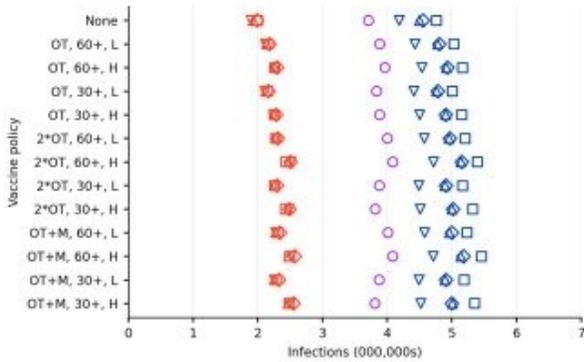


What is the best COVID policy for Australia in 2023?

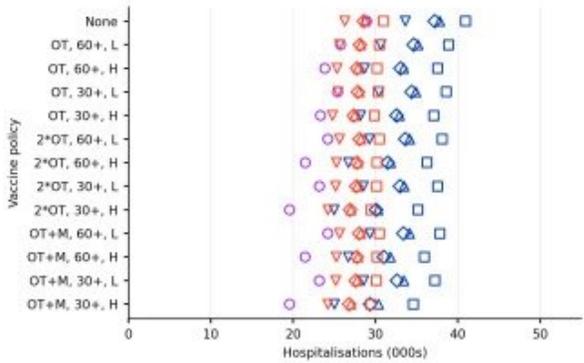
January 20 2023

A Higher stringency PHSMs

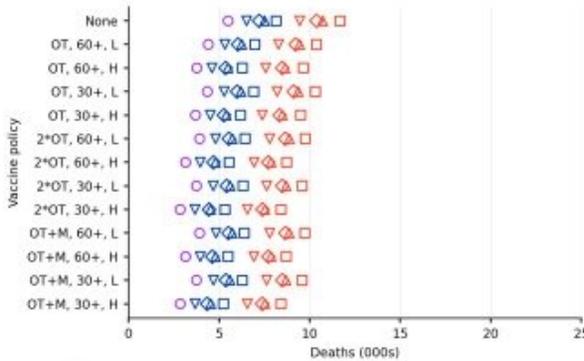
Total infections



Total hospitalisations



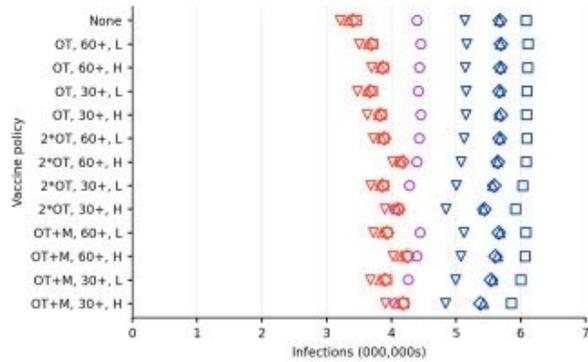
Total deaths



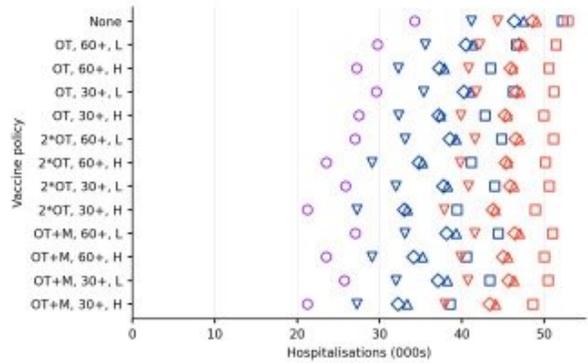
- Antigenically novel, high virulence, high immune escape
- ◇ Antigenically novel, high virulence, low immune escape
- △ Antigenically Omicron-like, high virulence, high immune escape
- ▽ Antigenically Omicron-like, high virulence, low immune escape
- Omicron BA.4/5 only (no new variant)

B Lower stringency PHSMs

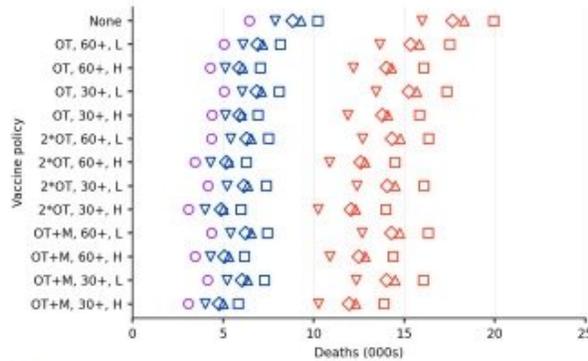
Total infections



Total hospitalisations



Total deaths



- Antigenically novel, low virulence, high immune escape
- ◇ Antigenically novel, low virulence, low immune escape
- △ Antigenically Omicron-like, low virulence, high immune escape
- ▽ Antigenically Omicron-like, low virulence, low immune escape
- Omicron BA.4/5 only (no new variant)

Mean cumulative infections, hospitalizations and deaths over 12 months for packages of policy options and nine future SARS-CoV-2 variant scenarios, averaged across mask policies. OT: Omicron-targeted vaccine in Q4 2022; 2*OT: Omicron-targeted vaccines in Q4 2022 and Q2 2023; OT + M: Omicron-targeted vaccine in Q4 2022 and multivalent vaccine in Q2 2023; 30+:

administered to people aged ≥ 30 years; 60+: administered to people aged ≥ 60 years; H: high coverage; L: low coverage. Credit: *The Lancet Regional Health - Western Pacific* (2023). DOI: 10.1016/j.lanwpc.2022.100675

Ongoing vaccination and lower thresholds for escalating public health and social measures may be vital components to combat future COVID-19 variants, new research suggests.

University of Melbourne researchers modeled 104 policy packages of [public health](#) and social measures for Victoria, including increased and improved mask-wearing during large infection surges, and various vaccination scenarios that could be implemented in the context of ongoing viral evolution over 12 months from October 2022.

Published today in *The Lancet Regional Health*, titled "Epidemiologic and economic modeling of optimal COVID-19 policy: public [health](#) and social measures, masks and vaccines in Victoria, Australia," the research model predicted high numbers of infections and deaths in Victoria during the 12-month period across all future variant scenarios (4.2 million infections and 8,100 deaths on average), regardless of what policy was implemented.

Despite this, the [model predictions](#) showed having lower thresholds to escalate public health and social measures such as wearing masks and working from home did reduce infections, hospitalizations and deaths as well as long COVID—but at a greater economic cost to society.

University of Melbourne researcher Dr. Joshua Szanyi, a lead researcher on the study, said "these findings tell us that we need to be prepared for this pandemic to continue,"

"If we are unlucky and get another highly virulent variant like Delta, we may need to have a low threshold for introducing some restrictions to protect lives, even when we take into account [economic losses](#)."

Dr. Szanyi said that as future waves are inevitable, ongoing vaccinations are crucial to counteract waning immunity to avoid serious illness.

"In our modeling, ongoing rounds of vaccination to all adults 30 years and over reduced both the disease burden and pressure on [health services](#), and reduced the duration that society retreated to working from home and other [control measures](#)."

Interestingly, the modeling showed increasing mask use, and the government provision of respirators like N95 masks during large surges of infection were only marginally beneficial at reducing disease burden and reducing pressure on the health system.

"Masking up during large surges is still a good idea for the whole population, and certainly beneficial for [vulnerable people](#), but is also a bit like acting after the horse has bolted," Dr. Szanyi said.

"For [masks](#) to have maximal effect, we likely need widespread use when transmission is moderate, not just during large surges. Whether society would accept such a policy, however, is another trade-off to consider."

An interactive version of the study can be found online, allowing users to alter future variants and the relative importance of different outcomes, to determine their "best" policy package to respond to the ongoing pandemic in Victoria.

More information: Joshua Szanyi et al, Epidemiologic and economic modelling of optimal COVID-19 policy: public health and social measures, masks and vaccines in Victoria, Australia, *The Lancet*

Regional Health—Western Pacific (2023). DOI: [10.1016/j.lanwpc.2022.100675](https://doi.org/10.1016/j.lanwpc.2022.100675)

Provided by University of Melbourne

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