

Year in Review

2019–20





BUREAU OF HEALTH INFORMATION

1 Reserve Road
St Leonards NSW 2065
Australia
Telephone: +61 2 9464 4444
Email: BHI-enq@health.nsw.gov.au

bhi.nsw.gov.au

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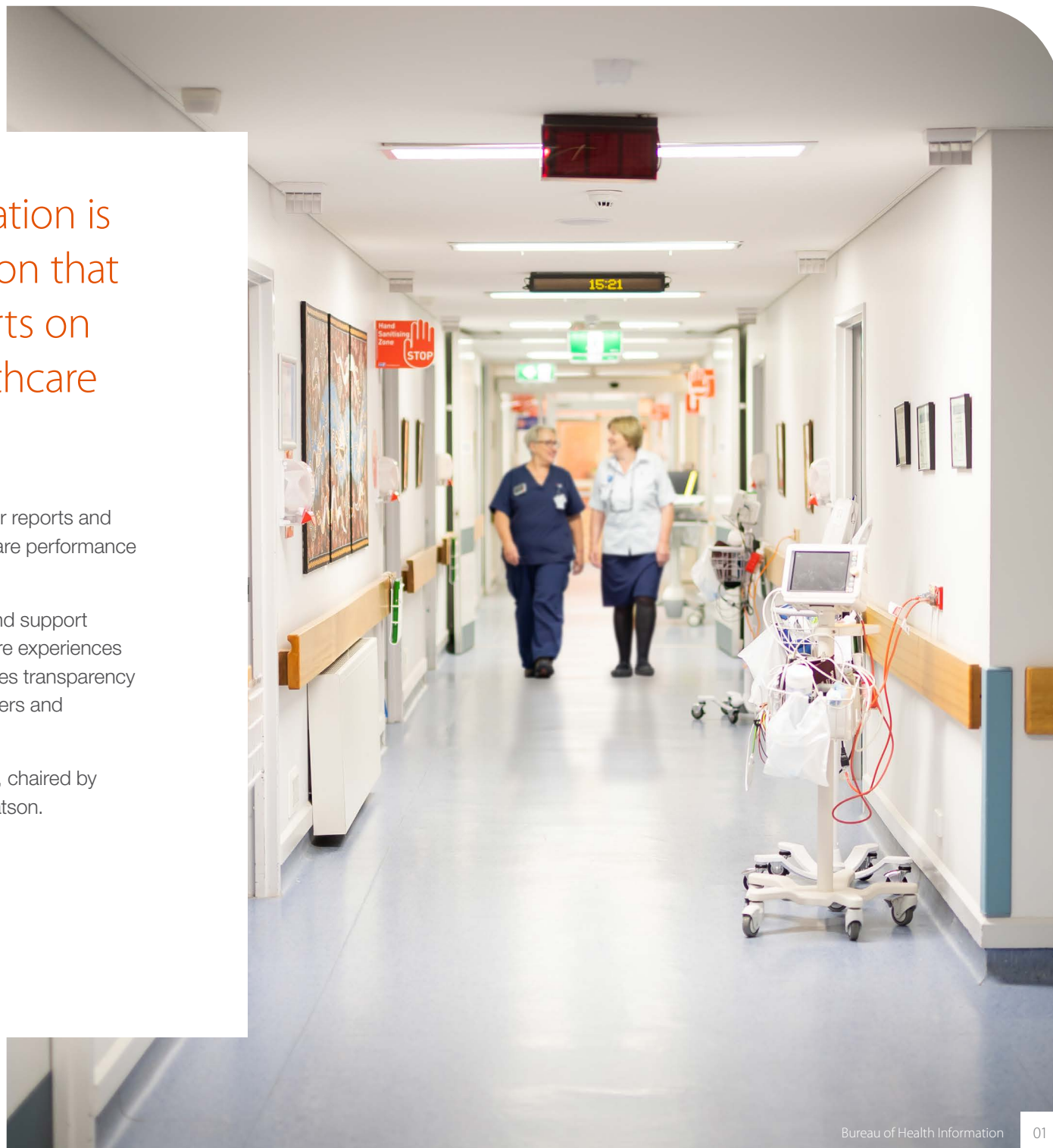
The Bureau of Health Information is a board-governed organisation that produces independent reports on the performance of the healthcare system in NSW.

Using advanced data analytics and visualisation, we deliver reports and information products that describe key aspects of healthcare performance for a range of consumer, healthcare and policy audiences.

We provide this information to strengthen accountability and support system-wide and local improvements in patients' healthcare experiences and outcomes. Public reporting of this information enhances transparency and understanding of healthcare performance for consumers and local communities.

The Bureau of Health Information (BHI) is led by the Board, chaired by Professor Carol Pollock, and Chief Executive, Dr Diane Watson.

Trusted information.
Informed decisions.
Improved healthcare.



From the Chair



Professor Carol Pollock
Board Chair

In extraordinary times for the NSW public healthcare system, BHI reinforced its value as an independent and trusted provider of healthcare performance information.

The COVID-19 pandemic, devastating bushfires and unprecedented shifts in emergency department activity were just some of the events that made 2019–20 a year like no other.

The healthcare system responded rapidly to help ensure it was best serving the people of NSW, and BHI was no exception.

BHI proved its ability to adapt to quickly changing circumstances. This was apparent in many ways but none more so than the exceptional and tailored reporting on the effect of the COVID-19 pandemic on public hospital and ambulance activity in *Healthcare Quarterly*.

We also recognised the importance of hearing from patients about their experiences of care during the pandemic, and continued to collect data via the NSW Patient Survey Program.

During 2019–20, BHI redoubled its efforts to engage with stakeholders, helping ensure the information we publish is providing maximum value to healthcare professionals and for patients. The benefits of this ongoing engagement push will continue to be seen in coming years.

I would like to thank our Chief Executive, Dr Diane Watson, and her executive team for their leadership of BHI's highly skilled staff.

I also acknowledge my fellow Board members. Their valuable advice and input have underpinned BHI's successes.

From the Chief Executive



Dr Diane Watson
Chief Executive

As we marked our 10th anniversary, BHI continued to expand and enhance its ability to report healthcare information that is meaningful to the healthcare system and the NSW public.

In 2019–20, BHI publicly released 14 reports while delivering a number of important developments that bolstered our reporting.

We published a special *Healthcare Quarterly*, *COVID-19 Supplement*, providing additional information on health system activity at NSW level during March 2020, when COVID-19 cases peaked. We also introduced routine quarterly reporting of seclusion and restraint practices in NSW public hospitals.

For the first time, BHI's annual *Healthcare in Focus* report looked at the performance of the NSW health system through a specific lens – the use and experiences of health services by people with lived experience of mental health issues. We are proud to use our unique position and expertise to support a growing public interest in mental health services.

We continued to ask thousands of people about their experiences of care through the NSW Patient Survey Program and published four sets of patient survey results. As part of the program, and in collaboration

with the Centre for Aboriginal Health, BHI is expanding efforts to learn from Aboriginal people about their experiences of care.

BHI also published two reports on three-year studies of patient mortality, and readmission and returns to acute care, in NSW public hospitals.

I am so grateful for the flexibility, initiative and expertise of our staff. In the face of these challenging times, they were able to transition to new work practices, including increased working from home and a new building, with no effect on their productivity or quality of work.

A number of staff also actively supported NSW Health with the response to the COVID-19 pandemic alongside our colleagues from across the system, providing analytic, operational and communications support.

I would like to acknowledge and thank all of our dedicated BHI staff, and our Board for their support and contribution during the year.

NSW Patient Survey Program

We heard from more than 87,000 people about their experiences of care in the NSW healthcare system in 2019–20.

This feedback is a rich source of information on patient experience. BHI publicly reports survey results to strengthen accountability and support system-wide and local improvement in patients' healthcare experiences and outcomes.

In 2019–20, BHI published four sets of patient survey results. These results were presented in information products ranging from Snapshot reports to full, detailed results on BHI's interactive data portal, Healthcare Observer.

Throughout the year, we asked people about their experiences of care via questionnaires covering a range of care settings. These included adults admitted to hospital, people who visited emergency departments, women who recently gave birth and people attending outpatient cancer clinics.

BHI continued to reform the NSW Patient Survey Program to help ensure patients' voices drive improvements in experiences of care.

In recognition of the importance of hearing from patients about their experiences of care during the COVID-19 pandemic, BHI continued to collect data via the survey program. We closely monitored both response rates and patient feedback.

In a key development for our patient surveys, BHI introduced new methods for standardising hospital results to ensure they take into consideration key differences in patient populations such as age, gender and language spoken at home. These enhanced methods are part of BHI's efforts to continuously improve analytic methods and ensure our reports are as meaningful, useful and fair as possible.

BHI also undertook targeted collections of patient-reported measures for people with longstanding health conditions to support monitoring and evaluation of the NSW Health Integrated Care program. In addition, we provided patient survey data for nine high-priority Leading Better Value Care clinical cohorts.

Survey results published in 2019–20



Adult Admitted
Patient Survey 2018



Outpatient Cancer
Clinics Survey 2018



Admitted Children
and Young Patients
Survey 2018



Aboriginal people's
experiences of
hospital care

Aboriginal patient experience

BHI is expanding efforts to learn from Aboriginal people about their experiences in public hospitals, as part of our NSW Patient Survey Program.

To facilitate this, in 2019–20 BHI began a program, working closely with the NSW Ministry of Health's Centre for Aboriginal Health (CAH), which features a number of initiatives to help inform improvements to healthcare for Aboriginal people in NSW. The three-year collaboration – known as the Aboriginal Patient Experience Survey Program and guided by an expert advisory committee – will see more Aboriginal patients asked about their experiences of care in NSW hospitals than ever before.

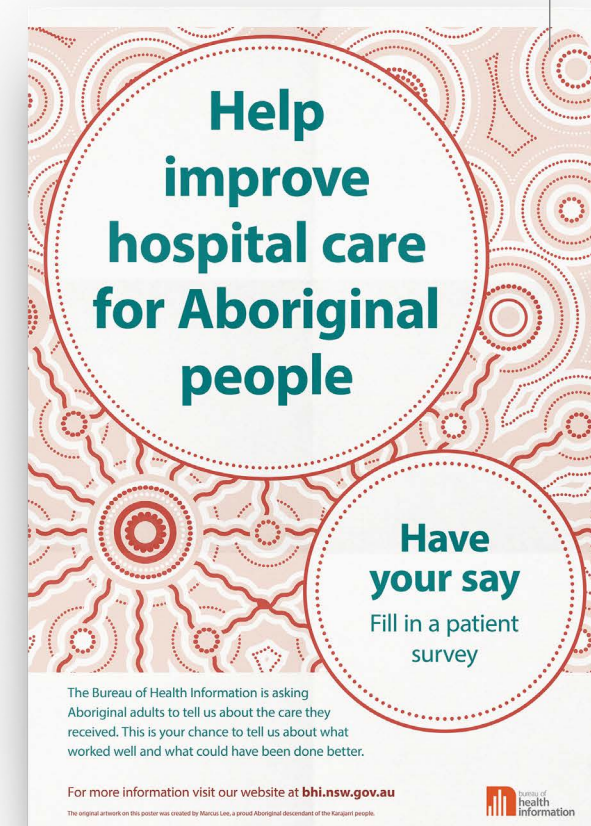
BHI published a Snapshot report, *Aboriginal people's experiences of hospital care*, in July 2019. The report highlights key statewide findings for Aboriginal people who shared their experiences of care in the Emergency Department Patient Survey 2017–18 and the Adult Admitted Patient Survey 2017.

Patient experience feedback from more Aboriginal people than ever before will give healthcare professionals important information they can use to help improve care.

Throughout 2019, and for the first time, every adult patient who identified as Aboriginal was invited to provide feedback on their admitted patient or maternity care experience via the Adult Admitted Patient and Maternity Care surveys. The results of these surveys, which will provide valuable information about what healthcare professionals are doing well and where they can improve care to better meet the needs of Aboriginal people, will be available in late 2020. A report containing in-depth analyses and insights will be published in 2021.

With the guidance and input of Aboriginal people, BHI has also developed the Aboriginal Patient Experience Question Set as part of the program. Featuring questions identified to be of high relevance to Aboriginal patients, the Aboriginal community and stakeholders, the question set – which may be used within NSW Health – will better support survey data collection for Aboriginal patients.

Promotional poster



Snapshots

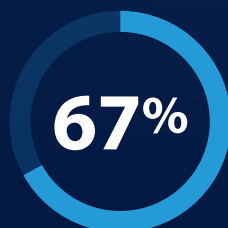
Four Snapshot reports highlighting key patient survey findings for selected questions at NSW level were published in 2019–20. More detailed results at hospital, local health district and NSW levels are available in BHI's interactive data portal, Healthcare Observer.



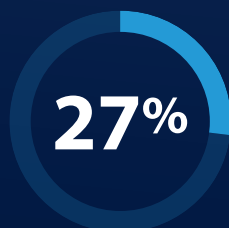
Adult Admitted Patient Survey 2018

More than 17,000 people told us about their experiences of care in NSW public hospitals in 2018

Overall, patients rated their care in public hospitals as



'very good'



'good'



Outpatient Cancer Clinics Survey 2018

More than 11,000 people told us about their experiences of care at NSW outpatient cancer clinics in 2018

Overall, patients rated their care at cancer facilities as



'very good'



'good'

Snapshots



Admitted Children and Young Patients Survey 2018

More than 3,000 children, young people and their parents told us about their experiences of care in the three specialist paediatric hospitals in NSW in 2018

Around eight in 10 respondents said they would 'speak highly' of the hospital experience if asked by friends and family



79%

John Hunter
Children's Hospital

84%

Sydney Children's
Hospital, Randwick

80%

The Children's Hospital
at Westmead



Aboriginal people's experiences of hospital care

More than 1,000 Aboriginal people told us about their experiences of care in emergency departments and as admitted patients in NSW public hospitals

Overall, care was rated as 'very good' or 'good' by

81%

of Aboriginal
patients in emergency
departments



89%

of Aboriginal
patients admitted
to hospital

Healthcare Quarterly

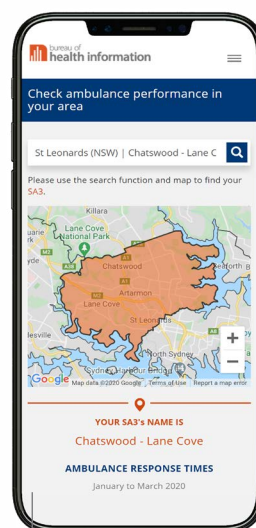
Healthcare Quarterly tracks activity and performance across public hospital and ambulance services in NSW.

BHI introduced a number of new developments in reporting throughout 2019–20 to enhance the value of the report series. These updates helped ensure *Healthcare Quarterly* continues to provide meaningful information about the performance of the NSW healthcare system to our stakeholders and the general public.

In line with the recommendations made in the 2017 *Review of seclusion, restraint and observation of consumers in NSW Health facilities*, the April to June 2019 issue of *Healthcare Quarterly* introduced quarterly reporting on seclusion and restraint in the 46 NSW public hospitals with specialised acute mental health inpatient units.

We also expanded reporting of five-year trends in emergency department (ED) activity to show how demands on the system have changed over time.

A range of reporting developments enhanced the value of *Healthcare Quarterly* including a special *COVID-19 Supplement* which provided additional information on hospital and ambulance activity during the height of the pandemic in NSW.



Ambulance reporting

Trend reporting

Emergency department attendances

Five-year trends in emergency department (ED) activity show how demands on the system and the supply of services have changed over time. The number of ED presentations can be influenced by factors such as outbreaks, weather events and population growth. Seasonal variation can also play a role when demand for services changes predictably through the year.

ED attendances for all hospitals increased from 645,531 in the January to March 2015 quarter to 764,659 in January to March 2020, up 18.3% (119,127) over five years. The January to March 2020 quarter had the highest number of ED attendances in January to March quarters over five years (Figure 1).

Excluding EDs that were added from the January to March 2017 quarter, ED attendances in a consistent hospital cohort increased from 645,531 in the January to March 2015 quarter to 759,935 in January to March 2020, up 14.6% over five years (Figure 1).

For the EDs in peer groups A and B, attendances increased from 454,808 in the January to March 2015 quarter to 554,520 in January to March 2020, up 22.1% over five years (Figure 1).

Hospitals EDs in NSW have progressively replaced historical information systems with more contemporary electronic record systems. BHI reports EDs which have an electronic records system in place and report ED data to the Emergency Department Data Collection (EDDC), representing more than 170 public hospitals in the most recent years.

In the January to March 2017 quarter, an additional 44 EDs were included in *Healthcare Quarterly*. These are small EDs that serve regional populations in NSW and account for a relatively small annual number of patient visits. BHI uses a consistent cohort of hospitals to ensure fair comparison of ED presentations over longer intervals.

The change in the number of hospitals can influence the NSW trends in ED activity. Further information on hospital inclusions is available in the technical supplement to *Healthcare Quarterly*, January to March 2020.

Figure 1 Emergency department attendances, January 2015 to March 2020



Emergency presentations by triage category

The vast majority of ED attendances are classified as 'emergency presentations'. The remaining ED attendances include non-emergency visits such as planned visits, pre-arranged admissions, some urgent visits and private referrals.

Reporting emergency presentations by triage category provides information on changes in the urgency of patients.

Across all triage categories, emergency presentations have increased over time. Triage category 4 had the highest number of emergency presentations.

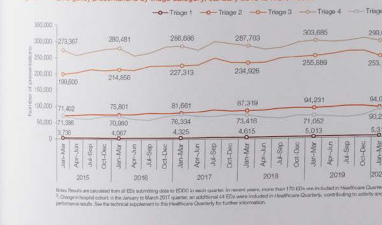
Triage 1 (less urgent) and triage 2 (emergency) had the largest percentage increases in presentations, up 42.2% (3,376) to 5,315, and 31.7% (22,650) to 94,092, respectively, over five years.

Triage 5 non-urgent saw the largest change in presentations, up 27.2% (19,719) compared with the same quarter in 2015, to 92,071 presentations in January to March 2020, the highest number of emergency presentations for triage category 5 of any quarter over the five-year period (Figure 2).

Percentage of emergency presentations by triage category, January to March quarters from 2015 to 2020

Category	2015	2016	2017	2018	2019	2020
Triage 1 (less urgent)	0.6	0.6	0.6	0.7	0.7	0.7
Triage 2 (emergency)	11.5	11.7	12.1	12.7	12.8	12.7
Triage 3 (less urgent)	32.2	33.2	33.5	34.1	35.1	34.1
Triage 4 (less urgent)	44.1	43.4	42.4	41.6	41.6	40.4
Triage 5 (non-urgent)	11.5	11.0	11.3	10.7	9.7	12.2
Emergency presentations (%)	100	100	100	100	100	100

Figure 2 Emergency presentations by triage category, January 2015 to March 2020



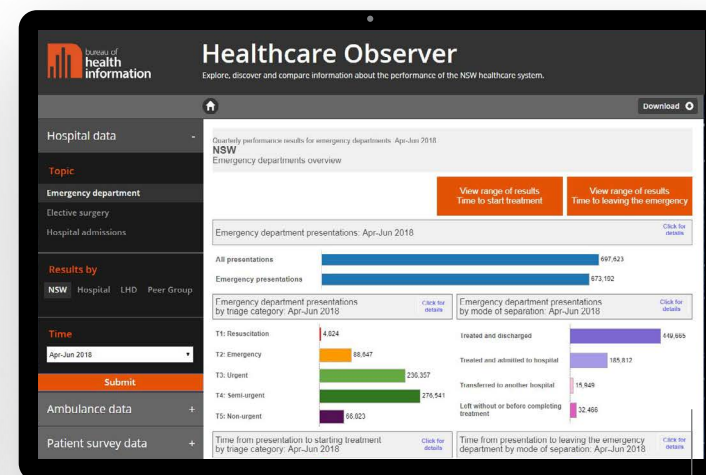
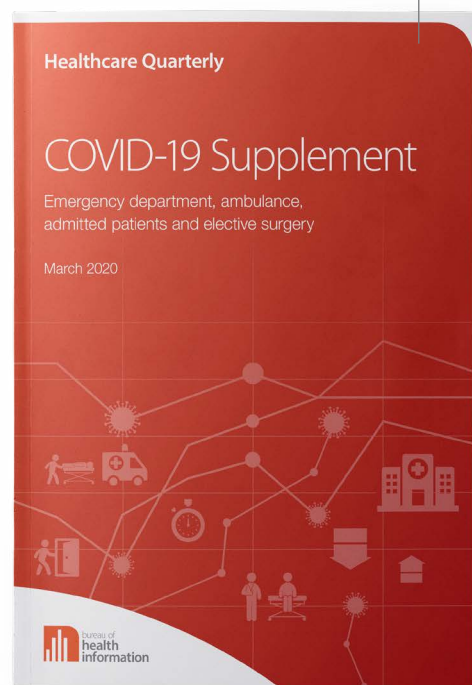
Healthcare Quarterly

BHI published a special supplement to the January to March 2020 issue of *Healthcare Quarterly*, providing additional information on public hospital and ambulance activity at NSW level during March 2020, when cases of COVID-19 peaked in NSW.

The *COVID-19 Supplement* outlined daily patterns of activity throughout March, providing greater insights into the impact of the pandemic on the NSW public health system during this time.

BHI tailors reporting to different audiences, presenting *Healthcare Quarterly* results through a main report and more detailed supporting information, including individual hospital profiles. Full results are available through BHI's interactive data portal, Healthcare Observer.

COVID-19 Supplement



Healthcare Observer

Healthcare in Focus

Healthcare in Focus: People's use and experiences of mental health care in NSW examines care in the community, emergency departments (EDs) and public hospitals, including specialised mental health inpatient units.

Key findings include:

- Nearly one in 12 people in NSW received mental health services from general practitioners (GPs) in 2017–18.
- About one-quarter of mental health-related ED presentations were among patients aged 15–24 years.
- Mental health episodes of care in specialised inpatient units grew at a faster rate than overall admitted patient episodes, particularly among young adults.

BHI provides an annual *Healthcare in Focus* report to the NSW Minister for Health and Medical Research, and NSW Parliament, on the performance of the NSW public health system.

Healthcare in Focus



Healthcare in Focus

This *Healthcare in Focus* presents a range of measures of mental health care. For example, it looks at services provided to population groups such as people living in rural and remote locations, Aboriginal people, women in maternity care and people receiving cancer treatment.

While the report cannot be a comprehensive analysis of whole-system performance, it represents an important first step in BHI's performance reporting in this space.

BHI is proud to use its unique position and expertise to support a growing public interest in mental health services. This report is our contribution to mental health services in NSW, putting this information in the hands of the community, healthcare system managers and policymakers to strengthen accountability and support system-wide improvements.



Measurement Matters

In 2019–20, BHI published three *Measurement Matters* reports.

BHI was asked by the NSW Ministry of Health to develop measures for broad assessment of patient experience in NSW public hospital emergency departments. The resulting report, *Development of emergency care patient experience key performance indicators for local health districts in NSW*, outlines how BHI developed the measures.

Reliability of selected indicators of hospital-acquired complications explores issues and options to support ongoing measurement, monitoring and reporting of patient safety in NSW.

BHI began quarterly reporting of seclusion and restraint at hospital level in *Healthcare Quarterly*, April to June 2020. *Reporting on seclusion and restraint in NSW public hospitals* describes BHI's approach to this reporting, which is in line with the recommendations made in the *2017 Review of seclusion, restraint and observation of consumers in NSW Health facilities*.

Measurement Matters reports provide in-depth analyses of methods and technical issues relevant to performance measurement in the health system.

Measurement Matters reports, 2019–20



Mortality and readmission

Measures of mortality and readmission are used to inform assessments of healthcare performance and highlight potential areas for improvement.

BHI published two reports detailing the results of three-year studies on patient mortality, and readmission and returns to acute care, in NSW public hospitals.

Mortality following hospitalisation for seven clinical conditions, July 2015 – June 2018 looks at risk-standardised mortality rates within 30 days following admission to hospital, with detailed results available for 73 public hospitals.

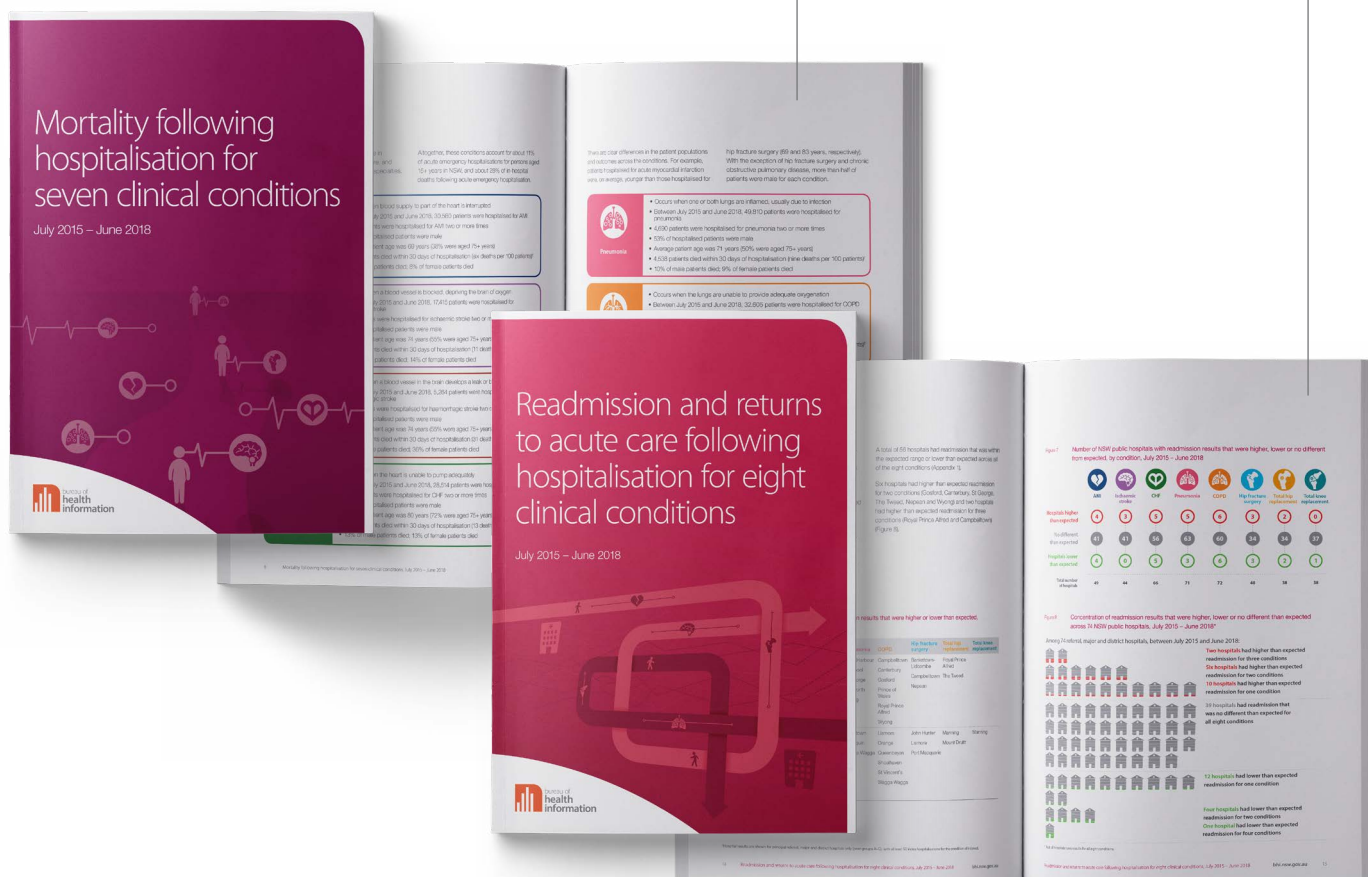
The seven conditions account for about 11% of acute emergency hospitalisations for people aged 15+ years in NSW, and about 28% of in-hospital deaths following acute emergency hospitalisation.

Readmission and returns to acute care following hospitalisation for eight clinical conditions, July 2015 – June 2018 presents risk-standardised readmission rates, with detailed results available for 74 public hospitals.

The eight conditions, including three surgical procedures, account for about 12% of acute emergency hospitalisations for people aged 15+ years in NSW.

Report on patient mortality

Report on readmission and returns to acute care



Engagement and collaboration

We worked with a broad range of healthcare representatives who supported and helped enhance our work.

Engagement on reports

We worked with NSW Ministry of Health and local health district (LHD) stakeholders. For example, we engaged directors of clinical governance on our patient mortality report and readmission and returns to acute care report, and directors of mental health on *Healthcare in Focus* and the introduction of quarterly reporting on seclusion and restraint in *Healthcare Quarterly*.

Patient experience collaboration

We engaged key LHD staff, including patient experience managers, to understand how patient feedback has helped improve patients' experiences of care.

BHI supported the Ministry with survey data for the NSW Health Integrated Care and Leading Better Value Care programs.

BHI continued to engage closely with stakeholders to ensure our reporting is valuable and can help inform healthcare improvement efforts.

We supported the Cancer Institute NSW in using patient survey information and engaged with managers of cancer services across the system.

Working closely with the Centre for Aboriginal Health and the Aboriginal Patient Experience Survey Program Advisory Committee, BHI developed the Aboriginal Patient Experience Question Set to measure what matters to Aboriginal patients.

We renewed our participation in the Commonwealth Fund's International Health Policy Survey 2020 on behalf of NSW. The results will inform BHI reporting in 2021 on how the NSW healthcare system performs compared with Australia and 10 other international jurisdictions.

Pandemic support

BHI actively supported NSW Health with the response to the COVID-19 pandemic alongside our colleagues from across the system. We provided analytic, operational and communications support.

Advisory committees

BHI led and worked with a range of advisory committees to ensure our work was aligned and responsive to key audiences, including the:

- BHI Mortality and Returns to Acute Care Advisory Group
- BHI Mental Health Advisory Group
- Aboriginal Patient Experience Survey Program Advisory Committee (co-chaired with the Centre for Aboriginal Health)
- Rural Hospital Patient Survey Advisory Committee.

We established the NSW Patient Survey Program Strategy Committee to support implementation of the program's strategy for 2019–2022.

BHI also continued to work with our Scientific Advisory Committee, which includes 10 leading international experts.

Our expert staff represented the organisation on more than 35 external committees in NSW and interstate and presented at Australian and international conferences, forums, workshops and meetings.

Masterclass: Unlocking the power of health data

More than 100 NSW Health leaders and staff who manage, analyse and use health service performance data attended the event, held at the Kolling Institute of Medical Research.

Masterclass delegates attended three streams of classes, hearing from topic experts drawn from BHI, NSW Health and external organisations.

The biostatistics trainees, policy officers and directors of performance attending the Masterclasses participated in practical exercises to extend their knowledge and skills, and enable networking opportunities.

The event was also an opportunity for BHI to mark its 10th anniversary.

Hosted by BHI Chief Executive, Dr Diane Watson, the afternoon tea break allowed BHI staff and Masterclass attendees to celebrate the organisation's achievements. It included a special address from the Hon Justice Peter Garling RFD, Judge of the Supreme Court of NSW and author of the Final Report of the Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals.

In November 2019, BHI held a first-of-its-kind Masterclass event to support guests from across NSW Health to get the most out of health data.



Experts in their field



Celebrating 10 years of BHI



Sharing knowledge

Who did we reach?

14
public
reports



BHI mentions in the media 2019–20

334
Online



111
Print



1,805
Broadcast



652
Social



Who did we reach?

Website

96,610

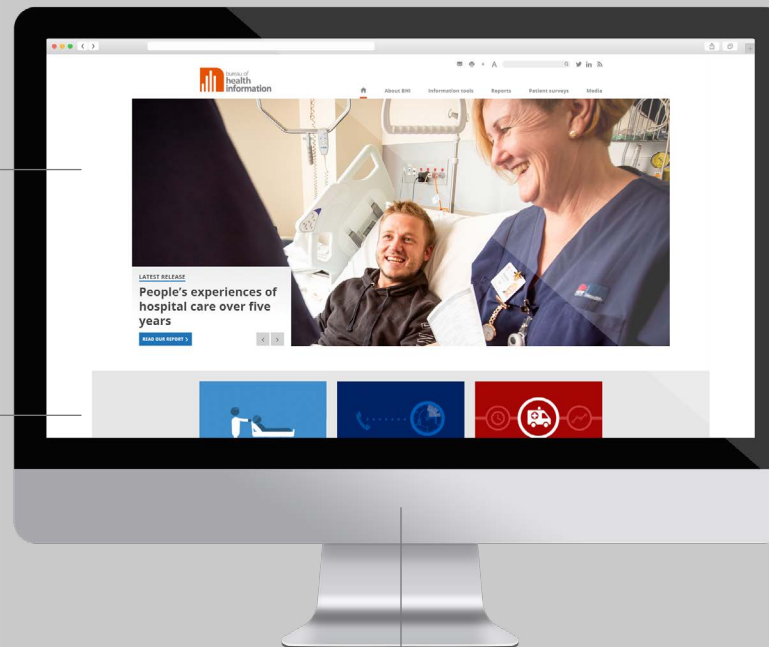
visits

229,074

page views

232

visitors per day



Social media and e-newsletter

1,608

Twitter followers

1,400

e-newsletter subscribers

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.

bhi.nsw.gov.au