, 2019 – China reported cluster of respiratory illnesses
- Jan. 7, 2020 – pathogen identified as a novel coronavirus
- Jan. 10, 2020 – genome published to the internet
- Jan. 13, 2020 – first case reported outside China (Thailand)
- Jan. 20, 2020 – human to human transmission confirmed
- Jan. 20, 2020 – first case reported in US (Washington state)
- Jan. 30, 2020 – transmission during asymptomatic infection reported (NEJM)
- Jan. 30, 2020 – WHO declared a public health emergency of international concern

Current Tally – Feb. 5, 2020

- Total confirmed cases of 2019-nCoV: 27,797
- Number of countries with cases: 25 (+Hong Kong & Macau)
- Total cases in US: 12
- Number of states with cases: 6 (AZ, CA, IL, MA, WA, WI)
- Total deaths: 563
- Total recovered: 1128

https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6

2019-nCoV Key Characteristics

- Incubation period = 5.2 (3-6) days[1]
- R_0 = 2.6 (1.5-3.5)[2]

Control measures need to block well over 60% of transmission to be effective in controlling the outbreak.

1. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus–Infected Pneumonia, NEJM. 2020; (published online Jan 29. DOI:10.1056/NEJMoa2001316.)
2. Report 3: Transmissibility of 2019-nCoV, Imperial College London, UK

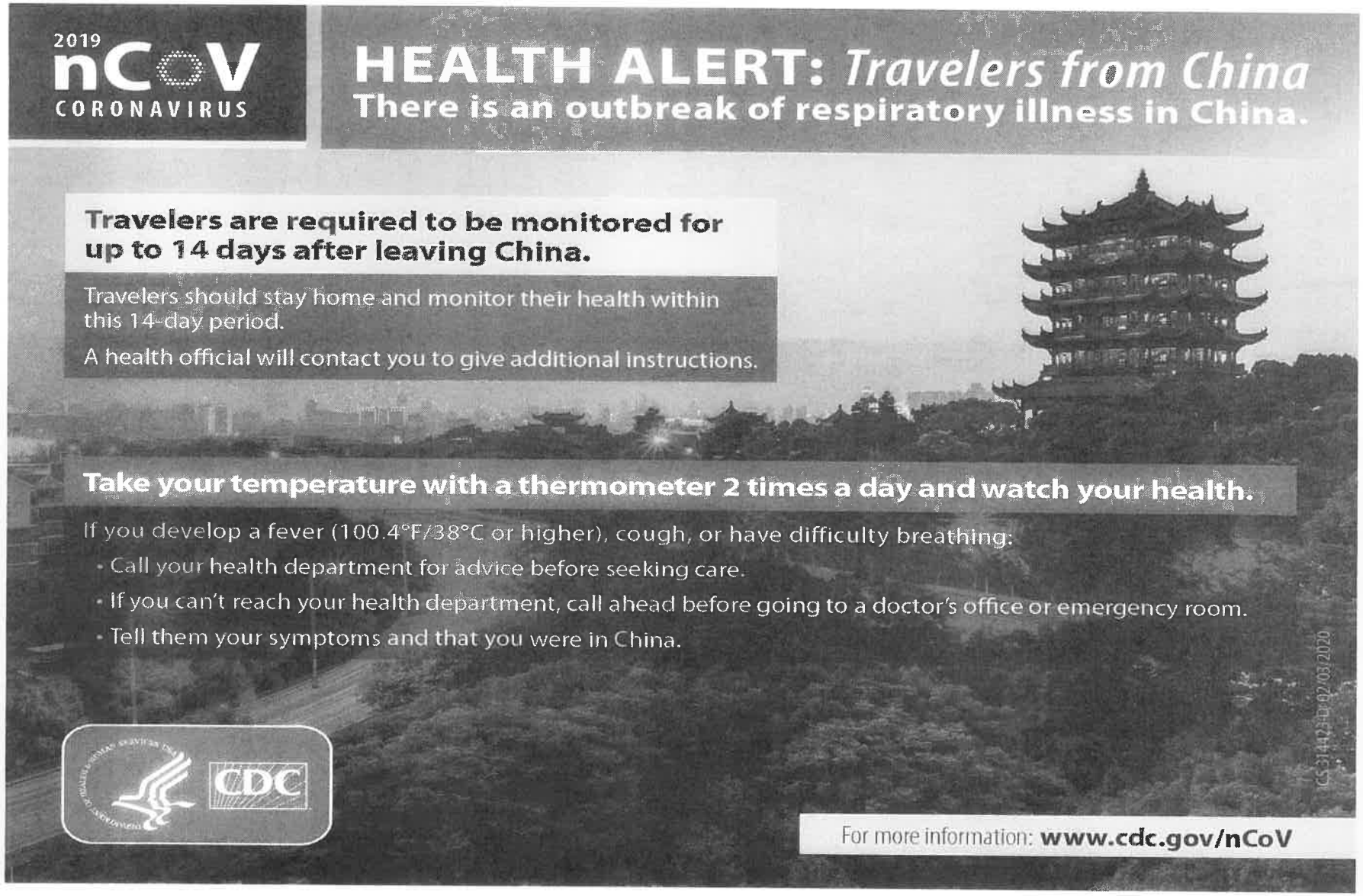
WHO Strategic Objectives

- Limit human-to-human transmission including reducing secondary infections among close contacts and health care workers, preventing transmission amplification events, and preventing further international spread from China
- Identify, isolate and care for patients early, including providing optimized care for infected patients
- Identify and reduce transmission from the animal source
- Address crucial unknowns regarding clinical severity, extent of transmission and infection, treatment options, and accelerate the development of diagnostics, therapeutics and vaccines
- Communicate critical risk and event information to all communities and counter misinformation
- Minimize social and economic impact through multisectoral partnerships.

https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200203-sitrep-14-ncov.pdf?sfvrsn=f7347413_2

2019-nCoV Control Efforts

- Jan. 1, 2020 – Chinese authorities closed down the Huanan Seafood Market
- Jan. 17, 2020 – US implemented airport screening for travelers from China
- Jan. 23, 2020 – Chinese government blocked transportation in and out of Wuhan
- Jan. 27, 2020 – CDC issued travel guidance for China recommending that travelers avoid all nonessential travel to all of the country (Level 3 Travel Health Notice)
- Jan. 31, 2020 – US President made a Proclamation on Suspension of Entry as Immigrants and Nonimmigrants of Persons who Pose a Risk of Transmitting 2019 Novel Coronavirus
- Feb. 2, 2020 – US Department of State issued a Level 4 Travel Advisory
- Feb. 2, 2020 – US imposed 14-day quarantine on travelers from China


2019
nCoV
CORONAVIRUS
HEALTH ALERT: Travelers from China
There is an outbreak of respiratory illness in China.
Travelers are required to be monitored for up to 14 days after leaving China.
Travelers should stay home and monitor their health within this 14-day period.
A health official will contact you to give additional instructions.
Take your temperature with a thermometer 2 times a day and watch your health.
If you develop a fever (100.4°F/38°C or higher), cough, or have difficulty breathing:
• Call your health department for advice before seeking care.
• If you can't reach your health department, call ahead before going to a doctor's office or emergency room.
• Tell them your symptoms and that you were in China.
CDC
For more information: www.cdc.gov/nCoV

A patient in the United States who meets the following criteria should be evaluated as a **patient under investigation (PUI)** for 2019-nCoV

Clinical features		Epidemiologic risk
Fever **or** signs/symptoms of lower respiratory illness (eg, cough or shortness of breath)	AND	Any person, including health care workers, who has had close contact with a laboratory-confirmed 2019-nCoV patient within 14 days of symptom onset
Fever **and** signs/symptoms of lower respiratory illness (eg, cough or shortness of breath)	AND	A history of travel from Hubei Province, China, within 14 days of symptom onset
Fever **and** signs/symptoms of lower respiratory illness (eg, cough or shortness of breath) requiring hospitalization	AND	A history of travel from mainland China within 14 days of symptom onset

If a PUI is confirmed, clinicians should notify their health care facility's infection prevention team as well as the local or state health department.

2019 Novel Coronavirus—Important Information for Clinicians. *JAMA* Published online February 5, 2020

Potential Treatments for 2019-nCoV

No antiviral treatment for coronavirus infection has been proven to be effective

- **Lopinavir/ritonavir** (Kaletra): HIV antiretroviral (protease inhibitor)
  - Associated with clinical benefit among SARS-CoV patients[1]
- **Interferon-β1b**: potential benefit in combination therapy for MERS-CoV[2]
- **Remdesivir**: experimental nucleotide analogue RNA polymerase inhibitor
  - Preclinical evidence showed the potent efficacy of remdesivir (a broad-spectrum antiviral nucleotide prodrug) to treat MERS-CoV and SARS-CoV infections[3,4]

1) Role of lopinavir/ritonavir in the treatment of SARS: initial virological and clinical findings.*Thorax.* 2004; 59: 252-256
2) Treatment of Middle East respiratory syndrome with a combination of lopinavir-ritonavir and interferon-β1b (MIRACLE trial): study protocol for a randomized controlled trial.*Trials.* 2018; 19: 81
3) Broad-spectrum antiviral GS-5734 inhibits both epidemic and zoonotic coronaviruses.*Sci Transl Med.* 2017; 9eaal3653
4) Comparative therapeutic efficacy of remdesivir and combination lopinavir, ritonavir, and interferon beta against MERS-CoV.*Nat Commun.* 2020; 11: 222

2019-nCoV Vaccine Development

- As soon as the genome of the virus was posted online, NIH designed the piece of the vaccine that should trigger the immune system to recognize and disable the virus.
- NIH sent its design to Moderna, a Massachusetts biotech company, which will integrate it into its virus platform and rapidly scale up manufacturing.
- NIH hopes to have the vaccine in the first safety trials by April.
- Inovio and Johnson & Johnson are also working on 2019-CoV vaccines.

https://www.washingtonpost.com/health/2020/01/30/coronavirus-treatment-vaccine-cure/