Patient safety: from learning to action 2012

Fifth Queensland Health report on clinical incidents and sentinel events in the Queensland public health system 2009–10 and 2010–11
Patient safety: from learning to action 2012

Fifth Queensland Health report on clinical incidents and sentinel events in the Queensland public health system 2009–10 and 2010–11
Foreword

On an average day for Queensland Health in 2010–11:

- 8466 people received admitted care in acute public hospitals, including 1339 people who received same-day admitted care
- 30,521 people received non-admitted patient services in acute public hospitals, including emergency services
- 119 babies were born in acute public hospitals
- 1313 older people received residential care in 20 aged care services
- 728 callers received clinical advice from qualified nurses through the 13 HEALTH hotline
- $28.641 million was spent on public health services.

Queenslanders enjoy excellent health by world standards. We are proud of our healthcare system, which provides universal access to all residents, regardless of where they live.

The vast majority of care delivered in Queensland Health hospitals and health services is very safe and effective. However, despite the excellent skills, training and best intentions of our staff, occasionally things do not go as expected. When this happens, it causes distress for patients, families and staff, particularly when the consequence is severe. Publicity around these events can also cause the community to lose trust in their healthcare system.

Queensland Health recognises that patients have a right to the safest possible health care, and it is in everyone’s interest that we keep improving.

The first step in addressing any problem is acknowledging that it exists. Queensland Health has worked hard to develop a culture that actively encourages staff to report clinical incidents and see these as opportunities to learn about and fix problems, rather than ignore them. Sharing information in an honest and transparent way is fundamental to improving patient safety and building trust in both the community and among our staff. This report builds on the first four Queensland Health reports on clinical incidents and sentinel events: Patient safety: from learning to action I (2007), II (2008), III (2010) and IV (2011).

At first glance, it would be easy to conclude that the increase in staff reporting of clinical incidents represents a worsening of patient safety in Queensland Health. On the contrary, almost all of this change relates to increased reporting of ‘near misses’, where no harm results. This is exactly the change we are looking for. As the patient safety culture improves, more incidents are reported as staff become more confident that concerns will be addressed. The analysis of these incidents helps us better understand the factors that contribute to patient incidents, and implement changes aimed at improving safety.

Lessons learned from clinical incidents continue to inform the extensive Queensland Health investment in patient safety. This report summarises the major statewide patient safety improvement work led by the Patient Safety and Quality Improvement Service, and other statewide and local units who are devoted to addressing the major causes of preventable patient harm. This work is already delivering real improvements in patient safety.

Improvements in pressure injury prevention during the past seven years have resulted in a 28 per cent relative reduction in hospital-acquired inpatient pressure injuries, saving an estimated 2300 overnight hospital patients each year from this painful and preventable condition. With each pressure injury adding an average of four extra days of stay per patient, this reduction has effectively freed up the equivalent of a fully operational 190-bed hospital during a seven-year period.

---

Queensland continues to be a national leader in the development of patient safety initiatives that are delivering real patient safety benefits. Initiatives such as the Children’s Early Warning Tool are helping staff identify children at risk of serious deterioration; the children are then fast-tracked for lifesaving treatment.

Queensland Health is at the forefront of many such programs that provide real support for staff at the bedside to improve patient safety. Healthcare consumers have a direct stake and active role to play in their own safety. Through partnerships between the Centre for Healthcare Improvement and Health Consumers Queensland, I am delighted to see consumers becoming active partners in developing and implementing patient safety programs across the state.

Whether you are a member of the Queensland community or a Queensland Health staff member, I hope this report achieves its goal of raising awareness of patient safety issues and what is being done to address them. Continued improvements in patient safety can only be achieved with the combined efforts of all who work in, manage and use the Queensland public healthcare system.

Dr Tony O’Connell  
Director-General  
Queensland Health  
May 2012
# Contents

Foreword .................................................................................................................................................. iii  
Acknowledgements .................................................................................................................................. viii  
Acronyms and abbreviations ................................................................................................................. viii  
Executive summary ................................................................................................................................. ix

## Section 1 Introduction ......................................................................................................................... 1

Patient safety ........................................................................................................................................... 2  
The Queensland Health Patient Safety System ....................................................................................... 3  
About this report ..................................................................................................................................... 3  
Using the information .............................................................................................................................. 4  
Terminology ............................................................................................................................................ 4  
  Queensland Health Clinical Incident Management System ................................................................. 4  
  National sentinel events ......................................................................................................................... 10  

## Section 2 2009–10 and 2010–11 reporting years in detail .................................................................... 11

Significant changes in 2009–10 ................................................................................................................ 12  
Summary data from PRIME CI for 2009–10 and 2010–11 ................................................................... 12  
  Severity assessment code reports, 2009–10 ....................................................................................... 12  
  Severity assessment code reports, 2010–11 ....................................................................................... 13  
  National sentinel events ......................................................................................................................... 13  
  Deaths reported using the reportable incident brief system ................................................................. 14  
  Serious harm reported using the reportable incident brief system ..................................................... 16  
Methodology used to review individual severity assessment code 1 events ........................................ 17  
  Analysis of SAC 1 incidents recorded in PRIME CI in 2009–10 ......................................................... 17  
  Analysis of SAC 1 incidents recorded in PRIME CI in 2010–11 ......................................................... 18

## Section 3 Six years of change for safety .............................................................................................. 19

A steady growth in incident reporting .................................................................................................. 20  
SAC 1 data from the Reportable Events Register ................................................................................ 21  
Changes in proportions of SAC 1, 2 and 3 events ................................................................................ 23  
  SAC 1 reporting ................................................................................................................................... 23  
  SAC 2 reporting ................................................................................................................................... 23  
  SAC 3 reporting ................................................................................................................................... 24  
Types of clinical incidents ..................................................................................................................... 24
Section 4  Patient-centred care ................................................................. 29

Consumers are important ...................................................................... 30
What is patient-centred care? ................................................................. 30
Why patient-centred care? ..................................................................... 30
Key drivers for patient-centred care ....................................................... 31
Measuring patient experience in Queensland Health hospitals ............... 33
  2011 Emergency Department Patient Experience Survey ................... 33
Patient experience trackers .................................................................. 34
Statewide consumer complaints and compliments ................................. 34

Section 5  Preventing patient harm: from learning to action ................. 35

New and emerging safety and quality strategies .................................. 36
  Queensland Clinical Services Redesign Program (CSRP) ..................... 36
  Recognition and Management of the Deteriorating Patient (RMDP) ........ 37
Current safety and quality programs ..................................................... 38
  Clinical Handover Program ............................................................... 38
  Clinical Incident Management Program .......................................... 39
  Clinical Pathways and System Design .............................................. 40
  Clininfo ......................................................................................... 41
  Coronial Management Program ....................................................... 42
  Falls Injury Prevention Program—Stay On Your Feet ......................... 43
  Healthcare Culture and Leadership Service (HCLS) ........................... 44
  Informed Consent Program ............................................................. 45
  Malnutrition Prevention Project ....................................................... 46
  Medication safety .......................................................................... 47
  Open Disclosure Program ................................................................ 48
  Patient Safety Bedside Audit .......................................................... 49
  Patient safety notifications: Medical Device Safety Program ............... 50
  Patient safety and quality improvement education ............................ 51
  Pressure Injury Prevention Program (PIPP) ....................................... 52
  Productive Ward ........................................................................... 53
  Queensland incidents in Transfusion (QiT)—haemovigilance .............. 54
  Statewide Clinical Networks ............................................................ 55
  Surgical Safety Program ................................................................. 56
  Transforming Care (TC) .................................................................. 57
  Variable Life Adjusted Display (VLAD) ............................................ 58

Section 6  Lessons learned .................................................................... 59

Sharing knowledge ............................................................................... 60
Appendix 1  Publications July 2010–June 2011 .................................... 62
Appendix 2  National sentinel events .................................................... 65
Tables

Table 1 List of national sentinel events................................................................. 10
Table 2 National sentinel events in Queensland, by category, for 2008–09, 2009–10 and 2010–11 ..... 14
Table 3 Deaths reported using the reportable incident brief system, 2008–09, 2009–10 and 2010–11................................................................. 15
Table 4 All likely permanent harm SAC 1 events (not death) reported using the reportable incident brief system, 2008–09, 2009–10 and 2010–11 ................................................................. 16
Table 5 Percentage of total clinical incidents classified as a SAC 1, 2 or 3, 2007–08 to 2010–11 .... 23

Figures

Figure 1 The Queensland Health Clinical Incident Management System ................................. 5
Figure 2 Severity assessment code (SAC) definitions ............................................................ 6
Figure 3 Severity assessment code (SAC) definitions and required actions ............................ 9
Figure 4 Total incidents recorded in PRIME CI, by SAC category, 2009–10 ............................ 12
Figure 5 Total incidents recorded in PRIME CI, by SAC category, 2010–11 ............................ 13
Figure 6 Analysis methods for SAC 1 incidents recorded in PRIME CI, 2009–10 .................... 17
Figure 7 Analysis methods for SAC 1 incidents recorded in PRIME CI, 2010–11 .................... 18
Figure 8 Total incidents recorded in PRIME CI by month, July 2005 to June 2011 .................. 20
Figure 9 SAC 1 events recorded in the Reportable Events Register, 2005–06 to 2010–11 .......... 21
Figure 10 Total clinical incidents recorded in PRIME CI by SAC classification, 2007–08 to 2010–11 .... 24
Figure 11 Ten most frequently reported clinical incident types recorded in PRIME CI, July–November, 2005–06 to 2009–10 ................................................................. 25
Figure 12 Ten most frequently reported clinical incident types recorded in PRIME CI, December–June, 2009–10 and 2010–11 ................................................................. 25
Figure 13 Ten incident types with the highest percentage of harm recorded in PRIME CI, and the percentage of incident type classified as a harm incident, July–November, 2007–08 to 2009–10 ................................................................. 26
Figure 14 Ten incident types with the highest percentage of harm recorded in PRIME CI, and the percentage of incident type classified as a harm incident, December–June, 2009–10 and 2010–11 ................................................................. 27
Figure 15 Ten most frequently reported incidents that cause harm recorded in PRIME CI for July–November and the percentage of incident type contributing to overall harm clinical incidents, 2007–08 to 2009–10 ................................................................. 28
Figure 16 Ten most frequently reported incidents that cause harm recorded in PRIME CI, and the percentage of incident type contributing to overall harm clinical incidents, December–June, 2009–10 and 2010–11 ................................................................. 28
Figure 17 Prevalence of hospital-acquired pressure injuries, 2003 to 2010–11 ......................... 52
Figure 18 Increase in QiiT participation, 2008 to 2011 .......................................................... 54
Acknowledgements

I would like to thank the organisations and individuals who made this report possible, including:

- Patient Safety and Quality Improvement Service staff members
- Queensland Health staff who have reported and managed incidents
- patients and consumer groups who have shared their healthcare experiences
- Queensland Health patient safety officers, clinicians and others who have worked hard to promote patient safety within their health services
- healthcare leaders who have committed time and energy to improving patient safety
- other partners and collaborators, including the Australian Commission on Safety and Quality in Health Care.

Dr John Wakefield PSM
Executive Director
Patient Safety and Quality Improvement Service
A branch of the Centre for Healthcare Improvement (CHI)
Queensland Health
Level 13, Block 7
RBWH
Herston Qld 4029

Postal address:
PO Box 152
RBWH
Herston Qld 4029

Acronyms and abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIMIS</td>
<td>Clinical Incident Management Implementation Standard</td>
</tr>
<tr>
<td>HEAPS</td>
<td>Human Error and Patient Safety (analysis)</td>
</tr>
<tr>
<td>NSE</td>
<td>national sentinel event</td>
</tr>
<tr>
<td>PRIME CI</td>
<td>Queensland Health’s clinical incident reporting information system</td>
</tr>
<tr>
<td>RCA</td>
<td>root cause analysis</td>
</tr>
<tr>
<td>SAC</td>
<td>severity assessment code</td>
</tr>
</tbody>
</table>
Executive summary

This is the fifth edition of *From learning to action*. Queensland Health remains committed to transparently sharing information about clinical incidents and adverse events. This report is for all Queenslanders, but in particular for Queensland Health staff and community members interested in knowing what is being done to improve patient safety. It is also for anyone who wants to share in, and benefit from, what has been learnt since a comprehensive patient safety system was introduced into Queensland Health.

Patient safety is an approach to understanding what causes patients to be harmed in health care and implementing solutions aimed at strengthening the layers of defences that prevent harm. The Queensland Health Patient Safety System comprises policies, processes and supporting tools to ensure we constantly learn from and prevent clinical incidents. The goal of this system is to minimise preventable patient harm. More importantly, however, is the organisational culture and the people who make this system work. Queensland Health’s Patient Safety System could achieve nothing without the vigilance and responsiveness of Queensland Health staff.

The most striking feature of this report is its success in capturing data about more clinical incidents than ever before. In 2010–11, our staff made 79,399 voluntary reports of clinical incidents using our clinical incident reporting information system, PRIME CI. This represents an overall increase of 4 per cent compared with the previous year and an overall increase of 139 per cent compared to the first report, containing data from 2005–06.²

An increase in the number of incident reports does not necessarily mean that more patients are harmed; in fact, quite the opposite—it demonstrates the success of policies, systems and cultural reform that encourage staff to report problems. It is the hallmark of an organisation that is serious about safety.

When analysed by severity assessment code (SAC), 0.4 per cent of reported incidents (324 incidents) were SAC 1,³ 3.2 per cent (2,510 incidents) were SAC 2, and 96.4 per cent (76,565 incidents) were SAC 3.⁵

Falls are the number one reported cause of patient harm, accounting for almost 22 per cent of all incidents where harm was reported. Pressure injuries are also a significant area, accounting for 19 per cent of reported harm. The data provide clear evidence these high-risk areas are deserving of continued prevention efforts.

---

³ SAC 1 definition is ‘Death or likely permanent harm which is not reasonably expected as an outcome of healthcare (includes defined sentinel event)’.
⁴ SAC 2 definition is ‘Temporary harm which is not reasonably expected as an outcome of healthcare’.
⁵ SAC 3 definition is ‘Minimal or no harm which is not reasonably expected as an outcome of healthcare’.

Queensland Health has invested in a range of programs driving improvement statewide in key risk areas; these programs are presented in Section 5. In 2010–11, the Patient Safety and Quality Improvement Service:

- provided 1200 hours of education on clinical pathways
- disseminated approximately 1000 Variable Life Adjusted Display (VLAD) charts each month across 64 public hospitals to monitor safety and quality
- reviewed 382 hospital investigation reports in response to VLAD flags
- introduced and provided quarterly hospital standardised mortality ratios to 59 hospitals
- started the Productive Ward Program in 7 districts, 19 facilities and 45 wards
- allocated more than $7 million in clinical practice improvement payments to health service districts for improvement initiatives
- investigated and resolved more than 40 medical device safety issues
- developed and disseminated 200,000 consumer education brochures to facilities to raise awareness about pressure injury prevention
- rolled out the adult and child early warning tools statewide
- instigated Transforming Care at the Bedside initiatives in 49 facilities
- developed a web-based package for clinical staff to diagnose and improve patient flow problems using targeted redesign methodologies
- developed a suite of patient flow reports on the Queensland Health Electronic Reporting System for clinicians to assess changes and track performance over time.

We also developed and implemented new policies, standards, guidelines and toolkits:

- 2011 Credentialing and Defining the Scope of Clinical Practice Policy and Implementation Standards for medical practitioners and dentists
- World Health Organization Surgical Safety Checklist and Policy
- three new statewide clinical pathways for renal dialysis peritonitis, adult head injury and intrapartum record
- *Ageing with vitality* workbook and guidelines

- more than 150 new or reviewed informed consent products for medical imaging, nuclear medicine, radiation and neurosurgery.

More than 3000 Queensland Health staff were trained in patient safety and quality improvement programs such as open disclosure, root cause analysis and Human Error and Patient Safety (HEAPS) analysis.

We have published and presented (Appendix 1):

- 7 reports and guidelines
- 15 patient safety notices, communiqués and alerts
- 3 newsletters
- 46 conference presentations
- 4 published, peer-reviewed journal articles and 2 other publications.

We will be working hard to ensure the gains made to patient safety during the past five years are sustained throughout these major healthcare system changes.

Queensland Health acknowledges that harm from clinical incidents will never be completely eliminated; however, the learning and actions that flow from a robust patient safety system helps us achieve our goal of minimising preventable patient harm.
Section 1
Introduction

Section 1 describes the key elements of the Queensland Health Patient Safety System, what it means and why it is essential to continually improve patient safety.
Patient safety

Patient safety is an approach to understanding what causes patients to be harmed in health care and implementing solutions to strengthen the layers of defences that prevent harm.

Modern health care has delivered major benefits by improving health and increasing life expectancy. However, with the increased number and complexity of healthcare interventions, given in ever-shorter hospital stays by multiple providers, the potential for errors or omissions has increased. This is the case in every healthcare system in the world.

Health care has learnt a lot from other high-hazard industries about achieving very high levels of safety. For example, safety in the commercial aviation industry is the result of the commitment of everyone in the industry—regulators, airlines, staff and customers—to improve safety while still providing affordable airfares.

Safety is not absolute, and it cannot be considered in isolation from other risks. An airline that spends so much on safety that customers cannot afford to fly will not survive. Equally, if customers don’t feel safe to fly, the airline will quickly fail. An important concept in safety is the ALARP principle (reducing the risk to as low as reasonably possible). This is a much better way to think about patient safety—as a balancing act among cost, production and our willingness to accept the risks and benefits of health care.

Just as the only perfectly safe aeroplane is one that never leaves the ground, the only perfectly safe hospital is one with no patients. Accessing health care comes with risks. However, unlike flying, not being able to access health care when someone needs it is not an option, for this also comes with risks to health. During the past 30 years, there has been considerable effort put into improving the effectiveness of treatments, but we have not always given the same attention to minimising the risks of these treatments. There have been significant improvements in safety, particularly during the past 10 years; however, we can do more.

Research suggests that around half of the clinical incidents that lead to patient harm could be prevented.6 With few exceptions, the root causes of such adverse events are not the actions of incompetent or reckless individuals; healthcare workers are highly motivated, well-trained individuals dedicated to providing the best care possible.

Incidents are usually the result of a complex chain of events that involve organisational, workplace, team, individual and task factors. Improving patient safety requires a culture that encourages staff to report problems, and focuses on understanding why incidents happen and fixing it, rather than finding someone to blame.

The Queensland Health Patient Safety System

The goal is to minimise preventable patient harm.

The Queensland Health Patient Safety System comprises policies, processes and supporting tools that ensure Queensland Health constantly learns from and prevents clinical incidents. The goal of this system is to minimise preventable patient harm. More important than this, however, is the organisational culture and the people who make this system work. Queensland Health’s Patient Safety System could achieve nothing without the vigilance and responsiveness of Queensland Health staff.

Like every healthcare system in the world, incidents in Queensland Health occur in clinical and nonclinical settings, with varying consequences for patients and their families, staff and the community. Systems are in place to capture reports of these incidents so that Queensland Health staff can effectively monitor and improve services.

A clinical incident is any event or circumstance which has actually or could potentially lead to unintended and/or unnecessary mental or physical harm to a patient.7

A small percentage of incidents have a serious outcome, such as death or permanent disability, but the vast majority of incidents have less serious consequences. Not all incidents are the result of errors or mistakes—for example, medication side effects can occur in some patients even with correct prescribing—but our staff log them all so that we can find the ones that are preventable.

Every time an incident occurs, we seek to learn from it and find ways to prevent its recurrence. By having a system that allows us to recognise, report, analyse and learn from incidents, we can ultimately minimise preventable harm.

About this report

This is the fifth year that Queensland Health has published Patient safety: from learning to action. This report provides a synopsis of clinical incidents reported voluntarily by staff from across Queensland Health, as well as a detailed analysis of serious adverse events. It forms part of the overall reporting framework in Queensland Health.

The focus is on identifying those events where the outcome was not reasonably expected by either the treating team, patient or family—the report does not detail expected outcomes, such as a death from a known terminal condition.

Previous Patient safety: from learning to action reports have presented a single financial year’s data on reported clinical incidents and their associated incident analysis. From learning to action 2012 presents two years, 2009–10 and 2010–11. The inclusion of an additional year of data has been possible due to improvements in the data collection and analysis processes. To ensure readers are able to review yearly trends, the data for these two years is presented separately.

Each report stands alone and is primarily a summary of clinical incidents logged in PRIME CI (Queensland Health’s clinical incident reporting information system). In 2008, the definition of a clinical incident was revised to better capture information about these events, with a focus on clinician, patient and family expectations (see definition above). This has increased reporting rates and allowed us to focus on learning about how we can improve our systems and processes, so that we can better meet the expectations of our patients, families and staff.

With the benefit of five years of publishing From learning to action, it is now possible to see that a reporting culture is firmly taking hold in Queensland Health and that the value of clinical incident reporting is well understood. A strong patient safety culture is one that can strongly correlate clinical incidents with learning that leads to quality improvement for patients, families and staff. This report highlights the successes and the challenges inherent in this safety culture.

It is important to note that From learning to action is only possible because our staff members continue to search out opportunities for improvement by identifying, reporting and managing clinical incidents. The frontline staff are best able to report these events, and PRIME CI is continually being improved to make reporting simpler.

Using the information

*From learning to action* is assembled from incidents that are voluntarily reported by our staff; as such, it is not able to provide a direct measure of the safety of our healthcare system. What can be said is that incident reporting rates have steadily increased during the years *From learning to action* has been published, and this increase is an indirect measure of a safety culture. Safety in health care requires a culture of trust, reporting, transparency and discipline. *From learning to action* describes what Queensland Health is doing to learn from clinical incidents and to translate those lessons to quality improvement, making health care safer for our patients.

Merely collecting data about clinical incidents would be pointless without analysis and learning. Significant effort goes into analysing what has occurred, why it has occurred and how we can prevent recurrence. Appropriately, most effort goes into analysis of the most serious events. Root cause analysis (RCA) is the preferred method of analysis for SAC 1 events, with Human Error and Patient Safety (HEAPS) analysis providing another strong, system-focused analysis approach.

Quantitative and qualitative data is available from PRIME CI, and extremely rich qualitative information flows out of analyses of severity assessment code (SAC) 1 events. Local management teams review lower category (SAC 2 and SAC 3) events using methods ranging from RCA of individual incidents to aggregated review of a number of incidents of similar type. The local line managers have a key role in identifying and prioritising corrective actions for incidents reported by their staff.

PRIME CI data are increasingly providing a rich array of information about what goes wrong and why. Improvements to the system are continuously being made to improve reporting and allow for better analysis and data extraction. De-identified data are now accessed by all areas of Queensland Health, as well as an increasing number of researchers and external agencies to further support patient safety improvement.

The Patient Safety and Quality Improvement Service uses a range of tools to get information back out to staff. This includes a website, newsletters, safety alerts and notices, training programs and workshops, numerous reports and other publications.

**Terminology**

Clinical incident management uses specific terminology; it is useful to explain these terms and describe some of the concepts used in data analysis.

**Queensland Health Clinical Incident Management System**

Queensland Health has developed the Clinical Incident Management System, a framework that defines our approach to recognising, assessing and learning from clinical incidents. This system is summarised in Figure 1.

The steps in the Queensland Health Clinical Incident Management System are detailed below.

**Clinical incident**

Clinical incidents are defined as ‘any event or circumstance which has actually or could potentially lead to unintended and/or unnecessary mental or physical harm to a patient’. This definition covers incidents where no harm has resulted, through to temporary harm, permanent harm and, in a small number of cases, death. It is important to note that a clinical incident does not always mean mistakes or errors. Some incidents occur by chance, such as a previously unknown drug allergy or a previously undiagnosed condition that is exacerbated by treatment.

**Recognise incident**

Reporting clinical incidents is voluntary, but we encourage our staff to report. A high number of reported incidents does not necessarily indicate poor patient safety; in fact, it is usually a positive sign that staff routinely report incidents, whether they believe them to be an error, mistake or chance. It means that staff are looking for safety issues, and indicates a strong safety culture. In Queensland Health, we know that for every unexpected death or permanent injury reported there are approximately 8 cases of temporary harm and 236 incidents with minimal or no patient harm at all.

---


harm at all. Therefore, the vast majority of reports do not involve patient harm and these reports provide a valuable opportunity to learn and make improvements to our system.

**Report incident in PRIME CI**

In Queensland Health, clinical incidents are reported in PRIME CI, our clinical incident reporting information system, which is accessible on every networked computer across the state. This system provides easy access for staff to report and allows managers to record details of incident management and corrective actions. Before this system was implemented, there was no way of sharing this information or effectively prioritising statewide action for patient safety risks.

Clinical incidents are reported in PRIME CI which is accessible on every networked computer across the state.
Severity assessment code classification and escalation

The SAC (or SAC rating) is the rating system used in Queensland Health to classify an incident. Ratings range from one to three and are based on the severity of the outcome for the patient (Figure 2).

| SAC 1          | ‘Death or likely permanent harm which is not reasonably expected as an outcome of health care (includes defined sentinel event)’. For example, the suicide of a patient receiving inpatient care in a mental health unit. |
| SAC 2          | ‘Temporary harm which is not reasonably expected as an outcome of health care’. For example, a patient develops an infection after an elective operation requiring an increased length of stay for wound debridement and intravenous antibiotics. |
| SAC 3          | ‘Minimal or no harm which is not reasonably expected as an outcome of health care’. For example, a patient has a routine medication dose inadvertently omitted with no ill-effects noted. |

In the SAC definitions, the term ‘not reasonably expected’ refers to the reasonable expectations of treating clinicians, the patient or family. This can include an outcome that was not reasonably expected, even though it was a recognised potential complication of a procedure.

For example, there is an element of expected risk in every operation. While these risks are explained by healthcare professionals, patients undergoing operations reasonably expect the operation will be successful. When there is an unexpected adverse outcome following surgery, this may be defined as ‘not reasonably expected by the patient, their family or the treating clinician’. This definition is intentionally broad to ensure that affected patients are identified and receive the right follow-up care, and that we have maximum opportunity to learn about, and help prevent, poor outcomes. It does not mean that a clinician is to blame for what happened or that a mistake was made. The inclusion of the ‘not reasonably expected’ phrase from 2008 created a robust debate among consumers and healthcare professionals that is helping to promote a shared understanding and improved safety culture.

To help ensure incidents are appropriately managed and escalated, Queensland Health has a Clinical Incident Management Implementation Standard. This standard identifies how staff should manage and respond to clinical incidents. The management response varies with the severity of the consequence to the patient (i.e. the actual harm to the patient).

An RCA is a quality improvement technique that explores the contributory factors that lead to the adverse event. Analysis helps us learn from reported incidents to make the necessary safety and quality improvements. The level of analysis is usually proportional to the severity of the outcome (the actual harm to the patient).

Root cause analysis (RCA)

For the most serious incidents, where the patient has died or suffered permanent harm (SAC 1), an RCA is performed. An RCA is a quality improvement technique that explores the contributory factors that lead to the adverse event. It is a rigorous and systematic analysis of what happened and why, and seeks to make recommendations to prevent it happening again. This method has been specially adapted from accident investigation methods used in other high-hazard industries, such as commercial aviation, nuclear power plants, mining and shipping. The objective of an RCA is to understand how and why an event occurred, rather than to apportion blame or determine liability. The intense and structured review of an RCA also often uncovers other unrelated opportunities for safety improvement, and these are incorporated into the RCA report as lessons learnt.

An RCA is a highly technical task governed by specific legislative requirements, including the type of information that can be released. The provisions and statutory protections for RCAs are set out in part 4B of the Health Services Act 1991 (Qld). Staff members who are trained in this internationally recognised
method of incident analysis lead all RCA teams in Queensland Health.

As in the previous reporting periods all SAC 1 cases required an RCA to be conducted. It is also important to note that there remains one exception to mandatory RCA which is for suspected suicides in the community. For these cases commissioning authorities can choose not to perform an RCA, however an alternative analysis is required.

Human Error and Patient Safety (HEAPS) analysis

The Clinical Incident Review Tool (often called the Human Error and Patient Safety [HEAPS] tool) is an alternative analysis method used for incidents where an RCA is either not appropriate or not required. The HEAPS tool guides analysis teams to systematically examine the factors that may have contributed to the adverse event, such as factors relating to the patient, task, practitioner, team, workplace and organisation. The vast majority of incidents are analysed by front-line healthcare workers and their line managers using the HEAPS tool. Staff members who lead this work have received specific training.

For SAC 2 and SAC 3 incidents, line managers work with their teams to identify and implement corrective actions rapidly, without requiring an elaborate process. SAC 2 clinical incidents are managed by local line managers often in collaboration with the district patient safety officer. In many cases, SAC 3 events provide an opportunity to review aggregated data and identify recurring themes. Line managers also have the option of requesting a more detailed review if the issues are complex or if statewide lessons may be learnt.

Incident analysis is not designed to determine liability or apportion blame. RCA and HEAPS are not methodologies that line managers can use to manage performance issues; they are simply tools to help analyse the system issues that contribute to adverse events. These approaches add to a hospital’s ability to manage the overall situation rather than replace existing accountability processes, such as professional standards, regulations or legal processes (e.g. civil or coronial processes).
Figure 3 shows the key elements of SAC definitions and required actions according to the 2009 Clinical Incident Management Implementation Standard.

<table>
<thead>
<tr>
<th>Escalation</th>
<th>Time frame</th>
<th>Analysis</th>
<th>Open disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAC 1: Death or likely permanent harm, which is not reasonably expected as an outcome of health care.</strong>&lt;br&gt;Notify Patient Safety and Quality Improvement Service and executive director of Mental Health Directorate (for suspected suicides) using the reportable incident brief. Any deaths must also be reported to the coroner.</td>
<td>Next business day, or immediately if urgent action is likely to be required by the Director General or Health Minister</td>
<td><strong>Mandatory</strong> root cause analysis (except suspected suicide in the community of a mental health client; level of analysis is then determined locally by commissioning authority after consultation with relevant mental health mortality review committee)</td>
<td>Mandatory formal open disclosure is activated and clinician disclosure performed</td>
</tr>
<tr>
<td><strong>SAC 2: Temporary harm, which is not reasonably expected as an outcome of health care.</strong>&lt;br&gt;Notify clinical unit manager or clinical director using local area procedures (PRIME CI)</td>
<td>Next business day</td>
<td>Recommended HEAPS incident review tool</td>
<td>Clinician disclosure required</td>
</tr>
<tr>
<td><strong>SAC 3: Minimal or no harm, which is not reasonably expected as an outcome of health care.</strong>&lt;br&gt;Notify clinical unit manager or clinical director using local area procedures (PRIME CI)</td>
<td>Not specified</td>
<td>Local decision; recommended aggregated analysis of similar incidents</td>
<td>Clinician disclosure required if harm occurs</td>
</tr>
</tbody>
</table>

HEAPS = Human Error and Patient Safety (analysis); PRIME CI = Queensland Health’s clinical incident reporting information system<br>Source: Adapted from the *Clinical Incident Management Implementation Standard (CIMIS)*, Queensland Health (2009)

**Figure 3** Severity assessment code (SAC) definitions and required actions
Corrective actions

Corrective actions are the recommended changes to the workplace or work methods that reduce the likelihood of this type of incident happening again. These can include actions such as introducing a new system for administering blood, altering shift-to-shift handover practices, updating staff education and training, or changing the design of a work area to make it easier to work in and care for patients. Policies and procedures by themselves are not the most effective way of making patients safer. Education is essential and can be effective; however, it requires a high degree of ongoing effort to achieve sustained change.

The strongest corrective actions that are most likely to improve safety are changes to the design of work spaces or buildings, such as upgrading to equipment with in-built decision support that guides staff or improving work space layout. Standardised tools such as the National Inpatient Medication Chart, cognitive aids and checklists—particularly if they are available at the point of care—have a very strong chance of preventing patient harm. Executive managers and clinical governance teams have a key role in ensuring that, wherever feasible, strong corrective actions are chosen, implemented and measured for effectiveness.

National sentinel events

National sentinel events (NSEs) are rare events that result in death or permanent loss of function. These are defined in a list endorsed by the Australian health ministers (Table 1). They comprise only a very small percentage of incident reports—of the almost 80,000 incidents reported to Queensland Health during the 2010–11 reporting period, only 11 were NSEs.

Table 1  List of national sentinel events

<table>
<thead>
<tr>
<th>NSE no.</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Procedures involving the wrong patient or body part resulting in death or major loss of function</td>
</tr>
<tr>
<td>2</td>
<td>Suicide of a patient in an inpatient unit</td>
</tr>
<tr>
<td>3</td>
<td>Retained instruments or other material after surgery requiring reoperation or further surgical procedure</td>
</tr>
<tr>
<td>4</td>
<td>Intravascular gas embolism resulting in death or neurological damage</td>
</tr>
<tr>
<td>5</td>
<td>Haemolytic blood transfusion reaction resulting from ABO incompatibility</td>
</tr>
<tr>
<td>6</td>
<td>Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs</td>
</tr>
<tr>
<td>7</td>
<td>Maternal death or serious morbidity associated with labour or delivery</td>
</tr>
<tr>
<td>8</td>
<td>Infant discharged to wrong family</td>
</tr>
</tbody>
</table>

ABO = ABO blood group system; NSE = national sentinel event
Source: Australian Commission on Safety and Quality in Health Care

Previous reporting schemes were based on NSEs; however, experience in Queensland has demonstrated the limitations of the national list. Our incident reporting scheme definitions have therefore been expanded to capture more events, maximise reporting and increase our ability to learn and improve the healthcare system. We collect data about NSEs (and SAC 1 events) both electronically and manually. The dual data collection reflects the importance we place on these serious incidents, and allows us to reconcile the accuracy of the data reported to us. The electronic collection depends on the staff member who cares for the patient entering a report into the PRIME CI system. The manual system is activated by escalating the incident to the district chief executive officer, and entails submitting a notification (reportable incident brief) to the Patient Safety and Quality Improvement Service. This notification includes a brief description of the incident and proposed plans for assessment and response.
Section 2
2009–10 and 2010–11 reporting years in detail

Section 2 provides summary data on clinical incidents reported by Queensland Health staff into the clinical incident reporting information system (PRIME CI) during 2009–10 and 2010–11.
Significant changes in 2009–10

Queensland Health operates in a dynamic healthcare environment that constantly seeks to improve the systems and processes for patient safety. Many changes were implemented during this reporting period, but one change was particularly noteworthy because of its impact on the data.

Before December 2009, reporters were asked to determine the SAC rating, and then to report whether the patient was harmed or not harmed as a result of the incident. These data elements were then rated independently of each other.

Queensland Health decided that the harm ratings should be expanded in order to gain more detail about the incidents and to improve the data accuracy. From December 2009, rather than simply reporting harm or no harm, reporters were asked to select the degree of patient harm using five possible consequences: death, likely permanent harm, temporary harm, minimal harm or no harm. Based on the selected outcome, the information system subsequently allocated the appropriate SAC rating. This change to the collection of patient outcome data has affected the data collected in the 2009–10 and 2010–11 periods.

Summary data from PRIME CI for 2009–10 and 2010–11

The following section presents data that have been entered into the clinical incident reporting information system (PRIME CI) by Queensland Health staff during the two most recent financial years. The data are presented as two separate financial years.

Severity assessment code reports, 2009–10

During the 2009–10 reporting year, a total of 76,187 incidents were reported. The majority of these incidents (96.1 per cent or 73,247 incidents) related to minimal or no harm (SAC 3). There were 2,607 incidents (3.4 per cent) that related to temporary, less severe harm (SAC 2) and 333 incidents (0.4 per cent) that related to death or serious, permanent harm (SAC 1) (Figure 4). Following clinical investigation, death was deemed to be unrelated to the incident by the hospital for 54 of the 333 SAC 1 incidents.

---

10 The Prince Charles Hospital (TPCH) only reports SAC 1 clinical incidents into the PRIME CI system. TPCH use their own clinical incident reporting system for SAC 2 and SAC 3 clinical incidents.
Severity assessment code reports, 2010–11

During the 2010–11 reporting year, a total of 79,399 incidents were reported. The majority of these incidents (96.4 per cent or 76,565 incidents) related to minimal or no harm (SAC 3). There were 2,510 incidents (3.2 per cent) that related to temporary, less severe harm (SAC 2) and 324 incidents (0.4 per cent) that related to death or serious, permanent harm (SAC 1) (Figure 5). Following clinical investigation, death was deemed to be unrelated to the incident by the hospital for 43 of the 324 SAC 1 incidents.

PRIME CI = Queensland Health’s clinical incident reporting information system; SAC = severity assessment code

Figure 5 Total incidents recorded in PRIME CI, by SAC category, 2010–11

National sentinel events

National sentinel events (NSEs) are rare events, and are defined in a list endorsed by the Australian health ministers. They are reported annually by the Productivity Commission, the Australian Commission on Safety and Quality in Health Care and other agencies. Ten NSEs were reported in Queensland during the 2009–10 reporting period and 11 during 2010–11. Table 2 presents the reported sentinel events for the previous three years. For a precis of these events, see Appendix 2.

11 The Prince Charles Hospital (TPCH) only reports SAC 1 clinical incidents into the PRIME CI system. TPCH use their own clinical incident reporting system for SAC 2 and SAC 3 clinical incidents.
The NSE descriptors are quite restrictive and are only a small subset of clinical incidents that result in patient harm. Queensland Health has adopted a much more comprehensive stance on incident management and requires the reporting of all SAC 1 events, even when they do not meet the definition of an NSE. This means that we collect much more data on patient harm than we would under the national list.

Table 2 National sentinel events in Queensland, by category, for 2008–09, 2009–10 and 2010–11

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Permanent loss of function, reoperation, further operation</td>
<td>Deaths</td>
<td>Deaths</td>
<td>Deaths</td>
</tr>
<tr>
<td>NSE1</td>
<td>Procedures involving the wrong patient or body part resulting in death or major permanent loss of function</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>NSE2</td>
<td>Suicide of a patient in an inpatient unit</td>
<td>2</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>NSE3</td>
<td>Retained instruments or other material after surgery, requiring reoperation or further surgical procedure</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>NSE4</td>
<td>Intravascular gas embolism resulting in death or neurological damage</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NSE5</td>
<td>Haemolytic blood transfusion reaction resulting from ABO incompatibility</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NSE6</td>
<td>Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs</td>
<td>6</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>NSE7</td>
<td>Maternal death or serious morbidity associated with labour or delivery (excludes neonates and babies)</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>NSE8</td>
<td>Infant discharged to wrong family (not collected in PRIME CI)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>8</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

ABO = ABO blood group system; NSE = national sentinel event

Deaths reported using the reportable incident brief system

In addition to the 7 deaths reported as NSEs in 2009–10, we collected information on 204 deaths that were not part of the NSE reporting scheme. In 2010–11, in combination with the 5 deaths reported as sentinel events, a total of 203 deaths were reported through the reportable incident brief (RIB) system (Table 3). The number of deaths reported using the RIB system has decreased by 15 per cent since 2008–09. (208 deaths in 2010–11 compared with 244 in 2008–09).
### Table 3  Deaths reported using the reportable incident brief system, 2008–09, 2009–10 and 2010–11

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Deaths</td>
<td>Total</td>
<td>Deaths</td>
<td>Total</td>
<td>Deaths</td>
<td>Total</td>
</tr>
<tr>
<td>Suspected suicides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspected suicide on hospital premises of an admitted patient</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspected suicide in the community of a patient under the care of Queensland Health, or who has recently attended an emergency department</td>
<td>111</td>
<td>99</td>
<td>109</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total suspected suicides</td>
<td>113</td>
<td>103</td>
<td>110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other deaths</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal death associated with labour or delivery</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procedures involving wrong body part</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medication event</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>12</td>
<td>12</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure ulcer</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perinatal (infants)</td>
<td>14</td>
<td>8</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retained instruments or other material after surgery, requiring reoperation or further surgical procedure</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General clinical management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complications</td>
<td>59</td>
<td>18</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diagnosis</td>
<td>11</td>
<td>21</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interhospital retrieval / transfer</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigations</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer of care</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>26</td>
<td>36</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total other deaths</td>
<td>131</td>
<td>108</td>
<td>98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total deaths</td>
<td>244</td>
<td>211</td>
<td>208</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Suspected suicides are a major source of patient harm events, accounting for 49 per cent of all deaths reported as clinical incidents in 2009–10 and 53 per cent of all deaths reported as clinical incidents in 2010–11. In the previous three years, Queensland Health has focused on improving data collection for this important issue, and reporting has remained high since 2008–09. We continue to collect data about suspected suicides in hospital (which are uncommon), with four deaths occurring during 2009–10 and one death during 2010–11. We also collect data on suspected suicides of patients who are either under our care in the community or who have recently been seen in an emergency department (see Table 3). Only inpatient suicides are reportable as NSEs.
Serious harm reported using the reportable incident brief system

Just as we collect more data about deaths than is required by the NSE list, we also collect additional data about serious harm. Table 4 provides details of all the serious harm events that were reported using the RIB system during 2008–09, 2009–10 and 2010–11.

During the 2009–10 reporting period, there was a 31 per cent increase in the number of ‘likely permanent harm’ incidents reported compared with the 2008–09 period (63 incidents in 2009–10 compared with 48 in 2008–09).

During the 2010–11 reporting period, there was a 10 per cent increase in the number of ‘likely permanent harm’ incidents reported (69 incidents) compared with the 2009–10 period (63 incidents). This increase is believed to be associated with the change in the way data have been collected since December 2009. This change expanded the assessment of harm, allowing data on consequences to be captured more accurately.

<table>
<thead>
<tr>
<th>Table 4</th>
<th>All likely permanent harm SAC 1 events (not death) reported using the reportable incident brief system, 2008–09, 2009–10 and 2010–11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempted suicides resulting in likely permanent harm</td>
<td>Incidents</td>
</tr>
<tr>
<td>Attempted suicide on hospital premises of an admitted patient</td>
<td>0</td>
</tr>
<tr>
<td>Attempted suicide in the community of a patient under the care of Queensland Health, or who has recently attended an emergency department</td>
<td>0</td>
</tr>
<tr>
<td>Total attempted suicides</td>
<td>0</td>
</tr>
<tr>
<td>Other incidents resulting in likely permanent harm</td>
<td>Incidents</td>
</tr>
<tr>
<td>Serious maternal morbidity associated with labour or delivery</td>
<td>2</td>
</tr>
<tr>
<td>Procedures involving wrong body part</td>
<td>2</td>
</tr>
<tr>
<td>Medication event</td>
<td>2</td>
</tr>
<tr>
<td>Fall</td>
<td>4</td>
</tr>
<tr>
<td>Pressure ulcer</td>
<td>3</td>
</tr>
<tr>
<td>Perinatal (infants)</td>
<td>2</td>
</tr>
<tr>
<td>Retained instruments or other material after surgery, requiring reoperation or further surgical procedure</td>
<td>1</td>
</tr>
<tr>
<td>General clinical management</td>
<td>Incidents</td>
</tr>
<tr>
<td>Complications</td>
<td>14</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>6</td>
</tr>
<tr>
<td>Interhospital retrieval / transfer</td>
<td>1</td>
</tr>
<tr>
<td>Investigations</td>
<td>1</td>
</tr>
<tr>
<td>Observations</td>
<td>1</td>
</tr>
<tr>
<td>Transfer of care</td>
<td>0</td>
</tr>
<tr>
<td>Treatment</td>
<td>9</td>
</tr>
<tr>
<td>Total other Incidents</td>
<td>48</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
</tr>
</tbody>
</table>
Methodology used to review individual severity assessment code 1 events

The Clinical Incident Management Implementation Standard 2009 specifies that root cause analysis (RCA) is mandatory for SAC 1 events, with certain exceptions. Mental health services may choose an alternative form of analysis (such as HEAPS) for suicides in the community.

A blameworthy act is an intentionally unsafe act, deliberate patient abuse or conduct that constitutes a criminal offence.

The Health Services Act 1991 (Qld) specifies that an RCA may not be undertaken in circumstances where there is a prima facie 'blameworthy act'. A blameworthy act is defined in s. 38 (subsection O) of the Act as an intentionally unsafe act, deliberate patient abuse or conduct that constitutes a criminal offence.

The Act also prohibits commissioning an RCA where there are reasonable grounds to believe that the capacity of a person directly involved in health service provision when the reportable event occurred was impaired by alcohol or other drugs.

In addition to these prohibited circumstances, there are other circumstances where an RCA may not be appropriate. For example, because an RCA focuses on identifying systemic factors that contributed to an event, it is not an appropriate tool for investigating matters concerning the competence of individuals providing health services. These events are still subject to analysis, but not by an RCA. In almost half the SAC 1 events where an RCA was not commissioned, the HEAPS analysis method has been used.

Analysis of SAC 1 incidents recorded in PRIME CI in 2009–10

We reviewed all SAC 1 incidents that were recorded in PRIME CI during 2009–10. An RCA was undertaken in 49 per cent of cases, HEAPS analysis in 24 per cent of incidents, local clinical review for 20 per cent, line manager reviews for 4 per cent and an external review in 3 per cent of cases (Figure 6).

![Analysis methods for SAC 1 incidents recorded in PRIME CI, 2009–10](image)

HEAPS = Human Error and Patient Safety; PRIME CI = Queensland Health’s clinical incident reporting information system; RCA = root cause analysis; SAC = severity assessment code

Note: A total of 333 cases were recorded.
Analysis of SAC 1 incidents recorded in PRIME CI in 2010–11

We reviewed all SAC 1 incidents that were recorded in PRIME CI during 2010–11. An RCA was undertaken in 41 per cent of cases, HEAPS analysis in 28 per cent, clinical review for 21 per cent, manager review for 8 per cent and an external review in 2 per cent of cases (Figure 7).

HEAPS = Human Error and Patient Safety; PRIME CI = Queensland Health’s clinical incident reporting information system; RCA = root cause analysis; SAC = severity assessment code
Note: A total of 324 cases were recorded.

There is a clear trend away from using RCA to review SAC 1 events. Formal research into the reasons for this trend has not been undertaken; however, anecdotal evidence suggests that reasons include:

- cost–benefit—a belief that, in many situations, the same outcome can be achieved from a HEAPS analysis at a lower cost
- legal—statutory provisions for an RCA have a greater compliance burden
- technical—an RCA requires greater technical skill.

Work will be undertaken to better understand the reasons for the trend away from the use of RCA for SAC 1 incidents and what needs to be done about it.
Section 3
Six years of change for safety

Section 3 provides an overview of the previous six years in clinical incident reporting in Queensland Health.
A steady growth in incident reporting

Queensland Health publishes the Patient safety: from learning to action report each year because transparency is a critical element in the transformation to a culture of safety. This is the fifth edition of this report, and our processes and systems continue to grow and evolve as a result of our focus on improving the overall patient safety culture of Queensland Health. We report the growth in reported incidents, accepting that some people may interpret this as a sign of worsening safety, as opposed to an improvement in reporting that ultimately leads to a better safety culture.

Harm to a patient is frequently the result of a system failure. The first, critical step in reforming our system to reduce harm is to create an environment where our staff report to us, we disclose this information to the public and we use this information to improve.

Six years of change for safety

In the last six years there has been:

- a 139 per cent increase in reported clinical incidents
- an increased proportion of incidents reported with an outcome of no or minimal harm requiring no additional care
- a decreased proportion of incidents reported with an outcome of temporary harm requiring additional care
- no change in the proportion of incidents reported with an outcome of death and permanent harm.

We have made significant progress, but there is more work to be done. This report, along with previous editions, clearly marks out our progress.
Every edition of *From learning to action* has reported a growth in the number of reported incidents. This growth slowed in 2009–10 and 2010–11.

When we first started collecting statewide\(^{12}\) data in 2005, 33,226 incidents were reported. In the 2009–10 reporting year, 76,187 incidents were reported; in the 2010–11 reporting year, 79,399 incidents were reported. These reports are shown by month in Figure 8 and indicate a steady trend towards increased reporting.

In the 2009–10 and 2010–11 reporting periods, the reporting of severity assessment code (SAC) 3 (no or minimal harm) incidents increased (96.1 per cent of total reported clinical incidents in 2009–10 and 96.4 per cent of total reported clinical incidents in 2010–11), while reporting of SAC 2 (temporary harm) incidents decreased (3.4 per cent of total reported clinical incidents in 2009–10 and 3.2 per cent of total reported clinical incidents in 2010–11). The reporting of SAC 1 incidents has remained stable at 0.4 per cent of total reported clinical incidents.

\(^{12}\) The Prince Charles Hospital (TPCH) only reports SAC 1 clinical incidents into the PRIME CI system. TPCH use their own clinical incident reporting system for SAC 2 and SAC 3 clinical incidents.

### SAC 1 data from the Reportable Events Register

The definition of a SAC 1 event is ‘death or likely permanent harm which is not reasonably expected as an outcome of health care by the treating clinician(s), patient or family (includes defined sentinel event)’. Queensland Health manages the two categories of ‘death’ and ‘likely permanent harm’ identically; they are generally analysed in the same way and reported together. Figure 9 shows the number of SAC 1 events reported during the last six years, further categorised by serious harm and death.

As outlined in the *Learning to action IV* report, the Clinical Incident Management Implementation Standard (CIMIS) definition of a SAC 1 event was expanded to include incidents where the outcome was not reasonably expected (even though it may have been related to an underlying condition). This change in definition is a significant factor in the increase in SAC 1 events for reporting after the 2008–09 reporting period.
In addition, as described in Section 2 of this report, the December 2009 change to the data collection methods changed the level of detail collected relating to ‘harm’. We believe that this change has improved the specificity of the data and gives us a better awareness of the levels of harm that occur in the clinical incidents reported in Queensland Health.

Changes in proportions of SAC 1, 2 and 3 events

Queensland Health’s clinical incident reporting information system (PRIME CI) has collected information about SAC classifications since January 2007 (Figure 10). In the 2009–10 and the 2010–11 reporting years, the proportion of SAC 1 incidents reported was similar to 2008–09. There was a decrease in reported SAC 2 events and an increase in reported SAC 3 incidents in both years (Table 5).

Table 5  Percentage of total clinical incidents classified as a SAC 1, 2 or 3, 2007–08 to 2010–11

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SAC 1</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>SAC 2</td>
<td>3.5</td>
<td>4.6</td>
<td>3.4</td>
<td>3.2</td>
</tr>
<tr>
<td>SAC 3</td>
<td>96.0</td>
<td>94.9</td>
<td>96.1</td>
<td>96.4</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

SAC = severity assessment code

**SAC 1 reporting**

In 2009–10, the number of SAC 1 reports increased by 5 per cent from 2008–09; however, SAC 1 events contributed only 0.4 per cent of all incidents. In 2010–11, the number of SAC 1 reports decreased by 3 per cent from 2009–10 and continued to contribute only 0.4 per cent of all incidents reported. SAC 1 reporting as a percentage of all incidents has remained steady for the previous four years.

**SAC 2 reporting**

In 2009–10, there was a 21 per cent decrease in SAC 2 incidents reported, and SAC 2 incidents contributed 3.4 per cent of the total clinical incidents reported. In 2010–11, there was a further 4 per cent decrease in reported SAC 2 incidents; these incidents contributed 3.2 per cent of the total clinical incidents reported.
SAC 3 reporting

2009–10 saw an 8 per cent increase in the SAC 3 incidents reported; this further increased by 5 per cent in 2010–11. In both 2009–10 and 2010–11, most of the growth in reported incidents occurred in SAC 3 incidents, where minimal or no harm had occurred.

Types of clinical incidents

In December 2009, significant changes were made to the categories of clinical incidents collected in PRIME CI. To improve reporting through better classification of incident types, clinical incidents that were previously categorised within 19 incident types were now to be categorised into 5 incident types with 21 subcategories. This report therefore provides two different analyses: for July to November 2005–06 to 2009–10, and for December to July 2009–10 to 2010–11.

Figure 10 compares total incidents for July to November in each of the years 2005–06 through to 2009–10 for the 10 most frequently reported incident types (of 19 incident types). As in previous years, falls were the most frequently reported clinical incident type for 2009–10.

Figure 11 presents data for December–June for 2009–10 and 2010–11 for the 10 most frequently reported subcategories (of 21 subcategories). In both years, medication incidents were the most frequently reported clinical incident, followed by falls, behavioural incidents and invasive/non-invasive care.
Figure 11  Ten most frequently reported clinical incident types recorded in PRIME CI, July–November, 2005–06 to 2009–10

Figure 12  Ten most frequently reported clinical incident types recorded in PRIME CI, December–June, 2009–10 and 2010–11
It is difficult to determine if the change from falls to medications being the most frequently reported clinical incident type is a result of the new categorisation of clinical incidents, or if this change truly reflects an increase in the frequency of medication incidents.

Some incidents are more likely than others to result in patient harm. We have been collecting data since 2006 on the percentage of harm for each incident category. The changes that were made in December 2009 to the categorisation of clinical incident data also apply to these data: Figure 13 shows the percentage of the 10 incident types with the highest rates of harm for July–November in 2007–08, 2008–09 and 2009–10; and Figure 14 shows the percentage of the 10 incident types with the highest rate of harm for December–June in 2009–10 and 2010–11.

From July to November 2009, pressure injuries resulted in harm for 45 per cent of cases reported and falls in 34 per cent of cases (Figure 13). Although medication incidents were the second most common type of incident reported in this time period, they were not among the 10 types of incidents with the highest percentage of harm—this demonstrates that frequently reported incidents are not necessarily frequent causes of harm.

The 10 incident types with the highest percentage of harm changed significantly for the December–June periods in both 2009–10 and 2010–11 (Figure 14). This change is believed to be attributable to refining of the definition of incident types.

In 2010–11, harm from unknown cause was the incident type with the highest percentage of harm (74 per cent). This incident type (only available for selection since December 2009) is selected by the reporter when they are unable to determine the cause of harm or injury (e.g. bruises or skin tears). The incident type with the second highest percentage of harm was patient accident. This incident type is used when there is harm or injury resulting from a nonclinical event or incident; it includes exposure to hazardous chemicals, and contact with sharps or other objects. Pressure injuries were also in the top three incident types that resulted in the highest percentage of harm. However, a higher percentage of harm was reported for the new ‘pressure ulcer’ incident type (70 per cent compared to 46 per cent using the previous category of ‘pressure injuries’), which may be a result of the refining of the incident type definitions.

---

**Figure 13** Ten incident types with the highest percentage of harm recorded in PRIME CI, and the percentage of incident type classified as a harm incident, July–November, 2007–08 to 2009–10

---

PRIME CI = Queensland Health’s clinical incident reporting information system
Of the total number of reported clinical incidents that resulted in harm during July to November 2009, falls account for 27 per cent and pressure injuries account for 17 per cent (Figure 15). Together, these incidents significantly contribute to the overall percentage of harm incidents reported (pressure injuries and falls make up 40 per cent of all harm incidents).

For December–June 2009–10 and 2010–11, falls accounted for 23 per cent and 22 per cent, respectively, of all reported clinical incidents that resulted in harm (Figure 16). Pressure injuries also accounted for 17 per cent in 2009–10 and 19 per cent in 2010–11 of all clinical incidents reported that resulted in harm. Falls and pressure injuries significantly contribute to the overall percentage (40 per cent in 2009–10 and 41 per cent in 2010–11) of harm incidents reported.

These data indicate where we can be more effective in preventing harm. More detail is presented in Section 5 about initiatives and progress in reducing falls and pressure injuries.
Figure 15  Ten most frequently reported incidents that cause harm recorded in PRIME CI for July–November and the percentage of incident type contributing to overall harm clinical incidents, 2007–08 to 2009–10

Figure 16  Ten most frequently reported incidents that cause harm recorded in PRIME CI, and the percentage of incident type contributing to overall harm clinical incidents, December–June, 2009–10 and 2010–11
Section 4
Patient-centred care

This section explores the emerging issue of patient-centred care—what it is, why it is important and what Queensland Health is doing to ensure that health services better meet the needs and expectations of patients and their families.
Consumers are important

While addressing the Institute of Public Administration Australia in Canberra in July 2009, the Secretary of the Department of the Prime Minister and Cabinet emphasised the importance of putting consumers at the centre of our programs and policies. He identified this as one of the four fundamental areas to improve to provide the best public service in the world. The State of the service report 2009–10 also focused on consumer-centred programs by examining a range of initiatives that agencies currently use, including evaluation and review mechanisms that enable agencies to better meet consumers’ needs and expectations.

What is patient-centred care?

In health care, the terminology used to describe consumer centredness is more commonly known as patient and family-centred care. Patient and family-centred care is defined by the Australian Commission on Safety and Quality in Health Care as “health care that is respectful of, and responsive to, the preferences, needs and values of patients and consumers”.

Why patient-centred care?

Until recently, when measuring the quality of health care, much greater value has been placed on technical measures of treatment than on how patients experienced the care provided. Research increasingly suggests that, not only is patient-centred care the right thing to do, it is associated with better health outcomes. Health services with high patient centricity are associated with reduced mortality and infection rates, reduced cost of care, decreased length of stay, and fewer readmissions, adverse incidents and complaints leading to litigation. The case for patient-centred care is compelling.

Source: Australian Commission on Safety and Quality in Health Care, www.safetyandquality.gov.au


Key drivers for patient-centred care

Queensland Health has a strong commitment to a patient-centred healthcare system. Four recent national publications influence, guide and support the development of patient-centred approaches in Queensland Health:

- **Australian Safety and Quality Framework for Healthcare**—This framework was endorsed by Australian health ministers in 2010. It identifies consumer-centred care as the first of three dimensions required for a safe and high-quality standard of care in the Australian healthcare system, and provides nine relevant action areas to achieve this.

- **Australian Charter of Healthcare Rights**—The charter summarises the seven basic patient and consumer rights when accessing healthcare services. It recognises that patients, consumers, families, staff and health departments need to work in partnership to achieve the best possible outcomes.

- **National Safety and Quality Health Service Standards**—In September 2011, the 10 national standards were released, including the ‘Partnering with consumers’ standard. This standard describes systems and strategies to create a consumer-centred health system. Starting 1 January 2013, all health service organisations are required to be assessed against these standards and meet their requirements.

- **Patient-centred care: improving quality and safety through partnerships with patients and consumers**—Released in 2011, this discussion paper proposes 22 recommendations that support building patient-centred care into healthcare organisations. It provides various examples of international and national approaches and initiatives for family and patient-centred care.

Source for images on this page: Australian Commission on Safety and Quality in Health Care, www.safetyandquality.gov.au

Measuring patient experience in Queensland Health hospitals

An integral part of improving patient-centred care is measuring patient experience. The Patient Safety and Quality Improvement Service is partnering with hospitals to help measure patient experience as part of efforts to redesign health services to be more patient-centred. Understanding the patient journey through the healthcare system (‘walking in their shoes’) allows clinicians, managers and policy makers to redesign services to better meet patient needs, as well as reduce waste and unnecessary waiting times. In 2011, the Patient Safety and Quality Improvement Service collected data through:

- a statewide patient survey
- patient experience trackers
- compliments and complaints from our patients that are recorded and managed using a Queensland Health–wide computer-based information system.

2011 Emergency Department Patient Experience Survey

The 2011 Emergency Department Patient Experience Survey (EDPES) was developed in response to a greater Queensland Health strategic focus on the quality of services delivered in emergency departments. It is a critical component of the new four-year Clinical Services Redesign Program aimed at improving the patient journey and experience in our major hospitals. The statewide survey was commissioned in 2011 and conducted by the Office of Economic and Statistical Research on behalf of Queensland Health. The survey used computer-assisted telephone interviews in July and August 2011, with an overall response rate of 58 per cent.

A total of 9517 interviews were completed with patients who visited the 31 emergency departments of the largest Queensland public hospitals in May and June 2011. The survey included 59 questions covering:

- consistency and coordination of care
- treatment with respect and dignity
- involvement in care, treatment and decisions
- conduct of staff
- access
- information sharing, education and communication
- physical environment (e.g. cleanliness)
- continuity of care
- pain control
- privacy
- patient satisfaction.

There were also open-ended questions about how the hospital could improve and what aspects of hospital stay the patients viewed positively or negatively.

The EDPES asked three questions to gain an indication of patients’ overall satisfaction with their stay. The Queensland-wide results for these questions are:

- 74 per cent of emergency department patients were completely satisfied with how the emergency department dealt with the main reason for their visit; 19 per cent were satisfied to some extent
- 78 per cent of emergency department patients across Queensland rated the care they received as ‘excellent’ or ‘very good’, and 19 per cent rated it as ‘good’ or ‘fair’
- 75 per cent of emergency department patients across Queensland would ‘definitely’ recommend the emergency department they visited to their family and friends, and 18 per cent would ‘probably’ recommend it.

Facility-specific reports presenting results of this survey were provided to hospitals in December 2011. Results will be used by hospitals to evaluate the quality of health services provided and to assist in quality improvement activity planning at hospital and statewide levels. It is planned that the EDPES will be repeated in 2013 and will be used to assess the effectiveness of the improvement initiatives.
Patient experience trackers

An exciting data collection model began in 2011—the trial of the patient experience trackers (PETs). PETs are computer-linked handsets that measure patient and staff experience and satisfaction at the point of care. They are designed to ask a small number of focused questions, usually specific to the implementation of local quality improvement strategies. Responses entered on PET devices are held in the device and automatically or manually transmitted via a mobile or fixed telephone link. The benefit of this tool is that feedback to staff about patient experience of their health care can be provided in real-time. This is known to be highly effective at changing behaviour to improve the patient experience.

The Patient Safety and Quality Improvement Service has implemented PETs in conjunction with the Clinical Services Redesign Program and other hospital service improvement initiatives at the Gold Coast, Logan, Royal Children’s, Princess Alexandra, Wynnum, Redland and Robina hospitals. PETs have been implemented in a variety of locations, including emergency departments and wards, to monitor patient and staff experience. The effectiveness of PETs to assist with improving the delivery of services will be evaluated in early 2012.

'SThe PETs provided a user-friendly data collection tool to allow us to evaluate our communication with families and children. The report frequency and data presentation gave visual feedback to staff to support focus on areas for improvement'.

Jenny Ashton, Assistant Director, Clinical Redesign Centre for Healthcare Excellence, Children’s Health Services

Statewide consumer complaints and compliments

Any large organisation providing services to the public will inevitably receive a substantial volume of feedback from consumers. Queensland Health places a strong emphasis on improving the quality of services by encouraging, facilitating and responding to consumer feedback.

PRIME Consumer Feedback is a statewide information system that allows Queensland Health to collect, classify, analyse and learn from consumer complaints and compliments. This enables improved monitoring of trends and identification of potential improvements and corrective actions. It was designed to support Queensland Health’s Consumer Complaints Management Policy.

Hospitals are measured on key performance criteria, including time taken to acknowledge and resolve complaints. We are working in partnership with Health Consumers Queensland to continually improve our complaints management processes, better understand complaints data, address key trends and independently assess the experiences of patients who complain.

The three most common types of complaints relate to treatment, access and communication. Complaints are reviewed regularly and appropriate staff members escalate and investigate matters accordingly. A complaint remains current until all outstanding issues are resolved.

The three most common types of compliments relate to care and treatment, professionalism and service provided. Queensland Health actively analyses positive feedback and compliments to encourage and promote high-quality service and care.
Section 5
Preventing patient harm: from learning to action

This section provides an overview of programs and initiatives to improve patient safety across Queensland Health, as a result of what we have learnt from clinical incidents. Further information on the statewide patient safety improvement programs in this report is available by following the web links or by contacting us on psq@health.qld.gov.au.
Queensland Clinical Services Redesign Program (CSRP)

Program overview

- The CSRP aims to reorganise healthcare systems and processes to improve patients' experiences and help them move through health services.
- The program is funded under the National Partnership Agreement for Improving Hospital Services ($40 million over four years) and aligns with the Queensland Health Patient Flow Strategy 2010.
- The CSRP will fund up to 50 major redesign projects across the largest hospitals in Queensland in 2010–14 (to be managed using a proven redesign method), help to build the redesign workforce in Queensland Health and support a culture of business improvement.

Current status

- Six Queensland public hospitals started major redesign projects by June 2011—the Gold Coast and Robina, Royal Children's, Nambour General, Ipswich, Cairns Base and Logan hospitals.
- Seven hospitals are involved in a project to improve the flow of patients presenting to emergency departments with chest pain—the Royal Brisbane and Women’s, Townsville, Nambour General, Caboolture, Rockhampton, Gladstone and The Prince Charles hospitals.

Future work

- At least 12 new major redesign projects in Queensland public hospitals will start in 2011–12.
- The program will focus on developing the redesign workforce in Queensland Health.

Further information is available at www.health.qld.gov.au/chi/CSRP.
Recognition and Management of the Deteriorating Patient (RMDP)

Program overview

- Serious adverse events, such as unexpected death and cardiac arrest, are commonly preceded by changes in patients’ physiological observations.
- Improving the identification and management of a patient’s deteriorating condition can save lives, reduce unexpected intensive care unit admissions and reduce the length of stay.
- The RMDP aims to decrease preventable patient harm in acute care facilities by improving the early recognition and timely, appropriate response to patients with a deteriorating condition.

Current status

Key initiatives available for Queensland Health districts include:

- two observation tools—the Adult Deterioration Detection System (ADDS) and the Children’s Early Warning Tool (CEWT)
- an online education package to give clinicians the information and skills needed to implement RMDP safety systems
- a service readiness workbook to help facilities implement systems that support RMDP
- promotional materials to inform and raise awareness in facilities about RMDP systems.

Future work

In the immediate future, the RMDP program will focus on:

- helping acute care facilities implement ADDS, CEWT and their support systems
- gathering feedback and evaluating ADDS and CEWT observation tools
- conducting clinical validation of ADDS
- developing a Queensland Health policy and implementation standard for RMDP (including a minimum standard for vital signs collection, frequency and management)
- developing a maternal early warning and response system
- establishing a single clinical emergency call number across all Queensland Health acute care facilities
- consulting with universities, colleges and medical schools to develop an undergraduate curriculum that includes recognising and managing deteriorating patients.

### Clinical Handover Program

**Program overview**

- Clinical handover is the transfer of responsibility and accountability for a patient’s care from one person or group to another. It involves communicating patient care information during shift changes, admission, referral, discharge and patient transfer.
- The Clinical Handover Program aims to minimise patient harm associated with communication failures by standardising and improving clinical handover processes.

**Current status**

Key initiatives in 2010–11 included:

- holding a shift-to-shift clinical handover workshop for 200 nursing and safety and quality staff, in partnership with the Office of the Chief Nursing Officer. Bedside handover was endorsed by 90 per cent of participants as the best-practice model
- progressing the final stages of consultation and development of a statewide Clinical Handover Policy and Implementation Standard
- conducting a statewide survey of shift-to-shift clinical handover to identify current processes and inform program planning
- developing e-learning modules for nursing staff
- developing and consulting on a best-practice model for medical handover
- promoting a patient-centred approach to clinical handover
- continuing district consultations, advice, resources and support.

**Future work**

Future work will include:

- holding a medical handover improvement workshop
- developing indicators to measure clinical handover improvement
- standardising processes for transferring patients from high-acuity to low-acuity clinical settings
- consulting with universities, colleges and medical schools to develop clinical handover curricula for undergraduates.

Clinical Incident Management Program

Program overview

The Clinical Incident Management Program:

- provides training, education and support for best-practice incident management, including incident identification, classification, analysis and corrective actions
- supports the statewide network of patient safety officers

Current status

In 2010–11, the program:

- completed a review of the legislation for conducting root cause analysis (RCA) in Queensland, and submitted a report and recommendations to the minister.
- included the RCA provisions in the new Queensland Health and Hospitals Network Act 2011
- held regular training workshops for healthcare service staff in incident analysis techniques
- delivered a ‘From clinical incidents to quality improvement’ workshop to patient safety officers, quality managers and clinical governance staff
- supported a weekly real-time RCA expert advisory group to assist RCA teams and improve RCA quality.

Future work

Future work will include:

- incorporating human factors interviewing skills and advanced recommendation writing skills into RCA training courses
- developing a patient safety competency and skills framework
- revising the clinical incident management policy
- improving staff access to patient safety incident and analysis data to promote successful initiatives.

Clinical Pathways and System Design

Program overview

• A clinical pathway is a document that outlines a standardised, evidence-based management plan for a patient group, including the sequence of clinical interventions, time frames, milestones and expected outcomes.

• The Patient Safety and Quality Improvement Service works with clinician groups to develop clinical pathways for high-impact areas.

• Steps in developing clinical pathways are:
  1. identify unwarranted variation
  2. design the correct care into the pathway
  3. pilot the pathway
  4. monitor variation and adapt the pathway as necessary
  5. address unintended variation.

Current status

• In 2010–11, the program completed new clinical pathways for renal dialysis peritonitis, adult head injury and perioperative record (endorsed by the Patient Safety and Quality Executive Committee).

• The maternal suite of clinical pathways incorporated:
  – the Queensland Health healthy screening process—100 per cent of neonates now receive hearing screening before discharge
  – three key strategies for safe sleeping (wrapping, settling and positioning)—mothers are educated in this practice before discharge

Future work

Clinical pathways for renal dialysis peritonitis and adult head injury will be trialled in hospitals, and the endorsed clinical pathway for perioperative records will be implemented.

The program will also develop new clinical pathways for:

• meningococcal meningitis
• rheumatic heart disease
• paediatric head injury.

Clininfo

Program overview

- The increasing demand for specialist outpatient services can lead to longer waiting times. Queensland Health is upgrading the interface between general practitioners and outpatient services to improve patient outcomes and resource use.

- Clininfo is a centralised, statewide, web-based directory of information on outpatient clinics. It publishes up-to-date referring requirements, clinic prerequisites, clinic billing options and general outpatient information.

- Clininfo will also include information on appointment waiting times by category and clinic. The benefits of publishing waiting times include:
  - increasing transparency
  - improving patients’ ability to make informed choices and access care in a timely manner
  - providing the general practitioner with the option to refer to a clinic with the shortest waiting time.

Current status

Clininfo is currently being piloted in the Metro North Health Service District.

Future work

In the future, Clininfo will be implemented statewide to support improved patient outcomes within the Queensland Health Patient Flow Strategy.

Coronial Management Program

**Program overview**

- Queensland Health staff have an obligation to report deaths to the coroner in accordance with the *Coroners Act 2003* (Qld). The coronial system monitors all deaths and reviews the circumstances surrounding deaths that are considered preventable, and produces recommendations to reduce the likelihood of those circumstances recurring.

- Key functions of the Coronial Management Program are:
  - collaborating with the Office of the State Coroner to reform the coronial system
  - promptly coordinating responses to coronial recommendations for Queensland Health
  - annually reporting health-related coronial findings and recommendations.

**Current status**

In 2010–11, the program:

- shared information with the Office of the State Coroner about patient safety issues
- identified a positive trend in RCA mitigating the need for a coronial inquest in its annual report. This has benefits for Queensland Health, patients and families, and will continue to be explored in future reports.
- progressed the review and redesign of the Coronial Management e-Learning Program
- reviewed the hospital autopsy consent in conjunction with the chief forensic pathologist and the Informed Consent Program
- developed a standardised method for ensuring coroner findings are shared appropriately across the state
- contributed to the Asia Pacific Coroners Society Conference 2011 (helped to organise the conference, and presented a paper on the program and its role in data collection).

**Future work**

The program will:

- develop the Coronial Recommendations Register, an intranet site to share health-related coroners’ case findings and recommendations.

Falls Injury Prevention Program—Stay On Your Feet

Program overview

• Research suggests that posture, vision and muscle strength begin to deteriorate from age 40.
• The Stay On Your Feet program targets falls and injury prevention for people aged 65 years and over, and healthy, active ageing approaches for people aged 40–64.
• The program works with many partners to address falls across the healthcare continuum in the community, hospitals and residential aged care.

Current status

The Stay On Your Feet program engaged health professionals and raised awareness by:
• progressing key priorities through working groups on education and resources, health service planning, research, healthy active ageing and nutrition
• linking front-line staff through statewide teleconferences to share key strategies and lessons
• releasing the Falls Prevention for Clinical Leaders e-learning package
• implementing April No Falls activities, involving 25 sites
• delivering a two-day integrated forum on pressure injury, falls and malnutrition prevention—74 per cent of attendees indicated their knowledge of falls prevention had improved
• developing a standardised falls assessment and care plan, a post-falls clinical pathway tool for hospital and residential aged care settings, and an assessment tool for community health (trialled in 25 sites)
• developing a draft falls prevention plan and evaluation framework, and starting to implement the plan.

Future work

In collaboration with the Healthy Living Branch, Division of the Chief Health Officer, the program will begin the implementation of the Queensland Stay On Your Feet Statewide Falls Prevention Plan, focusing on clinician engagement and consumer involvement.

Healthcare Culture and Leadership Service (HCLS)

Program overview

- Healthcare leaders have a significant impact on workplace culture, which influences how individuals and teams perform, and directly affects the patient experience. The HCLS aims to develop and support leaders to build a positive workplace culture where healthcare staff can perform at their best.

- Since 2006, staff opinion surveys have been held every two years; each district and division is expected to implement an action plan to address their survey results.

A critical contributor to this improvement was the Queensland Health Leadership Development Program, which has seen more than 700 leadership development workshops delivered to more than 17,000 clinical and nonclinical staff since its inception in 2006.

Current status

- Overall improvement in workplace culture continues to be seen in the third survey cycle, which began in April 2010.

- Responses to the staff opinion surveys are increasing, indicating greater engagement in the process of improving workplace culture.

- Clinicians report in their survey responses that patient care is increasingly provided through teamwork, that the patient is an integral part of their own care team and that each member is respected within the team.

- During 2010–11, more than 2400 Queensland Health staff participated in more than 130 leadership development workshops. Feedback summary reports for executives continue to show improvement in key leadership qualities (including leading people through change) and collaborative working.

Future work

Major future priorities for the HCLS include:

- implementing the ‘Next step’ leadership development program for medical registrars in 2011–12

- continuing to strengthen the capability and engagement of clinicians in leadership

- improving workplace culture.

Informed Consent Program

Program overview

- Informed consent includes the entire interactive communication process that ensures patients have the necessary information and advice about their condition, treatment options and risks associated with treatment. This process must be tailored to each patient’s level of understanding.
- The Informed Consent Program aims to develop and implement policies, standards and protocols to assist healthcare practitioners to:
  - clearly understand the roles and responsibilities involved in supporting and documenting informed decision-making by patients
  - provide patients with information in a format that helps them understand their medical treatment.

Current status

In 2010–11, the program:

- significantly updated the *Informed decision-making in healthcare policy*, standard and guide, and distributed it to stakeholders for consultation and feedback
- reviewed information about substitute decision-makers on consent documents to improve guidance for healthcare practitioners and consistency of recording
- updated documents on the informed consent website to improve formatting quality and barcode all consent documents in preparation for the implementation of electronic health records
- translated the radiation safety patient information sheet into 10 other languages.

Future work

The program will:

- finalise and implement the *Informed decision-making in healthcare policy*, standard and guide
- review governance processes for developing and reviewing procedure-specific informed consent documents to ensure ongoing quality and sustainability
- research culturally appropriate methods of communicating informed decision-making in healthcare options for patients from multicultural backgrounds.

Malnutrition Prevention Project

Program overview

- Malnutrition increases complications, length of hospital stay and healthcare costs, and at least doubles the risk of pressure injury. In 2008, 31 per cent of adults in Queensland Health hospitals had malnutrition.
- The two-year Malnutrition Prevention Project was established in August 2010. It aims to improve the identification, prevention and management of malnutrition in Queensland Health hospitals, and reduce associated patient harm.

Current status

Strategies implemented in 2010–11 include:

- holding three regional workshops on the Evaluation and Quality Improvement Program (EQuiP) safety criteria for nutrition, involving 59 participants from 19 sites, and developing a self-assessment and action plan tool for this criterion
- developing a statewide policy, implementation standard and procedure for nutrition risk screening, assessment and support
- establishing a nutrition working group, who have helped develop a list of requirements for weighing scales in healthcare settings, and advocated and consulted on improving nutritional care.

Future work

The project will:

- collaborate and engage with clinicians to improve awareness of nutrition care at mealtimes
- develop educational resources to raise awareness of the importance of identifying, preventing and managing malnutrition.

Medication safety

Program overview

- Medications are associated with more errors and adverse events than other aspects of health care.
- Medication Services Queensland uses standardised medication charts and end-of-bed guidelines, decision support and education to reduce errors in prescribing, dispensing and administering medicines while a patient is in hospital.
- In the community, the Medication Action Plan improves communication between general practitioners and patients by supplying patients with a discharge medication record.

Current status

In 2010–11, the program:

- developed and distributed tools and resources, including a medication risk awareness training package for nurses, a standard Medication Action Plan and an interim medication administration record to assist with continuity of care in the community and residential facilities, and competency-based performance development programs for pharmacists and pharmacy support staff
- collaborated with clinicians in Queensland Health primary and community care services to identify additional tools needed to improve medication management
- improved the capacity to benchmark medication management key performance indicators across Queensland Health hospitals.

Future work

The program will:

- improve the safety of high-risk medicines, such as anticoagulants and insulin, by including an electronic prompt for warfarin in the discharge process, and developing and implementing a paediatric insulin form
- improve prescribing and medication continuity by implementing standardised resources and decision-support tools, conducting trials of the interim medication administration record and collaborating with Queensland Ambulance Services to increase the percentage of patients who bring their own medications to the emergency department
- reduce medication selection errors by implementing new technology, such as barcoding.

Open Disclosure Program

Program overview

- Open disclosure is the open discussion of incidents that result in harm to patients. It includes an expression of regret or apology for the incident and a factual explanation of what happened, including the potential consequences and the steps being taken to manage the event and prevent recurrence.
- Queensland Health is committed to open disclosure and providing honest and factual responses to patients and families, as well as supporting staff that experience or are affected by serious adverse events.

Current status

In 2010–11, the program:

- trained 66 new open disclosure consultants, bringing the total to more than 450 trained open disclosure consultants currently working in Queensland Health
- completed developing the clinician disclosure e-learning program to provide a structured, consistent and patient-centred approach to ‘first contact’ bedside communication after an adverse event
- restructured the open disclosure consultant training program to align with the clinician disclosure program, including a new e-learning module and refined practical training
- increased stakeholder engagement through increased communication and site visits to support district implementation of open disclosure.

Future work

The program will continue to educate and support Queensland Health staff in open disclosure by:

- piloting the new clinician disclosure and open disclosure consultant training programs in 2011–12
- supporting adherence to formal open disclosure processes for all severity assessment code (SAC) 1 incidents
- investigating the effectiveness of open disclosure through patient and clinician research in accordance with the national standard
- improving our relationships with universities through active engagement in teaching and research.

### Patient Safety Bedside Audit

#### Program overview

- Unique to Queensland, the Patient Safety Bedside Audit uses a standard methodology and trained clinician auditors to check patient care at the bedside, including physical examination and checks of documentation and processes of care.
- The bedside audit approach has four broad benefits:
  - provides a robust methodology with reliable and clinically valid data
  - acts as an intervention in its own right, raising awareness with front-line clinical staff, patients and family members, and directly influencing clinical practice change
  - aligns to important safety issues and new national standards (for those that can be assessed at the bedside)
  - allows benchmarking of key safety and performance outcomes and processes by units and by hospitals.

#### Current status

- An expanded bedside audit was developed for 2010–11, building on experience and improvements associated with past pressure injury audits. Additional elements were malnutrition, bed rails/devices, recognition and management of the deteriorating patient, medication safety, clinical handover and patient identification.
- The 2010–11 audit was conducted during 31 October – 25 November 2011. Results will be available to hospitals in early 2012.

#### Future work

The program will continue to work with hospitals to improve statewide audit tools that include standard core elements and capacity for local adaptation. The use of electronic data collection tools with real-time feedback to staff will improve efficiency.

## Program overview

The purpose of the Medical Device Safety Program is to:

- establish and maintain policy and governance for the Patient Safety Notification System
- conduct statewide safety risk assessments and investigations for biomedical and consumable medical devices
- participate in multidisciplinary patient safety investigations, and write investigation reports and briefs
- publish all patient safety notifications resulting from statewide patient safety risk assessments and investigation reports on the Queensland Health Electronic Publishing System.

## Current status

In 2010–11, the program managed:

- 47 medical device-related inquiries, of which 2 required further comprehensive investigation
- 18 new statewide medical device investigations that required internal and external stakeholder engagement
- 3 complex medical device investigations carried over from the 2009–10 financial year that required internal and external stakeholder engagement.

During 2010–11, the program issued one patient safety alert and eight patient safety notices, and negotiated design changes with manufacturers of two medical devices.

## Future work

The program will:

- develop a Queensland Health medical device governance framework
- continue to implement a statewide patient safety notification system (patient safety alerts, notices and communiqués)
- continue to conduct interdisciplinary device safety investigations to reduce preventable patient harm, including:
  - statewide risk assessments
  - recommendations for device design changes or corrections
  - liaison with manufacturers and the Therapeutic Goods Administration
  - recommendations for changes in device safety standards in Australia.

Further information is available at http://qheps.health.qld.gov.au/psq/alert/webpages/alerts_homepage.htm (intranet) or by emailing psq@health.qld.gov.au.
### Patient safety and quality improvement education

#### Program overview

- Patient safety and quality improvement education includes developing, implementing and evaluating education programs for patient safety. These programs promote cultural, attitudinal and behavioural changes that can improve patients’ experiences, prevent clinical errors and improve the safety of health care.
- Patient safety and quality improvement education complements clinical education by informing a holistic approach to the way clinicians care for patients and, importantly, how patient safety is managed by individuals, teams and the organisation.

#### Current status

In 2010–11, the program:

- provided online education courses for 3955 people, and face-to-face or mixed media programs (e.g. e-learning for around 6500 people)
- integrated the Junior Medical Officer Patient Safety Program into district and undergraduate education programs
- developed an interactive, online education course for clinical deterioration
- finalised the clinician disclosure education program
- developed DVD resources for asthma education (aimed at consumers and educators) and launched the Surgical Safety Checklist and perioperative pathway.

#### Future work

The focus for 2011–12 will be revising educational materials to ensure they remain current, align to best practice and current research, and provide behavioural changes that ensure patient safety and quality improvement. All patient safety and quality improvement online courses will be moved to the iLearn@QHealth content management system.

Further information is available at https://ilearn.health.qld.gov.au (intranet).
Pressure injuries are a common problem developing brochures, fact sheets, tools and an online learning package about pressure injury prevention.

Queensland Health’s goal is to reduce hospital-acquired pressure injury prevalence to less than 10 per cent by 2012. The statewide point-prevalence audit will be conducted annually.

Since 2003, there has been a 28 per cent relative reduction in hospital-acquired inpatient pressure injuries—equivalent to a 190-bed hospital being freed up during a seven-year period (Figure 17).

Recent achievements include:

- developing brochures, fact sheets, tools and an online learning package about pressure injury prevention and management
- delivering a two-day integrated forum (‘Whole person, whole team, holistic healthcare’) on pressure injury, falls and malnutrition prevention—89 per cent of attendees agreed or strongly agreed that their knowledge of pressure injury prevention had improved
- providing input to the National Safety and Quality Health Service Standards and the Australian Pressure Injury Advisory Panel’s national clinical practice guidelines.

PIPP will:

- continue to update resources to help districts comply with the national clinical practice guidelines and the national standard for pressure injuries
- further develop and support pressure injury audits, including timely feedback and sharing lessons about strategies for pressure injury prevention and management
- develop a parent–carer brochure for preventing pressure injuries in hospitalised children.


![Figure 17](image-url) Prevalence of hospital-acquired pressure injuries, 2003 to 2010–11

**Future work**

Preventing Pressure Injuries

<table>
<thead>
<tr>
<th>What to look for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in the way your skin feels—blistering, swelling, dry patches, shiny areas, calluses</td>
</tr>
<tr>
<td>Changes in skin temperature</td>
</tr>
<tr>
<td>Changes in normal skin colour—may become pale, bluish or pinkish</td>
</tr>
</tbody>
</table>

**Who is at risk**

Any one! Any time! Any age!

![Image](image-url)

This is the consumer education brochure for pressure injury prevention that was developed for adults and released in early 2011.
Productive Ward

Program overview

• Direct patient care time counts for an average of 25–35 per cent of total working hours for clinicians. The remaining working hours are spent searching for equipment, moving between places, sourcing information, discussing issues, managing interruptions, filling out paperwork and performing administrative functions.

• The Productive Ward program helps front-line clinicians increase the percentage of time spent delivering direct patient care by using lean thinking methods.

Current status

The program was launched in four health service districts in February 2010 and in a further three districts in March 2011. Progress includes:

• spread of the program to 19 facilities and 45 wards, with plans to expand

• an agreed vision among ward staff, clear measures of performance displayed in a public place and an action plan for high-priority issues

• ward staff more focused on communication across the multidisciplinary team, introducing patient journey boards or improving existing ones.

Early results show up to 13 per cent more time being spent delivering direct care to patients, a sustained reduction in medication errors, a reduction in the number of patient meals missed and up to 20 per cent higher staff satisfaction.

Future work

• Similar programs will be implemented for community services, operating theatres, community hospitals, mental health and organisation leaders.

• Training for these programs will be staggered during the next 12 months.

Queensland incidents in Transfusion (QiiT)—haemovigilance

Program overview

- The Queensland incidents in Transfusion (QiiT) haemovigilance system was established in 2008.
- Haemovigilance systems monitor and record adverse events that can occur in the blood transfusion process.
- Some risks are intrinsic to the blood component (e.g. transfusion-related acute lung injury); others relate to human factors (e.g. incorrectly labelled blood specimens or administration of the wrong blood).
- Monitoring and collecting these reports improves awareness and helps develop recommendations and initiatives to improve patient safety.

Current status

Participation in QiiT continues to expand (Figure 18) and now includes 122 public and private Queensland hospitals.

- QiiT has received 566 event reports to date, illustrating the strong commitment of participating hospitals.
- The QiiT newsletter is distributed quarterly.
- An information leaflet and an alert card about irradiated blood have been developed and will be rolled out shortly. The need for these patient resources was identified through QiiT.

Future work

- All public hospitals in Queensland that transfuse blood are now participating in QiiT. Work will continue toward greater involvement of the private sector, where a significant amount of transfusion occurs.
- The first annual QiiT report has been developed and is available at www.health.qld.gov.au/psq/reports/psq_reports.asp. The report presents recommendations arising from the analysis of QiiT incidents from 2008 to 2009.


Figure 18  Increase in QiiT participation, 2008 to 2011
Statewide Clinical Networks

Program overview

Statewide Clinical Networks undertake activities to improve the quality, efficiency and safety of care for patients, including planning, priority setting and improving systems. The current Statewide Clinical Networks are:

- Anaesthesia and Perioperative Care Clinical Network
- Cancer Care Clinical Network
- Cardiac Clinical Network
- Child and Youth Clinical Network
- Dementia Clinical Network
- Diabetes Clinical Network
- Emergency Department Clinical Network
- General Medicine Clinical Network
- Intensive Care Clinical Network
- Maternity and Neonatal Care Clinical Network
- Mental Health Clinical Network
- Older Person’s Health Clinical Network
- Renal Clinical Network
- Respiratory Clinical Network
- Stroke Clinical Network
- Trauma Clinical Network.

Current status

Current activities include:

- developing core principles and practices for general medicine and child development services
- collaborating between the General Medicine Clinical Network and the Emergency Department Clinical Network on the four-hour national access target
- developing documents on preconception care, dementia, stroke and diabetes, and a spirometry training program for Indigenous health workers
- partnering with the Queensland Maternity and Neonatal Clinical Guidelines Program to support seven maternity and neonatal clinical guidelines
- finalising agreement with the Commission for Children, Young People and Child Guardian to enable exchange of information to review sudden unexpected deaths in infancy.

Future work

Future work will include:

- developing guidelines for medical assessment and planning units, and inpatient insulin use
- collaborating with partners to address issues in perinatal data collection, cognitively impaired older people and the integration of state stroke data with the national registry
- implementing an Indigenous Better Lung Health Outreach Project
- developing care models, frameworks and forms to improve child health.

Further information is available at www.health.qld.gov.au/psq/Networks/default.asp.
# Surgical Safety Program

## Program overview
- The Surgical Safety Program consists of the Ensuring the Correct Patient, Correct Site, Correct Procedure (‘3Cs’) protocol and the World Health Organization’s Surgical Safety Checklist.
- The 3Cs policy was introduced in 2009 to eliminate procedures involving the wrong patient or body part. It includes four steps: patient identification check, obtaining and checking informed consent, marking and verifying site and side, and team final check.
- Queensland Health’s Surgical Safety Checklist policy, standard and manual are based on the World Health Organization’s Surgical Safety Checklist. The checklist includes 20 items to be completed in three stages: the Sign In (before anaesthesia or equivalent), the Time-Out (after anaesthesia has been completed and before the operative procedure begins) and the Sign-Out (after the procedure is completed, and before the patient or the perioperative team leaves the operating suite). The checklist is mandatory in all Queensland Health operating theatres.

## Current status
- The Surgical Safety Checklist was implemented statewide in the second half of 2011 as part of the standardised perioperative patient record.
- The 3Cs policy and implementation standard will be amended in the second half of 2011 in response to revisions by the Health Quality and Complaints Commission. Auditing of 3Cs compliance continues across the state in radiology departments.
- The program is developing a Surgical Safety Checklist training DVD.

## Future work
- Develop an e-learning educational package for the Surgical Safety Checklist.
- Undertake an annual statewide Surgical Safety Checklist observational audit.
- After the introduction of the Surgical Safety Checklist, retain the 3Cs policy in all nonoperating suite clinical settings where invasive procedures are performed.

Transforming Care (TC)

Program overview

- Transforming Care at the Bedside (TC) was designed by the Institute for Healthcare Improvement in response to the ongoing gap between current practice and evidence-based best practice in the delivery of quality health care. The initiative helps clinical care team members (who spend the most time with patients) to develop ideas on the best ways to improve patient care delivery.

- The TC program is a framework for change built around improvements in four main areas: safe and reliable care, patient-centred care, energising teams, and seeking efficiency in systems and processes using local and shared innovations. In Queensland, the initiative has integrated Studer Group (a healthcare consulting and coaching organisation) strategies, the FISH! Philosophy and Lean Thinking principles.

Current status

- More than 40 facilities and more than 90 wards or units within Queensland Health have implemented TC initiatives.

- More than 740 people are members of the electronic Learning and Innovation Community for sharing innovations, outcomes and strategies.

- More than 20 workshops and introductory sessions were held in 2010–11.

- More than 160 people participated in the 2011 statewide forum, which received excellent reviews.

- Units that began TC more than four years ago have achieved and sustained improvements.

Future work

TC will:

- integrate with the Productive Ward Program to improve patient safety outcomes and cultural change

- continue to support and spread the initiative through facilitating networks, forums, electronic communities and workshops

- develop and test an evaluation framework to measure how the initiative contributes to improved patient safety outcomes and staff satisfaction.

Further information is available at www.health.qld.gov.au/chi/psq/
Variable Life Adjusted Display (VLAD)

Program overview

- VLAD is a statistical method to help determine variations in clinical outcomes. It is one of a suite of tools that helps Queensland hospitals monitor and improve their performance in patient safety, quality and effectiveness.

- When a hospital is considered to have a significant variation in clinical outcomes, a thorough clinical review and investigation is undertaken to determine the cause of the difference, which may relate to clinical care, or may relate to the demographic or other particulars of the hospital catchment.

- Queensland Health monitors 34 indicators in the medical, surgical, obstetric and mental health clinical areas.

Current status

During 2010–11:

- monthly VLAD graphs were disseminated to 60 Queensland public hospitals

- monthly reports on the appropriateness of reviews were sent to the Patient Safety and Quality Executive Committee

- 300 clinical reviews by district staff in public hospitals occurred as a result of VLADs

- quality initiatives arising from the use of VLADs were implemented, including improving standard clinical pathways, discharge processes, clinician documentation and local coding practices, patient education and allocation of resources.

Future work

- Continued monthly production and distribution of VLAD indicators to hospitals.

- Review of the current VLAD indicators involving clinical and coding experts to ensure currency and relevance.

- Assessment of the effectiveness of VLAD methodology.

Section 6
Lessons learned

This section summarises what has changed after five years of a Queensland-wide approach to learning from clinical incidents.
Sharing knowledge

During the years leading up to 2005–06, many hospitals in Queensland had no systematic way of reporting and learning from clinical incidents. Those that had internal systems for this acted in relative isolation, with no formal process for sharing the underlying causes and solutions with other hospitals. Knowledge and, more importantly, a belief that providing safe care required more than individual practitioner competence were scarce. Patients and their families often had to resort to formal complaints and even litigation to receive an explanation when they suffered an unexpected adverse outcome of care. Competent and well-intentioned staff who were caring for a patient suffering a serious adverse outcome were often singled out for punishment, unsupported and, in some cases, left the profession. Queensland Health was not prepared to publicly acknowledge that, as in every modern healthcare system, their patient safety was not perfect.

Five years later, the situation is very different.

Now in Queensland Health, we are prepared to acknowledge that there is a problem. Because of this, we have been able to focus on how to address it, and share this with our staff and the community we serve. Our patient safety system is now equal to the best in the world. Thousands of staff have been trained in all aspects of patient safety and many of our training programs are being used by other health systems. Throughout Queensland, every day, our staff report and participate in reviewing incidents. Many improvements result from this activity, from small changes in a clinic or ward to major statewide changes. This can only happen because the systems are connected, allowing a unique window into the whole healthcare system. Accountability is clear and recommendations are tracked and followed up.

For staff, this has meant much greater confidence that reporting will lead to change. The massive growth in reporting during the last five years is testament to this reporting culture, which is known to be at the heart of a high-performing safety organisation. For patients, this means much greater confidence that safety is taken seriously and actively managed. However, if something does go wrong, they know they can rely on an open, honest and supportive response. We now have major programs, partnered with health services, that drive real improvement across the state in key areas.

The box below describes an example of how we identify and address issues statewide.

New observation charts that will save lives

Every week, our team reviews the findings from root cause analysis (RCA) of major adverse events. We discuss this with the local review teams to identify actions for improvement.

An example of how this can lead to major statewide change is the Children’s Early Warning Tool (CEWT). This resulted from an RCA into the death of a child in one of our hospitals that identified that, in the complex and busy environment of acute clinical care, the early warning signs of clinical deterioration might be overlooked. The Patient Safety and Quality Improvement Service recognised that this was a statewide problem, and solving it in one hospital would not be enough. We worked with clinicians who designed the solution, funded validation work and launched a tool that has the potential to save lives every day, in every district. This has led to the development of a similar suite of tools for adult patients, the Adult Deterioration Detection System (ADDS). One RCA, and the systematic thinking that arose from it, has had a profound impact on clinical care.
The real test is not whether we have good safety systems, but whether safety has improved as a result of this investment.

Measuring safety is not easy in any industry; this is particularly true in a complex industry like healthcare. How do we know whether a particular adverse event was preventable, let alone whether we have improved safety performance? The only way to do this is by focusing on specific types of hospital-acquired injury. The reduction in pressure injuries is an excellent example of this approach.

Despite the significant progress that has been made in the previous five years, there is much more that can be done to improve patient safety across Queensland. We are committed to improving continually and to reporting transparently on our progress.

---

Improving safety and reducing costs—pressure injuries

Pressure injuries are painful and debilitating skin injuries that can occur as a result of immobility or nerve damage. They commonly occur in elderly and ill people, so hospitalised patients and residents in aged care facilities are particularly at risk. The consequence of a pressure injury can range from temporary injury leading to extra days in hospital, to permanent injury requiring extensive hospital care. Occasionally, pressure injuries can cause death.

Almost all pressure injuries are preventable with the right care. This includes appropriate assessment, regular turning, specific mattresses and pressure-relieving devices, and good nutrition.

As a result of a comprehensive program of leadership, training, equipment upgrades and regular bedside audits, Queensland Health significantly reduced the incidence of pressure injuries in our hospitals between 2003 and 2010–11 by 28 per cent (Figure 17, page 52).

Because every pressure injury causes additional expense and hospital stays, this improvement is equivalent to:

- 2300 fewer patients per year that no longer develop this painful condition
- 10 000 bed days saved across the state per year during the previous seven years, which is equivalent to building and operating a new 190-bed hospital.
Appendix 1  Publications July 2010–June 2011

2010–11 guidelines

• Queensland Maternity and Neonatal Clinical Guidelines Program 2010, *Neonatal abstinence syndrome*, guideline no. MN10.18-V1-R13, Queensland Health (August)


• Queensland Maternity and Neonatal Clinical Guidelines Program 2010, *Intrapartum fetal surveillance*, guideline no. MN10.15-V1-R13, Queensland Health (August)

• Queensland Maternity and Neonatal Clinical Guidelines Program 2010, *Breastfeeding initiation*, guideline no. MN10.19-V1-R13, Queensland Health (October)

• Queensland Maternity and Neonatal Clinical Guidelines Program 2010, *Early onset Group B streptococcal disease*, guideline no. MN10.20-V1-R13, Queensland Health (October)

• Queensland Maternity and Neonatal Clinical Guidelines Program 2010, *Term small for gestational age baby*, guideline no. MN10.16-V1-R13, Queensland Health (December)

• Queensland Maternity and Neonatal Clinical Guidelines Program 2011, *Stillbirth care*, guideline no. MN11.24-V1-R14, Queensland Health (May)

• Patient safety notice—Lack of review and follow-up of patient results in hospital-based day procedure clinics may lead to serious patient harm, October 2010

• Patient safety notice—TGA hazard alert Class II DePuy ASR articular surface replacement and ASR XL Acetabular Systems (hip implants), October 2010

• Patient safety notice—Medical device recall Class II LCS Duofix femoral component (knee implant), October 2010

• Patient safety notice—Entrapment risk: incorrect use of installation of bed poles / bed sticks, October 2010

• Patient safety notice—Medical device recall Class II Arrow international intra-aortic balloon catheters, November 2010

• Patient safety alert—Correct identification of medication and solutions for epidural anaesthesia and analgesia, December 2010

• Patient safety communique—Referral to warfarin monitoring service, December 2010

• Patient safety notice—TGA medical device recall Class I Unomedical Y suction catheter, Queensland Government, January 2011

• Patient safety notice—Medical device recall Class II Arrow international intra-aortic balloon catheters, Queensland Government, January 2011

• Patient safety notice—Buttonhole cannulation and increased infection, Queensland Government, February 2011

Newsletters

• *Patient Safety and Quality Matters*, July 2010, Queensland Government, Brisbane

• *Patient Safety and Quality Matters*, October 2010, Queensland Government, Brisbane

• *Patient Safety and Quality Matters*, March 2011, Queensland Government, Brisbane

Conference presentations

• 2 July 2010, Australian Catholic University’s Research Symposium—Connections in Aged and Community Care, Brisbane, Queensland: Queensland Stay On Your Feet® in hospital, aged care and community—progressing healthy active ageing in Queensland, Smith K and Vardon P
• 14 July 2010, Quarry Planning Workshop, Mt Gravatt, Queensland: Pressure ulcer prevention essentials, Stafford D

• 10 August 2010, 4th International Conference on Safety and Quality Audit Outcomes Research in Intensive Care, Melbourne, Victoria: Culture, behaviour change and decision support, Wakefield J, keynote speaker

• 30 August 2010, Queensland University of Technology 4-day intensive program, Brisbane, Queensland:
  – Quality and safety and clinical governance, Wakefield J
  – Medicolegal issues and patient safety, Farmer JF

• 2 September 2010, Change Champions—In the Spotlight—Patient-Centred Care, Brisbane, Queensland: Customers or patients; stories or statistics, Wakefield J, keynote speaker

• 4 September 2010, Medico Legal Society of Queensland, Brisbane, Queensland: Patient safety—diagnosis; treatment; prognosis, Wakefield J, keynote speaker

• 6–8 September 2010, 8th Australasian Conference on Safety and Quality in Health Care, Perth, Western Australia:
  – Culture, practical measurement and change tool for patient safety culture, Wakefield J and Farmer JF, workshop
  – Indicators are coming out of my ears! How do I use them to make a difference? Sketcher-Baker K, keynote speaker
  – Developing and implementing the Children’s Early Warning Tool (CEWT) in Queensland Health, Stephens J
  – Evaluation of financial incentives as a quality improvement strategy in the public hospital context: clinician attitudes and early economic costs, Stockwell A
  – Clinician performance: influencing policy and regulation, Farmer JF, Dulhunty J, Richardson R and Curtis J
  – Implementation of acute coronary syndrome pathways to non-interventional cardiac facilities across Queensland Health, Dwyer D

• 17 September 2010, Mackay Bariatric Course, Mackay, Queensland: The state-wide perspective about pressure injuries and their link with bariatric patients, Stafford D

• 1 October 2010, Coalition for Physician Enhancement and the International Physician Assessment Coalition, Philadelphia, United States:
  – Difficult conversations—supporting managers to hold clinicians accountable, Dulhunty J, Richardson R and Farmer JF
  – Training assessors of clinician performance, Farmer JF, Reid A, Richardson R and Dulhunty J


• 21–23 November 2010, 4th Australian and New Zealand Falls Prevention Conference, Dunedin, New Zealand:
  – Changing falls culture through transformative learning, Smith K and Sachse D, poster presentation
  – Trial and evaluation of falls tools across the continuum, Atkins H, Smith K, Brauer S and O’Dwyer K, poster presentation

• 6–7 December 2010, National Hospital Nutrition and Hydration Summit, Melbourne, Victoria: Malnutrition prevention program, Hill J

• 17 February 2011, Caboolture Hospital Medical Education Program, Caboolture, Queensland: Error and open disclosure—Why would you? Farmer J

• 10 March 2011, Bond University, Queensland: Case study 1: The Clinical Practice Improvement Payment (CPIP), When do financial incentives in health care do more good than harm? Stockwell A

• 15 March 2011, Overseas Trained Specialists Induction Program, Queensland Health, Brisbane, Queensland: Introduction to patient safety, Farmer JF

• 17 March 2011, Clinical Handover Workshop, Brisbane, Queensland: Clinical handover—national perspective, Wakefield J

• 23 March 2011, Specialist Training and Education Forum: Patient safety and the specialist trainee, Farmer JF

• 28–29 March 2011, 20th Anniversary Medico Legal Congress, Sydney, New South Wales: Encouraging an environment of open disclosure to mitigate liability risks, Finn E

• 29 March 2011, From Clinical Incident to Quality Improvement Workshop, Brisbane, Queensland: National and international patient safety and quality—how do we measure up? Wakefield J

• 30 March 2011, From Clinical Incident to Quality Improvement Workshop, Brisbane, Queensland: We know the problem—now how do we fix it? Making better recommendations and measuring effectively, Farmer JF and Sketcher-Baker K
8 April 2011, eHealth Stakeholder Reference Group Workshop, Brisbane, Queensland: Potential impact of eHealth on patient safety and quality, Wakefield J

14 April 2011, Royal Australasian College of Medical Administrators—Queensland CME event: The Manchester Patient Safety Framework (MaPSaF), Farmer JF

15 April 2011, Innovations and Inspirations of Safety and Quality in the Territory, Darwin, Northern Territory: Patient safety curricula, Wakefield J, keynote speaker

18 April 2011, QUT 4-day intensive workshop, Introduction to Quality and Safety in Health Care, Brisbane, Queensland:
  - Behaviour change and safety culture—how to measure safety culture in the workplace, Wakefield J
  - Variable Life Adjusted Displays—a clinical monitoring tool, Sketcher-Baker K

28 April 2011, Griffith University School of Medicine Academic and Clinical Excellence Awards: The great debate—evidence-based medicine is bad for your health, Broadly S, Farmer JF, and Howes L, affirmative team

5 May 2011, University of Queensland, Brisbane, Queensland: Safety & quality in healthcare—past, present and future, Wakefield J


19 May 2011, 2nd Annual Meeting of Viral Hepatitis Clinicians, Brisbane, Queensland: Patient safety framework in primary care, Martin D

23–24 May 2011, Managing Ward Finances and Budgets Conference, Brisbane, Queensland: The productive ward—more than a better bottom line, Rice M and Caddick S

26 May 2011, Cooper Grace Ward Lawyers, Brisbane, Queensland: Patient safety in Queensland—past, present and future, Wakefield J


9–10 June 2011, Queensland Transfusion Forum—Effective Blood Use, Brisbane, Queensland: Changing clinician behaviour, Wakefield J, keynote speaker

20–21 June 2011, 2nd Biennial National Falls Prevention Summit, Brisbane, Queensland:
  - Importance of nutrition and malnutrition screening, Hill J
  - Promoting active, health living and preventing falls with the Stay On Your Feet initiative, Smith K

22 June 2011, Australasian College of Health Service Management Symposium 2011, Brisbane, Queensland: Better care; better value; lower costs, Wakefield J, keynote speaker

22 June 2011, Australian College of Midwives Educational Meeting, Logan, Queensland: Stillbirth care clinical guideline, Doolan J


Published articles in peer-reviewed journals


Reports and publications


- O’Grady, KF, Revell, A, Maguire, G, Millonig, R, Newman, M, Reid, D, Hill, DC, Chang, AB 2010, Lung health service for Aboriginal and Torres Strait Islander peoples in Queensland, Queensland Health, Brisbane
# Appendix 2 National sentinel events

## 2009–10

<table>
<thead>
<tr>
<th>National sentinel event (NSE) number</th>
<th>National sentinel event description</th>
<th>What happened</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSE 1</td>
<td>Procedures involving the wrong patient or body part resulting in death or major permanent loss of function</td>
<td>The patient was admitted for a repair of a hydrocele. During the repair, one of the patient’s testicles was removed inadvertently</td>
</tr>
<tr>
<td>NSE 2</td>
<td>Suicide of a patient in an inpatient unit</td>
<td>Staff discovered the patient who had committed suicide. Resuscitation attempts were unsuccessful</td>
</tr>
<tr>
<td>NSE 2</td>
<td>Suicide of a patient in an inpatient unit</td>
<td>Staff discovered the patient who had attempted suicide. Initial resuscitation attempts were successful; the patient subsequently died</td>
</tr>
<tr>
<td>NSE 2</td>
<td>Suicide of a patient in an inpatient unit</td>
<td>Staff discovered the patient who had committed suicide. Resuscitation attempts were unsuccessful</td>
</tr>
<tr>
<td>NSE 2</td>
<td>Suicide of a patient in an inpatient unit</td>
<td>Staff discovered the patient who had committed suicide. Resuscitation attempts were unsuccessful</td>
</tr>
<tr>
<td>NSE 3</td>
<td>Retained instruments or other material after surgery, requiring reoperation or further surgical procedure</td>
<td>The patient underwent an additional surgical procedure to remove a retained surgical swab that was not detected at the time of the initial surgery</td>
</tr>
<tr>
<td>NSE 6</td>
<td>Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs</td>
<td>The patient received an inappropriately high dose of psychotropic medication that contributed to the development of aspiration pneumonia. The patient continued to deteriorate and subsequently died</td>
</tr>
<tr>
<td>NSE 6</td>
<td>Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs</td>
<td>The patient was dispensed and administered the incorrect chemotherapy drug. This was due to the drugs having similar sounding names. The patient deteriorated and subsequently died</td>
</tr>
<tr>
<td>NSE 7</td>
<td>Maternal death or serious morbidity associated with labour or delivery.</td>
<td>The patient developed severe complications after the normal delivery of a healthy baby. Resuscitation attempts were unsuccessful</td>
</tr>
<tr>
<td>NSE 7</td>
<td>Maternal death or serious morbidity associated with labour or delivery</td>
<td>The patient developed high blood pressure during labour and, despite treatment, suffered a stroke</td>
</tr>
<tr>
<td>National sentinel event (NSE) number</td>
<td>National sentinel event description</td>
<td>What happened</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-----------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>NSE 2</td>
<td>Suicide of a patient in an inpatient unit</td>
<td>The patient committed suicide in the emergency department</td>
</tr>
<tr>
<td>NSE 3</td>
<td>Retained instruments or other material after surgery, requiring reoperation or further surgical procedure</td>
<td>The patient underwent an additional surgical procedure to remove a retained surgical sponge that was not detected at the time of the initial emergency vascular surgery</td>
</tr>
<tr>
<td>NSE 3</td>
<td>Retained instruments or other material after surgery, requiring reoperation or further surgical procedure</td>
<td>The patient underwent an additional surgical procedure to remove a piece of surgical glove that had become detached during a ward procedure</td>
</tr>
<tr>
<td>NSE 3</td>
<td>Retained instruments or other material after surgery, requiring reoperation or further surgical procedure</td>
<td>The patient underwent an additional surgical procedure to remove a retained guidewire. The guidewire was used as part of a coronary angiography</td>
</tr>
<tr>
<td>NSE 3</td>
<td>Retained instruments or other material after surgery, requiring reoperation or further surgical procedure</td>
<td>The patient underwent an additional surgical procedure to remove a retained device that was used during caesarean section</td>
</tr>
<tr>
<td>NSE 3</td>
<td>Retained instruments or other material after surgery, requiring reoperation or further surgical procedure</td>
<td>The patient underwent an additional surgical procedure to remove a retained guidewire. The guidewire was used during a central venous catheterisation</td>
</tr>
<tr>
<td>NSE 6</td>
<td>Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs</td>
<td>The patient died from aspiration pneumonia thought to be a result of excessive prescribed psychotropic medication</td>
</tr>
<tr>
<td>NSE 6</td>
<td>Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs</td>
<td>An elderly patient was prescribed an antibiotic, to which she had a known allergy, for a chest infection. The patient collapsed and although initial resuscitation attempts were successful the patient subsequently deteriorated and died</td>
</tr>
<tr>
<td>NSE 6</td>
<td>Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs</td>
<td>A patient, who was being treated for a heart attack, was administered blood-thinning medication despite already being on another blood-thinning agent. The patient suffered a subdural haematoma and subsequently died</td>
</tr>
<tr>
<td>NSE 6</td>
<td>Medication error leading to the death of a patient reasonably believed to be due to incorrect administration of drugs</td>
<td>An elderly patient was discharged home on blood-thinning medication. The patient was readmitted to hospital with a high risk of bleeding then suffered a subdural (brain) haematoma and subsequently died</td>
</tr>
<tr>
<td>NSE 7</td>
<td>Maternal death or serious morbidity associated with labour or delivery</td>
<td>The patient underwent a caesarean section. The patient developed a life-threatening, intra-operative haemorrhage. An emergency hysterectomy was performed</td>
</tr>
</tbody>
</table>