

Important early dates in the Covid-19 pandemic

- 30 Dec 2019: First notice of pneumonia cases in Wuhan
- 9 Jan 2020: Cause identified: a novel coronavirus
- 3 Feb 2020: Deaths worldwide pass 1,000
- 7 March 2020: Worldwide case count reaches 100,000
- 11 March 2020: WHO declares Covid-19 a pandemic
- 2 April 2020: Worldwide case count passes 1 million
- 10 April 2020: Worldwide deaths pass 100,000
- 28 Sept 2020: Worldwide deaths reach 1 million

Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study

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Summary

Background In December, 2019, a pneumonia associated with the 2019 novel coronavirus (2019-nCoV) emerged in Wuhan, China. We aimed to further clarify the epidemiological and clinical characteristics of 2019-nCoV pneumonia.

Methods In this retrospective, single-centre study, we included all confirmed cases of 2019-nCoV in Wuhan Jinyintan Hospital from Jan 1 to Jan 20, 2020. Cases were confirmed by real-time RT-PCR and were analysed for epidemiological, demographic, clinical, and radiological features and laboratory data. Outcomes were followed up until Jan 25, 2020.

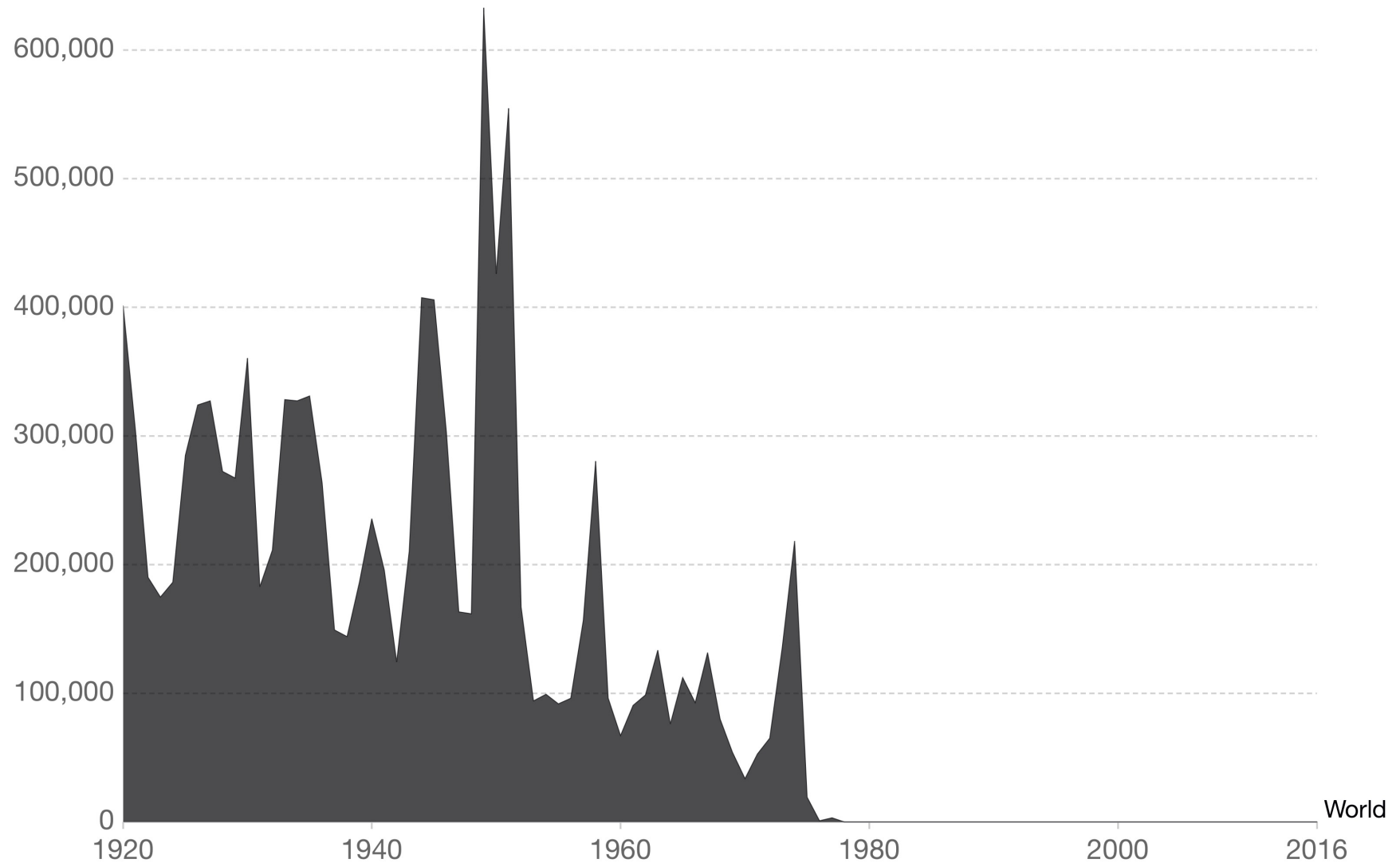
Most patients were given antibiotic treatment (table 2); 25 (25%) patients were treated with a single antibiotic and 45 (45%) patients were given combination therapy. The antibiotics used generally covered common pathogens and some atypical pathogens; when secondary bacterial infection occurred, medication was administered according to the results of bacterial culture and drug sensitivity. The antibiotics used were cephalosporins, quinolones, carbapenems, tigecycline against methicillin-resistant *Staphylococcus aureus*, linezolid, and antifungal drugs. The duration of antibiotic treatment was 3–17 days (median 5 days [IQR 3–7]). 19 (19%) patients were also treated with methylprednisolone sodium succinate, methylprednisolone, and dexamethasone for 3–15 days (median 5 [3–7]).

All patients were treated in isolation. 75 (76%) patients received antiviral treatment, including oseltamivir (75 mg every 12 h, orally), ganciclovir (0.25 g every 12 h, intravenously), and lopinavir and ritonavir tablets (500 mg twice daily, orally). The duration of antiviral treatment was 3–14 days (median 3 days [IQR 3–6]).



Georges Gaston Mélingue, 1796, public domain via Wikimedia Commons

Global number of reported smallpox cases



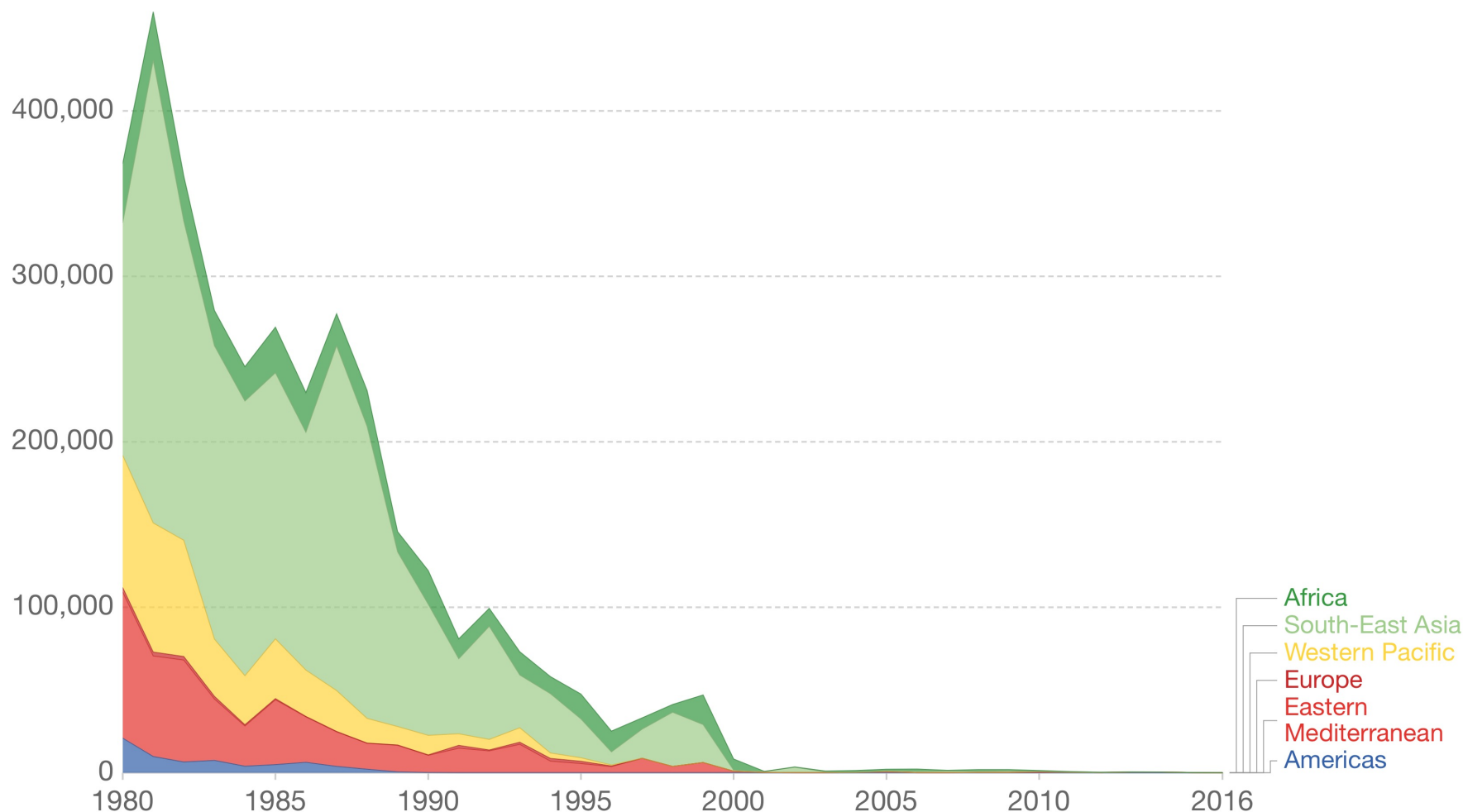
Source: World Health Organization (2011)

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<https://ourworldindata.org/grapher/global-smallpox-cases>

Polio cases by world region, 1980 to 2016

Shown is the estimate of the total number of paralytic polio cases.

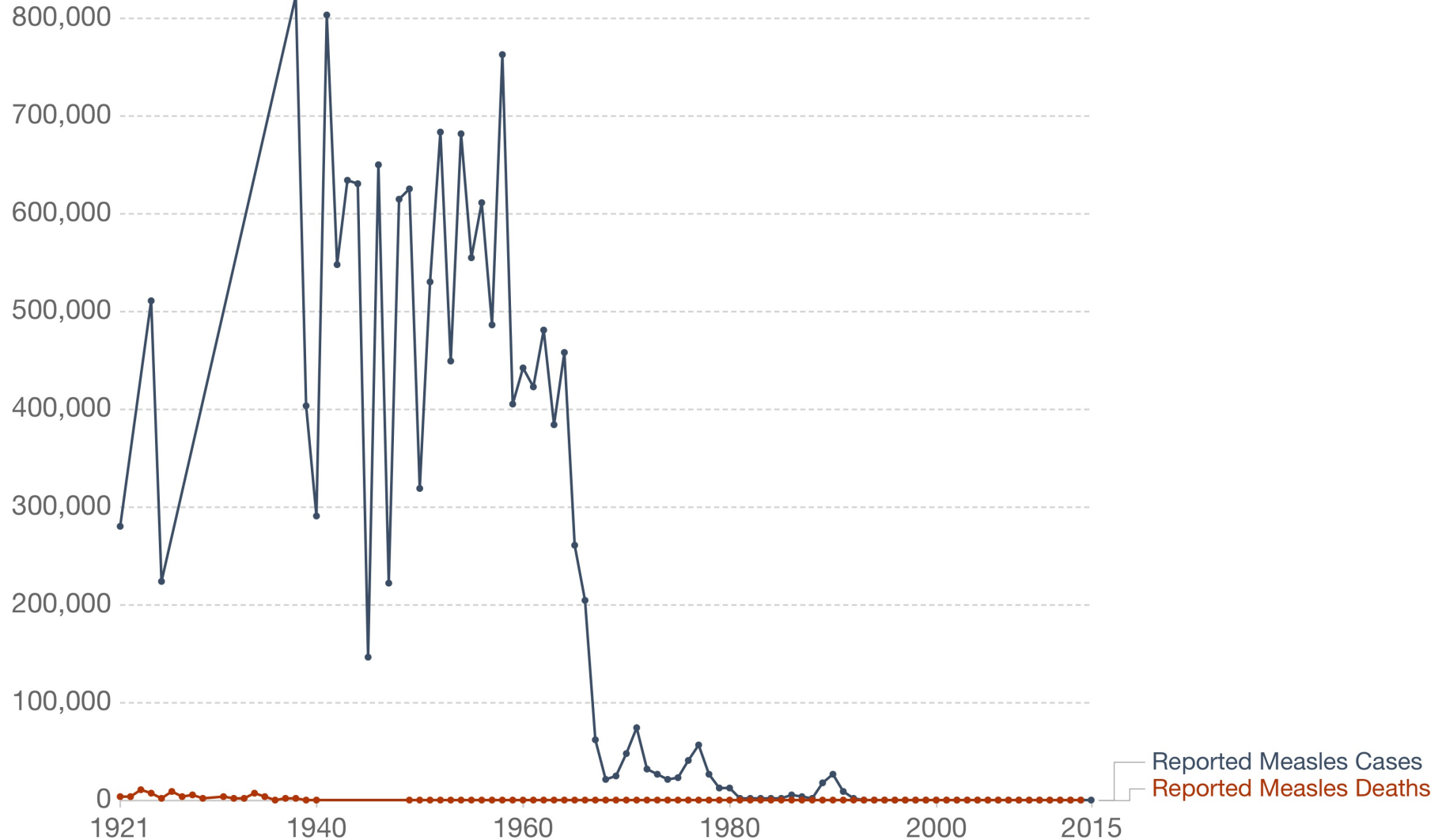


Source: WHO (2018) and Tebbens et al. (2011)

OurWorldInData.org/polio/ • CC BY

Note: These estimates are based on a model by Tebbens et al. (2011) that multiplies the reported number of cases with a correction factor based on the quality of each country's surveillance system. After a country is certified polio-free, however, the reported polio cases are used.

Reported cases and deaths of measles in the USA (1921-2015)



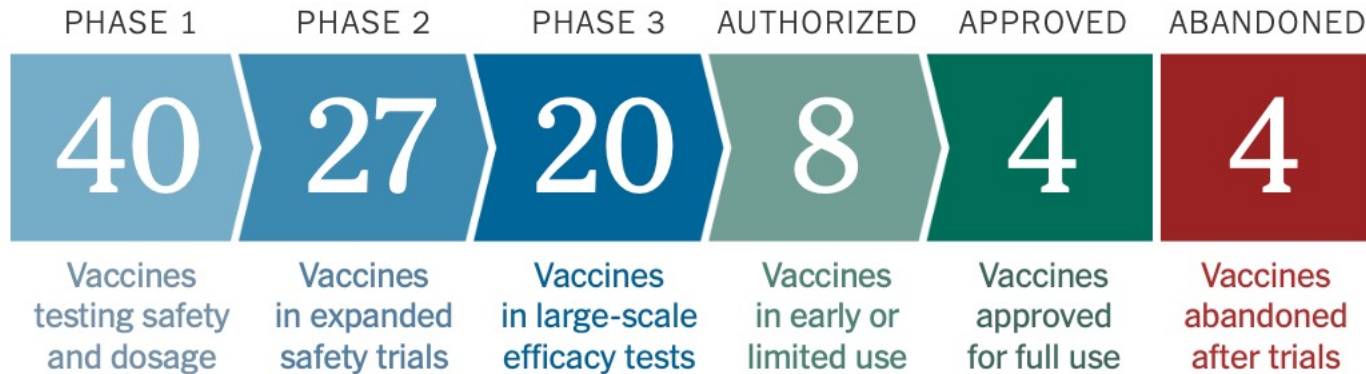
Source: Our World in Data (2017)

OurWorldInData.org/vaccination/ • CC BY

<https://ourworldindata.org/grapher/measles-cases-and-death>

Coronavirus Vaccine Tracker

By Carl Zimmer, Jonathan Corum and Sui-Lee Wee Updated Feb. 25, 2021



Vaccines typically require years of research and testing before reaching the clinic, but in 2020, scientists embarked on a race to produce safe and effective coronavirus vaccines in record time. Researchers are currently testing **71 vaccines** in clinical trials on humans, and 20 have reached the final stages of testing. At least 78 preclinical vaccines are under active investigation in animals.

<https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html>

Classical vaccines



Preclinical stage
(18-30 months)



Phase I (dozens of
volunteers ~30 months)



Phase II (hundreds of
volunteers ~32 months)



Phase III (thousands of
volunteers ~30 months)



**Approval, Manufacture,
Vaccination** (12-24 months)

COVID-19 vaccines



Preclinical stage
(0 months)



Phase I (dozens of
volunteers ~ 6 months)



Phase II (hundreds of
volunteers ~ 6 months)



Phase III (thousands of
volunteers ~ 0 months)



**Approval, Manufacture,
Vaccination** (billions of
doses/individuals ~ 6 months)

COVID-19 vaccine doses administered per 100 people, Feb 26, 2021

Total number of vaccination doses administered per 100 people in the total population. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).

