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Ana Johnson

and

Thérèse Stukel

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# Highly Visible, Small Organisation Dedicated to Reporting on Medical Practice Variation: An Australian Experience

Diane Watson<sup>1,2</sup>, Bruce Armstrong<sup>2,3</sup> and Kim Browne<sup>2</sup>

(1)National Health Performance Authority, Canberra, ACT, Australia

(2)Bureau of Health Information, Chatswood, NSW, Australia

(3)Sydney School of Public Health, University of Sydney, Sydney, NSW, Australia

**Diane Watson (Corresponding author)**

Email: [diane.watson@nhpa.gov.au](mailto:diane.watson@nhpa.gov.au)

**Bruce Armstrong**

Email: [bruce.armstrong@sydney.edu.au](mailto:bruce.armstrong@sydney.edu.au)

**Kim Browne**

Email: [kim.browne@health.nsw.gov.au](mailto:kim.browne@health.nsw.gov.au)

## Abstract

The purpose of this case study is to share experiences related to the successful establishment of the Bureau of Health Information, a board-governed, statutory organization in New South Wales, Australia, dedicated to publicly reporting comparable information about hospitals and health services. Established in 2009 with an annual budget of \$2 M, in its first 3 years, the Bureau became a trusted, credible source of comparable information with its data included in more than 600 newsprint, radio, and television items including front-page stories. It released quarterly reports with more than 30 measures for more than 80 public hospitals and published four in-depth reports and three annual reports that compared the NSW health system to Australia and 10 other countries. This case study highlights governance, strategy, and operational factors that contribute to a highly effective and efficient small organization and illustrates how international evidence and experiences can be used to optimize the positive impact of public reporting on transparency and accountability of health services and improvements in care.

## Introduction

The Bureau of Health Information (the Bureau) aims to provide the community, healthcare professionals, and the New South Wales (NSW) Parliament with timely, accurate, and comparable

information about the performance of the public health system in ways that enhance the system's accountability and inform efforts to increase its beneficial impact on the health and well-being of the people in NSW. The purpose of this case study is to highlight key factors that underlie the successful early establishment of the Bureau.

The Bureau was established in response to a recommendation of the *Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals 2008*. The Commissioner recommended its establishment as an independent, board-governed statutory organization and advised that "public reporting of information about the health system and hospital performance is essential for the future of NSW Health. At the least it improves patient choice and encourages improvement in all services. But it does a lot more. It is the single most important driver (or lever) for the creation of public confidence in the health system, engagement of clinicians, improvement and enhancement of clinical practice and cost efficiency."

Established with an annual budget of \$2 M, in its first 3 years, the Bureau became a trusted, credible source of comparable information on the performance of health services with its data included in more than 600 newsprint, radio, and television items including front-page stories. It released quarterly reports with more than 30 measures for more than 80 hospitals including activity, length of stay, and wait times for elective surgery and in emergency departments; four in-depth reports comparing patient care experiences, avoidable admissions, and readmissions in more than 70 public hospitals; and three annual reports that compared the NSW health system to Australia and 10 other countries on over 90 measures of performance each year. In its third year of operations, the budget was increased to \$3 M to expand reporting and redevelop a patient survey program designed to collect data from more than 225,000 patients per annum. In its fourth year, the budget was expanded to \$7 M to again expand reporting and fund implementation of the state-wide survey.

## Governance: Organizational Oversight

The Bureau was established as part of the state government's *Caring Together: The Health Action Plan for NSW* to "provide public reporting of performance for the state as a whole, each Area Health Service, hospitals, and units or wards." It was established as a board-governed statutory organization under the provisions of Chapter 4 of the NSW Health Services Act 1997 No. 154, "independent from and not part of the Department of Health." The state Health Minister appointed to the inaugural board five strong-minded community members and academic experts, and the chief executive, who were united in their commitment to independent reporting on the performance of the health system. While a board member, the chief executive is an employee of the health executive service led by the state Secretary of Health and reports to the board.

Under Section 53 of the Health Services Act, the Minister specified the Bureau's functions:

- To prepare and publish regular reports on the performance of the NSW public health system, including safety and quality, effectiveness, efficiency, and responsiveness of the system to the needs of the people of NSW
- To provide an annual report to the Minister and Parliament on the performance of the NSW public health system
- To publish reports benchmarking the performance of the NSW public health system with comparable systems
- To establish and maintain a website providing information and analysis on the performance of the NSW public health system, including tools for data analysis

- To develop reports and tools to enable analysis of the performance of health services, clinical units, and clinical teams across the NSW public health system
- To advise the NSW Department of Health on the quality of existing data sets and the development of enhanced information analysis and reporting to support performance reporting to clinicians, the community, and Parliament
- To undertake and/or commission research to support the performance by the Bureau of its functions
- To liaise with other bodies and organizations undertaking reporting on the performance of the health systems in Australia
- To provide advice to the Minister for Health and the Director-General of the Department of Health on issues arising out of its function

Under Section 48 of the Health Services Act, the board is subject to the control and direction of the Minister, except in relation to the contents of a recommendation or report made by the board to the Minister. While maintaining and protecting its reporting independence, the Bureau works closely with NSW Ministry of Health, the NSW Agency for Clinical Innovation, the NSW Clinical Excellence Commission, and other state health organizations to strengthen and enhance the quality of and capability for analyses and public reporting on health system performance in NSW.

The Bureau has monitored its own performance using a number of approaches. For example, a 360 degree appraisal was conducted after year one of operation to inform continuous quality improvement efforts of the board, chief executive, and senior management. Summaries of the number of media items and type of coverage, as well as the impact of each report on stakeholders, were prepared and presented at each board meeting. Communications staff routinely assess media coverage to determine whether it's accurate, positive, negative, or neutral. In instances of major media inaccuracies, contact with the reporter has occurred.

## Strategy: The Right Direction

In developing its inaugural strategic directions, the Board relied on insights about state-wide needs for health system performance information gained through the *Special Commission of Inquiry into Acute Care Services in NSW Public Hospitals 2008*. The Commissioner visited more than 60 public hospitals; heard evidence from over 600 people including patients, community members, doctors, nurses, and allied health professionals; and received over 1200 written submissions from over 900 individuals and organizations.

The Board and chief executive also consulted widely with clinicians, administrators, and government experts who provided insights about NSW's healthcare system and the types of performance information that would inform efforts to improve patient care. The Board used international evidence about what people want to know about performance of their health system and how information on the performance of healthcare organizations stimulates quality improvement initiatives leading to better care and better health. It also commissioned and published a synthesis of evidence on the impact of public reporting and of strategies and procedures common to successful public reporting systems (Chen [2010](#)).

In its *Strategic Plan for 2009–2014*, the Bureau committed to do all in its power to pursue five strategic directions:

- Inform the NSW community about the performance of its public health system
- Inform efforts to improve patient care and strengthen healthcare policy in NSW
- Identify factors that support high-performance public health systems

Advise on strategies to improve health service performance reporting

Maintain ethical, effective, responsible, and reasonable business practices

Looking forward and in anticipation of high expectations immediately following establishment, the chief executive developed a human resource strategy to quickly establish an optimal organizational structure, culture, and workplace processes that aligned with best practices in the translation of complex healthcare performance information into new knowledge among target audiences.

## Tactics: The Right Products and Engagement Strategies

To optimize the positive impact of public reporting, the audience and purposes of reporting should be defined prospectively to make good decisions on content of reports and the design of products. The content must align with what target audience members want to know or should know but were afraid to ask! It must be designed and made available using approaches to communications that align with the audiences' learning styles.

The NSW Minister for Health was invited to the second board meeting in February 2010. Together, the Minister and board members identified the public as the primary target audience. In determining the right products and communications strategies, the primary focus of reporting would be accountability and sharing of information that aligns with what people want to know about or should know about in relation to their health system. Furthermore, report releases should involve intense interaction with the media and involve reinforcing the Bureau's independent, impartial approach to monitoring and reporting.

Consequently, three priorities were established:

The first priority was to report on patient experiences with hospital care, since people most often learn about their healthcare from first-hand experiences and the public places high priority on this type of information (e.g., Sandoval et al. [2007](#)). The first report relied on existing state-wide survey data and focused on what 20,000 patients had to say about inpatient and day-only admission in more than 40 public hospitals.

A media strategist was engaged, and when the report was released in May 2010, it resulted in more than 60 media items in newsprint, radio, and television that fairly reflected the content of this inaugural report. Since newspapers often turned performance data into league tables, the Bureau's staff created them prospectively to ensure media fairly compared and accurately portrayed variation in performance.

In the report, patient ratings were standardized to account for differences between hospitals in types of patients served since there is evidence that patient characteristics such as age, gender, and circumstance influence their ratings of hospitals. Standardization helped to ensure fair comparisons and to identify where improvement was necessary. In order to inform efforts to improve patient care, the report identified care experiences most likely to be associated with excellent or fair/poor ratings.

This report marked the first of what would become a series of *Insights into Care* reports that offer in-depth analyses on specific themes and release of extensive hospital-level information to support fair comparisons and quality improvement. The Bureau makes no commitment to routine reporting on topics in this series. In 2011 and 2012, reports in this series focused on outpatient care experiences, avoidable admissions, and readmissions.

The second priority was to regularly report on wait times and patient experiences in emergency departments, as well as wait times for elective surgery for more than 80

public hospitals. Consequently, the inaugural issue of *Hospital Quarterly* was created and released in September 2010. It resulted in more than 90 media items in newsprint, radio, and television including very large coverage in the state's largest newspapers. Subsequent issues have expanded routine reporting to include temporal trends in activity, length of stay, length of time in emergency departments, and the number of patients waiting for elective surgery. Three years later, approximately eight pages of highly informative and easy to understand graphics are released every 3 months in a product called *Performance Profiles* for each of 60+ emergency departments and 80+ public hospitals that conduct elective surgery (i.e., 15 pages per quarter).

Intensive media preparations and activity ensure that 40–90 newspaper, radio, and television items per quarter fairly reflected the content of *Hospital Quarterly*. Newsprint coverage typically occurs on pages 1, 2, and 3 in major metropolitan and regional papers.

The third priority was to create an annual report that would provide a more holistic perspective on the NSW health system. Consequently, the inaugural and subsequent issues of *Healthcare in Focus* have compared NSW to Australia and 10 other countries on more than 90 measures of performance each year. In December of each year, there are 40–60 newspaper, radio, and television items that focus on informing people in NSW about the comparable performance of their health system in the international context.

To offer products that would quickly become valued by target audiences, the Bureau's staff continually engaged with stakeholders to identify high-priority needs for information for every report, conducted analyses that offered new insights to focus and inform efforts to improve care, and pursued innovation in layout and design to create reports deemed by readers to be "highly accessible," "very informative," and a "pleasure to read."

To build awareness of the Bureau as a new highly visible organization, its staff created a strong visual identity and approach to branding all product lines (Fig. 1). Many presentations were made at management, clinical, and leadership events, even before reporting began, to describe the impact public reporting has had in other jurisdictions internationally, the key success factors related to public reporting, the stakeholder engagement strategies that would be used by the Bureau, and the approaches to measurement that would be employed to support fair, impartial reporting of the comparable performance of healthcare organizations.

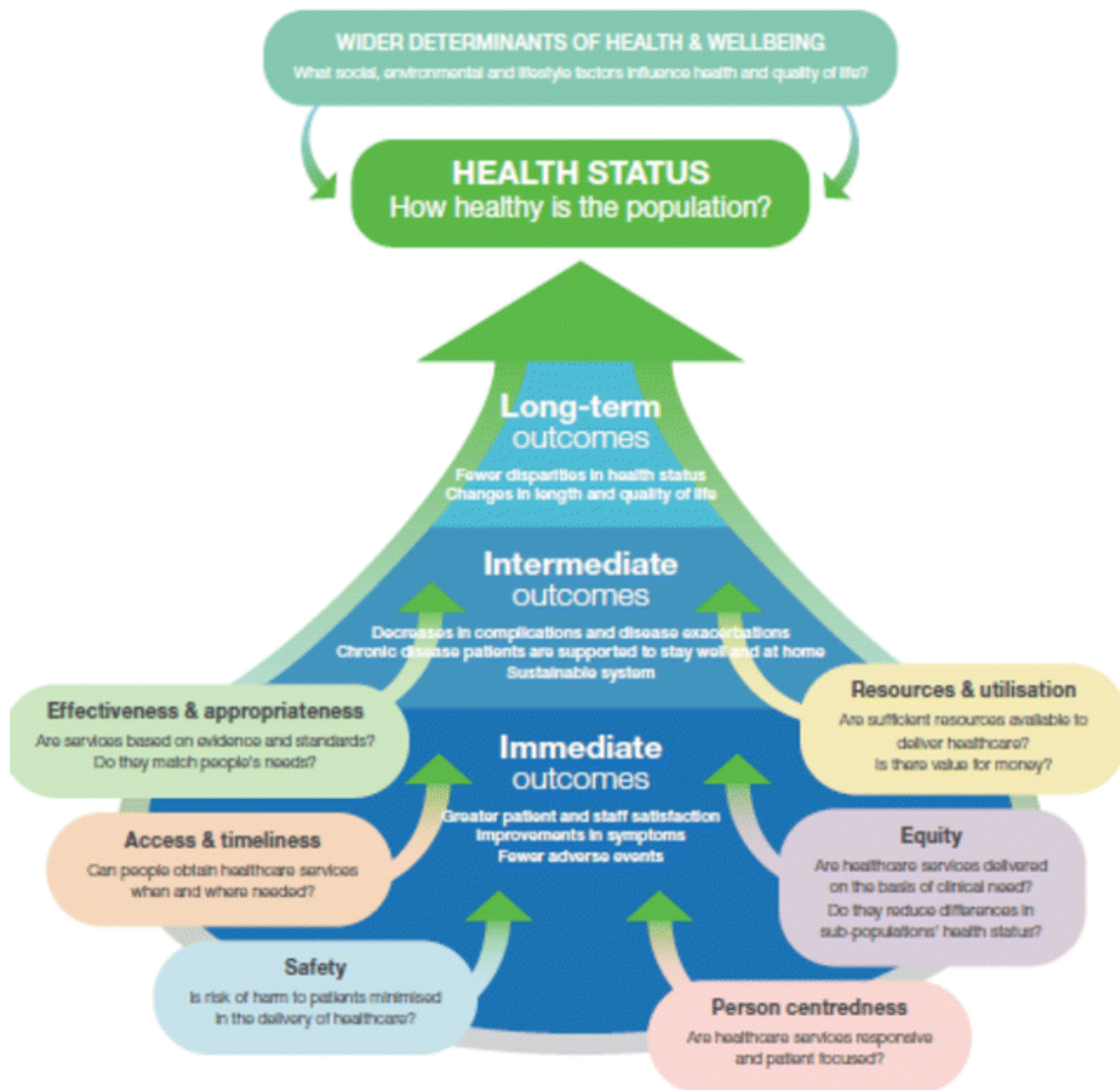


Fig. 1

The Bureau of Health Information's cover designs for its main products

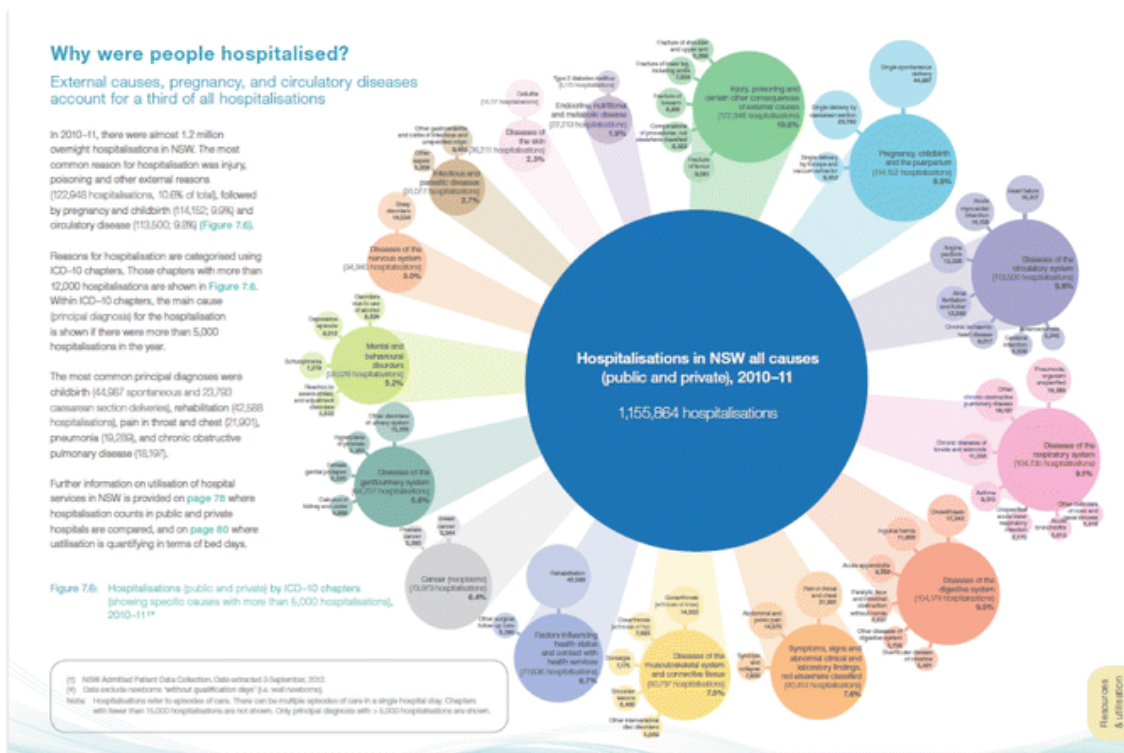
The creation of impartial and credible information requires full disclosure regarding the conceptual framework used to report and methodology used to measure performance. In this regard, annual reports on the performance of the NSW health system were based on a conceptual framework that was designed in consideration of national and international frameworks (Fig. 2). *Technical supplements* are produced for all reports to disclose methodology, and a detailed glossary is available online.

**The Bureau of Health Information's performance framework: a guide for understanding and evaluating the NSW healthcare system**

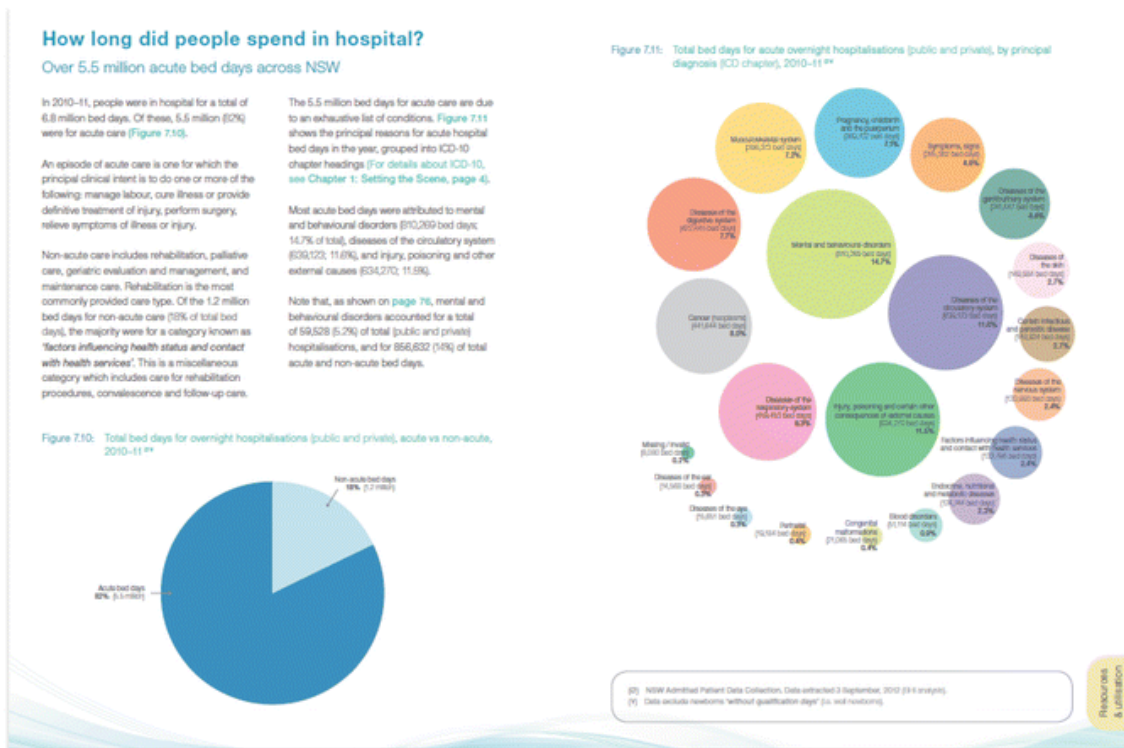


**Fig. 2**  
The Bureau's innovation in visual portrayal of a whole-of-system conceptual framework for measuring performance

While all statistic agencies use tables and graphs to convey information, the Bureau employed two graphic designers interested in innovation in information graphics and use of artistic and visually appealing layout to attract and retain the attention of healthcare audiences who are often short of time. Figures 3 and 4, for example, were created for *Healthcare in Focus 2012* to quickly share complex information about why people are hospitalized and how long they stay in the hospital.



**Fig. 3**  
An example of the Bureau's innovation in design of whole-of-system information to inform efforts to improve care

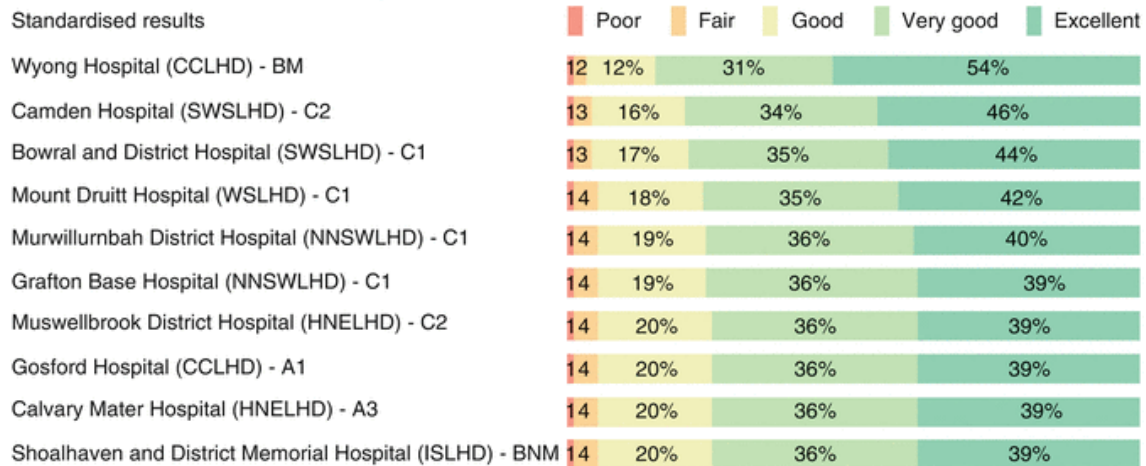


**Fig. 4**  
An example of the Bureau's innovation in design of whole-of-system information to inform efforts to improve care

Since Australian newspapers like to create league tables, the Bureau’s staff pursued innovation in presentation of comparative information that would be easy to understand and fairly reflect differences in hospital performance, directing an effective “call to action” toward identifiable healthcare organizations. For example, Fig. 5 was used to support fair comparisons in patient views on outpatient services in more than 50 hospitals, and Fig. 6 was used to compare unplanned readmissions in more than 70 hospitals.

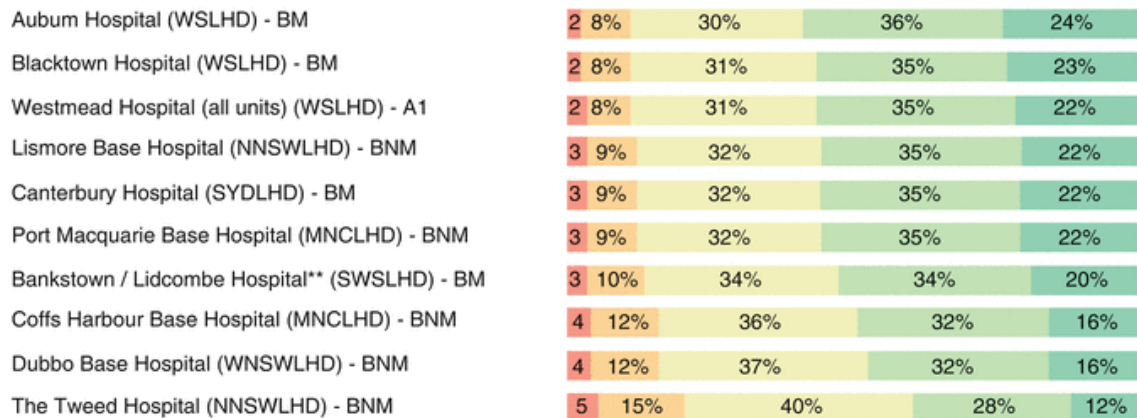
Comparisons of standardised ratings of *outpatients’* overall ratings of care in NSW public hospitals, February 2010

Hospitals with *higher* patient ratings



All other public hospitals\* included in this report providing outpatient services in NSW were rated *lower* than the hospitals listed above and *higher* than the hospitals listed below

Hospitals with *lower* patient ratings



(\*) NSW public hospitals includes principal referral, paediatric specialist, ungrouped acute – tertiary referral, major metropolitan, major non-metropolitan and district groups 1 and 2. See page iii for a full list of hospitals included in this report.

(\*\*) Bankstown/Lidcombe Hospital was classified as a major metropolitan hospital in the Health Information Exchange during the analysis phase of this report and is therefore presented as such in this document. Since then, this hospital has been confirmed in the principal referral group of hospitals and this change will be reflected in future reports.

Note: Standardised results – to account for differences between hospitals in the types of patients served, values are standardised for the principal demographic factors affecting how patients respond to the overall care question: age group, self-reported health status and language spoken at home.

Note: All percentages rounded to whole numbers and therefore percentages may not add to 100%.

Source: Outpatient care module of the NSW Health Patient Survey 2010.





While the public are interested in comparative information, healthcare workers need more detailed data to inform performance improvement. The main reports summarized state-wide findings and include charts that compare standardized measures for named hospitals to lay the evidence base for messages targeted to the public and an appropriate call to action targeted toward relevant healthcare professionals.

Accordingly, the Bureau's staff created *Performance Profiles* for individual hospitals or local health districts to accompany each report. *Performance Profiles* started as two-page documents to offer healthcare audiences insights regarding their own performance, along with other information they might need to fairly compare themselves to other hospitals or improve care. For example, Fig. 7 is the *Performance Profile* for Wyong Hospital's outpatient services. This public hospital had the highest overall ratings of outpatient services (Fig. 5) and its staff featured prominently in the local newspaper at the time of release (Graham 2011). Over time, *Performance Profiles* in high-priority areas for state-wide improvements in care have included more information and increased in page length.

## Wyong Hospital: What patients rated highest about these outpatient services?

NSW Health Patient Survey, February 2010

HIGHEST: Did healthcare staff wash or clean their hands before providing care for you?



SECOND HIGHEST: If you needed a visit with ANOTHER healthcare professional, was this arranged?



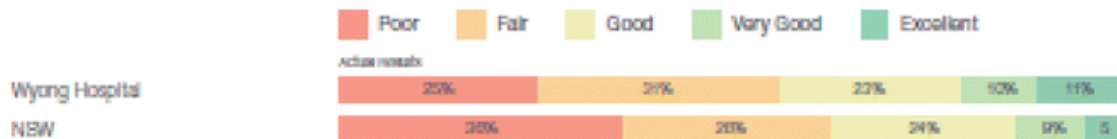
THIRD HIGHEST: Did you have the chance to explain the reasons for your visit to healthcare staff?



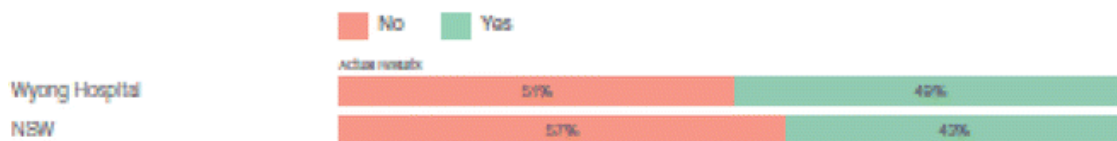
## Wyong Hospital: What patients rated lowest about these outpatient services?

NSW Health Patient Survey, February 2010

LOWEST: Availability of parking



SECOND LOWEST: If your appointment didn't start on time, were you given a reason for the delay?



THIRD LOWEST: Did a healthcare professional discuss any of your anxieties or fears with you?

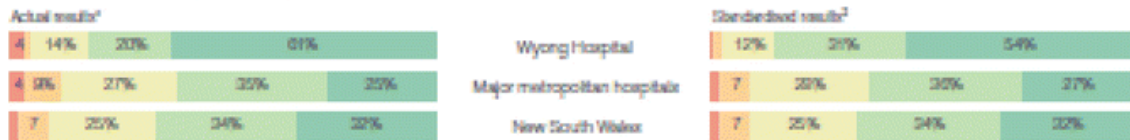


## Wyong Hospital: Patient experiences with outpatient services

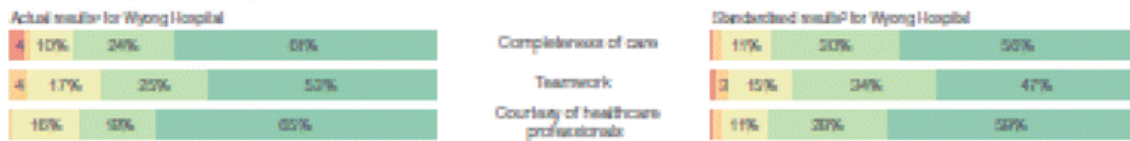
NSW Health Patient Survey, February 2010

Key to patient ratings: ■ Poor ■ Fair ■ Good ■ Very Good ■ Excellent

### Overall patient ratings of outpatient services



### Patient ratings of care experiences that matter most<sup>4</sup>



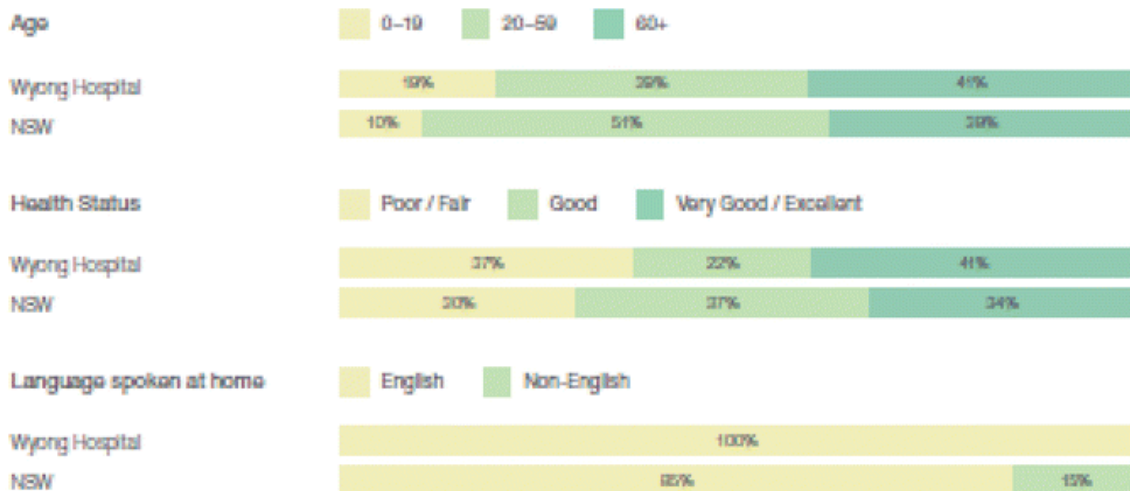
## Wyong Hospital: Patients who used these outpatient services

NSW Health Patient Survey, February 2010

Outpatient attendances during February 2010: 1,041 patients

244 people who received outpatient services were sent a questionnaire; 52% returned a completed questionnaire.

### Characteristics of patients who completed the survey<sup>2</sup>



- Highest and lowest ratings of care are based upon a quality scale which incorporates all response options for a question. Additional detail can be found in the Bureau's Technical Supplement: Measures of patient experience in NSW outpatient services.
  - Data weighted by age to reflect the population of all attendees during February 2010.
  - To account for differences between hospitals in the types of patients served, values were standardised for age, self-reported health status and language spoken at home.
  - Care experiences that matter most are based on analysis of all respondents to the Outpatient Care module of the NSW Health Patient Survey 2010, excluding those who attended a sexual health clinic or did not rate their overall care.
- Note: All percentages rounded to whole numbers and therefore percentages may not add to 100%.  
Source: Patient experience data from the Outpatient Care module of the NSW Health Patient Survey 2010.

Fig. 7

An example of the Bureau's innovation in design of *Performance Profiles* that include hospital-level information to inform efforts to improve care

The Bureau releases *technical supplements* to disclose its methodology and has released background papers in relation to outcomes of its data quality assessments and to shifts in its approaches to measurement. This has proven particularly useful when improving the approach to measuring elective surgery and emergency department wait times, in response to new insights in relation to variation between hospitals in coding practices and in adoption of new electronic information systems. The Bureau's reports compare performance across many domains of care, yet people may want to access all available information for a particular hospital. Therefore, the Bureau's staff created a webpage for each hospital where all of its *Performance Profiles* are published and there is a search engine to give ease of access. By advertising the availability of this information in all of its products, the Bureau is able to use media and its print products to attract and drive utilization of its website ([www.bhi.nsw.gov.au](http://www.bhi.nsw.gov.au)).

## Operations: Collaborative Structures and Processes

To optimize the positive impact of public reporting on public and clinical audiences on a relatively small annual budget and team, an organizational structure was established to ensure appropriate coverage of skills across research and measurement, information management and analyses, communications and stakeholder engagement, and corporate services.

Over the first 2 years, a multidisciplinary team of staff were hired including the chief executive, an executive assistant, and experts on corporate affairs, research and measurement, information management and analyses, and communications and stakeholder engagement. One director who reports directly to the chief executive is responsible for quality assurance and innovation. The Bureau was established as a matrix organization where directors of functional units assign staff to project teams. Public report projects were led and managed by research and measurement experts.

The research and measurement team included expertise in performance measurement, experience producing reports, and project management skills. The information management and analysis team was responsible for procedures and practices in relation to data analyses, methods used to compare performance, automation of data visualizations, and publication of technical supplements. Bureau staff members are able to access anonymous, unit record data electronically in a state-wide data warehouse.

The communications team was responsible for procedures and practices in relation to the layout and design of products (including branding), release of reports, and maintenance of the website. A media consultant with health expertise was engaged to support the launch of the reports during the first years of activity. What is probably unique among information organizations is that almost 30 % of the Bureau's staff work on this team.

The corporate affairs team was responsible for work in relation to statutory compliance and oversees additional governance, and corporate support services are purchased from another statutory health agency.

## Operations: Leadership and Innovation

Small start-up organizations dedicated to publicly reporting on the performance of healthcare organizations require strong team leadership and workplace culture. Successful leaders of public

reporting organizations must also understand and respond to political, social, cultural, and economic environments (Chen [2010](#)).

The organizational leadership styles identified by the Bureau's chief executive as appropriate to the establishment phase can be described as authoritative, affiliative, democratic, and pacesetter (Goleman [2000](#)). These styles were used in relation to stakeholder engagement and internal team development.

The authoritative or "come with me" leadership style was used to communicate a new and clear vision to health leaders and professionals regarding how the Bureau would undertake its work to make unique contributions to improving transparency and inform efforts to improve care. This approach was essential to addressing the nervousness that public reporting may provoke among healthcare professionals and to build clarity, enthusiasm, and commitment among staff regarding their unique role, responsibilities, and contribution.

The affiliative and democratic style revolves around people – leadership dedicated to ensuring that (a) stakeholders are aware of the degree to which the Bureau is respectful in its assessment and communications about the performance of healthcare organizations and (b) employees are aware of the senior management team's commitment to ensure that employees are happy and the workplace is harmonious and collaborative.

The leadership focus is to create a workplace environment that nurtures sharing and inspires innovation, as well as shared decision-making and risk-taking. Team members were given the liberty to work in ways they find most effective, but clear and regular communications were needed to obtain an understanding and sustain respect for interdependencies between team members in report production activities.

Together, these leadership styles support attainment of quick results and rapid change when there are clear and explicit standards of quality and timeliness – the leadership team must work together to explicitly define and manage a reasonable pace.

## Conclusion

Looking back after its third year, the Bureau has become a trusted, credible source of performance information. Its data is routinely reported in newspaper, radio, and television and regularly used by journalists and healthcare professionals. It has entered a different phase of its development and has expanded considerably in size and scope of its work.

The establishment of the Bureau was prospectively informed by and, therefore, serves as a case example of the influence of key success factors and international experiences in optimizing the positive impact of public reporting, which were:

- Securing improved performance measurement that often requires the active leadership of the government
- Establishing a centralized but independent agency
- Identifying clear objectives and targeting an audience
- Understanding the political and economic environment: changing the culture of provider organizations and engaging the public and media
- Developing the right content according to objectives, pretesting the product, and distributing it appropriately
- Monitoring the consequences of reporting, maximizing the intended consequences and minimizing the unintended

Providing timely evaluation of the public reporting activity itself and applying the learned lessons to the new endeavors

Defining performance measures and key performance indicators that are clear and consistent and fit into a clear conceptual framework and aim to be statistically sound, easy to interpret and unambiguous, and presented in full acknowledgment of data limitations

Attending to the presentation of performance information and its influences on interpretation by patients, providers and practitioners, and the public

Setting up a research agenda on specific issues that are important to the success of public reporting such as improvements in data collection, analytic methods including standardization of measures, and building necessary data and information infrastructure for public reporting (Chen [2010](#); Smith et al. [2008](#))

Looking forward, the Bureau will be increasing its attention on increasing use of its data by healthcare professionals and producing more information on patient experiences and medical practice variation.

## References

Chen J. Public reporting of health system performance: review of evidence on impact on patients, providers and healthcare organisations. Sydney: Sax Institute; 2010.

Goleman D. Leadership that gets results. *Harv Bus Rev.* 2000;78(2):78–90.

Graham C. Good reports for Wyong, Gosford hospitals. *Central Coast Express Advocate.* 2011. <http://express-advocate-gosford.whereilive.com.au/news/story/good-reports-for-wyong-gosford-hospitals/>. Accessed 6 Apr 2013.

Sandoval GA, Barnsley J, Berta W, Murray M, Brown AD. Sustained public preferences on hospital performance across Canadian provinces. *Health Policy.* 2007;83:246–56.  
[PubMed CrossRef](#)

Smith PC, Mossialos E, Papanicolas I. Background document – performance measurement for health system improvement: experiences, challenges and prospects. Geneva: World Health Organisation; 2008.