

What an omicron outbreak might look like in NZ

February 8 2022



Credit: Jan Kopriva/Unsplash

Modeling just released by COVID-19 Modeling Aotearoa suggests that the current omicron outbreak will be large and put significant strain on hospitals in Aotearoa New Zealand over the coming months.

This work was carried out before the detection of community [transmission](#) of omicron on 23 January 2022, and simulated outbreaks starting at different times and with different rates of transmission.

For a modeled [outbreak](#) starting around 1 February 2022 and with high booster uptake, peak [hospital](#) admissions ranged from 200 to 800 per day, and peak demand for hospital beds ranged from 800 to 3,300, depending on assumed transmission rates.

Dr. Audrey Lustig explains that "even in scenarios with high booster uptake and moderate public health measures, such as those required at the red setting of the COVID Protection Framework, demand on hospitals and intensive care units remains high and would put significant strain on our hospital capacity."

The modeling shows that vaccination rates will be crucial to how this outbreak develops.

"It's hard to overstate how effective vaccines are in blunting the health impacts of COVID19," says Professor Michael Plank. "The only reason we can even contemplate outbreaks totalling hundreds of thousands of cases now is that we have high [vaccination rates](#), drastically reducing the risk of hospitalization and death."

"For most people, if you're up to date with your vaccinations, the risk of getting severely ill with omicron is very low. But omicron still has the potential to overwhelm healthcare systems because of the sheer number of cases it can cause in a short space of time. This modeling shows that the key to avoiding this is boosters."

Lead author Dr. Giorgia Vattiato says "the modeling also shows that efforts to slow the spread will be important—mask wearing and minimizing face-to-face contact, especially in crowded indoor locations.

This will flatten the curve—meaning that demand on the healthcare system is spread over a longer period rather than coming all at the same time."

The simulated baseline, low transmission and high transmission scenarios produced outcomes comparable with recent outbreaks in London, South Australia and New York, respectively.

Because [omicron](#) is now circulating in the community, the model will be calibrated using Aotearoa New Zealand data and re-run when more information on community transmission is available.

"Maintaining high immunity levels across all age groups will be important for future vaccination strategy," says Dr. Lustig.

Professor Plank says that the results of this modeling carry a clear message: "The more people get boosted, the less hospital beds will be taken with COVID-19 patients—it's that simple."

Provided by University of Auckland

Citation: What an omicron outbreak might look like in NZ (2022, February 8) retrieved 17 July 2024 from <https://medicalxpress.com/news/2022-02-omicron-outbreak-nz.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--