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This working paper is updated frequently. Check for the most recent version here:
http://www.bsg.ox.ac.uk/covidtracker

The most up-to-date version of our technical documentation can be found on the project's GitHub repo: http://www.github.com/OxCGRT/covid-policy-tracker

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Summary

Key findings

- During 2020, COVID-19 policy responses were similar across all Australian states and territories. This was likely due to the coordinating role of the newly formed National Cabinet, limited available information about the coronavirus, and limited exposure to the coronavirus throughout the Australian population.
- During 2021, significant variations in COVID-19 policy responses between Australian states and territories emerged. Two different general policy strategies became apparent. States and territories with low coronavirus exposure used strict border controls (to prevent the virus entering from jurisdictions with higher case numbers) and instigated brief stay-at-home orders ('snap lockdowns') in response to even very few cases being detected in the community. States with higher coronavirus exposure (particularly New South Wales and Victoria) used stringent policies including stay-at-home orders, remote learning, and workplace closures for extended periods of time. A stated focus of both policy strategies was to suppress COVID-19 case numbers until vaccine supply could be secured and high vaccination rates achieved.
- Towards the end of 2021, the Omicron variant reached Australia and policy decision makers believed that previously effective suppression strategies would no longer work against the more infectious variant. This, in combination with the high vaccination rates achieved, saw a reduction in the stringency of COVID-19 policy responses across New South Wales and Victoria.
- Our analysis of Google Mobility data suggests that Victorians, living under the most stringent COVID-19 policy settings, were less compliant compared to those in other jurisdictions with less stringent policy settings.
- Residents of the cities of Melbourne and Sydney (and to a lesser extent the states of New South Wales and Victoria), endured significantly more days living under stay-at-home orders, remote learning, and workplace closures when compared with all other Australian cities and state/territory jurisdictions.

1.   Introduction

The COVID-19 pandemic led to unforeseen policy responses across all levels of the Australian government to first eliminate and later mitigate the pandemic spreading across the nation. Queensland was the first Australian jurisdiction to declare a public health emergency on January 29, 2020, under the Public Health Act 2005 (Qld)[1]. A human biosecurity emergency was declared by the Federal Government on 18, March 2020 under the Biosecurity (Human Biosecurity Emergency) (Human Coronavirus with Pandemic Potential) (Emergency Requirements) Determination 2020[2]. As Australia is an island nation, borders were closed by the Federal Government to all non-residents on March 20, 2020, with returning residents required to quarantine for two weeks before entering Australia[3]. Beginning March 18, 2020, the Federal and the State and Territory governments (the National Cabinet) agreed that each jurisdiction would implement legislation restricting indoor gatherings of greater than 100 people[4].

This working paper provides an overview of the key policy decisions taken to curtail the transmission of COVID-19 and protect public health in the eight Australian states and territories. It examines the extent of compliance with policy measures and details the number of days that key policy measures were enacted in major Australian cities and states and territories.

2.   Data and measurement

For the eight Australian states and territories and the national government, the Oxford Government COVID-19 Response Tracker (OxCGRT) reports publicly available information on 19 indicators of government response (see Table 1).[5] Given the federal government is responsible for fiscal measures (E3), providing international support (E4) and emergency investment in healthcare (H4) the subnational data collection includes 16 of 19 indicators.

The indicators are of three types:
- **Ordinal:** These indicators measure policies on a simple scale of severity or intensity. These indicators are reported for each day a policy is in place. Many have a further flag to note if they are "targeted", applying only to a sub-region of a jurisdiction, or a specific sector; or "general", applying throughout that jurisdiction or across the economy. It is important to note that the flag for indicator E1 has a different interpretation, described below.
- **Numeric:** These indicators measure a specific monetary value in US dollars. These indicators are only reported on the day they are announced.
- **Text:** This is a "free response" indicator that records other information of interest

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[1] https://web.archive.org/web/20220516002649/https://www.health.qld.gov.au/system-governance/legislation/cho-public-health-directions-under-expanded-public-health-act-powers/revoked/revocation-of-public-health-and-social-measures-linked-to-vaccination-status-direction-4

[2] https://web.archive.org/web/20220516002740/https://www.legislation.gov.au/Details/F2020L00480

[3] https://web.archive.org/web/20220516002820/https://www.pm.gov.au/media/border-restrictions

[4]https://web.archive.org/web/20220516002904/https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2F7245205%22

[5] OxCGRT policy data – including high-level Australian state and territory data – is publicly available on GitHub: https://github.com/OxCGRT/covid-policy-tracker

Our raw data on Australian states and territories is published on a dedicated GitHub repository: https://github.com/OxCGRT/Australia-covid-policy

For 10 of the policy indicators, we report the policy that applies to both vaccinated and unvaccinated people if there is differentiation.[6]

At the time of publication, this data covers the period from January 2021 through to the present day. Data from 2020 is still being recorded into the database.

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[6] at the time of writing, these differentiated policies are still an experimental dataset, and are published in a different location to our core data: https://github.com/OxCGRT/covid-policy-scratchpad/tree/master/differentiated_vaccination_policies

Table 1: Oxford Government COVID-19 Response Tracker (OxCGRT) Indicators

ID	Name	Type	Targeted/ General?	Differentiation based on vaccination status?	Australian states and territories
Containment and Closure					
C1	School closing	Ordinal	Geographic	Yes	✓
C2	Workplace closing	Ordinal	Geographic	Yes	✓
C3	Cancel public events	Ordinal	Geographic	Yes	✓
C4	Restrictions on gathering size	Ordinal	Geographic	Yes	✓
C5	Close public transport	Ordinal	Geographic	Yes	✓
C6	Stay-at-home requirements	Ordinal	Geographic	Yes	✓
C7	Restrictions on internal movement	Ordinal	Geographic	Yes	✓
C8	Restrictions on international travel	Ordinal	No	Yes	✓
Economic Response					
E1	Income support	Ordinal	Sectoral	No	✓
E2	Debt/contract relief for households	Ordinal	No	No	✓
~~E3~~	~~Fiscal measures~~	~~Numeric~~	~~No~~	–	
~~E4~~	~~Giving international support~~	~~Numeric~~	~~No~~	–	
Health Systems					
H1	Public information campaign	Ordinal	Geographic	No	✓
H2	Testing policy	Ordinal	No	No	✓
H3	Contact tracing	Ordinal	No	No	✓
~~H4~~	~~Emergency investment in healthcare~~	~~Numeric~~	~~No~~	–	
H5	Investment in Covid-19 vaccines	Numeric	No	No	
H6	Facial coverings	Ordinal	Geographic	Yes	✓
H7	Vaccination Policy	Ordinal	Cost	No	✓
H8	Protection of elderly people	Ordinal	Geographic	Yes	✓
Vaccine Policies					
V1	Vaccine prioritisation	Categorical	No	No	
V2	Vaccine eligibility/availability	Categorical	No	No	
V3	Vaccine financial support	Categorical	No	No	
V4	Mandatory vaccination	Binary	No	No	

2.1 Coding policy responses

Coding of policies is informed by data collected from publicly available sources such as government press releases and briefings and if these are absent, reputable news articles. These are identified via internet searches by a team of over 50 student volunteers recruited from Australian universities. OxCGRT records the original source material so that coding can be checked and substantiated, available in the "notes" version of the data files on GitHub.

To ensure accuracy and consistency in the interpretation of the sources, all data collectors are required to complete a thorough training process. Weekly meetings are held to discuss and clarify how to code edge cases, building a shared understanding of the codebook and its interpretation considering concrete examples.

Every data point is reviewed by a second coder, who examines the data entry and the original source, and either confirms the coding choices of the original coder or flags the data entry for escalation. Data may be corrected via this review process or following external feedback from other volunteers, data users or the Project Manager. Substantial revisions are rare.

The Australian subnational data is presented as part of the main OxCGRT dataset, publicly available on GitHub.[7] This main dataset records both the overall most stringent policies in Australia (these are given a label of NAT_TOTAL) as well as the overall most stringent policy in each state or territory (labelled STATE_TOTAL), regardless whether the policy was set by the state/territory or national governments (e.g. International travel bans exist in every state, but the policy is set by the Federal Government). Detailed data is published in a separate Australian dataset, which includes measures taken by an individual level of government (this is labelled STATE_WIDE) as well city level policies that are targeted to the state or territories capital city or the rest of the jurisdiction.[8]

Policies described with the suffix "_WIDE" capture all government responses set by a given jurisdiction and its sub-components. "_WIDE" policies do not incorporate general policies from higher levels of government that may supersede local policies, but they do capture policies from higher-level governments if they are specifically targeted at that subnational jurisdiction. For example, if a national government orders events to close in a particular city experiencing an outbreak (even though this is a policy from the Federal Government, we would still report it under STATE_WIDE or CITY_WIDE). Policies described with the suffix "_TOTAL" describe all government responses that apply to a specific jurisdiction, regardless of which level of government set the policy (e.g. STATE_TOTAL will report all policies set by a state government, plus the cities within that state, and includes inherited policies from higher levels that affect that state). For example, if a country has an international travel restriction that applies country-wide, this will appear as a NAT_GOV policy and be inherited by STATE_TOTAL and CITY_TOTAL, but not by STATE_WIDE nor CITY_WIDE.

The Australian jurisdictions that are coded for are presented in Table 2.

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[7] https://github.com/OxCGRT/covid-policy-tracker
[8] https://github.com/OxCGRT/Australia-covid-policy

Table 2: OxCGRT Australian subnational jurisdictions

Federal Government	State/territory	'City'
National Government		
	New South Wales	Greater Sydney & Rest of New South Wales
	Victoria	Greater Melbourne & Rest of Victoria
	Queensland	Greater Brisbane & Rest of Queensland
	South Australia	Greater Adelaide & Rest of South Australia
	Western Australia	Greater Perth & Rest of Western Australia
	Tasmania	Greater Hobart & Rest of Tasmania
	Northern Territory	Greater Darwin & Rest of Northern Territory
	Australian Capital Territory	

Data collection occurs in once-per-week cycles and the database will continue to be updated and reviewed to provide accurate real-time information on the Australian subnational government response. The data is published in real time and made available immediately on GitHub, via an API and licensed under the Creative Commons Attribution CC BY 4.0 standard.

3.   Policy indices of COVID-19 government responses

Governments' responses to COVID-19 exhibit significant nuance and heterogeneity. Moreover, like any policy intervention, their effects are likely to be highly contingent on local political and social contexts. These issues create substantial measurement difficulties when seeking to compare government responses in a systematic way.

Composite measures that combine different indicators into a single index abstract away from these nuances. The strengths of a single summative index include the capacity for systematic comparison across different states and by measuring a range of indicators – they limit over-interpretation of a single policy measure. However, composite measures can leave out important information, and make strong assumptions about the kind of information that is important. If the information that is excluded by a composite index is systematically correlated with the outcomes of interest, or systematically under- or overvalued compared to other indicators, such composite indices may introduce measurement bias. Hale et al. (2021) discuss three methods to create a composite index, however in this paper we use a simple additive index of the policy measures collected.

For the nine jurisdictions in Australia, the indicators described above in Section 2 are aggregated into four policy indices, each of which measures a different set of government responses (the indicators that make up each index are listed in Table 3):

1. A *containment and health index*, showing how many and how forceful the measures to contain the virus and protect citizen health are (this combines 'lockdown' restrictions and closures with health measures such as testing policy and contact tracing)

2. An *economic support index*, showing how much economic support has been made available (such as income support and debt relief)
3. A *stringency index*, which records the strictness of 'lockdown style' closure and containment policies that primarily restrict people's behaviour
4. An *overall government response index* which records how the response of states has varied over all indicators, capturing the full range of government responses.

Table 3: OxCGRT indices

Index Name	C1	C2	C3	C4	C5	C6	C7	C8	E1	E2	H1	H3	H6	H7	H8
Government Response Index	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Containment and Health Index	X	X	X	X	X	X	X	X			X	X	X	X	X
Stringency Index	X	X	X	X	X	X	X	X			X				
Economic Index									X	X					

Each index is composed of a series of individual policy response indicators. For each indicator, we create a score by deducting half a point from the ordinal value for a targeted flag, where such a geographic flag exists. We then rescale each of these by their maximum value to create a score between 0 and 100, with a missing value contributing 0.[9] These scores are then averaged to get the composite indices.[10] Figure 1 illustrates the state and territory averages for each of these composite indices for Australia.

Importantly, the indices should not be interpreted as a measure of the appropriateness or effectiveness of a government's response. They do not provide information on how well policies are enforced, nor do they capture demographic or cultural characteristics that may affect the spread of COVID-19. Furthermore, they are not comprehensive measures of policy. They only reflect the indicators measured by the OxCGRT (see Tables 1 and 2), and thus may miss important aspects of a government response. The value and purpose of the indices is instead to allow for efficient and simple cross provincial comparisons of government interventions. Any analysis of a specific state/territory should be done based on the underlying policy, not on an index alone. In the sections that follow, we display principally the Stringency Index, as it correlates most closely with the kinds of policies considered as 'lockdown' measures.

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[9] We use a conservative assumption to calculate the indices. Where data for one of the component indicators are missing, they contribute "0" to the Index. An alternative assumption would be to not count missing indicators in the score, essentially assuming they are equal to the mean of the indicators for which we have data for. Our conservative approach therefore "punishes" states for which less information is available, but also avoids the risk of over-generalizing from limited information.

[10] Full details on the construction of the indices are available on GitHub:
https://github.com/OxCGRT/covidpolicytracker/blob/master/documentation/index_methodology.md

Figure 1: Combined state/territory averages of the four OxCGRT indices
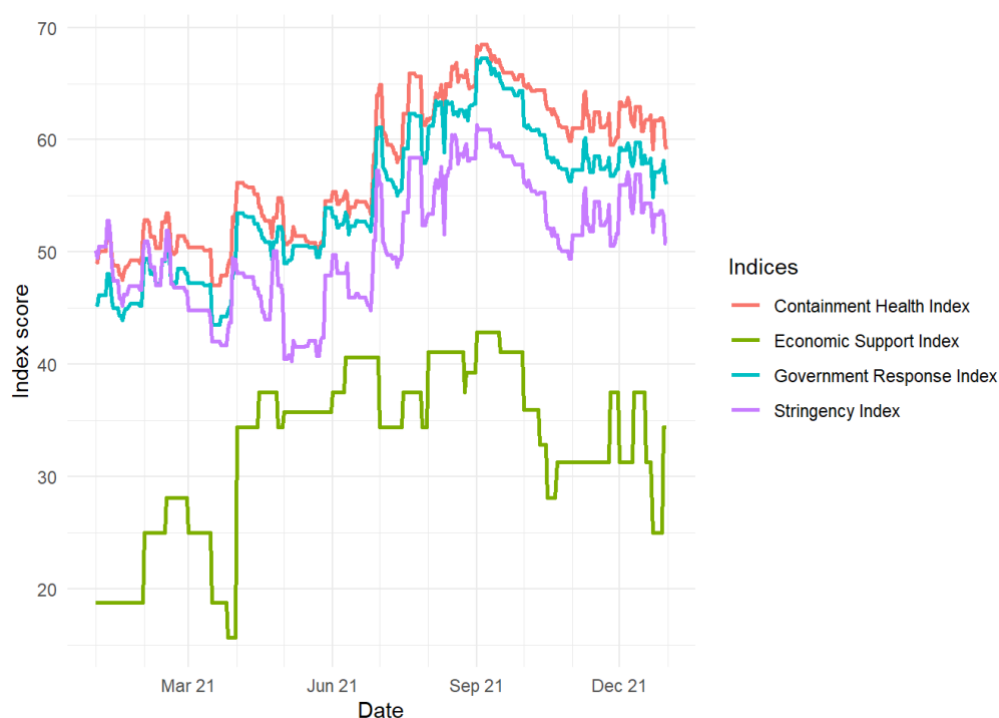
4.   The Australian context:

The first confirmed case of COVID-19 in Australia was identified on January 25, 2020, in Victoria who had recently travelled to Wuhan, China[11]. Similarly, New South Wales also recorded their first three cases the same date from a returning traveller to China[12]. The Australian Capital Territory was the last Australian jurisdiction to have a confirmed case which was on March 12, 2020[13]. On March 20, 2020, Australia banned international arrivals into the country with exceptions for Australian citizens, permanent residents and their immediate families provided they quarantine for two weeks[14] .

The first wave of cases was initially concentrated in the most populous states of New South Wales and Victoria[15]. Interstate border restrictions were first introduced in the least populous states of Tasmania on March 19, 2020, and Northern Territory on March 21, 2020, to protect their populations against the rising COVID-19 infections in Victoria and NSW[16]. The first restrictions on indoor gatherings for Australia were introduced in NSW on March 16 for indoor gatherings of

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[11]https://web.archive.org/web/20220516003020/https://www.health.gov.au/ministers/the-hon-greg-hunt-mp/media/first-confirmed-case-of-novel-coronavirus-in-australia
8https://web.archive.org/web/20220516003120/https://www.health.nsw.gov.au/news/Pages/20200125_03.aspx
[13]https://web.archive.org/web/20220516003228/https://www.cmtedd.act.gov.au/open_government/inform/act_government_media_releases/hd/2020/covid-19-case-confirmed-in-the-act
[14] https://web.archive.org/web/20220516002820/https://www.pm.gov.au/media/border-restrictions
[15]https://web.archive.org/web/20220516003420/https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release
[16] https://web.archive.org/web/20220516003514/https://www.health.gov.au/news/deputy-chief-medical-officer-press-conference-about-covid-19-on-21-june-2020

greater than 500 people[17]. On March 18, the National Cabinet agreed that all states and territories would ban indoor gatherings of greater than 100 people[18].

Australia is a highly decentralised federation that permits each state and territory to enact policies that respond to local context. Health policies are typically a state and territorial responsibility, and most of the COVID-19 pandemic policy restrictions have been introduced by state and territory governments and health officials. The federal government has focused on responsibilities that fall within their purview including international travel restrictions (excluding quarantine arrangements), health care funding, economic stimulus, employment insurance, and vaccine procurement. The federal government has led Australia's economic response to the pandemic. For individuals, the Australian federal government provided a JobSeeker supplement of up to $950 per fortnight for those seeking employment[19]. They also financed the Pandemic Leave Disaster Payment. Workers who contract COVID-19 and lose at least 8-hours of work received a lump sum payment of up to $750.[20]

The COVID-19 pandemic led to the establishment of the National Cabinet; an intergovernmental decision-making forum composed of the Prime Minister and state and territory to negotiate COVID-19 related policies[21]. The decisions arising from the National Cabinet are implemented by the individual Commonwealth and state and territory governments and sometimes result in divergent policy responses[22]. The decisions arising from the National Cabinet are implemented by the individual Commonwealth and state and territory governments and sometimes result in divergent policy responses[23].

A human biosecurity emergency declared by the Federal Government on 18, March 2020 under the Biosecurity (Human Biosecurity Emergency) (Human Coronavirus with Pandemic Potential) (Emergency Requirements) Determination 2020[24]. This allows the Federal Health Minister to issue any direction that the Minister considers is necessary to: (1) prevent or control the entry to, emergence, establishment, or spread of COVID-19 in Australia, (2) prevent or control the spread of COVID-19 to another country or (3) implement a WHO Recommendation under the International Health Regulations[25]. Australian states and territories policy responses were mostly consistent during the beginning of the pandemic with first restrictions beginning on March 15, 2020, restricting large gatherings in NSW and similar policy measures followed in the coming days in the other states and territories. The National Cabinet agreed to close non-essential businesses across Australia on March 25 in response to a sharp rise in COVID-19 cases particularly from the over 600 infected people that returned home from the Ruby Princess cruise ship docking in Sydney[26].

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[17] https://web.archive.org/web/20200910043555/https://www.nsw.gov.au/news/special-state-powers-triggered-to-combat-coronavirus

[18] https://web.archive.org/web/20220516003553/https://www.pm.gov.au/media/update-coronavirus-measures

[19] https://web.archive.org/web/20220516003727/https://www.servicesaustralia.gov.au/jobseeker-payment

[20] https://web.archive.org/web/20220516003932/https://www.servicesaustralia.gov.au/pandemic-leave-disaster-payment

[21] https://web.archive.org/web/20220516004016/https://federation.gov.au/national-cabinet

[22] Ibid.

[23] Ibid.

[24] https://web.archive.org/web/20220303055909/https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/FlagPost/2020/March/COVID-19_Biosecurity_Emergency_Declaration

[25] Ibid.

[26] https://web.archive.org/web/20220516004126/https://www.pm.gov.au/media/update-coronavirus-measures-24-March-2020

Victoria had the most consistently stringent policies during 2021, most notably with six periods of stay-at-home orders and over double the length of school closures for Melbourne than any other state/territory (over 170 days total). These lockdowns in Victoria were seen as temporary measures to limit outbreaks to certain areas in hope to stop the spread of COVID-19 and limit the burden on the healthcare system while the procurement of COVID-19 vaccines in Australia were delayed. Contrastingly, NSW had similar periods of significant outbreaks, but the NSW government was hesitant to implement as stringent policy measures out of concern for the impact on the economy and small businesses.

During 2020 and until July 2021 all Australian jurisdictions were attempting to maintain a covid-zero approach by introducing "snap lockdowns" to limit the spread of COVID-19 typically around the capital city areas. For some states such as Queensland, Victoria and NSW these lockdowns continued for several weeks to limit the transmission. The Northern Territory had regular snap lockdowns to protect their vulnerable and remote Indigenous communities and are the only Australian jurisdiction to introduce 'lockouts' which would ban entry to specific communities and in 2022 would enforce the unvaccinated people in those communities to be under stay-at-home restrictions and only allowed to leave for essential purposes [27]

At the beginning of 2022, all jurisdictions except WA in Australia decreased most of their closure and containment policies, even as case numbers were at an all-time, because the nation reached high vaccination rates and omicron was revealed to be less fatal and causing lower hospitalisation rates. Moving into 2022, the only state that maintained a similar approach to managing the pandemic as in 2021 is WA as the WA Government tried to maintain an elimination approach to COVID-19. Parts of WA went into lockdown at the beginning of 2022 and the state was the final state to relax its hard state border allowing triple vaccinated travellers quarantine-free entry from March 3, 2022.

Most Australian jurisdictions used targeted policies, typically towards the capital cities, as they are much more densely populated then regional areas with 68% of the Australian population living in the greater capital city statistical areas[28]. This is reflected by comparing the indices of the greater cities with the rest of the state. In NSW, this can be seen throughout 2021 particularly at the beginning of the year and from July with the delta outbreak where policies in Greater Sydney were often over 5 points higher than the rest of NSW on the SI, but never the inverse. This logic applied to all of Australia's states and territories except for NT where there were short periods throughout 2021 where the rest of NT had significantly higher SI than Darwin. This was due to some regional communities entering snap lockdowns to contain transmission to vulnerable groups with limited services.

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[27] https://archive.ph/klhGe
[28] https://archive.ph/2Kwh4

Figure 2: State and territories Stringency Index values in 2021
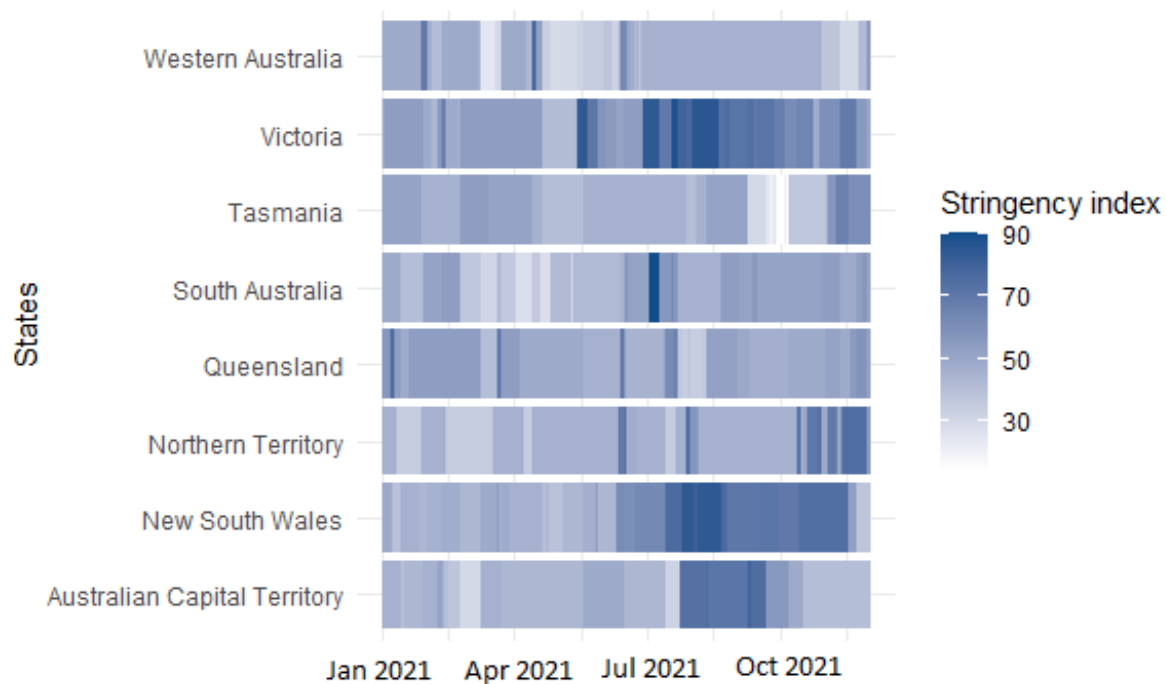
5.   Variation in the Australian State and Territorial Responses to COVID-19

5.1 Australian Capital Territory

The Australia Capital Territory (ACT) is the smallest Australia state/territory by land size, and the second smallest in terms of population size. It is landlocked within New South Wales (NSW) on the south-east of the main island of Australia. A key feature of the territory is that it contains Australia's national capital city, Canberra, where around 90% of the territory's population lives in this city, and the remaining 10% live in a few other townships within the territory. The territory's population is made up largely of federal and state public service workers, accounting for around 42% of the territory's workforce in 2017[29].

Australia began experiencing the introduction of its first COVID-19 cases in early March 2020. The ACT government created a COVID-19 website to provide important updates and educational resources on March 1, 2020[30]. The ACT's first COVID-19 case was recorded on March 12, 2020[31] , becoming the last Australian state or territory to record its first case. A public health emergency was declared in the territory on March 16, 2020[32] . The ACT began increasing its response to the outbreak, setting up a drive through testing clinic on March 19, 2020, and encouraging anyone who

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[29] https://web.archive.org/web/20220516005806/https://www.abc.net.au/news/specials/curious-canberra/2017-11-20/are-all-canberrans-public-servants/9151638?nw=0&r=HtmlFragment

[30] https://web.archive.org/web/20200329135453/https://www.covid19.act.gov.au/home

[31] https://web.archive.org/web/20220217025701/https://www.cmtedd.act.gov.au/open_government/inform/act_government_media_releases/hd/2020/covid-19-case-confirmed-in-the-act

[32] https://web.archive.org/web/20220217030450/https://www.canberratimes.com.au/story/6679592/public-health-emergency-could-extend-for-months/

had been interstate or overseas to get tested[33] . The Chief Minister announced a $137 million-dollar economic support package for the up-and-coming restrictions[34] . At a press conference, the Chief Minister for ACT announced border restrictions to the territory on March 22, 2020, becoming one of a few Australian states or territories to do so. Following agreement from the National Cabinet, March 23, 2020, was the day the territory went into its first form of lockdown, with non-essential business and workplaces required to close as well as non-household visiting restrictions[35] . The following day saw schools close for the remainder of the school term[36] .

The territory began to see some measures ease on May 1, 2020, when the minister announced that 1 adult and 2 children could visit another household, and non-essential retail shopping could re-commence[37] . The plan for children to return to schools was set for May 18, 2020[38]. May 26th, 2020, was the date that significant easing of restrictions took place, where larger gatherings of people in public places could occur as well as more non-essential shops reopening [39]. Fortunately for residents in the ACT, the easing restrictions that would progress from late May/early April continued for much of the next year and a half.

The ACT went into the summer holiday period of late 2020 and early 2021 with similar policy parameters in place. There was, however, mounting pressure to respond to clusters of cases appearing in nearby New South Wales over December 2021 and January 2022. Due to this, the Minister for ACT, Andrew Barr, announced a full border closure of affected areas in NSW on December 21, 2020[40]. The ACT managed did not record any cases during the beginning of 2021, which led to the border with neighbouring NSW being reopened on January 21, 2021[41].

Phase 1a of Australia's national vaccine rollout was announced to begin on February 22, 2021[42]. During phase 1a, the vaccine was accessible to quarantine and border workers, health care workers working in high-risk exposure and transmission areas, like COVID-19 testing clinics, respiratory clinics and some emergency department staff, and residents and staff of aged care and disability residential care facilities. Both Pfizer and AstraZeneca were being released. The vaccine rollout progressed to most of the population around June or July 2021, with priority (e.g. high-risk patients) and elderly groups being vaccinated from February 2021.

The containment and health index for ACT remained within a range of 30-45 for most of the first half of 2021 as shown in Figure 3. Apart from COVID-Safe plans being required for large-scale events and

[33]https://web.archive.org/web/20200330073637/https://www.covid19.act.gov.au/news-articles/drive-through-testing-for-covid-19-to-commence-at-epic-from-friday

[34]https://web.archive.org/web/20220217032636/https://parlinfo.aph.gov.au/parlInfo/download/library/prspub/7614514/upload_binary/7614514.pdf

[35] https://web.archive.org/web/20220102071517/https://www.legislation.act.gov.au/View/ni/2020-169/20200323-73519/html/2020-169.html

[36]https://web.archive.org/web/20211229080617/https://www.education.act.gov.au/about-us/all-news-and-news-alerts/news-items/march-2020/act-public-schools-pupil-free-from-tuesday-24-march-to-school-holidays

[37]https://web.archive.org/web/20220217032636/https://parlinfo.aph.gov.au/parlInfo/download/library/prspub/7614514/upload_binary/7614514.pdf

[38]https://web.archive.org/web/20220217032636/https://parlinfo.aph.gov.au/parlInfo/download/library/prspub/7614514/upload_binary/7614514.pdf

[39]https://web.archive.org/web/20220217032636/https://parlinfo.aph.gov.au/parlInfo/download/library/prspub/7614514/upload_binary/7614514.pdf

[40] https://web.archive.org/web/20220203045428/https://www.9news.com.au/national/coronavirus-border-restrictions-state-by-state-nsw-northern-beaches-covid19-cluster-update/106f7c98-b77e-4796-bf9c-64350c33c214

[41] https://web.archive.org/web/20220203045626/https://www.abc.net.au/news/2021-01-22/act-eases-covid-19-travel-restrictions-with-nsw/13082564

[42] https://web.archive.org/web/20210524125251/https://www.covid19.act.gov.au/stay-safe-and-healthy/vaccine/when-will-i-get-the-covid-19-vaccine

hospitality venues, the ACT experience minimal restrictions from January until August 2021. The economic support index also remained stagnant during this period, as most of the support packages implemented during the first outbreak still existed in 2021.

Figure 3: Indices of the Australian Capital Territory and COVID-19 cases in 2021
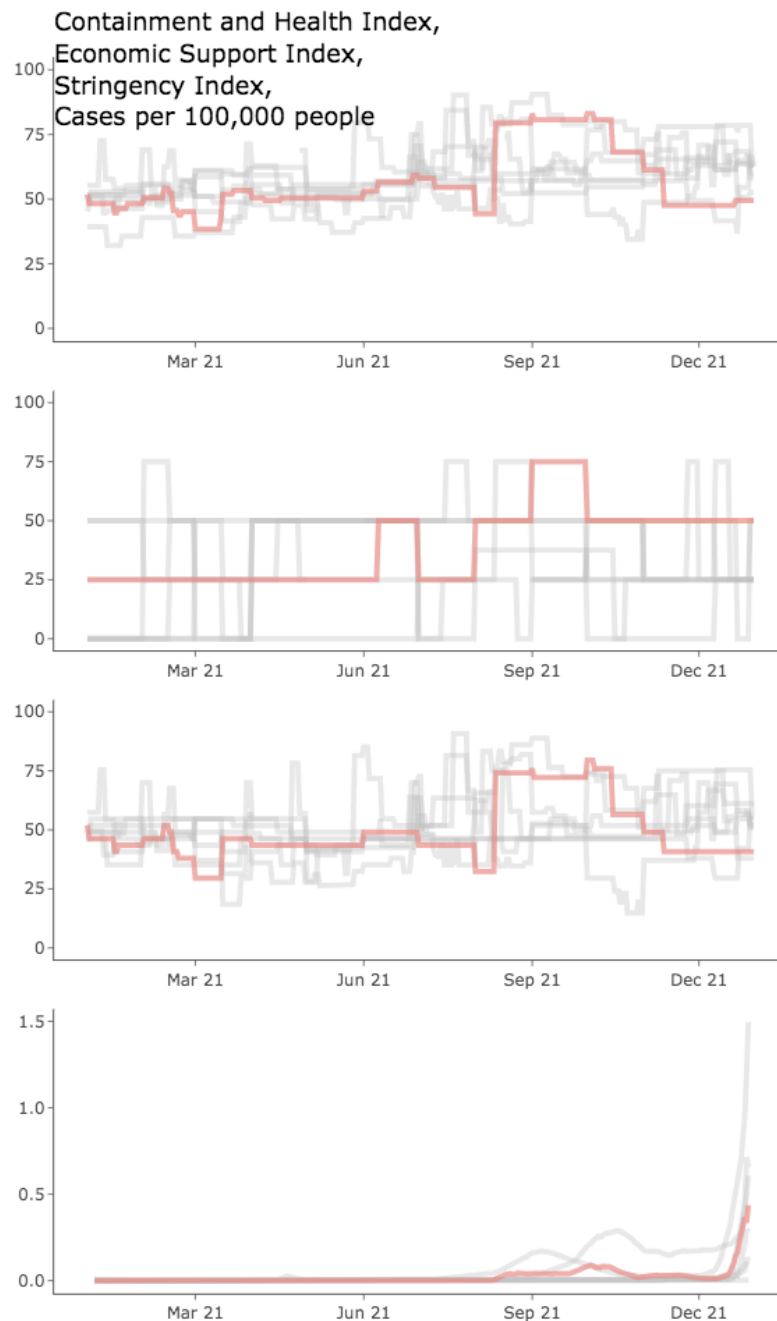
Note: *State/territory shown in red, all other states and territories are shown in grey*

A significant milestone was achieved for the territory on July 10, 2021, as it was announced it had been exactly 1 year since a locally acquired case was found in the ACT[43] . This came much to the

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[43] https://web.archive.org/web/20220203051145/https://www.canberratimes.com.au/story/7330076/one-step-ahead-how-the-act-kept-covid-out-for-a-year/

surprise of ACT residents, as neighbouring NSW had been experiencing a severe outbreak of cases since the end of June.

After escaping the first part of the outbreak in NSW, it was announced on August 12, 2021, that a case had been notified in the ACT [44]. It was suspected the case was a returning traveller from NSW, and the Minister for ACT, Andrew Barr, announced the state would enter an indefinite lockdown. The stay-at-home order would allow residents in the ACT to leave their homes for the five essential reasons - (1) shopping for groceries, (2) essential healthcare, (3) exercise for 1 hour per day, (4) essential caregiving and (5) essential work. The following weeks saw an increased number of cases for the state. The Economic support and Containment and Health index for the state increased during this period. Case numbers continued to remain around the range of 10 to 100 cases per day for some time after the introduction of the lockdown. In addition to this, the Containment and Health index saw a sharp increase to a score of around 80. It was announced by the Minister for ACT, Andrew Barr, that the lockdown would conclude on October 15[45] . This enabled residents to leave their homes to visit others, as well as allowing hospitality venues to be open with capacity restrictions.

The end of lockdown saw a significant increase in case numbers towards the end of 2021. This continued into the summer holiday period, with territory officials facing pressure to re-introduce restriction to combat this increase. It was announced on January 7 that new restrictions would be enforced for the state. These applied to gathering sizes and seated attendance at hospitality venues[46].

5.2 New South Wales

New South Wales is the most populous state in Australia. Of the eight million residents in NSW, about 64.5% live in Greater Sydney. Greater Sydney and Newcastle are the most densely populated areas in the state[47].

The first three cases of coronavirus in NSW were confirmed on January 25, 2020[48]. Initial measures to contain the pandemic were enforced in March 2020. On March 15, NSW Health Minister Brad Hazzard announced the cancellation of all major events with more than 500 people. From March 18, 2020, measures including a ban on non-essential indoor gatherings of more than 100 people and restrictions on visits to aged care facilities were implemented. Non-essential businesses were shut down on March 23, 2020[49]. Parents were encouraged to keep their children at home although there were no school closures[50]. On March 31, 2020, NSW entered a lockdown: residents were not allowed

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[44] https://web.archive.org/web/20211101143830/https://www.covid19.act.gov.au/news-articles/seven-day-lockdown-for-the-act

[45] https://web.archive.org/web/20220207033515/https://www.abc.net.au/news/2021-09-27/act-lockdown-path-forward-revealed/100494524

[46] https://web.archive.org/web/20220207043309/https://www.canberratimes.com.au/story/7573949/tough-new-covid-rules-suddenly-introduced-for-act/

[47] https://web.archive.org/web/20220121134033/https://www.nsw.gov.au/about-nsw/key-facts-about-nsw ; OxCGRT uses the ABS definition of Greater Capital City Statistical Areas (GCCSAs): https://web.archive.org/web/20220314125807/https://www.abs.gov.au/websitedbs/censushome.nsf/home/factsheetsgeography/$file/Greater%20Capital%20City%20Statistical%20Area%20-%20Fact%20Sheet.pdf ;

[48] https://web.archive.org/web/20220225230915/https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp2021/Chronologies/COVID19StateTerritoryGovernmentAnnouncements

[49] Ibid.

[50] https://web.archive.org/web/20211214225456/https://www.nsw.gov.au/media-releases/new-covid-19-restrictions-begin-as-schools-move-towards-online-learning

to leave their homes unless necessary and gatherings were limited to two people[51],[52]. Non-essential travel from metropolitan to regional NSW towns and remote communities were urged to be cancelled[53].

In addition to these containment measures, the NSW Government announced a $2.3 billion health and economic stimulus package on March 17, 2020, which consisted of $700 million in extra health funding, and $1.6 billion in tax cuts[54].

These initial restrictions were relaxed at the end of April 2020. Easing continued throughout May and June 2020, as case numbers remained low. The number of people allowed at gatherings increased gradually, students returned to classrooms in Term 2 and Term 3, and businesses reopened with capacity limits in place[55]. Restrictions were tightened again in July 2020 due to an increase in case numbers before being eased in October 2020[56].

On Dec 19, 2020, the Public Health (COVID-19 Northern Beaches) Order 2020 was issued in response to the Northern Beaches outbreak[57]. The Northern Beaches entered lockdown as residents were required to stay at home unless for approved reasons. Several businesses and venues were subject to restrictions or closure and working from home was recommended. The stay-at-home order was lifted on 10 January 2021[58].

Case numbers were low in the first half of 2021 as shown in Figure 4. This is reflected in the comparatively low policy stringency ranging around 30 to 50, and infrequent policy changes in NSW as shown on the Containment and Health Index in Figure 4.

[51]https://web.archive.org/web/20220222113445/https://legislation.nsw.gov.au/file/Public%20Health%20(COVID-19%20Restrictions%20on%20Gathering%20and%20Movement)%20Order%202020.pdf
[52] Ibid.
[53] https://web.archive.org/web/20220131104734/https://www.nsw.gov.au/news/please-cancel-travel-to-regional-nsw
[54]https://web.archive.org/web/20220225230915/https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp2021/Chronologies/COVID-19StateTerritoryGovernmentAnnouncements
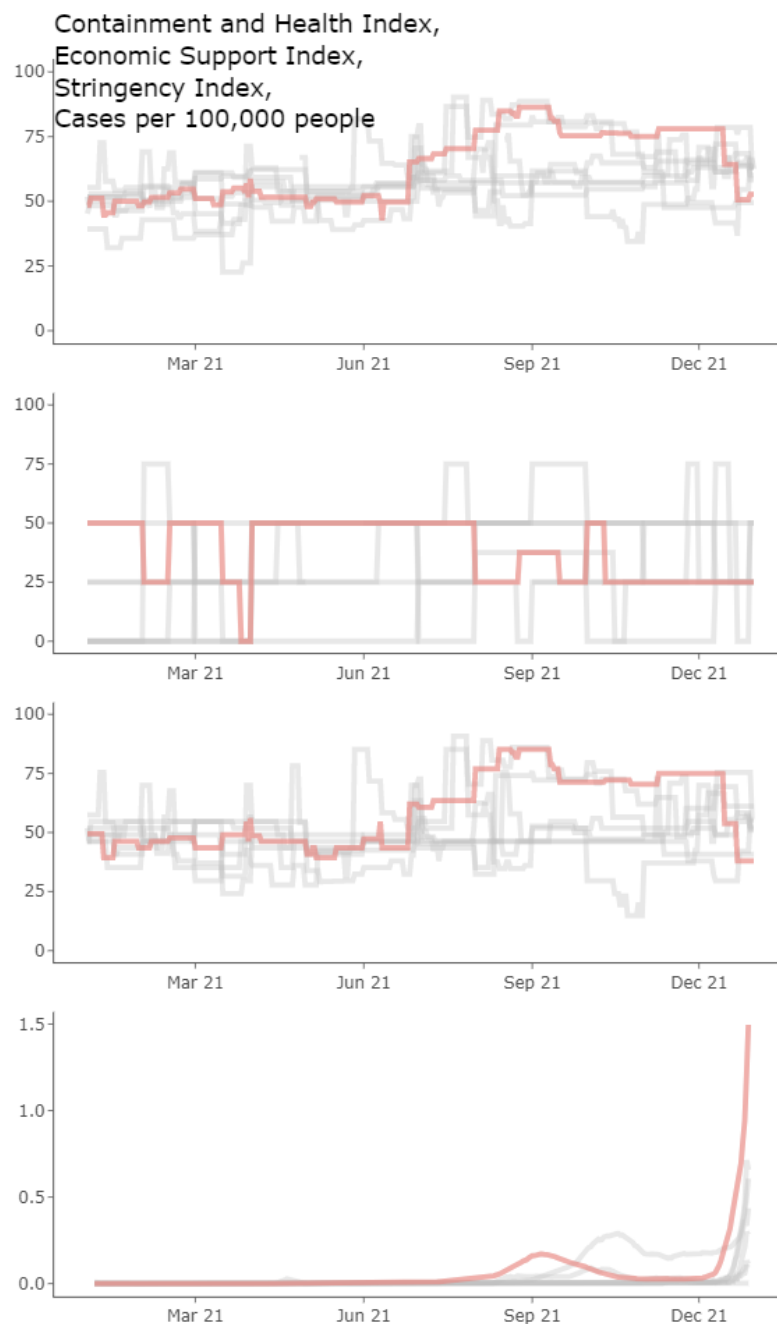[55] Ibid.
[56] http://web.archive.org/web/20201029223644/https://www.nsw.gov.au/media-releases/covid-19-restrictions-to-be-tightened ; http://web.archive.org/web/20210613120325/https://www.nsw.gov.au/media-releases/covid-19-restrictions-eased ;
http://web.archive.org/web/20220314124018/https://www.nsw.gov.au/media-releases/covid-19-restrictions-eased-0
[57]https://web.archive.org/web/20210827062946/https://legislation.nsw.gov.au/file/Public%20Health%20(COVID-19%20Northern%20Beaches)%20Order%202020.pdf
[58] https://web.archive.org/web/20220222025249/https://www.abc.net.au/news/2021-01-10/northern-beaches-reopen-after-three-week-covid-lockdown/13045954

Figure 4: Indices of New South Wales and COVID-19 cases in 2021

Containment and Health Index,
Economic Support Index,
Stringency Index,
Cases per 100,000 people

Note: *State/territory shown in red, all other states and territories are shown in grey*

In June 2021, the Delta strain outbreak in Bondi saw Greater Sydney, the Blue Mountains, Central Coast and Wollongong enter lockdown for two weeks from June 26, 2021[59]. This stay-at-home order for Greater Sydney was extended multiple times before being lifted in September 2021[60]. People in regions other than Greater Sydney were not initially required to stay at home, with restrictions focusing on the number of people allowed in non-residential premises. However, starting from

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[59] https://web.archive.org/web/20211004221940/https://www.nsw.gov.au/media-releases/covid-19-restrictions-extended-nsw
[60] https://web.archive.org/web/20220306035535/https://www.abc.net.au/news/2021-08-20/nsw-records-644-covid-19-cases-and-four-deaths/100392702

August 14, 2021, all regional NSW entered lockdown[61]. The stringency index reached 83 on August 15, 2021, a record high since the beginning of the pandemic.

Shortly after parts of regional NSW emerged from lockdown on September 11[62], some areas of regional NSW re-entered lockdown throughout September and October, starting with Yass Valley on September 14[63]. Since all areas in regional NSW are grouped under "Rest of New South Wales" for coding, and the value coded for each group is determined by the strictest measurement, these changes in regional NSW are not reflected by the indicators, with "Rest of New South Wales" coded as 3T[64]throughout this period. As shown in figure 4, the stringency index of these policies implemented between June and October 2021 in response to the Delta strain ranged between 50 to 81.

Two travellers who arrived in Sydney on November 27, 2021, tested positive for the new Omicron variant[65]. They were the first known cases of the new strain in the country. Daily case numbers rapidly increased in December around the holiday period[66]. Despite the rapid increase in case numbers, measures eased as planned on December 15, 2021. There were no more density limits, QR code check-ins were no longer required other than for high-risk settings and face masks were no longer required at many indoor areas[67]. However, policies were tightened again very soon due to the increasing case numbers. From December 24, 2021, masks were again made be compulsory in all indoor non-residential settings, and from December 27, 2021, QR code check-ins were also required, and hospitality venues restored a density limit of one person per two square metres[68]. As shown in figure 4, the stringency index for NSW fell sharply from 75 on December 13, 2021, to 23 on January 2, 2022. It can be seen from figure 4 that December 2021 to January 2022 was the period in which NSW experienced the greatest and sharpest increase in case numbers.

The COVID-19 vaccination roll-out commenced in 2021. From February 22, 2021, three vaccination hubs started to operate in NSW[69]. Priority was given to frontline workers in the first weeks. The vaccine was available to all workers within quarantine hotels, those screening arrivals at the airport, health staff, cleaners, NSW Police officers and security guards as well as healthcare workers who have the greatest exposure to potential COVID-19 patients[70]. Phase 1a of the national vaccination rollout commenced on March 8, 2021. The vaccine was available to frontline healthcare workers, quarantine and border workers, workers and residents in aged care and disability care facilities. Phase 1b started on March 22, extending eligibility to those aged 70 years and over, other healthcare workers, Aboriginal and Torres Strait Islander people over 55 years old, adults with an

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[61] https://web.archive.org/web/20210815122144/https://www.nsw.gov.au/covid-19/rules/what-you-can-do-nsw

[62] https://web.archive.org/web/20220201105217/https://www.nsw.gov.au/media-releases/lockdown-lifted-parts-of-regional-nsw

[63]https://web.archive.org/web/20220128113858/https://www.health.nsw.gov.au/news/Pages/20210913_01.aspx

[64] 3T: Require not leaving house with minimal exceptions (e.g., allowed to leave only once every few days, or only one person can leave at a time). The policy is in place only in part of the country, region, or territory.

[65]https://web.archive.org/web/20220306035652/https://www.health.nsw.gov.au/news/Pages/20211219_00.aspx

[66] https://web.archive.org/web/20220306035743/https://www.abc.net.au/news/2022-01-19/nsw-health-data-shows-covid-19-cases-tripled-over-christmas/100764426

[67] https://web.archive.org/web/20211222013554/https://www.nsw.gov.au/covid-19/stay-safe/rules/people-in-nsw ; https://web.archive.org/web/20220130094645/https://www.smh.com.au/national/nsw/all-the-restrictions-easing-in-nsw-on-december-15-20211214-p59hfk.html

[68] https://web.archive.org/web/20220227174658/https://www.abc.net.au/news/2021-12-23/nsw-records-5715-cases-and-1-death-covid-19/100721460

[69]https://web.archive.org/web/20220127033827/https://www.health.nsw.gov.au/news/Pages/20210221_00.aspx

[70] Ibid.

underlying medical condition, including those with a disability, critical and high-risk workers[71]. Subsequent phases, starting with phase 2a on May 4, gradually extended vaccination eligibility to other groups of the population[72].

5.3 Northern Territory

The Northern Territory (NT) is in the central northern section of the Australian continent. It accounts for approximately 1% of the total Australian population, with the majority (60%) residing in the region of its capital city, Darwin.[73] The NT is distinctive for its large population of Indigenous peoples (30.3% of the NT population and 9.2% of the national Indigenous population), and the high proportion of the Indigenous population living in remote and very remote areas (76.6% as of 2016, compared to 21.3% nationally).[74]

The NT was the second-last Australian state or territory to report its first case of COVID-19 on March 4, 2020 (followed by the ACT on March 12), more than a month after the first cases were reported in New South Wales and Victoria on January 25.[75] The NT was also the only state or territory to not record a death related to COVID-19 within the first few months of its first recorded case; the first death of an Indigenous woman was not reported until December 3, 2021, in the midst of an outbreak of 60 cases in the territory.[76]

The pandemic response has been led by the Chief Minister Michael Gunner and the Chief Health Officer Hugh Heggie. The Minister for Health declared a Public Health Emergency in the Northern Territory on March 18, 2020[77], with the Chief Minister announcing on March 21 border restrictions from March 24 requiring interstate travellers to quarantine for 14 days[78]. The NT was one of the 5 states or territories to declare such restrictions in March 2020 (excluding Tasmania, NSW and Victoria).[79] The Chief Minister also advised that the 76 remote communities in the NT have the Biosecurity Act applied to them, upon request of the land Councils and the National Aboriginal and Community Controlled Health Organisations(?), to restrict travel in and out of remote communities whose populations are predominantly Indigenous.[80] This application meant that remote communities were exempt from temporary restrictions otherwise in place in the Territory.

The Chief Minister released the Territory Roadmap to the New Normal on April 30, 2020, which allowed for the commencing of 'stage 2' activities from May 15.[81] On May 28, 2020, the Chief

[71]https://web.archive.org/web/20220126230849/https://www.health.gov.au/sites/default/files/documents/2021/01/covid-19-vaccination-australia-s-covid-19-vaccine-national-roll-out-strategy.pdf
[72] Ibid.
[73] https://web.archive.org/web/20220210015352/https://nteconomy.nt.gov.au/population
[74] https://web.archive.org/web/20220210015352/https://nteconomy.nt.gov.au/population
[75]https://web.archive.org/web/20220210020020/https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp2021/Chronologies/COVID-19StateTerritoryGovernmentAnnouncements
[76] https://web.archive.org/web/20220210021521/https://coronavirus.nt.gov.au/updates/items/2021-12-03-one-death-recorded-in-the-nt
[77] https://web.archive.org/web/20220210015719/https://coronavirus.nt.gov.au/updates/items/2020-03-19-public-health-emergency-declared
[78] https://web.archive.org/web/20220210020211/https://www.abc.net.au/news/2020-03-21/northern-territory-strict-new-covid-19-border-laws/12078048
[79]https://web.archive.org/web/20220210020020/https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp2021/Chronologies/COVID-19StateTerritoryGovernmentAnnouncements
[80]https://web.archive.org/web/20220210020020/https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp2021/Chronologies/COVID-19StateTerritoryGovernmentAnnouncements
[81] https://web.archive.org/web/20220210022016/https://coronavirus.nt.gov.au/updates/items/2020-04-30-the-territorys-roadmap-to-the-new-normal

Minister announced changes to quarantine arrangements from June 15, 2020, with the territory shifting from mandatory monitored quarantine to mandatory self-quarantine, and a new requirement that people are tested for COVID within 72 hours of their quarantine, and in the final 72 hours of their quarantine. [82]As highlighted in Figure 5, the Northern Territory has had comparatively low cases numbers during the pandemic. The Northern Territory did not have a recorded outbreak until June 27, 2021, when Darwin, Palmerston City and Litchfield entered a full lockdown for 48 hours (later extended to 72 hours) in response to several cases linked to a fly-in fly-out[83] worker at the Granites gold mine testing positive for COVID-19. Alice Springs was also sent into lockdown from June 30 to July 3.

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[82] https://web.archive.org/web/20220210022311/https://www.abc.net.au/news/2020-05-28/nt-coronavirus-quarantine-police-michael-gunner/12295314

[83] Defined in the Macquarie Dictionary as 'relating to a position, especially in the mining industry, in which an employee is flown from a city or regional centre to a remote area to work for several consecutive days, then flown back.' https://web.archive.org/web/20220210021259/https://www.macquariedictionary.com.au/

Figure 5: Indices of the Northern Territory and COVID-19 cases in 2021
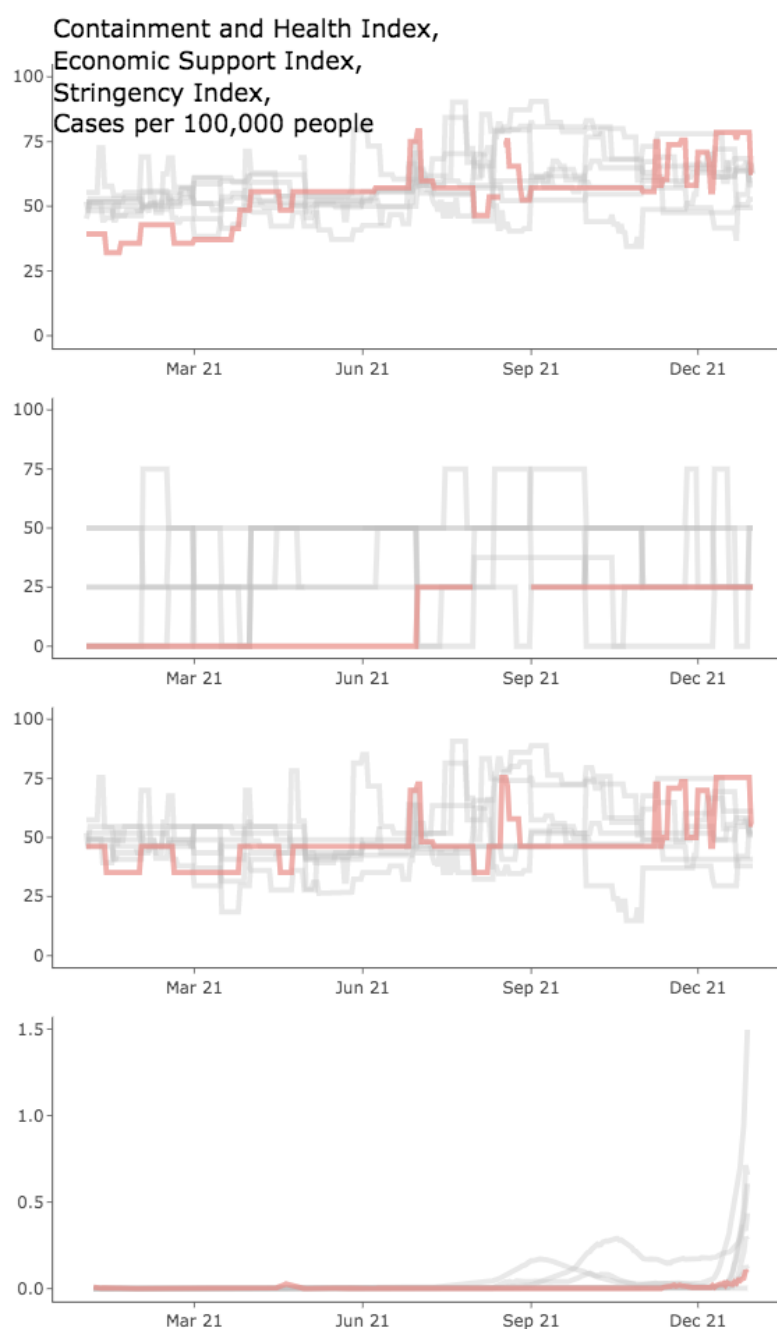
Note: *State/territory shown in red, all other states and territories are shown in grey*

There were further lockdowns implemented in Darwin and Katherine in August and November. In November 2021, the first cases in remote communities were recorded, sending Greater Katherine, Binjari, Robinson River, and Lajamanu into lockdowns and lockouts on November 27.[84] They were joined by Tennant Creek and Ali Curung on December 17 and December 19, 2021, respectively.[85] Case numbers are continuing to rise in the wake of the Omicron variant. During lockdowns throughout 2021, residents have been permitted to leave home for medical treatment, essential

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[84] https://web.archive.org/web/20220210022523/https://coronavirus.nt.gov.au/updates/items/2021-11-27-covid-19-update-two-new-cases-in-the-nt

[85] https://web.archive.org/web/20220210022638/https://www.abc.net.au/news/2021-12-22/covid-lockdown-extended-nt-tennant-creek-ali-curung/100720162

goods and services, essential work, to provide care and to exercise for up to 1 hour within a 5-kilometre radius. Gatherings were not permitted and access to aged care facilities was further restricted.

In 2022, the entire Northern Territory was sent into lockout between January 6 and January 9.[86] Under this lockout, restrictions only applied to the unvaccinated who, unlike previous lockdowns, are unable to leave home for work or exercise and cannot travel beyond a thirty-kilometre radius from their home.[87] From January 9, a vaccine pass was required for entering high-risk hospitality settings, with the mask mandate remaining in place. Stricter travel rules were also implemented for vulnerable remote communities with low COVID-19 vaccination rates, with those with a full vaccination rate under 80% considered 'exclusion zones' limited to residents and essential workers.[16]

In terms of economic responses to COVID-19, on March 16, 2020, the NT government announced a $65 million Jobs Rescue and Recovery Plan targeted at businesses and providing work grants (with an additional $180 allocated in April).[88]Similar efforts include a Small Business Survival Fund, targeted to industries significantly affected by COVID-19, and a Worker and Wellbeing Fund designed to help people access counselling and support services and to navigate the welfare system. As indicated in Figure 5 (from the Economic support index), the territory has provided limited economic support to individuals affected by COVID in addition to the Federal Government administered payments such as the COVID-19 Disaster Payment. On 28 April 2020 and 11 May 2020, the Northern Territory Parliament passed COVID-19 Modification Notices and amendments to Residential Tenancies Act 1999. These amendments increased the notice timeframes for termination of both fixed term and periodic tenancy agreements to 60 days, other than for breaches of agreement (previously 14 days for fixed term agreements and 42 days for periodic tenancies).[89] It also extended the length of time that rent must be in arrears for termination for non-payment of rent where COVID 19 hardship is present to 60 days (originally 14 days of rent arrears). Unpaid rent is still owed to landlords.

5.4 Queensland

Queensland is Australia's third most populous state and second largest[90]. Although, approximately half of the state's population live in the capital city, Brisbane, it is the fifth most decentralised Australian jurisdiction after the Northern Territory, Western Australia, South Australia and Tasmania due to its large size[91].

Queensland was the third state in Australia to confirm a positive COVID-19 case on January 29, 2020, just four days after the first confirmed case in the country[92]. On the same day Queensland was the first Australian state to declare a public health emergency[93]. On March 23, 2020, the Queensland Minister for Health, Steven Miles, announced the closure of non-essential businesses to slow the

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[86] https://web.archive.org/web/20220210022805/https://coronavirus.nt.gov.au/updates/items/2022-01-06-nt-covid-19-update

[87]https://web.archive.org/web/20220210020020/https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp2021/Chronologies/COVID-19StateTerritoryGovernmentAnnouncements

[88]https://web.archive.org/web/20220210020020/https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp2021/Chronologies/COVID-19StateTerritoryGovernmentAnnouncements

[89] https://web.archive.org/web/20211104045430/https://consumeraffairs.nt.gov.au/rental-changes-due-to-covid-19/overview-of-modifications-to-processes

[90]https://web.archive.org/web/20220516010035/https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/mar-2021

[91] Ibid.

[92] https://web.archive.org/web/20220516010132/https://www.health.qld.gov.au/news-events/doh-media-releases/releases/queensland-coronavirus-update-290120

[93] https://web.archive.org/web/20220516010225/https://statements.qld.gov.au/statements/89540

spread of COVID-19[94]. On March 24, 2020, the Queensland Premier, Annastacia Palaszczuk, announced that Queensland would enforce border restrictions requiring non-Queensland residents to isolate for 14 days and implement road closures and police checks particularly along the NSW border[95]. Palaszczuk, also advised that people should stay in their own suburbs and to not travel unless absolutely necessary[96]. On March 26, the Premier made state schools student-free for the final week of term, except for students of essential workers; this continued until May 11 when some years could return[97] with all years returning on May 15[98]. The day after Queensland announced its first restrictions on gatherings of more than 500 people and indoor gatherings of more than 100 people[99]. On April 2, 2020, Queensland implemented the state's first stay-at-home requirement requiring all people to stay in their homes except for five essential reasons; this was in place until May 15. On April 3, border restrictions were tightened to only allow Queensland residents or those with exemptions to enter the state[100]. This strict border policy was maintained until February 1, 2021, when Queensland allowed quarantine free travel for all Australian States and Territories except Western Australia[101]

During 2021, Queensland had four periods of above 60 on the OxCGRT containment and health index reflecting the governments practice of having quick targeted lockdowns, that includes closing non-essential businesses, enforcing stay-at-home requirements with exceptions, restricting gatherings, closing schools and requiring facial covering use at all times, when outbreaks occur in the state[102]. This was largely targeted towards Greater Brisbane on January 8-10[103], March 29-31[104] and sometimes towards South-East Queensland, where most of that state's population resides, on June 29 to July 2[105] August 1-10[106]. After the August lockdown restrictions on gatherings of more than 30 people remained in place for the state until it broadened to up to 100 indoors on November 1. For all of 2021 there were restrictions on internal movement banning non-QLD residents from entering the state with closed roads and border checks enforced except for people performing essential activity who must receive a Queensland Border Declaration Pass[107]. Facial coverings remained compulsory for much of the state in public places until November 10 when the state reached 80% first dose vaccinated[108]. Queensland provided utility bill relief for 2021[109]

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[94] https://web.archive.org/web/20220516010427/https://statements.qld.gov.au/statements/89582
[95] https://web.archive.org/web/20220516010515/https://statements.qld.gov.au/statements/89585
[96] Ibid.
[97] https://web.archive.org/web/20220516010553/https://statements.qld.gov.au/statements/89596
[98] https://web.archive.org/web/20220516010639/https://statements.qld.gov.au/statements/89673
[99] https://web.archive.org/web/20200814111253/https://statements.qld.gov.au/statements/89582
[100] https://web.archive.org/web/20220516010733/https://statements.qld.gov.au/statements/89620
[101] https://web.archive.org/web/20220516010816/https://www.abc.net.au/news/2021-02-01/coronavirus-queensland-nsw-border-opens-explainer-feb-1-2021/13100236
[102] https://web.archive.org/web/20210111065159/https://www.qld.gov.au/health/conditions/health-alerts/coronavirus-covid-19/current-status/greater-brisbane-lockdown
[103] Ibid.
[104] https://web.archive.org/web/20210404004235/https://statements.qld.gov.au/statements/91825
[105] https://web.archive.org/web/20210629112544/https://www.covid19.qld.gov.au/government-actions/roadmap-to-easing-queenslands-restrictions#_current
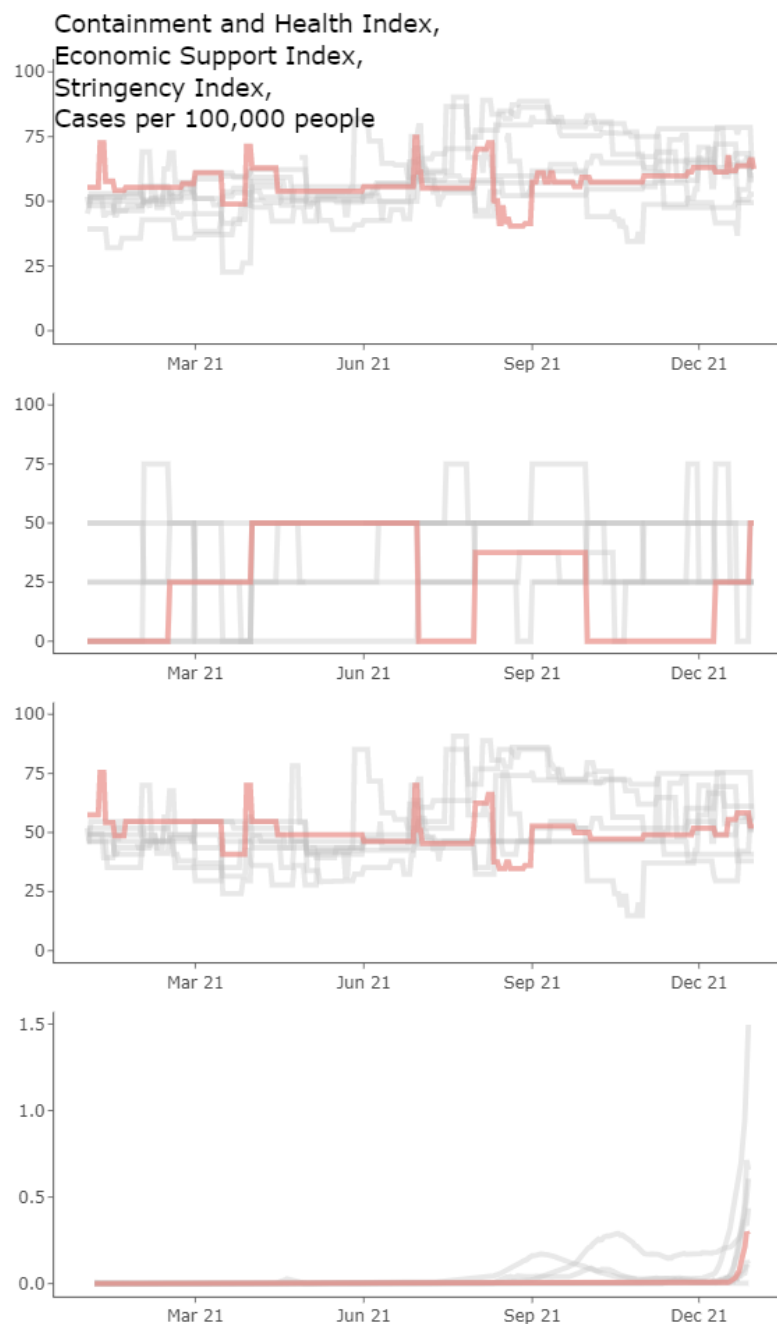[106] https://web.archive.org/web/20211125111525/https://www.health.qld.gov.au/systemgovernance/legislation/cho-public-health-directions-under-expanded-public-health-act-powers/revoked/restrictions-for-locked-down-areas-1
[107] https://web.archive.org/web/20210819083817/https://www.health.qld.gov.au/system-governance/legislation/cho-public-health-directions-under-expanded-public-health-act-powers/revoked/border-restrictions-22
[108] https://www.abc.net.au/news/2021-11-10/qld-covid-80-per-cent-first-dose-vaccination-mask-rules/10060661
[109] https://web.archive.org/web/20210630143132/https://www.covid19.qld.gov.au/government-actions/covid19-rescue-package

Figure 6: Indices of Queensland and COVID-19 cases in 2021

Note: *State/territory shown in red, all other states and territories are shown in grey*

5.5 South Australia

South Australia (SA) is a state in the southern central part of the Commonwealth of Australia, and it is the fourth largest of states and territories by area, and the fifth largest state by population. SA has a total of 1.77 million people,[110] and 73 percent live in Adelaide.[111] Steven Marshall is the 46th

[110]https://web.archive.org/web/20220327120734/https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/sep-2021

[111]https://web.archive.org/web/20220327120830/https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/4GADE?opendocument

premier of South Australia between 2018 and 2022. [112] The Chief Public Health Officer, Professor Nicola Spurrier,[113] has accountability for public health issues and proposed administrative and legislative changes related to COVID-19.

SA Health released advice for those who had recently travelled through China to be aware of the signs and symptoms of coronavirus despite no confirmed cases in Australia on January 23, 2020. On January 28, 2020, a legal requirement was declared to make all laboratories and medical providers report any suspected or positive cases of COVID-19 in SA.[114] The first two confirmed cases were reported on February 1, 2020, and they are aged 60 couple from Wuhan, China arriving in SA on 21 January 2020.[115]

Many precautionary and supportive methods were introduced to mitigate the pandemic during the first few months after the outbreak. On March 11, 2020, the first drive-through testing facility opened in SA, and a 350 million economic stimulus package in response to the COVID-19 crisis was announced by the SA government.[116] [117] On March 13, 2020, the Minister for Education announced that schools would be closed for at least 24 hours if a confirmed case is identified.[118] All public transport fleet undertook increased sanitation on the same day.[119] On 22 March 2020, a major emergency has been declared in SA under the Emergency Management Act 2004 to minimise the negative effects made by the spread of COVID-19. [120] Full border closure for all non-essential interstate or overseas travel was announced on March 24, 2020, while only Australian citizens, residents and family members can travel to Australia from March 20, 2020. [5]

The first COVID-19 related death, an Adelaide 75 years-old man, was recorded on April 7, 2020.[121] From October 1, 2021, the gathering restrictions were tightened to up to 20 people in private residences and up to 150 people in other places. On November 19, 2020, SA entered six days lockdown because of increasing confirmed cases, that were 34 active cases and around 4,000 contacts of confirmed and suspected cases. [26] During the lockdown, only essential businesses were open and when the stay-at-home order was in place.

[112] https://web.archive.org/web/20220327123118/https://saliberal.org.au/team/steven-marshall
[113] https://web.archive.org/web/20220327122604/https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/about+us/about+sa+health/our+chief+officers/chief+public+health+officer
[114] https://web.archive.org/web/20220327122339/https://www.sahealth.sa.gov.au/wps/wcm/connect/2c5279ec-5516-46cb-b7a1-4f7608639891/20112.2+CPHO-Report-2018-20-ONLINE.pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-2c5279ec-5516-46cb-b7a1-4f7608639891-nKL-ncr
[115] https://web.archive.org/web/20220327124659/https://www.adelaidenow.com.au/news/south-australia/first-coronavirus-case-in-sa-confirmed/news-story/7e2a69a090d0c78c1e866ff05393d762?nk=f9908b620c2df60f25569c8b3c535856-1648385218
[116] https://web.archive.org/web/20220327133911/https://www.adelaidenow.com.au/news/south-australia/drivethrough-coronavirus-testing-station-opens-at-the-repat/news-story/10eb151542de868a1476fc31f2d5db9b?nk=5c1bb61d4e629c2c81409f6c123289c4-1648388350
[117] https://web.archive.org/web/20220327134223/https://www.fraserellis.com.au/immediate_350_million_economic_stimulus_package_announced
[118] https://web.archive.org/web/20220327134821/https://www.fraserellis.com.au/update_on_education_protocols_for_coronavirus
[119] https://web.archive.org/web/20220327135302/https://www.pta.wa.gov.au/news/media-statements/increased-sanitation-regime-underway-across-public-transport-fleet
[120] https://web.archive.org/web/20220327125704/https://www.covid-19.sa.gov.au/emergency-declarations/emergency-declaration
[121] https://web.archive.org/web/20220327154715/https://www.abc.net.au/news/2020-04-07/sa-records-first-coronavirus-death/12128054

After January 1, 2021, gathering restrictions were relaxed from December 2020. Gatherings of up to 50 people were allowed in private residences and up to 200 people in other places. The restrictions were further relaxed to up to 200 people after January 16, 2021.[122] From January 1, 2021, the visitors who had arrived from an area inter-state that was not considered low-risk or were experiencing COVID-19 symptoms were not allowed to visit aged care facilities.[123]

During a short period, from February 1, 2021, to February 14, 2021, different testing options were available for targeted asymptomatic groups. [124] Throughout the pandemic, multiple testing options such as drive-through testing, home testing and regular testing were available to symptomatic people.

During most time of the COVID-19 pandemic, there was no income support for individuals from South Australia, except that SA Government offered the COVID-19 Cluster Isolation Payment (a single payment of $300) for eligible South Australians during Feb 2021.[125] Besides, multiple assistances were available for households from February 1 to December 1, 2021 since the State Parliament recognised the significant impact on numerous South Australians by COVID-19.[126]

COVID-19 vaccination started Phase 1a on February 22, 2021, and prioritised key workers and clinically vulnerable groups.[127] On March 22, 2021, Phase 1b started, that prioritised elderly people over 70 years.[128]

Face masks were recommended for the public and mandatory for health care workers before April 1, 2021. After that, wearing a mask is mandatory inside airports and on airplanes in South Australia.[129]

Astra-Zeneca vaccines were available for adults over 50 years as Phase 2a began on May 3, 2021.[130] On May 15, 2021, a stricter policy, that was a person prohibited from entering a residential aged

[122] https://web.archive.org/web/20210101012925/https://www.covid-19.sa.gov.au/restrictions-and-responsibilities/activities-and-gatherings
[123] https://web.archive.org/web/20210301030933/https://legislation.sa.gov.au/web/information/CV19/EMA-CEASED/Emergency%20Management%20(Residential%20Aged%20Care%20Facilities%20No%2020)(COVID-19)%20Direction%202020_%2021.12.2020_CEASED.pdf
[124] http://web.archive.org/web/20210531124213/https://www.sahealth.sa.gov.au/wps/wcm/connect/52711a0b-c306-474c-b052-71d13db0bcb7/SA+Health+COVID-19+Active+Surveillance+Testing+Operational+Framework+v1.....pdf?MOD=AJPERES&CACHEID=ROOTWORKSPACE-52711a0b-c306-474c-b052-71d13db0bcb7-nwLjeh7
[125] http://web.archive.org/web/20210320215724/https://www.covid-19.sa.gov.au/documents/supporting-info/20201119-SA-COVID-19-Cluster-Isolation-Payment-FAQs.pdf
[126] http://web.archive.org/web/20210516040854/https://www.cbs.sa.gov.au/rental-advice-due-covid-19
[127] http://web.archive.org/web/20210524100839/https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/conditions/infectious+diseases/covid-19/vaccine/getting+vaccinated/getting+vaccinated
[128] https://web.archive.org/web/20210524100839/https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/conditions/infectious+diseases/covid-19/vaccine/getting+vaccinated/getting+vaccinated
[129] https://web.archive.org/web/20210619022406/https://legislation.sa.gov.au/web/information/CV19/EMA/Emergency%20Management%20%28Cross%20Border%20Travel-General%29%28COVID-19%29%20Direction%202021_29.3.2021.pdf
[130] https://web.archive.org/web/20220327153457/https://www.abc.net.au/news/2021-05-04/queensland-coronavirus-vaccination-rollout-phase-2a/100111610

care facility unless they are resident, employee, providing goods or services, providing care and support, was introduced to protect elderly people.[131]

There was increasing daily cases in South Australia in July 2021. People returning from Victoria were required to self-quarantine for 14 days and get tested on day one, five and 13 from July 17, 2021. From July 20, 2021, South Australia entered a seven-day lockdown as a preventative measure. [132]

Mask mandates were tightened in all high-risk settings, personal care services, health care services, passenger transport services, public events and venues and all indoor public places after July 28, 2021.[133]

On September 11, 2021, all South Australians aged 16 and over remained eligible to receive a COVID-19 vaccine. Premier Steven Marshall announced that vaccine eligibility was expanded to include those age 16 years and older from August 16, 2021.[134]

School, workplace and public transportation remained open with strict social distancing and hygiene measures in place in 2020 and 2021 except for the lockdowns. The stay home order was in effect in two lockdowns from November 19, 2020, to November 25, 2020 and from July 20 to July 27, 2021, respectively. [15] [135] Throughout the pandemic, public events were permitted to be held with a COVID-19 Safe Plan, including hygiene measures and strict social distancing.

Broad public health information campaigns have been launched in South Australia. Guidance, information and updates regarding COVID-19 is widely available through SA Health official websites, tweeter, Facebook, Instagram and South Australia COVID-19 Information Line. These dedicated websites, social media and hotlines were to inform and educate South Australians to reduce the risk exposed to COVID-19 and keep the communities strong and safe.

Comprehensive contact tracing is maintained throughout the COVID-19 pandemic because of the comparatively small populations compared to larger populous states in Australia.

Most policies were introduced across the whole state. Furthermore, the relative stability of COVID-19 confirmed cases in SA and just one lockdown in 2021 resulted in a linear and stable stringency index, as shown in Figure 7. In contrast, the rest of the states and territories show several peaks and falls in the number of cases and in their containment and health indices.

As shown in Figure 7, the SA government took many precautions before more confirmed cases emerged and took more stricter policies after there was an increasing trend in confirmed COVID-19 cases, although the relative stability of COVID-19 confirmed cases in SA and just one lockdown in 2021. This leads to a relative linear and stable stringency index with several peaks.

[131] https://web.archive.org/web/20210801121911/https://legislation.sa.gov.au/web/information/CV19/EMA-CEASED/Emergency%20Management%20%28Residential%20Aged%20Care%20Facilities%20No%2035%29%28COVID-19%29%20Direction%202021_24.04.2021_CEASED.pdf
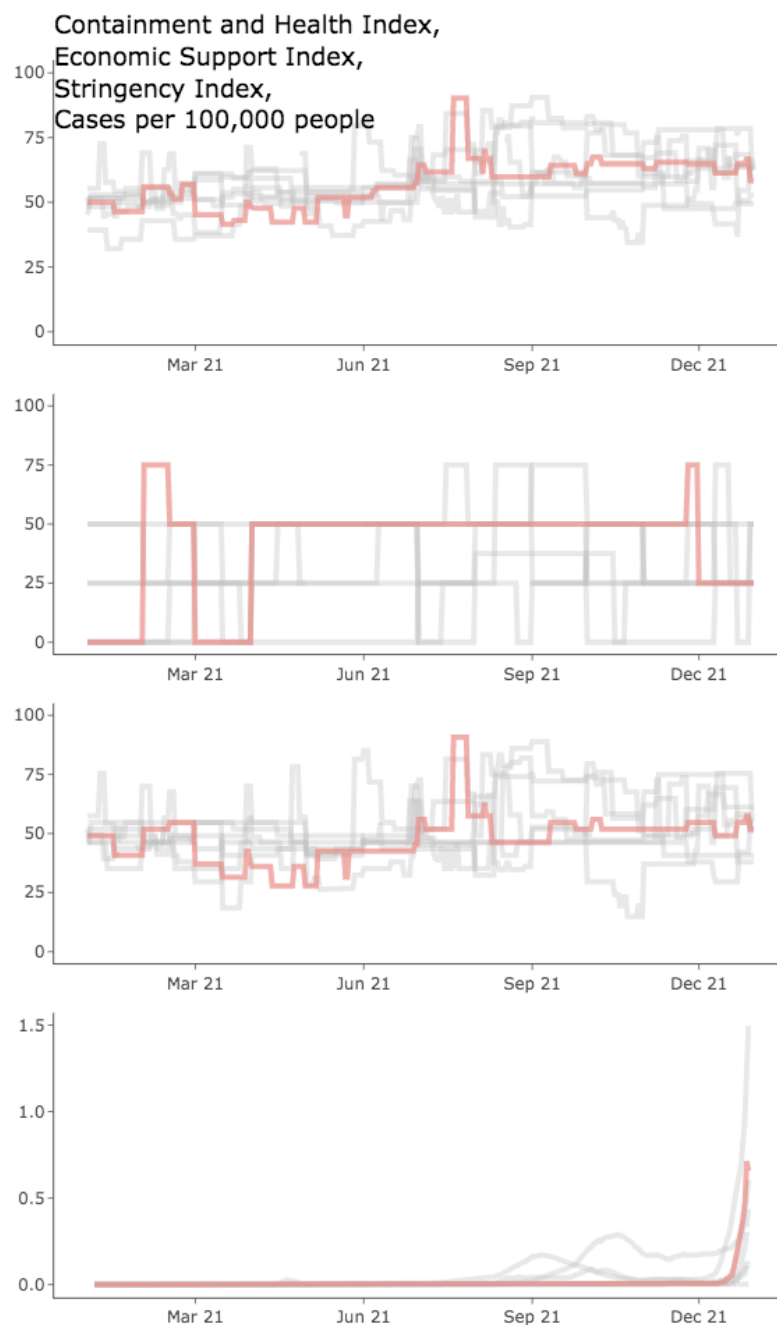[132] https://web.archive.org/web/20210725082556/https://www.covid-19.sa.gov.au/restrictions-and-responsibilities/activities-and-gatherings/current-activity-restrictions
[133]https://web.archive.org/web/20210807055618/https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/conditions/infectious+diseases/covid-19/about+covid-19/protecting+yourself+and+others+from+covid-19/face+masks
[134] https://web.archive.org/web/20210827032653/https://www.premier.sa.gov.au/news/media-releases/news/over-sixteen-get-the-vaccine
[135] https://web.archive.org/web/20201118080445/https://www.covid-19.sa.gov.au/latest-news/circuit-breaker-restrictions-in-place-from-tonight

Figure 7: Indices of South Australia and COVID-19 cases in 2021

Note: *State/territory shown in red, all other states and territories are shown in grey*

5.6 Tasmania

Tasmania is the smallest state in Australia in terms of population and territory. Tasmania is an island state located 240 km away from Australian Mainland. The first case of COVID-19 in Tasmania was confirmed on March 2, 2020, by Tasmania's Public Health Director Mark Veitch. The person infected with the virus was a 40-year-old man who arrived in Tasmania on a flight from Iran via Malaysia[136]. On March 16, the Tasmanian government declared public health emergency over coronavirus giving

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[136] https://web.archive.org/web/20220313200154/https://www.abc.net.au/news/2020-03-02/coronavirus-postive-test-in-tasmania/12017662

powers to the Director of public health to quarantine, isolate or evacuate people[137]. Tasmania recorded its first COVID-19 related death on March 30, 2020[138].

In late March 2020, the Tasmanian Government asked schools to adopt measures like social distancing or cancelling non-essential school activities to keep coronavirus in check. The advice followed the announcement made by a private school to switch to online learning[139]. During this period, the director of Public Health of Tasmania stated that closing schools was not required. However, the Department of Education provided at-home learning materials in case of changes regarding school closures[140]. While schools were closed during some weeks in April and May 2020, these have been reopened since late May/ early June 2020 as part of the Government's Roadmap to Recovery[141].

Following the evolution of the pandemic, the Tasmanian government implemented the 'COVID-19 Safe Workplace Guidelines'. This framework includes all the restrictions in place in the state for several industries ranging from administrative services to wildlife exhibitions[142]. In general terms, the policy brought in December 2020 was still in place for most of the year 2021, and it included recommendations on physical distancing (at least 1.5 metres between people), hand and respiratory hygiene and frequent cleaning and disinfection of environmental surfaces.

Since December 1, 2020, gatherings were restricted to 250 indoors and 1000 outdoors with a minimum of 2 square metres required per person[143]. In Tasmania, a 'Framework for COVID-19 Safe Events and Activities' was designed by the state government along with the sports, arts and events and tourism sectors. Larger events that fell outside the 250/1000 limit were covered by this framework consisted of three different levels/types of events, depending on seated/non-seated, free moving and mixing events, or combination events. All these different types of events were subject to density limits of 2 square metres of space per person10. Gathering restrictions did not include public transport in Tasmania. Since mid-2020, no significant COVID-19 control measures have been applied apart from recommendations of social distancing between passengers inside buses or in waiting areas[144].

On March 31, 2020, Premier Peter Gutwein announced that Tasmanian households were going into lockdown for a month to fight the virus spread[145]. This decision was subject to evaluation after four weeks. On April 8, 2020, Mark Veitch, the Director of Public Health indicated that residents in Tasmania must stay at home between 8 April 2020 and 27 April 2020, except when doing exercise, attending health centres, providing support or care to another person, attending school or home if

[137] https://web.archive.org/web/20220313200428/https://www.abc.net.au/news/2020-03-17/coronavirus-public-health-emergency-to-be-declared-tasmania/12062276

[138] https://web.archive.org/web/20220313200605/https://www.abc.net.au/news/2020-03-30/tasmania-records-first-coronavirus-death/12101078

[139] https://web.archive.org/web/20200315193641/http://www.premier.tas.gov.au/releases/precautionary_coronavirus_measures_to_be_implemented_in_tasmanian_schools

[140] https://web.archive.org/web/20201126213857/https://www.education.tas.gov.au/2020/03/supporting-tasmanian-students-and-their-families/

[141] https://web.archive.org/web/20210324135849/https://www.education.tas.gov.au/2020/05/tasmanian-students-to-return-to-learning-at-school/

[142] https://web.archive.org/web/20210308235924/https://worksafe.tas.gov.au/topics/Health-and-Safety/safety-alerts/coronavirus/covid-safe-workplaces-framework/covid-19-safe-workplace-guidelines

[143] https://web.archive.org/web/20210102063305/https://www.business.tas.gov.au/__data/assets/pdf_file/0004/267151/A_Framework_for_COVID-19_Safe_Events_and_Activities_in_Tasmania_-_version_2.pdf

[144] https://web.archive.org/web/20210502125543/https://www.coronavirus.tas.gov.au/families-community/transport

[145] https://web.archive.org/web/20220313201323/https://www.examiner.com.au/story/6704057/tasmanian-households-to-be-in-lockdown-for-month/

necessary[146]. On June 20, 2020, Tasmania Premier announced that the stay-at-home order was revoked, and no new orders have been implemented since then[147].

The state of Tasmania represents a special case regarding internal movement in Australia. This island state is only accessible via ferry or plane. After the Tasmanian government declared the state of emergency on March 2020 all non-essential travellers were required to enter self-isolation for 14 days in government-provided accommodation[148]. In January 2021, people arriving from high-domestic areas were not permitted to enter Tasmania unless approved as essential travellers. All travellers had to provide contact details before entering the territory. Entries were subject to conditions, depending on the traveller's origin. These areas were classified into low, medium or high-risk[149]. Travellers from low-risk areas did not need to quarantine after arrival but people coming from high-risk areas did have to quarantine for 14 days.

Another difference between Tasmania and the rest of Australia is that most of the policies have been implemented at the state level only, with no big differences between the metropolitan and regional levels. This particularity may reflect the small population and geography of Tasmania to the rest of the country. Furthermore, the relative stability of Tasmania in terms of new COVID-19 cases and just a few lockdowns due to small outbreaks during most of 2021 resulted in a linear and stable stringency index, as shown in Figure 8. In contrast, the rest of the states and territories show several peaks and falls in the number of cases and in their containment and health indices.
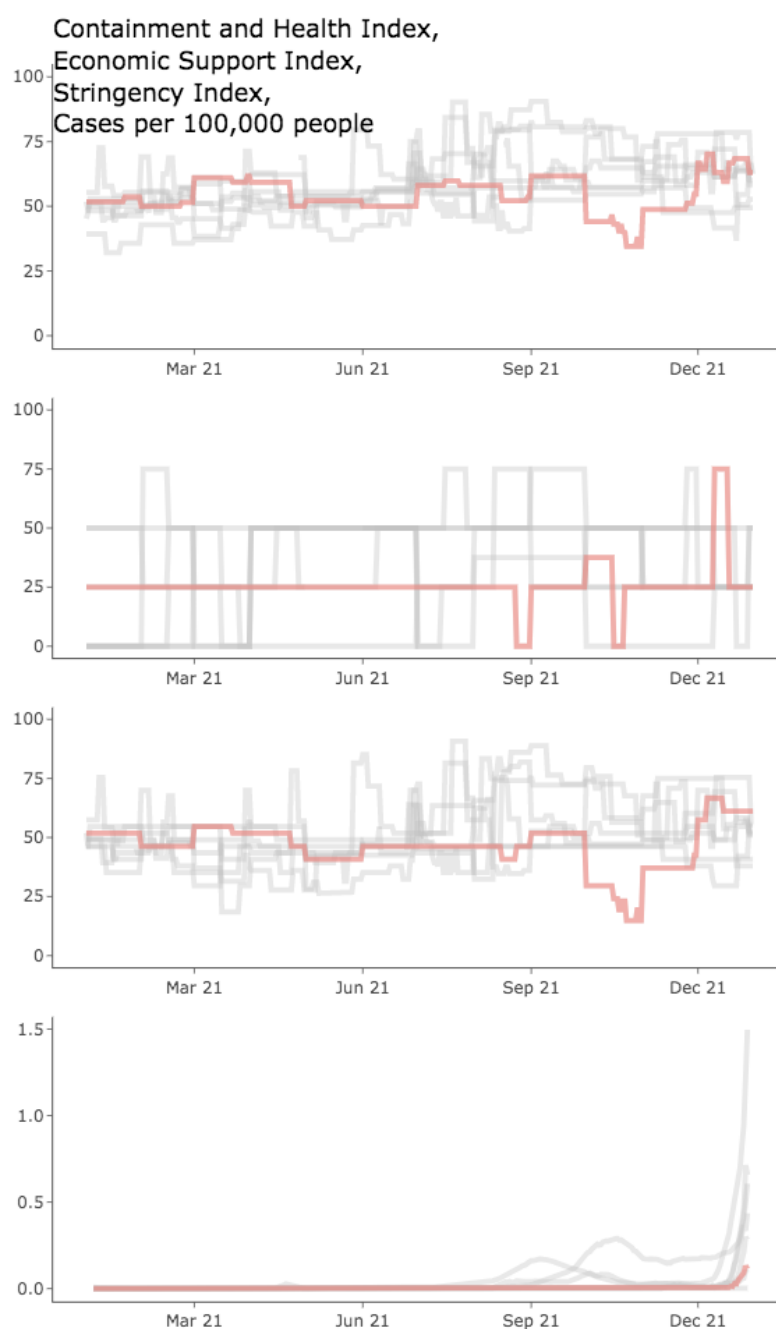
[146]https://web.archive.org/web/20220306020344/https://www.gazette.tas.gov.au/editions/2020/april_2020/ 21969_-_Special_8_April_2020.pdf.pdf

[147]https://web.archive.org/web/20210331112824/http://www.premier.tas.gov.au/releases/stage_two_restric tions_begin_to_ease

[148] https://web.archive.org/web/20200402113453/https://www.coronavirus.tas.gov.au/travellers-and-visitors/coming-to-tasmania

[149] https://web.archive.org/web/20210117034105/https://www.coronavirus.tas.gov.au/travellers-and-visitors/coming-to-tasmania

Figure 8: Indices of Tasmania and COVID-19 cases in 2021

Note: *State/territory shown in red, all other states and territories are shown in grey*

However, in late 2021 Southern Tasmania went into lockdown from 6 pm 15 October to 6 pm 18 October[150]. The lockdown impacted twelve Local Government Areas in the south of the island, including Hobart City Council, where the state capital is located. This situation triggered changes in some of the containment and health indicators as shown in Figure 8, including school closures on October 18 and the mandatory use of facial coverings for everyone aged 12 years and older outside home at any time until 6 pm, Friday 22 October within the affected areas.[18]

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[150] https://web.archive.org/web/20220206005224/https://www.abc.net.au/news/2021-10-15/tasmanias-lockdown-restrictions-explained/100520606

5.7 Victoria

There have been four notable COVID-19 waves in Victoria so far. The first is barely visible on Figure 9 but was the initial community-spread in Victoria. On March 12th, 2020, Victoria recorded its first community transmission of COVID-19 which marked the beginning of the first wave[151]. While it did not represent a large outbreak by the standards of later waves, it did trigger the state's first lockdown and the rolling out of heavy restrictions for the first time. On March 16th, a State of Emergency was declared and gatherings of over 500 people were banned, two days later this was reduced to 100 people, on March 25th, 'Stage 2' restrictions entered force with closure of non-essential services, finally on March 31st, 2020, 'Stage 3' restrictions entered force which meant a full lockdown. This meant only four reasons to leave the home: food and supplies, medical care, exercise, and work or education[152]. Emergency funding was also announced by the state to help businesses and the health system weather the outbreak. It also coincided with outbreaks in other states and with the initial response from the Federal Government This federal response included the bulk of financial supports such as JobSeeker (with the Coronavirus Supplement) and JobKeeper. The restrictions began to be relaxed on May 12th with gatherings at homes allowed and a greater number of people allowed at weddings and funerals. The following day, a timeline to re-open Victoria's schools was announced[153]. Victoria continued to see a low level of cases after this lockdown and restrictions such as density limits, maximum capacity of venues and home visit limits stayed in place. Cases slowly rose during this period and on 30th of June 2020, a lockdown for specific postcodes in Melbourne's North and West where transmission was high was announced, along with a strict lockdown of some public housing towers[154].

The 'postcode lockdown,' expanded to a full lockdown across Melbourne LGAs and Mitchell Shire on July 9th, 2020[155]. Victoria was experiencing a second wave of COVID-19 cases, it would prove to be much larger than the first. The lockdown restrictions were originally in line with the Stage 3 restrictions from earlier in the year. However, on August 2nd, 2020, with the lockdown having failed to stop rising case numbers, Victoria declared a State of Disaster (replacing the existing State of Emergency) and a Stage 4 lockdown was announced. In addition to the existing restrictions, exercise was limited to one hour per day, travel was not allowed beyond 5km, and a curfew was put in place from 8 PM to 5 AM. While there was some slight easing of restrictions in September and October, the lockdown finally lifted on October 28th, 2020[156]. However, restrictions were still in place (including restricting the number of home visitors, density limits and a 25km travel distance limit). These continued to relax for the rest of 2020. The COVID Zero policy was successful during this time.

There were several short lockdowns in 2021 in response to specific outbreaks. The approach here was to use lockdowns to give contact tracers time to identify and isolate contacts of positive cases. Victoria introduced lockdowns from February 13th to 17th, May 28th to June 10th and July 16th to July 27th, 2021. This last lockdown was introduced in response to the Delta variant[157]. These short

[151] https://web.archive.org/web/20220226055019/https://www.health.vic.gov.au/media-releases/more-covid-19-cases-confirmed-in-victoria-3

[152] https://web.archive.org/web/20220225230915/https://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/rp2021/Chronologies/COVID-19StateTerritoryGovernmentAnnouncements

[153] https://web.archive.org/web/20220222025233/https://www.premier.vic.gov.au/statement-premier-65

[154] https://web.archive.org/web/20220301022918/https://www.premier.vic.gov.au/statement-premier-72h

[155] https://web.archive.org/web/20200708101622/https://twitter.com/DanielAndrewsMP/status/1280372803363991552?ref_src=twsrc%5Egoogle%7Ctwcamp%5Eserp%7Ctwgr%5Etweet
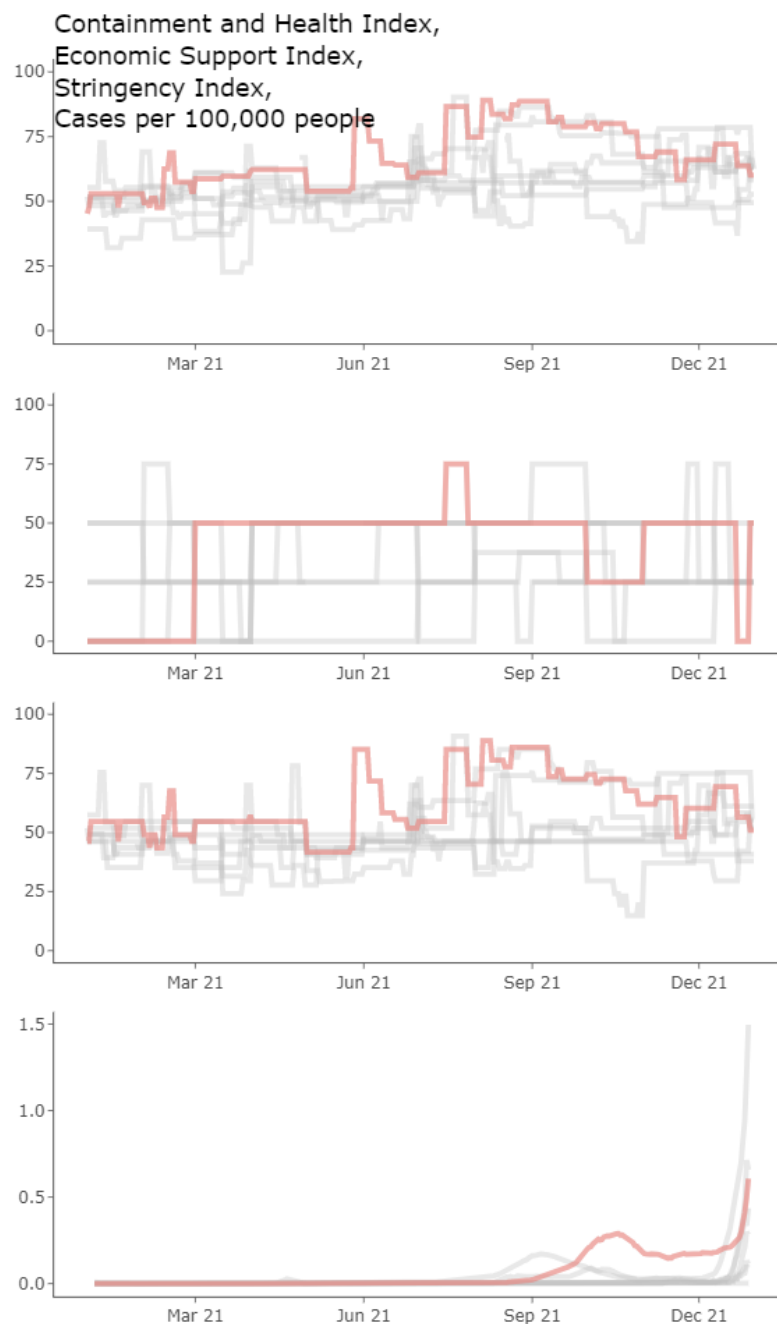
[156] https://web.archive.org/web/20220303052259/https://www.dhhs.vic.gov.au/updates/coronavirus-covid-19/statement-premier-26-october-2020

[157] https://web.archive.org/web/20211109171732/https://www.abc.net.au/news/2021-07-21/victorias-exposure-sites-spread-of-delta-variant/100307808

lockdowns were billed as 'Stage 4' restrictions and they were much like the second lockdown in 2020, however they lacked a curfew.

Delta variant of COVID-19 brought an end to this short lockdown-based, contact-tracing driven approach. While New South Wales was the first to record a Delta case, Victoria experienced a higher peak in Delta cases. Victoria's July 2021 lockdown did not manage to quash the outbreak and cases started rising again. Just nine days after leaving the fifth lockdown, Victoria entered its sixth on August 5th, 2022. The rules were much the same as in previous waves. However, the response was unlike that for previous waves and three factors changed the approach the government took. The first was that Delta was more infectious than previous strains meaning lockdowns slowed spread but did not reduce case numbers like previous lockdowns. The second was that restrictions seem to have not worked as well as in previous waves with 'lockdown fatigue' leading to more limited compliance with public health orders. While there was a great deal of media coverage of lock-down breaches in Victoria that might have been over exaggerated, Figure 9 shows that the lockdown affected mobility less than the long 2020 lockdowns did. Finally, this was the first major wave of infections in Victoria since the vaccines had become available in Australia. Although at the start of the wave, Australia's vaccination rate was comparatively low compared to the rest of the world, it gave governments another tool to fight COVID-19. These factors saw the abandonment of Australia's 'Zero COVID' policy by federal and state leaders (except for Western Australia). In line with leaders of other governments, Victorian Premier Daniel Andrews stated, "vaccination is our only way out of this pandemic" and eased restrictions not primarily in response to low cases, but in response to meeting vaccination targets. Most restrictions were relaxed on the 29th of October 2021 with the government projecting that Victoria would meet its 80% double-vaccinated target on that day.

Figure 9: Indices of Victoria and COVID-19 cases in 2021

Containment and Health Index,
Economic Support Index,
Stringency Index,
Cases per 100,000 people

Note: *State/territory shown in red, all other states and territories are shown in grey*

With most of the state double vaccinated after reopening, cases stabilised in the 1000-1400 range in November and December 2021. However, the arrival of Omicron in Victoria drove up case numbers and by the Christmas period, it had become the dominant strain in the state. This wave appears to have peaked on January 7th with 28,452 cases confirmed by PCR tests. In response to serious pressure on the PCR testing system, on January 6th, the Victorian government announced changes to allow positive Rapid Antigen Test (RAT) tests to be considered a diagnosis of COVID (the language was a 'probable case'). There were few changes to containment policy responses in response to Omicron. Some relaxations of restrictions were delayed indefinitely (e.g. the removal of mask mandates that was anticipated for December 15th, 2021, has not gone ahead). There were some more minor changes designed to contain the spread of the virus. A density limit of one person per

two square metres was introduced, a negative RAT was needed before visiting aged care or hospitals and working from home was recommended if possible. Also of note was the 'shadow lockdown' which saw Melbournians limiting their activities without public health orders in in place to avoid catching the virus, and this likely limited the spread of the virus.

5.8 Western Australia

Western Australia (WA) is Australia's largest state with a population of only 2.7 million (10% of Australia's population)[158]. 80% of the state lives in the Greater Perth area[159] . WA is the second least densely populated state, due to its size, only more sparsely populated than the Northern Territory.

WA was the fifth Australian jurisdiction to confirm a COVID-19 case on February 21, 2020, almost a month after the nation's first, after a cruise ship evacuee tested positive[160]. The Western Australia Premier, Mark McGowan, declared a state of emergency on March 15, 2020[161]. The next day indoor gatherings of 500 or more people were banned and on 18 March moved to 100 after agreement with the National Cabinet. Travel in and out of remote indigenous remote aboriginal communities within the state were restricted on March 19, 2020[162]. WA was the third state to initiate border restrictions to other Australian jurisdictions on March 22, 2020, and required a 14-day quarantine when arriving in the state[163]. On March 23, 2020, in line with the National Cabinet advice, non-essential businesses and activities were banned[164]. On March 31, 2020, WA announced no households power and water would be disconnected and extended the Energy Assistant Payment as well as waiving interest or late fees for some taxes[165]. On April 1, 2020, intra state movement restriction became enforced with WA residents not being permitted to travel outside their regional boundary[166]. Gathering restrictions were relaxed on April 27, 2020, allowing non-essential gatherings of up to 10 people indoors and outdoors[167]. These restrictions were further relaxed on May 18 with up to 20 people allowed to gather, restaurants and cafes opening for meal service and workers encourage to return to work[168]. Restriction continued to ease in June 2020.

By mid-April 2020 WA eliminated community transmission of COVID-19 with only a handful of community transmission occurring in the state until late December 2021[169]. This low case number

[158]https://web.archive.org/web/20220516003420/https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release

[159]https://web.archive.org/web/20220516011530/https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3218.0Main+Features12016-17

[160] https://web.archive.org/web/20220516011656/https://ww2.health.wa.gov.au/Media-releases/2020/Chief-Health-Officer-statement-COVID19-update-6

[161] https://web.archive.org/web/20220516011738/https://www.wa.gov.au/government/document-collections/covid-19-coronavirus-state-of-emergency-declarations

[162]https://web.archive.org/web/20220516011826/https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/03/New-Directions-to-protect-remote-Aboriginal-communities-from-COVID-19.aspx

[163]https://web.archive.org/web/20220516011919/https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/03/New-border-controls-to-help-protect-Western-Australia.aspx

[164]https://web.archive.org/web/20210414234321/https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/03/Important-new-COVID-19-measures-come-into-effect-.aspx

[165]https://web.archive.org/web/20220516012032/https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/03/$1-billion-COVID-19-economic-and-health-relief-package-unveiled-.aspx

[166]https://web.archive.org/web/20220516012125/https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/03/Intrastate-travel-ban-comes-into-effect-from-11-59pm-tonight.aspx

[167]https://web.archive.org/web/20220516012235/https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/04/Cautious-easing-of-restrictions-thanks-to-WAs-COVID-19-progress.aspx

[168]https://web.archive.org/web/20220516012323/https://www.mediastatements.wa.gov.au/Pages/McGowan/2020/05/The-WA-roadmap-for-easing-COVID-19-restrictions.aspx

[169] https://www.watoday.com.au/national/western-australia/a-timeline-of-wa-s-covid-19-response-was-our-success-luck-good-management-or-a-bit-of-both-20200827-p55q03.html

reflects WA's swift introduction of restrictions, isolation and strict state border policy to the rest of Australian jurisdictions particularly the COVID-19 prone states of Victoria and NSW.

During 2021, WA had minimal restrictions in place with a few targeted snap lockdowns, reflected as closure of businesses and schools, stay-at-home requirements and require wearing masks in public spaces. Lockdowns, as defined, were enforced January 31 to February 4, 2021[170] (Perth, Peel and South-West WA), April 23-26[171] (Perth and Peel) and June 29 to July 2[172] (Perth and Peel). A common trend is apparent with restrictions on gatherings and mask requirements lasting a couple of days to a week after stay-at-home requirements are eased. WA borders were closed for non-residents from specific states for most of the year, except from March 16-26 and April 27 to May 27[173]. WA stopped utility disconnections throughout 2021 and increased the Energy Assistance payment to $610[174]

[170]https://web.archive.org/web/20210301135303/https://www.mediastatements.wa.gov.au/Pages/McGowan/2021/01/Western-Australia-enters-five-day-lockdown-from-6pm-tonight.aspx
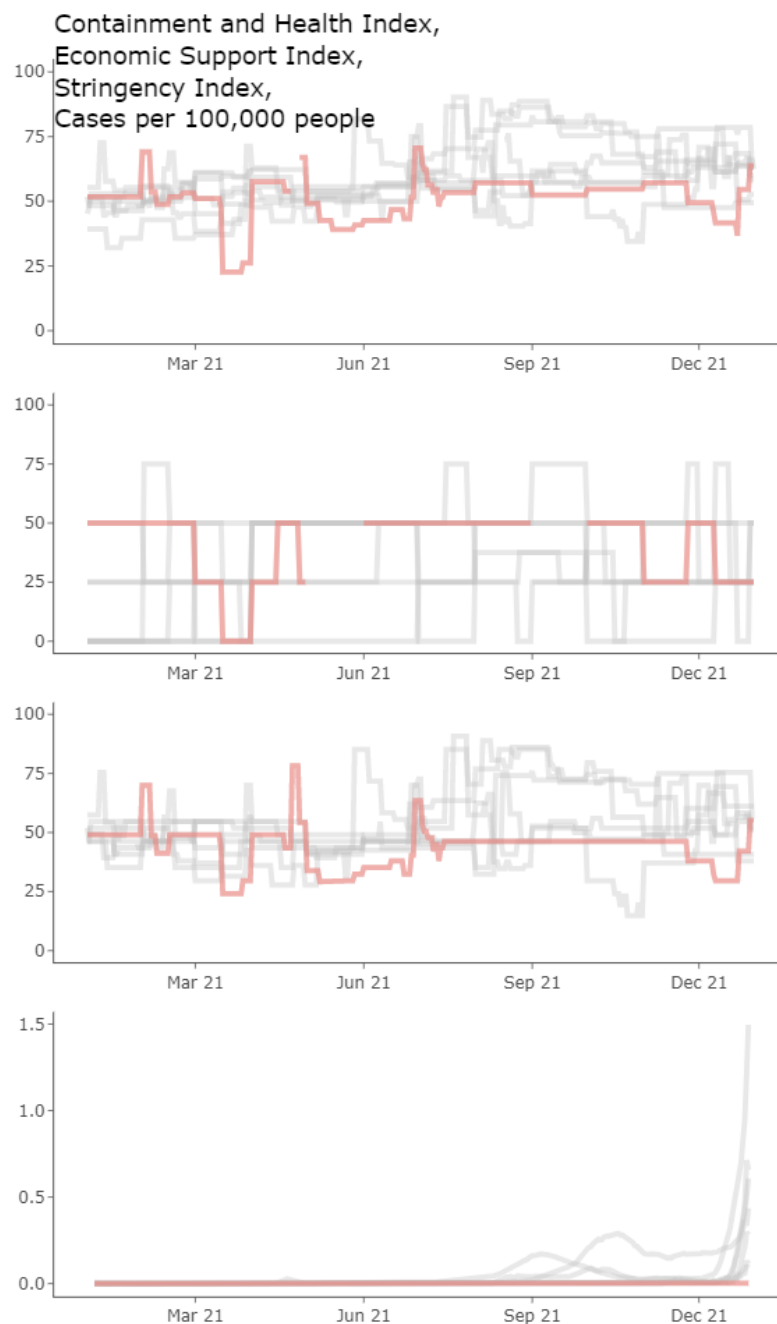
[171]https://web.archive.org/web/20211005104443/https://www.wa.gov.au/government/announcements/perth-metro-and-peel-enter-3-day-lockdown

[172] https://web.archive.org/web/20211024052331/https://www.wa.gov.au/government/announcements/4-day-lockdown-introduced-perth-and-peel

[173] https://web.archive.org/web/20210429101459/https://www.wa.gov.au/organisation/covid-communications/covid-19-coronavirus-controlled-border

[174] https://web.archive.org/web/20211005121755/https://www.wa.gov.au/sites/default/files/2020-04/covid-19-state-government-support-for-households-fact-sheet.pdf

Figure 10: Indices of Western Australia and COVID-19 cases in 2021

Note: *State/territory shown in red, all other states and territories are shown in grey*

# 6.   Mobility and compliance with policy measures

A challenge globally during the COVID-19 pandemic has been maintaining compliance with policy restrictions over a long period of time.[175] In Australia, there were anecdotal media reports of falling

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[175] https://doi.org/10.1038/s41562-021-01181-x

compliance over the course of the pandemic.[176] [177] Unfortunately, it is hard to directly measure compliance. The best publicly available data over time is the Google Mobility Report which showed how much restrictions changed people's movements. The data was made up of aggregated location data from several google products and broke down different locations into different categories to estimate how much time people spent at different types of sites.

The stringency index is compared in Figure 11 and 12 with time spent at residences and time spent at shopping and recreation locations. These correlate over time as one might expect. An increase in the stringency index coincides with an increase in time spent at home and a decrease in time spent at shopping and recreation locations.
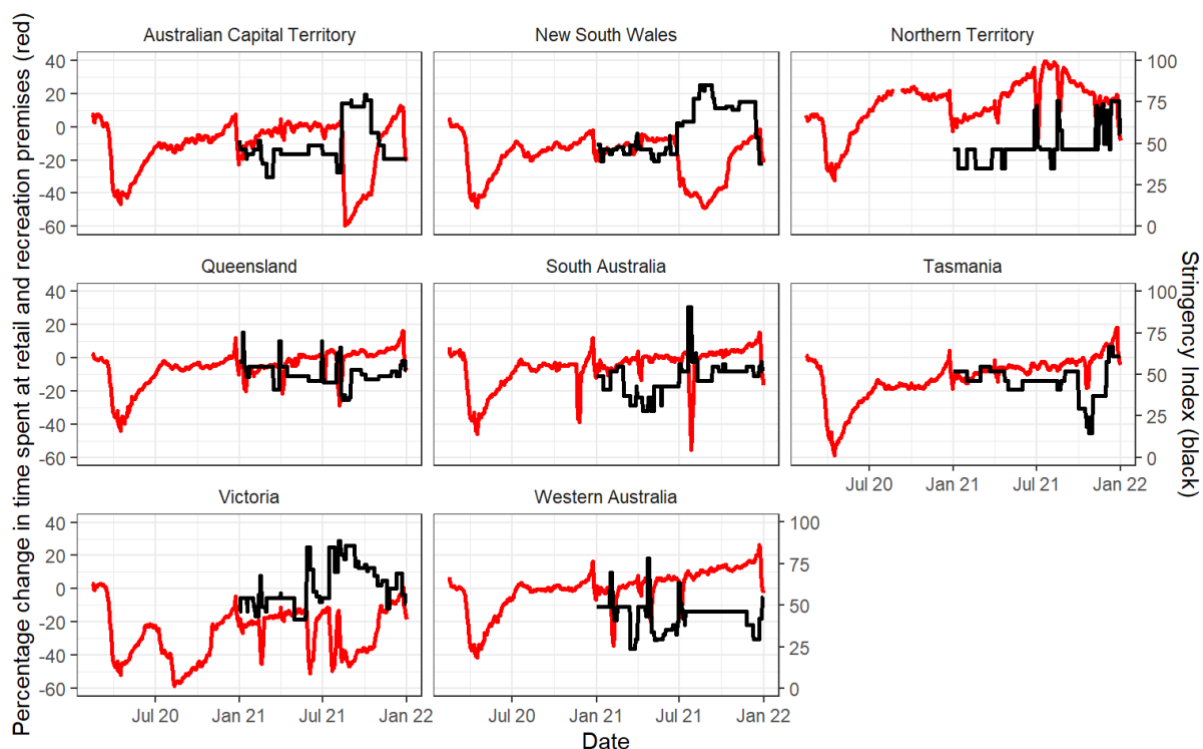
Figure 11: Time spent at residences across Australian states and territories
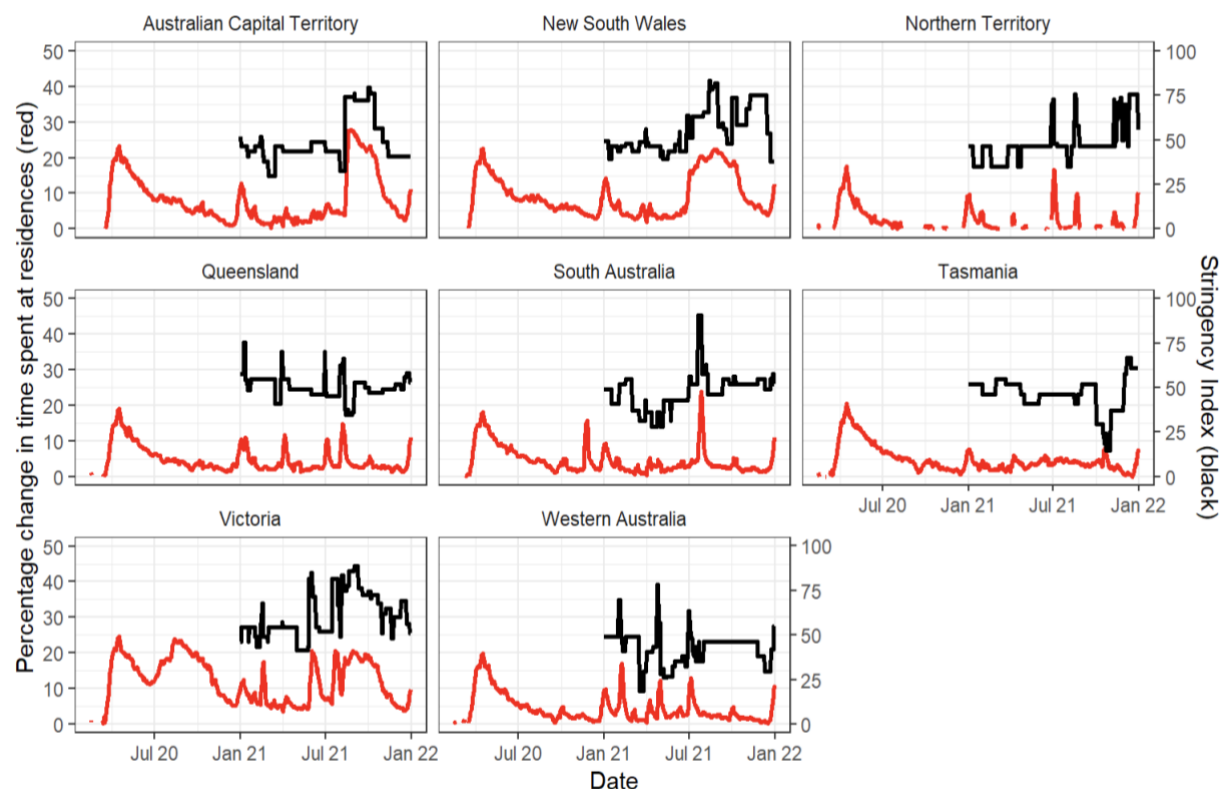
[176] https://web.archive.org/web/20210901000000*/https://www.abc.net.au/news/2021-08-31/state-and-territory-leaders-acknowledge-lockdown/13521504

[177] https://web.archive.org/web/20211014022952/https://www.abc.net.au/news/2020-08-04/coronavirus-lockdown-fatigue-mental-health-depression/12519698

Figure 12: Time spent at residences across Australian states and territories

The question of whether this data shows lockdown fatigue is a more difficult one to answer. 2021 only had one severe period of restrictions for most states and territories. Ideally, we would want to compare the 2021 restrictions against those in 2020 as well, when the population was much less pandemic fatigued. Even though we lack data on stringency in 2020 though, we can see where the peaks and troughs in the mobility data lie. These likely represent periods with similar levels of restrictions and so we can make a rough comparison even if we cannot precisely compare stringency index values.

There is not clear evidence of lockdown fatigue across all states across the pandemic. We can see some areas where there appears to fatigue. In Victoria for example, the period in late 2021 during which there was high stringency (including a stay-at-home order with a curfew), time spent at home was slightly below the peak levels through mid-2020 where similar levels of restriction were in place. On the other hand, in New South Wales, time spent at residences seems to have been about the same during the Delta-wave period of mid-2021 as it was during the period in March-April 2020. Other states and territories vary with some showing signs of fatigue and others showing no clear signs. We see quite similar patterns in time spent at shopping and recreation locations. The lack of a consistent effect may reflect the lack of a single experience of the pandemic across Australian states and territories. As the state summaries in Section 5 show, some states had much larger outbreaks of COVID-19 than others in 2020-2021 and so levels of restrictions were more severe in some places than in others.

There are two points worth keeping in mind when interpreting very small differences in this location data. Firstly, there may be fine-grained policy differences that the stringency index measures as equivalent but do not have equivalent effects specifically on mobility data. For example, a curfew might severely limit travel between certain hours but may cause little or no marginal change in the stringency index depending on how severe the stay-at-home order previously was. More generally, we may expect containment measures to have a greater impact on mobility than health measures.

This does not matter too much when looking at the big-picture effect of stringency on mobility, but when comparing very small differences in peak levels of time spent at home, we begin to lose the ability to meaningfully distinguish effects.

It is also worth noting that non-compliance in residential locations such as visiting the house of a family member or friend during lockdown would not be captured in this data, as it does not discriminate between whether someone is at their own home or another home. This is important as private gatherings are a relatively easy way to break stay-at-home orders when public spaces are likely to be monitored for rule breaking. From an epidemiological perspective they are also relatively risky compared to gatherings in outdoor public spaces. Large in-home gatherings were also the focus of much of the reporting on lockdown fatigue and delinquency. [178] [179] As an aside, this is of course not to mention all the other types of compliance like mask wearing, contact tracing check ins, self-isolating with mild symptoms etc. that should ideally also be considered as part of a compliance measure, but for which we do not have data. The mobility data then is a useful measure of fatigue, but not a complete one.

7.   Days affected by COVID-19 policy responses in 2021 in Australian cities and states and territories

In this section we report on the number of days that major Australian cities and states and territories in which some of these COVID-19 policy areas were in place.

Which cities had the strictest COVID-19 policy responses in place in 2021?

We focus on a few major policy responses which were particularly relevant to residents of major Australian cities in 2021.
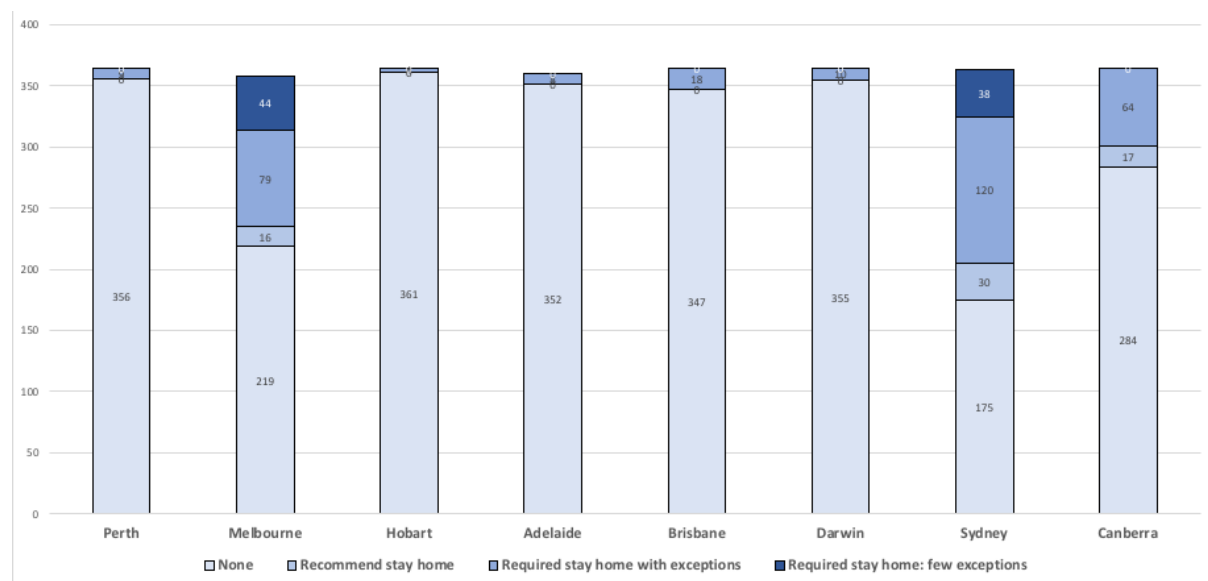
Stay-at-home requirements

'Lockdowns' are usually a range of different policies but the policy area most synonymous is the requirement to stay at home. In 2021 Melburnians experienced 44 days where citizens were required to stay at home with few exceptions compared to Sydney siders (4 days). However, in 2021 residents of Sydney had 154 days where they were required to stay at home with some exceptions compared to Melbourne (79 days). Although, some of these stay-at-home requirements for Sydney were targeted for specific areas such as the first 9 days of 2021 only affected Sydney's Northern Beaches. When stay-at-home requirements with some and few exceptions are considered together however Sydney spent five additional weeks with stay-at-home requirements than in Melbourne (158 compared to 123 days). Canberra was the only other city in Australia where residents were required to spend more than 60 days at home with some exceptions (64 days).

[178] https://web.archive.org/web/20211027112247/https://www.abc.net.au/news/2021-07-10/nsw-police-issue-167-covid-penalty-infringement-notices/100283504

[179] https://web.archive.org/web/20211128132345/https://www.abc.net.au/news/2021-08-16/victoria-police-investigates-engagement-party-covid-breach/100379308

Figure 13: Stay-at-home requirements across Australia capital cities

Legend: None | Recommend stay home | Required stay home with exceptions | Required stay home: few exceptions

School closures

School closures have been a particularly controversial policy because of the lower risks of serious illness in children and the negative social and mental health impacts on students. In 2021 children in Melbourne experienced 89 days where all schools were required to close and 89 days where some types of schools were required to close (178 days in total). In Sydney school closures were more limited with 78 days where all schools were required to close and a further 45 days where some types of schools were required to close (123 days in total). Canberra was the only other jurisdiction that had substantial number of days where schools were required to be closed (81 in total) all other states or territories had fewer than 13 days of school closures.

Figure 14: School closures across Australian capital cities

Legend: None | Open with alterations | Require closing for some types | Require closing
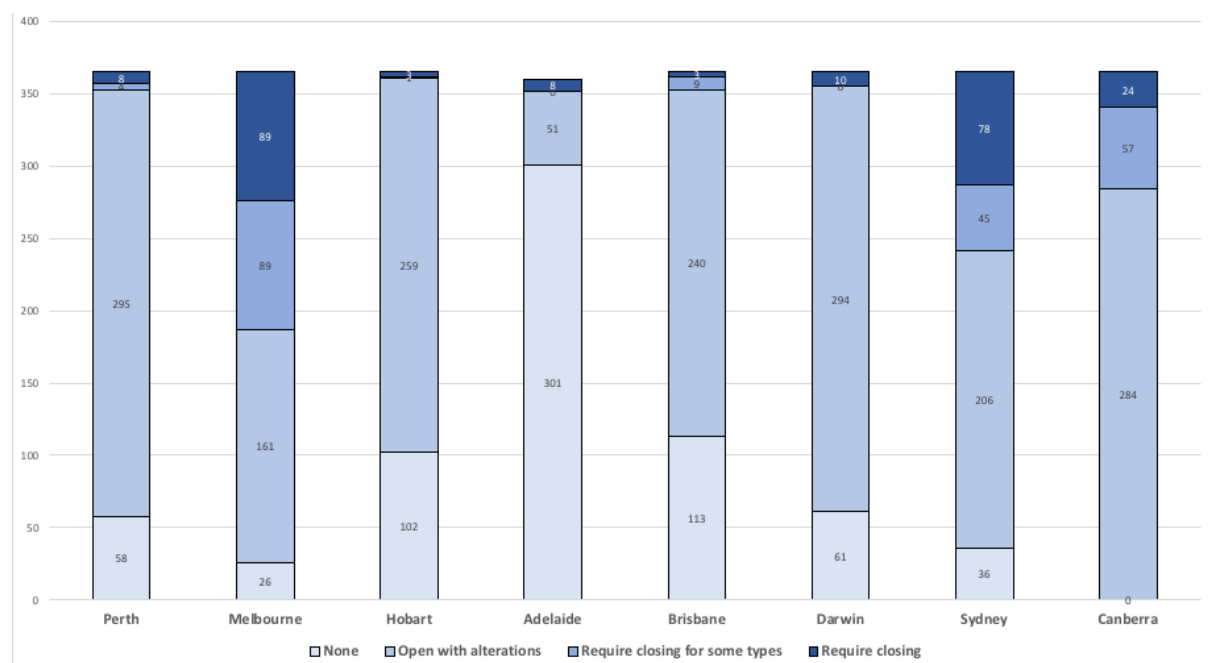
Workplace closures

Workplace closures have been the increasing flexibility of teleworking however throughout the pandemic has been difficult for some employees and businesses who could no longer operate. In 2021, while Melbourne and Sydney spent a similar number of days with the most stringent level of workplace closures (88 and 80 days respectively), Melbourne had far more days with at least some level of workplace closures affecting specific industries than Sydney (176 days compared to 122 days). In contrast, Canberra (64 days), Adelaide (37 days), Brisbane (32 days), Hobart (30 days) and Darwin (28 days) had far fewer days with some workplace closures than in the two major Australian cities.

Figure 15: Workplace closures across Australian capital cities
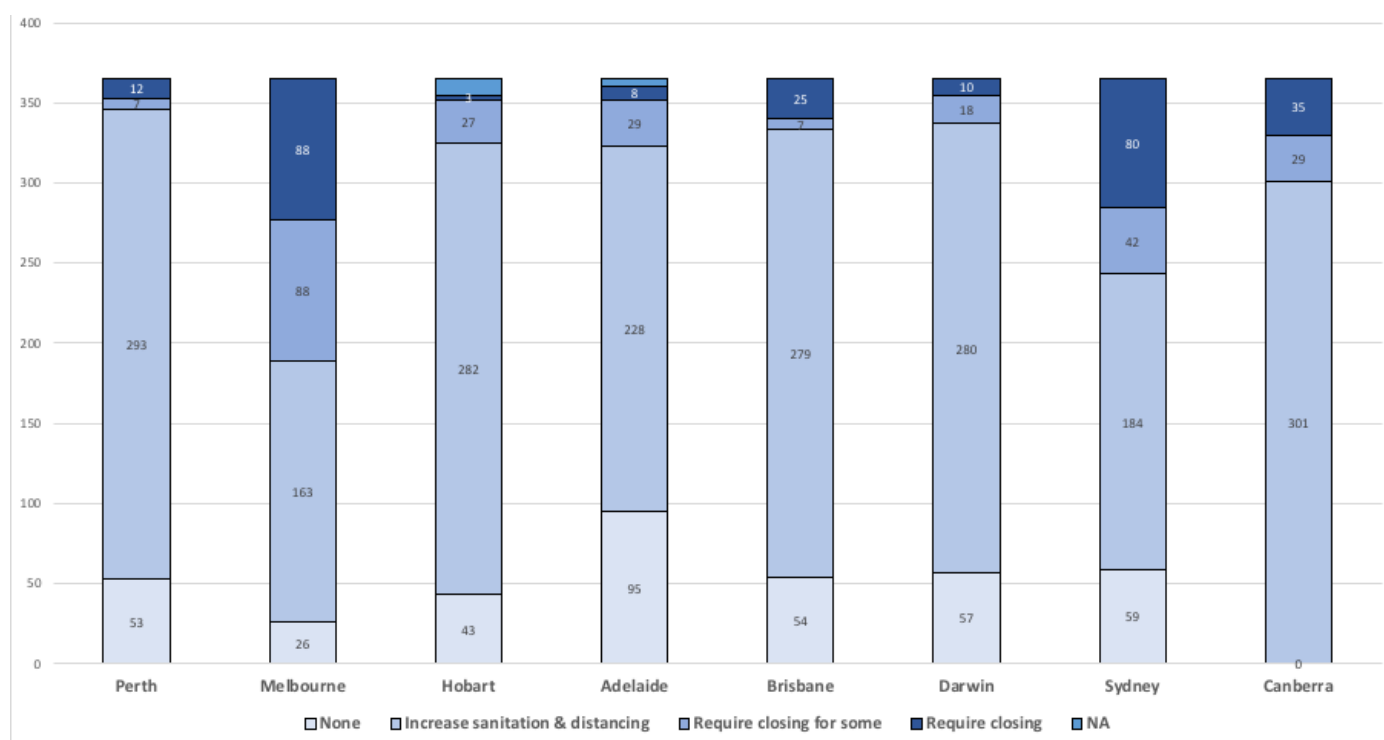
Cancellation of public events

Cancellation of public events such a concerts, sports, festivals and conferences followed similar patterns as with stay-at-home orders, school and workplace closures, with 180 days of cancellation requirements in Melbourne, 127 days in Sydney and 81 days in Canberra. Brisbane, Perth and Darwin had some public event cancellations (30, 20, and 17), while Adelaide and Hobart had minimal disruptions (8 and 7 days).

Masks

Mask requirements have been seen by public health authorities as an effective and low-cost option to curb the spread of COVID-19. In Australian cities Melbourne had masks being required outside the home for 194 days of 2021 – over 100 days longer than Canberra (92 days) and Sydney (70 days). Only Perth, Brisbane and Darwin had any substantial number of days where masks were not recommended (74, 50 and 34 days respectively).

Border closures

Another feature of 2021 was the long periods of state border closures. Most states borders were closed for almost 80 per cent of the year. Queensland had border restrictions for the entire year (365 days) followed by Tasmania (315 days). Consistent with public perceptions Western Australia

had some level of border closures for the whole of 2021 (365 days). There were also the highest-level restrictions on internal movement for the Northern Territory (292 days), Victoria (290 days), and South Australia (285 days). In contrast New South Wales had their borders closed for 192 days while in the Australian Capital Territory had borders closed for 157 days, respectively.

State differences in the protection of older people

It has been well documented that a large proportion of deaths in Australia have been those aged over 70 years particularly in aged care. We tracked whether extensive restrictions or narrow restrictions were in place to protect older people in 2021. As with other policies - New South Wales, Victoria and the ACT had stringent policies in place for the longest periods of time, likely a reflection of the fact that they had local community transmission for a greater period of the year than the other states. New South Wales had 136 days with extensive restrictions followed by 100 days of extensive restrictions in Victoria and 92 days in the ACT. South Australia and Western Australia were the only other states to employ extensive restrictions (51 and 26 days respectively) although all states employed at least narrow restrictions for most of 2021.

Figure 16: Protection of elderly people policies across Australian states and territories
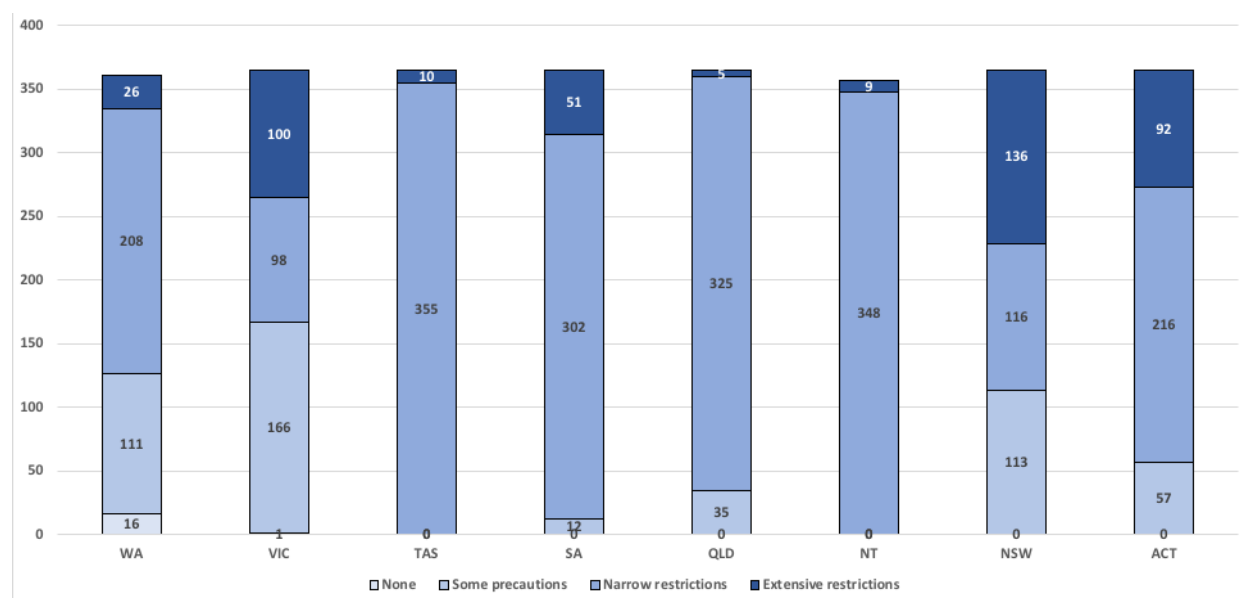

Overall, how do state and territories fare in terms of COVID-19 policies?

The stringency index, which records the number and intensity of closure and containment policies on a scale of zero to 100 enables us to compare the overall responses of states and territories to the pandemic.

Overall, the stringency index highlights the general trends outlined in the policy areas so far – New South Wales and Victoria had far more stringent policies and for longer periods with the stringency index over 70 for large periods of 2021. For the ACT, the stringency index was most stringent from mid-August to mid-October. For the other states and territories, the stringency indices were at 50 or below for much of the year and interspersed with spikes for short periods.

Figure 17: Stringency Index across Australian states and territories in 2021
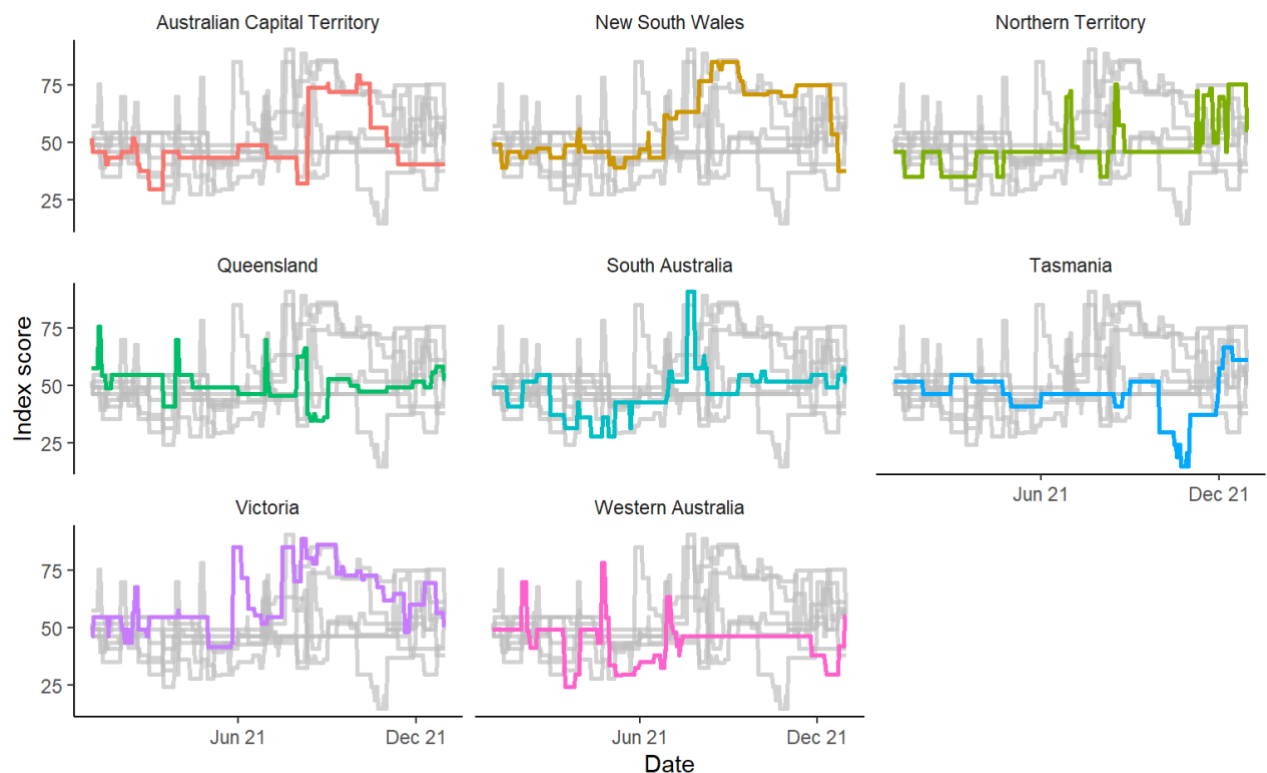
8.   Conclusion

There are several conclusions that one can draw from the data in this working paper. In 2020, early in the pandemic, the policy responses to Australian states and territories were similar partly because of the coordinated responses from the National Cabinet, the limited information about the coronavirus and the limited exposure in the Australian population. In 2021 state and territory government policy responses divide into two general strategies. For states and territories with low exposure strict border controls were in place with 'snap' lockdowns designed to reflect the zero cases policy that was in place until there were sufficiently high vaccination rates in the population. For states with increased COVID-19 cases such as New South Wales and Victoria the stringency indices were high for extended periods of the second half of the year until vaccination rates increased. By the end of 2021 the much more infectious, but less fatal, Omicron variant and high vaccination rates in New South Wales and Victoria saw a reduction in the stringency of policy responses to COVID-19. Our preliminary analyses of Google mobility data suggested that in Victoria which had the most stringent policy measures over the course of the pandemic the population was not as compliant as other jurisdictions. Finally, disaggregation of policy responses in terms of days spent with stay-at-home requirements, school closures and workplace closures highlight the quite different experiences that residents of Melbourne and Sydney (and to a lesser extent New South Wales and Victoria) have had to other cities, states and territories.

It is critical to understand which government response settings are most effective in reducing COVID-19 morbidity and mortality. The broader physical and mental health, social, educational, and economic impacts of government responses to the pandemic need equally to be understood. The Australian subnational OxCGRT dataset provides a standardised daily timeseries describing governments' responses to the pandemic. This is a valuable input for researchers and broader audiences investigating the impacts of these government policies.

Our volunteers will document Australian governments' ongoing responses to the pandemic. Data will be updated on a regular basis and made available via our GitHub repository and the Australian Data Archive. For future releases, we are also working towards a complete indicator dataset for 2020, the inclusion of vaccine policy indicators, and having a larger number of indicators coded for differentiation based on vaccination status.