

2016–17

# Year in review



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**[bhi.nsw.gov.au](http://bhi.nsw.gov.au)**

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State Health Publication Number: (BHI)180059  
ISSN 2204-5341 (Online)

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Published January 2018



The Bureau of Health Information is a board-governed organisation that publishes independent reports about the performance of the NSW public healthcare system.

We support the accountability of the healthcare system by providing regular and detailed information to the community, patients, government and healthcare professionals.

Our work also supports quality improvement by highlighting how well the healthcare system is functioning and where there are opportunities to improve.

In addition to publishing reports and information, we also manage the NSW Patient Survey Program, giving voice to thousands of patients about their experiences in hospitals and healthcare facilities.

BHI is led by Board Chairperson, Professor Carol Pollock, and Acting Chief Executive, Dr Kim Sutherland.

*Trusted information. Informed decisions. Improved healthcare.*



## FROM THE CHAIRPERSON

In 2016–17, BHI has continued to implement the initiatives outlined in the Strategic Plan 2015–19 while excelling at its core function: delivering impartial, accurate and accessible information on the performance of the NSW healthcare system.

This year is the third year of BHI's operations under the Strategic Plan and the Board is pleased to note continuing signs of achievement against the majority of key performance indicators.

In addition to its regular reports in the *Hospital Quarterly series* – which was renamed *Healthcare Quarterly* this year to reflect its expanded scope – BHI published three *Patient Perspectives* reports drawing on data from BHI patient surveys, three *The Insights Series* reports and two new reports in the *Spotlight on Measurement* series.

During the year BHI continued to expand the NSW Patient Survey Program, including publishing the results of four surveys on the experiences of maternity care, small and rural hospitals, outpatient cancer clinics and Aboriginal patients.

On behalf of the Board, I extend my sincere thanks to BHI staff members for working tirelessly to maintain the high quality of BHI reports and data while taking on more challenging projects than ever before.

The Board would also like to thank outgoing Chief Executive Dr Jean-Frederic Levesque and current Acting BHI Chief Executive Dr Kim Sutherland for guiding BHI through another year of expansion. The continued rigour and excellence of BHI's information products is a testament to their leadership.

I also acknowledge the contribution of fellow Board members throughout the year. Their sound advice and expertise has underpinned the year's success.

**Professor Carol Pollock**  
Board Chairperson



## FROM THE ACTING CHIEF EXECUTIVE

This year, we published 13 reports on the performance of the NSW healthcare system that show how well the system is functioning and where there are opportunities to improve.

We have made considerable efforts to engage local health districts and hospitals in our work to ensure that our reports are useful to those working within the healthcare system. For example, two of our *Insights Series* reports this year presented information on unwarranted clinical variation, focusing on 30-day mortality and readmission following hospitalisation. The release of these reports was accompanied by extensive engagement and we visited many parts of NSW to present early findings to local managers and clinicians, discuss our methods, and provide information that can be acted upon at the local level.

This year BHI developed several new areas of performance reporting. For the first time, we included information about the performance of ambulance services in NSW in our regular report series *Healthcare Quarterly*.

We continue to assess and publish information about patient experiences in NSW public hospitals, acknowledging the important role that patients play as key informants about performance in healthcare. BHI sent surveys to more than 200,000 patients as part of the NSW Patient

Survey Program. Data from these surveys were published on our website in various formats and used in a range of BHI products, including a report into healthcare in rural, regional and remote NSW. The data were also used in three *Patient Perspectives* reports this year, each focused on a key patient group. First, BHI collaborated with the Cancer Institute NSW to report on the experiences of people with cancer in outpatient cancer clinics, introducing detailed information on patient-reported self-efficacy and symptom control. Second, in a report providing insights into women's experiences of maternity care, and third in a report focusing on Aboriginal people's experiences of care in NSW hospitals.

We would like to thank BHI Chief Executive Dr Jean-Frederic Levesque, who was seconded to the Agency for Clinical Innovation in May 2017, for the leadership he provided during his tenure at BHI. On a personal note, I would like to thank the BHI team for their dedication throughout the year to excellence in the measurement and reporting of performance information.

**Dr Kim Sutherland**  
Acting Chief Executive

## OUR REPORTS

# Healthcare Quarterly

Every day around 25,000 people receive care in the NSW public hospital system and around 1,800 are transported to hospital by ambulance.

*Healthcare Quarterly* is a series that tracks activity and performance across public hospitals and ambulance services in NSW.

In June 2017, BHI started reporting ambulance data, supplementing the core measures of emergency department care, admitted patients and elective surgery that BHI has published for the previous seven years.

This was the first time that ambulance data had been regularly reported for NSW and 18 areas across the state.

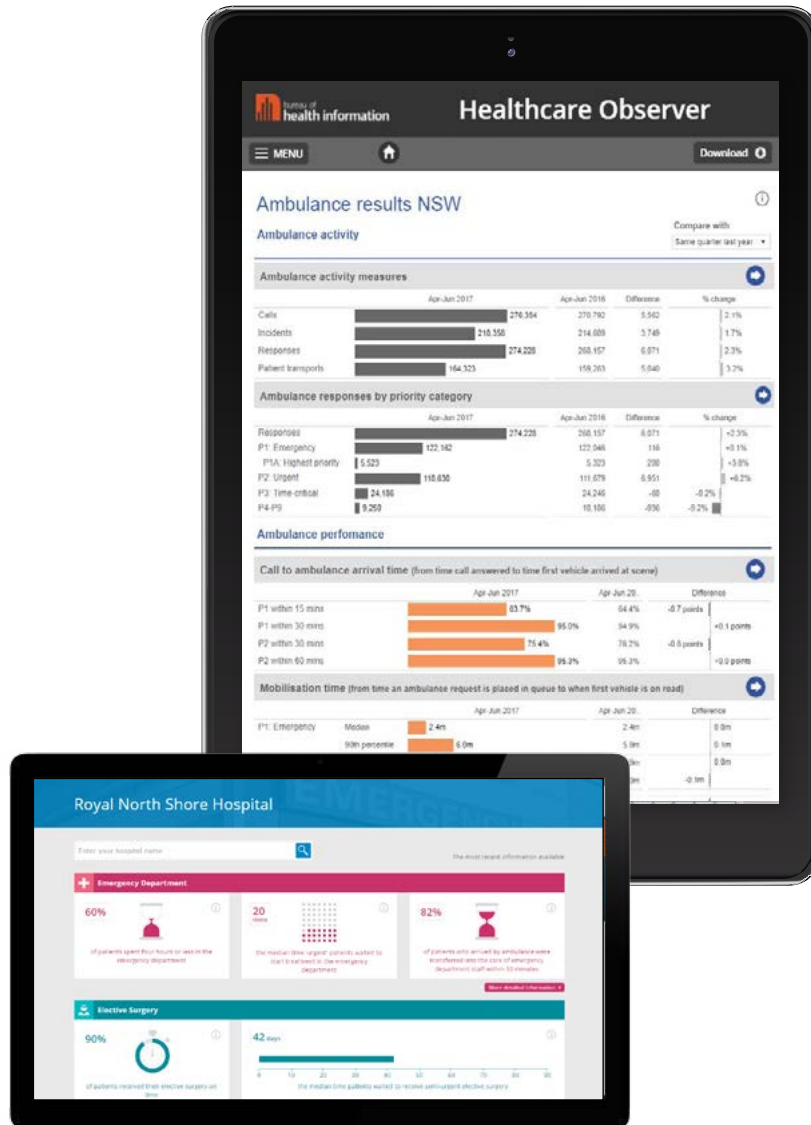
*Healthcare Quarterly* now consists of:

- A core report with key activity and performance results.
- Three standalone modules providing detailed information about ambulance services, emergency departments, admitted patients and elective surgery.
- Online interactive data on Healthcare Observer; simple animated information on Hospital Navigator; and a map-based search application that allows users to find results for their local ambulance service or hospital.
- Additional hospital performance profiles, and appendix tables with Excel data.

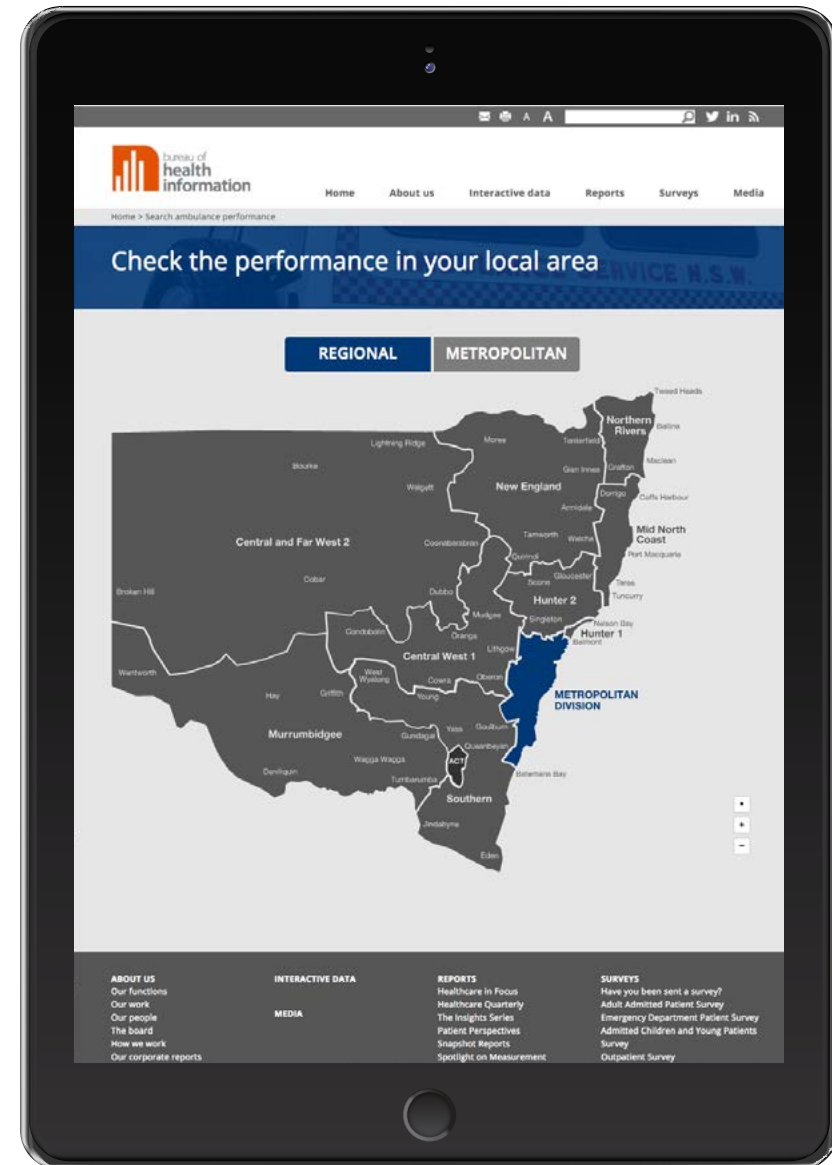




## Healthcare Observer



## Hospital navigator



## Ambulance map-based application

## OUR REPORTS

# The Insights Series

*The Insights Series* provides in-depth analyses in selected performance areas, highlighting variation in care provided to patients.

This year BHI published three issues in the *Insights Series*: two on unwarranted clinical variation, and one on healthcare in rural and regional areas of NSW.

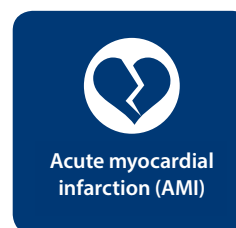
*Exploring clinical variation in mortality* and *Exploring clinical variation in readmission* were released in April 2017.

The reports follow on from previously published data on mortality (2013) and readmissions (or returns to acute care) (2015), providing new information for the period July 2012 – June 2015. Based on an internationally-recognised method of measurement, the reports provide results for 79 NSW public hospitals – reporting whether mortality and readmission rates were lower, higher, or as expected given the age and health conditions of their patients.

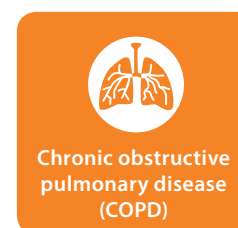
The reports were published following extensive consultation with local health districts, ensuring the data were meaningful and actionable at a local level.



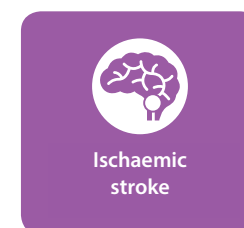
### Exploring clinical variation: The conditions



Acute myocardial infarction (AMI)



Chronic obstructive pulmonary disease (COPD)



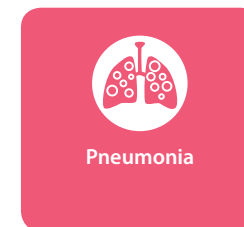
Ischaemic stroke



Hip fracture surgery



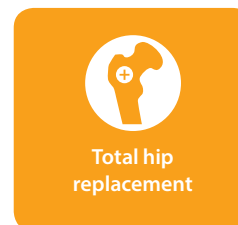
Congestive (chronic) heart failure (CHF)



Pneumonia



Haemorrhagic stroke

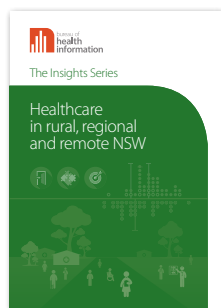


Total hip replacement



Total knee replacement



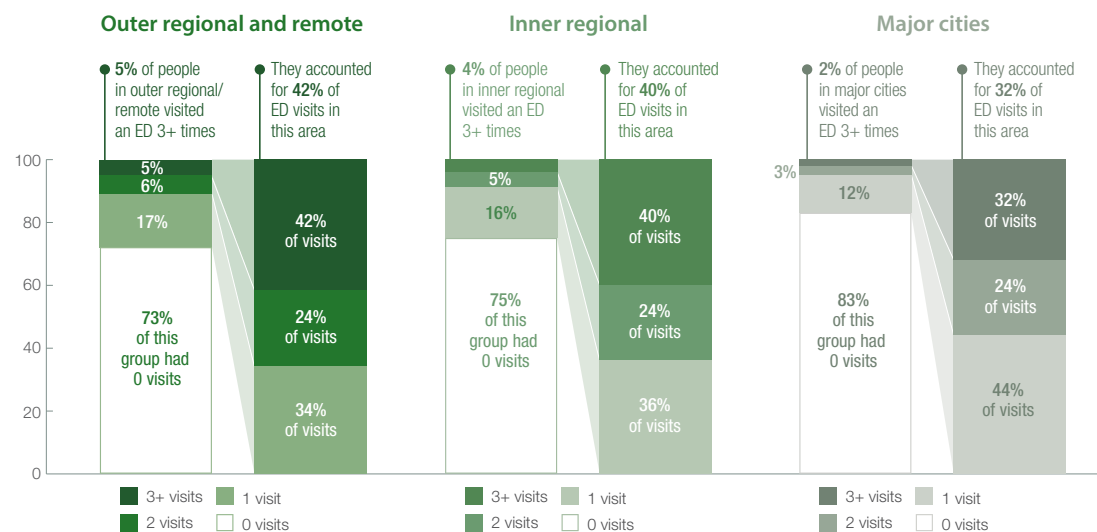


*Healthcare in rural, regional and remote NSW* was released in November 2016.

It brings together a wide range of information sources, including administrative data and patient survey data, to assess healthcare provided to the people of NSW across rural and urban settings.

It reflects how the healthcare system responds to the challenges posed by geography and isolation in rural, regional and remote areas of NSW.

Percentage of the population who frequently visited an emergency department, by remoteness of residence, NSW, 2014–15



Source: NSW Ministry of Health, extracted from SAPHaRI, Centre for Epidemiology and Evidence (BHI analysis).

## OUR REPORTS

# Spotlight on Measurement

*Spotlight on Measurement* reports provide in-depth information about methods and technical issues relevant to BHI's work.

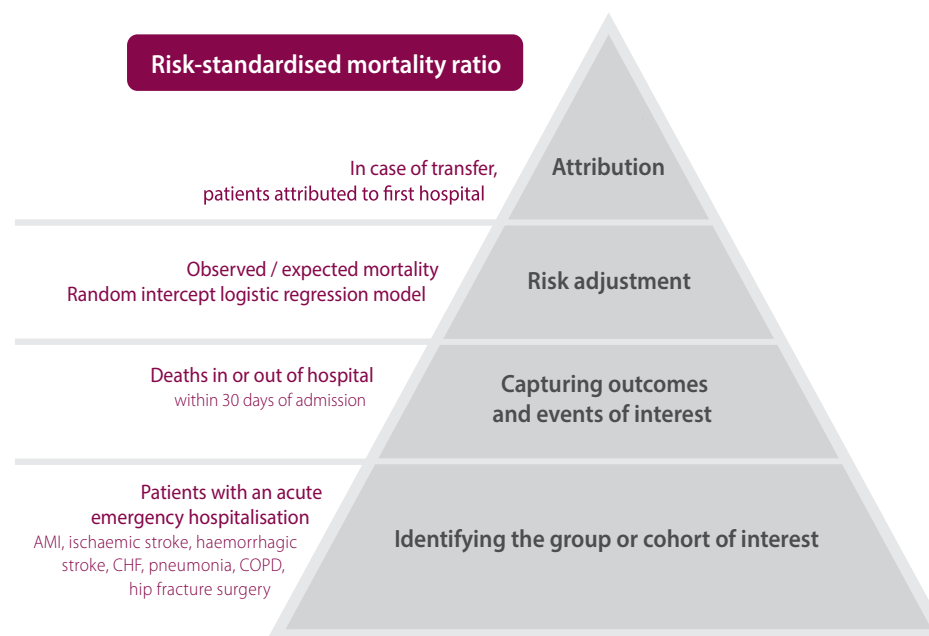


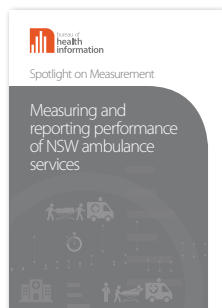
In April 2017, BHI published two reports in this series: *Measuring 30-day mortality following hospitalisation, 2nd edition* and *Measuring return to acute care following discharge from hospital, 2nd edition*.

The reports explore a range of issues and options for the ongoing measurement and reporting of 30-day mortality and readmission in NSW. They supplement BHI's *Insights* reports on mortality and readmissions, describing the development of the risk-standardised mortality ratio (for seven clinical conditions) and the risk-standardised readmission ratio (for five clinical conditions and two surgical procedures).

Both reports were second editions, building on earlier editions on methodological considerations regarding publicly reporting on readmissions and mortality that were first published in 2015.

### Indicator development: 30-day risk-standardised mortality ratio

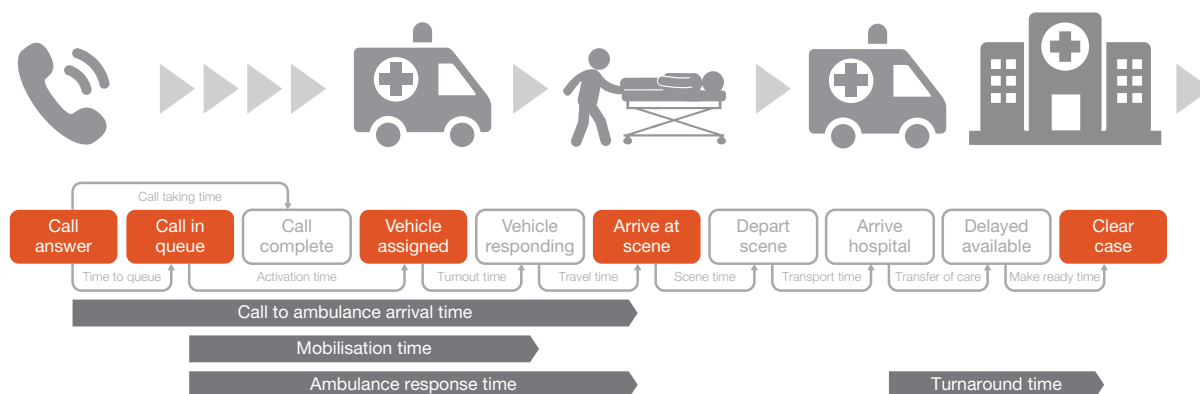




In June 2017, BHI published *Measuring and reporting performance of NSW ambulance services*. This report was published to coincide with the release of *Healthcare Quarterly* which publicly reported for the first time, information about the performance of ambulance services in NSW.

It outlines the development of activity and performance measures for public reporting about ambulance services.

#### Time stamps of the ambulance cycle, NSW



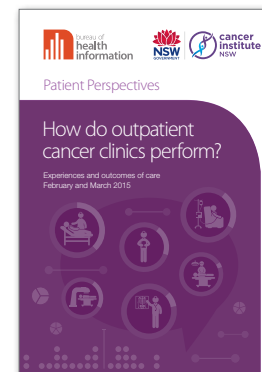
## OUR REPORTS

# Patient Perspectives

BHI draws on the self-reported experiences of NSW patients to examine different elements of hospital performance in *Patient Perspectives* reports.

This year BHI published three reports based on data from the NSW Patient Survey Program.

In July 2016, BHI collaborated with Cancer Institute NSW to publish *How do outpatient cancer clinics perform?* which draws on survey results from more than 3,700 patients who visited a NSW public hospital outpatient cancer clinic in early 2015. It contains the first system-wide information on patient self-efficacy and an assessment of how well treatment-related symptoms are controlled.



**Diagnostic test,  
x-ray or scan**



**Medical diagnosis  
or advice**



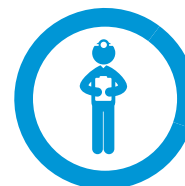
**Chemotherapy**



**Radiotherapy**



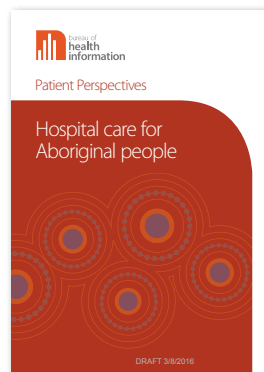
**Surgical procedure**



**Review of  
treatment**

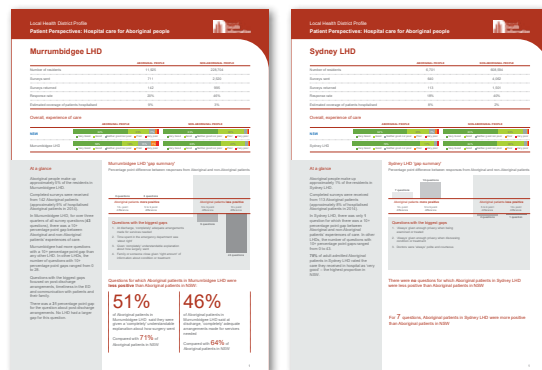


**Regular  
check-up**



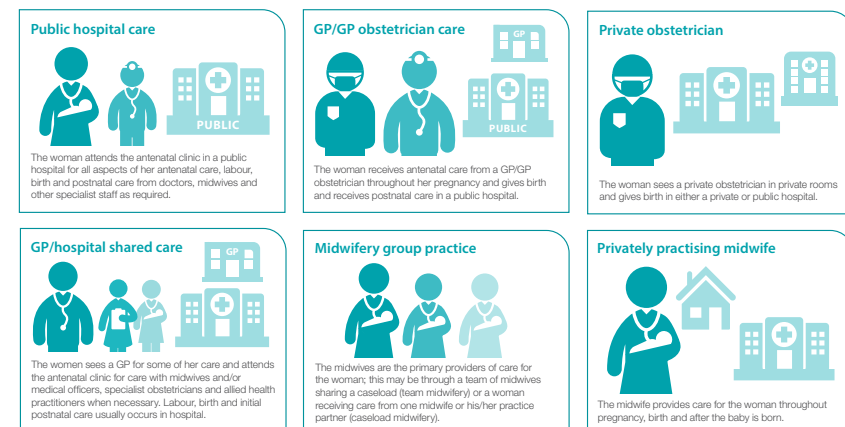
BHI published *Hospital care for Aboriginal people* in August 2016. This report provides information about Aboriginal patients' experiences of hospital care in NSW using responses from the Adult Admitted Patient Survey. Through this survey instrument, we heard from almost one in every 10 adult Aboriginal patients hospitalised during 2014.

### Hospital profiles for *Hospital care of Aboriginal people*



*Experiences of maternity care in NSW public hospitals* provides information about women's experiences of care during the different stages of their maternity journey, highlighting where hospitals perform well and potential areas for improvement. Published in March 2017, the report draws on the first results of the Maternity Care Survey, using data collected from almost 5,000 women who gave birth in a NSW public hospital in 2015.

### Models of maternity care in NSW



## BHI PATIENT SURVEYS

Each month we ask thousands of people in NSW to tell us about their recent experiences with the public healthcare system.

BHI manages the NSW Patient Survey Program on behalf of the NSW Ministry of Health, local health districts and specialty networks.

Giving voice to patients by capturing and reporting on patient experience sheds light on the overall performance of hospitals in delivering care that responds to their expectations and needs.

In 2016–17 we conducted eight surveys, sampling more than 200,000 patients.

The surveys ask patients about different aspects of their care such as accessibility and timeliness, the physical environment of the hospital, safety and hygiene, communication and information, and whether they were treated with respect and dignity.

During 2016–17, patient survey results were published on BHI's interactive online portal Healthcare Observer, including:

- The first ever results from the Maternity Care Survey
- The first ever results of the Small and Rural Hospitals Survey
- New data about Aboriginal patients who completed the Adult Admitted Patients Survey
- The first ever results of the Outpatient Cancer Clinics Survey.

Data collected from patient surveys are used in BHI reports during the year as well as being made available to local health districts, hospitals and the NSW community on our website [bhi.nsw.gov.au](http://bhi.nsw.gov.au)



**Admitted Children and Young Patients Survey**



**Adult Admitted Patient Survey**



**Emergency Department Patient Survey**



**Outpatient Survey**



**Maternity Care Survey**



**Small and Rural Hospitals Survey**



**Outpatients Cancer Clinics Survey**



**Small and Rural Hospitals Survey – Emergency Department**



Patients are expert informants  
who can tell us whether...

It made a  
difference



I received the  
right care



It was  
delivered in  
the right way





## DEVELOPING OUR WEBSITE

One of BHI's functions is to establish and maintain a website providing information and analysis on the performance of the NSW public health system, including tools for data analysis.

In 2016–17, BHI continued to expand its new website to offer healthcare performance information in a range of innovate and engaging formats. Some of the new online tools include:

- **Animation** – a sequence of moving images that summarise a report's key findings in an easy-to-follow video format. Animations can be shared across BHI social media channels and online news sites, making our data more accessible to the NSW community.
- **Ambulance navigator** – simple performance navigation about ambulance services in every NSW region.
- **Panorama** – a dynamic, rotating cube that presents a wide-angle view of key points from a report or set of data.

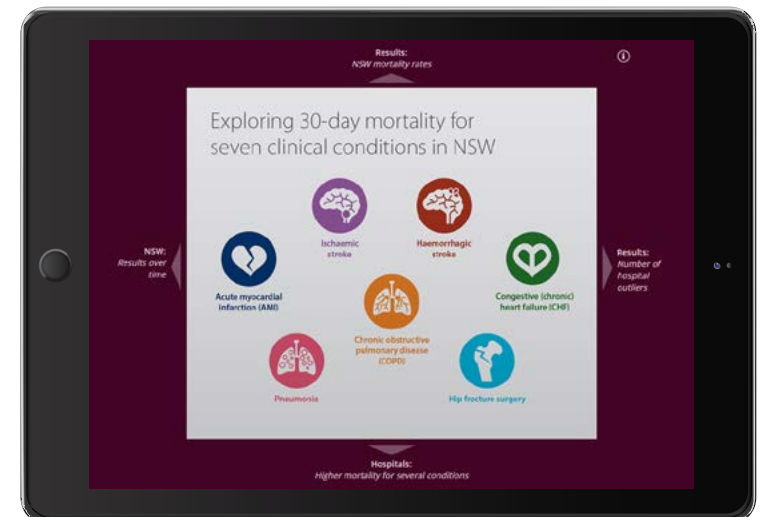
BHI's interactive data portal, Healthcare Observer, continues to allow users to explore, analyse and download performance information from BHI reports and patient surveys in one place.

All BHI reports are available on the website and the BHI Reports Plan outlines the projects that are in development and target release dates for publication.

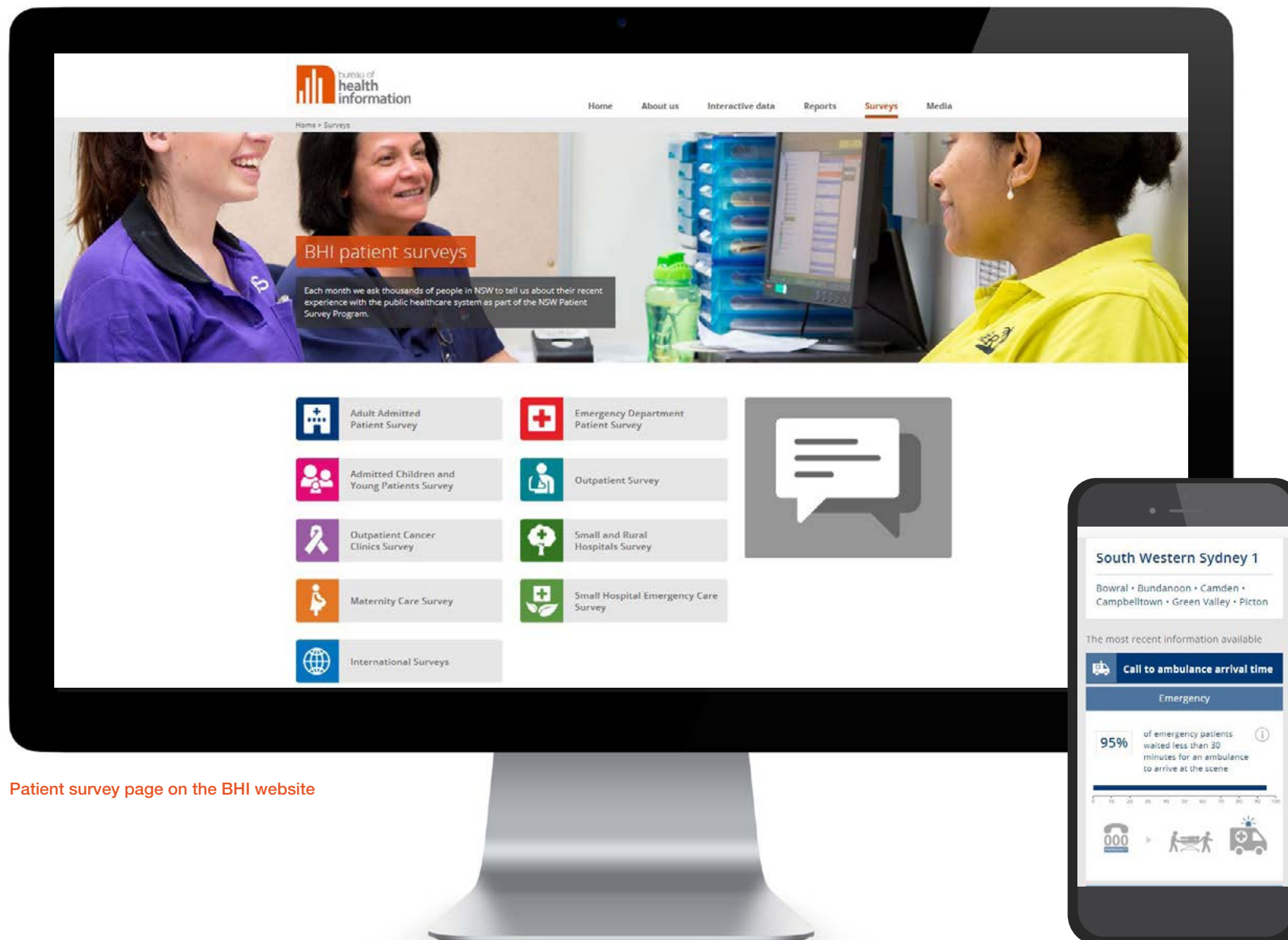
Visit the website at [bhi.nsw.gov.au](http://bhi.nsw.gov.au)



Online animation – Healthcare in rural, regional and remote NSW



Panorama – Exploring 30-day mortality



Patient survey page on the BHI website

Ambulance performance navigator

## HOW WE WORK

### Working with others

BHI regularly collaborates with different groups and organisations to ensure our work supports quality improvement in NSW, and to contribute to healthcare performance reporting in the international community.

#### Pillars

During the year, BHI worked with the Cancer Institute NSW to produce a report on patient perspectives of cancer outpatient services in NSW (published in July 2016). We also worked with the Ambulance Service of NSW to incorporate activity and timeliness measures of ambulances services into our regular reporting series *Healthcare Quarterly*, beginning in June 2017.

#### Local health districts and specialty networks

To engage and work effectively with the NSW healthcare system, BHI has an ongoing program of visits to local health districts and specialty networks. These visits allow us to discuss our work, learn from healthcare experts and find out how our reporting can be used at a local level.

In 2016–17 our Chief Executive visited eight LHDs to present new information on clinical variation in NSW public hospitals, including the measures used to explore mortality and readmission for people admitted to hospital for nine clinical conditions and hospital-level results.

#### Advisory committees

BHI continued to work with our Scientific Advisory Committee, which comprises 10 leading experts who help us ensure that our activities and strategies are consistent with current best practice in performance reporting, and also provide guidance with regard to our future development, activities and processes.

BHI has several project-specific advisory committees that provided guidance on different aspects of projects such as the BHI patient surveys and the Rural Advisory Committee that contributed to our *Insights Series* report on healthcare in rural, regional and remote NSW. In addition to organised committees, we meet and consult with subject matter experts regularly throughout the course of different projects.

#### Talking about our work

BHI staff deliver presentations at Australian and international conferences, forums, workshops and meetings. During the 2016–17 year, our staff gave more than 30 presentations.

In May 2017, our Chief Executive presented BHI's work on unwarranted clinical variation at a World Health Organisation technical workshop in the Philippines. The workshop centred on indicators, data and methods for monitoring sustainable development goals and universal health coverage in the western pacific region.

BHI staff also conducted a series of oral and poster presentations throughout the year – some highlights include:

- APAC forum – presenting data on the experiences of hospital care reported by Aboriginal and non-Aboriginal patients
- Innovations in Cancer Treatment and Care Conference – psychosocial aspects of cancer care and self-efficacy among outpatients
- NSW Rural Health and Research Congress – healthcare in rural, regional and remote NSW.

## HOW WE WORK

# International experts

In 2016–17, we welcomed two research fellows from Canada and the United States. Hosting international experts allows us to share and promote BHI's work with research institutions around the world, while enabling the exchange of knowledge and ideas with other experts.

### Dr Genevieve Bustros-Lussier

Dr Genevieve Bustros-Lussier is a medical physician and Professor of Public Health and Preventive Medicine. She joined BHI to undertake a six-month post-doctorate fellowship from Sherbrooke University. Dr Bustros-Lussier's project explored the impact of social determinants of health on health system performance and delivery and patients' experiences of care by linking survey and administrative datasets. Her expertise in these areas made her a key contributor to BHI's *Patient Perspectives* report on maternity care.

### Dr Tracy Johnson

Dr Tracy Johnson joined BHI as an Australian-American Health Policy Research Fellow. This prestigious fellowship gives future health policy leaders from the United States the opportunity to conduct policy-oriented research in Australia. During her 10-month fellowship, Dr Johnson led work on a predictive risk modelling project, extending existing BHI work to avoidable hospital readmissions. The project served as a proof of concept, illustrating the potential of predictive risk methods for assessing NSW health system performance relative to high-risk patients. Dr Johnson's work will form the basis of technical report to be published in 2018.



## WHO DO WE REACH?

13 reports released



60,000+ visits to our website

10,900+ visits to Healthcare Observer, our interactive data portal



35+   
presentations  
given in NSW and  
other jurisdictions

809   
Twitter followers

758   
email newsletter  
subscribers

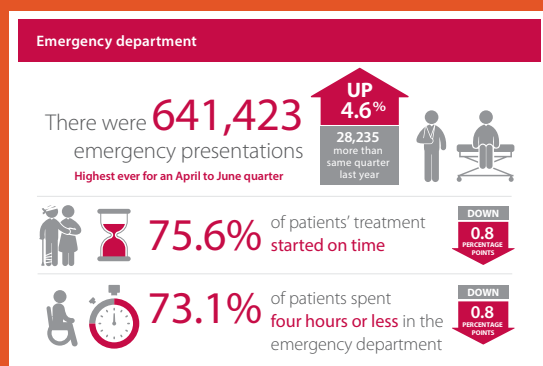
30+   
external committees  
BHI is represented on



# HOW DO WE REACH PEOPLE WITH OUR DIGITAL INFORMATION?

## Dynamic hospital performance data

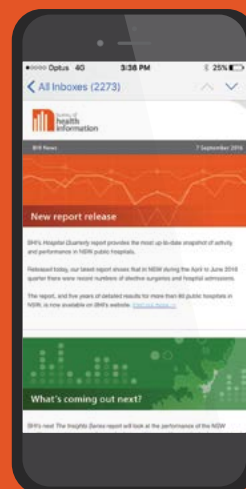
### Infographics



### Online animations



### Online video messages



### e-newsletters

