

13 December 20203

Supporting Documentation

The Burnet Institute's response to The Commonwealth Government COVID-19 Response Inquiry



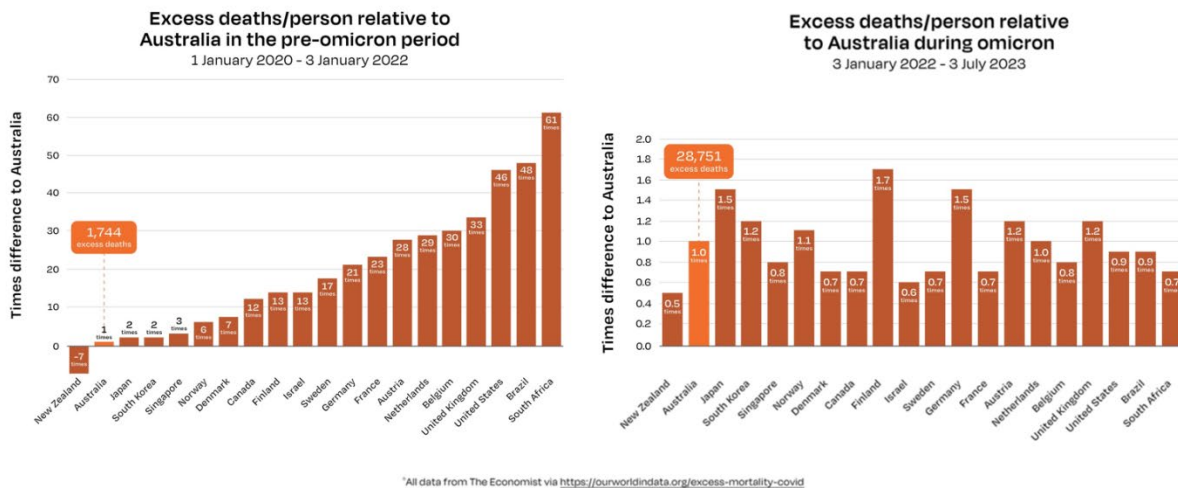
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reach for the many



Attachment 1: Supporting Evidence for the Burnet Institute Inquiry Submission

1.1 Country comparisons of Excess Mortality per person from Our World in Data over the pre and post omicron periods.

The Burnet Institute is undertaking detailed global comparative analysis of COVID-19 response strategies and the associated health, social and economic impacts, with findings available in mid-2024. Between-country comparisons of excess mortality per person, the best single impact indicator of all the metrics available, has been undertaken using [Our World In Data](#) excess mortality data. 20 countries were selected for comparison. This analysis demonstrates exceptional levels of deaths averted in Australia in 2020-2021 compared to other countries. It also demonstrates a marked difference in the comparative effectiveness of Australia’s response between the first two years and second two years of the pandemic. Analysis has been separated into two phases of the pandemic: (1) Emergency pre-vaccine, pre-Omicron phase, and (2) Emergency post-vaccination, Omicron and opening phase.



First 2 years – pre-vaccine and pre-Omicron (2020-2021):

The effectiveness of the pre-vaccination and early vaccine era public health responses to COVID in Australia resulted in a per person excess death rate that was 33 times lower than the UK, 46 times lower than the USA, and 61 times lower than South Africa. In 2020-2021, there were an estimated 1,744 excess deaths due to COVID-19 in Australia. Had Australia experienced equivalent levels of excess deaths as the UK or the USA, there would have been 57,552 or 80,224 lives lost, respectively. Note these estimates have not been corrected for demographics, but this is unlikely to have significant effect on the magnitude of differences stated.

Second 2 years – post-vaccine and post-Omicron (2022-2023)

Relative to 2020-2021, excess deaths due to COVID-19 in Australia increased 18-fold, reaching 31,000 in the post-Omicron period. Post-Omicron, Australia’s excess death per person became more closely aligned with countries like the UK, USA, and South Africa (1.2, 0.9, and 0.7 times that of Australia, respectively). As



observed in the graph below, excess deaths per person in Australia are higher than the majority of countries compared (unadjusted for demographics).

Australia's early successes in controlling COVID-19, did not appear to predict the spread or health impacts of COVID during subsequent waves (similarly in New Zealand); there is not an indication that there were inevitable “catch-up deaths” post-reopening in countries like Australia that had controlled the virus well in the early phase. (Attachment 1). The magnitude of the benefits of lives saved in the first two years have not been eroded in the later years; if they had we would have experienced over 80,000 deaths by now. Countries like the UK and the USA who experienced high excess deaths per person in the first two years, continued to. In stark contrast to the pre-omicron era where there was 67 times difference in deaths per person between the highest (South Africa) and lowest (New Zealand) countries, all 20 countries looked at here fared much more similarly in this period with only 3 times the difference between the highest (Finland) and lowest (New Zealand) countries. While we know vaccine-induced immunity is powerfully (albeit imperfectly) protective against severe disease and death, the relative similarity in death rates seen across these countries in the omicron era suggests cross-variant, infection-based immunity is largely ineffective.

1.2 Measures deployed in the 2020-2021 aggressive suppression strategy.

This strategy centred on the following measures:

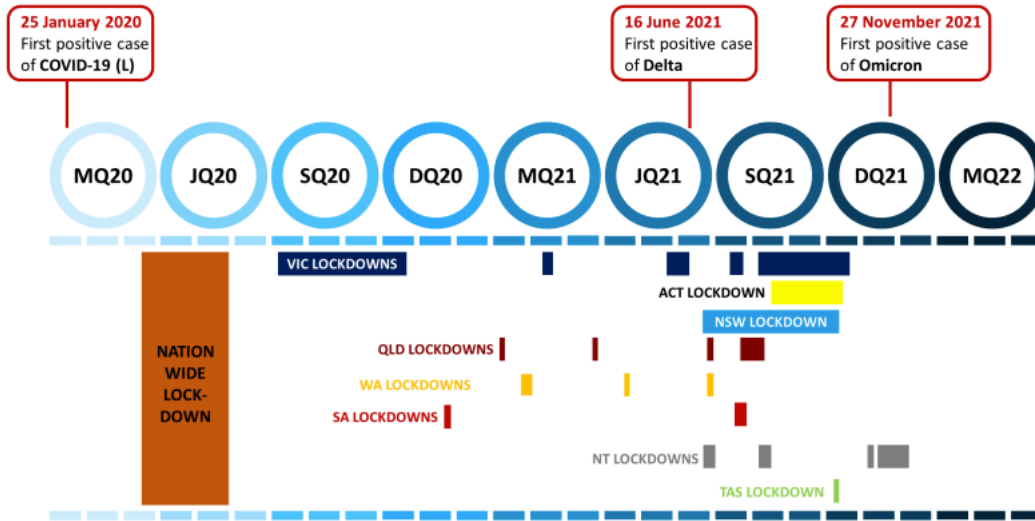
- Closed international borders and stringent quarantine approach to minimise incursion risk
- A Test, Trace Isolate and Quarantine approach to identify and isolate cases and exposed persons (with massive scale-up of pathology, contact tracing, information management systems, enforcement system capacities in particular in Victoria and NSW)
- Public health recommendations such as face coverings, movement restrictions and density limits to minimise transmission risks
- Internal border closures, including between states and territories and intra-jurisdictions to contain community transmission.
- Other surveillance strategies, such as waste water monitoring, and surveillance testing strategies such as of high-risk workforces (hotel quarantine workers, ports-of-entry workers, healthcare and aged care workers, abattoirs and food processing, freight drivers, etc) to minimise risk of spread.
- Vaccination requirements imposed through various Commonwealth and state government mandates to ensure rapid coverage (once vaccine supply was secured), and including supporting vaccination policy and programs.
- TGA restrictions on the use of home-testing with rapid antigen tests, until the point at which community transmission was well established and the risk of a single case being missed was significantly reduced.
- Underpinned by a comprehensive social protection approach, deploying broad-based and targeted financial assistance programs to individuals and businesses. These were essential at minimising the acute non-health pandemic burden on individuals and households, and likely underpinned high levels of public compliance with public health strategies in Australia.
- Targeted strategies to support Aboriginal and Torres Strait Islander communities.
- Relatively high levels of trust in government and in public health response.

Modelling estimates that public health restrictions during Victoria's 2021 Delta outbreak would have averted over 120,000 hospitalisations and 5,000 deaths compared to voluntary risk-mitigation alone (Delpont et al., 2023). This modelling study also showed that Victoria's aggressive restrictions did not simply delay an epidemic wave but averted substantive negative outcomes.



Comparison of days in lockdown by Australian jurisdictions

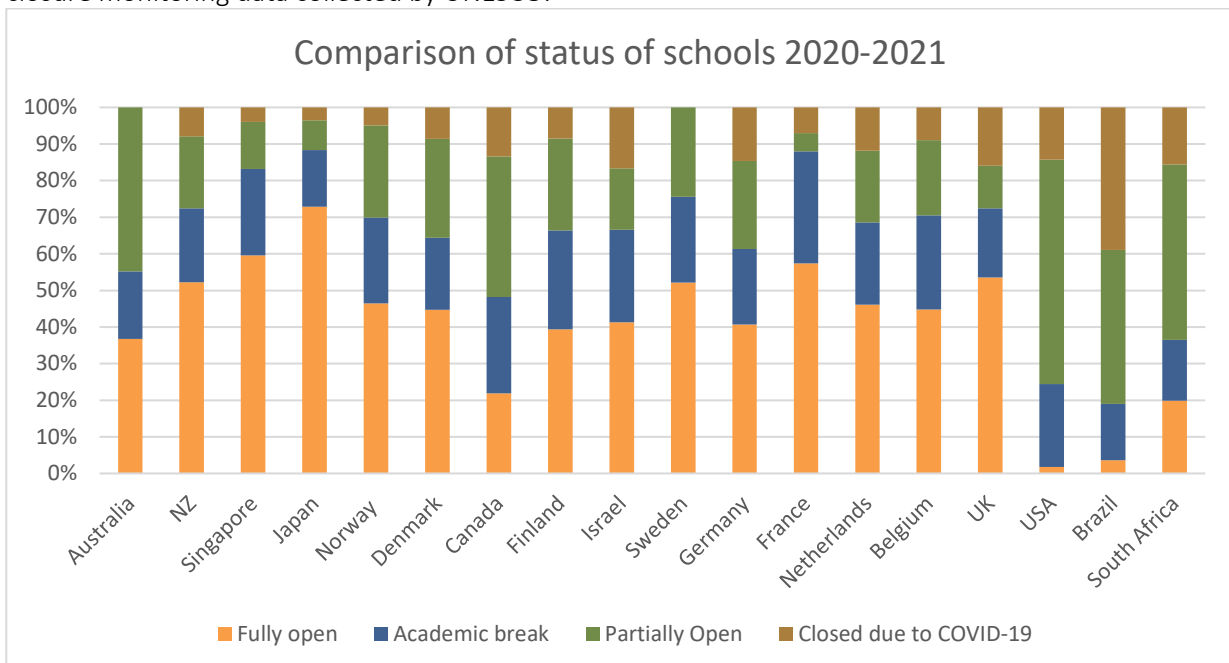
The Australian Bureau of Statistics published findings on the effects of COVID-19 strains on the Australian Economy in June 2022, including a comparison of time in lockdowns across Australian jurisdictions. While Victoria and NSW experienced substantial amount of days in lockdown, the rest of the country experienced a relatively virus and lock-down free period.



Note: the lockdowns shown in the above timeline are for metropolitan areas only.
(Source: <https://www.abs.gov.au/articles/effects-covid-19-strains-australian-economy>)

Comparison of school closures across countries using UNESCO school closure data in 2020-2021

Multi-country comparison of days of school closure is summarised in the diagram below using school closure monitoring data collected by UNESCO.



(Source: <https://covid19.uis.unesco.org/global-monitoring-school-closures-covid19/>)



1.3 Optimise Study findings on COVID-19 vaccine intention and uptake

We analysed survey responses from the Optimise cohort between 11-May-2022 and 26-August-2022. Analysis of the following survey questions is presented:

1. How many doses of COVID-19 vaccine have you received? State the total number of doses across all vaccine types (AstraZeneca, Pfizer, Moderna, etc).
2. Do you think you would have further doses of the vaccine if recommended?
3. Why did you decide to get a COVID-19 vaccine? Please select all that apply.

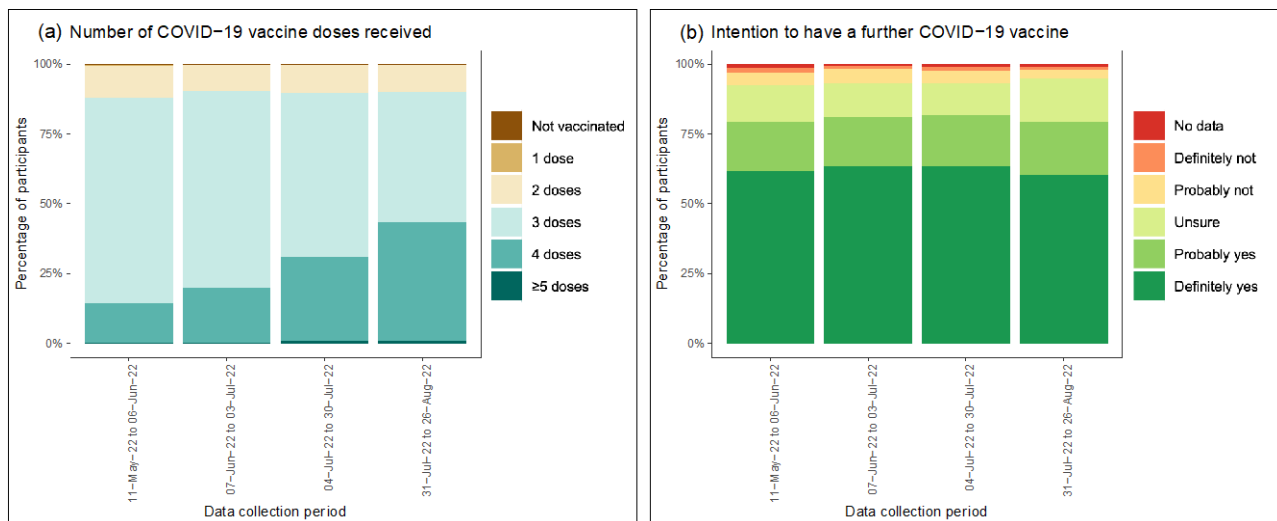


Figure 1. Vaccine uptake and intention. Subfigure (a) shows the number of vaccine doses already received. Subfigure (b) shows the intention to receive a further vaccine if it was recommended.

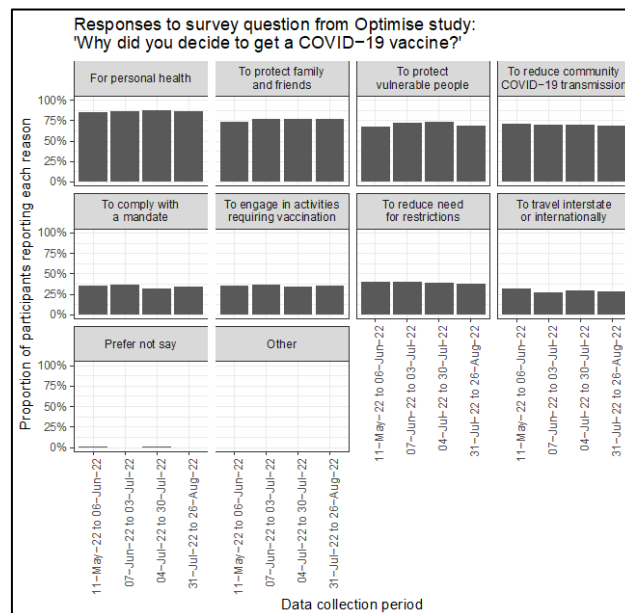


Figure 2. Self-reported reasons for having received a COVID-19 vaccine.

The proportion of people having received more than three vaccine doses increased from 14% between 11-May-22 and 06-Jun-2022 to 43% between 31-Jul-22 and 26-Aug-22 (see **Error! Reference source not found.**(a); $p < 0.01$, χ^2). The proportion of people reporting 'definitely yes' when asked if they would have a further COVID-19 vaccine (Q2, see Table 1) was 62% between 11-May-22 and 06-Jun-2022 and was 60% between 31-Jul-22 and 26-Aug-22 (see **Error! Reference source not found.**(b); $p = 0.69$, χ^2). There was no



significant change over time in the proportion of participants reporting that they had sought a COVID-19 vaccine to comply with a mandate.

Current research and political foci on demographic determinants of vaccine uptake risks obfuscating nuanced socio-cultural drivers of vaccination motivations or structural and health systems impediments to vaccine uptake. Analysis of data from the Optimise cohort showed compliance with mandates was not a primary reason for COVID-19 vaccine uptake in the Optimise cohort in 2022. Potential solutions require novel vaccine campaigns addressing concerns, promoting vaccine benefits and acknowledging social and cultural contexts associated with vaccine intention to avoid polarisation and stigmatisation. Primary motivations for vaccine uptake were protection of family, friends, vulnerable people and oneself.