

COVID-19 Risk Assessment Summary

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Risk summary:

This assessment is undertaken based on the information available on 30 April 2020.

This is a rapidly evolving situation and there remains limited information available to inform this risk assessment. Therefore, the level of uncertainty is high and this assessment takes a precautionary approach.

Importation risk: Even with the containment measures in place in other countries and the border measures and containment measures currently in place in New Zealand, the likelihood of cases having been imported into New Zealand remains **HIGH**. There also remains a **HIGH** likelihood of further importations from any further returning travellers, due to high rates of infection worldwide.

Assessment of risk of transmission within New Zealand: Most cases in New Zealand to date are linked to international travel and subsequent close contact, there is accumulating evidence of limited community transmission but at this time no evidence of widespread sustained community transmission in New Zealand.

Based on the current domestic situation, the global situation, the available evidence, including limited evidence of pre-symptomatic spread and super spreader events the likelihood of limited transmission in New Zealand is **VERY HIGH**, the likelihood of sustained transmission is **MODERATE-HIGH** and the likelihood of widespread outbreaks is **LOW-MODERATE**. This assessment assumes that cases are detected in a timely manner and that infection prevention and control measures are implemented promptly.

However, if the virus is not rapidly detected, infection control measures are not in place, or if there is significant transmission from asymptomatic or mild cases, the likelihood of further transmission in community settings would be considered **VERY HIGH**.

Public health impact of COVID-19 in New Zealand: The impact on the sector and the public from this issue and the preparedness work around COVID-19 is already significant. The public health impact is considered **HIGH** both for public health staff, the wider health sector and the community.

Public health risk: Given the assessment of the likelihood of importation, the likelihood of transmission in New Zealand and the public health impact, the overall public health risk from this event is considered **HIGH**.

Requirements for reducing the public health risk assessment: For the overall public health risk to reduce, there would need to be a demonstrable reduction in either or both the probability and impact of COVID-19 on the NZ population. In the event of any doubt, for example due to insufficient evidence, the higher-risk option is selected according to precautionary principles.

The probability of infection, including sustained and widespread transmission, depends on exposure from further importation events, and from within the community, susceptibility of the community to infection and infectiousness. Impact depends on the number and severity of infections, and the capacity and capability of the health system to respond to manage cases and suppress outbreaks.

The key requirements for risk reduction are:

- Robust sustainable border control measures to reduce importation of new cases and prevent onward transmission from any importation
- Capacity for widespread diagnostic testing, rapid contact tracing and isolation across all DHBs
- Implementation of an epidemiologically robust surveillance plan including syndromic surveillance, sentinel surveillance and a community sampling strategy to enable rapid detection of changes in disease, and understand community prevalence, susceptibility and transmission, including the contribution of asymptomatic and presymptomatic infections
- Health sector capacity for management of cases across the spectrum of severity including requirement for intensive care, with appropriate protection of staff

Further international data on transmission dynamics, in particular asymptomatic transmission, duration and protection of immunity and testing for this, and subsequent infection waves in the context of different levels of non-pharmaceutical interventions will also inform this assessment, as will the impact on the health system of seasonal variation in both COVID-19 and other infections such as influenza.

Risk assessment reference scale: V low/Negligible to V high

Notes:

In addition to this summary assessment, ESR are also publishing a weekly epidemiology report and a public dashboard <https://nzcoviddashboard.esr.cri.nz/#/> for COVID-19.

This assessment is based on the ECDC risk assessment methodology.(1)

This assessment is reviewed by the ESR incident management team. This team includes epidemiologists, health intelligence analysts, public health medicine specialists, a clinical virologist, laboratory scientists, informaticians and bioinformaticians. The team has in-depth experience in leading, and supporting national and local communicable disease responses, including emerging infectious diseases, such as SARs, influenza, MERS, zika and Ebola. The team has extensive experience in providing fit-for-purpose health intelligence services during response situations.