

CHAPTER FIVE

THE SOUTH AUSTRALIAN EXPERIENCE OF THE COVID-19 PANDEMIC

The initial experience in South Australia of the COVID-19 pandemic has been comprehensively described in the Chief Public Health Officer Report 2018-20. This chapter focuses on subsequent actions taken by South Australia from July 2020 to July 2022 to reduce the risk and impact of further COVID-19 waves in the state. This included preparing the healthcare system; the whole of community vaccination program, which allowed a deliberate decision to open the state borders on 23 November 2021; and the subsequent epidemiology and impact on our community of successive Omicron variant waves over 2022.

The experience in South Australia differed significantly from a number of other Australian jurisdictions, particularly Victoria and New South Wales. Prior to the opening of borders in November 2021, only 924 cases of COVID-19 were reported in South Australia, the majority of which were due to overseas acquisition. Only three outbreaks of significance occurred – the Thebarton, Modbury and Parafield outbreaks – which were quickly controlled. As the presence of the virus was virtually eliminated in the state (although the risk of an incursion always remained), the social and economic fabric of the state remained largely intact. Some public health and social measures remained in place during this time of preparation because of the ongoing risk, but these were very much minimised.

SUMMARY OF OUTCOMES

- > 934 cases and four deaths prior to 80% of eligible community receiving two doses of vaccine (26 November 2021).
- > 802,830 cases and 1,056 deaths prior to 90% of eligible community receiving two doses of vaccine (19 November 2022).
- > 10 days of 'lockdown' i.e. Level 5 Restrictions (Activities – Associated Direction No. 4) and Stay at Home Directions in place.
- > 14 days of school closure (10 'lockdown' and four pupil free days at the end of Term 1, 2020 to prepare for online learning).
- > High level of community support for pandemic controls through ensuring a proportionate public health response and as a result of regular and clear communication to the community.
- > Minimised economic impacts on the state through a strategy of containment and elimination for the first two years of the pandemic, along with extensive economic and social supports by the South Australian Government.

AUTHORISING ENVIRONMENT

Actions to address the impact of the pandemic in South Australia from July 2020 to May 2022 continued to be authorised under an Emergency Management Declaration, which had been made by the Commissioner of Police on 22 March 2020 under the *Emergency Management Act 2004 (SA)*.

This declaration made the Police Commissioner the State Coordinator during the major emergency declaration who, in addition to coordinating the response to the emergency, had the power to issue statewide directions. In making, modifying or removing directions, the State Coordinator took advice from the Chief Public Health Officer, the Directions Committee (comprising members of SA Health, SA Police, Treasury and Education), the Transition Committee and the COVID-Ready Committee. SA Police and SA Health had responsibility for implementing and monitoring compliance with the directions.

While the major emergency declaration was in place, a range of directions were issued to establish isolation and quarantine requirements for cases and close contacts, international and interstate border controls (including border closures), vaccination mandates for high-risk sectors once vaccines became available, public health and social measures (including use of QR codes to entire premises, gathering limits

and mask requirements), restrictions on surgery and measures to safely conduct the 2022 state election. The most significant measures that established stay-at-home requirements were also made under directions and were issued in November 2020 (3 days) and July 2021 (7 days). Some directions were subject to multiple iterations including over 50 for gathering or activity related directions, and over 60 cross-border related directions. The directions were developed, modified or removed in response to the level of community risk at the time.

Recognising the need to move out of emergency arrangements, a new part (Part 11A) was added to the *South Australian Public Health Act 2011* via the South Australian Public Health (COVID-19) Amendment Bill 2022 on 24 May 2022. This amendment allowed a limited number of measures to manage the ongoing risk of COVID-19 in the absence of a major emergency or public health emergency declaration for a six-month period. This new part included establishing the power for the Governor of South Australia to issue directions to impose requirements on cases and close contacts, continued any directions that were in place at the end of the major emergency declaration, and gave the power to the Minister for Health and Wellbeing to expire all or part of any direction.

As part of the transition process, directions relating to in-home and community aged care, disability workers and healthcare setting workers vaccination, residential aged care, case and close contacts, mask wearing in certain settings, testing and international arrivals were transitioned to remain in effect. Over the period that Part 11A directions were in operation, three Governor's directions were issued modifying requirements for cases and close contacts and other provisions in other directions were progressively expired when no longer required. On 18 November 2022, the Minister for Health and Wellbeing expired all remaining directions made or transitioned under Part 11A of the *South Australian Public Health Act*. This effectively ended the legislative response to the COVID-19 pandemic that was in effect for two years, eight months and three days.

Much of the legislative response to COVID-19 involved measures that were unprecedented and impacted the whole of society. The close working relationship between SA Police, SA Health, the Crown Solicitor's Office and Parliamentary Counsel ensured a system that could rapidly implement and revoke control measures in a manner that was responsive not only to the disease, but also business and community sentiment.

THE NATIONAL CONTEXT

The COVID-19 pandemic led to unforeseen policy responses across all levels of government in Australia. Queensland was the first Australian jurisdiction to declare a public health emergency on 29 January 2020. A human biosecurity emergency was declared by the Australian Government on 18 March 2020.

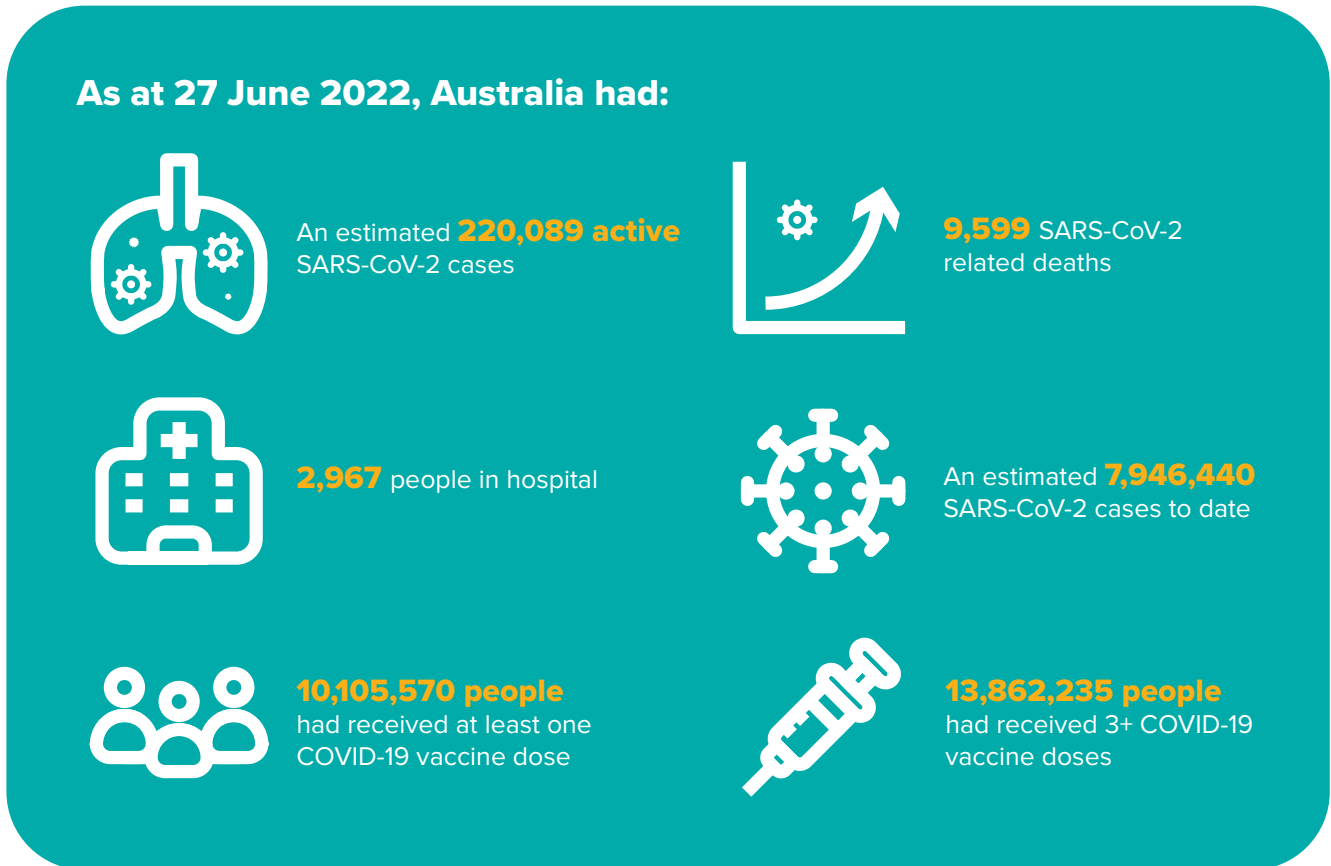
Australia was one of the few countries uniquely placed to contain the COVID-19 virus and started to close its borders to international visitors from some countries from February 2020, and to all other countries on 20 March 2020. Australia was one of few countries to pursue a zero-COVID ‘suppression’ strategy until late 2021¹⁷⁵.

Alongside Australia’s international border closures, states and territories implemented different strategies to reduce the spread of the virus until access to approved vaccines was available. This included state and territory border closures, lockdowns, social restrictions, systematic testing and contact tracing and quarantine and isolation of close contacts and cases respectively.

To foster control of the virus, Australia continued to support basic public health protocols such as masks, handwashing, and physical distancing. This, alongside the steady rollout of the vaccine program from early 2021, significantly decreased the number of COVID-19 cases and hospitalisations in the country.

As of 27 June 2022, 7,946,440 COVID-19 cases and 9,599 deaths¹⁷⁶ had been recorded in Australia for the period between 2020 to 2022, which was lower than many western countries. Information obtained from BMJ stated that Australia saved upwards of 60,000 lives¹⁷⁷. This success was likely due to the strategic and proportionate preventive measures implemented by Australian state and territory governments, including pathogen genomics testing, vaccine implementations, and social and economic support systems to sustain citizens and the economy. During 2021, Australia’s state and territory borders gradually opened, and by February 2022 the country’s borders had fully reopened to international flights¹⁷⁸.

Figure 30: A snapshot of COVID-19 in time



Data source: Department of Health, *Coronavirus (COVID-19) case numbers and statistics and Covid-19 vaccine rollout update – 26 June 2022, 27 June 2022*

STRATEGIC INTENT AND HOW THIS CHANGED OVER TIME

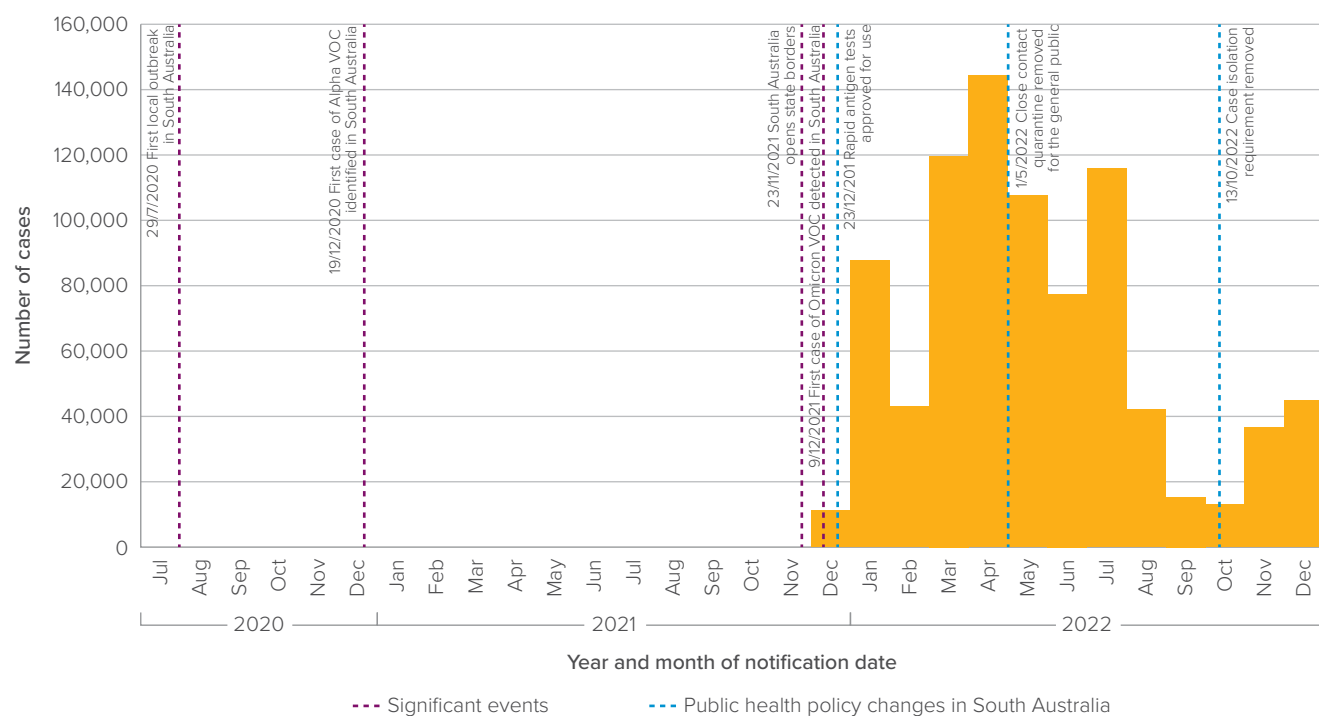
By June 2020, South Australia had essentially eliminated the SARS-CoV-2 virus from the state. This had not been done deliberately but was a result of rapid scaling up of PCR testing, isolation requirements for cases, rapid contact tracing and quarantine, and sustained closure of the international border and closure of the state border from 24 March 2020. All efforts were supported by extensive community engagement, rapid reviews of emerging evidence and sustained public messaging and dialogue.

The strategic intent for this initial period was to flatten the epidemic curve to ensure cases would not overwhelm hospital services, allowing healthcare services to be maintained and any patient with COVID-19 who needed hospital care to receive it. What became evident at this time was that many of the more stringent pandemic controls could be lifted, allowing many aspects of social and economic functioning in the state to resume as normal. However, to achieve this, because of uncontrolled COVID-19 outbreaks occurring in other Australian jurisdictions, state border controls remained in place. South Australia took a pragmatic and flexible approach to border control, monitoring disease outbreaks in other jurisdictions and changing border controls accordingly.

EPIDEMIOLOGY OF COVID-19 IN SOUTH AUSTRALIA

The figure below shows monthly COVID-19 case numbers for the reporting period of July 2020 to June 2022. The public health measures previously described, particularly management of state border controls and prompt control of any virus incursion into the state, meant that there were virtually no cases until the borders were fully opened on 23 November 2021. Minor restrictions on movement remained. For example, a requirement to have had two doses of vaccine to be able to enter South Australia without quarantine. The predominant COVID-19 strain at the time in Australia was Delta and modelling was undertaken to predict the likely disease spread given the transmission potential of this strain and the level of vaccination in South Australia.

Figure 31: COVID-19 epidemiology curve from November 2019



OUTBREAKS OF SIGNIFICANCE DURING THE ELIMINATION PHASE 1 JULY 2020 TO 23 NOVEMBER 2021

Thebarton Cluster

On 29 July 2020, SA Health was notified of a positive COVID-19 result in an individual completing quarantine in a north-eastern suburbs hotel in Adelaide. The individual had returned from Victoria on 28 July 2020, where community transmission was known to be occurring at the time. For this reason, the person was required to undertake quarantine and testing under a public health direction.

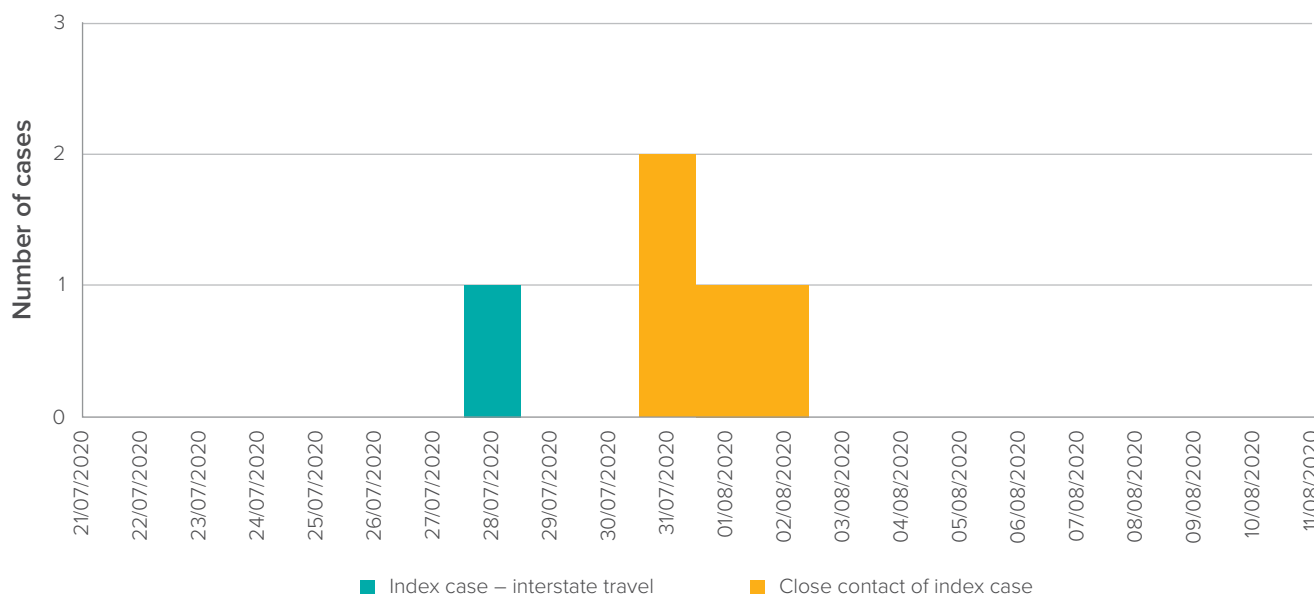
Unfortunately, despite quarantine, transmission occurred both to a young woman and a hotel cleaner. The woman attended Thebarton Senior College while infectious before testing positive on 1 August 2020, with 100 close contacts identified. A large portion of these contacts were students who required medi-hotel support to quarantine effectively. The school’s cohort included a large proportion of students from a culturally and linguistically diverse background. To facilitate safe and effective quarantine, SA Health engaged with Multicultural Affairs, community leaders, non-government organisations and faith leaders to assist with communication and support for these students.

In addition to the quarantine of these recognised close contacts, tightening of restrictions on public and private gatherings were put in place to reduce risk of further community transmission. As a result of this prompt, proportionate public health response, a stay-at-home order was not required.

Between 3 and 6 August 2020, SA Health was notified of two subsequent cases in close contacts from Thebarton Senior College. Out of concern regarding transmission among students, the State Coordinator issued the Emergency Management (COVID-19)(Thebarton Senior College Isolation) Direction 2020 on 6 August 2020. This required anyone present onsite during the infectious period of the known cases to quarantine for 14 days after their last attendance at the school. Following this announcement, the Chief Public Health Officer held a forum with relevant community leaders.

Close contacts were tested throughout their infectious period, with no further cases being identified. Once all contacts were released from quarantine on 21 August 2020, the outbreak was declared over and public health restrictions were once again lightened.

Figure 32: Epidemic curve of confirmed cases of COVID-19 reported in South Australia, by onset date that were epidemiologically linked to the Thebarton Outbreak – 21 July 2020 to 11 August 2020



*Cases charted by calculated onset date

Parafield Cluster

On 15 November 2020, SA Health was notified of a confirmed case of COVID-19 in a woman in her 80s who had presented to an emergency department in metropolitan Adelaide. The case had no direct epidemiological risk factors for COVID-19. Of the 15 family members who subsequently tested positive, only one had epidemiological links to COVID-19 cases. This individual worked at a quarantine medi-hotel and had the earliest onset of symptoms, and was therefore considered the likely source case for the outbreak. Transmission within the extended family group was exacerbated by a large gathering that the primary case attended while infectious.

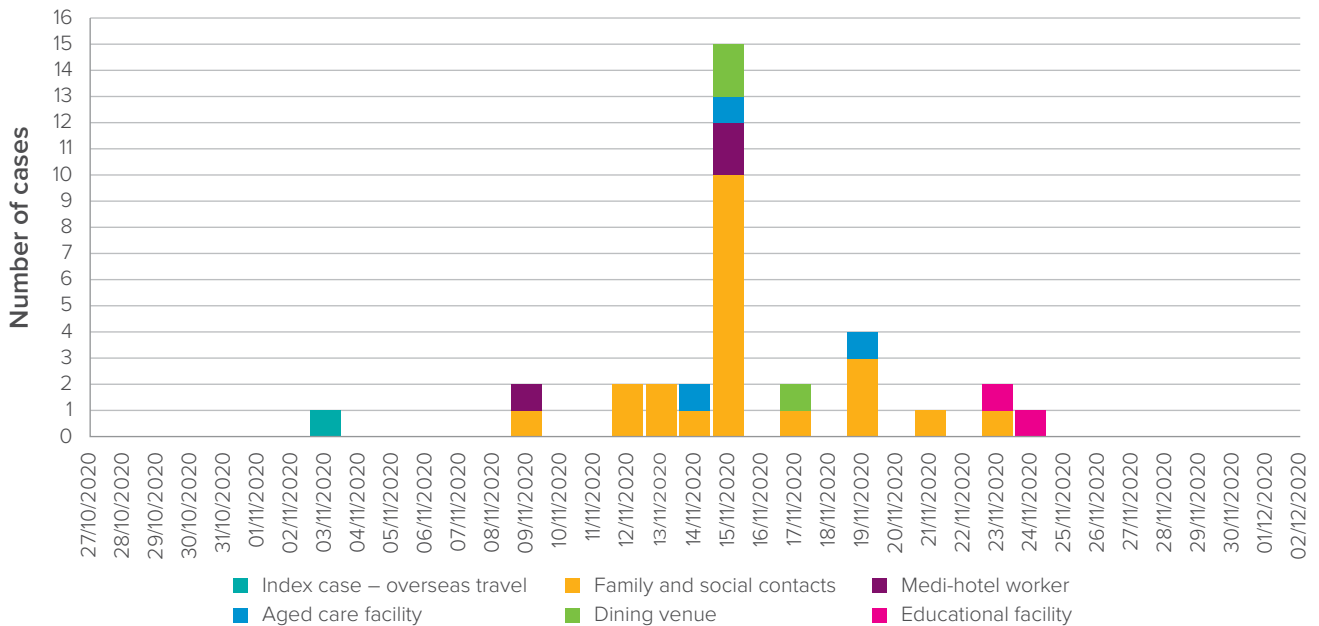
The cases from the family group generated a large number of exposures, with approximately 6,000 close contacts directed to quarantine. Some of these were determined to be high-risk settings, such as an aged care and correctional facility.

Dedicated outbreak leads from SA Health supported these settings and led investigations.

The investigation found a total of 33 cases related to the outbreak, all linked epidemiologically. The cases were found in five distinct clusters – family or work close contacts of the primary case, attendees of the large social gathering, a residential aged care facility, a pizza shop and an English language school.

The response to this outbreak included a six-day period of heightened public health restrictions including a stay-at-home order intended to act as a ‘circuit breaker’ for community transmission from 19 November 2020. However, due to fast and effective contact tracing these restrictions were lifted after three days.

Figure 33: Epidemic curve of confirmed cases of COVID-19 reported in South Australia, by onset date that were epidemiologically linked to the Parafield Outbreak – 27 October 2020 to 2 December 2020



*Cases charted by calculated onset date

Modbury Cluster

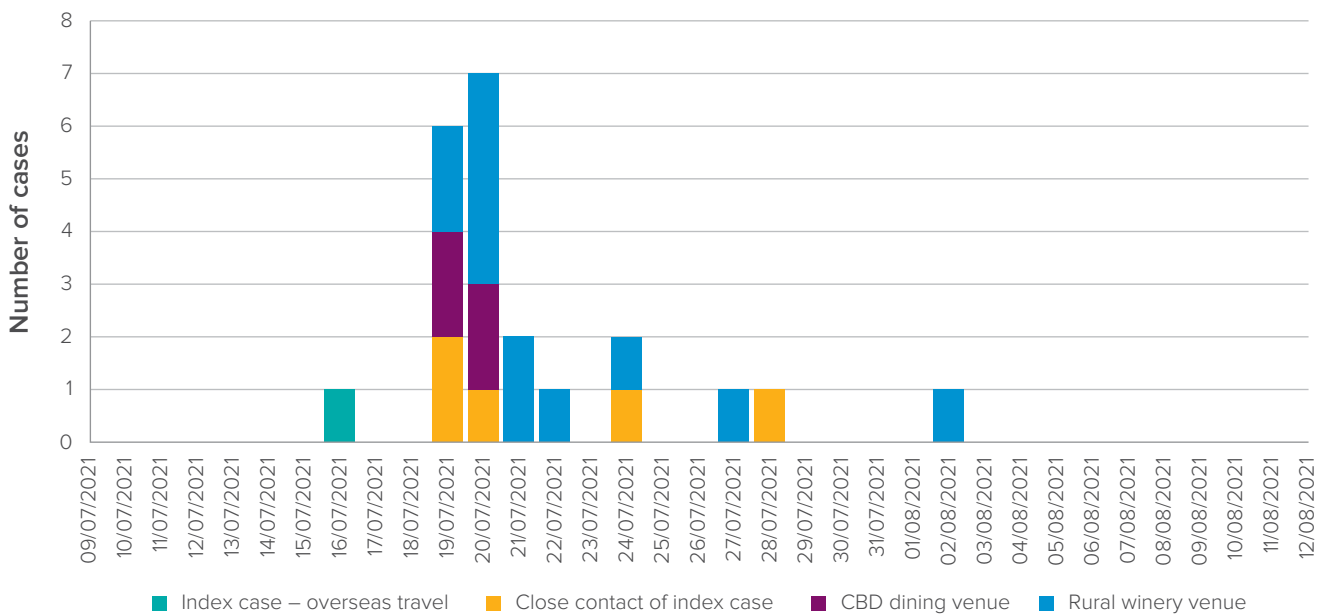
On 19 July 2021, SA Health was notified of a case of COVID-19 in a man in his 80s who was a resident of Adelaide. Before returning to Adelaide, the man had completed hotel quarantine in New South Wales after returning from overseas. He subsequently developed respiratory symptoms and sought testing on 18 July 2021. Five further cases were identified in social or household close contacts of the primary case.

Contact tracing interviews identified a large number of public exposure sites related to these cases. These included restaurants, supermarkets, shopping centres, education facilities and health services. Public health information regarding quarantine, testing and exposure times were listed on the SA Health website. Close contacts were also informed of their exposure via SMS after being identified by the QR code contact tracing system. A total of 16,652 close contacts were directed to quarantine via SMS, with some household members also required to quarantine.

Two transmission sites were subsequently identified. One was a restaurant in Adelaide, the other was a winery northeast of Adelaide. Both sites were attended by the primary case and/or second-generation cases linked to his household. Four cases were linked to the restaurant and 12 cases linked to the winery (including two household members of cases). Factors affecting transmission in both venues likely included being an enclosed space with limited social distancing and ventilation. Over 90 exposure sites were identified in relation to the 22 cases from this outbreak. This led to a seven-day statewide period of tightened public health restrictions (including a stay-at-home order) from 20 July 2021 to reduce the risk of community transmission while contact tracing was rapidly conducted.

The primary case was linked to cases in New South Wales, supporting the hypothesis that he acquired his infection either while in or in transit from New South Wales.

Figure 34: Epidemic curve of confirmed cases of COVID-19 reported in South Australia, by onset date that were epidemiologically linked to the Modbury Outbreak – 9 July 2021 to 11 August 2021



*Cases charted by calculated onset date

PILLARS OF THE PANDEMIC RESPONSE

Testing

South Australia was able to rapidly establish accessible COVID-19 testing due to an existing strong public pathology system. Very early in 2020, once a SARS-CoV-2 PCR viral test had been developed, SA Pathology added this to the standard respiratory panel, providing population-level surveillance of the disease prior to the initial waves of disease in Australia. The repurposed SA Pathology service was the first in the world to establish drive-through PCR testing sites, which allowed the scaling up of testing. This was critical in the first two years of the pandemic to ensure isolation and quarantine of cases. At the peak of pathology activity, SA Pathology recorded 19,237 tests, employed and trained 2,296 staff, and operated 22 drive-through testing sites. This included 14 walk in sites and 14 pop-up sites throughout metropolitan Adelaide and regional South Australia.

Supported by the Kirby Institute, GeneXpert PCR point-of-care testing was established in remote communities in South Australia and was also used across public hospital networks. Several private pathology providers also supported access to COVID-19 PCR testing in South Australia, particularly Clinpath Pathology and Australian Clinical Laboratories. Clinpath Pathology was contracted by the Australian Government to provide in-reach pathology testing in residential aged care facilities, allowing prompt outbreak management.

Supporting contact tracing, isolation and quarantine of cases, all pathology providers were required to have electronic systems in place to allow prompt notification into the Department for Health and Wellbeing, along with a system to send a SMS message to individuals with their results. From the receipt of the sample in the testing laboratory, turnaround times for SA Pathology test results ranged from six to 28 hours. Due to the importance of rapid testing to support isolation of case and quarantine of close contacts, a Direction was in place that required COVID-19 PCR pathology providers to attain a turnaround time of 24 hours for metropolitan and 36 hours for regional South Australia.

From 1 November 2021, the Therapeutic Goods Administration (TGA) approved a range of SARS-CoV-2 rapid antigen tests (RAT). With state borders closed in South Australia and very few cases of COVID-19, to support zero community transmission while vaccination rates were increasing a Direction was put in place restricting the sale and use of RATs. This was because of the lower sensitivity of RATs and the risk of false negatives, which would not have supported prompt public health outbreak control. After borders opened and following the Delta and successive Omicron waves, RATs have been strongly adopted as the preferred testing modality for the majority of people. Due to the higher sensitivity of PCR testing, access remained important for individuals at higher risk of severe illness from COVID-19 who may be eligible for oral antiviral medications (available from January 2022¹⁷⁹).





Contact tracing, isolation and quarantine

Contact tracing refers to the interviewing of cases and identification of individuals at risk of developing the infection (close contacts) – a methodology used routinely to control outbreaks of other communicable diseases such as measles. Prior to borders opening, a highly sophisticated, semi-automated and scalable system of contact tracing was developed by the Department for Health and Wellbeing. This involved investment in digital infrastructure, use of SMS messaging to cases about isolation requirements, return surveys regarding close contact details and automated prioritisation of cases. The latter meant the prompt identification of cases in the most vulnerable settings, including residential aged care, hospitals, correctional services and remote communities. Other critical industries where outbreaks had the potential to spread quickly and disrupt operations, such as remote mine sites and abattoirs, were also able to be identified.

Isolation and quarantine requirements for cases and close contacts generally followed that of other Australian jurisdictions and were in line with recommendations from Communicable Disease Network Australia to align with known incubation and infectious periods. During the first Omicron wave (January to February 2022), the eastern Australian states experienced extremely high levels of infection, resulting not only in overwhelming pressure on their health services but also on other critical workplaces, including food production and distribution services. In response to these

impacts, these states moved to a seven-day isolation period for cases and only required quarantine for 'household' close contacts. South Australia experienced the Omicron wave later and was able to successfully flatten the BA.1 variant curve through a combination of enhanced public health restrictions and continuing with a 10-day isolation period for cases and quarantine for contacts based on standard infectious disease principles. The strategy supported the majority of South Australians being able to access a third dose of vaccine, as it was clear from the evidence that this was required to give the same clinical protection for Omicron as two doses for Delta. As a result, South Australia did not experience the widespread community and economic disruption seen in other jurisdictions despite not having border controls in place at this stage.

Outbreak management during the elimination phase hinged on rapid quarantine of close contacts. Contact tracing often revealed cases had visited numerous public locations, potentially exposing large numbers of people. A QR code check-in system was developed in partnership with the Department of the Premier and Cabinet. This allowed members of the public to scan a QR code using a mobile device when entering a public location. This was mandated for public locations and allowed for the very rapid identification of locations attended by a case, as well as other people present at the same location and time.

Supporting high-risk settings

Throughout the COVID-19 pandemic, SA Health worked in partnership with priority settings to provide advice and support to manage COVID-19 outbreaks. Certain settings were considered high-risk due to increased potential for disease transmission and/or increased likelihood of poor outcomes due to COVID-19. Settings identified as high-risk included residential aged care facilities, correction and detention facilities, schools and early learning, discrete Aboriginal communities, residential disability services, maritime vessels including cruise ships, healthcare settings and hospitals.

There were various stages and levels of collaboration with these sectors. Initially, SA Health worked with these stakeholders on preparedness, including the development of outbreak response plans and infection prevention and control training. Following the opening of state borders in November 2021 and a subsequent increase in case numbers, enhanced measures to protect high-risk populations and settings became a key focus in the state's COVID-19 response.

Deployment to remote and regional areas

A collaborative relationship between key stakeholders including local health networks, Aboriginal Community Controlled Health Organisations, SA Pathology, Aboriginal Health and the State Control Centre Health (SCC-H) was utilised to deploy public health officers as part of a Health Rapid Response Team. This team focused on supporting remote Aboriginal communities responding to COVID-19.

This model of response was unique and enabled a truly local approach, working with communities to strengthen relationships, build trust and increase capacity and resilience. Public health officers provided technical advice, undertook contact tracing activities, liaised with local stakeholders, and ensured public health advice and messaging was appropriate and tailored to meet the needs of the community. Ensuring connection with the community and cultural consideration for public health actions were key in the success of these partnerships and outbreak response measures.

Deployment activities facilitated implementation of the Test, Trace, Isolate, Quarantine strategy to minimise the impact of COVID-19 in Aboriginal communities. Placement of public health officers within these communities promoted engagement with local health services and other key stakeholders by facilitating information flow, communication pathways and joint decision-making processes.

Commencing in December 2021, deployment activities ranged in scope, duration and complexity depending on the severity of the outbreak and the needs of the community. Deployment locations included Port Augusta, Coober Pedy,

Yalata and the Anangu Pitjantjatjara Yankunytjatjara Lands. Following the decommissioning of the SCC-H in June 2022, deployment activities wound-down, however the relationships built, and processes established to support Aboriginal communities in responding to COVID-19 continue.

Development of guidance for priority settings

As sectors became more experienced with managing COVID-19, SA Health worked closely with these groups to develop setting-specific guidance. This guidance provided advice to prepare for and self-manage COVID-19 exposures and outbreaks. Recommendations were provided for key focus areas including testing, management of positive cases, infection prevention and control, notification processes and staff return to work practices following COVID-19 exposure or infection. These guidelines were regularly updated in consultation with stakeholders as evidence, policy and recommendations changed.



Border control including medi-hotel quarantine facilities

In accordance with Australian and South Australian Government requirements, COVID-19 cases and close contacts were required to undertake a mandatory isolation or quarantine period.

Directions made under Section 25(2) of the *Emergency Management Act 2004 (SA)* included directions for international and domestic travellers and mandatory isolation or quarantine of COVID-19 cases and close contacts utilising the HealthCheck SA application, as well as the ability for authorised officers to direct people to undertake this period in a designated facility such as a medi-hotel or COVID-19 Accommodation Support Centre.

SA Health implemented effective and efficient quarantine and isolation strategies and programs, comprised of three interrelated components – supervised quarantine (medi-hotels), alternative quarantine and home quarantine. These programs were essential in reducing transmission of COVID-19 in the community and pressure on the acute and primary health care sector in the health and community responses to the various phases of the COVID-19 pandemic.

The COVID-19 Quarantine South Australia Team was established within SA Health to facilitate the operation of medi-hotels and alternative quarantine, working closely with the SCC-H, COVID Response Care Team, SA Police, the private sector, local government and local communities. Support agencies, including Department of Human Services, Department of the Premier and Cabinet and SA Housing Authority also played a key role in compliance, technology capability and ensuring appropriate human and social supports were provided to vulnerable communities.

Medi-hotels

The medi-hotel program was integral to SA Health’s response to the COVID-19 pandemic in providing effective and efficient quarantine and isolation strategies for COVID-19 positive cases and close contacts. The program commenced in April 2020 and accommodated over 42,000 individuals, including international and domestic travellers, COVID-19 positive cases and close contacts.

At full capacity from February to December 2021, the program encompassed more than 1,000 rooms across six medi-hotels – the Pullman, Playford, Hotel Grand Chancellor, Peppers, Stamford Plaza and Tom’s Court Hotel. Guests accommodated at medi-hotels had access to multi-disciplinary health care and support services, including nursing and midwifery, mental health and support services, provided by the COVID Response Care Team, formerly Rapid Response Nursing and Midwifery Service, and primary health care through referral to a contracted GP Assessment Team.

Throughout the COVID-19 pandemic, the strategy for the use of the medi-hotel program evolved in response to the opening of domestic and international borders, flight caps, reviews of hotel quarantine arrangements and new variant strains of COVID-19 (Delta and Omicron).

The program was also regularly reviewed under a continuous improvement approach and adapted to consider lessons learnt at a state, national and local level. The guiding principles for the operation of medi-hotel quarantine, published and updated from time to time by the Australian Health Protection Principal Committee, also influenced the evolution of the program.



Home quarantine and HealthCheck SA

In response to the COVID-19 pandemic and to facilitate a scalable and safe way of quarantining people in South Australia, SA Health led an initiative, with support from Department of the Premier and Cabinet and SA Police, to develop a home quarantine solution. Prior to this, home quarantine was granted as part of the exemption process throughout 2020 and 2021 and relied heavily on SA Police compliance checks.

A key component of the home quarantine solution was the development of the HealthCheck SA application, which was trialled with pilot cohorts of returning interstate and low-risk international travellers from August 2021. HealthCheck SA was programmed to undertake random compliance checks daily and included a range of resources like mental health support. There were three key compliance requirements – geolocation, daily symptom checking and monitoring compliance with the testing regime.

The home quarantine solution was developed concurrently to a related initiative – the Travel Exemption application portal. Individuals planning to enter South Australia were required to complete an online application process for an exemption to enter South Australia through the Exemptions application portal and provide personal details, identity verification, previous locations and travel plans, vaccination status, and details about their dwelling in South Australia. This information obtained through the Exemption application enabled identification of individuals eligible to enter home quarantine.

On 23 November 2021, South Australian borders opened to eligible interstate and overseas arrivals. To facilitate the entry process into South Australia and minimise the impact of COVID-19 during this time, the EntryCheck SA portal and the HealthCheck SA App were instated to enable SA Health and SA Police to undertake a range of COVID-19 risk management and compliance activities. The EntryCheck SA portal replaced the previous Exemptions application portal. Unvaccinated persons planning to travel to South Australia were required to apply for an exemption to travel, outside of the EntryCheck SA process.

The HealthCheck SA App was subsequently expanded for use to monitor home quarantine arrangements for all arrivals (both domestic and international) from mid-September to 31 December 2021. There were 157,253 individuals recorded on the HealthCheck SA platform until 31 December 2021, after which it was determined the HealthCheck SA App and EntryCheck portal were no longer required for domestic and international travellers entering South Australia.

The EntryCheck SA portal and HealthCheck SA App were retained on standby as SA Health considered options as to whether these applications would be formally decommissioned or reinstated in response to future COVID-19 outbreaks or other COVID-19 management response strategies.

Accommodation Support Centres

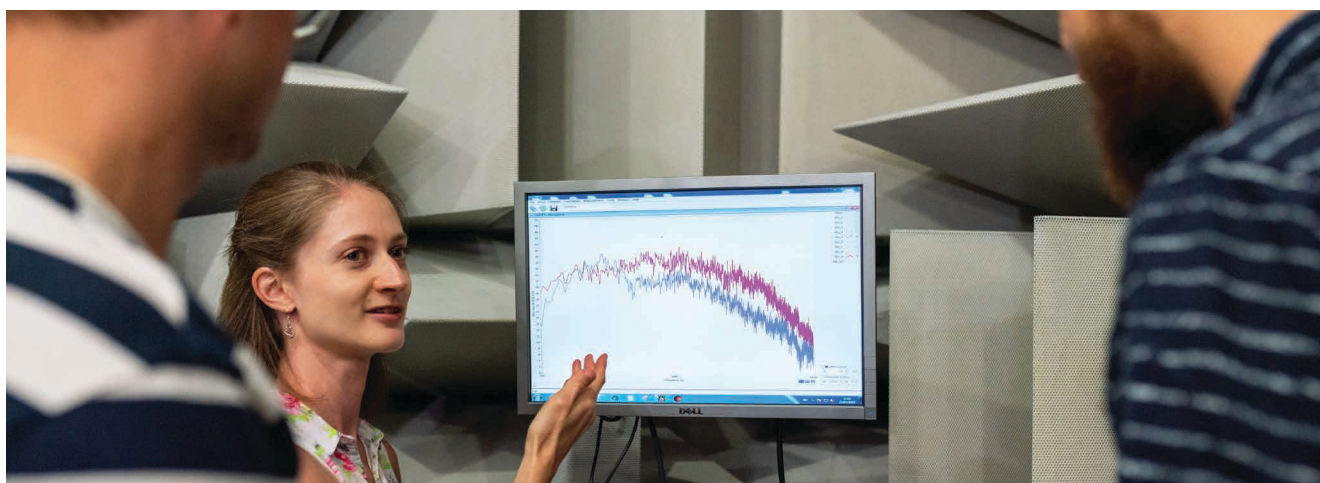
Accommodation Support Centres were set up in several metropolitan and targeted regional sites following South Australia's state border opening in November 2021 and were used through the initial Omicron wave in South Australia. The centres were integral to SA Health's response to the COVID-19 pandemic in providing safe and culturally appropriate accommodation for COVID-19 positive cases and close contacts, as close to home as possible. The Accommodation Support Centres accommodated more than 700 individuals.

Formalised directions for positive COVID-19 cases and close contacts to isolate or quarantine in a COVID-19 Accommodation Support Centre, as directed by an authorised officer, came into effect on 18 February 2022 with the application of the Emergency Management (Exposure Sites, Contacts and Diagnosis Requirements No 5) (COVID-19) Direction 2022, under section 25 of the *Emergency Management Act 2004* (SA).

The rapid stand up of COVID-19 Accommodation Support Centres were required to:

- > ensure provision of an alternative place for individuals to quarantine and isolate, who did not have an appropriate residence in which they could safely isolate or quarantine
- > provide safe and culturally appropriate accommodation for individuals from regional and remote communities
- > prevent the potential transmission of COVID-19 in target population groups
- > support the COVID-19 response efforts during the Omicron outbreak.

As South Australia transitioned to a 'Living with COVID' model, and with an increase in accessible in-community quarantine and reductions in requirements for close contacts to quarantine, the Accommodation Support Centres were gradually closed. The final centre, Emu Farm, accepted its last admission on 17 May 2022.



COVID-19 surveillance

COVID-19 surveillance is critical to monitoring trends in cases including immunity and morbidity, identifying risk factors and assessing the impact on the health system and the effectiveness of interventions. More broadly, COVID-19 surveillance allows for the identification of outbreaks and changes to disease epidemiology, for example new variants of concern. Underpinning surveillance for COVID-19 is a broad range of methodological approaches, each with their own strengths and limitations. Used in combination, these approaches provide optimal information for public health decision-making. South Australia's COVID-19 surveillance system has seen significant improvements in simplicity, flexibility and timeliness since the beginning of the COVID-19 pandemic.

Wastewater monitoring for SARS-CoV-2 provided a population-based method for detecting COVID-19 in a manner that is complementary to clinical testing. SA Health partnered with SA Water to develop a method and implement a program for monitoring of SARS-CoV-2 fragments in wastewater samples that commenced in July 2020. The program was modified over time to reflect changing circumstances. Until late 2021, when COVID-19 case numbers were typically low the focus of the program was to detect evidence of virus not detected by clinical testing. The program involved testing of samples collected from more than 50 sites including metropolitan, rural and regional wastewater treatment plants and wastewater sub-catchments. In a number of cases, virus fragments were detected in the presence of low or no known cases of disease. Public notifications were provided. In addition, communication was maintained with neighbouring states about results from wastewater surveillance at border locations and in August 2021 cross-border travel arrangements with Broken Hill were suspended following detection of virus fragments in one of the city's wastewater treatment plants.

Following the increase in cases of COVID-19 from late 2021, the surveillance program was modified to focus on analysing trends in virus prevalence. The number of locations was reduced to include wastewater treatment plants from the metropolitan area and key regional centres. The aim was to assess short and long-term changes in virus signals as an indicator of community prevalence and to provide an indicator of case ascertainment rates by clinical testing. A strong correlation was observed between the virus signal detected at the Bolivar wastewater treatment plant and reported case numbers. The data provided early signs of an increase in the ratio of wastewater virus fragments to case numbers indicating reduced case ascertainment.

Other methodological approaches included notifiable disease case data, serosurveillance, sentinel surveillance, and genomic surveillance including a partnership between SA Health and SA Pathology to support the prioritisation of genomic surveillance. These approaches often represent a partnership of agencies across public health to collect and interpret key data. The strength of these approaches depends on the audience targeted, consistency of the surveillance over time, the disease portfolio captured and ability to interpret the information in the context of the social and biological environment.

A highlight of the case data surveillance for COVID-19 in South Australia was the increased utilisation of automated data collection through population-based case surveys, which was critical for a disease of high frequency. Hospital based surveillance, mortality surveillance including disease mortality and excess mortality provide a picture of the disease severity and burden of the disease in South Australia for COVID-19. The ability to merge case data with additional health datasets including hospital admissions, death and immunisation records was fundamental.

Evidence-based decision-making and COVID-19 modelling

The South Australian pandemic response benefited from strong linkages with the academic sector both locally and nationally. For example, the Doherty Network provided weekly forecasting for much of the pandemic, which was individualised for jurisdictions and incorporated demographics, vaccination rates, health service capacity and estimates of population movement and interaction. In addition, the South Australian Health and Medical Research Institute (SAHMRI) provided rapid evidence-based reviews throughout the pandemic to support public health decision-making. South Australian specific COVID-19 modelling was undertaken in a collaboration between the University of Adelaide and SAHMRI, and was provided to SA Health at key points during the pandemic. This modelling was central to key decision-making regarding when to safely open the South Australian borders and how to best contain the initial waves of Omicron.

COVID Management Plans

A COVID Management Plan was a comprehensive risk management plan that was legislatively required when more than 1,000 persons were reasonably expected to be present at or participating at an activity or event. All COVID Management Plans were risk categorised and the event organiser was responsible for outlining how they intended to reduce or mitigate these risks by implementing appropriate controls such as infection prevention and control (hygiene and cleaning), patron registration, seating arrangements, distancing, density, masks, patron flow and COVID Marshalls. Upon submission to SA Health, each plan application underwent a structured four-stage review process including – screening, initial review, detailed review and COVID Management Committee review – before a final decision was made.

A total 542 COVID Management Plans were reviewed and approved by the COVID Management Committee. The COVID Management Plan process supported the continuation of many social, sporting, community and artistic events during the pandemic. For example, the 2021 Adelaide Marathon was the first marathon to recommence anywhere in the world; the Adelaide Festival, Fringe and WOMAdelaide were conducted each year of the pandemic (including successfully supporting international artists through a structured quarantine process); and national sporting fixtures were maintained including football, basketball and cricket. The positive impact of these events on community wellbeing cannot be underestimated, particularly in light of the fact that other Australian jurisdictions were at times under extensive and prolonged lockdown orders because of extensive COVID-19 outbreaks.

COVID-19 community vaccination

COVID-19 vaccines were designed, stringently tested, produced and distributed across the world in record time because of the concerted effort of scientists, clinical trial sites, industry and regulators. Israel, in strong partnership with industry, was one of the earliest countries to roll-out mass vaccination to its adult population and subsequently produced many publications to enhance understanding of vaccine effectiveness in a real-world situation. Australia benefited from this experience, along with comprehensive reports of population-wide vaccine programs implemented in the United Kingdom, the United States and elsewhere.

Three main COVID-19 vaccines are available in Australia at the time of this report – Pfizer (mRNA based), Moderna (mRNA based) and Novavax (protein based). South Australia followed national advice regarding timing of vaccines and requirement for boosters as per the Australian Technical Advisory Group on Immunisation (ATAGI).

The Australian Government took on the role of approving, ordering, storing and distributing COVID-19 vaccinations across Australia. The first South Australians were vaccinated on 22 February 2021 and the Vaccination Program was rolled out in three phases, as determined by the Australian Government's COVID-19 Vaccine National Roll-out Strategy. There were challenges encountered, including understanding and communicating risks of adverse events to vaccines. By 12 December 2022, more than 94% of the eligible South Australians received the initial two dose COVID-19 course and 70% also received a third dose, necessary in view of the emergence of the Omicron variant of SARs-CoV-2.

In line with the National Roll-out Strategy, South Australia delivered the COVID-19 Vaccination Program via three key channels – primary health care providers (GPs and pharmacies), private service providers and SA Health Local Health Networks. The Department for Health and Wellbeing had oversight of the program delivered through the Local Health Networks, working collaboratively to establish vaccination centres and mobile vaccination clinics across the state.

One of the most challenging periods of the COVID-19 vaccination program delivery was in January 2022, when increasing rates of COVID-19 case numbers and the emergence of new variants prompted a decision to uplift vaccination efforts across all channels and to increase from a targeted average vaccination rate of 50,000 doses per week to 150,000 doses per week. To achieve this, all three key provider channels were asked to increase vaccination rates. In the week ending 23 January 2022, as a result of the substantial uplift from all existing immunisation service providers, this target was achieved, with a total of over 150,000 doses administered.

At the peak of the COVID-19 vaccination program in October 2021, more than 180,000 vaccine doses were administered in one week across South Australia. Peaks in demand for vaccinations were associated with new vaccines being made available, changes in vaccination eligibility criteria for particular population groups and increased rates of COVID-19 infections.

By 12 December 2022, more than 4.5 million COVID-19 vaccines had been administered in South Australia and, of those, more than 1.9 million were administered by SA Health.

The safe and effective delivery of such a large-scale rollout of COVID-19 vaccines across South Australia required effective clinical governance, safety monitoring and critical evaluation of local data as well as evidence from national and international sources, data collection and reporting, innovative procurement to work around global shortages of medical supplies, rapid recruitment processes to ensure appropriately trained staff were made available, rapid set up and pack down of clinics by the logistical team and clear communications via multiple channels.

Oral antiviral treatments

In December 2022, Australia's Chief Medical Officer, Professor Michael Kidd AM, noted that Australia's real-world experience was that the two COVID-19 oral antiviral treatments approved for local use were both highly effective at protecting older Australians – a key at-risk population group – from hospitalisation and death.

Lagevirio® (molnupiravir) was listed on the Pharmaceutical Benefits Scheme (PBS) on 1 March 2022 and Paxlovid® (nirmatrlvir and ritonavir) on 1 May 2022.

The Australian Government announced in July 2022 that people aged over 70 who tested positive to COVID-19, along with people aged over 50 and Aboriginal people aged 30 and older with at least two risk factors for severe disease, were eligible to acquire Lagevirio® and Paxlovid® on the PBS. Prior to July 2022, COVID-19 patients could only receive antiviral treatment in hospital.

The real-world findings on the effectiveness of the two oral antivirals are based on an analysis of Victorian data involving more than 27,000 people aged 70 years and over. This analysis found that the use of COVID-19 oral antivirals led to clear reductions in the risks of hospitalisation and death, compared to instances where treatments were not used. Given people aged 70 and over are eligible for the treatments in every state and territory, the conclusions are applicable nationwide.



Public communication and partnerships

Throughout the COVID-19 response, it was critical for the community to have up-to-date, clear and consistent information around COVID-19 advice and requirements.

Communications focused on providing clear information about what people should do if they had COVID-19 symptoms, tested positive to COVID-19 or were a close contact. As the situation evolved and public health advice and requirements changed, it was important to provide timely and factual communication to ensure public trust in SA Health's management of the pandemic was maintained.

A significant focus in the reporting period was communication around the eligibility and availability of COVID-19 vaccines. There were significant barriers that included hesitancy around vaccination, message fatigue and confusion around eligibility. While attitudes changed, communications remained factual and clear, harnessing the trust built throughout the pandemic response.

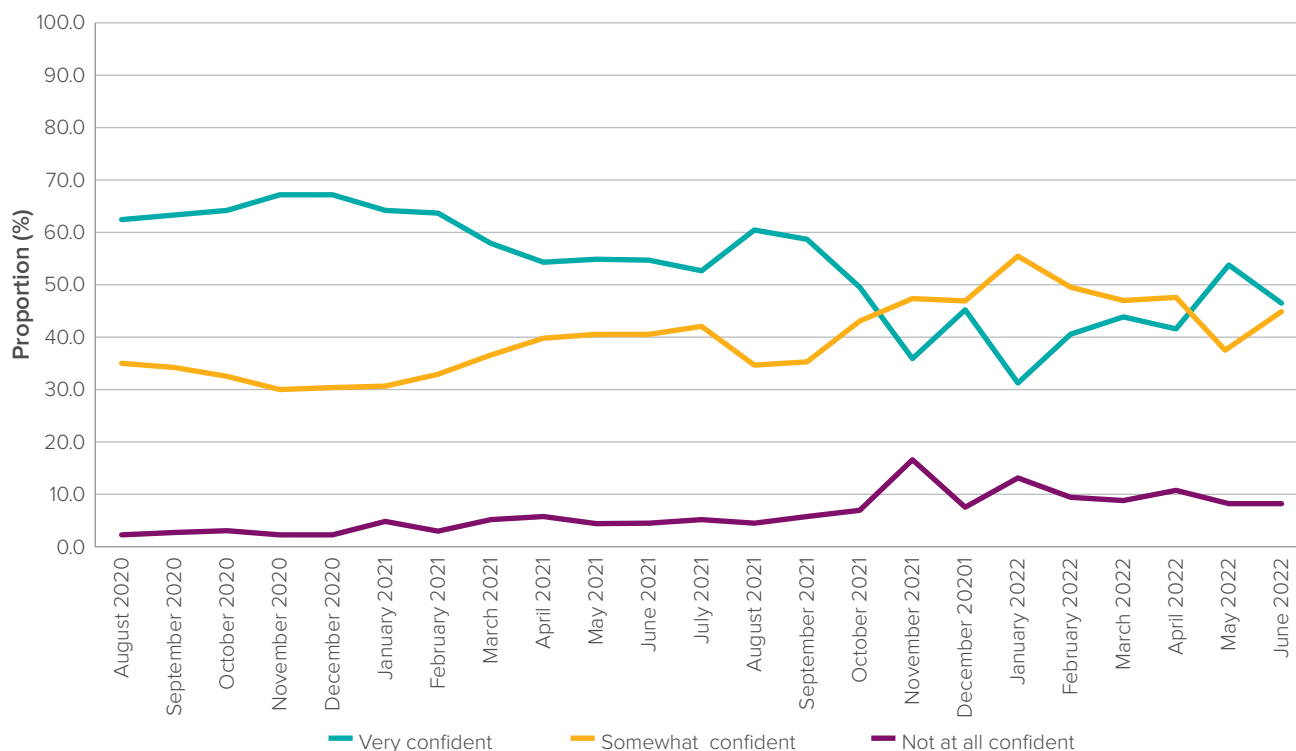
Various communication channels were used, including media, social media, owned channels and advertising campaigns. SA Health built upon partnerships and relationships with other state government agencies, local government and other stakeholders, and worked closely

with community organisations and leaders, particularly to guide communications with Aboriginal and culturally and linguistically diverse communities.

Research conducted in June 2022 showed the SA Health website and social media channels continued to be consistently used as key sources of information on COVID-19, with 74% of people who look for information using SA Health sources. As of 30 June 2022, the majority of South Australian adults (75%) had confidence in SA Health's handling of the pandemic, which is up from 46% at the beginning of 2022.

South Australians' confidence in SA Health's preparation and controls in dealing with the COVID-19 pandemic fluctuated over the reporting period, depending on events such as lockdown dates, state border openings, vaccination rates and COVID-19 cases and variants. However, overall, according to the SAPHS conducted by Wellbeing SA, as at June 2022, the majority of South Australians (over 90%) have remained very confident or somewhat confident in SA Health's ability to manage the COVID-19 pandemic. This reflects the hard work of SA Health in keeping the community safe and informed during this difficult period.

Figure 35: Proportion of respondents reporting confidence in SA Health by month – August 2020 to June 2022



Data source: South Australian Population Health Survey

