AUSTRALIAN COMMISSION ON SAFETY AND QUALITY IN HEALTH CARE

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THE STATE OF PATIENT SAFETY AND QUALITY IN AUSTRALIAN HOSPITALS 2019 Published by the Australian Commission on Safety and Quality in Health Care

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SUMMARY

Patients, consumers and the community trust clinicians and health service organisations to provide safe, high-quality health care, and most Australians have access to such care. Australians experience comparatively better health outcomes and live longer than people from most other highly developed countries. The Australian health system is more efficient than many other similar health systems¹, and Australia's clinicians are highly regarded as skilled professionals who are committed to meeting the healthcare needs of their patients.

Although most health care in Australia leads to good outcomes, patients do not always receive the care that is most appropriate for them, and preventable adverse events occur across the Australian health system.² Lapses in safety and quality, and unwarranted variation in health care provided to different populations within Australia have substantial costs, in terms of both the effect on people's lives and finances.^{2, 3} The personal and financial impact of patient safety lapses is considerable. In 2013, approximately 12% to 16.5% of total hospital activity and expenditure was the direct result of adverse events.⁴ In the financial year 2017–18. admissions associated with hospital-acquired complications (HACs)* were estimated by the Australian Commission on Safety and Quality in Health Care (the Commission) to cost the public sector \$4.1 billion** or 8.9%*** of total hospital expenditure. The most burdensome adverse event types include healthcare-associated infections (HAIs), medication complications, delirium and cardiac complications.

- ** Public hospitals only, and all care types
- *** Projected based on 2016–17 National Hospital Cost Data Collection

Australia has adopted a nationally consistent approach to improving the safety and quality of health care. In 2006, the Council of Australian Governments (COAG) established the Commission to lead and coordinate national improvements in the safety and quality of health care.

In 2011, the Federal Parliament passed the *National Health Reform Act 2011* which established the Commission as a corporate Commonwealth entity under the *Public Governance, Performance and Accountability Act 2013.* The Commission's governance structure is determined by these Acts.

The Commission works in partnership with patients, carers, clinicians, the Australian, state and territory health systems, the private sector, managers and healthcare organisations to achieve a safe, high-quality and sustainable health system. Key functions of the Commission include: developing national safety and quality standards, developing clinical care standards to improve the implementation of evidence-based health care, coordinating work in specific areas to improve outcomes for patients, and providing information, publications and resources about safety and quality.

The Australian approach to safety and quality has been to identify systemic risks to patients, to mitigate those risks and to improve patient outcomes through clinically appropriate risk management responses.

HACs list complications only

Measurement is foundational to this, as meaningful metrics are required to understand what the major safety issues are across the care continuum, proactively mitigate patient safety risks and engender improvement.

As global understanding of the nature of safety and quality issues improves, and as new issues emerge, the Commission and partners have continued to evolve Australia's approach to supporting improvement across the health system. Internationally, and within the Australian health system, there has been an increasing focus on delivering value-based health care for consumers and funders - achieving the best care possible for each patient while maintaining an efficient use of resources.⁵ In supporting this move towards value-based health care, the Commission has been fostering system change in five key areas to:

- Focus on people
- Measure and report on safety and quality
- Use evidence-based guidance and policy
- Strengthen clinical governance
- Embed safety and quality into national systems.

Moving forward, over the coming year the Commission will be building on existing work in these areas, and specifically focusing on: supporting implementation of the NSQHS Standards and improving the reliability of accreditation processes; setting national goals to reduce HACs; promoting rapid knowledge exchange on safety and quality practices; and supporting quality improvement through a health learning system for measurement and monitoring of safety and quality. Sustained and nationally coordinated action in these areas provides health service organisations with the guidance and tools required to make multi-faceted and meaningful improvement to the safety and quality of care delivered within the Australian health system. **Box 1** provides a description and definition of the term 'safety and quality'.

Box 1: What is safety and quality?

Patient safety and quality is often summarised as the right care, in the right place, at the right time and cost. The Commission defines patient safety as prevention of error and adverse effects associated with health care; and quality as 'the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge'.⁶

PATIENT SAFETY AND QUALITY IN AUSTRALIA

The performance of the Australian health system

Australia has better health outcomes at a population level than most other highly developed economies.¹ Australians have the third longest life expectancy among Organisation for Economic Co-operation and Development (OECD) countries, at 82.8 years, and a high number of years spent in good health.⁷ The cost effectiveness of Australia's health system is also high compared with other OECD countries, as we spend less on health than many countries for similar or better outcomes.^{1,8}

Health care in Australia is provided by teams of clinicians working in partnership with patients, families and carers. It is delivered in a wide variety of public and private health service organisations, ranging from sole proprietorships to large statutory corporations and public companies.⁹

Patients, consumers and the community trust clinicians and health service organisations to provide safe, high-quality health care, and most Australians have access to such care. Australia's clinicians are highly regarded as skilled professionals who are committed to meeting the healthcare needs of their patients.⁹

Although most health care in Australia leads to good outcomes, patients do not always receive the care that is most appropriate for them, and preventable adverse events occur across the Australian health system.³ Lapses in safety and quality, and unwarranted variation in health care provided to different populations within Australia have substantial costs, in terms of both the effect on people's lives and finances.^{2, 3}

The personal and financial impact of patient safety lapses is considerable. In 2013, approximately 12% to 16.5% of total hospital activity and expenditure was the direct result of adverse events.⁴ In the financial year 2017–18, admissions associated with HACs* were estimated by the Commission to cost the public sector \$4.1 billion** or 8.9%*** of total hospital expenditure. The most burdensome adverse event types include HAIs, medication complications, delirium and cardiac complications.

- ** Public hospitals only, and all care types
- *** Projected based on 2016–17 National Hospital Cost Data Collection.

The delivery of health care is a complex endeavour. Contemporary models of care are sophisticated and rapidly changing, as are the expectations of patients and consumers. Health service organisations such as hospitals sit within intricate networks of different types of services across tertiary, secondary and primary sectors. Patients and consumers move between these services and sectors, and safety and quality risks exist at all points on this journey.^{9, 10}

Key safety and quality risks have been identified nationally, and strategies are being implemented to improve the safety and quality of health care in Australia at local, regional, state and territory and national levels.

Australian leadership in patient safety and quality

Clinical teams provide relief to sick and injured people through the provision of safe, high-quality health care. Good health outcomes are dependent on the skills and ability of individual clinicians, clinical teams, and support staff and the clinical governance, teaching and research capability of the health service organisation.

Adverse clinical outcomes were traditionally viewed as the result of unavoidable complications caused by the patient's condition, and harm was thought to be isolated to rare cases.⁷

^{*} HACs list complications only

In 1995 Australia took the lead internationally by exploring safety and quality improvement across the health system and publishing the first large-scale Australian study of adverse events. The ground-breaking *Quality in Australian Health Care Study*, published in The Medical Journal of Australia, reported that 16% of patients in hospitals experienced some form of adverse event during their admission and approximately 50% of these were preventable.¹¹ This proved to be a turning point for the Australian health system, dramatically raising the profile of patient safety and stimulating major review of safety of patient care.

Landmark reports followed this Australian study, including *To Err is Human*¹² in 2000, which revealed that in the United States as many as one in 10 hospital patients were harmed unnecessarily, and that a substantial proportion of patients died as a direct result of medical care.⁷ Increasingly, patient harm was understood to be not just a result of human fallibility, but the result of system failures in the way care was organised and coordinated, and potentially preventable through improvement efforts targeted at clinical practice, health service organisations and systems.

Clinical risk, once regarded primarily as a professional indemnity issue for clinicians, became a priority for healthcare policymakers and providers, and a focus for consumers. Knowledge gaps were identified, the healthcare sector began to draw on safety lessons from other high-risk industries and the role of clinical governance and organisational culture to support patient safety was accepted.

See **Figure 1** for a summary of key developments in safety and quality in health care nationally and internationally.



INTERNATIONAL AND NATIONAL SAFETY AND QUALITY MILESTONES

19	90			2000		
EVENT	1991 Harvard Medical Practice Study (US) ^(a) Formal patient complaint mechanisms established in states and territories	1995 Quality in Australian Healthcare Study (Australia) ^(b)	1996 Professional Indemnity Review (Australia) (c)	2000 To Err is Human (US) ^(d) An Organisation with a Memory (UK) ^(e) The Australian Council for Safety and Quality in Health Care established	2001 Crossing the Quality Chasm (US) ^(f) Bristol Royal Infirmary Inquiry Report (UK) ^(g) First Australian Hospital Inquiry Report (King Edward Memorial) ^(f)	2002-04 Hospitals required to report sentinel events nationally according to the Australian Sentinel Events List ⁽¹⁾ First national Open Disclosure Standard (Australia) ⁽¹⁾
TARGET	Recognition of scope of pa Highlighted need for focus safety Recognition of need for for complaint processes	tient harm o on patient rmal patient		National approach to safety and quality monitoring and improvement	Broader understanding of contributing factors to harm Importance of governance, culture and reporting recognised	Increased transparency and understanding of scope of harm and focus areas

	2010					2020
2006 The Australian Commission on Safety and Quality in Health Care established Requirement for hospitals to introduce incident management systems	2008-11 Australian Charter of Healthcare Rights endorsed ^(k) The Australian Safety and Quality Framework for Health Care endorsed by Health Ministers ^(I) Australian Health Service Safety and Quality Accreditation Scheme ^(m)	2013-18 Health service accreditation assessment against the first edition of the NSQHS Standards for hospitals and day procedure services commenced ⁽ⁿ⁾	More than 1,330 hospitals and day procedure services assessed against the NSQHS Standards by 2017 Consultation on and development of the second edition of the NSQHS Standards, released in November 2017 ^(o)	Development of the hospital-acquired complications (HACs) list ^(p) National Model Clinical Governance framework released ^(q) Australian Atlas of Healthcare Variation Series: 1, 2 and 3 released ^(r)	2019 Health service accreditation assessment against the second edition of the NSQHS Standards commenced ^(o) New accreditation scheme commenced Integration of HACs into funding model from July 2018	2020 Common set of safety and quality metrics and public reporting of safety and quality data, using the Australian Health Performance Framework ^(s)
Enhancement of consumer role Greater understanding of causes of sentinel events and preventative strategies No-blame culture	Consistent approach to consumer rights and recognition of importance of consumer participation in care Three core principles specified for safe and high-quality care: consumer-centred, driven by information, and organised for safety	Nationally consistent approach to accreditation Accreditation focus on systems for clinical risk, consumer-focused care and governance. Commission and jurisdictions develop resources to support health service improvement	Increased understanding of safety and quality strengths and weaknesses Improvements in key areas of care and governance No-blame culture moves to learning culture	Defined focus areas for reducing complications, cost and practice variation; and for establishing robust clinical governance in health service organisations	from July 2018 Strengthened focus on cognitive impairment, mental health, health literacy, end-of-life care, Aboriginal and Torres Strait Islander health	Health system-wide learning systems to support safe, quality care

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AUSTRALIA ADOPTS A NATIONALLY CONSISTENT APPROACH TO MAKE HEALTH CARE SAFER

Primum non nocere: 'First, do no harm'.



In 2006, the Council of Australian Governments (COAG) established the Australian Commission on Safety and Quality in Health Care (the Commission) to lead and coordinate national improvements in the safety and quality of health care. The Commission's permanent status was confirmed with the passage of the *National Health and Hospitals Network Act 2011*¹³, while its role was codified in the *National Health Reform Act 2011*.¹⁴ The Commission commenced as an independent statutory authority on 1 July 2011, funded jointly by the Australian Government and state and territory governments.

Box 2: The role of the Australian Commission on Safety and Quality in Health Care

The Commission leads and coordinates national improvements in healthcare safety and quality. It works in partnership with patients, carers, clinicians, the Australian, state and territory health systems, the private sector, managers and healthcare organisations to achieve a safe, high-quality and sustainable health system.

Key functions of the Commission include: developing national safety and quality standards, developing clinical care standards to improve the implementation of evidence-based health care, coordinating work in specific areas to improve outcomes for patients, and providing information, publications and resources about safety and quality. The Commission works in four priority areas:

- Patient safety
- Partnering with patients, consumers and communities
- Quality, cost and value
- Supporting health professionals to provide care that is informed, supported and organised to deliver safe and high-quality care.



The Australian approach to safety and quality is to identify systemic risks to patients, to mitigate those risks and to improve patient outcomes through clinically appropriate risk management responses. In taking this approach, the health sector has adopted industrial principles from aviation, mining and used human factors analysis to develop patient safety standards.

Robust clinical governance, setting of standards, meaningful consumer partnerships, and measurement and reporting are central to Australia's approach to safety and quality. These issues have been highlighted in a range of activities to address safety and quality in Australia including the development and implementation of:

- National Safety and Quality Health Service (NSQHS) Standards (first and second edition)^{15, 16}
- Australian Health Service Safety and Quality Accreditation Scheme¹⁷
- Review of the Australian Health Service Safety and Quality Accreditation Scheme¹⁸
- Health service organisations' clinical risk management systems
- Measurement and reporting of sentinel events
- Hospital-acquired complications (HACs) specification for measurement and reporting¹⁹
- Adverse event reporting systems and open disclosure²⁰
- Measurement and reporting of patient experience
- Feedback and complaints management systems
- National Model Clinical Governance Framework⁹
- Australian Safety and Quality Framework for Health Care²¹
- 12 Australian Commission on Safety and Quality in Health Care

- Australian Charter of Health Care Rights²²
- Australian Atlas of Healthcare Variation series.²³

In June 2017, all Australian Governments committed to develop and implement reforms to improve health outcomes for patients and decrease potentially avoidable demand for public hospital services through the National Health Reform Agreement (NHRA) Addendum.²⁴ This Addendum sets out governments' intent to develop and implement reforms to:

- Improve patient outcomes
- Incentivise the system to provide the right care, in the right place, at the right time
- Decrease avoidable demand for public hospital services
- Signal to the health system the need to reduce instances of preventable poor-quality patient care, while supporting improvements in data quality and information available to inform clinicians' practice.²⁵



For the first time from 2017, funding and pricing arrangements for sentinel events and HACs have been incorporated into the national funding processes for public hospitals, and work is progressing on other potential markers.²⁵ Sentinel events, HACs and avoidable readmissions are discussed in detail in the Patient Safety Surveillance section of this report.

The Commission also provides evidence-based information, education and guidance for policy, strategy and action to improve safety and quality in high-risk areas. These include information, education and guidance on infection prevention and control; antimicrobial stewardship and medication safety; management and prevention of deterioration in physical and mental state; management of cognitive impairment; prevention of falls and pressure injuries; open disclosure and clinical communication.

The Commission has also developed a range of clinical care standards for conditions or treatments where the *Australian Atlas of Healthcare Variation* has indicated there may be unwarranted variation in care across Australia. **Box 3** provides information on clinical care standards.



Box 3: Clinical care standards

A clinical care standard is a nationally agreed statement on the care patients should be offered by health professionals and health services for a specific clinical condition, such as hip fracture, acute stroke or delirium. Clinical care standards play an important role in guiding the delivery of appropriate care and reducing unwarranted variation, as they identify and define the care people can expect to be offered or receive, regardless of where they are treated in Australia. Patients and consumers can use the clinical care standards, where relevant to their condition, to guide discussions with their healthcare professional about suitable treatment options.²⁶

Each clinical care standard contains a set of up to 10 quality statements that describe the key aspects of evidence-based care that a patient should be offered for a specific clinical condition or defined part of a clinical pathway. Accompanying each clinical care standard is a set of suggested indicators to assist local health services to monitor how well they implement the care described in the clinical care standard, and for use in quality improvement.²⁶

Each clinical care standard, in conjunction with clinical guidelines on which it is based, should contribute to improvements in care outlined in the NSQHS Standards. Used together, the clinical care standards and the NSQHS Standards aim to ensure people will receive safe and appropriate care.

THE AUSTRALIAN HEALTH SERVICE SAFETY AND QUALITY ACCREDITATION SCHEME

The very first requirement in a hospital...it should do the sick no harm.

66

Florence Nightingale, 1863²⁷

99

The Commission is responsible, with Australia and state and territory partners, under the *National Health Reform Act 2011* for the formulation of standards relating to healthcare safety and quality and for formulating and coordinating national models of accreditation for health service organisations.

Local implementation of the National Safety and Quality Health Service Standards

The primary aim of the NSQHS Standards is to protect the public from harm and to improve the quality of health service provision. They outline safety and quality outcomes that a health service organisation must achieve, while allowing health service organisations the flexibility to decide how to achieve these outcomes in a way that is appropriate for their context.

All hospitals and day procedure services are required to implement the NSQHS Standards. They must implement organisation-wide safety and quality processes and a comprehensive clinical governance framework. There are eight NSQHS Standards, which cover highprevalence adverse events, healthcare-associated infections, medication safety, comprehensive care, clinical communication, the prevention and management of pressure injuries, the prevention of falls, and responding to clinical deterioration. Importantly, these NSQHS Standards have provided a nationally consistent statement about the standard of care consumers can expect from their health service organisations.¹⁶



The eight NSQHS Standards are:



Clinical Governance, which describes the clinical governance, and safety and quality systems that are required to maintain and improve the reliability, safety and quality of health care, and improve health outcomes for patients.



Partnering with Consumers, which describes the systems and strategies to create a person-centred health system by including patients in shared decision making, to ensure that patients are partners in their own care, and that consumers are involved in the development and design of quality healthcare.



Preventing and Controlling Healthcare-

Associated Infection, which describes the systems and strategies to prevent infection, to manage infections effectively when they occur, and to limit the development of antimicrobial resistance through prudent use of antimicrobials, as part of effective antimicrobial stewardship.



Medication Safety, which describes the systems and strategies to ensure that clinicians safely prescribe, dispense and administer appropriate medicines to informed patients, and monitor use of the medicines.



Comprehensive Care, which describes the integrated screening, assessment and risk identification processes for developing an individualised care plan, to prevent and minimise the risks of harm in identified areas.



Communicating for Safety, which describes the systems and strategies for effective communication between patients, carers and families, multidisciplinary teams and clinicians, and across the health service organisation.

Blood Management, which describes the systems and strategies for the safe, appropriate, efficient and effective care of patients' own blood, as well as other supplies of blood and blood products.

Recognising and Responding to Acute Deterioration, which describes the systems and processes to respond effectively to patients when their physical, mental or cognitive condition deteriorates.¹⁶

With the NSQHS Standards and a clinical governance framework in place, health service organisations reduce the risk of harm to patients from hospitalacquired infections, the wrong medicines, falls, pressure injuries, or failures to communicate or identify and manage acute deterioration. They can also ensure better care for Aboriginal and Torres Strait Islander people and patients with cognitive impairment, mental illness or at the end of life.

Assurance to the community — the accreditation (assessment) process

In Australia, all public and private hospitals, day procedure services and most public dental practices must be accredited against the NSOHS Standards, under the Australian Health Service Safety and Quality Accreditation (AHSSQA) Scheme.¹⁷ Accreditation is a program in which trained external reviewers assess a health service organisation's implementation of the NSQHS Standards. Assessment involves an on-site visit during which surveyors seek evidence of implementation against the actions in the NSOHS Standards. Surveyors assess a hospital's performance during an accreditation visit of up to five days, during which they interview clinical staff, patients, consumer representatives, review hospital performance data such as HACs, observe clinical practice, inspect resources and test high-risk scenarios.

Assessment against the NSQHS Standards and the awarding of accreditation status provides assurance to the community that a health service organisation has the safety and quality systems and processes in place to meet expected patient safety and quality standards of care. The AHSSQA Scheme provides for the national coordination of accreditation processes, and consists of five inter-related elements to support the application of the NSQHS Standards:

 Health Ministers endorse the NSQHS Standards and receive information about health service organisations' performance against the NSQHS Standards

- Australian, state and territory governments determine the health service organisations required to be assessed against the NSQHS Standards. They receive data on the outcomes of assessment of health service organisations and respond to emerging issues
- Health service organisations implement the actions required to meet the NSQHS Standards and select an approved accrediting agency to assess their compliance in meeting the NSQHS Standards
- Approved accrediting agencies assess health service organisations against the NSQHS Standards
- The Commission, through coordination of a national program, develops and maintains the NSQHS Standards, approves accrediting agencies to assess health service organisations against the NSQHS Standards, undertakes ongoing liaison with state and territory health departments on opportunities to improve the NSQHS Standards and the accreditation system, and reports to Health Ministers annually on safety and quality.¹⁷

Following feedback from state and territory regulators, chief executives and others from health service organisations on the reliability of accreditation to the first edition of the NSQHS Standards, the Commission has implemented changes to improve accreditation processes.

Box 4 summarises the implementation of the NSQHS Standards.

Box 4: Implementation of the NSQHS Standards

Since January 2013, all hospitals and day procedure services in Australia have been accredited at least once to the first edition of the NSQHS Standards, and 906 health service organisations have completed two assessment cycles. Of these organisations, 67% (609 organisations) met all core actions at initial assessment for their first accreditation cycle, compared to 74% (672 organisations) for the second accreditation cycle, demonstrating an improvement in accreditation results over time.

Both the NSQHS Standards and the AHSSQA Scheme have been reviewed since their introduction, with the second edition of the NSQHS Standards released in November 2017. Health service organisations have been assessed to the second edition since 1 January 2019 under the revised AHSSQA Scheme.

What has been achieved?

Despite the limitations of data availability, significant improvements in the safety and quality of care over the past decade are evident. There has been a reduction in HAIs, reductions in preventable inhospital cardiac arrests, improved experience and outcomes for patients, better governance of clinical care and more meaningful involvement of patients and consumers in health care.

A review of the impact of implementing the first edition of the NSQHS Standards shows a range of benefits, including prevention of harm, improvements in patient care, empowerment of patients and consumers, development of better governance systems, wiser investment and reduction of waste.²⁸ **Box 5** summarises the key changes observed.

Box 5: Improvements in patient outcomes arising from implementation of the first edition of the NSQHS Standards 2013–2018

Key changes observed following implementation of the first edition of the NSQHS Standards included:²⁸

- A drop in the yearly number of methicillinresistant *Staphylococcus aureus* bacteraemia cases between 2010–11 and 2016–17 from 505 to 290^{53,54}
- A decline in the Staphylococcus aureus bacteraemia rate per 10,000 patient days under surveillance between 2010–11 and 2016–17 from 1.1 to 0.76 cases^{53,54}
- A decline of almost one-half in the national rate of central line-associated bloodstream infections between 2012–13 and 2013–14 from 1.02 to 0.64 per 1,000 line days
- The number of hospitals with antimicrobial stewardship increased from 36% in 2010 to 98% in 2015
- Formularies restricting use of broadspectrum antimicrobials increased from 41% in 2010 to 86% in 2015

- Better documentation of adverse drug reactions and medication history
- Reduction in yearly red blood cell issues by the National Blood Authority between mid-2010 and mid-2015 from about 800,000 units to 667,000 units
- Declining rates of in-hospital cardiac arrest and intensive care unit admissions following cardiac arrests:
 - NSW Between the Flags program report 51.5% decrease in cardiac arrest rates between 2010 and 2016
 - Victorian hospitals report a 20% relative reduction in monthly cardiac arrest rates between 2010 and 2014
- Early warning or track and trigger tools in 96% of recognition and response systems in 2015, compared with 35% in 2010
- The majority of hospital boards or their governance equivalent (84%) reported that as a result of the NSQHS Standards the board understood and enacted their roles and responsibilities concerning patient safety and quality.

In addition to the clinical safety improvements achieved, the NSQHS Standards have driven more effective clinical governance systems by helping to expand and define the roles of governments, executives, boards, clinicians and consumers in care safety and quality. As a result, responsibility for improving the safety and quality of health care is no longer seen to rest solely with frontline clinicians. Hospital boards say the NSQHS Standards have led to better integration of governance and quality improvement systems, and have clarified the roles and responsibilities of boards, with health service leaders and clinicians working together to improve safety and quality.²⁸

Significant changes in healthcare cultures and practices have been achieved through the NSQHS Standards' focus on consumer engagement in their own care and in improving services. Health service organisations are increasingly involving consumers and patients in decision-making around the governance, planning, communications, design and delivery of services. In many organisations, consumer participation has become part of everyday practice through consumer advisory committees and representatives, dedicated consumer engagement staff and executive leadership.²⁸

The review of the impact of implementation of the first edition of the NSQHS Standards, as well as a range of reviews of patient safety events undertaken by the Commission have identified areas that require further action to support safety and quality improvement. **Box 6** presents a summary of these areas.

Box 6: Areas requiring further action to support safety and quality improvement

- Implementation of an open disclosure response consistent with national and local standards
- Ensuring that incident management and investigation systems provide adequate surveillance to recognise major safety lapses and risks
- Implementation of corrective action in response to identified patient safety risks and lapses
- Establishment of complaint management systems that include a partnership with patients and carers
- Implementation of informed patient consent
- Ensuring a robust and positive safety culture
- Clearly understanding the roles and responsibilities of governing bodies, the executive, clinical teams and clinicians in clinical governance.⁹



PATIENT SAFETY SURVEILLANCE

Reporting systems can be designed differently but their principal purpose should be learning and improvement.

OECD, 2019²⁹



Measurement is fundamental to improving safety

Measurement is fundamental to advancing safety and quality improvement – meaningful metrics are required to understand what the major safety issues are across the care continuum, to proactively mitigate patient safety risks and to stimulate improvement.^{29, 30}

Evidence demonstrates that the provision of relevant and timely clinical information to clinicians and managers is an effective driver of safety and quality improvement.^{31, 32} The Commission has worked to support a consistent national approach to measurement by specifying, validating and gaining agreement on key safety and quality indicators. This work allows clinicians, health service organisations and states and territories the opportunity to compare outcomes and identify areas for quality improvement. It also provides a basis for reporting to patients, carers and consumers generally.

Australian patient safety measures

The Commission in collaboration with its partner organisations has developed and specified patient safety measures and indicators for sentinel events, adverse events, core hospital-based outcome indicators and HACs. In addition, the Commission has developed and tested national indicators for patient experience – the Australian Hospital Patient Experience Question Set (AHPEQS)³³ – and work is commencing on exploring national patient reported outcome measures and safety culture. The Commission also develops indicators to monitor implementation of national standards including the Commission's clinical care standards and the NSQHS Standards.

This section details current data for some of these indicator sets, and discusses work being undertaken by the Commission and partners to provide further guidance in measuring patient safety.

Mandatory reporting

Since 2007, Australian hospitals have in place a mandatory system to manage and report clinical incidents including the provision of appropriate feedback to patients, families, carers and clinicians, and the sharing of lessons learned to prevent patient harm.

Sentinel events

Sentinel events are rare, and are occurring less frequently

A sentinel event is a particular type of serious incident that is preventable and has caused serious harm to, or death of, a patient.

In Australia, reporting of sentinel events, against a nationally endorsed and agreed sentinel event list (endorsed by all Australian Health Ministers in 2002), has been mandatory since 2007. Since 2017, public hospitals receive no Australian Government funding for an episode of care in which a patient experiences or suffers from a sentinel event.

The Commission has recently reviewed the Australian sentinel event list, clarifying its purpose, definitions and criteria.³⁴ Broad consultation across Australia resulted in the removal of two sentinel events, and the addition of two others. **Box 7** shows the latest version of the list – the Australian sentinel event list (version 2)³⁵, which was endorsed for national use in December 2018. The Australian sentinel event list (version 2) will be incorporated into the national public hospital funding arrangements from 1 July 2019.

Box 7: Australian sentinel event list (version 2)

Sentinel events are a subset of clinical incidents that are wholly preventable and result in serious harm to, or death of, a patient and include:

- 1. Surgery or other invasive procedure performed on the wrong site resulting in serious harm or death
- 2. Surgery or other invasive procedure performed on the wrong patient resulting in serious harm or death
- 3. Wrong surgical or other invasive procedure performed on a patient resulting in serious harm or death
- 4. Unintended retention of a foreign object in a patient after surgery or other invasive procedure resulting in serious harm or death
- 5. Haemolytic blood transfusion reaction resulting from ABO blood type incompatibility resulting in serious harm or death
- 6. Suspected suicide of a patient in an acute psychiatric unit or acute psychiatric ward
- 7. Medication error resulting in serious harm or death
- 8. Use of physical or mechanical restraint resulting in serious harm or death
- 9. Discharge or release of an infant or child to an unauthorised person
- 10. Use of an incorrectly positioned oro- or nasogastric tube resulting in serious harm or death.³⁵

Very serious, fully preventable patient safety events are rare in Australia. However, they have the potential to seriously undermine public confidence in the health system.⁸ Time-series analysis for the period 2012-2017, against the previous sentinel event list (version 1), shows that these most serious clinical incidents are now occurring less frequently (**Figures 2-4**).³⁶

Figure 2: Total number of sentinel events by year Australia, 2012–2017



Source: Productivity Commission, Report on Government Services 2019.



Figure 3: Number of reported sentinel events by event type by year, 2012-17

Source: Productivity Commission, Report on Government Services 2019. **Note:** np = not provided



Figure 4: Number of reported sentinel events by state and territory, 2012–17

Source: Productivity Commission, Report on Government Services 2019.



NSW Ministry of Health – aims of clinical incident reporting systems and management

Case study 1 provides the aims of the NSW Ministry of Health's clinical incident management system:

- a. "Ensure a consistent and coordinated approach to incident management including the identification, notification, investigation and analysis of incidents resulting in appropriate action
- b. Allow the lessons learned to be shared across the whole health system
- c. Ensure health services establish processes that comply with the legal aspects of both clinical and corporate incident management
- d. Establish standard approaches to both clinical and corporate incident management, including the establishment of performance indicators to monitor compliance."³⁷

Clinical incidents

Australia has implemented a mandated reporting system where clinical incidents, their causes and any relevant contextual information are systematically recorded in a central repository. The information is then analysed and deployed to improve deficient processes where relevant, share lessons across related settings, improve safety for patients and prevent similar incidents from happening again.²⁹

The rate of clinical incidents appears to be steady. However, action is being taken to support improved clinical incident reporting which can be used to inform local quality improvement.

Clinical incidents have varying degrees of severity, ranging from near misses where minimal or no harm is experienced to incidents that can result in serious harm or death. Severity Assessment Codes (SACs), or similar risk rating scales, are used by state and territory health departments to rate the severity of incidents in public hospitals and to guide the level of investigation and action needed. For example, in New South Wales (NSW) and South Australia (SA), the most serious types of clinical incidents are rated as SAC1.^{38, 39}

Available data show the rate of serious clinical incidents (SAC1s) has not changed significantly between 2013–14 and 2016–17 (**Figures 5 and 6**). However, assessing the rate of the most serious clinical incidents (for example SAC1s) across Australia is complicated as there are different incident reporting processes and severity classification systems used by the states and territories. Work is underway within the Commission to better understand and to support improvements to clinical incident reporting.



Figure 5: Number of serious clinical incidents (SAC1) by state and territory, as reported through the different state and territory incident management systems, 2013–2017

Source: Australian Commission on Safety and Quality in Health Care, unpublished correspondence, 2019.

Note: Rating systems, classifications and definitions for clinical incidents vary between states and territories. Due to these inconsistencies clinical incident data may not be comparable across states and territories. The most serious clinical incidents are included in these figures (Severity Assessment Code 1 [SAC1]).

Figure 6: Rate of serious clinical incidents (SAC1) per 10,000 separations by state and territory, as reported through the different state and territory incident management systems, 2013–2017



Source: Australian Commission on Safety and Quality in Health Care, unpublished correspondence, 2019.

Note: Rating systems, classifications and definitions for clinical incidents vary between states and territories. Due to these inconsistencies clinical incident data may not be comparable across states and territories. The most serious clinical incidents are included in these figures (Severity Assessment Code 1 [SAC1]). Rates are per 10,000 separations.

Box 8: Clinical incident management and open disclosure

Open disclosure of harm with patients is an important part of clinical incident management, and requires a just and learning culture to be built within organisations. In Australia, clinical incident management systems and incident reporting is open to all healthcare staff. The opportunity to report the details of the specific incident from the perspective of the reporter, and the ability to analyse contributing factors and how the event could have been prevented all form part of incident management systems to improve safety and quality of care.²⁹

Open disclosure and discussion of clinical incidents resulting in harm with patients, their families and carers is important. It entails an apology, explaining what occurred; discussing the experience and consequences; and describing what steps are being taken to manage the incident and prevent recurrence. Australia has instituted open disclosure policies as a regulatory requirement, guided by the Australian Open Disclosure Framework.²⁰

Open disclosure has been shown to convey a range of benefits. For patients, their families and carers it can allay feelings of anxiety and abandonment after harm and has also been shown to have a cooling effect on desires to litigate most commonly motivated by patients simply wishing to find out exactly what happened when faced with evasion and lack of communication.⁴⁰ For providers, who can be seen as the 'second victims' of harm, open disclosure can be a healing process.⁴¹ Open disclosure – endorsed and supported by organisational leaders – also contributes to the 'just culture'.⁴⁰



Hospital-acquired complications

Hospital-acquired complications (HACs) are a sub-set of adverse healthcare events that have been identified as originating during the patient's hospital stay and are not present when the patient is admitted. A HAC refers to a complication for which clinical risk mitigation strategies may reduce (but not necessarily eliminate) the risk of that complication occurring.⁴² The Commission has developed a list of 16 high-priority HACs. Many of the identified HACs represent those adverse events whose occurrence – while perhaps difficult to prevent in each single case – in aggregate, can be reduced through consistent mitigation strategies.²⁹

In the financial year 2017–18, admissions associated with HACs' were estimated by the Commission to cost the public sector \$4.1 billion" or 8.9%" of total hospital expenditure. The most burdensome adverse event types include HAIs, medication complications, delirium and cardiac complications.

*** Projected based on 2016–17 National Hospital Cost Data Collection The Commission, together with clinicians and other experts, developed the HACs based on four criteria: preventability, patient impact (severity), health service impact and clinical priority. The national list of 16 HACs was developed through a comprehensive process that included reviews of the literature, clinical engagement and testing of the concept with public and private hospitals.¹⁹

In April 2016, all Australian, state and territory governments signed a Heads of Agreement that committed to improve Australians' health outcomes and decrease avoidable demand for public hospital services through a series of reforms, including the development and implementation of funding and pricing approaches for safety and quality.⁴³

These reforms are detailed in Schedule 1 of the Addendum to the National Health Reform Agreement: Revised Public Hospital Arrangements 2017, which provides agreement to develop and implement reforms to integrate safety and quality into the pricing and funding of public hospitals services.²⁴

In February 2017, the Australian Government Minister for Health directed the Independent Hospital Pricing Authority (IHPA) to implement three recommendations of the COAG Health Council relating to sentinel events, HACs and avoidable readmissions. IHPA's recommendations in relation to this were set out in *The Pricing Framework for Australian Public Hospital Services 2017–18.*²⁵

For HACs, this included, consistent with the Ministerial Direction, that IHPA reduce the funding level for all HACs across every hospital to reflect the extra cost of a hospital admission with a HAC from 1 July 2018, subject to a shadow year from 1 July 2017.²⁵

^{*} HACs list complications only

^{**} Public hospitals only, and all care types

Reducing hospital-acquired complications at the local hospital level

The Commission has developed a range of resources to encourage and support the local monitoring of the HACs list and improve patient safety and healthcare guality. This includes an information kit to provide frontline clinicians and others with tools to minimise the occurrence of HACs in their health service organisation. The release of this information kit draws upon consultation with clinicians from across Australia, as well as the latest evidence and clinical guidelines. The information kit provides strategies related to 15 HACs. The fact sheets outline steps clinicians, managers, governing bodies and others can put in place to reduce the occurrence of HACs. The kit also highlights the importance of ongoing monitoring of these HACs, which can provide an indication of the success of a service, or signify safety and quality issues that require improvement.42

The overall rate of hospital-acquired complications is decreasing, and data collection is improving

Overall HAC rates in Australia appear to be gently decreasing over time (**Figure 7**). Actual numbers of incidents or episodes are generally increasing. For some HACs, such as medication, respiratory and cardiac complications, this increase is large (**Table 1**). There is a strong drive to increase the focus on more accurate measurement and monitoring of HACs as part of a national approach to reducing HACs. It is anticipated that as data becomes more reliable and coding more consistent, clearer trends for HACs rates will become apparent.

Figure 7: Rates of identified hospital-acquired complications per 10,000 separations, 2013–14 to 2017–18



Source: Admitted Patient Care National Minimum Data Set, 2013–14 to 2017–18.

Note: Public hospitals only, which meet the robust condition onset flag coding criteria, all care types. Rates are per 10,000 separations

No.	Complication	2014-15	2015-16	2016-17	2017-18
	Total episodes with a HAC	107,268	122,540	134,739	140,393
	Number of episodes with:				
1	Pressure Injury	2,831	2,965	3,393	4,369
2	Falls resulting in fracture or other intracranial injury	1,614	1,764	1,930	2,036
3	Healthcare associated infection	51,803	54,131	58,692	61,297
4	Surgical complications requiring unplanned return to theatre	8,165	8,324	8,946	9,135
5	Unplanned intensive care unit admission	na	na	na	na
6	Respiratory complications	5,742	9,218	10,260	10,700
7	Venous thromboembolism	3,122	3,150	3,387	3,437
8	Renal failure	863	859	994	981
9	Gastrointestinal bleeding	5,559	5,637	6,224	6,330
10	Medication complications	7,628	10,249	12,517	13,725
11	Delirium	17,119	19,319	21,478	23,033
12	Persistent incontinence	2,974	3,211	3,729	3,801
13	Malnutrition	4,043	4,755	5,145	5,487
14	Cardiac complications	17,746	29,105	31,173	31,096
15	Third and fourth degree perineal laceration during delivery	5,008	5,154	5,764	5,642
16	Neonatal birth trauma	745	809	990	1,108

Source: Admitted Patient Care National Minimum Data Set, 2014-15 to 2017-18. **Note**: Public hospitals only, which meet the robust condition onset flag coding criteria, all care types. Sum of individual HACs will not equal total HAC episodes, due to single episodes having multiple HACs. Unplanned return to theatre is not currently reported in the national data. Surgical complication numbers are based on the HAC diagnosis codes. The HACs with the highest incidence are healthcareassociated infection, cardiac complications, delirium and medication complications (**Figure 8**). The Commission, states and territories and local health service organisations are working to implement strategies to address these identified HACs. **Case study 2** illustrates work undertaken to reduce healthcare-associated infection.

Figure 8: Distribution of HACs, 2017–18



Source: Admitted Patient Care National Minimum Data Set, 2017–18.

Note: Public hospitals only, which meet the robust condition onset flag coding criteria, all care types. Total (n) is sum of all HACs across the 15 complication groups, which can currently be measured at the national level.

CASE STUDY 2

Reducing healthcare-associated infections

Healthcare-associated infections (HAIs) are HACs that have the potential to cause significant harm to patients in hospital, including pain and suffering, and increased healthcare costs through prolonged hospital stay and

associated treatment. HAIs are one of the most common complications affecting hospital patients; they increase the risk of morbidity, mortality and readmission within 12 months.⁴⁴⁻⁴⁶

The Commission has led national work and collaboration on HAIs since 2006, bringing a breadth of stakeholders together to develop and implement strategies to reduce HAIs. A range of strategies to promote effective infection prevention and control undertaken by the Commission have been incorporated into the NSQHS Standards and have become essential components of NSQHS Standard 3: Preventing and Controlling Healthcare-Associated Infection. These include:

- The National Hand Hygiene Initiative⁴⁷
- The development of standard definitions for the surveillance of Staphylococcus aureus bacteremia (SAB), central line-associated blood stream infections and Clostridium difficile infection
- The national surveillance initiative for the prevention of HAIs, contributing to a national definition of SAB and the reporting and monitoring of SAB rates nationally
- Antimicrobial Stewardship programs
- The Antimicrobial Stewardship Clinical Care Standard⁴⁸
- Clinician capacity building
- The Australian Guidelines for the Prevention and Control of Infection in Healthcare in conjunction with the National Health and Medical Research Council⁴⁹

- Strategies to reduce multi-resistant organisms and for surveillance of surgical site infection
- The Antimicrobial Use and Resistance in Australia Surveillance System⁵⁰
- Activities undertaken by the states and territories.⁴⁶

Marked reductions in the rate of HAIs have been observed over time and are linked to coordinated effort across the health system to improve infection control and the appropriate use of antimicrobials (**Figure 9**).^{28, 46}

Figure 9: Rates of healthcare-associated infections in Australian hospitals per 10,000 separations, 2013–14 to 2017–18



Source: Admitted Patient Care National Minimum Data Set, 2013–14 to 2017–18. **Note:** Public hospitals only, which meet the robust condition onset flag coding criteria, all care types. Rates are per 10,000 separations.

Continued...

The Commission's activities in this area, as well as those led by state and territory health departments and clinical groups, have led to a reduction in HAI rates, including those associated with serious morbidity.²⁸ Key outcomes include:

- An increase in the overall hand hygiene compliance rate in public and private hospitals from 63% in 2009 to 84% in 2017^{51, 52}
- A decline in the Staphylococcus aureus bacteraemia (SAB) rate per 10,000 patient days under surveillance from 1.1 to 0.76 between 2010–11⁵³ and 2016–17⁵⁴
- A reduction in the yearly number of methicillin-resistant Staphylococcus aureus (MRSA) bacteraemia cases in Australian public hospitals from 505 to 290 between 2010–11⁵³ and 2016–17⁵⁴
- A decline in the national rate of central line-associated blood stream infections (CLABSI) from 1.02 to 0.64 per 1,000 line days between 2012–13 and 2013–14.^{28, 46,55}

National goals for optimal outcomes and reducing hospital-acquired complications

HACs are highly burdensome both to individual patients and the broader healthcare system, and extended admissions as a result of a HAC can incur significant cost implications. When examining the rate of each HAC across peer hospitals with similar patient cohorts, it is clear that there is significant variation. The Commission encourages all hospitals to work towards the rates achieved in the top quartile of peer facilities. If all hospitals with higher rates of a HAC can learn from better performing peer hospitals, and similarly reduce the incidence of that HAC, a significant overall reduction in HACs could be achieved. This would provide significant value to patients and the health system in terms of reduced morbidity, mortality, bed days and costs.

In identifying the rate for the top quartile of hospitals for each HAC by peer group, the Commission is providing a reasonable goal for health service organisations to work towards in achieving optimal outcomes for patients. Each hospital is expected to examine their individual HAC rates, identifying which HAC rates are higher than the rate for the top quartile, and apply quality improvement methodologies in order to reduce the incidence of these HACs.

Table 2 details the rates for the top quartile for three peer groups that health service organisations should strive for in reducing HACs and providing optimal outcomes for patients. The impact of health service organisations achieving that goal is illustrated for eight HACs in **Figures 10-17**.

Table 2: Setting national goals for achieving optimal outcomes and reducing hospital-acquired complications

	National goal (rates per 10,000)			
Hospital-acquired complication	Principal referral hospital	Public acute group A	Public acute group B	
Pressure injury	3.7	3.3	2.1	
Medication complications	29.1	16.5	9.4	
Delirium	57.9	38.7	17.3	
Persistent incontinence	4.3	2.0	1.9	
Malnutrition	6.4	2.3	1.7	
Cardiac complications	67.4	43.6	25.3	
Third and fourth degree perineal laceration during delivery	349.3	273.7	219.8	
Birth trauma	54.2	37.8	29.5	
Falls resulting in fracture or other intracranial injury	3.2	3.4	2.4	
Healthcare-associated infection	138.4	84.9	52.0	
Surgical complications requiring unplanned return to theatre	20.2	9.7	2.3	
Respiratory complications	32.5	17.0	7.4	
Venous thromboembolism	9.8	5.3	1.9	
Renal failure	2.7	np	np	
Gastrointestinal bleeding	13.1	9.1	4.8	

Source: Admitted Patient Care National Minimum Data Set, 2017–18.

Note: Calculated using public hospitals only, which meet the robust condition onset flag coding criteria, The lowest decile of HAC rates for each peer group have been excluded from the calculation of goals for optimal clinical outcomes. This will be reviewed as data integrity improves.

Rates per 10,000 separations. Birth trauma per 10,000 newborns. Perineal lacerations per 10,000 deliveries. np = not provided.

Figure 10: Potential impact of reducing healthcare-associated infections

Healthcare-associated infections



KEY

😑 Hospitals with the lowest decile, which have been excluded from calculation 🔵 Hospitals achieving optimal outcomes for reducing HACs 🌑 Hospitals that can improve HAC rates

Source: Admitted Patient Care National Minimum Data Set, 2017-18

Note: Public hospitals only, which meet the robust condition onset flag coding criteria. Rates are per 10,000 hospitalisations. Value capture figures are based on the national average length of stay per complication and average cost per day. Orange dots indicate hospitals with the lowest decile of HAC rates for each peer group. These hospitals have been excluded from the calculation of goals for optimal clinical outcomes. This will be reviewed as data integrity improves. See Australian Hospital Peer Groups for definitions of hospital peer groups: https://www.aihw.gov.au/reports/hospitals/australian-hospital-peer-groups/contents/table-of-contents.
Figure 11: Potential impact of reducing venous thromboembolism

Venous thromboembolism



KEY

🛑 Hospitals with the lowest decile, which have been excluded from calculation 🔵 Hospitals achieving optimal outcomes for reducing HACs 🌑 Hospitals that can improve HAC rates

Source: Admitted Patient Care National Minimum Data Set, 2017-18

Figure 12: Potential impact of reducing pressure injuries

Pressure injuries



KEY

🔴 Hospitals with the lowest decile, which have been excluded from calculation 🔵 Hospitals achieving optimal outcomes for reducing HACs 🌑 Hospitals that can improve HAC rates

Source: Admitted Patient Care National Minimum Data Set, 2017-18

Figure 13: Potential impact of reducing surgical complications

Surgical complications



KEY

Hospitals with the lowest decile, which have been excluded from calculation 🔵 Hospitals achieving optimal outcomes for reducing HACs 🔵 Hospitals that can improve HAC rates

Source: Admitted Patient Care National Minimum Data Set, 2017-18

Figure 14: Potential impact of reducing perineal tears

Perineal tears



KEY

Hospitals with the lowest decile, which have been excluded from calculation 🔵 Hospitals achieving optimal outcomes for reducing HACs 🌑 Hospitals that can improve HAC rates

Source: Admitted Patient Care National Minimum Data Set, 2017-18

Figure 15: Potential impact of reducing delirium

Delirium



KEY

Hospitals with the lowest decile, which have been excluded from calculation 🔵 Hospitals achieving optimal outcomes for reducing HACs 🔵 Hospitals that can improve HAC rates

Source: Admitted Patient Care National Minimum Data Set, 2017-18

Figure 16: Potential impact of reducing medication complications

Medication complications



KEY

🔴 Hospitals with the lowest decile, which have been excluded from calculation 🔵 Hospitals achieving optimal outcomes for reducing HACs 🌑 Hospitals that can improve HAC rates

Source: Admitted Patient Care National Minimum Data Set, 2017-18

Figure 17: Potential impact of reducing respiratory complications

Respiratory complications



KEY

🛑 Hospitals with the lowest decile, which have been excluded from calculation 🔵 Hospitals achieving optimal outcomes for reducing HACs 🌑 Hospitals that can improve HAC rates

Source: Admitted Patient Care National Minimum Data Set, 2017-18

Avoidable hospital readmissions

Avoidable hospital readmissions are costly, and rates remain relatively steady. However, action is being taken to improve data collection which can be used to inform local quality improvement.

Rates of avoidable hospital readmissions provide another insight into the safety and quality performance of the health system. An avoidable hospital readmission occurs when a patient who has been discharged from hospital is admitted again within a certain time interval, and the readmission:

- Is clinically related to the original admission, and
- Has the potential to be avoided through improved clinical management and/or appropriate discharge planning in the original admission.⁵⁶

The Commission has developed a list of avoidable hospital readmission conditions and their associated condition-specific timeframes (**Table 3**). This list was developed in consultation with clinical and consumer experts.⁵⁶

Table 3: List of hospital readmission conditions considered to be avoidable

Readmission condition	Readmission diagnosis	Readmission interval	
Pressure injury	Stage III ulcer	14 days	
	Stage IV ulcer	7 days	
	Unspecified decubitis and pressure area	14 days	
Infections	Urinary tract infection	7 days	
	Surgical site infection	30 days	
	Pneumonia	7 days	
	Blood stream infection	2 days	
	Central line and peripheral line associated blood stream infection	2 days	
	Multi-resistant organism	2 days	
	Infection associated with devices, implants and grafts	90 days	
	Infection associated with prosthetic devices, implants and grafts in genital tract or urinary system	30 days	
	Infection associated with peritoneal dialysis catheter	2 days	
	Gastrointestinal infections	28 days	
Surgical complications	Postoperative haemorrhage / haematoma	28 days	
	Surgical wound dehiscence	28 days	
	Anastomotic leak	28 days	
	Pain following surgery	14 days	
	Other surgical complications	28 days	

Table 3 continued

Readmission condition	Readmission diagnosis	Readmission interval	
Respiratory complications	Respiratory failure including acute respiratory distress syndromes	21 days	
	Aspiration pneumonia	14 days	
Venous thromboembolism	Venous thromboembolism	90 days	
Renal failure	Renal failure	21 days	
Gastrointestinal bleeding	Gastrointestinal bleeding	2 days	
Medication complications	Drug related respiratory complications / respiratory depression	2 days	
	Hypoglycaemia	4 days	
Delirium	Delirium	10 days	
Cardiac complications	Heart failure and pulmonary oedema	30 days	
	Ventricular arrhythmias and cardiac arrest	30 days	
	Atrial tachycardia	14 days	
	Acute coronary syndrome including unstable angina, STEMI and NSTEMI	30 days	
Other	Constipation	14 days	
	Nausea and vomiting	7 days	

Rates of avoidable hospital readmissions on the Commission's list have remained steady over time and are associated with a financial cost to the Australian health system in excess of \$200 million dollars annually (**Figure 18**). Reducing avoidable hospital readmissions is an important aspect of value-based care as it supports better health outcomes, improves patient safety and leads to greater efficiency in the health system.⁵⁶

Source: Australian Commission on Safety and Quality in Health Care, 2019.56

Figure 18: Selected avoidable hospital readmissions and cost to the Australian health system, 2014–15 to 2016–17



Source: Admitted Patient Care National Minimum Data Set, 2014–15 to 2016–17.

Note: Public hospitals only, excluding WA, due to data quality issues. Only accounts for readmissions back to the same hospital as the index admission. Costs are calculated for each year based on the National Weighted Activity Unit of the readmission.

CASE STUDY In 2015, st

Reducing readmissions locally

In 2015, staff at the Hunter New England Local Health District undertook a project aimed at reducing recurrent re-presentations and

readmissions. The project involved developing a process to identify patients at high risk of representing to hospital and implementing methods to address their medical and psycho-social needs. This new model of care has reduced the need for care by using partners in the primary care sector to provide support for these patients in the community. Key results from this project include:

- "A combined decrease of 44% in readmissions for these patients to hospital (Calvary Mater Newcastle achieving a 47% decrease and Maitland and Kurri Kurri achieving a 56% decrease)
- A combined decrease of 17% in presentations by these patients to the ED (Calvary Mater achieving a 17% decrease, Maitland achieving a 16% decrease and Kurri Kurri achieving a 19% decrease)
- There is now more accurate identification and assessment of vulnerable, high-needs patients through the use of the SCALE-UP tool
- Introduction of personalised care plans (VIP Action Plan) which now address psychosocial vulnerabilities and focus on improving quality of life".⁵⁷



QUALITY - APPROPRIATE CARE

Australia has one of the best health systems in the world, but there are large variations in the way health care is currently delivered across the country. Healthcare variation is not necessarily bad, and if it reflects differences in patients' needs or preferences it is a good thing. But when a difference in use does not reflect these factors, it is unwarranted variation and represents an opportunity for the health system to improve.

This improvement may involve increasing access to treatment options that produce better outcomes for patients, or reducing treatment with little or uncertain benefit. Addressing unwarranted healthcare variation can therefore benefit patients and improve the value gained from the health budget.

The Australian Atlas of Healthcare Variation

The Commission has produced a series of Australian Atlases of Healthcare Variation (the Atlas series) to map differences in healthcare use according to where people live. The first *Australian Atlas of Healthcare Variation* was produced in partnership with the NHPA and published in 2015; the second and third Atlases were produced in partnership with the Australian Institute of Health and Welfare (AIHW) and published in 2017 and 2018. They revealed substantial variation in the use of many treatments and diagnostic procedures, and have raised important questions about why this variation might be occurring.⁵⁸⁻⁶⁰

The Commission has worked closely with clinicians and government health departments to understand the reasons for variation seen in each intervention mapped in the Atlas series and – most importantly – what can be done where unwarranted variation is suspected.

What are the reasons for variation?

Rates of an intervention that are substantially higher or lower in some areas can highlight:

- Clinical practice that is not supported by evidencebased guidelines
- Inequity of access to evidence-based care, and the need to deliver services more fairly
- Higher rates of private health insurance in areas of greater socioeconomic advantage
- Inadequate system supports for appropriate care, and the need for changes in training or financial incentives
- Uncertainty about the intervention's place in therapy, and the need for better data on its benefits and harms.

Differences in the ages of different populations are accounted for in the data analysis to allow comparisons between populations with different age structures. All rates are based on a person's place of residence, not the location of the hospital or health service where they were treated.

What is being done to reduce unwarranted variation?

The Atlases were published relatively recently (2015, 2017 and 2018), and implementing changes in complex systems takes time. **Table 5** gives examples of how different groups within the health sector have addressed issues highlighted in the first and second Atlases, in the context of the many other organisations working to improve health care in Australia. More in-depth case studies are shown in **Case studies 4 and 5**.

Highlights from the third Atlas

Concerning rates of early, planned caesarean section with no medical reason

There is a growing body of evidence that planned birth before 39 weeks' gestation can increase short-term risks to the baby and long-term developmental problems in children.⁶¹⁻⁷⁰ Waiting until 39 weeks' gestation is recommended by several international organisations and some Australian states if there are no medical or obstetric reasons for an earlier birth.⁷¹⁻⁷⁴ A position statement from the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) states that 'On balance, weighing up the risk of respiratory morbidity following elective caesarean section and the risk of labouring prior to caesarean section, it is recommended that elective caesarean section in women without additional risks should be carried out at approximately 39 weeks gestation'.⁷⁵

Data about planned caesarean section before 39 weeks have only recently begun to be collected routinely in Australia. Only four states and territories had sufficient data for reporting in the Atlas. Despite the data limitations, the third Atlas showed some concerning patterns:

 In 2015, between 42% and 60% of planned caesarean sections performed before 39 weeks' gestation did not have a medical or obstetric indication

- In 2015, between 10% and 22% of caesarean sections performed before 37 weeks did not have a medical or obstetric indication
- Percentages of planned caesarean sections without an obstetric or medical indication were higher for privately funded compared with publicly funded patients (less than 39 weeks: 60% versus 52%).

Given the emerging research on long-term effects of early-term births, practices need to be re-considered. Strategies to reduce rates of early planned birth should include: providing parents with information about short- and long-term adverse effects of earlyterm births, clinician education, improving data collection and monitoring and hospital-level public reporting of this indicator.



Source: Australian Commission on Safety and Quality in Health Care, Third Australian Atlas of Healthcare Variation, 2018.

High rates of antibiotic dispensing for children

The third Atlas found high rates of antibiotic dispensing for children aged 0 to 9 years – equivalent to one antibiotic prescription annually for every child. Rates were highest for children aged 0 to 4 years.

Australia has one of the highest rates of antibiotic medicine use in children compared with other similar countries. The use of antibiotics in children of this age group in Australia was three times the rates of Norway and the Netherlands in 2015. The very high rates of antibiotic dispensing in Australian children suggest that antibiotics are frequently prescribed inappropriately – such as to treat viral infections where they have no benefit.⁷⁶

Overuse of antibiotics is potentially putting many children at risk of serious long-term adverse effects. Antibiotic use may change a child's normal gut bacteria and increase the risk of a number of conditions in later years including asthma and Crohn's disease.⁷⁷⁻⁷⁹



Source: Australian Commission on Safety and Quality in Health Care, Third Australian Atlas of Healthcare Variation, 2018.

Changes between the first and the third Atlases

Trends in data can signal where interventions are successful - and where greater efforts are needed. The third Atlas examined changes in rates of dispensing for commonly prescribed medicines between 2013–14 and 2016–17, as shown in **Table 4**. The Commission will publish a report with further detail about these trends in Atlas topics in the near future, and will continue to monitor and publish data reflecting areas examined by the Atlases as a way of providing feedback to the health system.

Table 4: Changes in Australian national rates of medicines dispensing per 100,000 people, between 2013-14 and 2016-17

Туре	Change	Comment		
Antimicrobial medicines	9% decrease	This reduction is encouraging, given that rates of use of Australia are substantially higher than in some other countries, raising concerns about growing antibiotic resistance. Continued effort to improve use of antibiotics is needed.		
Antipsychotic medicines for people aged 65 years and over	Little change	The current use of antipsychotic medicines outside current guideline recommendations as a form of restrictive practice to manage behavioural and psychological symptoms of dementia in aged care homes is a matter of grave concern. Efforts to reduce inappropriate use of antipsychotic medicines in Australia have included guidelines, safety warnings, education and policy. The Commission proposes a series of regulatory responses.		
ADHD medicines for people aged 17 years and under	30% increase	Further investigation is required to determine whether this is due to increased incidence and diagnosis of attention deficit hyperactivity disorder (ADHD), or increased prescribing outside guideline recommendations. Ongoing vigilance is required to promote appropriate prescribing of these medicines		
Opioid medicines	5% increase	It is unclear whether these changes are due to more people requiring opioids for appropriate uses or an increase in inappropriate prescribing. Despite the number of regulatory efforts already in place to minimise harm from these medicines, continued focus on improving medicine use in this area is needed.		

Source: Australian Commission on Safety and Quality in Health Care, Third Australian Atlas of Healthcare Variation, 2018.

Response to the Atlas series

The aim of the Atlas series is to provide clinically meaningful information that can be used to investigate and improve the appropriateness, effectiveness and efficiency of health care. Examples of work by a number of groups to improve care in clinical areas analysed in the Atlas series are outlined in **Table 5**.

Table 5: Examples of initiatives to address unwarranted variation in Atlas topics

Atlas findings	Responses			
Anxiolytic medicines	Tasmanian health services led improvements in prescribing through new mental health pathways, as well as education and audits (see Case study 4: A state response to high psychotropic medicines use).			
The rate of anxiolytic prescriptions dispensed for people				
compared to others, 2013–14; and the rate of antidepressant prescriptions dispensed for people age 18–64 years was	ACT Health implemented mental health pathways with general practitioners (GPs) to reduce unnecessary prescribing of antidepressants.			
2.8 times higher in some areas compared to others.	The Royal Australian and New Zealand College of Psychiatrists has produced updated clinical practice guidelines on the management of mood disorders (depressive and bipolar disorders), schizophrenia and anxiety disorders, to provide greater clarity about treatment options and when medication is appropriate.			
Antipsychotic medicines	Efforts to reduce inappropriate use of antipsychotic medicines in Australia have included guidelines, safety warnings, education and policy. The Commission proposes a series of regulatory responses.			
The rate of antipsychotic prescriptions dispensed for people 65 years and over was 7.1 times higher in some areas compared to others, in 2013–14.				
ADHD medicines	Paediatricians are researching reasons for variation in prescribing medicines for			
The rate of prescriptions dispensed for ADHD for people aged 17 years and under, in 2013–14.	ADHD, and antidepressants and antipsychotic medicines for children.			
Knee arthroscopy	The Medicare Benefits Schedule (MBS) Review Taskforce used Atlas data on knee arthroscopy to guide its review.			
Rate of admissions for knee arthroscopy in people				
areas compared to others, in 2012–13.	The Commission released the Osteoarthritis of the Knee Clinical Care Standard ⁸⁰ (see Case study 5: Falling rates of knee arthroscopy).			

Atlas findings	Responses			
Chronic diseases Potentially preventable hospitalisations due to several	The Queensland Clinical Senate met to discuss the Atlas findings and strategies to reduce potentially preventable hospitalisations. ⁸¹			
conditions showed substantial variation; for example, a 16-fold difference between the highest and lowest areas for chronic obstructive pulmonary disease (COPD); and a 12-fold difference for diabetes complications, in 2014–15.	The Northern Territory Clinical Senate discussed Atlas findings at its inaugural meeting.			
Colonoscopy	The MBS Review Taskforce used Atlas data on colonoscopy to guide its review.			
The rate of MBS-funded colonoscopies was 30 times higher in some areas than in others, and was lower in areas of low socioeconomic status (despite higher rates of bowel cancer in this group), in 2013–14.				
Hysterectomy	The Commission released the Heavy Menstrual Bleeding Clinical Care Standard. ⁸²			
The rate of hysterectomy was 6.6 times higher in some areas than in others, and was markedly higher in regional areas than in major cities, in 2014–15.				
Caesarean section	AIHW adopted the Robson classification for reporting data on all births including			
The rate of Caesarean section in selected women aged 20–34 years was 3.0 times higher in some areas than in others, in 2012–2014.	caesarean section, as recommended in the first Atlas. Data reported using this system allows comparison of rates of caesarean section between groups with the same obstetric and neonatal risk factors. This makes it easier to see where variation in rates is likely to be due to differences in clinical practice rather than patient characteristics.			

Source: Australian Commission on Safety and Quality in Health Care, 2019.

CASE

STUDY

State response to high psychotropic medicines use

Several areas of Tasmania were among the highest users in Australia of anxiety and

depression medicines in the first Atlas, and Hobart – North West had more than double the national average rate of use of anxiety medicines.⁵⁸ Differences in rates of anxiety and depression in the population did not account for these high rates. A lack of awareness of, and access to, non-medicine treatment for mental illnesses was thought to be a potential problem.

Primary Health Tasmania undertook a comprehensive needs assessment to gain a deeper understanding of the Atlas findings, and to see how resources to support optimal treatment of anxiety and depression could best be used. Staff from Primary Health Tasmania collaborated with other clinicians, including the Chief Psychiatrist, and consulted with the Chief Pharmacist, to look more closely at treatment of mental illnesses in different parts of Tasmania.

Primary Health Tasmania, together with the Tasmanian Health Service and the Department of Health and Human Services, took a multifaceted approach to improving the quality of clinical care. Quality improvement initiatives included:

- Auditing practice data
- Having conversations with clinicians in target areas and providing peer support to improve practice
- Developing de-prescribing resources and training clinicians in their use
- Developing and promoting Tasmanian Health Pathways for mental health.

Figure 19: Number of Pharmaceutical Benefits Scheme prescriptions dispensed for anxiolytic medicines per 100,000 people aged 65 years and over, age standardised, by local area, 2013-14



DARWIN

The team assessed the availability of mental health services in different areas of Tasmania. and increased access where gaps were found. The team increased access to face-to-face social work and psychology supports, promoted patient self-management tools for depression and anxiety, and increased the use of GP Mental Health Treatment Plans.

CASE STUDY 5

Falling rates of knee arthroscopy

Knee arthroscopy is a surgical procedure for examining the inside of the knee joint

and, if necessary, repairing it. Arthroscopic procedures are not effective for treating knee osteoarthritis.^{83, 84} In older patients with knee pain caused by osteoarthritis or degenerative meniscal changes, arthroscopic procedures provide only minor pain relief, which is offset by an increased risk of harm, when compared with conservative management.⁸⁵ Exercise therapy is more effective than knee arthroscopy for reducing osteoarthritic knee pain.⁸⁶

In 2015, the first Atlas reported that there were more than 33,000 admissions for knee arthroscopy in people aged 55 years and over in Australia in 2012–13.⁵⁸ The rate of admissions was seven times higher in the area with the highest rate compared with the area with the lowest rate. In light of the Atlas findings, the Commission released a clinical care standard for osteoarthritis of the knee (OAK)⁸⁰ and commissioned a documentary about appropriate care for knee pain. The Commission also referred the findings to the MBS Review Taskforce, which subsequently recommended removal of funding for knee arthroscopy for degenerative changes. The rate of knee arthroscopy in people aged 55 years and over in Australia fell from 412 per 100,000 in 2015 to 312 per 100,000 in 2017 – a 24% decline (Figure 20).⁸⁷ Figure 21 illustrates how the Commission used different types of resources, levers and approaches to influence and enact change within the health system on osteoarthritis of the knee.

Figure 20: Rate of knee arthroscopy in people aged 55 years and over, Australia, 2012–2017



Figure 21: Action by the Commission to improve treatment for osteoarthritis of the knee (OAK), 2015–2019

Publication of Atlas of Healthcare Variation shows large variation in knee arthroscopy (2015)	Atlas findi referred fo Medicare Scheme re resulting i to funding	ngs or Benefit eview n changes g (2016)	Clinical car standard o developed released (2	re on OAK and 2017)	Medicare Scheme o show red knee arth (2018)	e Benefits data luction in nroscopy	
Atlas recor developme clinical car and resour consumers	mmends ent of re standard rces for s (2015)	Documenta on knee pa for consum released (2016)	ary in iers	Indicato monitor specified	rs for ing OAK d (2017)	Decision support tool for OAK released (2019)	

Source: Australian Commission on Safety and Quality in Health Care, 2019.

MOVING TOWARDS VALUE-BASED HEALTH CARE

Internationally, and within the Australian health system, there has been an increasing focus on delivering value-based health care for consumers and funders. Value-based health care is about achieving the best care possible for each patient while maintaining an efficient use of resources.⁵ Importantly, the strategy provides a common goal for patients, clinicians, provider organisations, administrators, governments and policy makers, because it places patient outcomes as the focus for health system performance.

Creating high-performing health systems involves delivering services that improve health outcomes that matter to patients; understanding and improving the experience of both staff and consumers; and ensuring the efficiency and effectiveness of healthcare delivery.⁸⁸

There is significant work happening across Australia towards refocusing health systems, and value-based health care has been the subject of discussions and seminars auspiced by national and state governments. The NSW Government in particular, has implemented a number of initiatives to deliver better outcomes for patients and better value for the NSW health system. The NSW Ministry of Health's Leading Better Value Care program is the state's core approach to value-based health care.⁸⁹

The literature and global discussion on value-based health care identifies a number of basic building blocks. The most common are: measuring patient outcomes (particularly patient reported outcomes) and related costs; a system of guidelines and standards for best practice; identifying payment methods focusing on the outcome of care for a pathway or cycle of care; and an enabling information technology platform.⁹⁰⁻⁹³

The Commission has been supporting the achievement of value-based health care by fostering system change in five key areas to:

- Focus on people: understanding and responding to what matters to consumers and staff
- Measure and report on safety and quality: using data to identify, monitor and report on patient experience and outcomes, staff experience, costs and variation in practice. This means focusing on a new generation of outcome indicators that show how well health systems are serving people's needs, including patient reported experience and outcome measures
- Use evidence-based guidance and policy: using evidence to inform clinical practice and improvement
- Strengthen clinical governance: embedding accountability and strategies for safety and quality within organisational governance
- Embed safety and quality into national systems: using information and knowledge about safety and quality to inform national systems.

Figure 22 illustrates the Commission's key work in these areas, which are critical to delivering value-based health care.



Figure 22: Examples of Commission key work in supporting value-based health care



Source: Australian Commission on Safety and Quality in Health Care, 2019. **Note:** acute coronary syndrome (ACS), Australian Hospital Patient Experience Questions (AHPEQS), core hospital based outcome indicators (CHBOI), heavy menstrual bleeding (HMB), Medicare Benefit Schedule (MBS), osteoarthritis of the knee (OAK), patient-reported outcome measures (PROMs), venous thromboembolism (VTE).

Commission action to embed national systems:

National Safety and Quality Health Service Standards (1st and 2nd ed.), accreditation scheme, funding and pricing models, MBS reviews, credentialing changes, clinical trials framework, MyHealth record safety, certification framework for digital mental health, electronic medication management, ehealth systems.

Commission action to focus on people:

Charter of Healthcare Rights, policy (person-centred care, health literacy, shared decision making, comprehensive care, clinical communication, teamwork, informed consent) AHPEQs, PROMs, safety culture, National Model Clinical Governance Framework, Australian Safety and Quality Framework for Healthcare.

Commission action on measuring and reporting on safety and quality:

Patient safety learning and measurement systems, public and private reporting, registries, HACs, AHPEQs, sentinel event reporting, adverse event reporting, CHBOI, safety culture, Atlas reporting, Antimicrobial Use and Resistance Australia, patient reported outcome measures clinical trials, clinical care standards indicators, National Safety and Quality Health Service Standards indicators.

Focus on people

A key principle is to reorganise health care around patient values, rather than focusing on volume and throughput. Placing people at the centre of health care offers clear potential to improve the value delivered by health service organisations as it is integral to delivering care that matters to the patient. The potential benefits of having a focus on person-

Figure 23: Benefits of person-centred care

Better patient and community experience

- ✓ Improved patient satisfaction
- ✓ Improved patient engagement
- Improved community perceptions of healthcare organisations



- Improved workforce satisfaction
- Improved workforce attitudes
- Less workforce turnover
- Reduced emotional stress for the
- healthcare workforce
- Improved workforce wellbeing



organisations.

illustrated in Figure 23.

Better clinical outcomes, safety and quality

- ✓ Lower mortality
- ✓ Reduced readmissions
- ✓ Reduced length of stay
- Reduced healthcare acquired infections
- Improved treatment adherence



centred health care are widely recognised and are

In Australia, a person-centred focus is not new. An

staff experience, and the goal of delivering care that

meets the needs and preferences of consumers, is

reflected in national, state and territory policies, as

well as in activities within individual health service

understanding of the importance of patient and

Better value care through lower costs of care

- ✓ Shorter length of stay
- ✓ Lower costs per case
- ✓ Better utilisation of low verses high cost workforce members
- Less workforce turnover

The Commission's action

The Commission has embedded the principles of person-centred care within a range of national policies and frameworks such as the Australian Safety and Quality Framework for Health Care²¹, Australian Safety and Quality Goals for Health Care⁹⁴ and the Australian Charter of Healthcare Rights.²² This has been reinforced through the Partnering with Consumers Standard in the first and second editions of the NSQHS Standards, which places an increasing emphasis on the need for health service organisations to engage with consumers as partners in their own care, as well as involving consumers as partners in governance systems and processes.

The Commission has also provided guidance on measuring patient experience as a means of identifying whether health care is person-centred, and has developed the AHPEQS, a non-proprietary question survey instrument which assesses core aspects of patient experience.³³

Source: Australian Commission on Safety and Quality in Health Care, 2018.

CASE STUDY 6

Identifying attributes of organisations that excel in person-centred care

In 2018, the Commission published a review identifying key attributes of high-performing person-centred healthcare organisations and the benefits of embedding person-centred care into systems.⁹⁵

The identification of these attributes helps healthcare organisations identify and prioritise areas of action to support a person-centred focus. See **Figure 24** for the seven attributes identified through this work.

Figure 24: Attributes of high-performing personcentred healthcare organisations

Source: Australian Commission on Safety and Quality in Health Care, 2018.



Measure and report on safety and quality

A fundamental step towards creating a highperforming health system is the standardised measurement of outcomes that matter to the patient. Standardised measures can be used by clinicians to improve interventions and care for patients, and can be used by system managers, government and national agencies to encourage gains in safety, quality and patient outcomes.

This requires monitoring, measurement, reporting, learning and action at all levels of the health system – making the information available to patients, carers and consumers, clinicians, hospitals, administrators, policy-makers and government, so that learning and improvements can be made.

A multifactorial approach to monitoring and reporting on patient safety and quality is becoming increasingly common nationally and internationally, and systems implementing this approach are realising improved outcomes as a result.

People want to be assured that health care is safe and high-quality. Providing this assurance requires robust measurement and reporting of data that meaningfully and usefully assesses patient safety, and appropriateness of care.

Measurement and reporting on safety and quality informs people designing, delivering and funding health care about any gaps or variation in the delivery of health care; the impact of improvement activity; and how a health service organisation performs compared with national and international standards. Key to effective measurement is:

- Ensuring robust health information standards and clinical indicators are available for health service organisation and system use
- Providing a model for local, regional and national monitoring of patient safety and quality
- Supporting consistent and transparent public reporting on safety and quality by all sectors of the health system, including both public and private hospitals.

Some guiding principles that are core to safety and quality measurement are identified in **Box 9**.

Box 9: Ten guiding principles for safety measurement and monitoring

In 2014, Vincent described ten guiding principles for safety measurement and monitoring in health care. These included:

- 1. "A single measure of safety is a fantasy
- 2. Safety monitoring is critical and does not receive sufficient recognition
- 3. Anticipation and proactive approaches to safety
- 4. Integration and learning: invest in technology and expertise in data analysis
- 5. Mapping safety measurement and monitoring across the organisation
- 6. A blend of externally required metrics and local development
- 7. Clarity of purpose is needed when developing safety measures
- 8. Empowering and devolving responsibility for the development and monitoring of safety metrics is essential
- 9. Collaboration between regulators and the regulated is critical
- 10. Beware of perverse incentives."96

National reporting

Australia has been described as lagging behind and 'less advanced' than many countries when it comes to public reporting of healthcare safety and quality. In Australia, there are multiple channels of public reporting across the public and private sectors and locally, but no consistent, readily accessible, national public reporting of patient safety and quality healthcare outcomes across the hospital sector.

A number of reports have signalled a commitment by the Australian Government for increased transparency in reporting about health services, particularly to:

- Promote informed decision-making by the people using those services
- Contribute to quality improvement and quality assurance.

In October 2017, the Australian Government Productivity Commission released the report *Introducing Competition Informed and User Choice into Human Services: Reforms to human services.*⁹⁷ One area of focus for the report was improving consumer choice through increased transparency and public reporting. Recommendation 11 focused on information to support patient choice and self improvement by healthcare providers, and included strengthening and expanding public reporting.

In 2011, the Australian Government introduced the MyHospitals website⁹⁸, the only nationally consistent and comparable public reporting system for public and private providers (mandatory for public hospitals, but voluntary for private sector providers). Currently, owing to methodological challenges and lack of data, only seven of the 17 proposed indicators are reported.

Despite the extent of public reporting of health information occurring in Australia, this information is not well known to clinicians and the public, and there is limited awareness of the MyHospitals website.

Australian governments are committed to increased transparency in reporting about public services, and recently created the Australian Health Performance Framework (AHPF)⁹⁹ which provides a single healthsystem wide reporting framework that takes into account factors that influence service delivery and health and workforce outcomes. The AHPF provides a structure for national reporting, but it does not yet contain a contemporary, discrete set of indicators that would give summary information on patient safety and guality health care in both public and private hospitals nationally. The AHPF is designed to 'support achievement of the National Healthcare Agreement objective: to improve health outcomes for all Australians and ensure the sustainability of the Australian health system.'99

In August 2017, the COAG Health Council asked the Commission to identify options to align public reporting standards of patient safety and quality health care across public and private hospitals nationally. The COAG Health Council intended that the output of this work be incorporated into the national work being progressed on the AHPF.

Local reporting

There are varying degrees of public reporting across the states and territories, ranging from welldeveloped public reporting mechanisms such as those in South Australia¹⁰⁰, Queensland¹⁰¹ and New South Wales¹⁰², to other less developed models. Although most hospitals in Australia measure and collect information on adverse events, clinical incidents, and other patient clinical record data, the indicators used for collection are not consistent across the sector, and it is not always clear how the information collected is used for local improvement.

The Commission's action

The Commission has been working on developing a defined set of indicators – common specifications for measuring safety and quality consistently and transparently. The Commission has developed this set of indicators for local monitoring and reporting, and is now working on specifying those indicators for consistent national reporting. The indicators have largely been designed for automatic capture from multiple sources – including the electronic health record in states and territory jurisdictions and (in the future) My Health Record nationally. The Commission acknowledges the importance of contemporary realtime data as a long-term goal and preference.

The set of indicators form the core components of a national patient safety measurement tool, or framework, which the Commission is currently developing. Further information on this framework is included on pages 71 to 73.

The Commission is also proposing that the indicators be specified for use as standards for public reporting - this proposal will form part of the advice to COAG Health Council on options to align public reporting standards of patient safety and quality health care across public and private hospitals nationally. **Table 6** shows the potential indicators mapped against AHPF health system reporting dimensions. Table 6: Examples of potential indicators mapped to reporting measures for safety and quality

AHPF health system dimension	Reporting measure	Potential indicator / indicator status			
Safety	Compliance with national health service standards (NSQHS Standards)	Accreditation status and reason for failure, presented by hospital; standard specifications developed by the Commission			
	Patient outcomes	Mortality Avoidable hospital readmissions			
	Adverse events	Hospital-acquired complications set			
		Staphylococcus aureus bacteraemia surveillance			
		Australian Sentinel Events list			
Appropriateness	Patient reported measures	Australian Hospital Patient Experience Question Set (see Case study 7)			
		Patient reported outcome measures*			
	Staff safety culture	Patient safety culture survey*			

*The Commission is investigating feasability of indicators.

CASE STUDY 7

The Australian Hospital Patient Experience Question Set

The Australian Hospital Patient Experience Question Set (AHPEQS) is a tool developed to assess the person-centeredness of health service organisations. It was originally commissioned by Health Ministers to be a data source for the nationally consistent measurement of patients' healthcare experience.

The AHPEQS is a non-proprietary 12-question survey instrument which assesses core aspects of patient experience without placing undue time burdens on the person. The short, generic and simple nature of the tool will enable systematic and routine capture and use of patients' perspectives on the quality and safety of their health care in a way that is efficient for funders, providers and patients. The questions may be used free of charge by organisations in both public and private sectors. The Commission is now working to establish a methodology for potential future nationally-consistent measurement of patients' experiences using the questions.

Figure 25: Domains for Australian Hospital Patient Experience Question Set



Use evidence-based policy and guidance

Evidence-based policy and guidance provides a foundation for delivering safe and high-quality care. It provides information about what is known to work in health care, and also reinforces the imperative to continually build the evidence base to better inform future decisions and action. Using an evidence-based approach is grounded in rigorous research, data, analytics, and evaluation of new innovations.

Sometimes it can be challenging for health service organisations and clinicians to keep up to date with changes to the evidence base, guidance and best practice for health care in an environment burdened with competing information and priorities. The collation and distribution of evidence-based guidance and policy from a trusted source provides a valuable service to the health system.

The Commission's action

The Commission's work involves the development of evidence-based policy and guidance, and includes:

- Undertaking and using research to inform new policies and guidance to improve the safety and quality of health care
- Supporting data collection and analysis to inform decision making and approaches
- Developing policies that incentivise the use of evidence-based approaches.

The Commission has developed a range of clinical care standards describing quality care for a range of conditions where there has been variation

in practice. **Box 10** gives information on clinical care standards. In addition, the Commission has developed evidence-based guidance, policies and national consensus statements on a range of topics that have been identified as areas where safety and quality improvement could be made across the health system. The topics for these include mental health, cognitive impairment, comprehensive care, healthcare-associated infection, antimicrobial stewardship, blood management, falls, clinical communication, pressure injuries, end-of-life care, medication safety and others.

Box 10: Clinical care standards

Clinical care standards play an important role in guiding the delivery of appropriate care and reducing unwarranted variation. The Commission has developed clinical care standards on antimicrobial stewardship, acute coronary syndrome, acute stroke, colonoscopy, delirium, heavy menstrual bleeding, hip fracture, osteoarthritis of the knee, and venous thromboembolism.²⁶

Each clinical care standard is developed in collaboration with a topic working group of clinicians, researchers and consumers, using the most current evidence from guidelines and standards, information about gaps between evidence and practice, their expertise and knowledge of the issues affecting the appropriate delivery of care, and consideration of issues that are important to consumers. Clinical care standards:

- Help people to know what care to expect for a particular clinical condition; help them make informed decisions about treatment in collaboration with their health professional
- Provide guidance to health professionals so they can deliver quality care and have informed discussions about treatment options with their patients
- Set out the components of care that health services can use to guide practice and monitor improvement in their hospitals and other services where the clinical care standard is applicable.²⁶

The National Model Clinical Governance Framework

Since 2015, a number of state and territory governments have engaged the Commission to review identified patient safety problems. These reviews have shown that some health service organisations have problems implementing key clinical governance processes. Issues that have been identified during these reviews include problems with:

- Implementing an open disclosure response consistent with national and local standards
- Ensuring that incident management and investigation systems can provide adequate surveillance to recognise major safety failures or risks
- Implementing corrective action in response to identified patient safety risks and failures
- Establishing complaint management systems that include a partnership with patients and carers
- Ensuring a robust and positive safety culture
- Clearly understanding the roles and responsibilities of boards, the executive, clinical teams and clinicians in clinical governance.

Clinical governance is the set of relationships and responsibilities established by a health service organisation between its state or territory department of health (for the public sector), governing body, executive, workforce, patients, consumers and other stakeholders to ensure good clinical outcomes. It ensures that the community and health service organisations can be confident that systems are in place to deliver safe and high-quality health care, and continuously improve services.

Clinical governance is an integral component of corporate governance of health service organisations. It ensures that everyone – from frontline clinicians to managers and members of governing bodies, such as boards – is accountable to patients and the community for assuring the delivery of health services that are safe, effective, integrated, high quality and continuously improving.

The Commission developed the National Model Clinical Governance Framework (the Framework)⁹ to improve clinical governance. It provides a consistent national framework for clinical governance that is based on the NSQHS Standards. It supports a shared understanding of clinical governance among everyone working in health service organisations, including clinicians, managers and members of the governing body. The Framework has five components as illustrated in **Figure 26**. The Framework applies to public and private health service organisations in the acute sector, and is mandatory for health service organisations that need to meet the requirements of the NSQHS Standards.

Figure 26: National Model Clinical Governance Framework



Source: Australian Commission on Safety and Quality in Health Care, 2017.

Embed safety and quality into national systems

Embedding safety and quality into national systems involves using knowledge and evidence about a person-centred focus; evidence-based policy and guidance; and measurement and reporting of safety and quality into the overarching systems and structures that influence the way health care is delivered. These systems and structures include credentialing, professional registration, professional education, accreditation, funding and legislation.

It is about ensuring that national systems and structures are focused on delivering and funding value-based care that improves patient experience and outcomes, rather than simply rewarding activity. Using knowledge about patients' outcomes and experience, combined with resourcing for individuals and the system help to support understanding of the value of different treatment options and prioritise resourcing for patients to access the best possible care for themselves and their community.

The Commission's action

The Commission has accumulated significant knowledge and expertise in key areas of healthcare variation where safety and quality improvements can be implemented. The NSQHS Standards are a key example of action to support health service organisations to provide safe, quality care that is based on embedding evidence-based approaches into the policies, practices, systems and governance that guide everyday care. **Case study 8** illustrates how developing evidence-based policy and guidance and embedding it into systems through the NSQHS standards can contribute to improved outcomes for patients. In addition, the Commission has developed credentialing requirements for areas where there have been identified risks for patients. It is also developing a national clinical trials framework for greater consistency and application of clinical trials within health service organisations, and is working with partner agencies to integrate safety and quality into funding and pricing (**Box 11**).

Box 11: Funding and pricing for safety and quality

There is a substantial body of research arguing that healthcare pricing models should reward quality and safety. Therefore having a focus on value-based care requires a consideration of pricing and funding systems in health care. There are four commonly used models for funding or pricing health care in Australia:

- Best-practice pricing: evidence-based decisions on what constitutes 'best practice' for treatment of a particular condition, then applying a price to the provision of this best-practice package of service or model of care
- Normative pricing: use of price to influence the delivery of care (for example, to provide more inhome care for certain conditions)
- Quality structures pricing: linkage of the accreditation standards to funding in the private hospital system
- Payment for Performance (P4P) or Safety and Quality pricing: linkage of quality, safety and funding through the imposition of financial incentives and/or disincentives for certain behaviours or outcomes.¹⁰³

In Australia, Australian Government funding for hospitals is directed to Local Health Networks rather than to specific hospitals or to clinical departments within hospitals. However, the international literature indicates that incentives built into the model at this level would not be effective unless those incentives flow down to the hospital or ward.¹⁰³ Research has shown that best practice and normative pricing models are generally considered to be better than pay for performance in creating incentives for new models of care but many models are narrow in scope.¹⁰³ It is important to note that the strongest evidence overall on how to genuinely improve quality and safety exists for clinical quality registry and benchmarking systems, which use clinical registry data to compare the performance of providers, to identify best practice and to drive improvements in quality and patient outcomes.

In 2015 and 2016, IHPA and the Commission investigated best-practice pricing options for funding some hip fracture care. This approach would see purchasing of healthcare services for hip fracture care at a price that reflects the elements that constitute best practice. The best-practice price was proposed to align with the Commission's Hip Fracture Clinical Care Standard as it forms the evidence-base for a national care pathway for hip fracture care which has support from clinicians and consumers. In its annual pricing framework, IHPA noted that it would not proceed with the model in the short term, but would work with jurisdictions and other stakeholders to further examine the viability and implications of implementing a bestpractice pricing approach for hip fracture care in future vears.25

See page 27 for more information about how the Commission is working to integrate safety and quality into pricing.

CASE STUDY 8

Reducing cardiac complications through better recognition and response systems – from policy to standards to change

Each year, patients in Australia experience almost 31,000 cardiac complications while in hospital.¹⁰⁴ These complications range from unstable angina, through to acute myocardial infarction, arrhythmias, pulmonary oedema and even cardiac arrest.⁴² Reductions over time in the rate of cardiac complications and cardiac arrest rates, demonstrate how evidence-based interventions at the national system, sate and territory and local level are working together to enhance patient safety (**Figure 27**).²⁸

In 2010, the Commission published a National Consensus Statement (the consensus statement) outlining eight essential elements for recognising and responding to clinical deterioration in hospitalised patients.¹⁰⁵ NSQHS Standard 9: Recognising and Responding to Clinical Deterioration in Acute Health Care arose from this consensus statement.²⁸

Many states and territories have been active in this area and there has been considerable change in systems for managing the deteriorating patient and the nature of rapid response systems including a greater use of early warning tools, graded response protocols and structured handover. The reductions in rates of cardiac arrests reflect their work and the initiatives in individual hospitals over more than two decades, as well as the impact of the NSQHS Standards and other Commission initiatives.²⁸ Figure 27: Rates of in-hospital cardiac complications and cardiac arrest, Australia, 2013–14 to 2017–18





Source: Admitted Patient Care National Minimum Data Set, 2013–14 to 2017–18. **Note:** Public hospitals only, which meet the robust condition onset flag coding criteria, all care types. Rates are per 10,000 separations.

Case study 8 continued

An example of the impact of state and territory action can be seen in the findings from the NSW Between the Flags program. Implemented in NSW public health facilities in 2010, the program's key elements align with NSQHS Standard 9 and include a focus on governance, standard calling criteria, clinical emergency response systems, education and evaluation.¹⁰⁶ Findings from the program indicate that from 2010-2016, the rapid response call rate increased by 156% and the cardiac arrest rate decreased by 51.5% in NSW (**Figure 28**).²⁸

Figure 28: Unexpected cardiopulmonary arrest rates and rapid response call rates per 1,000 acute separations – Between the Flags NSW, 2010–2016



THE COMMISSION WILL SUPPORT HEALTH SERVICES DURING 2019–20

Supporting implementation of the second edition of the NSQHS Standards

The second edition of the NSQHS Standards addresses gaps identified in the first edition, including mental health and cognitive impairment, health literacy, end-of-life care, and the health of Aboriginal and Torres Strait Islander peoples. It also updates the evidence for actions, and consolidates and streamlines standards and actions to make them clearer and easier to implement. Assessment to the second edition commenced from 1 January 2019.¹⁰⁷

The Commission is supporting health service organisations in a range of ways to transition to the second edition of the NSQHS Standards through the development of information, education and guidance. This includes:

- Guides, advisories, workbooks and fact sheets on meeting the requirements for hospitals, small hospital and multi-purpose services, and day procedure services
- Tailored information and user guides describing strategies for implementing NSQHS Standards with specific patient populations including children, Aboriginal and Torres Strait Islander peoples, people with mental health conditions,

chemotherapy patients, people with cognitive impairment, and people at the end of life

- Education modules, fact sheets and user guides for different people working within the health system including assessors, clinicians, quality managers, board members, chief executive officers and others.
- All of this information, education and guidance has been brought together into a custom built microsite to ensure it is easy for health service organisations, consumers, assessors and regulators to find and use.

The Commission is working closely with state and territory regulators, accreditation agencies and health service organisations as implementation of the second edition of the NSQHS Standards progresses to inform the development of new guidance and support, and identify areas for improvement and action.





Improving the reliability of the accreditation process

In 2016–17, the Commission undertook a comprehensive review of accrediting agencies, including a review of the approval process and held performance review meetings with all approved agencies. During this, state and territory regulators and chief executives of health service organisations raised concerns about the reliability of the assessment process. They particularly noted that, in their view:

- Assessment processes did not reliably verify that a health service organisation's safety and quality systems were operational and effective
- There can be variation in how assessors interpret the intent and requirements of the NSQHS Standards
- Accreditation can be awarded, with later reviews finding clinical governance was not fully embedded.¹⁸

The Commission is responding to industry concerns and is implementing six strategies to improve the reliability of the accreditation process, described in **Box 12**. Combined, these strategies will ensure the accreditation process will more accurately assess a health service organisation's compliance against the NSQHS Standards, rather than examine their preparedness for an assessment. Implementation of these strategies commenced, along with the second edition of the NSQHS Standards, from January 2019.

Box 12: Strategies to improve the reliability of the accreditation process

Strategy 1: Improve the veracity of health service organisation assessments

Standardise the length of cycle and assessments; amend rating scale; test highrisk scenarios; assessment conducted at short notice; standardise reporting by accrediting agencies to health service organisations; require repeat assessment if actions are not met; use of patient journey methodology; clinical governance attestation statements; describe flexible transition arrangements for the first year of operation

Strategy 2: Improve the effectiveness and expertise of the assessment team

Improve the oversight and feedback on accreditation agency performance; develop a structured assessment methodology for the Clinical Governance and Partnering with Consumers Standards; provide orientation and training for assessors in the NSQHS Standards

Strategy 3: Assess the health service organisation's safety and quality data to better inform assessment processes

Use administrative and clinical data to target assessments; prescribe the data to be reviewed by assessors

Strategy 4: Improve regulatory oversight

Reduce the need to comply with other safety and quality standards; address conflicts of interest

Strategy 5: Improve communications about the assessments and their outcomes

Public reporting on assessment outcomes; communicate with stakeholders about accreditation

Strategy 6: Improve resources and support for health service organisations

Support health service organisations before assessment; formalise internal assessments against the NSQHS Standards for health service organisations; provide guidance about the use of patient journey methodology by health service organisations.¹⁸
Promoting rapid knowledge exchange through the establishment of a national safety and quality portal

The Commission will establish a national centralised repository for reviews of important patient safety practices. This will provide clinicians, health service organisations, patients, carers, consumers and others with an accessible mechanism for obtaining objective, detailed information on the evidence supporting the effectiveness of patient safety practices.

The establishment of this portal complements the Commission's work in supporting the use of evidence-based guidance, strategies and standards for the improving the safety and quality of health care. It is expected that a range of patient safety practices will be reviewed against the following domains: scope of the problem, strength of evidence for effectiveness, evidence on potential for harmful unintended consequences, estimate of costs, how much is known about implementation and how difficult the practice is to implement.

Collection and review of patient safety practices for inclusion in the portal is likely to involve:

 Commissioning the development of systematic reviews to provide comprehensive, evidencebased information on common, costly medical conditions, and new healthcare technologies and strategies

- Developing a tool to allow comparison of patient safety practices, which would allow the generation of side-by-side comparisons for any combination of two or more practices
- Establishing an electronic forum for exchanging information on patient safety practices, their development, implementation and use
- Compiling a centralised annotated bibliography of patient safety practices where users can search for citations for publications and resources safety practices, including practice development and methodology, structure, evaluation and implementation.

Supporting quality improvement and health learning systems through measuring and monitoring safety

Measurement is an important part of safety and quality improvement. Collecting, reporting and acting on data about safety and quality supports accountability and transparency in service provision, but effective reporting is an ongoing challenge, as it requires multiple measures at different levels of the system.²⁹

Measurement and reporting are tools which can be used to inform policy levers, which ensure that action is taken to improve, learn from, and spread good practice. Action is enabled at practice level, organisational level and system level through sound reporting and information sharing.²⁹ In Australia, reporting standards and measures differ across states and territories, and between the private and public sectors, and there is little publicly available information on health service quality and patient safety. The lack of a single source of data that provides comprehensive information, or a single set of measures or indicators that could be used to reflect the state of safety and quality, compromises understanding and identification of safety and quality issues. It also makes it difficult for patients and consumers to access useful information to inform their decisions and restricts the health system's ability to learn and evolve.

Significant progress has been made, as described in this report, to improve the safety and quality of the Australian health system, and there are many excellent examples of learning systems developed by some states, by the private sector and by health providers. **Box 13** provides some details of the SA Health Safety Learning System.¹⁰⁸



Box 13: SA Health's Safety Learning System

SA Health's Safety Learning System is an application that enables all SA Health services to record, manage, investigate and analyse patient and worker incidents, consumer feedback and notifications. The Safety Learning System facilitates good clinical governance by providing a single coordinated system that allows for consistent and coordinated review and reporting. The domains included are:

- Clinical incidents
- Worker incidents
- Security incidents
- Consumer feedback
- Notifications, including for medical indemnity, coronial notifications, alleged sexual assault or sexual misconduct and employee disciplinary matters.¹⁰⁸

Introduction of the Australian Health Performance Framework⁹⁹ provides a single, flexible approach for reporting on health and healthcare performance. It will support the assessment and evaluation of value and sustainability, and inform the identification of priorities for improvement and development.

To advance measurement and monitoring of safety and quality further, what is now needed is a national model that details key safety and quality measures and indicators, as well as guidance about how to use this information at different levels of the health system to bring about change and improve outcomes.

Measuring and reporting on patient safety and quality health care

A robust patient safety monitoring system measures multiple elements of patient safety. The Commission continues to progress work on a range of measures that can be monitored together to obtain a comprehensive and accurate picture of patient safety; and provide relevant information that can be fed back to clinicians to encourage improvements. These measures use multiple sources of data including data that is routinely coded from the patient clinical record (International Classification of Diseases) data. They include:

- Accreditation against the NSQHS Standards
- A suite of outcome indicators (mortality)
- The national list of HACs
- Surveys of patient hospital experience (AHPEQS) patient reported measures
- Structured analyses of selected sets of incident types

Surveys of organisational safety culture.

The model is being designed to apply across different levels of the health system. The information generated by monitoring and collection of planned core common metrics will help to address the approaches to patient safety, set out below, as suggested by Vincent for safety measurement and monitoring¹⁰⁹:

- Past harm
- Reliability
- Sensitivity to operations
- Anticipation and preparedness
- Integration and learning.

The utility of these core common metrics is that they can be used to evaluate multiple areas concurrently, to give a holistic view of the safety and quality of the health system. These metrics should be reviewed together to identify appropriate safety and quality improvement strategies, and like the work done by the Health Foundation in the United Kingdom, the model will provide a guide to applying the information at different levels of the health system to drive action.¹¹⁰

The Commission has already developed CHBOI (mortality indicators), the HACs set, *Staphylococcus aureus* bacteraemia surveillance indicators, the Sentinel events list, and the AHPEQS. These indicators were largely developed for use as locallevel safety and quality monitoring tools, with the aim of supporting safety and quality improvement initiatives in public or private hospitals. Two additional areas of focus for the development of common safety and quality metrics are patient reported outcomes measures (PROMs), and patient safety culture measurement.

Patient reported outcomes measures

There has been increasing interest and activity in the development of PROMs, as they provide a systematic way to assess the effectiveness of healthcare interventions from the patient's perspective. They record the patient's assessment of how health services and interventions have, over time, affected their quality of life, daily functioning, symptom severity, and other dimensions of health which only patients can know. PROMs promise to fill a vital gap in our knowledge about outcomes and about whether healthcare interventions actually make a difference to people's lives.

Evidence to support the use of PROMs to inform quality improvement is growing internationally. The evidence is strongest for their use in understanding variation in clinical practice, as they can help in determining the relative effectiveness of different treatments and interventions. However, there is also emerging evidence that using PROMs can improve the patient-clinician interaction.¹¹¹

In Australia, PROMs are an emerging method of assessing the quality of health care. While exciting and innovative work is happening in many places, PROMs are not yet embedded in routine measurement at regional, jurisdictional or national level and current work in PROMs is scattered and uncoordinated. In 2017–18, the Commission completed a literature review, environmental scan and stakeholder interview report to shape the work of PROMs in Australia¹¹¹⁻¹¹³ and established an expert advisory group to guide this national work program. The Commission will continue to take a leading role in providing strategic, policy and practical support for the large-scale evidence-based collection and meaningful use of PROMs in Australia.

Patient safety culture measurement

Within health service organisations, intelligence about emerging safety and quality issues is gathered by frontline staff during the normal course of their everyday work. These clinicians, administrators, managers and auxiliary staff are the closest observers of concerning patterns, and of workplace conditions which allow these patterns to emerge and persist.

Developing a culture of safety is an essential task for health service organisations as they strive to eliminate the factors that contribute to medical errors, patient harm, and unsafe conditions. For example, a 2017 systematic review of 62 studies found that organisational and workplace cultures were correlated with patient outcomes in over 90% of studies.¹¹⁴ However, this important source of safety information is not always routinely captured. This has prompted an increasing interest in patient safety culture measurement.

The Commission conducted an environment scan and literature review in 2016–17 and found that while most jurisdictions use staff survey tools, tools to assess the staff perspective on safety culture within their organisation were not widely used. Research evidence shows associations between staff experiences of organisational safety culture and other safety and quality outcomes, including adverse event rates and patient experience. Consequently, the Commission will be working in collaboration with stakeholders to progress work to identify common measures for patient safety culture that could be used nationally.

Patient safety diagnostic service

The Commission can add value to the work already being undertaken in states and territories and across the private sector by setting national benchmarks, providing national comparison and predictive and prescriptive analysis, and setting consistent standards of reporting safety and quality.

To date, the Commission has been progressing work on individual elements of the learning system for patient safety measuring and monitoring. But there are gaps: feedback on safety reporting and experiential learning, lack of awareness of the range of patient safety issues and shortage of opportunities for professional and system-based improvement efforts.

To complement work on the patient safety measuring and monitoring model, the Commission plans to develop a national online audit and surveillance platform to support the learnings from some of the elements of the model. The Commission will establish a confidential diagnostic service to help clinicians and health service organisations measure and improve safety across acute health systems.

In the first instance, this will be a multi-modal approach that draws on different measurement methods as necessary to understand patient safety, using the measures the Commission has already developed.

Initially, the following data sources will be used to enable health service organisations to compare themselves to peer groups across Australia, using risk adjusted data in the following categories:

- Sentinel event data
- Serious adverse events or clinical incidents
- HACs at a granular level
- Potentially preventable hospital readmissions
- Patient-reported measures patient experience and patient reported outcomes.

Figure 29 shows a sample of the type of information that could be provided to health service organisations by the patient diagnostic safety service.

Figure 29: Sample of type of information provided by a patient safety diagnostic service



CONCLUSION

Australia has come a long way in understanding and improving the safety and quality of health care since the *Quality in Australian Health Care Study*¹¹, was first published in 1995. Australia's approach to safety and quality is maturing. It increasingly acknowledges that patient harm is not just a result of human fallibility, but can be a result of system failures in the way care is organised and coordinated, and is potentially preventable through improvement efforts targeted at clinical practice, organisations and systems.

Key safety and quality risks have been identified nationally, and strategies exist and are being implemented to improve the safety and quality of health care in Australia at local, regional, state and territory and national levels.

The majority of health care that people receive in Australia today is safe and high quality. Australia's clinicians are highly regarded as skilled professionals who are committed to meeting the healthcare needs of their patients⁹, and Australian health service organisations have been integrating safety and quality improvement systems into their organisational governance processes for some time.

Internationally, and within the Australian health system, there has been an increasing focus on delivering value-based health care for consumers and funders. Value-based health care is about achieving the best care possible for each patient while maintaining an efficient use of resources.⁵ The Commission and partners have been supporting the achievement of value-based health care by fostering system change in five key areas to:

- Focus on people
- Measure and report on safety and quality
- Use evidence-based policy and guidance
- Strengthen clinical governance
- Embed safety and quality into national systems.

The Commission, in collaboration with the Australian Government, states and territories, the private sector, clinicians and patients, has been driving safety and quality improvement by identifying systemic risks to patients, and providing standards, guidance and policy to mitigate those risks and improve patient outcomes through clinically appropriate risk management responses.

Measurement is a particularly important part of safety and quality improvement, and delivering value-based health care. Moving forward, the Commission is developing a National Patient Safety Learning Model that will help health service organisations measure safety and quality consistently, and identify where improvements can be made both locally and nationally. In addition, emerging work on a patient safety clearing house and diagnostic service will complement the support, guidance and improvements to the NSQHS Standards and AHSSQA Scheme. Providing safe and quality care has always been a focus of those working in the health system. The Commission continues to work with stakeholders in the health system to create greater consistency, coordination and reliability of data about what is happening within the system, as well as providing evidence policy and guidance to inform actions to improve health care.



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