

Overseas infectious diseases of priority concern

This factsheet presents information on overseas infectious diseases of priority concern. These include Public Health Emergencies of International Concern (PHEICs) and severe exotic respiratory diseases.

Key facts



COVID-19 declared a PHEIC in 2020



Polio has remained a PHEIC since it was first declared in 2014



Ebola in Kivu lifted as a PHEIC in 2020

Background information

High-risk exotic diseases, potentially harmful to New Zealand's health, are those which:

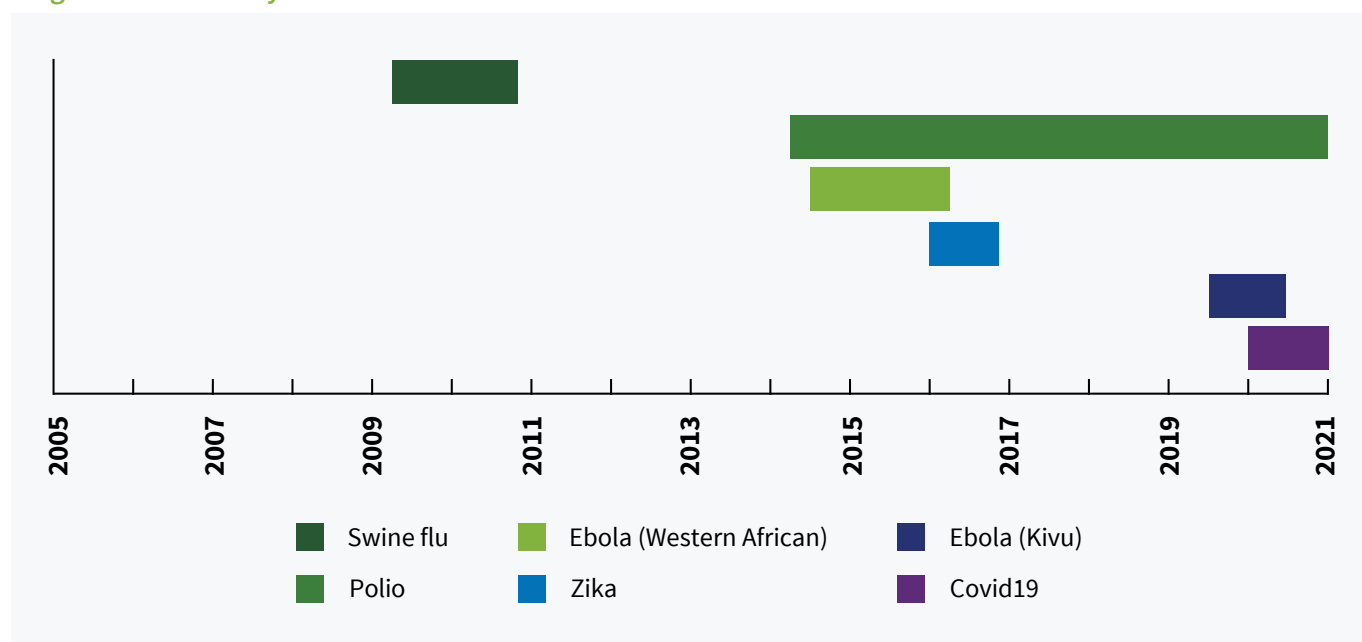
- spread easily
- New Zealand people are particularly vulnerable to (eg, non-immune)
- can cause severe illness
- and are difficult to treat

Exotic diseases overseas can be spread to New Zealand by New Zealand travellers, visitors, and immigrants. International air travel can spread diseases very quickly across borders. Monitoring high-risk exotic diseases overseas is important because it can inform about the possible exposures of New Zealand travellers, visitors, and immigrants to diseases, and help target our disease prevention and control work.

Public Health Emergencies of International Concern

The World Health Organization (WHO) can declare Public Health Emergencies of International Concern (PHEICs) when public health events arise that have international reach and may require an internationally coordinated response (WHO 2005). Since the inception of PHEICs in 2005, WHO has declared PHEICs six times. As of January 2021, COVID-19 and Polio are the current PHEICs. WHO lifted the Ebola PHEIC declaration in Kivu, Africa, in June 2020 (Figure 1).

Figure 1: Summary of PHEICs since 2005

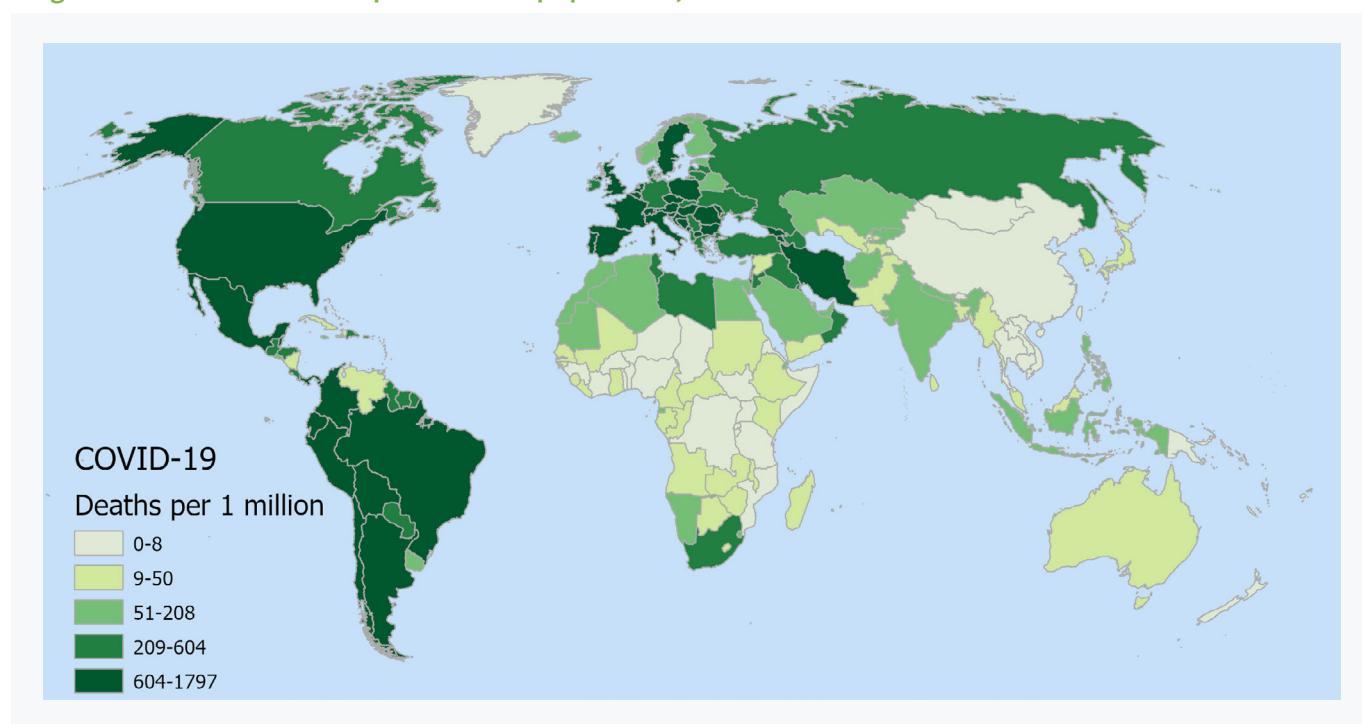


Source: WHO n.d

COVID-19 declared a PHEIC in 2020

Coronavirus Disease 2019 (COVID-19) is the respiratory illness responsible for the COVID-19 pandemic. The disease first emerged in Wuhan, China (PRC) in late 2019 and quickly spread to most countries and territories (WHO 2020a). The most common symptoms are fever, dry cough, and fatigue. About 80% of people who develop symptoms will recover without needing hospital treatment (WHO 2020a). The Western Pacific Region, which includes New Zealand, reported the lowest cumulative case and death rates of all WHO regions in 2020. The Region of the Americas, followed by the European Region, reported the highest case and death rates in 2020 (Figure 2).

Figure 2: COVID-19 deaths per 1 million population, 2020

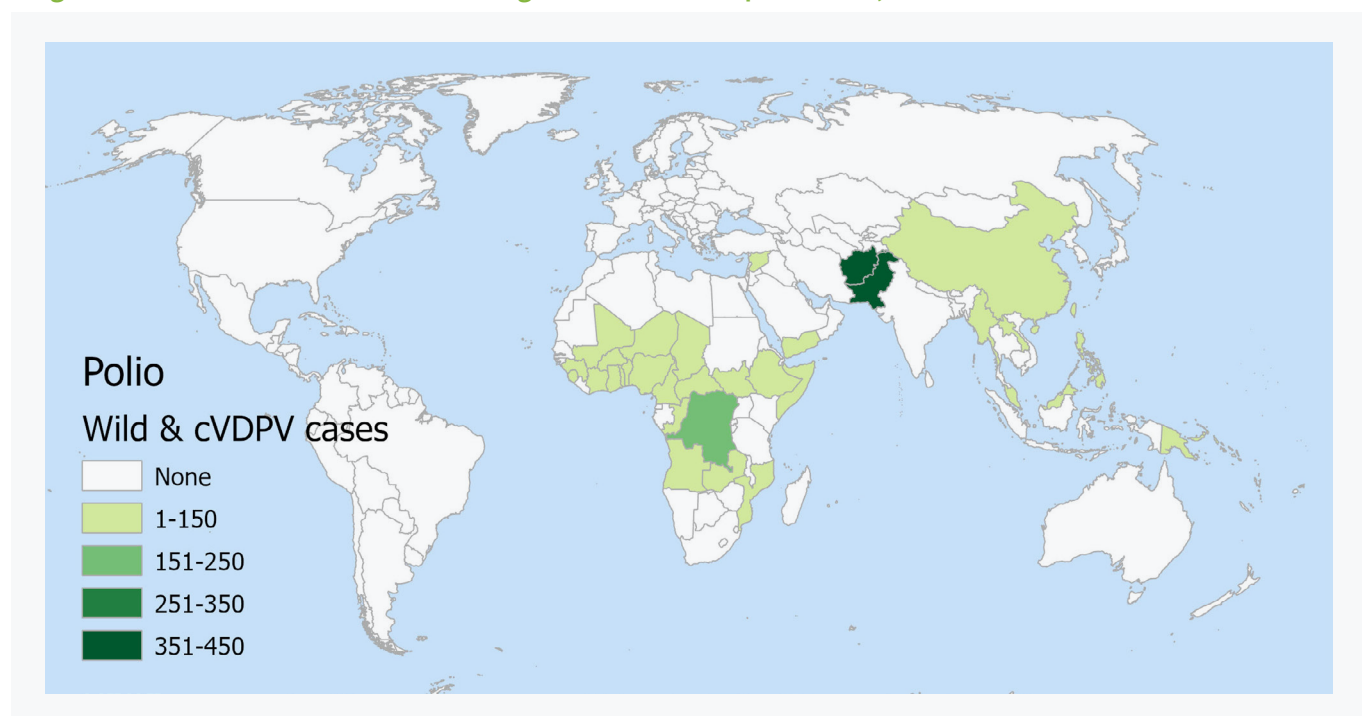


Source: WHO 2021a

Polio remained a PHEIC in 2020

Polio is a viral disease that can cause severe neurological disability and sometimes death. It is preventable, and there is a global goal to eradicate it from the world using the polio vaccine (WHO 2016a). From 2016-2020, the geographic spread of wild polio was limited to Afghanistan and Pakistan (Figure 3). Vaccine derived polio is a form of poliovirus occurring in places where vaccination coverage is low. The ‘weakened’ virus in the oral polio vaccine may pass between unimmunized people, mutating and regaining the ability to cause disease (WHO 2019a). Vaccine derived polio increased in both cases and geographic spread, particularly in central Africa and since 2019 (Figure 3).

Figure 3: Counts of wild and circulating vaccine-derived polio virus, 2016-2020



Source: WHO 2020b

Ebola in Kivu PHEIC lifted in 2020

Ebola Virus Disease can cause fever, internal bleeding and death. It is transmitted from animals (eg, bats in parts of Africa) before spreading between humans. Initially, a large outbreak began in West Africa in 2014, prompting the WHO to declare a PHEIC (WHO 2014). The WHO lifted the PHEIC declaration in March 2016 after disrupting the original transmission chains of the virus and declining clusters (WHO 2016b).

However, in 2019, the WHO committee began meeting again after an outbreak in Kivu, Democratic Republic of the Congo (DRC). Concerns were raised about the potential for the outbreak to spread to other neighbouring countries. On 17 July 2019, the WHO committee announced Ebola in the DRC a PHEIC (WHO 2019b). The declaration was lifted in 2020 (WHO 2020b).

Figure 4: Countries and territories reporting outbreaks of Ebola 2016-2020



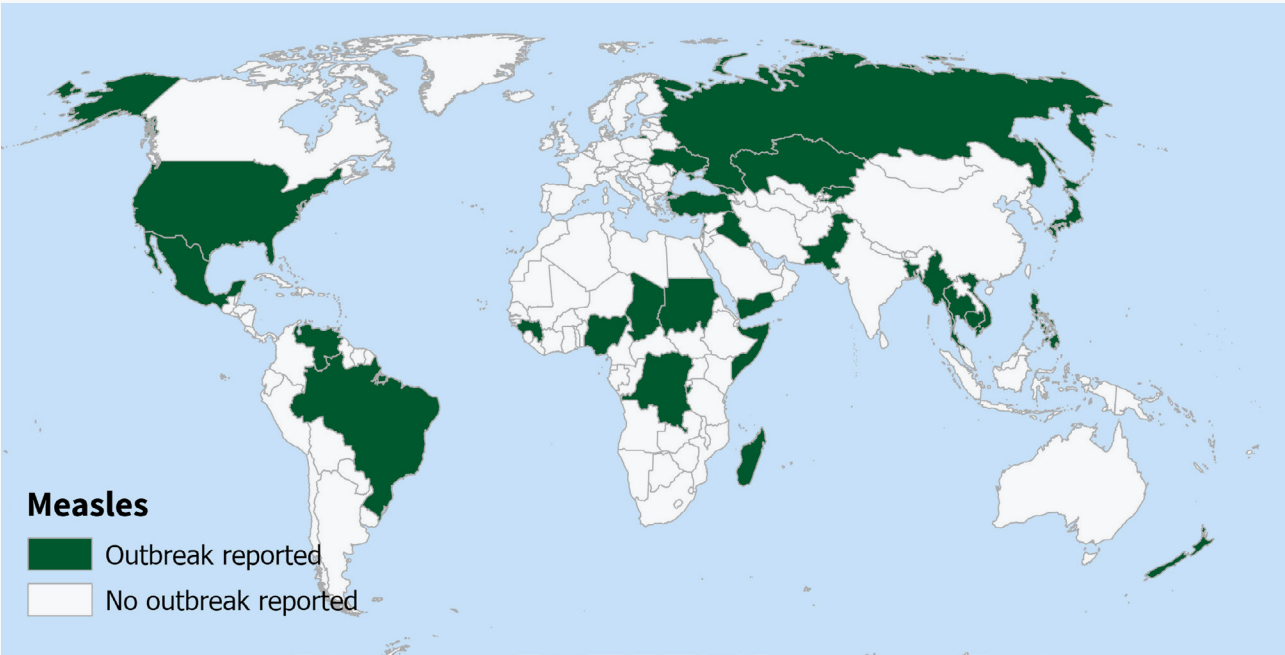
Source: WHO 2021c

Four recent respiratory diseases of particular concern were detected in the world, 2016–2020

Measles, five types of serious non-seasonal influenza ('Flu') viruses, and two serious coronaviruses of priority border health concern were reported between 2016 and 2020 (Figures 5, 6, 7).

Measles is a highly contagious disease spread through droplets from the nose, throat or mouth and causes a fever, cough, and rash (WHO 2020c). Despite the availability of effective vaccines, outbreaks occurred in all WHO regions, mostly between 2018-2019 (Figure 5). New Zealand reported over 2000 cases in 2019, predominantly in the Auckland Region (WHO 2021c).

Figure 5: Countries and territories reporting measles outbreaks 2016-2020



Measles

- Outbreak reported
- No outbreak reported

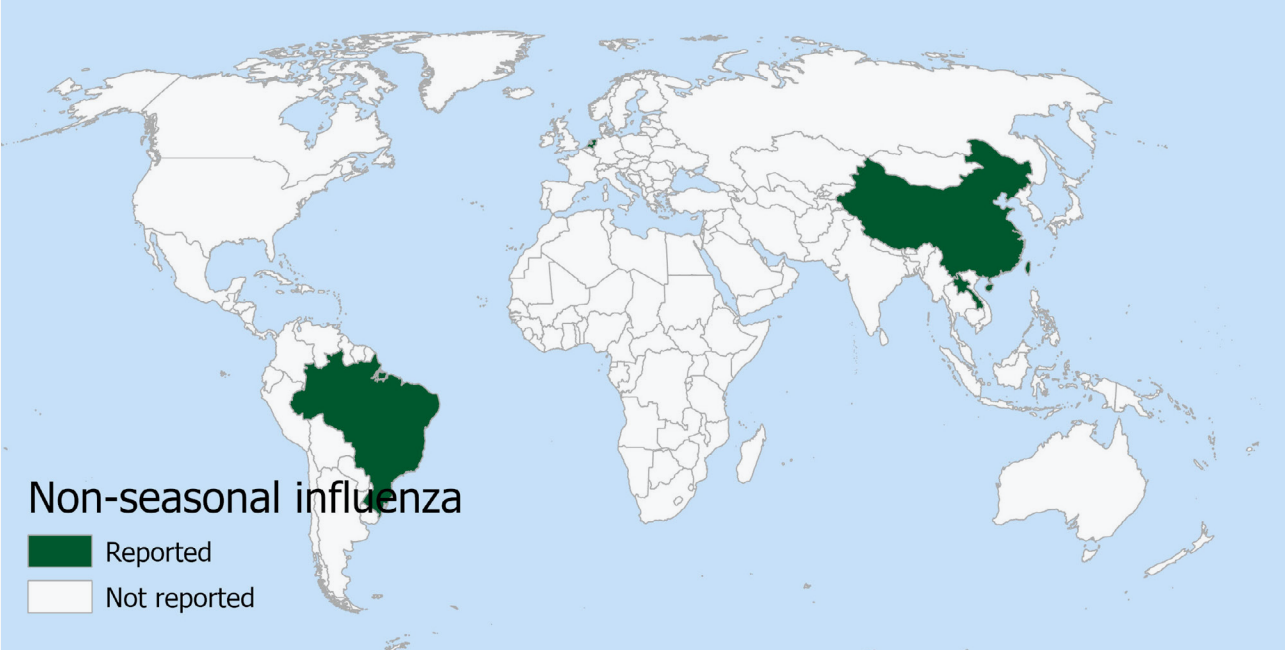
Source: WHO 2021c

Non-seasonal influenza

Avian influenza A(H7N9)/A(H5N6)/A(H7N4)/(H5N1) are flu viruses transmitted by birds (CDC 2016), which also has a relatively high death rate in humans. Cases were reported in China between 2016–2020 (Figure 6). Currently, the viruses do not easily spread between people.

A/H1N2 is a swine influenza. A reassortant was reported in the Netherlands in 2018 and a variant of the virus was reported in Brazil in 2020 (Figure 6).

Figure 6: Countries and territories reporting non-seasonal influenza, 2016-2020



Non-seasonal influenza

- Reported
- Not reported

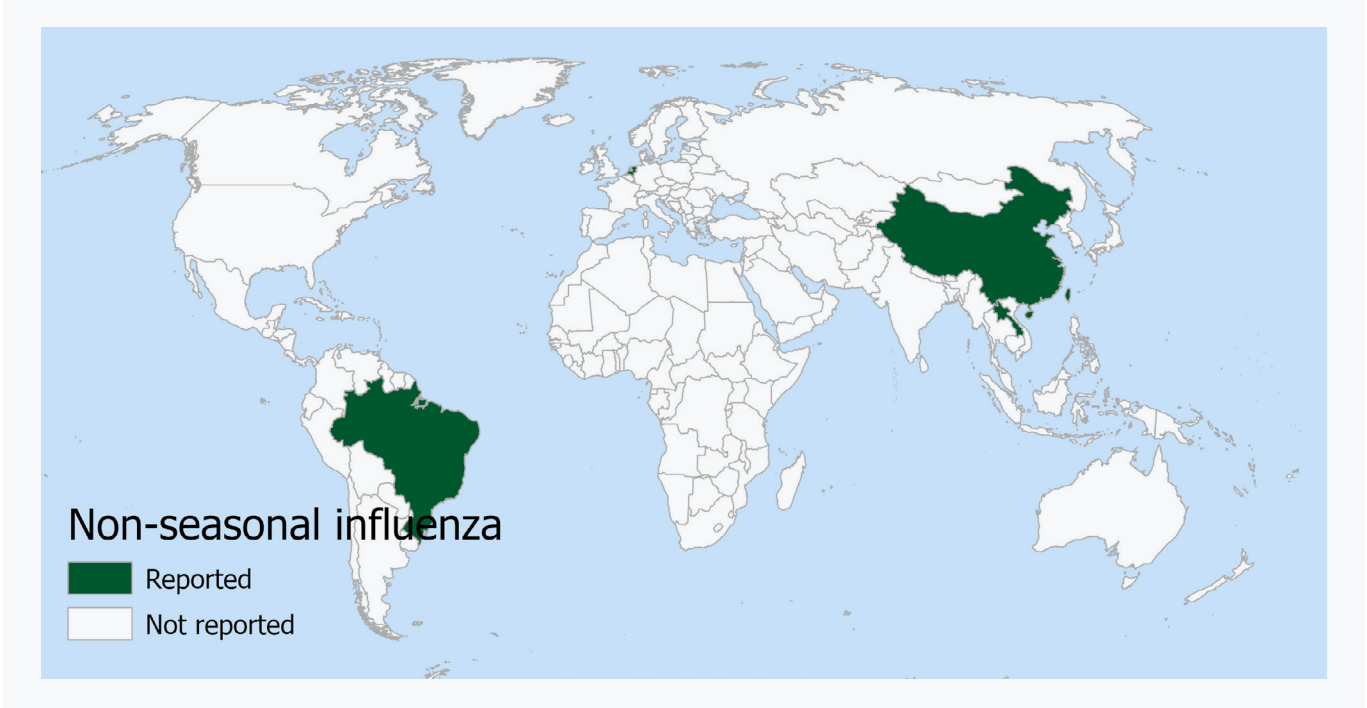
Source: WHO 2021c

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Figure 6: Countries and territories reporting non-seasonal influenza, 2016-2020



Source: WHO 2021c

Coronavirus Disease 2019 (COVID-19) was declared a PHEIC in 2020. Refer to PHEIC section above.

Middle East Respiratory Syndrome Coronavirus (MERS-CoV) is a lung disease with a high death rate (WHO 2016c). It is thought to have spread to humans from camels and bats in the Eastern Mediterranean. The largest person-to-person outbreaks have occurred in the Eastern Mediterranean between 2016–2020 (Figure 7). Cases were also imported into South East Asia, Europe, and Western Pacific.

Figure 7: Countries and territories reporting MERS-CoV, 2016–2020



Source: WHO 2021c

Data for this indicator

For additional information, see the metadata link below.

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Other related topics include:

[Border health in New Zealand](#)

[High-risk pests caught at New Zealand's border](#)

[Exotic mosquito species established in New Zealand](#)

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