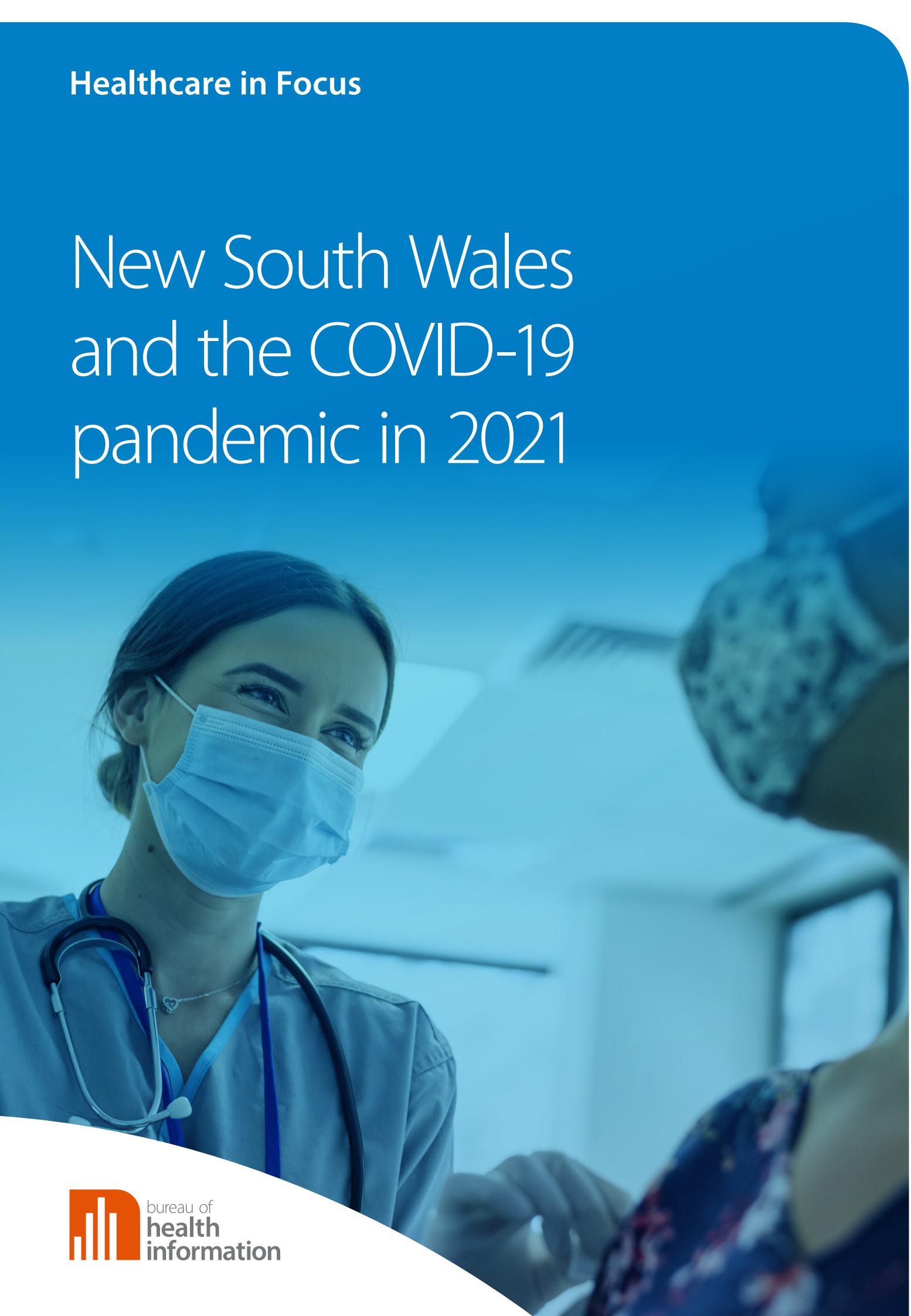
Healthcare in Focus

New South Wales and the COVID-19 pandemic in 2021



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Foreword

Foreword

In 2021, the COVID-19 pandemic again provided great challenges for the people of NSW and their healthcare system. With two significant variants emerging, Delta and Omicron, the healthcare system had to adapt in multiple ways.

It is our role at the Bureau of Health Information (BHI) to produce independent reports about the performance of the healthcare system in NSW.

With the intense pressure COVID-19 placed on the NSW health system, this *Healthcare in Focus* report is critical to understanding and evaluating the response.

This year, the report examines activity and performance for community-based healthcare, public hospital and ambulance services throughout 2021. The trends presented in the report clearly illustrate the fluctuations in activity these services experienced during the Delta and Omicron waves, corresponding with shifts in performance results.

The addition this year of information on community-based healthcare is particularly revealing. The adaptability of the health system and community is evident in the increase in virtual care general practice (GP) and outpatient appointments in 2021, which includes both telehealth and videoconferencing.

As in 2020, measures were introduced to ensure hospital and ambulance services were delivered as safely as possible. Most notably, the effect of the suspension of non-urgent elective surgery is apparent in the results presented in the report, illustrating the flow on effect to activity and waiting lists, which had returned to pre-pandemic levels earlier in the year following the first wave.

The spread of COVID-19 in different parts of NSW varied throughout the year and, as such, measures to contain the virus were also targeted geographically. To reflect this, the report includes extensive insights for metropolitan, and rural and regional areas to illustrate the respective experiences.

The report also includes information about COVID-19 testing and vaccination rates. By the end of the year, 94% of the NSW population aged 16+ had received at least two COVID-19 vaccine doses, testament to the willingness of the community to do its part to bolster the response to the pandemic.

Alongside our previous *Healthcare in Focus* report and *Healthcare Quarterly* report series, this year's report can be used by health system managers and government to assess the effectiveness of the response throughout 2021 and develop plans to continue to manage this and future health crises.

I want us to remember those who have lost their lives to COVID-19, become seriously ill, and all those impacted by the pandemic. As in 2020, it also caused distress for many due to isolation from friends and family, concerns about financial situations and ongoing anxiety about the health of the individual and those they are close to.

I have continued to be in awe of the exceptional response from healthcare workers and support staff across NSW. They have remained dedicated to their task as the pandemic has continued and we are all indebted to their tireless efforts and expertise.

Dr Diane Watson
Chief Executive

Summary

The COVID-19 pandemic continued to challenge the people of NSW and their public healthcare system throughout 2021

The healthcare system continued to evolve its response to waves of new variants to help protect the community. This followed a year of sustained pressure during 2020.

By looking at healthcare activity and performance measures, this report provides valuable insights into the levels of demand placed on the NSW health system and the timeliness of care throughout the year.

Exploring the effect of the pandemic across the health system, this report focuses on:

- Local and international context
- Community-based healthcare, including virtual care
- Ambulance services
- Emergency departments (EDs)
- Admitted patients
- Elective surgery.

Key findings

Community-based healthcare

— GP attendances above 2019 levels for most of year including major increase in virtual consultations as COVID-19 cases rose

— Proportion of outpatient service events delivered through virtual care increased during Delta wave

— Breast screening for women aged 50–74 decreased sharply from beginning of Delta wave

Ambulance

— Overall ambulance responses were above pre-pandemic levels in first half of year before dropping to 2019 levels from beginning of Delta wave

— Emergency (P1) responses increased in metropolitan areas as COVID-19 cases rose during Delta and Omicron waves

— Patients in metropolitan areas waited longer for P1 ambulance responses during spikes in COVID-19 cases

— For most weeks of the year, the number of highest priority (P1A) ambulance responses was notably higher, and the percentage of responses within 10 minutes lower, than 2019

Emergency departments

— Emergency department (ED) attendances dropped below 2019 levels during Delta wave

— Patients were more likely to start treatment on time in the second half of the year

— Respiratory presentations decreased sharply from beginning of Delta wave

— Weekly presentations for mental health conditions were lower throughout 2021 than in 2019, with decreases more notable in metropolitan LHDs

Admitted patients

— Overall and non-acute patient admissions decreased in the second half of the year, with reductions concentrated in metropolitan LHDs

— Average length of stay for acute care increased sharply during Delta wave, peaking in October

— Respiratory and injury admissions decreased during Delta wave

Elective surgery

— Number of elective surgeries was mostly higher than pre-pandemic levels until June, followed by sharp drop as Delta cases increased and non-urgent surgery was suspended in Sydney hospitals

— Overall percentage of surgeries performed on time was lower than 2019 throughout year. Semi-urgent and non-urgent on-time performance was also down, particularly in metropolitan LHDs

— Waiting list returned close to pre-pandemic levels by mid-2021, then increased again following non-urgent surgery suspension in Sydney hospitals

— Number of patients who had waited longer than clinically recommended for surgery at the end of the year was significantly higher than 2019

— In rural and regional LHDs, elective surgery numbers were stable, the waiting list decreased and on-time performance improved

About this report

This annual *Healthcare in Focus* report provides insights into the impact of the COVID-19 pandemic on the public healthcare system in NSW during 2021. It examines patterns of activity and performance throughout the year, across multiple sectors of the healthcare system, looking at measures including timeliness and activity. International context is also provided for some measures.

One of BHI's functions is to provide an annual report to the NSW Minister for Health and NSW Parliament about the performance of the NSW public health system. This report fulfils that responsibility. It follows the release in March 2021 of a *Healthcare in Focus* report examining the impact of the COVID-19 pandemic in NSW during 2020.

The report shows how the NSW public healthcare system operated under the extraordinary challenges presented by the pandemic. It provides transparency for the community as well as insights to support system management and improvement. It is important to understand healthcare system performance in 2021 in the context of multiple waves of the pandemic, along with a range of policy decisions to protect public health. Accordingly, a summary of key dates is included on page 10.

Healthcare in Focus is being released simultaneously with BHI's latest quarterly healthcare performance report, *Healthcare Quarterly, October to December 2021*. While BHI's *Healthcare Quarterly* reports look at three months of activity and performance, and trends over five years, this *Healthcare in Focus* report examines the impact of the pandemic over the course of 2021.

The remainder of this report is structured as follows:

Setting the scene

- Focuses on the local and international contexts in which the NSW healthcare system operated during 2021.
- Shows how the COVID-19 pandemic unfolded in NSW including key dates, weekly numbers of cases and tests in the community, and the NSW vaccination uptake.
- Overview of support services to help manage the spread of COVID-19.

Community-based healthcare

- Outlines some of the developments in the delivery of primary and community-based healthcare, focusing on the uptake of virtual care.

Ambulance

- Ambulance activity and performance results in 2021, compared with 2019.

Emergency department

- Emergency department (ED) activity and performance results in 2021, compared with 2019.

Admitted patient

- Admitted patient activity results in 2021, compared with 2019.

Elective surgery

- Elective surgery activity and performance results in 2021, compared with 2019 and 2020.

Additional materials

- The technical supplement for this report provides further detail on data sources and analytic methods.

The main report and technical supplement are published on the BHI website at **bhi.nsw.gov.au/BHI_reports/healthcare_in_focus**

Data included in this report

To produce this report, BHI used a range of data. Results are presented by week, where possible. This includes:

- COVID-19 tests performed and cases in NSW, provided by the COVID-19 Public Health Response Branch, NSW Health
- COVID-19 vaccine rollout in NSW based on data from the Australian Immunisation Register (AIR)
- COVID-19 tests performed and cases in NSW Police-managed hotel quarantine, provided by the COVID-19 Public Health Response Branch, NSW Ministry of Health
- COVID-19 hospitalisation in NSW public hospitals, provided by the COVID-19 Public Health Response Branch, NSW Ministry of Health
- COVID-19 tests performed, cases and vaccination in Australia and international comparator countries based on data from Our World in Data
- Medicare Benefits Schedule (MBS)
- BreastScreen NSW, in partnership with Cancer Institute NSW
- NSW Health Emergency Department Data Collection, accessed via the Health Information Exchange (HIE)
- NSW Health Admitted Patient Data Collection, accessed via the HIE
- Waiting List Collection On-line System
- NSW Ambulance Computer-Aided Dispatch system.

Interpreting the results

To enable stable comparisons with pre-pandemic activity and performance, the report presents 2021 results in comparison with 2019. Figures for 2020 are available in last year's *Healthcare in Focus*.

At different stages of the pandemic during 2021, the spread of COVID-19 was much more prevalent in metropolitan Sydney than other parts of the state. As a result, COVID-19 restrictions and other measures, including the suspension of non-urgent elective surgery, were not uniform across NSW. To illustrate the effect of this, the report includes breakdowns of activity and performance in metropolitan, and rural and regional areas. For EDs, admitted patients and elective surgery, the delineation between metropolitan, and rural and regional is based on NSW Health's classification of local health districts (LHDs). For ambulance, metropolitan includes Greater Sydney, the Blue Mountains, Central Coast and Illawarra, while the remainder of NSW is classified as rural and regional. Further details are available in each chapter and in the technical supplement.

For reference, trend graphs include red dots to indicate at what point stay-at-home orders were issued during the Delta wave in metropolitan, and rural and regional areas.

This report uses the terms Delta and Omicron waves, however people could have been infected with different variants during these periods.

To provide further insights into how people accessed care during this time, the report presents results for virtual care in the community-based healthcare chapter. Virtual care uses technology to safely connect health professionals with patients to deliver care when and where it is needed. It can range from telephone (telehealth) or videoconferencing with healthcare providers, to sharing tests and scans with experts for advice. It may also involve using special devices to monitor and manage health outside of a hospital.

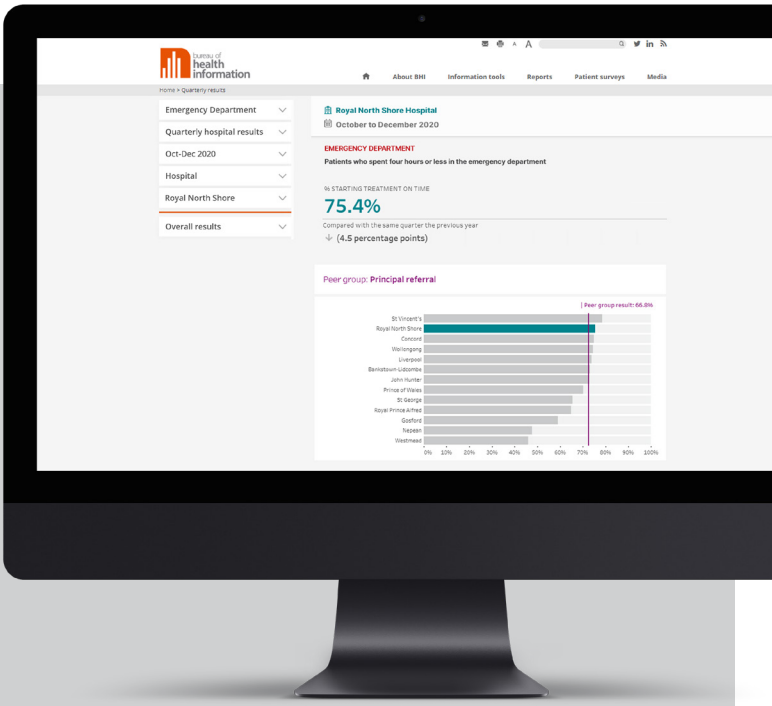
Quarterly activity and performance reporting

In addition to this report, BHI publishes quarterly insights into activity and performance for emergency department, elective surgery, admitted patient and ambulance services in NSW.

Bureau of Health Information Data Portal

The BHI Data Portal allows you to find and compare detailed results – including trends over more than 10 years – for 77 individual hospitals, along with LHDs and hospital peer groups. Ambulance information is available for 91 local areas.

To visit the BHI Data Portal, go to:
bhi.nsw.gov.au/data-portal



Healthcare Quarterly report

Healthcare Quarterly main reports and associated information products provide an overview of the detailed results available each quarter in the Data Portal.

Explore our *Healthcare Quarterly* reports at:
bhi.nsw.gov.au/BHI_reports/healthcare_quarterly

Setting the scene

COVID-19 in NSW

The people of NSW and their healthcare system experienced another challenging year in 2021 after the emergence of COVID-19 in 2020. While there have been many variants of the SARS-COV-2 virus, two variants of COVID-19, Delta and Omicron, had widespread impacts in NSW over time and geography.

NSW started the year with stay-at-home orders in place for the Northern Beaches, however these were lifted in January. For the first half of the year, there were low levels of community transmission and a small number of cases within hotel quarantine. The vaccination program began in late February.

On 16 June, the first locally acquired case of the COVID-19 Delta variant was observed. Case numbers grew and stay-at-home orders in metropolitan Sydney (including the Central Coast, Blue Mountains, Wollongong and Shellharbour) were introduced from 26 June. They were lifted on 11 October after NSW reached 70% of people aged 16+ years with at least two doses of a COVID-19 vaccine on 6 October.

There were a range of public health orders during the Delta wave and they varied in different parts of NSW according to the level of community transmission. These orders included the mandatory wearing of masks, the suspension of non-urgent elective surgery on 2 August, the closing of non-essential stores, limits to the number of household visitors, limiting time allowed to exercise outside, and capacity limits for venues.

On 25 October, non-urgent elective surgery resumed, and during November, restrictions were eased further for people who had received at least two doses of a COVID-19 vaccine. In November, NSW Health started to provide booster shots at its vaccination clinics, hotel quarantine ended, and all elective surgery resumed to full capacity in Sydney public hospitals.

Hotel quarantine was reintroduced for incoming travellers from selected countries in response to Omicron. An Omicron variant case was first confirmed in NSW on 28 November.

On 15 December, with 93% of people aged 16+ years double vaccinated, restrictions were eased for all people across NSW regardless of their vaccination status.

COVID-19 cases increased dramatically in December 2021 with a rapid escalation in cases towards the end of the month.

Timeline 2021

JAN	09	**Northern Beaches stay-at-home orders lifted**
FEB	22	Start of COVID-19 vaccination program
JUN	16	**First locally transmitted Delta case confirmed**
JUN	22	Masks mandatory in indoor public venues
JUN	26	Stay-at-home orders introduced for metropolitan Sydney
AUG	02	Suspension of non-urgent elective surgery in Sydney hospitals
AUG	14	Stay-at-home orders introduced for rural and regional NSW
AUG	23	Non-urgent elective surgery suspended in private hospitals
SEP	06	Daily case number peak (1,532) during the Delta wave
OCT	05	Non-urgent elective day surgery recommences at Sydney private hospitals
OCT	06	NSW reaches 70% of people aged 16+ with two doses of vaccine
OCT	11	**Stay-at-home orders lifted across NSW**
OCT	25	Day and overnight non-urgent elective surgery resumes across public and private hospitals
NOV	01	NSW Health starts providing booster shots at its vaccination clinics
NOV	01	End of hotel quarantine for double vaccinated people
NOV	08	Further easing of restrictions for double vaccinated people
NOV	15	Elective surgery returns to full capacity for patients in Sydney public hospitals
NOV	28	Reintroduction of hotel quarantine for incoming travellers from selected countries
NOV	28	**Omicron case first confirmed in NSW**
DEC	15	**Easing of restrictions for all people in NSW**
DEC	31	Daily cases peak for 2021 with 25,928 new cases

COVID-19 cases and vaccinations

In 2021, there were 280,601 confirmed cases of COVID-19 in NSW. By the end of the year, 94% of the NSW population aged 16+ had received at least two COVID-19 vaccine doses.

Daily cases peaked during the Delta wave at 1,532 on 6 September, before dropping below 300 throughout November (Figure 1).

New cases increased in December following the arrival of the Omicron variant, reaching 25,928 on 31 December and continuing to trend upwards into 2022.

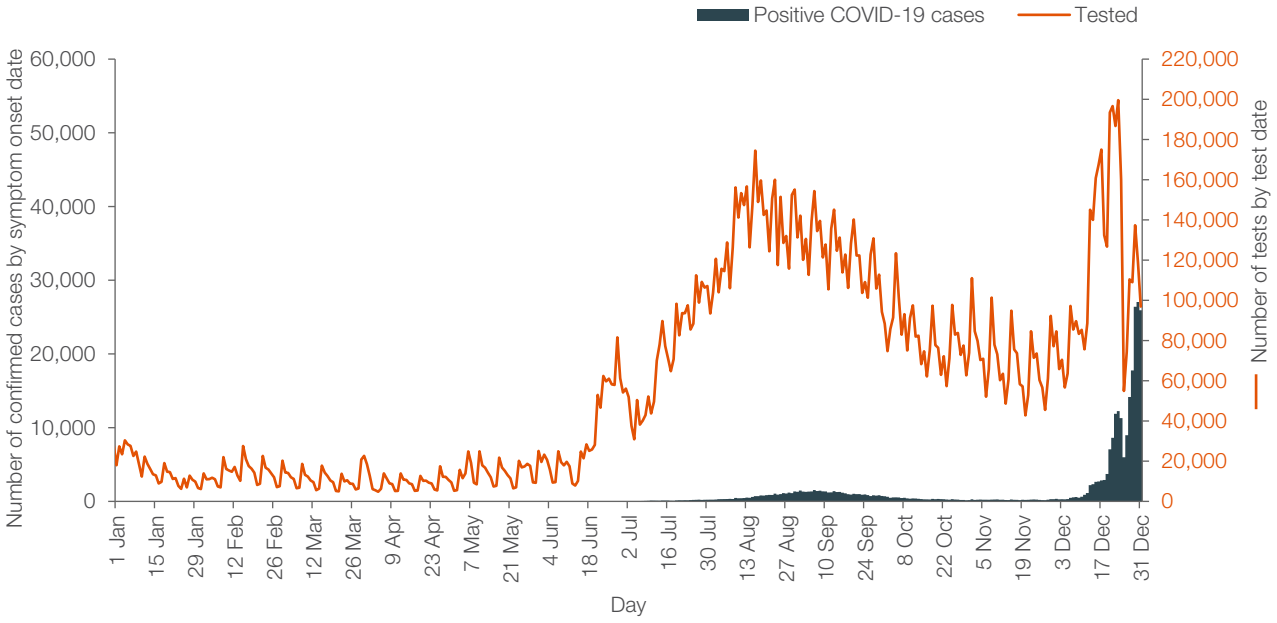
Among population groups displayed in Figure 2, from 1 January to 30 November 2021, 6,938 Aboriginal people tested positive, representing 8.9% of all cases during this period. During this time, 1,136 healthcare workers and 738 pregnant women tested positive.

By the end of the year, 21,395,755 COVID-19 polymerase chain reaction (PCR) tests had been conducted in NSW. The daily number of tests reached almost 180,000 on 16 August during the Delta wave. PCR testing decreased following the peak of the Delta wave before increasing again during the Omicron wave, reaching almost 200,000 tests on 23 December (Figure 1).

The Therapeutic Goods Administration approved the use of at-home rapid antigen tests (RATs) in November, however positive tests were not recorded as official COVID-19 cases until 12 January 2022.

The percentage of people aged 16+ with at least two doses of a COVID-19 vaccine increased from 41% in early September to 94% by the end of the year. With the vaccine becoming available to children aged 12–15 years in September, uptake for that cohort increased from 9% in early October to 78% by the end of the year (Figure 3).

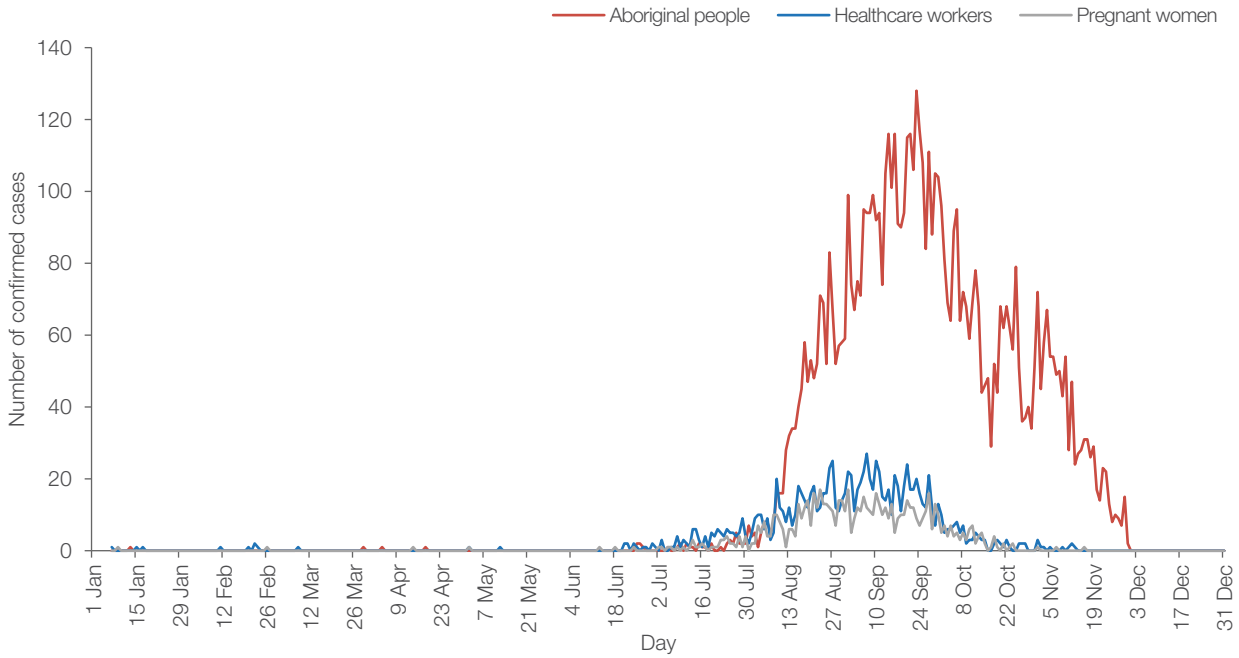
Figure 1 **Confirmed COVID-19 cases by symptom onset date, and COVID-19 tests performed by test date, NSW, January to December 2021**



Notes: 'Confirmed COVID-19 cases by symptom onset date' is based on the date the person first developed symptoms. For asymptomatic cases or where symptom onset date is not available, the onset date is calculated from the earliest test date. 'COVID -19 tests performed by test date' refers to the total number of diagnostic PCR tests done in NSW by the date the person presented for the PCR test.

Source: COVID-19 Public Health Response Branch, NSW Ministry of Health. Data received 2 February 2022.

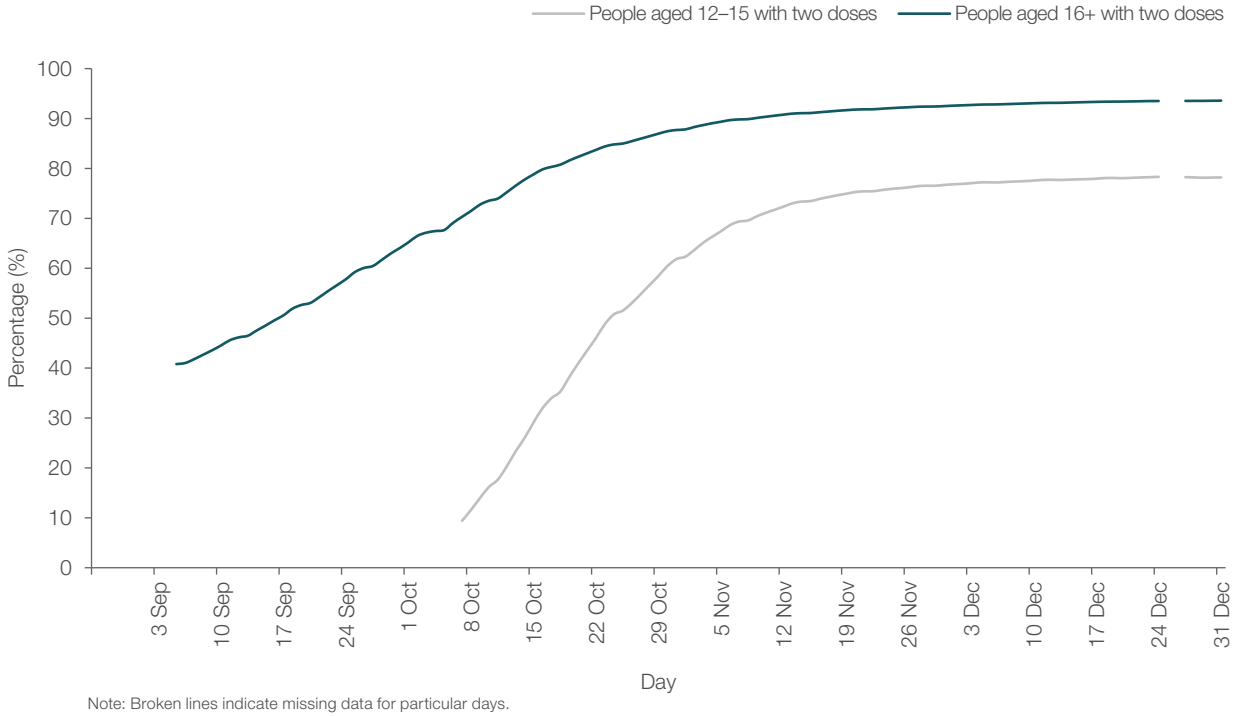
Figure 2 **Number of confirmed COVID-19 cases by symptom onset date among Aboriginal people, healthcare workers and pregnant women, NSW, January to November 2021**



Note: From December 2021, in response to the Omicron variant, contact tracing interviews were only done for those in the highest risk categories. Therefore, data for specific populations is not available.

Source: COVID-19 Public Health Response Branch, NSW Ministry of Health. Data received 2 February 2022.

Figure 3 **Percentage of population with two vaccine doses by age group, NSW, September to December 2021**



Note: Broken lines indicate missing data for particular days.

Source: Australian Immunisation Register, Australian Government Department of Health. Retrieved from: health.gov.au/resources/collections/covid-19-vaccination-vaccination-data (online resource). Data extracted 10 January 2022.

COVID-19 support services

The introduction of mandatory hotel quarantine in 2020 for incoming travellers to NSW was fundamental in protecting the community from COVID-19. In 2021, a total of 214,547 COVID-19 tests were carried out on people in hotel quarantine; 644 of these were confirmed cases.

In 2020, Special Health Accommodation (SHA) was established in Sydney to provide care to incoming travellers who had tested positive to COVID-19. In 2021, SHA continued to provide services to incoming travellers as well as increasing numbers of people referred from within the community.

During the Delta wave, Community Support Accommodation (CSA) facilities were established by some local health districts (LHDs) for people in the community who were unable to safely self-isolate at home if they had had close contact with a positive COVID-19 case.

With increasing numbers of locally acquired COVID-19 cases in NSW in the second half of 2021, NSW Health established a number of additional services to support people who were diagnosed with COVID-19 or who had close contact with a positive COVID-19 case. This included providing remote support for people managing their condition at home.

In late December, with case numbers increasing in NSW, the majority of people with COVID-19 were isolating at home and receiving support in the community.

HOTEL QUARANTINE

All overseas travellers arriving in NSW were required to undertake 14 days of supervised quarantine in a designated hotel or accommodation facility.

SPECIAL HEALTH ACCOMMODATION

People in hotel quarantine who tested positive or needed additional care and treatment were admitted to Special Health Accommodation, along with some people in the community who were COVID-19 positive, or were required to self-isolate and needed care and support,

COMMUNITY SUPPORT ACCOMMODATION

Community Support Accommodation was established by local health districts for people in the community who were unable to safely self-isolate at home after having close contact with a positive COVID-19 case.

Hospitalisations relating to COVID-19

While many people diagnosed with COVID-19 received care in the community or at home, there was an increase in hospitalisations during the Delta wave.

Hospitalisations for people with COVID-19 during the Delta wave started from late June and increased gradually until late July. From August, these numbers increased sharply, with a peak of 1,266 patients with COVID-19 in hospital recorded on 20 September. Of those patients, 19% received care in intensive care units (ICUs) and 9% were ventilated. Hospitalisations decreased gradually during October and November before increasing to 903 patients with COVID-19 in NSW public hospitals at the end of 2021 (Figure 4).

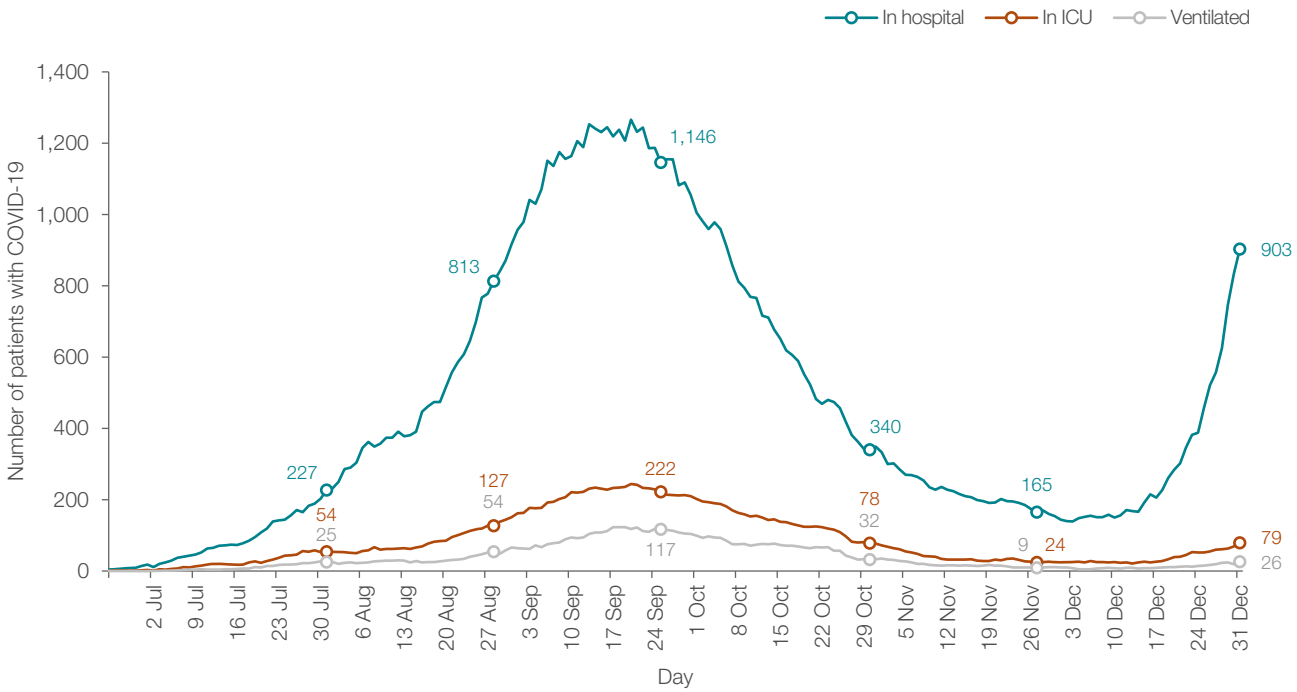
Deaths relating to COVID-19

With lower COVID-19 case numbers in the first half of the year, there were fewer deaths related to COVID-19.

In the second half of the year, there were 618 deaths relating to COVID-19. Deaths relating to COVID-19 increased in September during the Delta wave, with a peak of 15 deaths recorded on 29 September. From mid-November until mid-December, daily recorded deaths remained below four. In late December, with the start of the Omicron wave, there was a slight increase in deaths (data not shown).

For more information about hospitalisations in NSW during 2021, see the admitted patients chapter, from page 37.

Figure 4 **Number of patients with COVID-19 in hospital, in ICU and ventilated, by date, July to December 2021**



Note: Deaths relating to COVID-19 data was only available from 10 July to the end of the year.

Source: COVID-19 Public Health Response Branch, NSW Ministry of Health. Data received 2 February 2022.

COVID-19 in the international context

In 2021, the COVID-19 pandemic continued to affect countries around the world in various ways. Vaccines progressively became available, new variants emerged, and restrictions were tightened and eased across different times and places.

International statistics continued to show testing rates per capita and the impact of the emergence of the Delta and Omicron variants. The use of polymerase chain reaction (PCR) – or PCR equivalent – tests varied across the world in 2021, particularly with the introduction of rapid antigen tests (RATs). Testing data can vary depending on the availability and use of RATs and how they have been incorporated into testing and reporting programs.

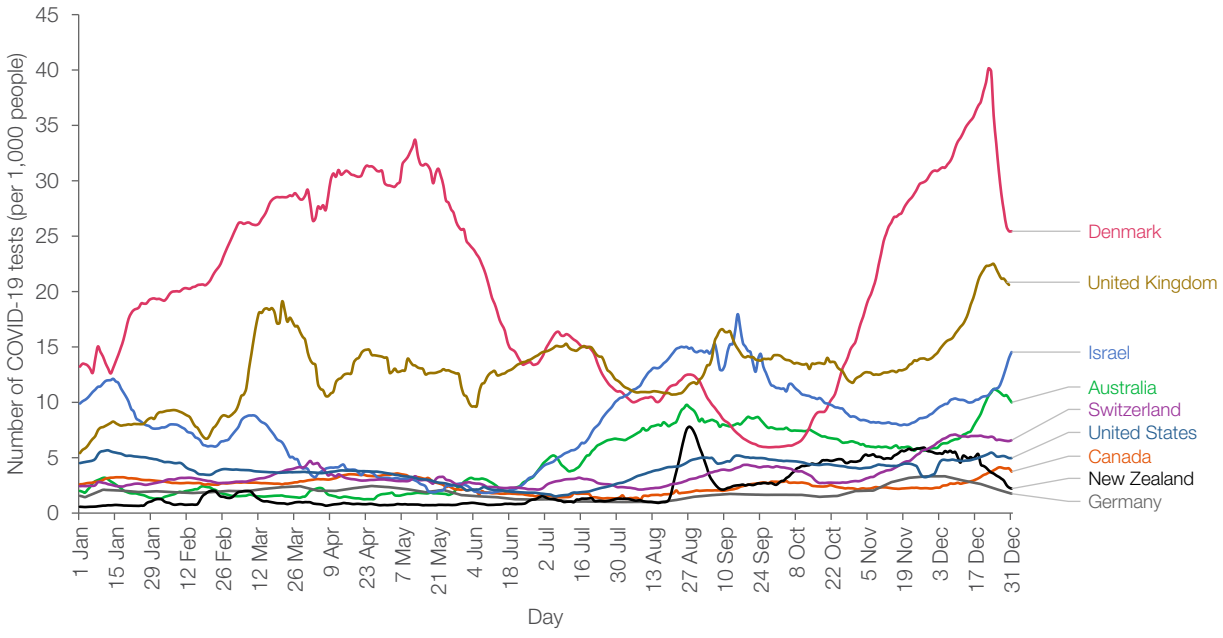
Internationally, there were more than 288 million confirmed cases and more than 5.4 million deaths from COVID-19 in 2021. With the emergence of Omicron, case numbers continued to trend upwards into 2022.

In Figures 5–7, testing, case and vaccination rates for Australia are presented with eight other countries.

From January to November 2021, Australia had relatively low rates of cases compared with these countries and, throughout the year, had relatively high testing rates (Figure 5, 6).

In 2021, a number of COVID-19 vaccines became available internationally, however the roll-out speed varied. For the majority of these countries, the percentage of the population with two doses remained relatively low for the first half of the year, then increased to the end of the year. In Australia, the percentage of the population with two doses was low for the first three quarters of the year, but by the end of 2021 reached 77% (Figure 7).

Figure 5 **Daily new COVID-19 tests per thousand people, Australia and eight comparator countries, January to December 2021**



Note: Comparisons of COVID-19 tests per capita will be affected by variation in date of introduction of rapid antigen tests in different countries.
Source: Our World in Data. Retrieved from: ourworldindata.org/coronavirus (online resource). Data downloaded 10 January 2022.

Figure 6 **Daily new confirmed COVID-19 cases per million, Australia and eight comparator countries, January to December 2021**

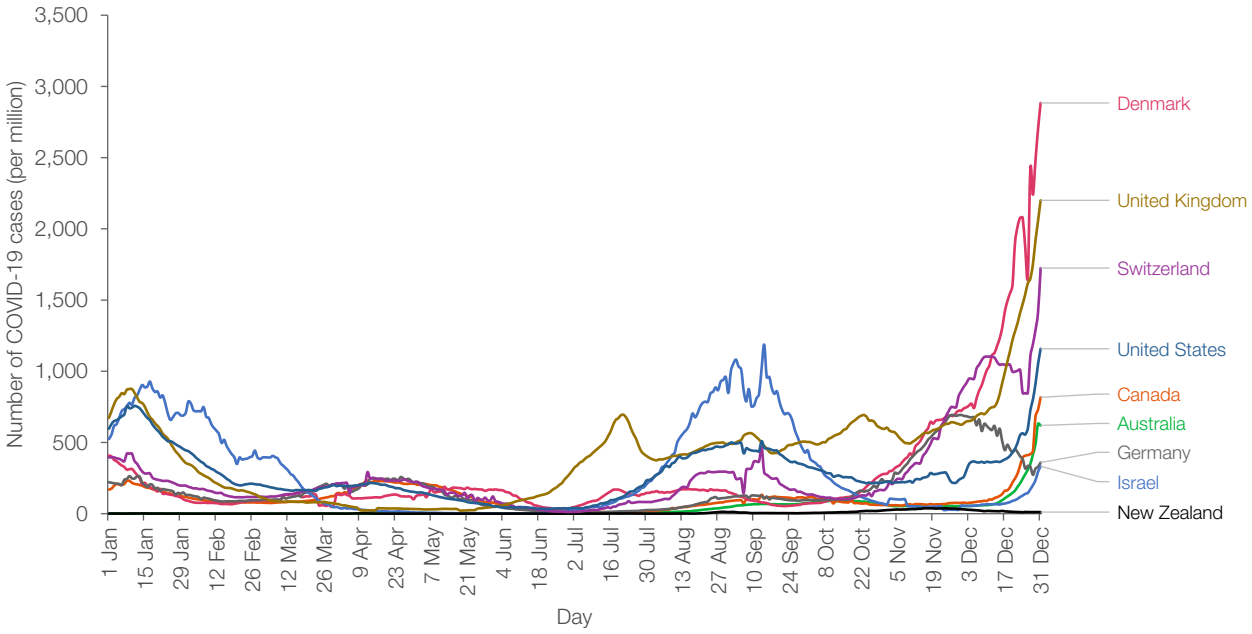
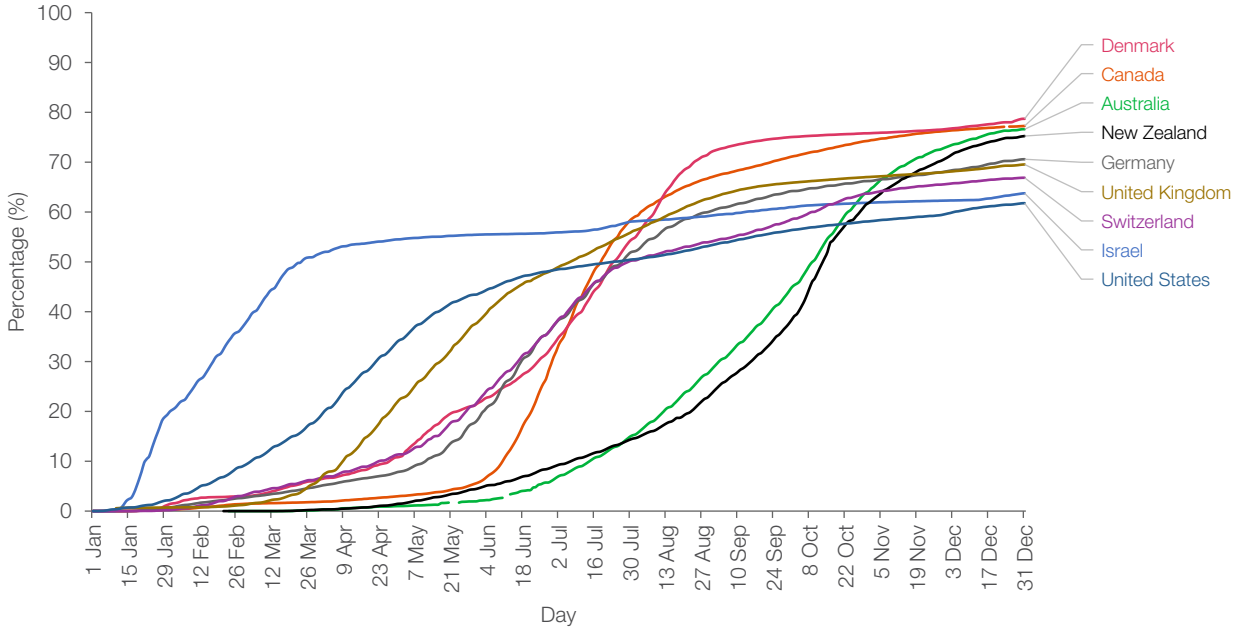


Figure 7 **Percentage of population with two vaccine doses, Australia and eight comparator countries, January to December 2021**



Notes: 'Confirmed COVID-19 cases by test date' is based on the date the person first received a positive test result. This is different to the NSW results on page 11-12 which are presented by the date the person first developed symptoms. The age range for the vaccinations measure differ from country to country. Broken lines indicate missing data for particular days.

Source: Our World in Data. Retrieved from: 'https://ourworldindata.org/coronavirus' (Online Resource). Data downloaded 10 January 2022.

Community-based healthcare

Key findings

Community healthcare settings are outside of an admitted hospital setting. They include general practitioners (GPs), specialised hospital outpatient services, screening services and virtual care received at home.

GP attendances above 2019 levels for most of year including major increase in virtual consultations as COVID-19 cases rose

Proportion of outpatient service events delivered through virtual care increased during Delta wave

Breast screening for women aged 50–74 decreased sharply from beginning of Delta wave

At the start of the pandemic, GP consultations by virtual care (telehealth and videoconferencing) increased, accounting for 36% of GP attendances in April 2020.[1] During 2021, use of virtual care remained above pre-pandemic levels.

By April 2021, more than one in 10 Australian adults (14%) had used virtual care in the previous four weeks. When asked about the use of virtual care, patients said most of these consultations were instead of a face-to-face or physical appointment with a health professional (61% of patients) or for a prescription (32%).[2]

Evidence suggests that patients have been positive about their experiences using virtual care. Among adults who had a virtual outpatient care appointment from a NSW Health organisation in 2020, around nine in 10 (91%) rated virtual care as 'very good' or 'good'. Perceived benefits of virtual care for patients included convenience (73%), saving time (60%), feeling at ease in their own home (37%) and saving money (30%).[3]

However, virtual care is not an option for some services. Across the same period, there was a reduction in activity for other community programs such as breast cancer screening, which people were less likely to attend.

Medicare-subsidised GP, specialist and mental health services

In 2021, there were 730,648 Medicare-subsidised GP attendances per 100,000 people in NSW, up 95,064 per 100,000 people from 2019. In 2021, 23% of these were virtual appointments, compared with less than 1% in 2019. The highest monthly number of GP attendances was in August 2021, 36.9% higher than the same month in 2019. The highest proportion of virtual appointments was in the second half of 2021, particularly in August and September, during the Delta wave (Figure 8).

In 2021, there were 141,819 Medicare-subsidised specialist attendances per 100,000 people in NSW, up 3,334 per 100,000 people from 2019. In 2021, 16% of these were virtual appointments, compared with less than 1% in 2019. As with GP attendances, the highest proportion of virtual specialist appointments took place during the Delta wave, from July to October 2021 (Figure 9).

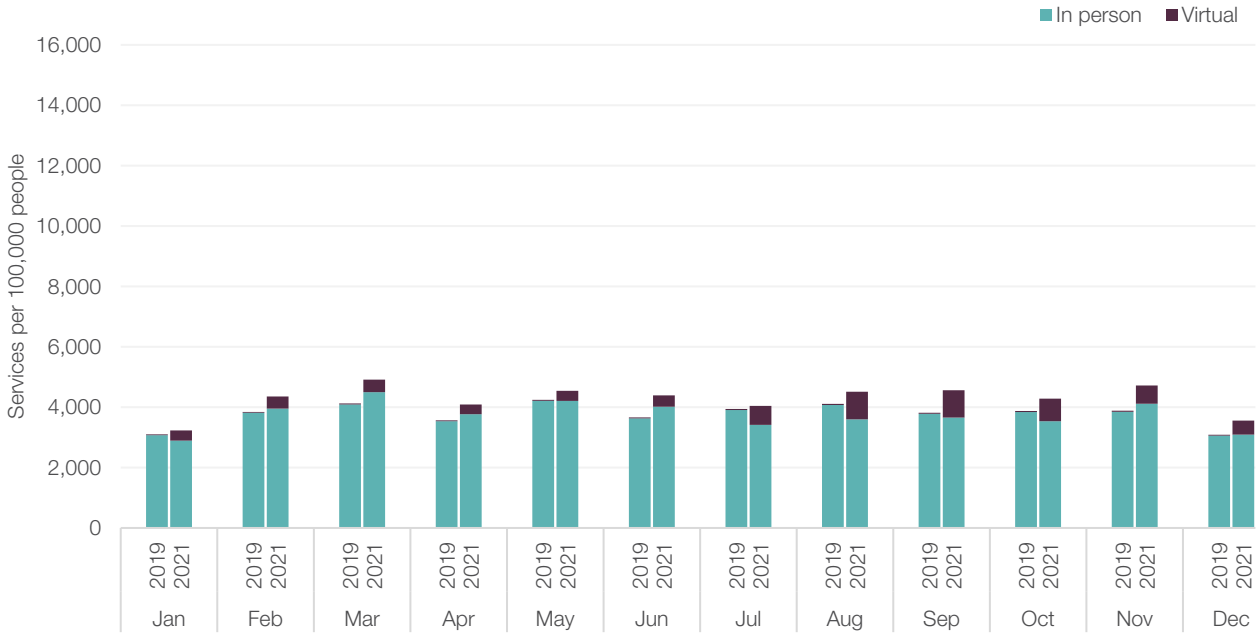
In 2021, there were 51,196 Medicare-subsidised mental health services per 100,000 people in NSW, up 5,949 per 100,000 people from 2019. In 2021, 13% of these were virtual appointments, compared with less than 1% in 2019 (Figure 10).

Figure 8 **Medicare-subsidised GP attendances per 100,000 people, by type of appointment, NSW, January to December 2021 and 2019**

Source: Australian Government Services Australia. Retrieved from: medicarestatistics.humanservices.gov.au/statistics/mbs_item.jsp (online resource). Data downloaded 1 February 2022.

Figure 9 **Medicare-subsidised specialist attendances per 100,000 people, by type of appointment, NSW, January to December 2021 and 2019**

Figure 10 **Medicare-subsidised mental health services per 100,000 people, by type of appointment, NSW, January to December 2021 and 2019**



Source: Australian Government Services Australia. Retrieved from: medicarestatistics.humanservices.gov.au/statistics/mbs_item.jsp (online resource). Data downloaded 1 February 2022.

Virtual outpatient care

The COVID-19 pandemic has accelerated the rapid and widespread adoption of virtual care. In 2021, the number of virtual outpatient service events delivered to non-admitted patients by NSW Health organisations doubled from 2019. This shift in delivery of care was seen in both metropolitan, and rural and regional local health districts (LHDs), however it was more pronounced in metropolitan LHDs. This growth began from a lower starting point in metropolitan LHDs, as virtual care was already more established in rural and regional LHDs.

The number of virtual outpatient service events was higher in each month in 2021, compared with 2019, and reached a peak in August 2021 during the Delta wave. The proportion of outpatient service events that were virtual also reached a peak in August 2021 and was highest throughout the Delta wave. In August, there were 2,071,559 outpatient service events – 22% of these were delivered virtually (up from 12% in 2019) (Figure 11).

Of virtual care contact modes, videoconferencing in outpatient care saw the most significant relative growth. From 2019 to 2021, NSW experienced a 10-fold increase in videoconference outpatient service events and an 81% increase in telehealth outpatient service events. From 2019 to 2021, videoconferencing increased 20-fold and telehealth doubled in metropolitan LHDs. In the same period, videoconferencing increased threefold and telehealth increased by half in regional and rural LHDs (Figure 12).

Telehealth
The use of audio technology as the mode of contact.

Videoconference
The use of audio-visual technology as the mode of contact.

In 2021, there were

3,582,697

virtual outpatient service events

↑ up 103% from 2019

Figure 11 **Total number of outpatient service events, by contact mode, NSW, January to December 2021 and 2019**

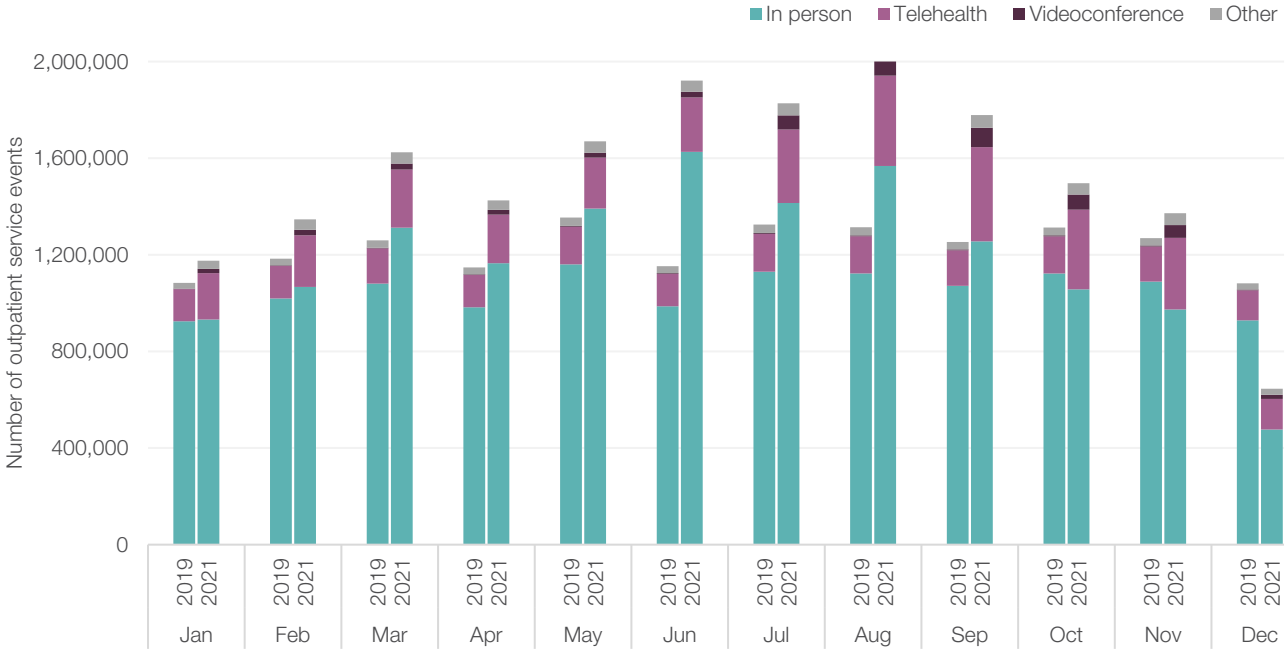
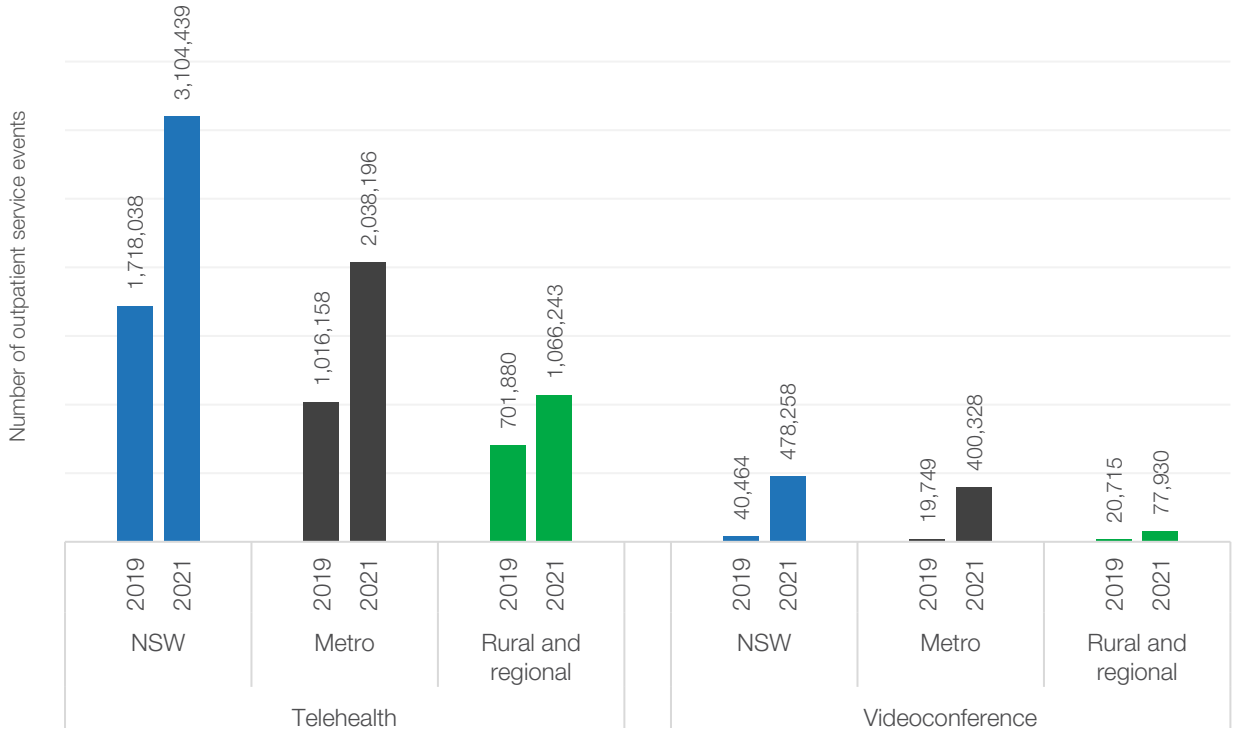


Figure 12 **Total number of outpatient service events for virtual care, by contact mode, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: Based on NSW Health's classification of local health districts (LHDs), 'Metropolitan' encompasses Greater Sydney LHDs, including Nepean Blue Mountains, Central Coast and Illawarra Shoalhaven. The remaining LHDs are classified as 'Rural and regional'. For more information, see the technical supplement.

Source: NSW Ministry of Health, System Information and Analytics Branch. Non-admitted patient data collection. Data extracted 1 February 2022.

Breast screening

BreastScreen NSW is part of the national BreastScreen Australia program. This service aims to improve the survival rates of women with breast cancer by providing free screening mammograms, with the target group aged 50–74. Early detection of breast cancer increases the treatment options available and improves women's chances of survival. The BreastScreen NSW program is delivered by nine screening and assessment services across the state.

BreastScreen NSW temporarily suspended all screening and assessment services across NSW on Thursday 19 August 2021 due to the evolving COVID-19 situation – by this time many Sydney services had already been suspended. All services were closed for four weeks, some rural and regional sites up to 10 weeks, and the majority of Sydney metropolitan services for a longer period, several up to 16 weeks (between July and November).

In 2021, there were 248,106 women aged 50–74 who attended screening, down 69,213 (22%) compared with 2019.

During the first half of 2021, screening activity was higher, but the participation rate was slightly lower than the same period in 2019 (Figures 13, 14).

In June to September 2021, including the period when BreastScreen NSW screening and assessment services were suspended, screening activity decreased. There were 2,163 screens conducted in September, the lowest number for the year, and the participation rate dropped to 44.8%.

Once the suspension began to ease, screening activity increased until November, when numbers were similar to 2019. However, the participation rate continued to drop to a low of 42.7% in November 2021. Numbers declined in December 2021, however they were higher than in 2019. Participation rates in November and December were similar.

Participation rates and number of screening attendances for subsets of age groups within the 50–74 years range followed similar trends to the overall result (data not shown).

> The participation rate is the proportion of women aged 50–74 in NSW who were screened for breast cancer by BreastScreen NSW in the preceding 24 months.

In 2021, there were

248,106

women aged 50–74 who attended screening

↓ down 22% from 2019

Figure 13 **Screening activity for women aged 50–74 through BreastScreen, NSW, January to December 2021 and 2019**

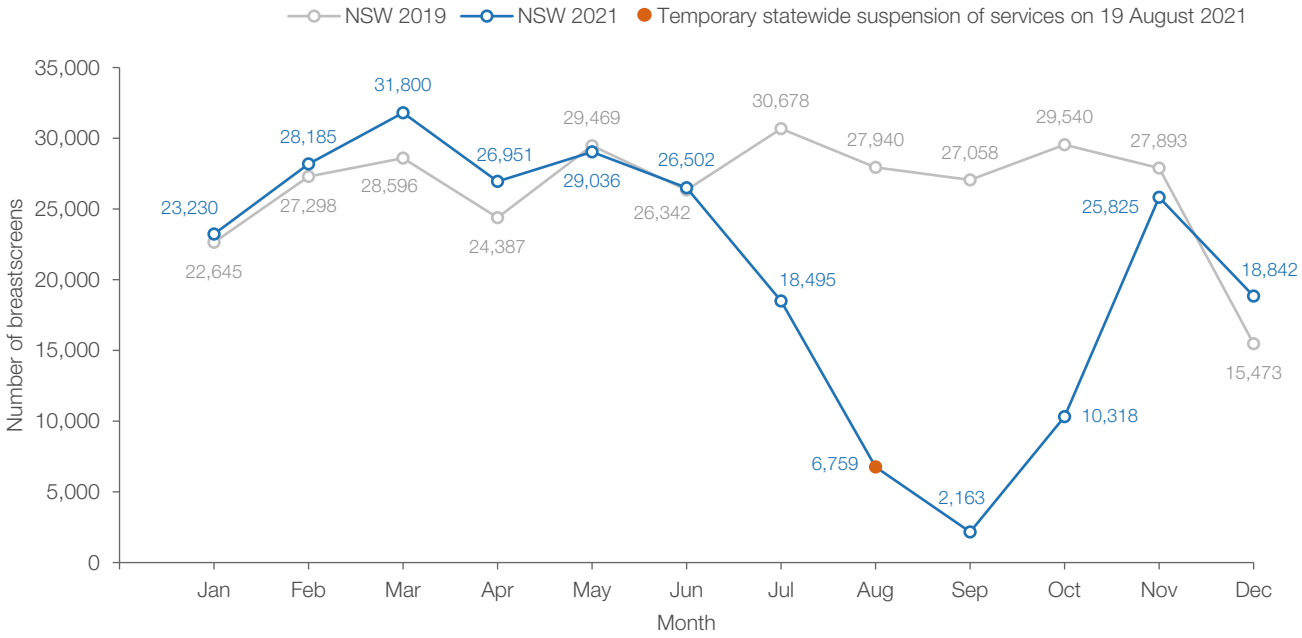
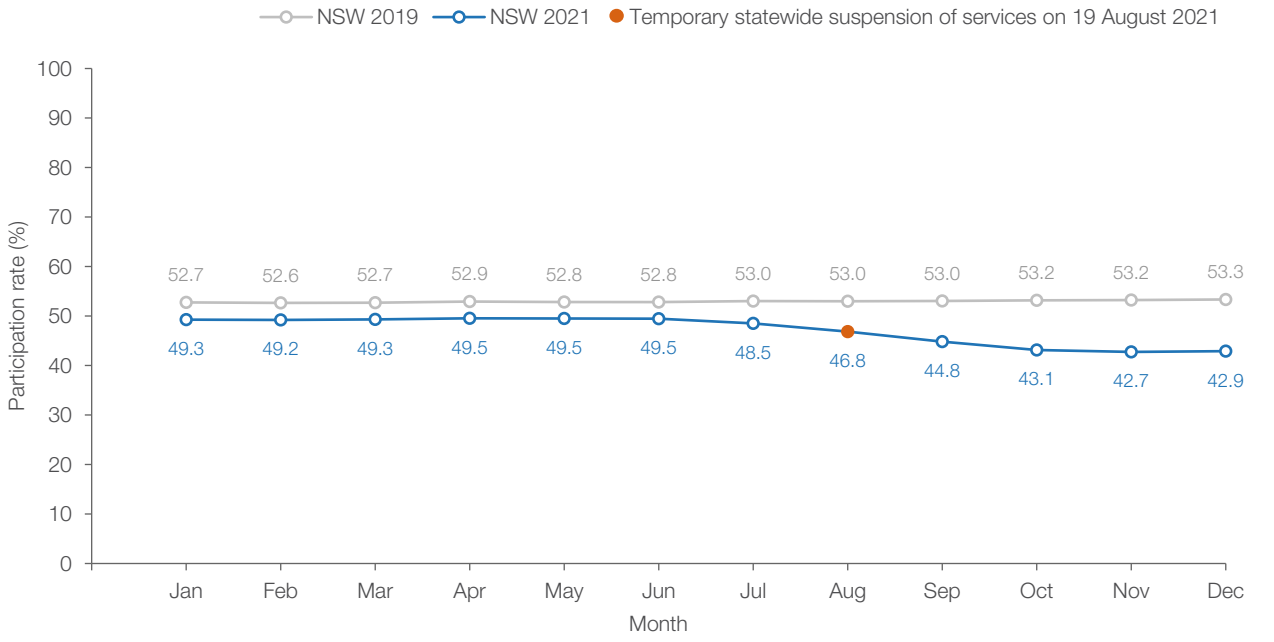


Figure 14 **Participation rate of eligible NSW women aged 50–74 who were screened for breast cancer through BreastScreen, NSW, January to December 2021 and 2019**



Source: BreastScreen NSW in partnership with Cancer Institute NSW. Data received 25 January 2022.

Ambulance

Key findings

NSW Ambulance delivers mobile health services and provides high-quality clinical care, rescue and retrieval services to people with emergency and medical health needs. The majority of cases responded to by paramedics are in the emergency or urgent priority categories.

Overall ambulance responses were above pre-pandemic levels in first half of year before dropping to 2019 levels from beginning of Delta wave

Emergency (P1) responses increased in metropolitan areas as COVID-19 cases rose during Delta and Omicron waves

Patients in metropolitan areas waited longer for P1 ambulance responses during spikes in COVID-19 cases

For most weeks of the year, the number of highest priority (P1A) ambulance responses was notably higher, and the percentage of responses within 10 minutes lower, than 2019

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Ambulance activity and performance

Emergency responses increased in metropolitan areas during Delta and Omicron waves

In NSW in 2021, there were 1,279,661 ambulance responses, up 24,517 (2.0%) from 2019. In the first half of 2021, weekly responses were higher than pre-pandemic levels before decreasing to 2019 levels from late June (Figure 15).

There were 1,361,476 calls to NSW Ambulance in 2021, up 92,383 (7.3%) from 2019 and peaking at 28,349 in the week ending 25 December (data not shown).

There were 605,462 'emergency – priority 1 (P1)' responses in 2021, with 46.6% reached within 15 minutes (58.3% in 2019).

From late June, during the Delta wave, the number of weekly P1 responses decreased in metropolitan areas before a sharp increase in late August – peaking at 12,929 in the week ending 4 September (Figure 16). The percentage of P1 cases reached within 15 minutes decreased sharply from the beginning of the Delta wave, to a low of 34.2% in the week ending 11 September (Figure 17).

The emergence of the Omicron variant in late November resulted in another rise in weekly P1 responses – peaking at 12,589 in the week ending 18 December. Following a recovery, the percentage of P1 cases reached within 15 minutes decreased sharply again in December to a low of 37.2%.

While there was significant fluctuation in metropolitan areas for these measures, they remained relatively stable in rural and regional areas throughout 2021.

Response
The dispatch of an ambulance vehicle to an incident. There may be multiple responses to a single incident. Responses include vehicles cancelled prior to arrival at the incident scene.

Call to ambulance arrival time
The time from when a call is answered in the ambulance control centre to the time the first ambulance arrives at the scene.

Figure 15 **Weekly ambulance responses, all priority categories, NSW, metropolitan, and rural and regional areas, January to December 2021 and 2019**

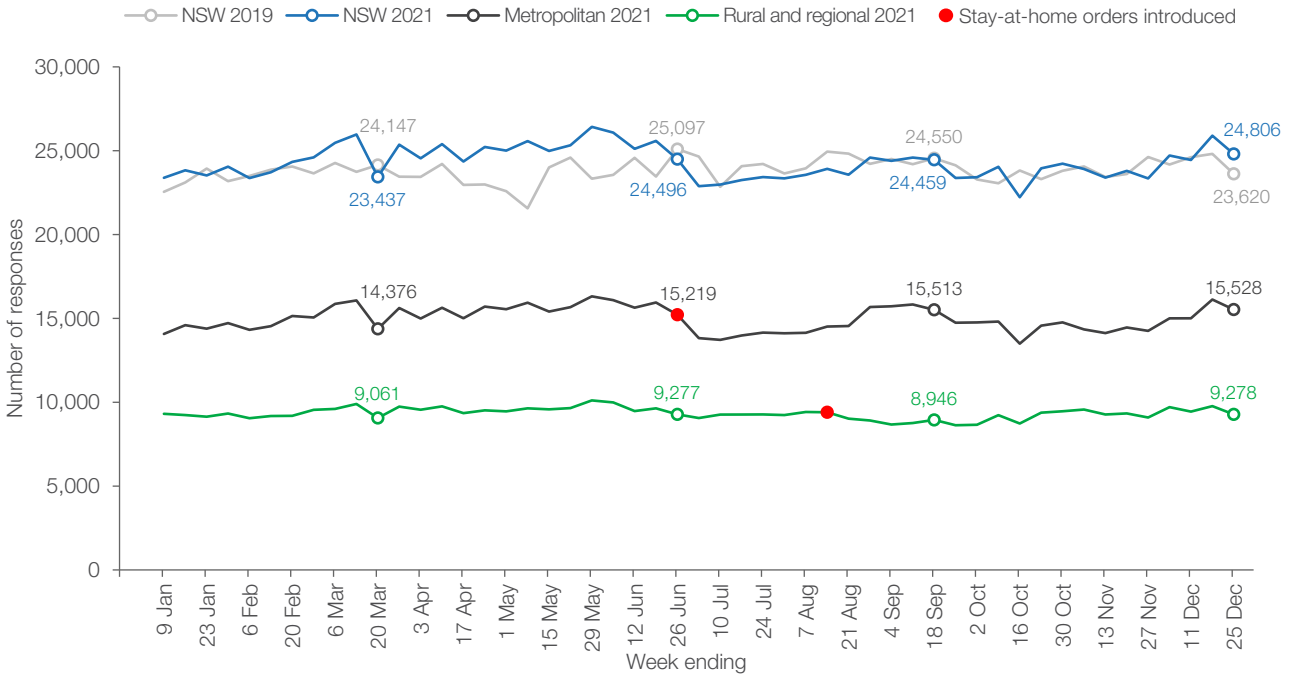


Figure 16 **Number of ambulance responses, emergency priority (P1), NSW, metropolitan, and rural and regional areas, January to December 2021 and 2019**

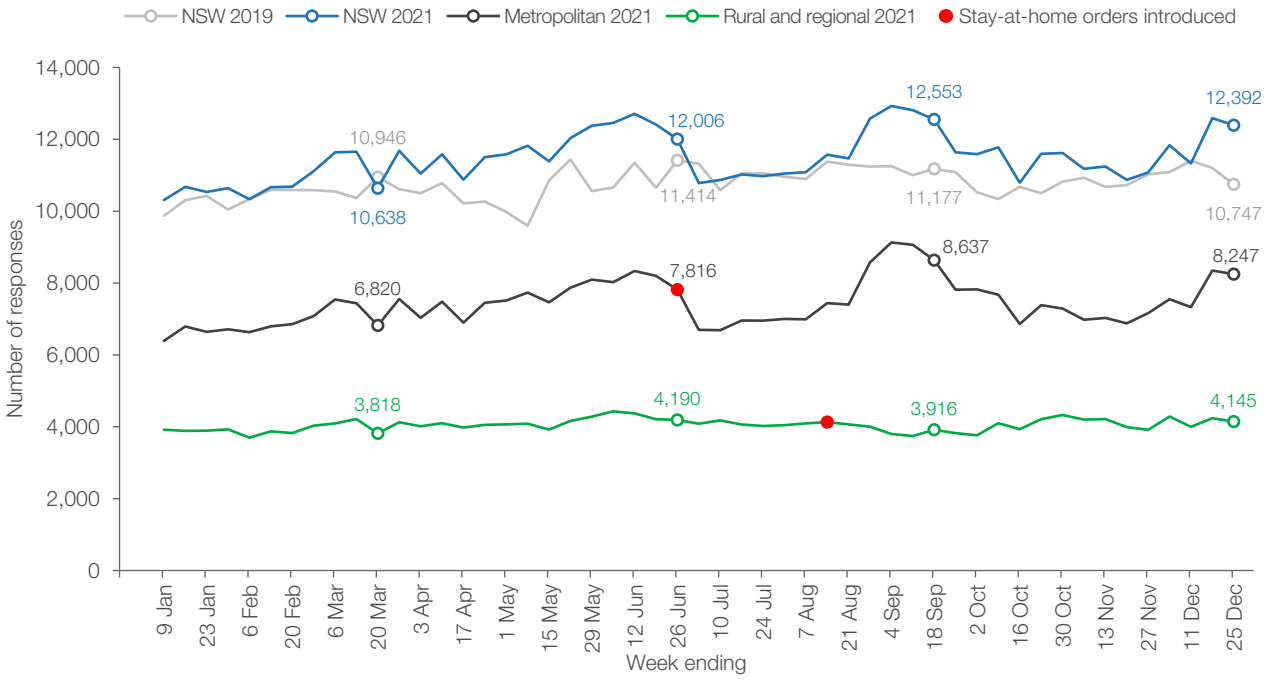
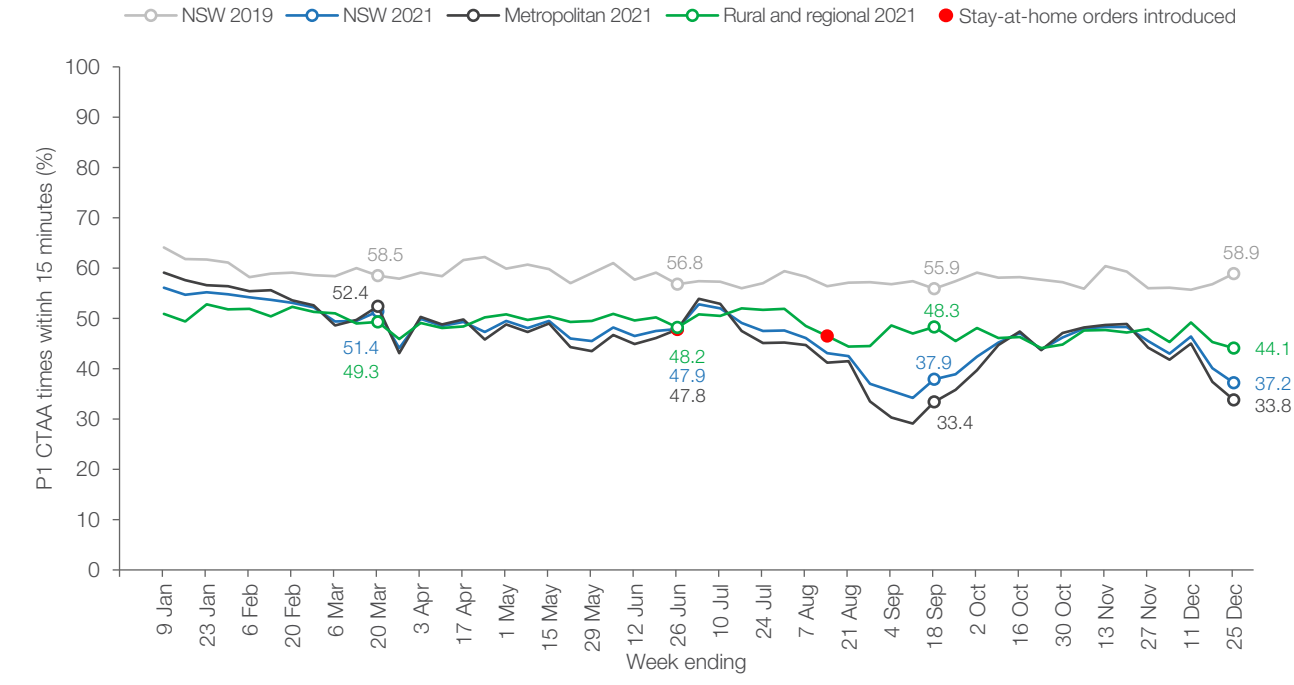


Figure 17 **Percentage of emergency (P1) call to ambulance arrival times within 15 minutes, NSW, metropolitan, and rural and regional areas, January to December 2021 and 2019**



Note: 'Metropolitan' includes Greater Sydney, the Blue Mountains, Central Coast and Illawarra. The remainder of NSW is classified as 'Rural and regional'. For more information, see the technical supplement.

Highest priority responses

Number of highest priority responses was above 2019 levels throughout year

There were 33,780 ambulance responses to the highest priority (P1A) cases in 2021, up 7,001 (26.1%) compared with 2019. The percentage of these cases reached within 10 minutes was 63.0%, compared with 71.4% in 2019 (data not shown).

A subset of the P1 category, P1A responses are for patients with life-threatening conditions such as cardiac or respiratory arrest. In NSW, the benchmark for the median P1A response time is 10 minutes.

For almost all weeks of the year, the number of P1A responses was notably higher than 2019 (Figure 18).

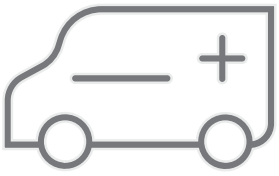
From late February to September, there was an upward trend in weekly P1A responses, including after Delta wave stay-at-home orders were introduced. This was more noticeable in metropolitan areas. The percentage of P1A response times within 10 minutes trended down and remained lower than 2019 during this period, with some fluctuation (Figures 18, 19).

In early September, weekly P1A responses peaked at 792, with the percentage of responses within 10 minutes reaching a low of 51.8% around the same time.

Following a drop in activity in late September, the weekly number of P1A responses returned to lower levels through to December, though further increases were apparent again late in the year as the Omicron variant emerged.

Response time
The time from when a call for an ambulance is placed 'in queue' for vehicle dispatch by the ambulance control centre, to the time the first vehicle arrives at the scene.

Highest priority (P1A) cases in 2021



Responses

33,780

↑ up 26.1% from 2019

Median response time

8.5 minutes

↑ 1.0 minute longer than 2019

Figure 18 **Number of ambulance responses, highest priority (P1A), NSW, metropolitan, and rural and regional areas, January to December 2021 and 2019**

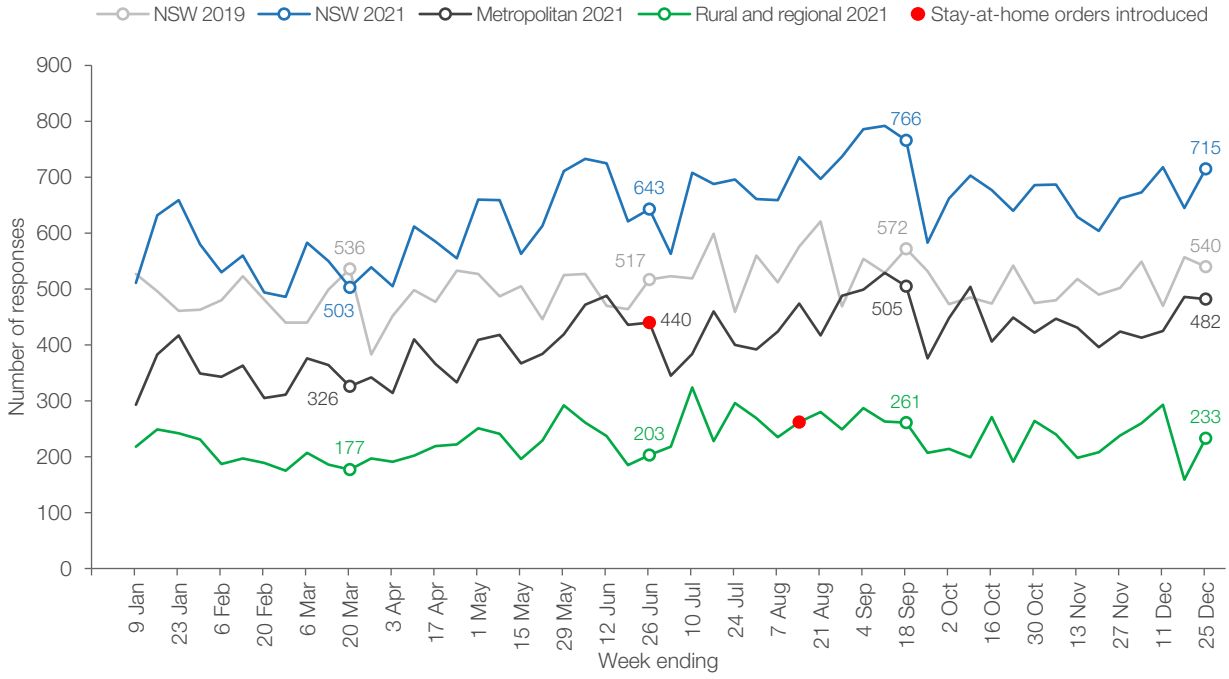
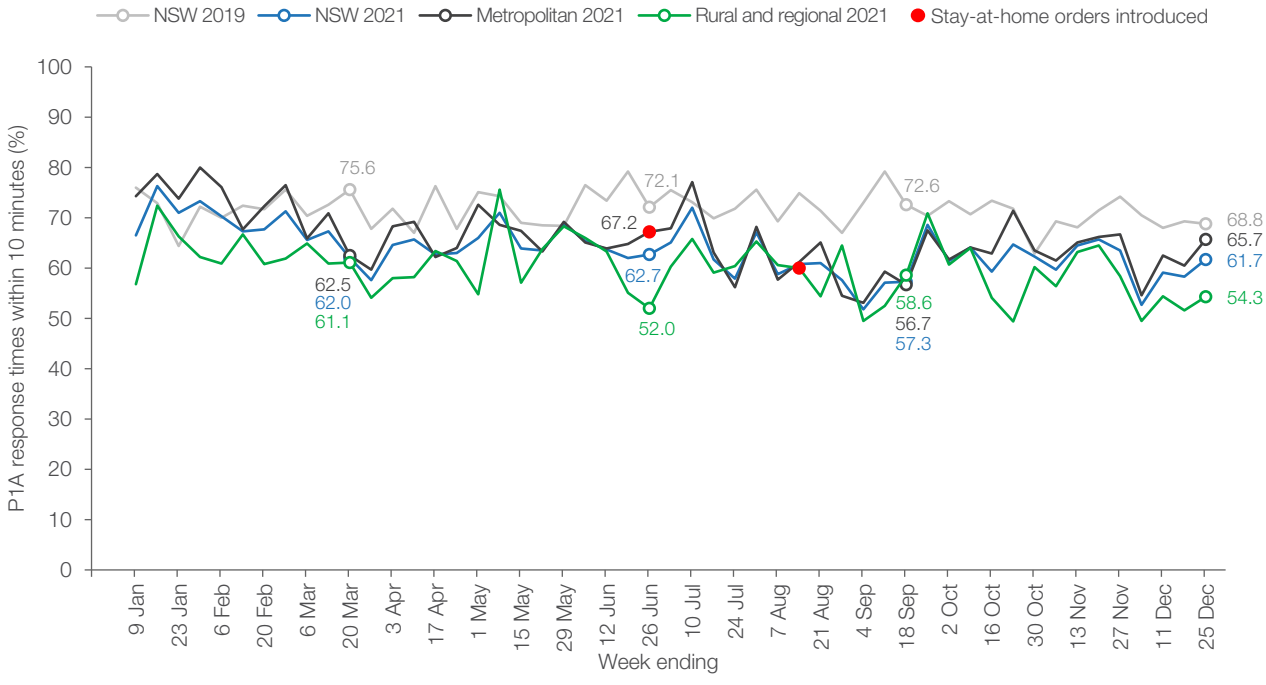


Figure 19 **Percentage of highest priority (P1A) response times within 10 minutes, NSW, metropolitan, and rural and regional areas, January to December 2021 and 2019**



Note: 'Metropolitan' includes Greater Sydney, the Blue Mountains, Central Coast and Illawarra. The remainder of NSW is classified as 'Rural and regional'. For more information, see the technical supplement.

Emergency department

Key findings

NSW public hospital emergency departments (EDs) are open to everyone and provide specialised assessment and life-saving care for acutely unwell patients. EDs often act as an entry point to admitted patient services.

ED attendances dropped below 2019 levels during Delta wave

Patients were more likely to start treatment on time in the second half of the year

Respiratory system presentations decreased sharply from beginning of Delta wave

Weekly presentations for mental health conditions were lower throughout 2021 than in 2019, with decreases more notable in metropolitan LHDs

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Emergency department activity and performance

ED attendances were lower than 2019 levels during Delta wave

In 2021, there were 3,048,912 ED attendances in NSW, 2,260 (0.1%) fewer than in 2019. Over the year, 72.0% of patients' treatment started on time (compared with 71.7% in 2019) and 66.6% of patients left the ED within four hours (69.8% in 2019) (data not shown).

During the first half of 2021, the weekly number of ED attendances trended gradually upwards, higher than 2019 levels (Figure 20). Over the same period, the percentage of patients treated on time and who spent four hours or less in the ED trended down, below 2019 levels (Figures 21, 22).

Following the arrival of the Delta variant, there were notable decreases in ED attendances in metropolitan LHDs in late June, and rural and regional LHDs in mid-August (Figure 20). In late June, the overall percentage of patients treated on time increased and remained above 2019 levels until late November (Figure 21). The percentage of patients who spent four hours or less in the ED increased in late June and then remained similar to or below 2019 levels (Figure 22).

As the Omicron variant emerged in December, the number of ED attendances increased (Figure 20). During this period, the percentage of patients treated on time decreased slightly to 2019 levels, while the percentage of patients who left the ED within four hours remained relatively stable (Figures 21, 22).

Time to start treatment
The time from a patient's arrival at the ED until the start of their clinical treatment in the ED.

Figure 20 **Emergency department attendances, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

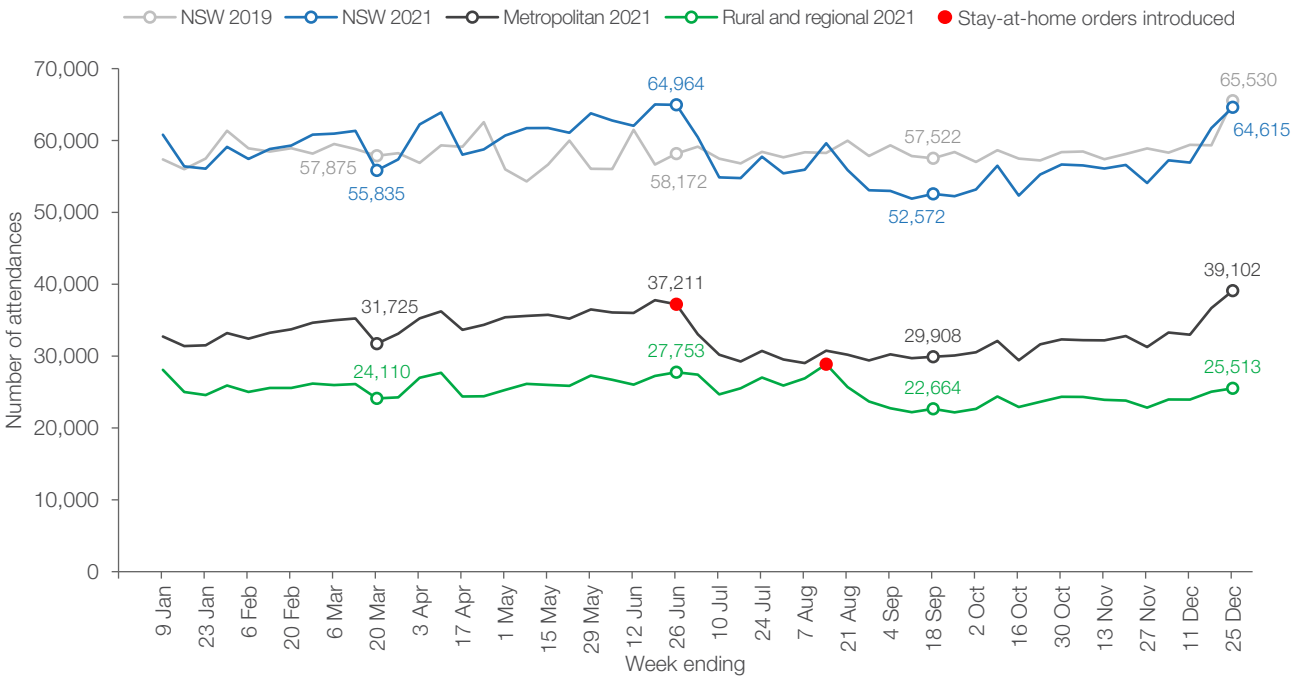


Figure 21 **Percentage of patients whose treatment started on time, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

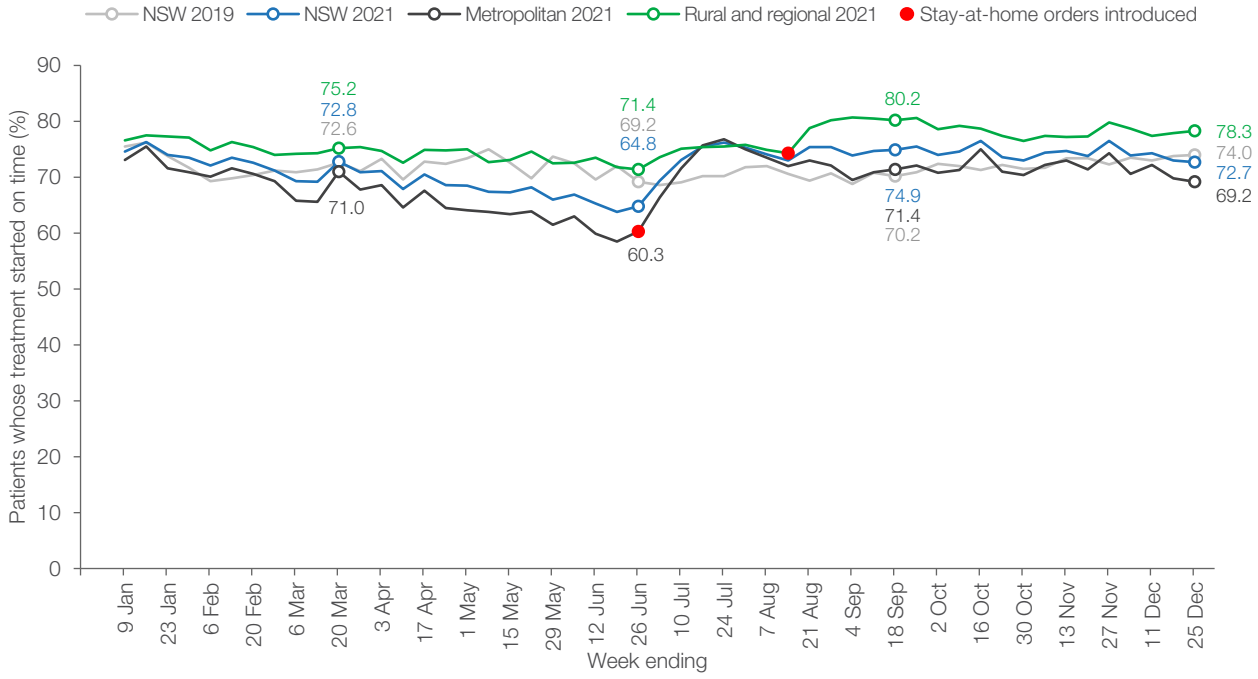
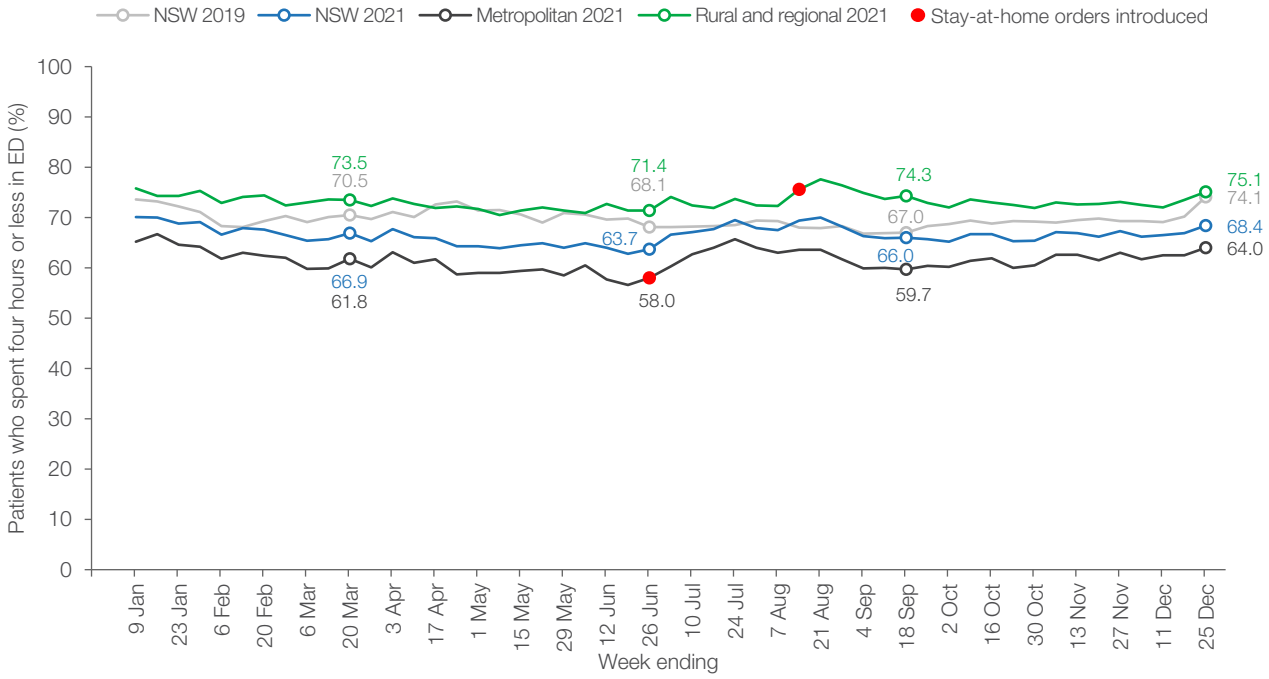


Figure 22 **Percentage of patients who spent four hours or less in the emergency department, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: 'ED attendances' includes every patient visit to the ED during the defined period. The vast majority of ED attendances are classified as 'emergency presentations'. The remaining ED attendances include non-emergency visits such as planned returns, pre-arranged admissions, some outpatient visits and private referrals.

Based on NSW Health's classification of local health districts (LHDs), 'Metropolitan' encompasses Greater Sydney LHDs, including Nepean Blue Mountains, Central Coast and Illawarra Shoalhaven. The remaining LHDs are classified as 'Rural and regional'. For more information, see the technical supplement.

Emergency presentations by clinical cohort

Sharp decrease in respiratory system presentations during Delta wave

Weekly respiratory system presentations steadily increased until mid-June, reaching a peak of 6,074. This was followed by a sharp decrease in presentations from late June until mid-September. From October, presentations slowly increased but remained well below 2019 levels (Figure 23).

Presentations for mental health and injury followed different patterns.

Weekly presentations for mental health decreased slightly in metropolitan LHDs, and then rural and regional LHDs, during the Delta wave in June and August. Despite an overall increase in the last quarter, presentations were lower than 2019 throughout the year (Figure 24).

Weekly presentations for injury were similar to 2019 levels throughout the first half of the year. During the Delta wave, presentations steadily decreased until early September. This drop was concentrated in metropolitan LHDs. From mid-September, presentations for injury slowly increased and by the end of the year, had reached similar levels to 2019 (Figure 25).

People present to EDs for a variety of reasons, including diagnosis and treatment of acute conditions. Many are not diagnosed until they are admitted to hospital or return home, after diagnostic tests and procedures are completed. However, patients can be assigned to clinical cohorts based on their symptoms or diagnoses made while they are in the ED. The respiratory system, mental health and injury cohorts account for 30.5% of all emergency presentations to NSW EDs.

Figure 23 **Emergency presentations, respiratory system, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

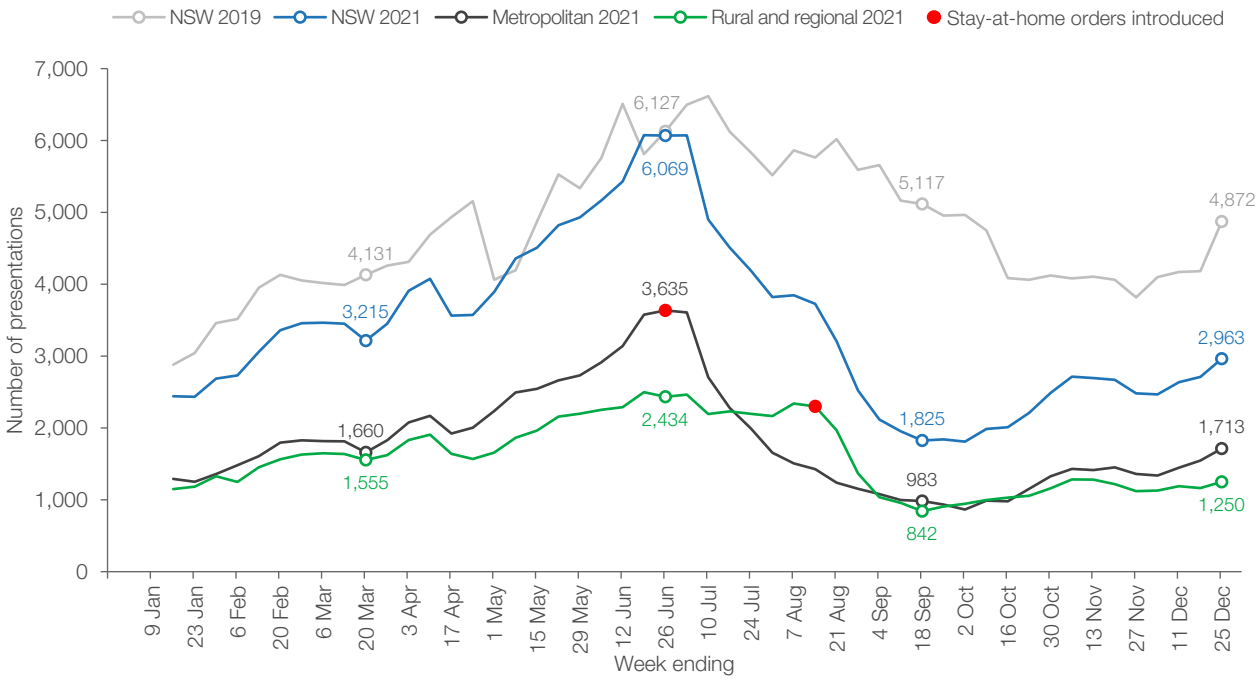


Figure 24 **Emergency presentations, mental health, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

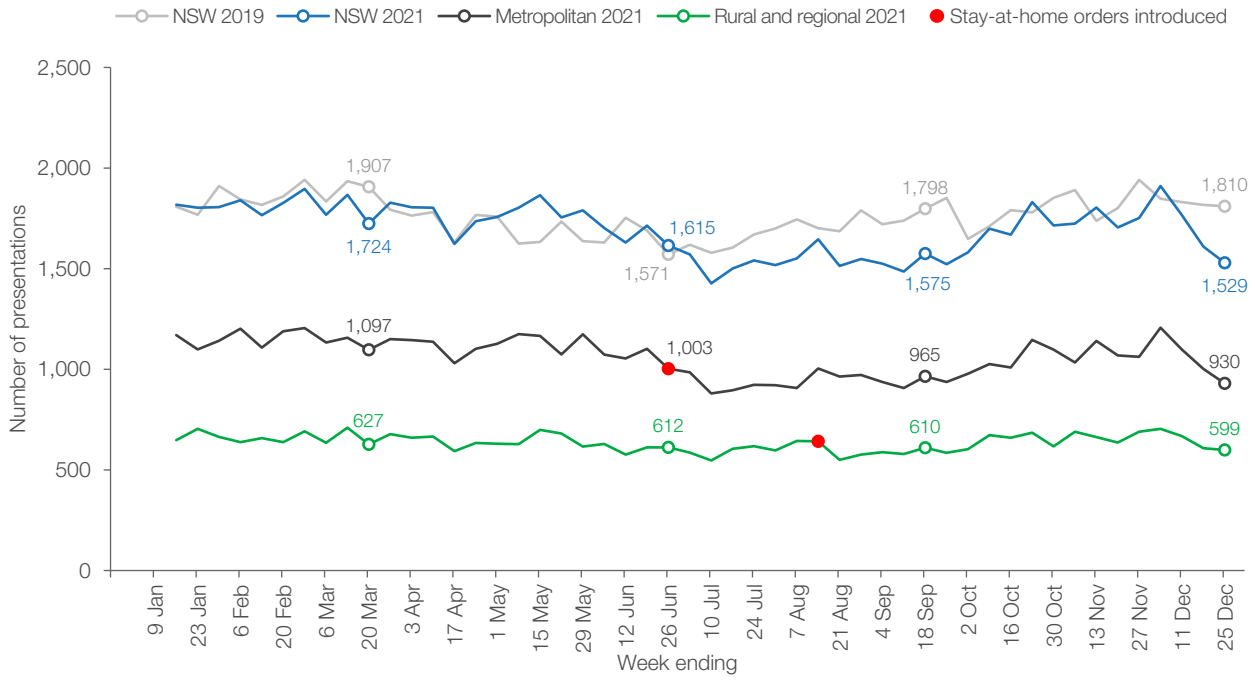
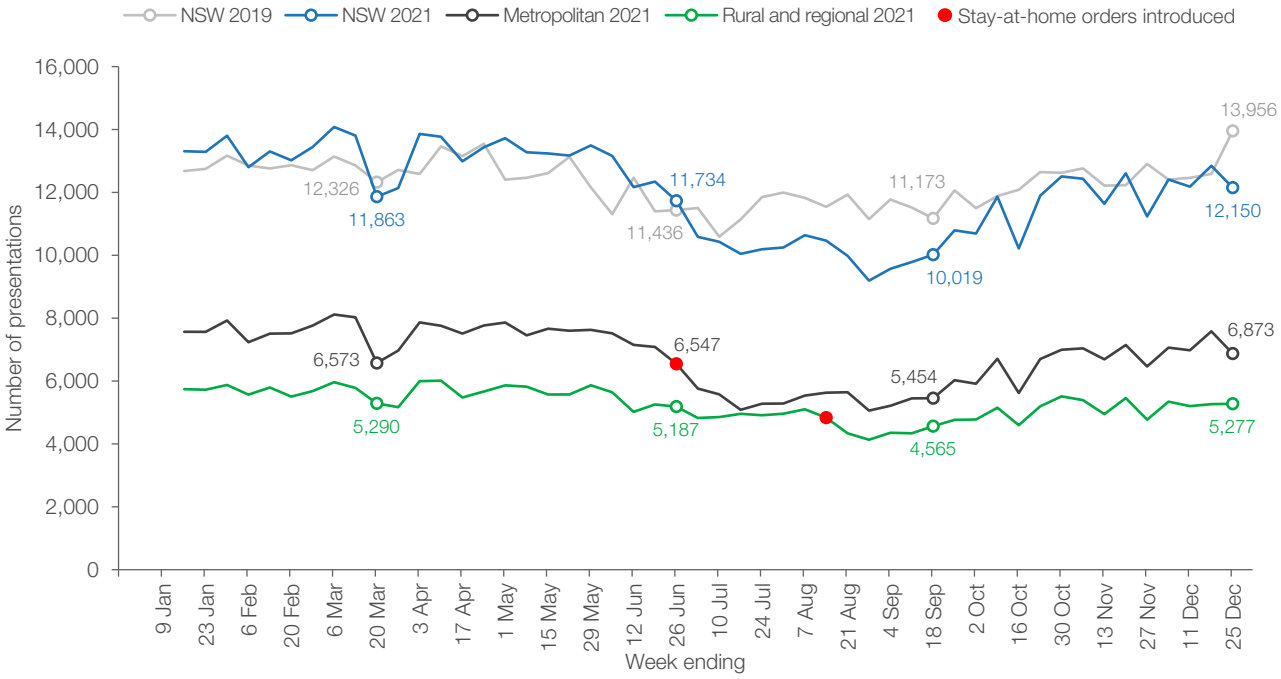


Figure 25 **Emergency presentations, injury, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: The discharging diagnoses patients receive in the ED were aggregated to represent clinical cohorts using methodology developed and validated in Australia. For more information, see the technical supplement.

Based on NSW Health's classification of local health districts (LHDs), 'Metropolitan' encompasses Greater Sydney LHDs, including Nepean Blue Mountains, Central Coast and Illawarra Shoalhaven. The remaining LHDs are classified as 'Rural and regional'. For more information, see the technical supplement.

Admitted patients

Key findings

People are admitted to hospital for a wide range of services, including medical and surgical care. Admissions can be acute (for immediate treatment) or non-acute (for rehabilitation, palliative care or other reasons). People may also be admitted for mental health-related reasons, which can be acute or non-acute.

Overall and non-acute patient admissions decreased in the second half of the year, with reductions concentrated in metropolitan LHDs

Average length of stay for acute care increased sharply during Delta wave, peaking in October

Respiratory and injury admissions decreased during Delta wave

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Admitted patient episodes

Admissions dropped below 2019 levels in second half of the year

In 2021, there were 1,910,248 admitted patient episodes in NSW public hospitals, 35,986 (1.8%) fewer than in 2019 (data not shown).

In the first half of 2021, weekly admitted patient episodes were similar to or above 2019 levels. From June, after the emergence of the Delta variant, admitted patient episodes decreased until early September. Episodes trended upwards for the remainder of the year. These trends were more pronounced in metropolitan LHDs, while rural and regional LHD admitted patient episodes remained stable throughout the year (Figure 26).

The average length of stay for acute episodes of care for discharged patients in 2021 was comparable with 2019 until June. During the Delta wave, it sharply increased with a peak of 5.9 days in early October. A subsequent decrease until mid-December was followed by another sharp increase into 2022. This trend was most pronounced in metropolitan LHDs.

Average length of stay in rural and regional LHDs remained relatively stable throughout 2021, except for a short, sharp spike in October (Figure 27).

The weekly number of non-acute admitted patient episodes in 2021 was also comparable with 2019 until June. Weekly episodes then decreased until mid-October to a low of 849 admitted patient episodes during that period, before increasing for the remainder of 2021. These trends were again driven by activity shifts in non-acute episodes in metropolitan LHDs (Figure 28).

Admitted patient episodes can be for same-day or overnight care and can be broken down by different types of care, including acute, non-acute (admissions for rehabilitation, palliative care or other reasons) and mental health.

Figure 26 **Total number of completed admitted patient episodes, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

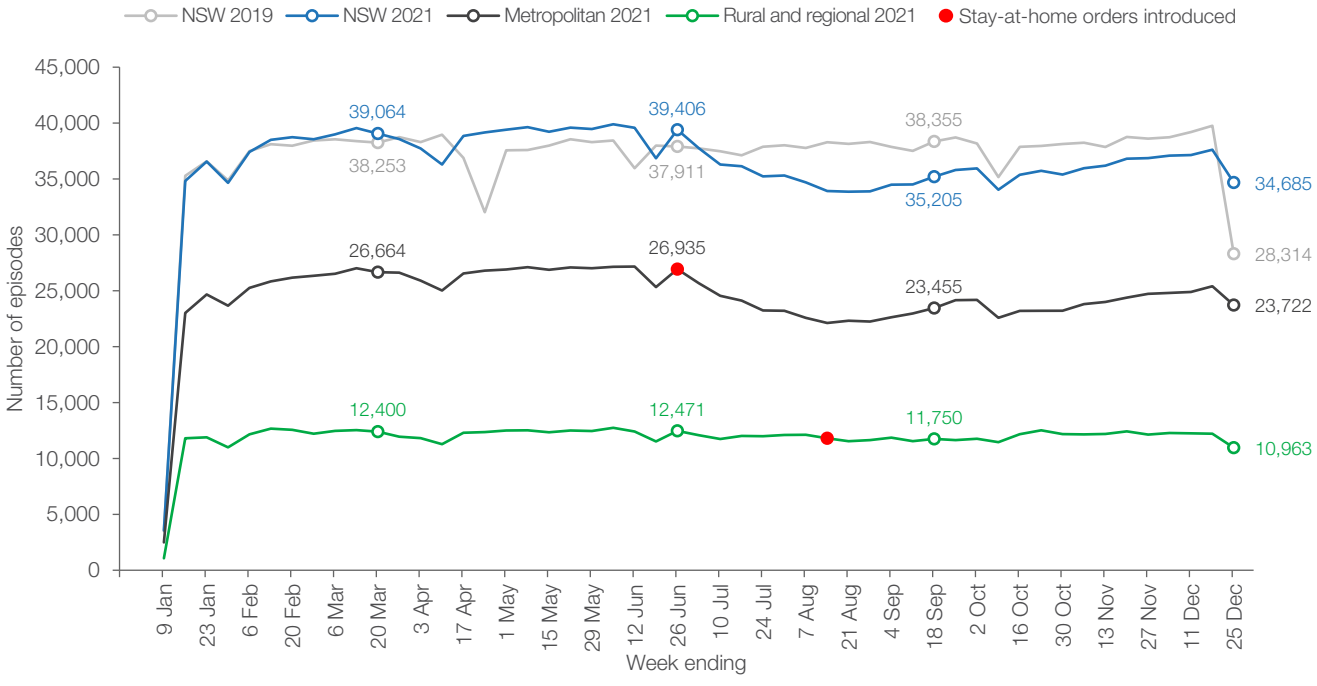


Figure 27 **Average length of stay of overnight admitted patients, acute, NSW, metropolitan, and rural and regional local health districts, January to December 2021**

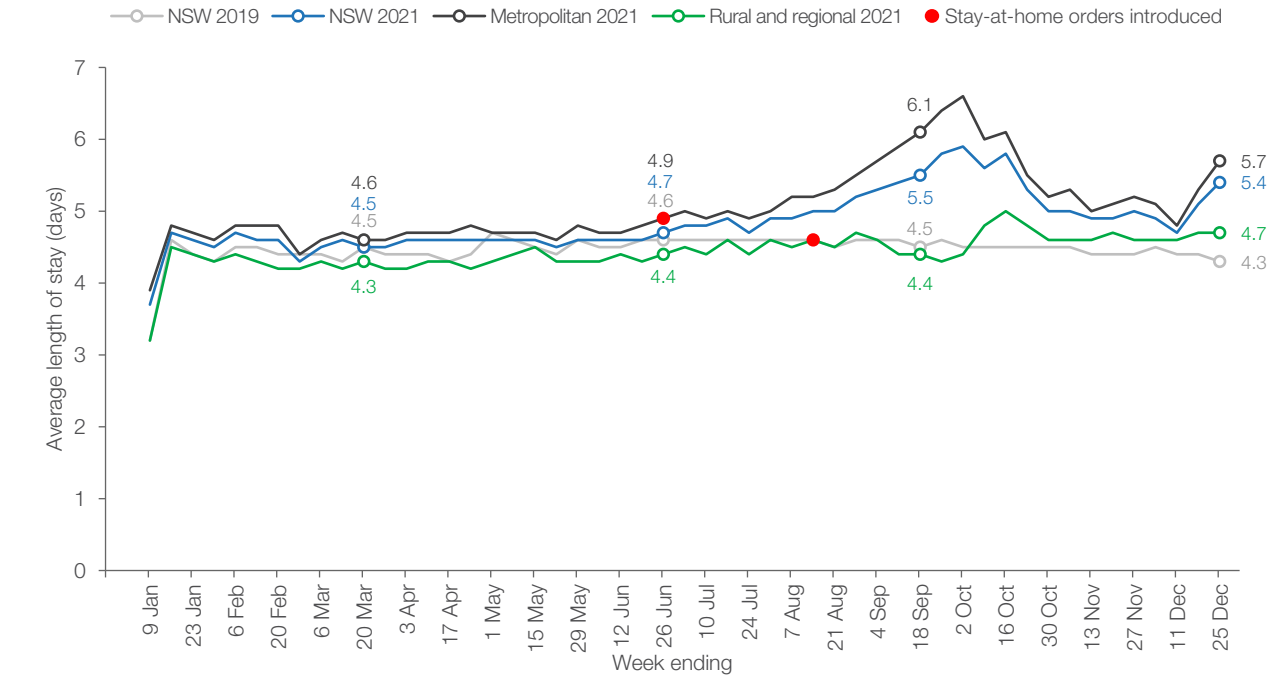
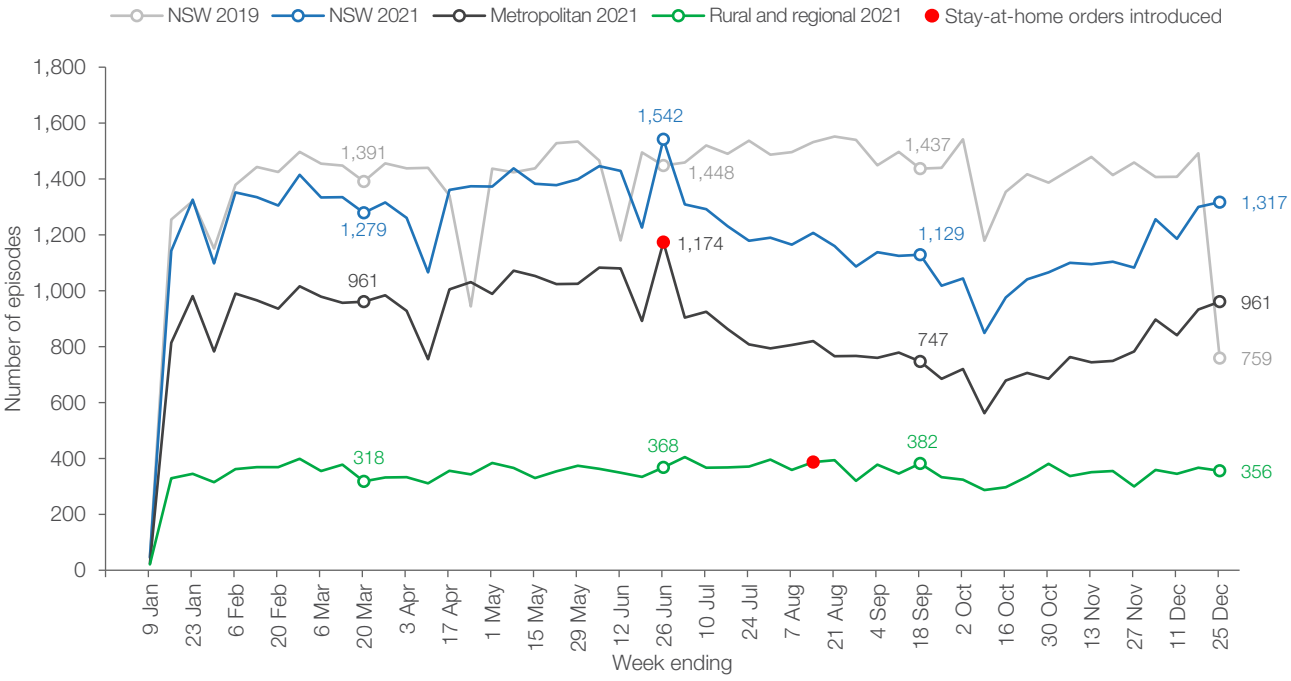


Figure 28 **Number of completed admitted patient episodes, non-acute, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: Typically, there are fewer admissions in weeks with public holidays including in January, April, June, October and December.

Based on NSW Health's classification of local health districts (LHDs), 'Metropolitan' encompasses Greater Sydney LHDs, including Nepean Blue Mountains, Central Coast and Illawarra Shoalhaven. The remaining LHDs are classified as 'Rural and regional'. For more information, see the technical supplement.

Admitted patient episodes by clinical cohort

Respiratory patient episodes declined sharply during Delta wave

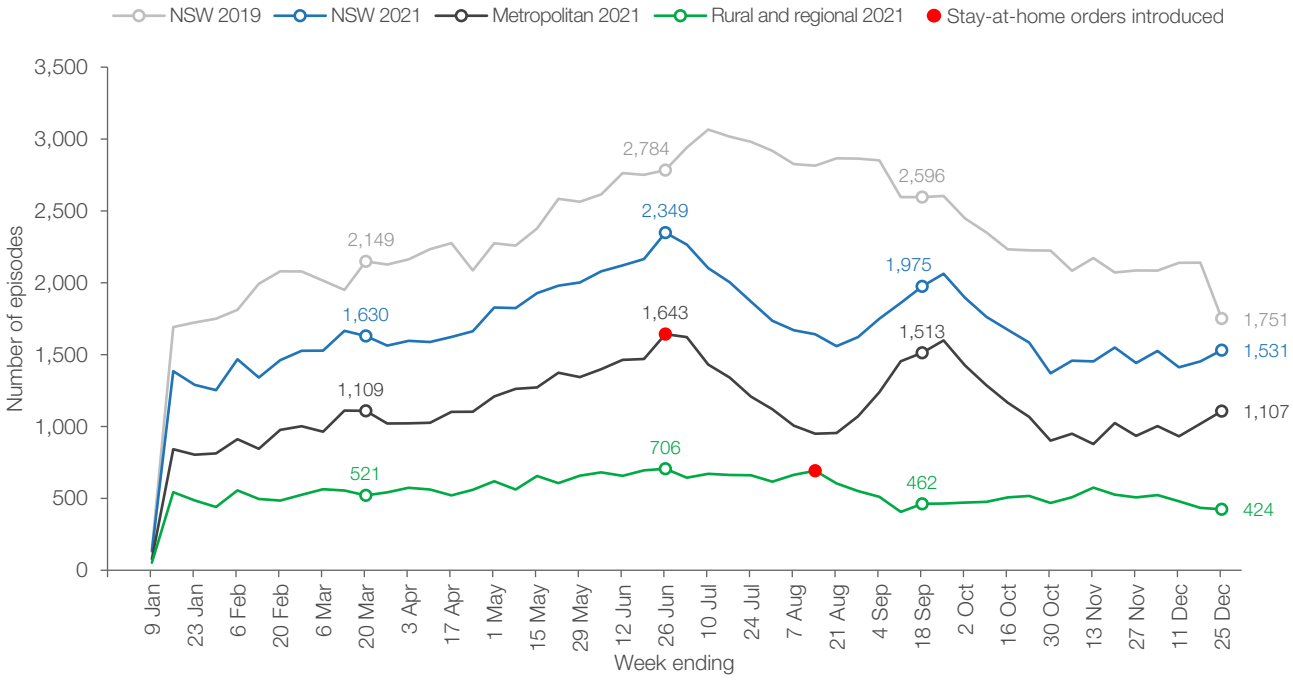
The weekly number of patients admitted to hospital with respiratory system conditions as a primary diagnosis throughout 2021 was significantly lower than 2019. While respiratory episodes in 2021 and 2019 followed a similar upward trend in the first six months of the year and a downward trend in the last quarter, there was a marked difference in 2021 when episodes dipped in metropolitan LHDs following the emergence of the Delta variant in June. In rural and regional LHDs, episodes also decreased from August (Figure 29).

There were fewer admitted patient episodes for mental health in 2021 than 2019 for almost all weeks. The number of episodes was similar for the first half of the year, however, episodes decreased gradually from June to September 2021 during the Delta wave (Figure 30).

The weekly number of admitted patient episodes for injury for the first half of 2021 was comparable with 2019. From June to mid-September, coinciding with the Delta wave, episodes decreased. They then increased until the end of the year. The mid-year decrease was due to a drop in episodes in metropolitan LHDs (Figure 31).

A patient's principal diagnosis is established when an episode of care is completed and is considered the primary reason for the patient's admission. It is used here to enable reporting of three clinical cohorts, which account for 16.9% of all completed admitted patient episodes: respiratory system (4.6%), injury (9.0%) and mental health (3.3%).

Figure 29 **Number of completed admitted patient episodes, respiratory system, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: Based on NSW Health's classification of local health districts (LHDs), 'Metropolitan' encompasses Greater Sydney LHDs, including Nepean Blue Mountains, Central Coast and Illawarra Shoalhaven. The remaining LHDs are classified as 'Rural and regional'. For more information, see the technical supplement.

Figure 30 **Number of completed admitted patient episodes, mental health, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

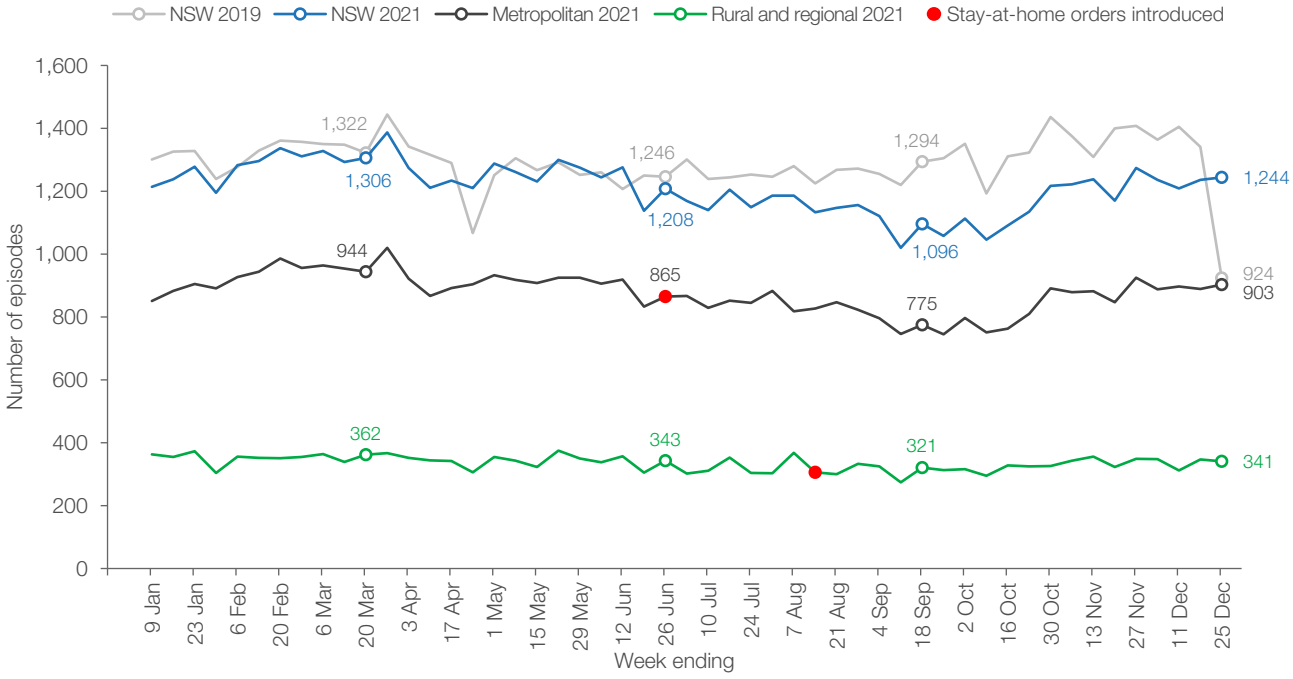
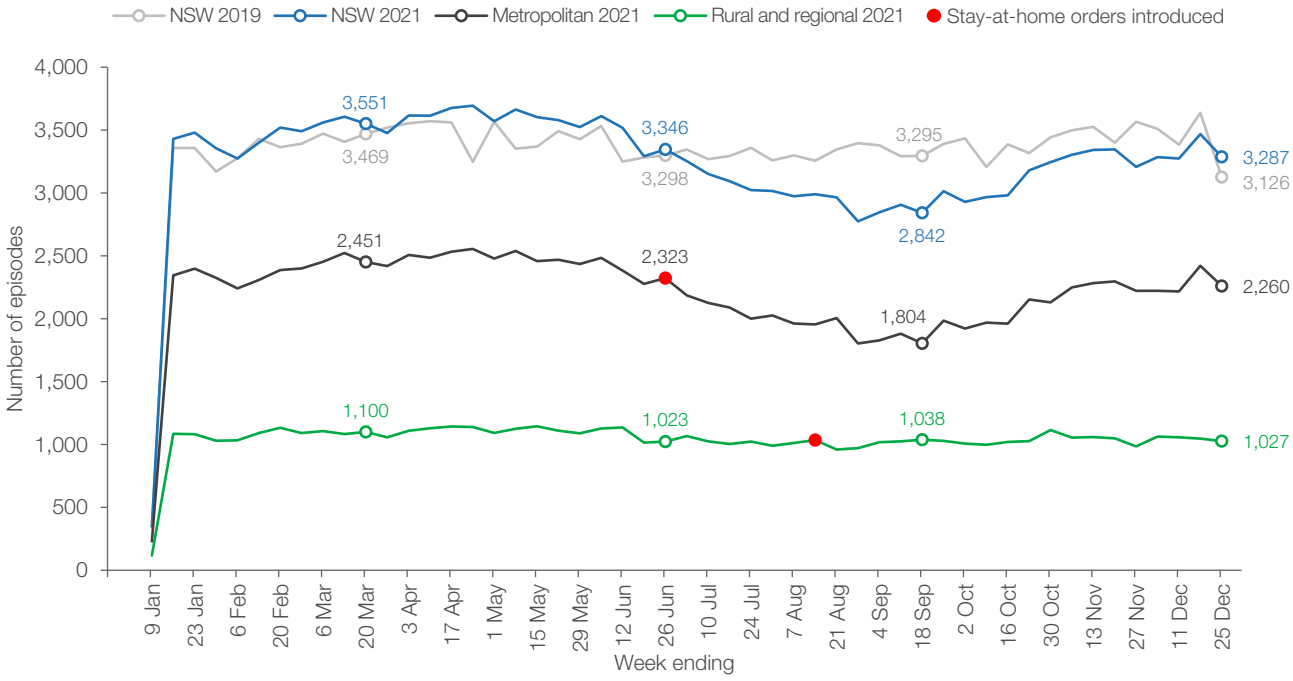


Figure 31 **Number of completed admitted patient episodes, injury, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: Typically, there are fewer admissions in weeks with public holidays including in January, April, June, October and December.

Elective surgery

Key findings

Elective surgery is planned and can be booked in advance. Following specialist clinical assessment, patients are placed on a waiting list and given a clinical priority – urgent, semi-urgent or non-urgent – depending on the maximum acceptable waiting time clinically recommended.

Number of elective surgeries was mostly higher than pre-pandemic levels until June, followed by sharp drop as Delta cases increased and non-urgent surgery was suspended in Sydney hospitals

Overall percentage of surgeries performed on time was lower than 2019 throughout year. Semi-urgent and non-urgent on-time performance was also down, particularly in metropolitan LHDs

Waiting list returned close to pre-pandemic levels by mid-2021, then increased again following non-urgent surgery suspension in Sydney hospitals

Number of patients who had waited longer than clinically recommended for surgery at the end of the year was significantly higher than 2019

In rural and regional LHDs, elective surgery numbers were stable, the waiting list decreased and on-time performance improved

In response to the Delta wave, all non-urgent elective surgery was suspended across Sydney hospitals on 2 August. In October, the suspension eased with all non-urgent elective surgery resuming. By 15 November, elective surgery returned to full capacity for patients in Sydney public hospitals (see page 9–10 for further details).

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Elective surgery – from pre-pandemic 2019 to 2021

Waiting list increases in second half of 2021 but remans below 2020 peak

Throughout 2020 and 2021, the pandemic had major impacts on elective surgery activity and waiting lists, particularly as a result of suspensions of some services at different times. Looking at those years in comparison with pre-pandemic 2019 reveals the effect of hospitals' efforts to increase capacity following major outbreaks and suspensions (Figures 33, 34).

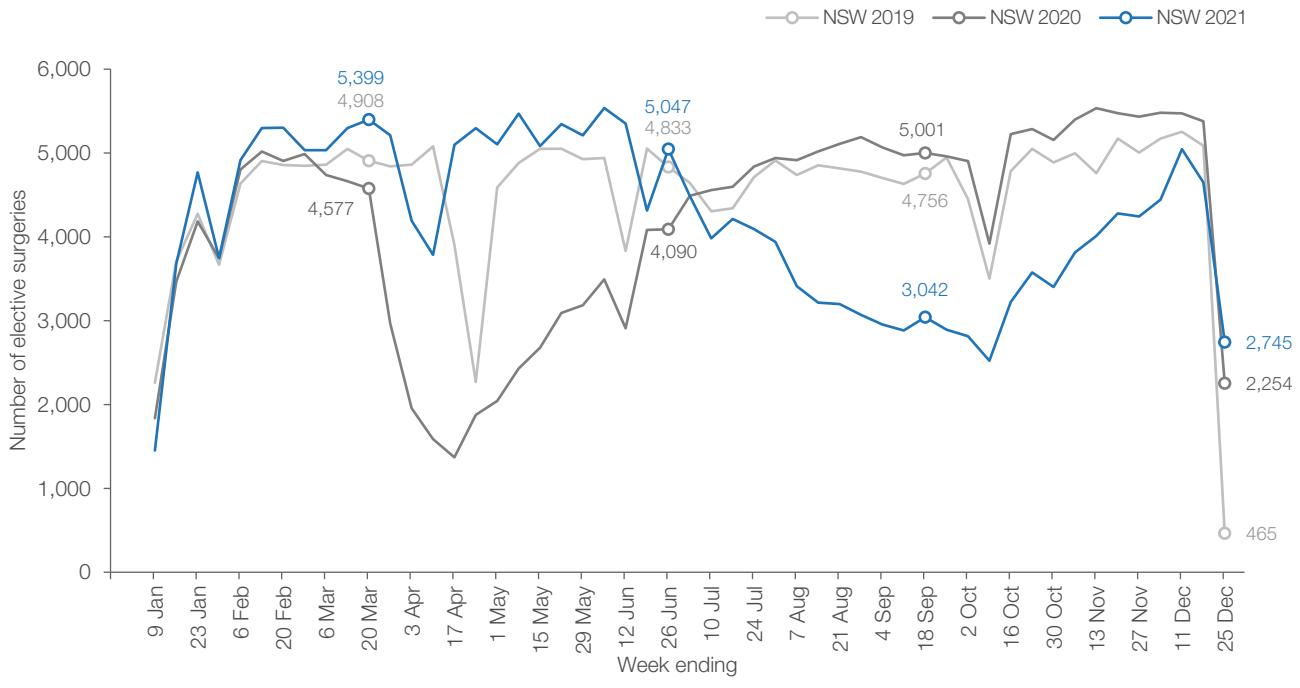
The number of elective surgeries performed decreased significantly in March and April 2020, with the national suspension of non-urgent and some semi-urgent surgery, before gradually returning to levels on par with 2019 by July 2020. There was another sharp decrease in June 2021 with the suspension of non-urgent surgery in Sydney hospitals before numbers steadily rose again upon resumption in October 2021 (Figure 32).

The number of patients on the waiting list at the end of the month was at its highest point (101,024) during the first suspension in June 2020, before steadily decreasing through to June 2021 (85,296). This increased again until October 2021, before ending the year at 94,807 (Figure 33).

In 2020 and 2021, the number of patients who had waited longer than clinically recommended for elective surgery rose well above 2019 levels. This increased sharply from March to June 2020, before gradually decreasing until June 2021. With the suspension of non-urgent surgery during the Delta wave, it increased sharply again, reaching its highest point in December 2021, with 10,770 patients who had waited longer than recommended, above the previous peak of 10,563 in June 2020 (Figure 34).

For each urgency category there are clinically recommended maximum waiting times within which elective surgeries should be performed: 30 days for urgent surgery, 90 days for semi-urgent surgery, and 365 days for non-urgent surgery.

Figure 32 **Elective surgeries performed, NSW, January to December 2021, 2020 and 2019**



Note: Typically, fewer procedures are performed in weeks with public holidays including in January, April, June, October and December.

Figure 33 **Patients on the waiting list ready for surgery at the end of the month, NSW, January to December 2021, 2020 and 2019**

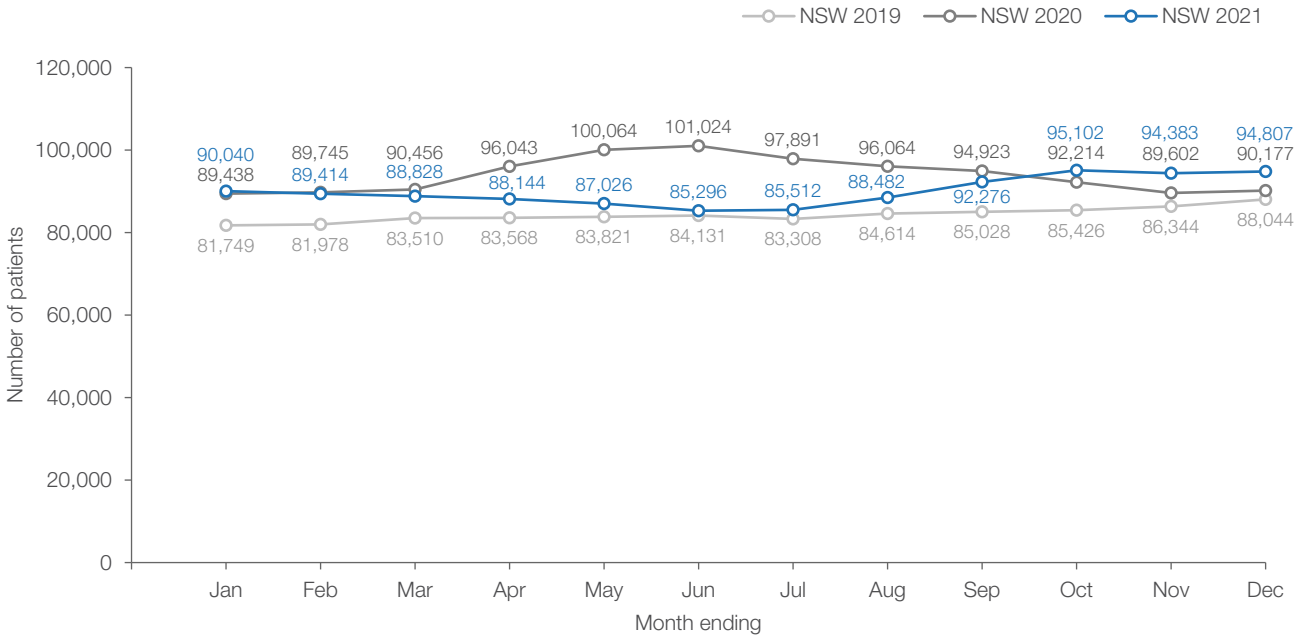
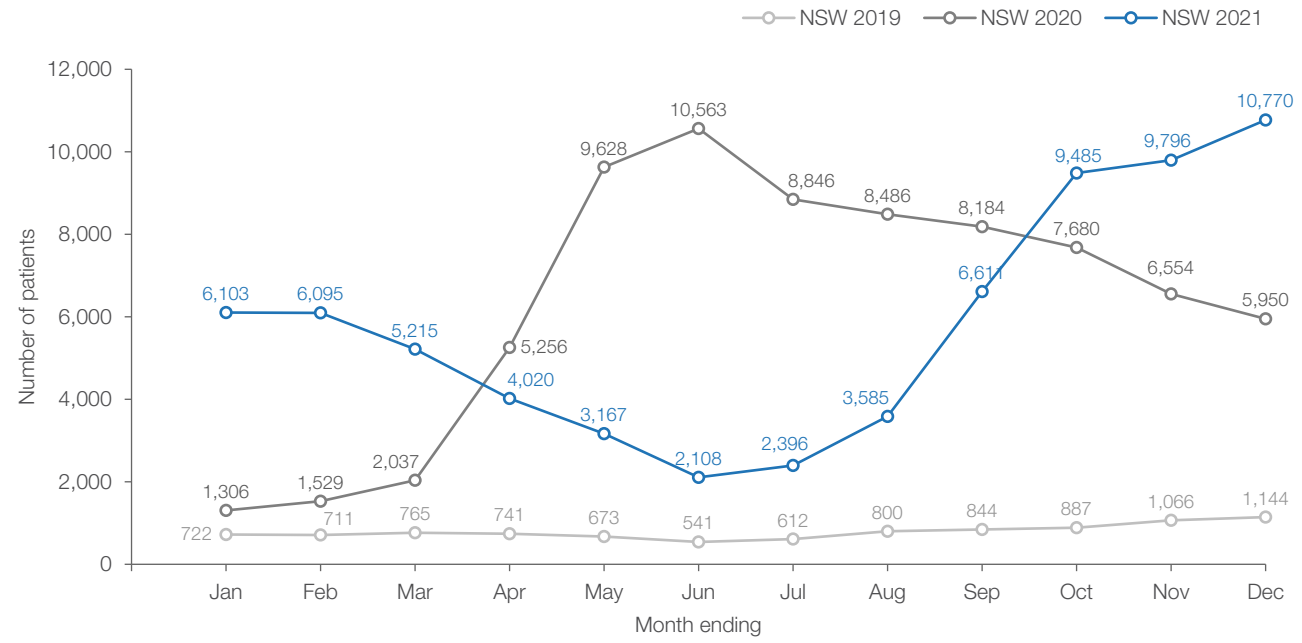


Figure 34 **Patients on the waiting list ready for surgery at the end of the month who had waited longer than clinically recommended, NSW, January to December 2021, 2020 and 2019**



Elective surgery

Elective surgery activity recovered by end of year following non-urgent suspension

In 2021, there were 214,351 elective surgeries performed, 18,039 (7.8%) fewer than in 2019 (data not shown). During the first half of 2021, the weekly number of elective surgeries was mostly higher than the same period in 2019 as the system focused on reducing waiting lists that had increased during 2020 (Figure 35).

Elective surgery activity decreased when the Delta variant emerged in June – particularly in metropolitan LHDs as positive COVID-19 cases continued to rise. Following the suspension of non-urgent surgery in Sydney public hospitals from 2 August, and in private hospitals from 23 August, this decrease continued, reaching a low of 2,523 elective surgeries in the week ending 9 October. Elective surgery activity remained relatively unaffected in rural and regional LHDs during this period (Figure 35).

From 5 October, non-urgent elective day surgery recommenced at private facilities in Sydney, and from 25 October, all elective surgery resumed across Sydney. The weekly number of elective surgeries increased markedly from early October to early December in metropolitan LHDs.

At the beginning of the year, 80.1% of elective surgeries were performed on time, compared with 96.8% at the same time in 2019. The percentage of elective surgeries performed on time increased steadily to 94% by the week ending 17 July (Figure 36).

Following a further suspension of non-urgent surgeries in Sydney hospitals in August, the percentage of elective surgeries performed on time decreased steadily until late November and reached a low of 79.4%, before slowly increasing in December (Figure 36).

The percentage of elective surgeries performed on time increased throughout the year in rural and regional LHDs.

Importantly, urgent surgery continued throughout the year, with more than 99% of all urgent surgeries in 2021 performed on time each month (data not shown).

Interpreting elective surgery performance

The suspension of non-urgent and some semi-urgent elective surgery at different stages of the pandemic affected activity, on-time performance and waiting lists during 2020 and 2021. It is important to recognise the ways in which these measures interact during and after suspensions.

As fewer patients receive their surgery during a suspension, the number of patients on the list waiting longer than clinically recommended will rise. When surgery resumes, and as priority is given to those patients who have waited the longest, the percentage of elective surgeries performed on time is likely to drop notably. This is because the percentage of elective surgeries performed on time is recorded when patients receive their surgery.

As capacity increases and the volume of patients waiting longer than recommended begins to decrease, on-time performance should begin to recover.

Figure 35 **Elective surgeries performed, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

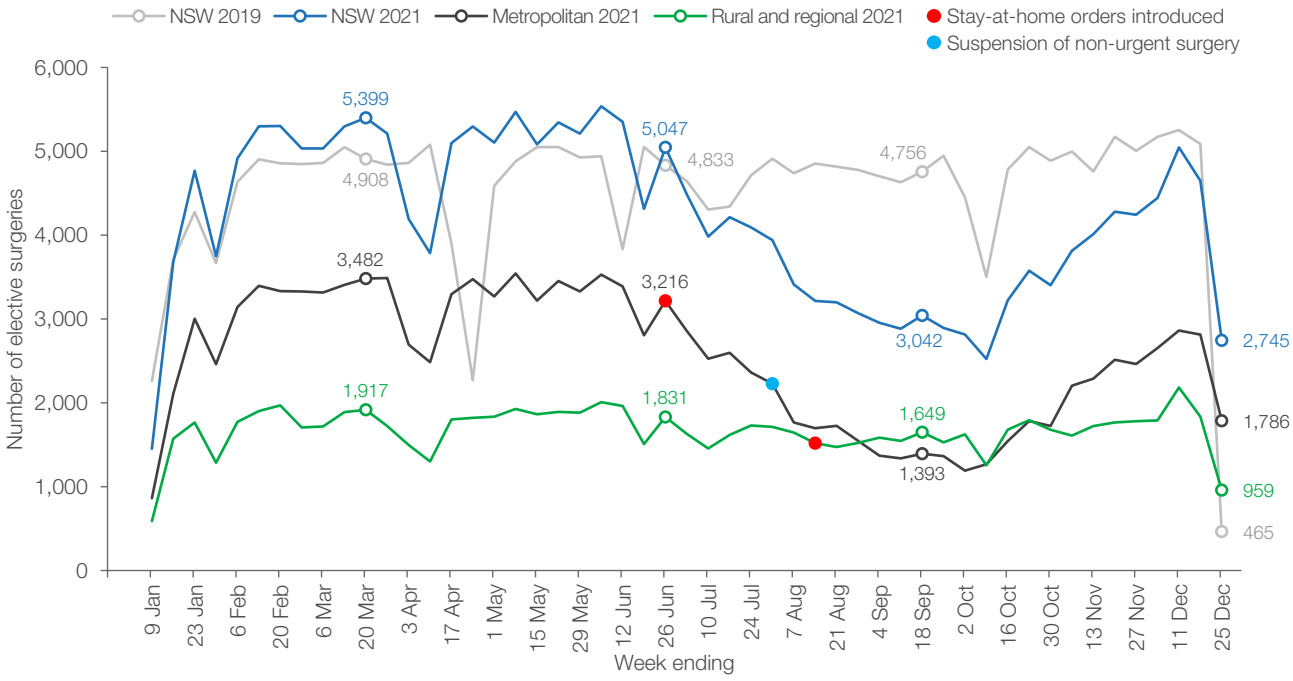
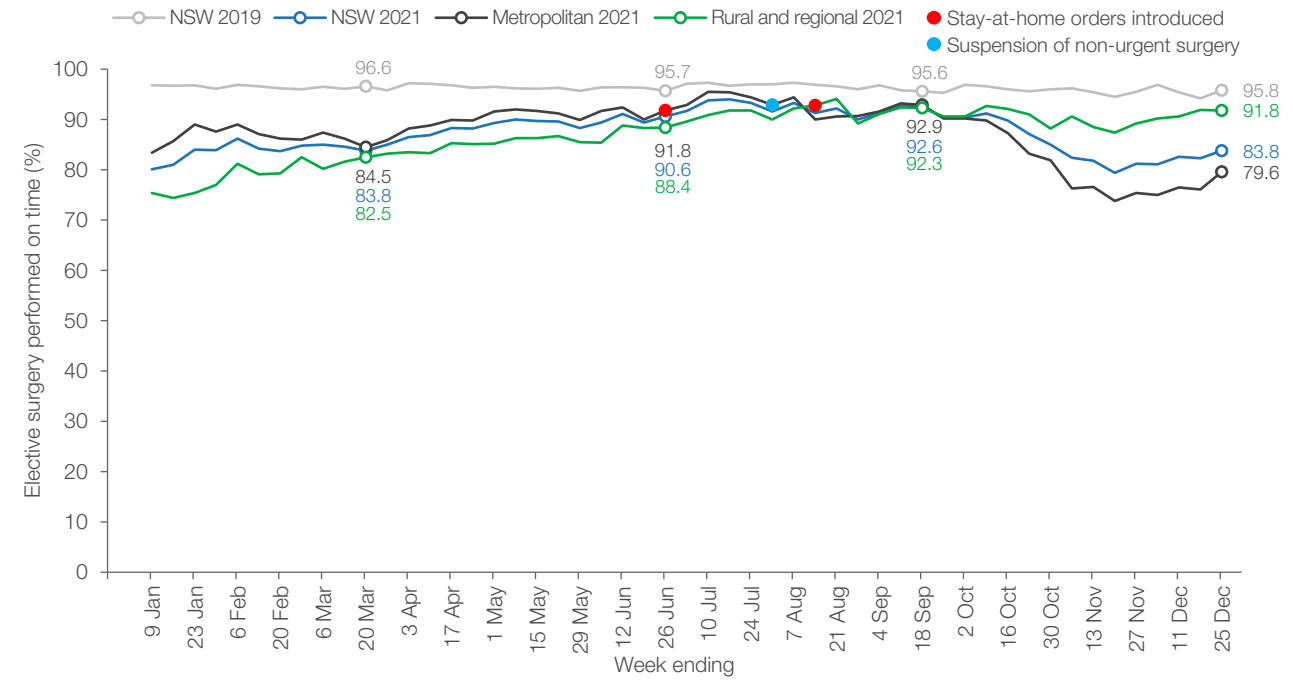


Figure 36 **Percentage of elective surgeries performed on time, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: Typically, fewer surgeries are performed in weeks with public holidays including in January, April, June, October and December.

Based on NSW Health's classification of local health districts (LHDs), 'Metropolitan' encompasses Greater Sydney LHDs, including Nepean Blue Mountains, Central Coast and Illawarra Shoalhaven. The remaining LHDs are classified as 'Rural and regional'. The suspension of non-urgent surgery was for Greater Sydney, excluding the Central Coast and Illawarra Shoalhaven LHDs. For more information, see the technical supplement.

Semi-urgent elective surgery

Semi-urgent surgical activity and on-time performance in metropolitan LHDs impacted by Delta wave and suspension

In 2021, there were 72,202 semi-urgent elective surgeries performed, 2,225 (3.0%) fewer than in 2019 (data not shown). The suspension of elective surgery in August also affected some semi-urgent surgeries.

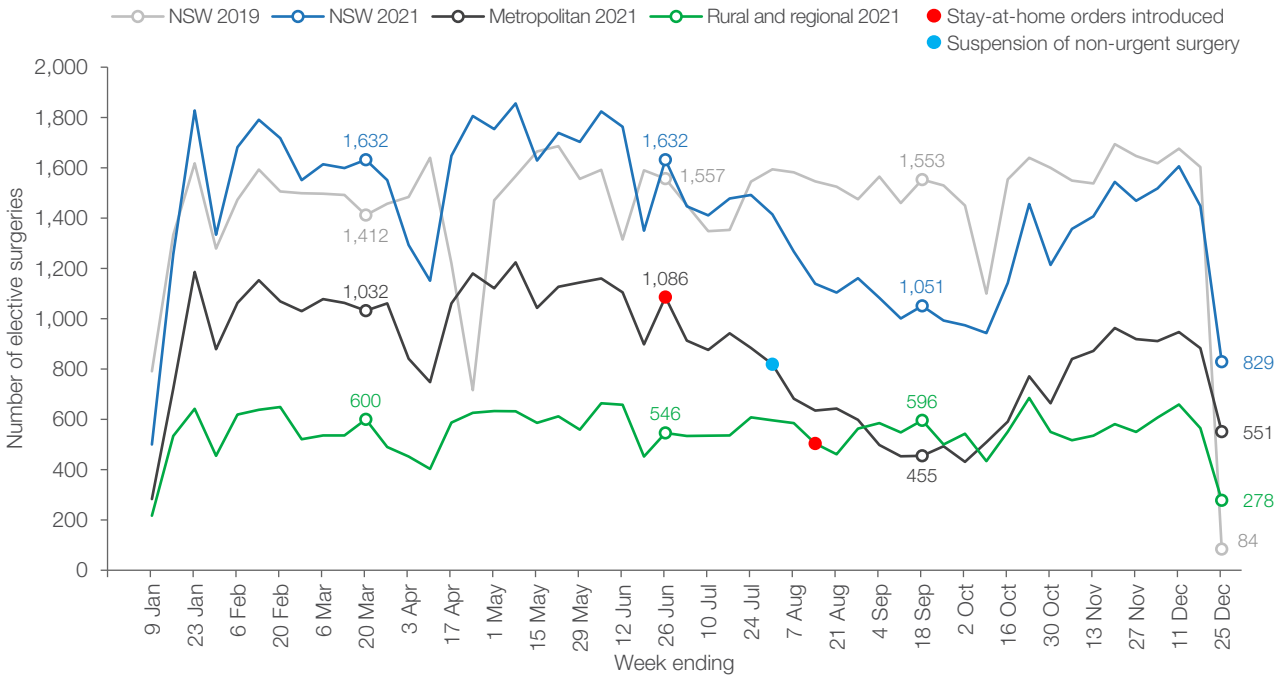
For the first half of 2021, the weekly number of semi-urgent elective surgeries was higher than the same period in 2019 (Figure 37).

From late June to early October, during the Delta wave, there was a steady decrease in the number of semi-urgent surgeries, reaching a low during this period of 943 surgeries in the week ending 9 October. This decrease was concentrated in metropolitan LHDs. From mid-October, when the suspension of services started easing in Sydney, the number of semi-urgent surgeries steadily increased until mid-December 2021. Semi-urgent activity remained relatively unaffected in rural and regional LHDs throughout 2021 (Figure 37).

For the first half of the year, there was gradual improvement in the percentage of semi-urgent surgeries performed on time before it began to decrease in August. This pattern was mostly apparent in metropolitan LHDs, where on-time performance decreased to 62.4% in late November before increasing until the end of the year. The percentage of elective surgeries performed on time increased gradually throughout the year in rural and regional LHDs (Figure 38).

The median waiting time increased from August onwards before starting to decrease at the end of 2021. This pattern was driven by activity in metropolitan LHDs, while median waiting time decreased throughout the year in rural and regional LHDs (Figure 39).

Figure 37 **Semi-urgent elective surgeries performed, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: Typically, fewer procedures are performed in weeks with public holidays including in January, April, June, October and December.

Figure 38 **Percentage of semi-urgent elective surgeries performed on time, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

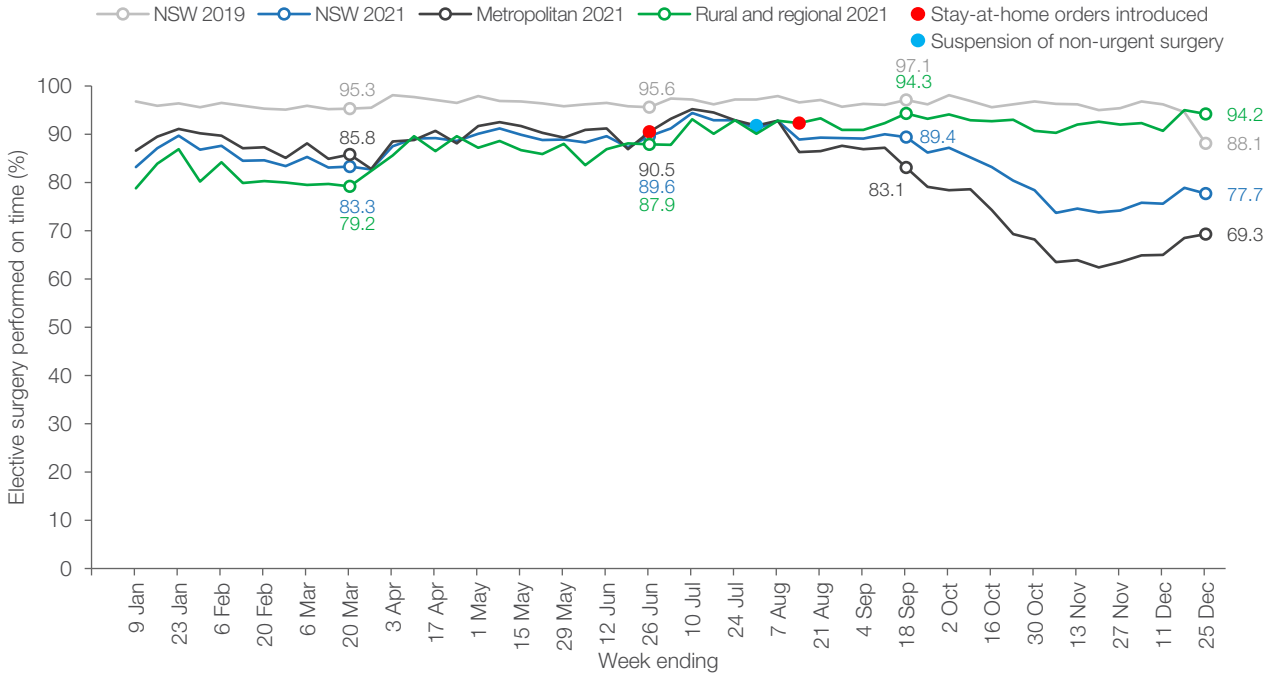
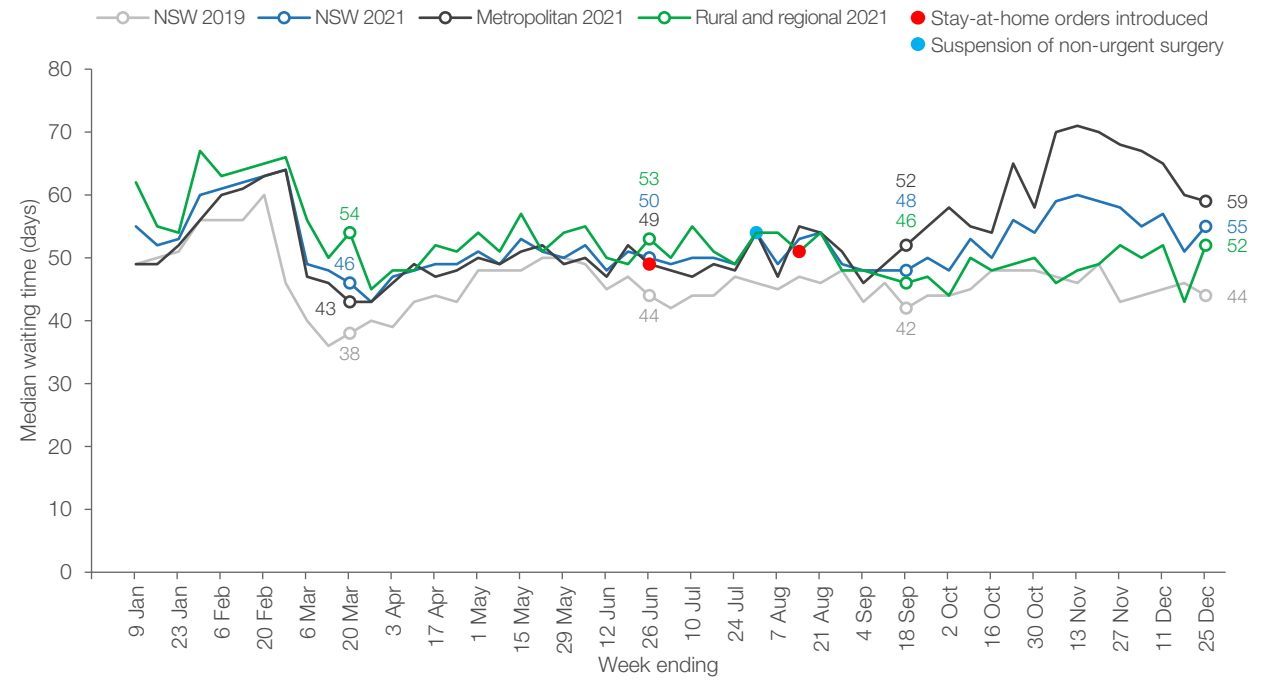


Figure 39 **Median waiting time for semi-urgent elective surgery, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: Based on NSW Health's classification of local health districts (LHDs), 'Metropolitan' encompasses Greater Sydney LHDs, including Nepean Blue Mountains, Central Coast and Illawarra Shoalhaven. The remaining LHDs are classified as 'Rural and regional'. The suspension of non-urgent surgery was for Greater Sydney, excluding the Central Coast and Illawarra Shoalhaven LHDs. For more information, see the technical supplement.

Non-urgent elective surgery

Non-urgent surgical activity and on-time performance in metropolitan LHDs significantly impacted by Delta wave and suspension

In 2021, there were 81,852 non-urgent elective surgeries performed, 14,674 (15.2%) fewer than in 2019 (data not shown).

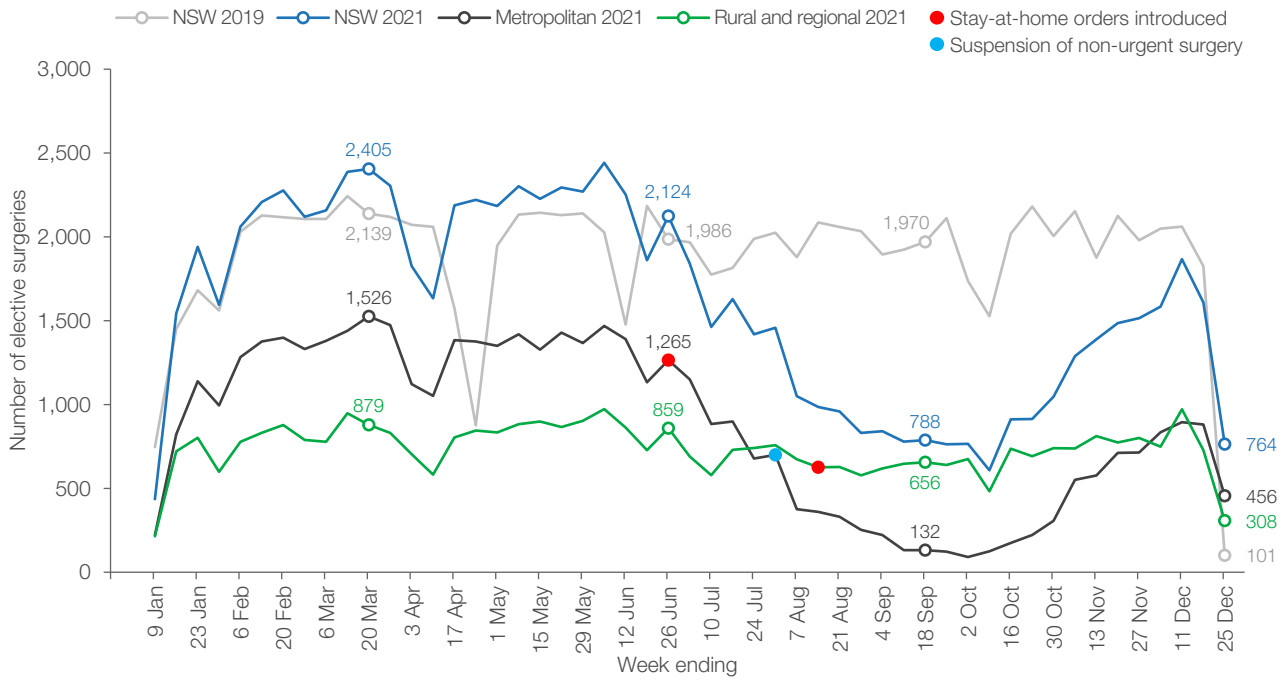
For first half of the year, the number of non-urgent elective surgeries was higher than 2019 levels. With the emergence in June of the Delta variant and subsequent suspension of non-urgent surgery, there was a sharp decrease in non-urgent elective surgeries performed. This decrease was largely concentrated in metropolitan LHDs (Figure 40).

With the easing of the suspension in Sydney in early October, the number of non-urgent elective surgeries increased sharply until mid-December.

In the first half of 2021, there was a gradual improvement in the percentage of non-urgent surgeries performed on time. A decrease, concentrated in metropolitan LHDs, followed the suspension of non-urgent surgery in Sydney hospitals in August. In rural and regional LHDs, on-time performance increased gradually throughout the year (Figure 41).

The median waiting time for patients who received semi-urgent surgery followed an inverse pattern, decreasing until mid-2021 before trending upwards in the second half of the year. Median waiting time decreased throughout the year in rural and regional LHDs (Figure 42).

Figure 40 **Non-urgent elective surgeries performed, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



Note: Typically, fewer surgeries are performed in weeks with public holidays including in January, April, June, October and December.

Figure 41 **Percentage of non-urgent elective surgeries performed on time, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

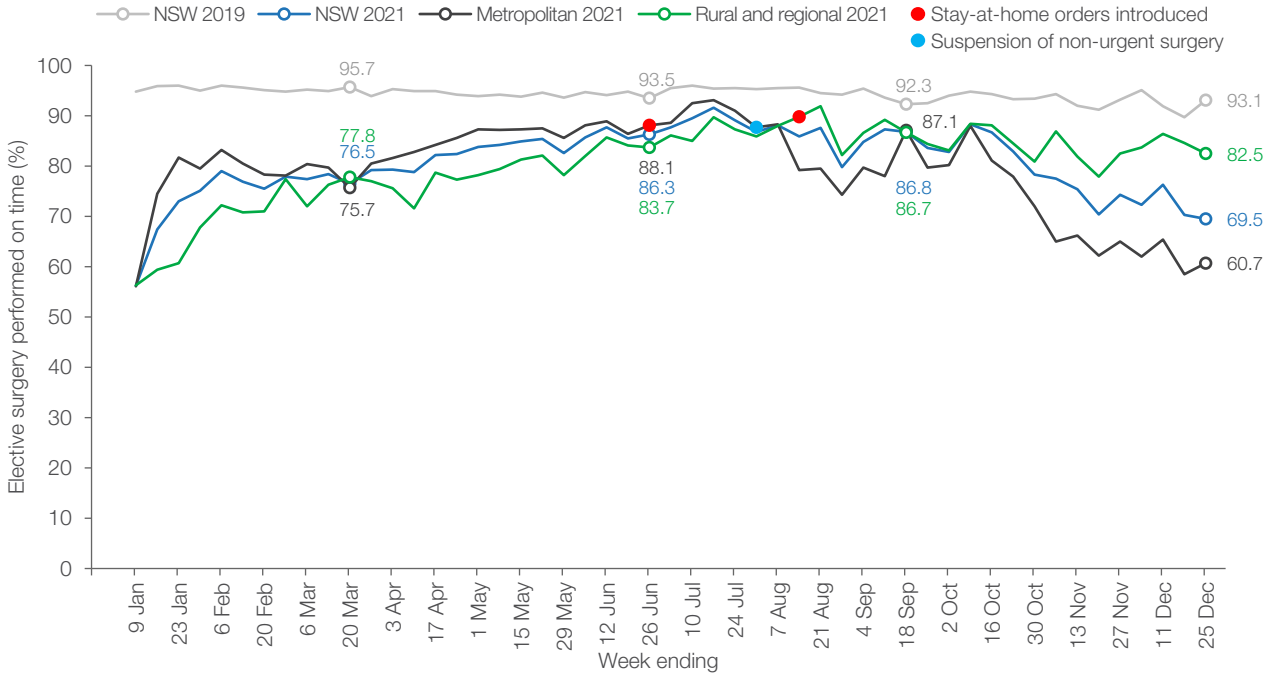
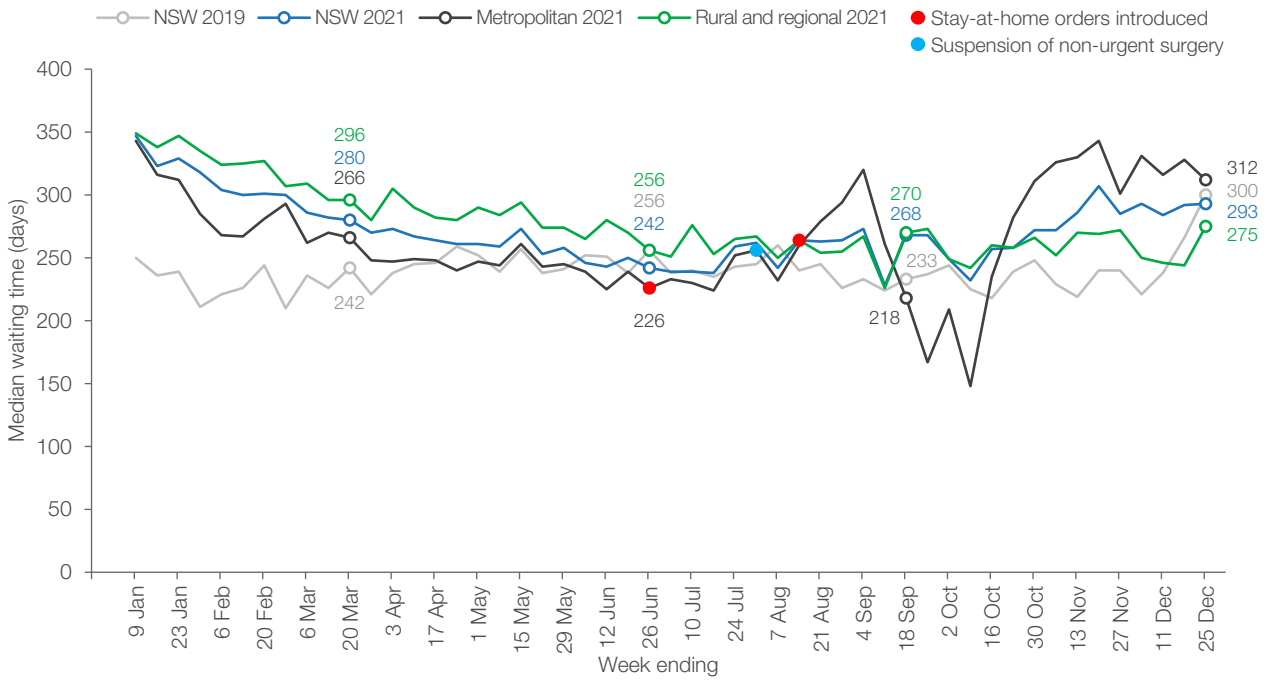


Figure 42 **Median waiting time for non-urgent elective surgery, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**



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Elective surgery waiting lists

Patients who waited longer than clinically recommend for surgery at end of the year were mostly in metropolitan hospitals

The number of patients on the elective surgery waiting list, and those who had waited longer than clinically recommended, was higher in each month in 2021 when compared with 2019 (Figures 43, 44).

At the start of 2021, there were 90,040 patients on the waiting list, 8,291 more than the same time in 2019. By June 2021, the number of patients on the waiting list had returned close to 2019 levels. Following the suspension in August, the list grew to 94,807 by the end of December 2021, though this increase was mostly concentrated in metropolitan LHDs. The number of patients on the waiting list steadily decreased in rural and regional LHDs, from 35,508 in January 2021 to 31,740 in December 2021 (Figure 43).

At the end of January 2021, there were 6,103 patients who had waited longer than clinically recommended for elective surgery – this steadily decreased across NSW until June 2021. In metropolitan LHDs, the number of patients who had waited longer than recommended then increased dramatically until the end of December. However, in rural and regional LHDs, it continued to decrease throughout the year. At the end of December, there were 10,770 patients who had waited longer than recommended, and 9,309 of these patients were in metropolitan LHDs (Figure 44).

Throughout 2021, to increase elective surgery capacity, the partnership with the private hospital sector – which began in 2020 – continued under the National Partnership Agreement on Private Hospitals and COVID-19. A total of 16,775 elective surgeries were contracted to NSW private hospitals under the agreement in 2021 – 7.8% of all elective surgeries provided to public patients in NSW (data not shown).

The elective surgery waiting list is dynamic, driven by the number of patients added to the list and the number of patients who receive their surgery or otherwise leave the list. Information about the number of patients waiting for surgery is a snapshot of the list on a single day.

At the end of December 2021

10,770

patients on the waiting list had waited longer than clinically recommended

Figure 43 **Number of patients on the waiting list at end of month, NSW, metropolitan, and rural and regional local health districts, January to December 2021 and 2019**

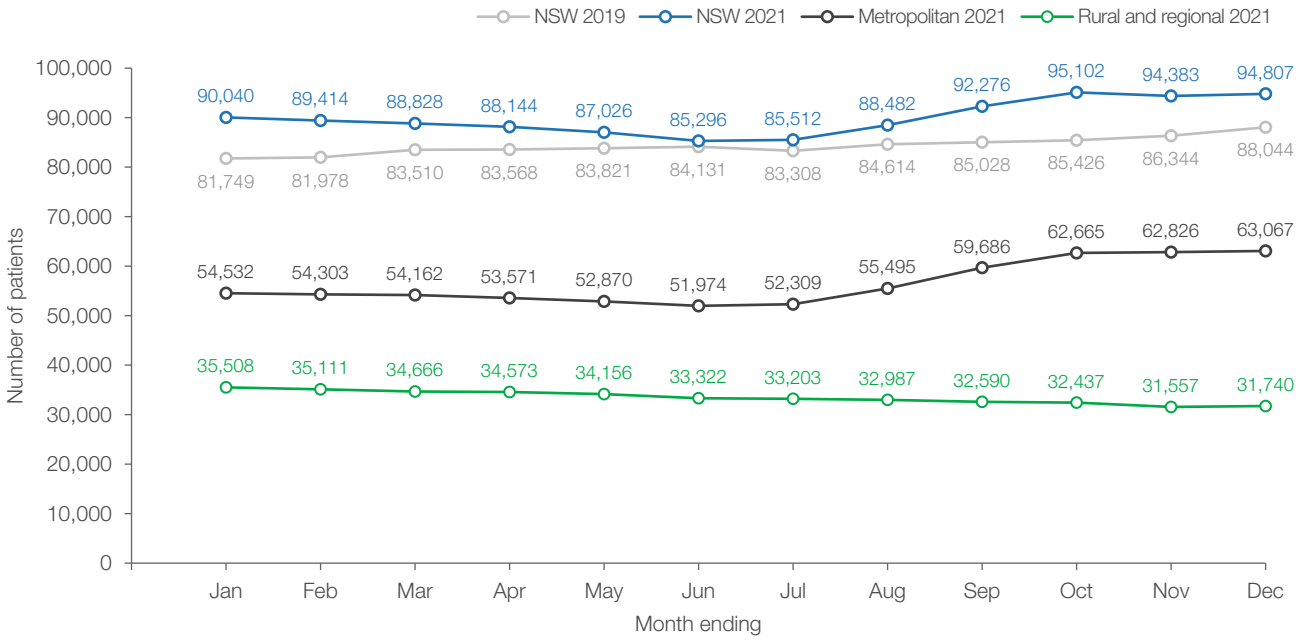
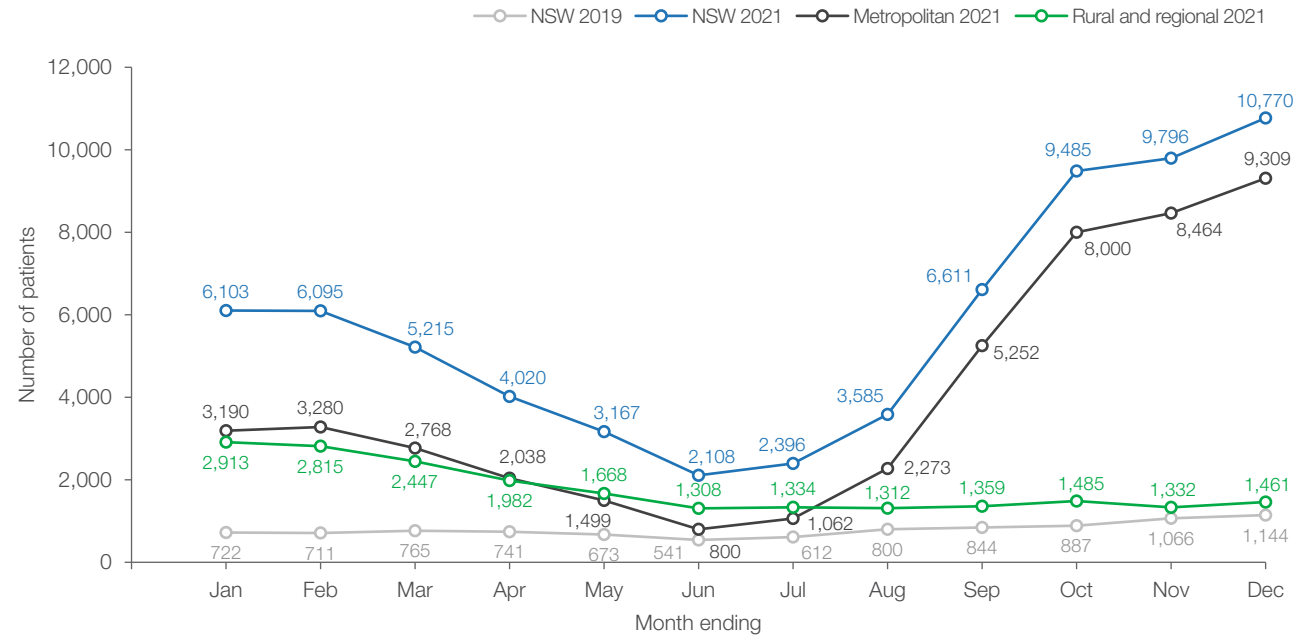


Figure 44 **Number of patients on the waiting list at end of month who had waited longer than clinically recommended, NSW, metropolitan, and rural and regional LHDs, January to December 2021 and 2019**



Note: Based on NSW Health's classification of local health districts (LHDs), 'Metropolitan' encompasses Greater Sydney LHDs, including Nepean Blue Mountains, Central Coast and Illawarra Shoalhaven. The remaining LHDs are classified as 'Rural and regional'. The suspension of non-urgent surgery was for Greater Sydney, excluding the Central Coast and Illawarra Shoalhaven LHDs. For more information, see the technical supplement.

References and acknowledgements

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3. Bureau of Health Information. Patients' experiences of virtual care from NSW public hospitals, Results from the 2020 outpatient survey. Sydney (NSW); BHI; 2021.

Acknowledgements

The Bureau of Health Information (BHI) is the main source of information for the people of NSW about the performance of their public healthcare system.

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BHI is led by Chief Executive Dr Diane Watson and overseen by an independent board chaired by Professor Carol Pollock.

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BHI acknowledges and respects the Aboriginal people as the traditional custodians of the lands and waters of NSW and pays respect to Elders past, present and emerging.

About the Bureau of Health Information

The Bureau of Health Information (BHI) is a board-governed organisation that provides independent information about the performance of the NSW healthcare system.

BHI was established in 2009 and supports the accountability of the healthcare system by providing regular and detailed information to the community, government and healthcare professionals. This in turn supports quality improvement by highlighting how well the healthcare system is functioning and where there are opportunities to improve.

BHI manages the NSW Patient Survey Program, gathering information from patients about their experiences and outcomes of care in public hospitals and other healthcare facilities.

BHI publishes a range of reports and information products, including interactive tools, that provide objective, accurate and meaningful information about how the health system is performing.

BHI's work relies on the efforts of a wide range of healthcare, data and policy experts. All of our assessment efforts leverage the work of hospital coders, analysts, technicians and healthcare providers who gather, codify and supply data. Our public reporting of performance information is enabled and enhanced by the infrastructure, expertise and stewardship provided by colleagues from NSW Health and its pillar organisations.

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