

# Modeling quantifies the potential benefits of mask wearing against omicron

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The latest Burnet Institute modeling for the Victorian Government has demonstrated the benefits of mask-wearing, by showing that increased mask uptake in Victoria could reduce the duration of epidemic peaks and increased the rate of decline afterwards.

Depending on uptake, use of [masks](#) between July and October this year could lead to a reduction in cumulative infections and hospital admissions by up to about 20% and deaths by up to 14%.

Burnet Institute Head of Modeling and Biostatistics, Dr. Nick Scott said that the modeling—undertaken in July 2022—is clear in reflecting the benefits of wearing masks, especially indoors.

"Increased mask uptake in indoor settings led to reduced infections, [hospital admissions](#) and deaths in the [model](#), so the message is that masks can reduce the duration of the peak and increase the rate of decline," Dr. Scott said. "The model showed the more masks, the more impact on downstream outcomes."

The modeling also suggests that many infections of the omicron BA.4/BA.5 variants may be going undiagnosed or unreported.

Dr. Scott said the modeling from 22 July was used to look backward and help interpret the data by testing theories that could potentially explain the early and significant increase in hospitalizations.

Whereas previously case numbers and hospital numbers tended to rise and fall together, hospital numbers spiked while case numbers steadily increased.

"The BA.4 and BA.5 variants are highly immune-evasive, meaning that they get around vaccine or exposure immunity, and we always expected there to be a BA.4/BA.5 epidemic wave, given what had been observed overseas," Dr. Scott said.

"But hospitalizations increased more sharply than anticipated and we think that one of the reasons is that there was a lot of infections in the community that either hadn't been diagnosed or hadn't been reported.

"We also think that increased or changed mixing [patterns](#) during the school holiday period, timed with the increase in the BA.4/BA.5 variants, may have contributed to that—but more data is required."

**More information:** The modeling is available online: [burnet.edu.au/system/asset/files/5\\_web\\_2022-08-01.pdf](https://burnet.edu.au/system/asset/files/5_web_2022-08-01.pdf)

Provided by Burnet Institute

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