NSW HEALTH

Incident Management in the NSW Public Health System

January to June 2008

Looking, Learning, Acting

CLINICAL EXCELLENCE COMMISSION
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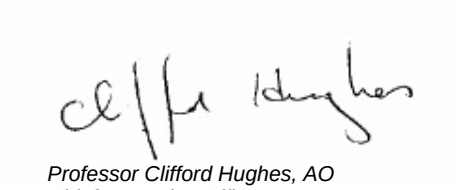
Foreword

We are pleased to provide the sixth report on clinical incidents notified in the NSW public health system. These incidents may affect the safety of patients and the quality of care.

New South Wales has become a world leader in encouraging reporting of these clinical incidents, regardless of their severity or consequences. As such we are pleased to note that our staff have embraced the "reporting culture".

More importantly this report enables staff to analyse these incidents and expand the "learning culture". As a result of these lessons, many new approaches to patient safety and the quality of our care have become part of the "improvement culture".

These characteristics exemplify the dedication and hard work of so many of our staff across NSW. To each of them and for their work, we say thank you.



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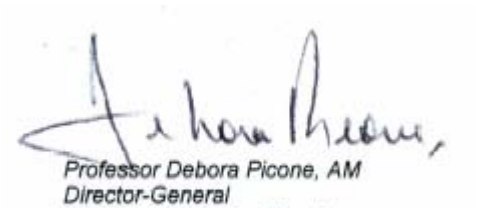

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Executive Summary

Looking

This report provides information on clinical incidents reported in the NSW health system between 1 January and 30 June 2008. A clinical incident is any unplanned event resulting in, or having the potential to harm a patient. The report also provides information on the progress of projects which originated from incident analysis and were outlined in previous reporting periods. This work falls under the umbrella of the NSW Patient Safety and Clinical Quality Program established in 2004.

Patient safety and clinical quality have become the major focus for improvement in health systems around the world. Many of the approaches being used in health care come from lessons learned in other high-risk industries such as aviation, nuclear power and mining. Like these, it must be recognised that in health care even highly-trained people are human and can make mistakes. We all need to concentrate on identifying risks and put measures in place that make it easy to do the right thing on every occasion.

International studies also show that a "systems approach" is required. All components of care delivery should be addressed to ensure they work in harmony. Fixing one aspect of care, without considering its impact on another, could unintentionally lead to increased, rather than reduced risk. Solutions must be carefully thought through as they apply to the entire system.

The NSW Patient Safety and Clinical Quality Program uses a risk management "whole-of-system" approach. Notifications collected through the Incident Information Management System (IIMS) are a critical component of knowing about risks in the health system. A key ingredient is nurturing an open "reporting culture". Analysing reported incidents enables us to build a "learning culture" around these events. The increasing number of notifications in the NSW health system is a positive first step. The lessons learned and actions need to follow.

In this report, notifications rose by 1.3 per cent. The top four clinical incident types continue to be falls, medication and intravenous fluid incidents, clinical management (a broad category that takes in all aspects of treatment) and aggression.

Notifications are classified according to a Severity Assessment Code (SAC). SAC1 notifications are the most serious.

The number of SAC1 notifications in the NSW health system during this reporting period represents 0.002 per cent of all occasions of care (outpatient and emergency department presentations and inpatient admissions) and 0.04 per cent of hospital admissions. 0.48 per cent of all clinical notifications were in the most severe category. This percentage compares favourably with other health systems in developed countries, according to OECD reports.

Not all SAC1 incidents result in actual patient harm. This category includes sentinel events, such as wrong body part X-Rays and all incidents notified as deaths, which were not the expected outcome of care at that time. In some, analysis indicated that health care did not contribute to the patient's death.

Learning

Patient identification remains a significant and ongoing issue, as do inpatient falls and medication-related incidents. Recognition of the deteriorating patient, including processes for checking vital signs and escalating concerns about the patient's wellbeing is also evident in all SAC ratings. Communication issues, including documentation and handover of clinical care, often underpin these incidents. These findings are consistent in health systems around the world.

An increased rate of reporting wrong patient, wrong site/side and wrong procedure incidents is noted. This includes instances where the taking of a blood sample from the wrong patient was regarded as a SAC1 event, because of the potential consequences. It is also noted that six of the ten 'retained material' incidents did not in fact meet the national sentinel event criteria, because surgical removal was not required. The willingness of staff to report and investigate these events is a positive step in reducing risk to future patients.

Deaths associated with falls continue to be of concern with nine of these incidents reported. Seven of these patients were frail, sustained fractures and died before or after surgical intervention. Two patients died as a result of cerebral bleeds believed to have been associated with their fall. Further analysis of incident themes is contained within the report.

Acting

The report also refers to specific strategies and projects in place to address the issues identified in this and previous incident reports, as well other special reviews. An overview of these follows.

Patient identification

A project is being led by the Quality and Safety Branch to implement a standardised model for patient identification. It includes a standard patient identification band based on the recently released S*pecifications for a Standard National Patient Identification Band* (Australian Commission for Safety and Quality in Healthcare).

Deteriorating Patient

The Clinical Excellence Commission's *Between the Flags Project* has focused on the processes used to record vital signs and escalate concerns.

Patient Care Initiatives

- The Clinical Services Redesign Program (Department of Health) addresses issues connected with the movement of patients through the health system - to improve communication, utilisation of resources and patient safety and clinical quality. It includes an education component to build the capacity of health care professionals to undertake redesign projects at a local level.

- The introduction of psychiatric emergency care centres in selected metropolitan hospitals by NSW Health has seen a significant improvement in treatment/discharge times, reduction of short-term admissions and increased patient and carer satisfaction among mental health patients.

- Maternal and perinatal services continue to implement the *Fetal Welfare Obstetric Emergency and Neonatal Resuscitation Training (FONT) Project*, led by the Department of Health. Major steps have also been taken towards improving early pregnancy care, in response to recommendations made in the Hughes Walters Report regarding an incident at the Royal North Shore Hospital.

Healthcare Associated Infections

The *Central Line Associated Bacteremia (CLAB) Project* led by the CEC aims to reduce infection associated with intravenous catheters used to deliver treatments such as antibiotics. In this reporting period the project has made demonstrable contributions to standardising sterile insertion techniques.

Projects that work alongside many of these initiatives and support them include:

The Essentials of Care Project is being driven by nurses and midwives and overseen by the Nursing and Midwifery Office at the Department of Health. It provides a framework to challenge existing work practices, with the aim of improving patient safety and clinical quality.

The Clinical Leadership Program led by the CEC is creating clinical leaders at all levels of the NSW health system. The role of a leader is to model good practice, challenge bad practice and inspire others.

The Take the Lead Project with NUMs/MUMs which is assisting in developing leadership capacity and capability at the unit level.

The Patient and Carer Experience Project, led by the Clinical Services Redesign Program at the Department of Health, provides a process whereby complaints, an annual survey of patient experience and the regular collection of patient stories, from all area health services are used to ensure improvements in patient safety and clinical quality and to address the concerns of those using the health system.

Background

Patient safety and clinical quality have always been central to health care. There have been advances, previously unimaginable, in our capacity to treat conditions, however we need systems to ensure that quality care is delivered safely at all times.

International and national research in this area highlights that we need to adopt measures that ensure **co-ordination of care**. In today's busy hospitals many different people and departments may provide services to patients. Seldom is the provision of care the domain of a single person. It involves a whole system of care delivery. Incidents involving patient safety often occur when information is not transferred at critical moments during care. This means all health professionals must see their role in context. They must be as attentive to the system as a whole as they are to the requirements of their individual areas of expertise.

A second factor affecting patient safety is **attitude to incidents**. There is a community expectation that they shouldn't happen if we are well trained. Experienced people in all lines of work, however, make errors. Health care professionals are human beings, subject to human frailties and can become distracted for a variety of reasons. Incidents are very rarely the result of negligence on the part of an individual. Research throughout high-risk industries provides clear evidence that improvement depends on designing systems that make it hard to do the wrong thing and easy to do the right thing.

While all clinicians must be responsible for their actions, "name, blame and shame" methods do not often improve systems. In fact they may discourage openness and the opportunities for improvement - hence this report to learn and share about the system, so it can be improved.

Context

This report contains data collected between January and June 2008.
During this time there were over 14 million patient presentations to outpatient and emergency departments and over 700,000 patients were admitted to hospital within the NSW health system.

It should also be noted that, according to 2007 health data, Australia rates within the top six OECD countries in the overall delivery of health care. Other studies show that deaths from treatable conditions, such as ischaemic heart disease, fell in Australia by more than 20 per cent between 1997 and 2003 (the most recent data available), again placing it in the top five internationally.

The information contained in this report is presented thematically in accordance with its title – *Looking* (at the incident information) and *Learning* (from analysis, what issues need to be addressed). There is also reference to how the health service is *Acting* (to improve patient safety and clinical quality across the system). This report is one component of the NSW Patient Safety and Clinical Quality Program. More information can be obtained at:
http://www.health.nsw.gov.au/policies/pd/2005/PD2005_608.html

Interpreting the data

What is an Incident?
The NSW health system applies a very broad definition to the term "incident", to provide comprehensive information on any area where improvements could be made. The term includes complications, potential incidents and complaints and is not limited to 'adverse events' reporting where only those incidents which cause harm are reported for follow-up. Clinical incidents refer to any unplanned event resulting in, or having the potential to result in harm to a patient.

Notifications
Identifying and notifying incidents is a key component of any safety system, because this provides the information required to make improvements. The rate of reporting incidents depends on:

- staff confidence in the processes for making notifications
- a system that makes notification easy
- evidence demonstrating that improvements are being made based on notifications
- support in openly communicating with patients and their families and/or carers information about an incident affecting their care and what is being done about it.

Near-misses
Not all incidents have consequences, but they must be taken seriously to prevent a repeat occurrence and the possibility of harm. Consider the radiographer who prepares to x-ray a patient's left arm, as indicated on the booking sheet. On completing the pre-X-Ray checking procedure, however, he identifies that in fact, the patient's right arm is to be x-rayed and completes the correct procedure. This is a "near-miss". Fortunately the system checks eventually worked. Nevertheless such near-misses provide valuable insights to risk. Staff working in the NSW health system have been encouraged to notify these as incidents.

It is also an opportunity to ensure that the system learnings that prevented an adverse event are applauded and promulgated.

Prioritising the Response: the Severity Assessment Code (SAC)

Organisations can learn from all notifications. It is crucial to focus on the most important ones first. The NSW health system has adopted a severity assessment code (SAC). This tool assigns a SAC score to each incident by plotting the consequence of an incident (from serious to no harm caused) and the likelihood that it could happen again (from frequent to rare). There are four SAC ratings. SAC1 indicates extreme risk and SAC4 low risk. SAC ratings govern the response. SAC1 clinical incidents are classified as 'reportable incidents' and must be notified to the Department of Health within 24 hours via a reportable incident brief (RIB).

Appendix 1 provides further detail about the process for managing incidents in the NSW health system according to their SAC rating.

Is a patient harmed in every incident notified?
A notification does not mean that there has been actual harm. Generally SAC4, the most frequently reported incidents, cause no harm or are "near-misses", but identify risks which can be addressed with preventative action to ensure serious incidents do not occur. Likewise, not all SAC1 incidents are associated with serious patient harm. Some relate more to risk potential. Any incident where incorrect identification results in a patient having an unplanned procedure or test is considered a SAC1, whether or not any harm was actually caused by the procedure or test.

For further information about classification of clinical incidents, refer to the Severity Assessment Code (SAC) contained within the Incident Management Policy available at:
http://www.health.nsw.gov.au/policies/pd/2007/pdf/PD2007_061.pdf

The NSW Patient Safety and Clinical Quality Program

New South Wales has taken the findings of national and international research on board to create what is one of the most comprehensive approaches to "whole-of-system" improvement. These strategies fall under the umbrella of the NSW Patient Safety and Clinical Quality Program, which was launched in 2004. It adopts a risk management approach used in industries such as aviation, nuclear power and mining. Central to this method is the **reporting of any incident that affects safety,** even if it has not resulted in harm. Analysing incidents provides crucial information used to develop strategies to minimise risks.

In this section we provide an overview of the supporting structures, processes and overarching programs that support this approach.

The Patient Safety and Clinical Quality Program is supported, managed and delivered through:

The Quality and Safety Branch (QSB)
The QSB is part of the New South Wales Department of Health. It oversees the management of safety and quality in area health services, so that measures to prevent incidents are put in place. It is also responsible for:

- Setting standards
- Developing policies related to safety
- Measuring how well policies are working
- Gathering information on serious incidents and their causes
- Taking preventative action.

The Clinical Excellence Commission (CEC)
The CEC is an independent statutory body. Its mission is to build confidence in health care in NSW by making it demonstrably better and safer for patients and a more rewarding workplace. The CEC identifies issues of a systemic nature that affect patient safety and clinical quality. It works with key partners within and outside the NSW health system to develop and provide advice and implementation strategies that address these issues. This includes public reporting, the Clinical Leadership Program and clinical practice improvement (CPI) training. It has primary responsibility for reporting incident data.

Clinical Governance Units (CGUs)
Clinical governance units have been established in each area health service to oversee safety and quality. They are responsible for implementing the Patient Safety and Clinical Quality Program on the ground and co-ordinating safety improvements at a local level. Each unit has a senior complaints officer available to the public at all times.

Incident Management Framework
The NSW health system is nurturing a culture that sees value in learning from both actual and potential incidents. The process is referred to as incident management. It incorporates the key elements of identifying, reporting, investigating and following-up incidents, through to the point of sharing the lessons which have been learned, to reduce the risk of a similar error occurring elsewhere.

Key initiatives that support this culture include the *Incident Information Management System*, the *Incident Management Policy* and the *Open Disclosure Policy.* Key components of this framework are:

- **Incident Information Management System (IIMS)**

The Incident Information Management System (IIMS) is the tool that supports staff in providing timely notifications about actual and potential incidents. The computerised system is available for all staff in all facilities in the public health system.

A comprehensive training and education program was conducted to support its use. IIMS also assists in the management of incidents by tracking actions taken and providing alerts to managers. Information stored in IIMS is used at a local level to guide good practice and undertake reviews of safety risks. By collecting all data in a central repository IIMS allows the CEC and the Quality and Safety Branch to identify trends that should be addressed across the entire system.

- **Open disclosure as part of the incident management process**

Open disclosure is an integral part of the incident management process, as reflected in the Incident Management Policy and in the Open Disclosure Policy and Guideline.
Open disclosure is a frank discussion with a patient and their support person about a patient-related incident that may have resulted in harm or injury. The key principles of open disclosure include:

  - openness and timeliness of communication
  - acknowledgement of the incident
  - expression of regret/apology
  - recognition of the reasonable expectations of the patient and their support person
  - support for staff
  - confidentiality

The NSW health system supports staff with a policy, guidelines, supporting legislation and education to implement the principles of open disclosure. The education package uses a blend of experiential, on-line and face-to-face approaches to ensure that open disclosure is incorporated into everyday practice. Papers on the NSW approach were presented at the 2008 Australasian Quality in Health Care annual conference and at the International Society for Quality in Health Care, where it was viewed as best practice.

The implementation of open disclosure throughout NSW provides the community with assurance that if an incident occurs they can be confident that the patient will receive an apology, a full explanation of what happened, be informed of an ongoing plan of care (i.e., how the health system will support them) and that action will be taken to prevent such incidents from happening again.

Open communication between health care providers, patients and support people is widely documented as a key component of effective health care and in mitigating harm when something unexpected occurs. International literature highlights the importance of open disclosure, suggesting it should be a core competency for medical staff.

The NSW Department of Health recognises that staff also need to be supported through such incidents and is committed to providing the right environment, resources and culture to guide them.

The principles of open disclosure are defined in the Australian Council for Safety and Quality in Health Care, Open Disclosure Standard: A National Standard for Open Communication in Public and Private Hospitals, Following an Adverse Event in Health Care, July 2003.

More information about Open Disclosure can be viewed at the NSW Department of Health website at: http://www.health.nsw.gov.au/quality/opendisc/index.html

An Overview of Information Contained in IIMS

Looking

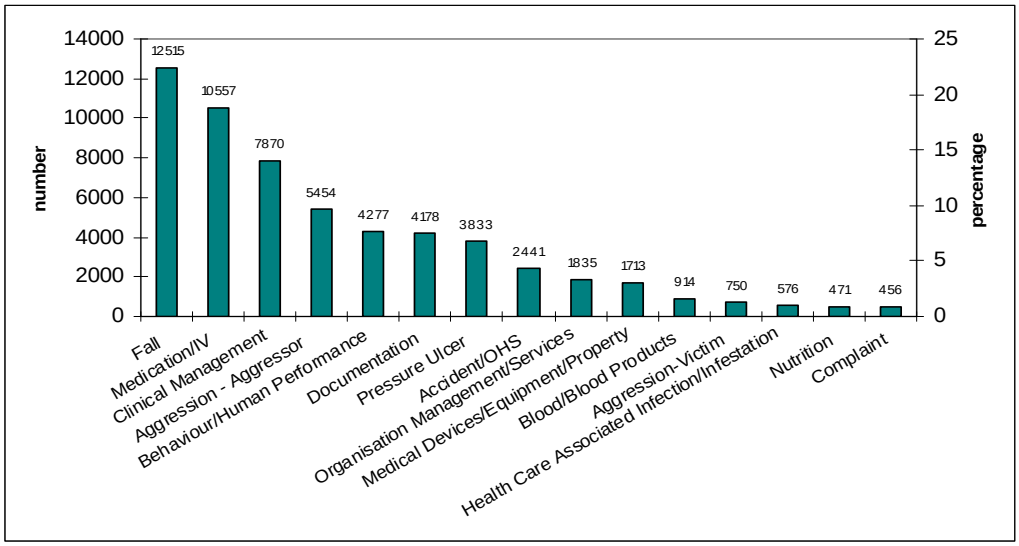
In this section we look at aggregated incident notification data from the whole NSW health system. Analysis of data at this level allows a better understanding of system-wide vulnerabilities. This is important, because incidents which may occur rarely in a single area health service, may have common causes to similar incidents elsewhere. It is the collective findings of serious incident analysis and trends which provide meaningful information about what needs to be done to improve patient safety and clinical quality.

The Incident Information Management System (IIMS) supports the timely notification of incidents. It also supports the tracking of investigations and analysis. IIMS is used to collect and store information about a range of incidents. This report, however, is concerned only with those incidents related to patient care – "clinical incidents".

How incidents are classified

In addition to the SAC rating previously discussed, staff making notifications in IIMS are prompted to make an initial assessment of what type of incident has occurred. Clinical incidents are classified into 22 incident types, such as falls, medication incidents. The rules for each classification can be seen in Appendix 2. During analysis the major or Principal Incident Type (PIT), is confirmed. This type of classification allows the identification of common themes and facilitates analysis and reporting of risks. The top four principal incident types notified in IIMS during the January – June 2008 reporting period were falls, medication/intravenous fluids, clinical management (a broad area that takes in all aspects of patient care, including diagnosis of a condition and treatment) and aggression. The reporting rates for the top 15 PITs can be seen in Figure 1.

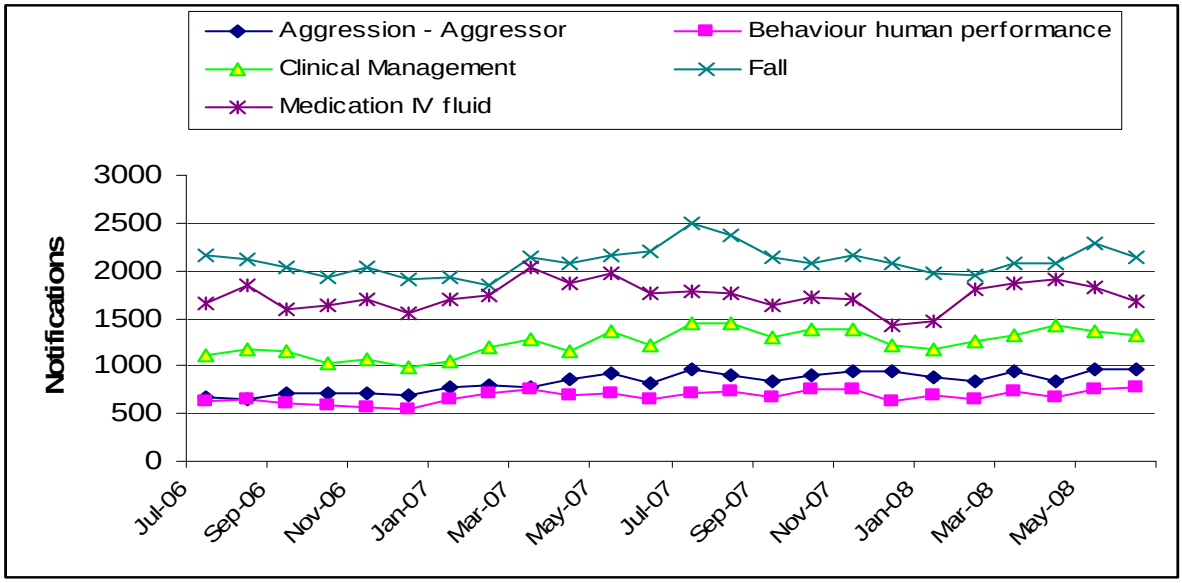
Figure 1: Clinical Incidents by Principal Incident Type January-June 2008



Note: PITs not included in graph are: anaesthesia, obstetric-foetal and obstetric-maternal. The complaint PIT indicated was selected from the clinical notification form.

It is worth noting that the top five principal incident types (with the addition of Behaviour/Human Performance) account for 70 per cent of all Clinical incident notifications in IIMS. The rate of reporting for the top five principal incident types has remained consistent over the past two years, with a small upward trend in reporting rates of clinical management and aggression incidents (see Figure 2).

Figure 2: Top 5 Clinical Principal Incident Types by Reporting Rates



Clinical management, health care associated infections and aggression are discussed within this section. The two biggest groups (falls and medication/IV) are reported in more detail later in the report. Analysis of incidents occurring in Maternal and Perinatal Health and Mental Health are also reported in later sections.

Overall Notifications

There were 58,573 clinical incident notifications made in the 1 January to 30 June 2008 period. During this time there were 13,586,959 outpatient and community-based services provided, 1,187,512 emergency department presentations and 732,274 hospital admissions within the NSW health system.

Table 1: Prevalence of incidents in the NSW public health system

SAC rating	Number	Percentage (%) of Notifications	As a percentage (%)of all hospital admissions	As a percentage (%) of all contacts
SAC1	281	0.48	0.04	0.002
SAC2	1148	1.96	0.16	0.007
SAC3	24338	41.55	3.32	0.157
SAC4	29634	50.59	4.05	0.191

A further 3172 (5.42per cent) incidents were awaiting classification at the time the data was extracted from IIMS for this report.

The majority (92.14 per cent) of these notifications were classified as medium- to low-risk (SAC3 or SAC4 – see Figure 3). There has been an increase in the number of SAC3 and SAC4 notifications during this six-month period, although not as marked as in reporting periods covered over the last two years. An increase in all notifications, without a corresponding rise in the number of SAC1 and SAC2, suggests staff are becoming increasingly aware of safety issues before major adverse events occur.

During the previous reporting period (July to December 2007) there were 57,808 notifications. The ongoing trend of increased reporting rates of incidents related to patient care is evident in Figure 4. The percentage of incidents per admission is consistent with international data.

Figure 3: **All Clinical Incidents across SAC categories January to June 2008**

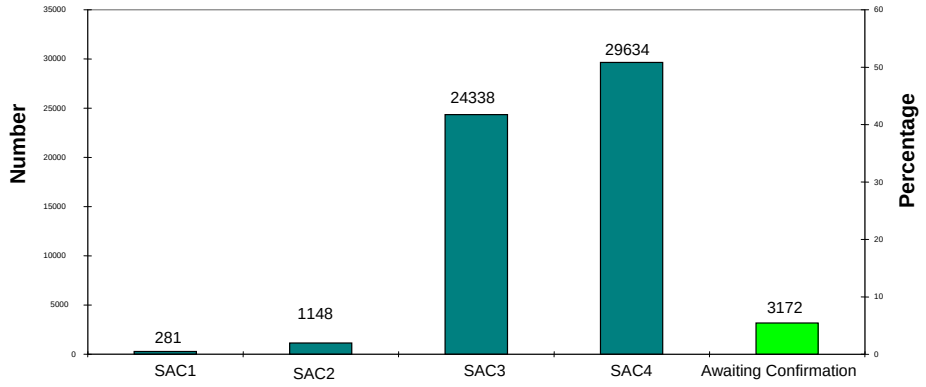
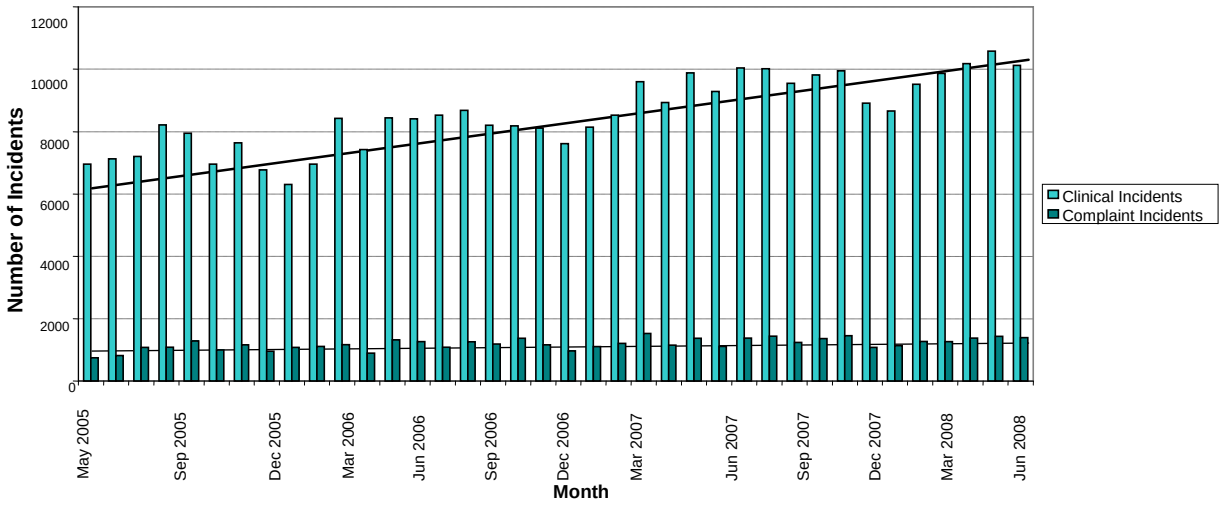


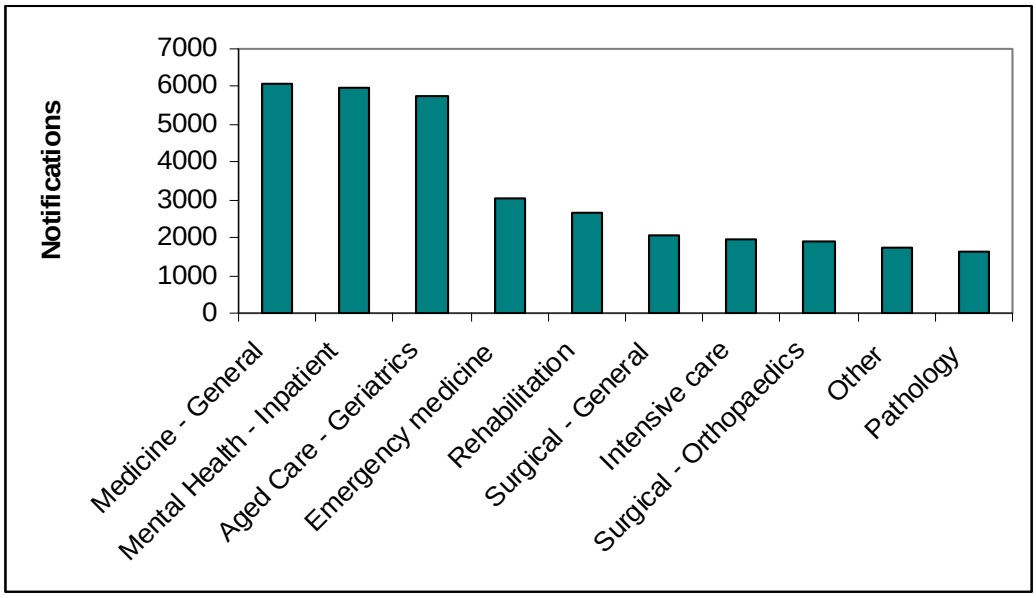
Figure 4: Number of Clinical Incidents and Complaints by Month 01/05/2005 to 30/6/2008
Note: Data supplied by NSW Health. Actual numbers may vary slightly from other IIMS data due to variation in extraction dates



Most incidents are notified by staff and are not a response to a complaint. This is a good indicator of a reporting culture.

Reporting was highest in the clinical areas of General Medicine, Mental Health and Aged Care – areas where complex patients are admitted and where the top four principal incident types (Falls, Medication/IV, Clinical Management and Aggression – Aggressor) are frequently reported.

Figure 5: Clinical Incidents by Specific Services (top 10) for the Period Jan-Jun 08



SAC 1 Clinical Incidents

This group of clinical incidents includes sentinel events and incidents which resulted in significant risk or actual harm to the patient.

Looking

During this reporting period there were 281 Clinical SAC1 incidents notified, compared with 269 and 289 in the two 2007 reporting periods. Of these 281 patients, the majority were either hospital inpatients or presentations to hospital emergency departments. Forty-six of the incidents related to mental health patients being managed in the community.

Table 2: SAC1 Incidents according to service

Service or PIT	Jan-Jun 2008
Mental health (inpatient and community) *includes suspected suicides	83 *54
Maternal and perinatal	25
General - clinical management (incl. falls),	152
General - other (incl. medication/IV)	21
TOTAL	281

* further breakdown of all these is contained in the appropriate sections of the report.

Serious incidents involving patients who died

During the January to June 2008 reporting period 183 (65 per cent) of the reported SAC1 incidents were associated with patients who subsequently died. Often the clinical condition of patients involved in SAC1 events is highly complex and it is not always possible to precisely determine to what extent a particular incident may have contributed to their death.

All clinical SAC1 incidents are subject to a root cause analysis (RCA), a thorough investigation technique that looks at all the contributing factors. The goal of an RCA is to identify all opportunities to improve systems for the safe delivery of quality care.

It should be noted that all deaths in custody (mandatory reporting) and in special circumstances where concerns are raised about management of a critically ill or dying patient are classified as SAC1 incidents.

Clinical Management Incidents

Common themes from RCAs of SAC1 Clinical Management Incidents

Learning

Clinical management is the third-highest category of notifications in IIMS and contains the highest number of SAC1 incidents

The Clinical Management category captures actions involved in the care of patients including diagnosis, investigations, treatment, observations and monitoring. It also captures complications, risks involved in the transfer of care and those sentinel events involving patient identification, retained instruments and procedures carried out on the wrong part of the body.

The breakdown of factors which were identified during root cause analysis of 152 clinical management SAC1 incidents is shown in Table 3. This represents the aggregated data following review of final RCA reports by the RCA Review Committee.

Wrong patient site/procedure (patient identification) incidents were the most common SAC1 clinical management incident type during the current reporting period. Further information is contained within this section of the report.

Of the 152 incidents under the clinical management classification, 73 were associated with patients who died.

Issues related to diagnosis and treatment, often of patients presenting with a number of concurrent illnesses, were the next most common classifications.

These were closely followed by issues related to either clinical (vital signs) observations or the recognition and effective communication of the findings. This, unfortunately, is not a new issue and its impact has driven programs such as *Between the Flags* and the *Essentials of Care.* More information can be found at:
http://www.cec.health.nsw.gov.au/currentprojects.html#flags

Table 3: Clinical Management SAC1 Incidents by Specific Issue

Category of Care	Jan-Jun 2007	July- Dec 2007	Jan - Jun 2008
Diagnosis Missed or delayed	34	37	17
Complication Not the desired treatment outcome	21	15	9
Investigation Delayed, not ordered or reviewed	3	5	1
Observations Not performed / significance not recognised	12	20	14
Transfer of Care Delayed or inadequate planning	4	2	3
Inter-hospital transfer Inadequate stabilisation	1	2	1
Treatment Delayed and/or inadequate	16	33	23
Retained material	6	9	10
Wrong patient/site/procedure	40	42	61*
No systems issue identified	9	9	13
Total	**146**	**174**	**152**

*These categories include near-miss incidents and those which do not strictly meet the national sentinel event criteria.

Common underlying system and human factors which were present in all categories in Table 3 included gaps in **communication** and having up-to-date **policies and guidelines** to direct best practice for common clinical processes and conditions.

Communication issues include:

- passing on all relevant information when handing over the care of a patient to another specialist or facility
- telling senior doctors, nurses and midwives when concerned that a patient's condition may have become worse
- explaining to patients, their families and carers what is being planned to treat them and what they need to understand when they continue that care at home
- communicating with pharmacists, specialists, nurses, midwives, patients, families and carers about medications that are required.

Sentinel Events

Sentinel event is a term used to describe incidents that have been agreed nationally to be indicators of system problems. These include:

Procedures involving the wrong patient or body part
Suspected suicide in hospital
Retained instruments
Unintended material requiring surgical removal
Medication error involving the death of a patient
Intravascular gas embolism
Haemolytic blood transfusion
Maternal death associated with labour or delivery and
Infant discharged to the wrong family.

Looking

In the last comparable Australian data (2005-2006), NSW reported 38 sentinel events, Queensland 19, Victoria 42 and Western Australia 11. In the current period 73 of these incidents were reported, however, NSW Health currently uses a very broad definition for inclusion of patient identification and retained material incidents. Risks associated with retained instruments, patient identification and procedures on the wrong part of the body are notified as SAC1 under the clinical management category, regardless of whether there was any harm to the patient.

Retained Material

Risks associated with the likelihood that material used in a procedure might remain in the body are addressed by the NSW Department of Health Policy: Operating Suite & Other Procedural Areas - Handling of Accountable Items - Standard Procedures, which can be viewed at: http://www.health.nsw.gov.au/policies/pd/2005/PD2005_571.html

There were ten incidents in this reporting period where material was retained in the patient following a procedure. Fortunately, only four required the patient to return to the operating theatre. Three of the four incidents involved highly complex procedures where there was more than one surgical team. A discrepancy in counting 'accountable' items (used during a surgical procedure) was notified. In all four cases the item was removed. One already very unwell patient died within a week of returning to theatre. In the other six cases no further surgery was required and there was no further complication for the patients.

In the last incident report, two retained instruments notifications related to **guide wires** used in the insertion of intravenous lines. The Central Line Associated Bacteremia (CLAB) project is addressing a range of issues associated with the use of central lines, including insertion. More information is available on the CEC website
http://www.cec.health.nsw.gov.au/currentprojects.html#clab

There were no incidents involving retained guide wires in NSW during this reporting period.

Wrong patient/site/procedure

Wrong patient/site/procedure notifications relate to incidents where:

- the procedure was performed or about to be performed on the wrong patient
- the procedure was performed or about to be performed on the wrong body part.

As stated previously, these incidents are always classified as SAC1 regardless of the outcome, because they indicate system issues associated with high risk. A number of the incidents included in this classification were related to diagnostic tests, such as blood samples. Table 4 shows the areas where these incidents occurred.

Table 4: Location of wrong patient/site/procedure incidents

Department	Jan-Jun 07	Jul-Dec 07	Jan-Jun 08
Operating Suite	3	7	11
Dental	1	0	2
Imaging/Nuclear Medicine	32	29	31
Radiotherapy	2	0	0
Wards & other areas	7	5	17
TOTAL	**45**	**42**	**61***

* Current data includes near-miss and blood product incidents.

Learning

There has been an increase in the number of these incidents reported during the period. Many resulted in minimal patient harm. Notifications have increased as part of the focus that has been placed on improving patient safety and clinical quality in this category. The rates reflect efforts being made globally to ensure the right patient gets the intended procedure.

Contributing factors include:

- patient identification procedures
- communication
- policy compliance.

Acting

The previous report identified a series of incidents in the wrong patient/site/procedure category that related to patients having an incorrect **intra-ocular lens** inserted during eye surgery. An expert group was established to investigate the issue and these incident reports were analysed. A "failure modes and effects analysis" was performed to identify the potential points where things could go wrong. The results informed the design and implementation of new processes to prevent a repeat of these incidents. No further incidents of this type were reported in the current period.

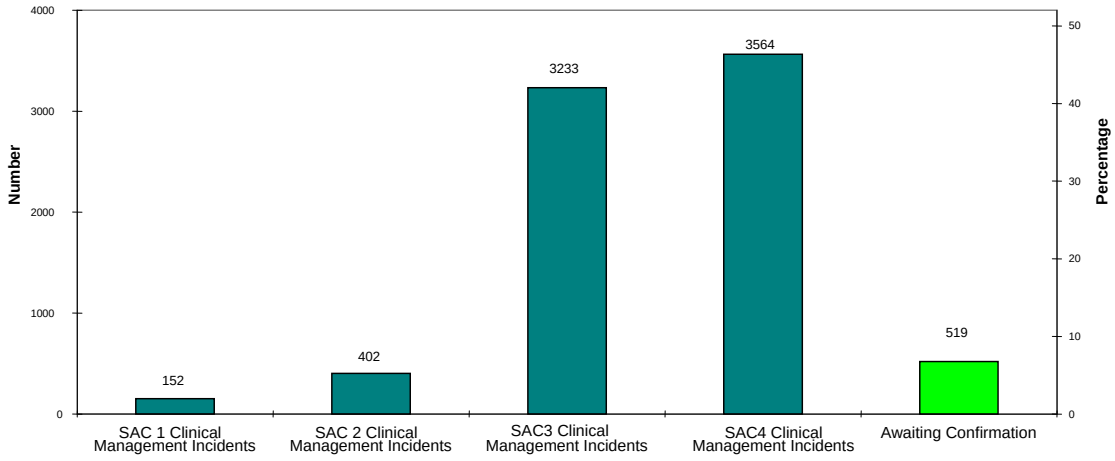
The NSW Correct Patient, Correct Procedure and Correct Site policy directive describes steps that must be taken to ensure that procedures such as surgical operations, endoscopy, dentistry, radiology, nuclear medicine, chemotherapy and radiation therapy procedures go according to plan. A key component of this policy is "Time Out" where the whole team stops to align identification information. Some notifications in the wrong patient/site/procedure group illustrate this policy in action. For example, a patient who, following investigation and an x-ray report, was booked for surgery on a toe. During "Time Out" the surgical team identified an error in documentation that showed the surgery had been scheduled for the wrong toe. The team confirmed the correct toe and successful surgery was completed. This is a near-miss classified as a SAC1 event.

Clinical Management Incidents – Overall Notifications

Looking

From 1 January to 30 June, 2008 there were 7,870 clinical management notifications. There were 8,112 in the previous reporting period. The spread of notifications that identify clinical management as the principal incident type across SAC categories can be seen in Figure 6.

Figure 6: Clinical Management Incidents across SAC categories January to June 2008



The highest number of reported incidents under the clinical management section overall (all SAC categories and every area health service) was related to decisions and processes of **treatment** (1,540). Most were rated SAC3 (577) or SAC4 (830). The category includes events where the notifier believed the care provided was delayed, inadequate or not the most appropriate treatment for the patient's clinical condition at that time.

The next highest category was **transfer of care**, the category which includes handover of care to another clinical team, including back to the community, with 632 incidents reported. Six hundred of these indicated that transfer of care was the only factor being reported. The majority of the incidents which had been classified at the time of extracting data were rated as SAC3 (224) or SAC4 (301).

Both categories reflect concerns about communication between staff and with patients and their families, as well as the complexity of effectively co-ordinating all the components of care.

Aggression Incidents

The fourth highest number of notifications made in IIMS list “aggression-aggressor” as the principal incident type. These notifications take in a broad mix of situations where threatening behaviour occurs, including patient to staff aggression, patient to patient aggression and aggressive behaviour by visitors entering health facilities. The majority of this group of notifications are about aggressive behaviour by patients towards staff. Not surprisingly, many of these notifications involved the most vulnerable patients, such as those in mental health and aged care facilities. Mental illness, dementia, delirium and other conditions affecting the brain can contribute to unpredictable and disorganised behaviour. Aggressive incidents can also be the result of the use of alcohol and other drugs and can occur in emergency departments.

In the 1 January to 30 June 2008 reporting period there were 7,895 notifications made under the aggression categories across all reporting forms. There were 4 SAC1 aggression incidents reported. While the majority did not result in serious harm, they are disruptive and distressing.

Complaint Management

The NSW Health Complaint Management Policy requires that patient concerns are resolved effectively and in a timely manner, and that system learning results. The policy is underpinned by the following principles:

- encourage patients and their families to provide feedback
- acknowledge and respond to complaints quickly and sensitively
- deal with complaints in a manner that is effective, complete and fair to all parties
- communicate complaint information openly while protecting confidentiality and privacy.

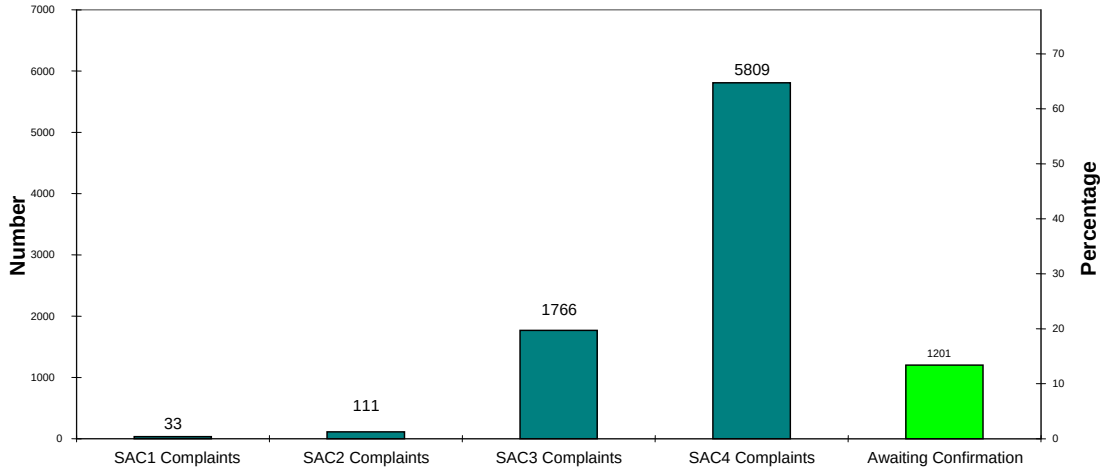
A senior complaints officer is located within each area health service clinical governance unit. Senior staff are available around-the-clock, seven days a week to listen to the concerns of patients, their families and carers. Each hospital can provide contact details for these officers.
Complaints and their resolutions are recorded in IIMS.

Looking

Complaint Notifications

In the 1 January to 30 June 2008 reporting period 8,920 complaints were received. There were 8,926 in the previous six months. Of these, 7,719 have had the severity assessment code confirmed locally by the health service. The SAC distribution of these incidents is illustrated below.

Figure 7: Complaints classified according to SAC categories



Learning

What did people complain about?

The top three complaint categories were communication, treatment and access. These were also the top three categories in the previous six-month period.

Communication

"Communication" was the primary issue identified in 1,669 (18.7 per cent) of complaints in IIMS. There were 1,867 complaints in this category in the previous six-month period. This refers to situations where patients saw staff as being unhelpful, lacking compassion or abrupt. It includes complaints about the provision of information regarding test results and treatment, and how the family should care for the patient at home.

The ability of staff to better communicate with patients is being addressed by individual projects conducted through the Leadership Development Program. One being undertaken in South Eastern Sydney and Illawarra Area Health Service is providing and evaluating communication training for frontline administrative and support staff. The aim is to assist in balancing the demands of their jobs while remaining responsive to patients at the same time. The findings of these and other projects will be shared across the system.

Treatment

The classification of "Treatment" was applied to 1,504 (16.8 per cent) of complaints, compared with 2070 in the previous six-month period. Complaints related to clinical situations such as receiving all of the care required to treat the condition, infection control, medication and co-ordination of care. This category also includes organising the necessary equipment needed to accompany a patient home, and helping the family plan for this move.

Access

"Access" was the category applied to 1,399 (15.0 per cent) of complaints. There were 1596 complaints in the previous six-month period. Complaints related to the availability of specialist services such as speech pathology, the opening hours of clinics, the postponement of surgery, and waiting for a long period in a clinic or emergency department.

Acting

Consumers can play an active role in their own health care. The following are some tips on how to get involved.

1. Be actively involved in your own health care.
2. Speak up if you have any questions or concerns.
3. Learn more about your condition or treatments by asking your doctor or nurse and by using other reliable sources of information.
4. Keep a list of all the medicines you are taking.
5. Make sure you understand what the medicines are for and how to use them.
6. Get the results of any test or procedure.
7. Talk to your doctor or other health care professional about your options if you need to go into hospital.
8. Make sure you understand what will happen if you need surgery or a procedure.
9. Make sure you, your doctor and your surgeon all agree on exactly what will be done.
10. Before you leave hospital, ask your health care professional to explain the treatment plan you will use at home.

Find out more at: www.health.nsw.gov.au/quality/10tips/

Healthcare Associated Infection (HAI)

Looking

Healthcare associated infections (HAIs) are a major issue in the quality and safety of health care both internationally and in Australia. These infections can prolong hospital admissions and can cause significant harm to patients, some of whom die as a result. HAIs are one of the top ten causes of death in the United States. In Australia it has been estimated that there may be as many as 200,000 HAIs, contributing to 7,000 deaths each year.

HAIs reported as incidents during the current period were the thirteenth largest principal incident types in IIMS. In NSW a number of HAIs, such as surgical site infections, are also reported to NSW Health as indicators.

Central Line Associated Bacteraemia (CLAB)

The CLAB project utilised IIMS incident data and RCA findings to identify focus areas. Central lines are catheters inserted into large veins and used to deliver treatments such as antibiotics. Preventing infection associated with these lines has been the subject of much research.

Acting

The Central Line Associated Bacteraemia in Intensive Care Units Project (CLAB-ICU) is a NSW Statewide initiative that aims to improve patient outcomes by reducing CLAB in ICUs. It began in March 2007 and is overseen by the Intensive Care Co-ordination and Monitoring Unit (ICCMU) and the CEC, with the co-operation of the Quality and Safety Branch. Research undertaken in the US by Pronovost et al provides evidence that CLAB infections can be reduced by ensuring sterile insertion technique.

The CLAB Project is addressing this issue using a 'top-down bottom-up' collaborative methodology based on a quality improvement program which has been successfully implemented in the US. Components of the project include:

- development of a safe central line insertion policy by an expert group of intensive care clinicians
- development of an insertion checklist to monitor compliance with sterile technique and measure infection rates
- engaging multidisciplinary teams at all project sites and conducting monthly teleconferences to discuss progress
- supporting ICUs with visits from CLAB staff to promote the project in individual environments
- development of a standard central line insertion procedure pack for use across NSW
- development of an education and training framework to standardise practice across NSW
- development of e-learning tools to support standard education and training
- monthly reporting to units regarding infection rate and compliance with the advocated technique.

Thirty-six ICUs across NSW are now promoting a collaborative approach to change. Data has been collected from 9,400 central insertions. The CLAB Project has made demonstrable contributions in creating a framework for CLAB reduction in NSW, developing resources and networks and standardising care. Preliminary analysis of data collected as part of the project suggests that factors other than insertion may contribute to infection of central lines. The CLAB-ICU project is currently considering the role of post-insertion care in the development of CLAB and is promoting ICCMU's *Nursing Care of Central Venous Catheters in Adult Intensive Care Guidelines*.

The CLAB team canvassed NSW intensive care units participating in the project and found that existing techniques for central line insertion were inconsistent and subject to individual preferences and biases. Few units had established credentialing processes to ensure sterile insertion procedures.

A review of RCAs of incidents relating to central line insertion and statewide incident data was also undertaken, to quantify the issues. This confirmed that central line insertion training and competence varies widely across NSW. Clinicians advocated the need to standardise practice, due to the mobility of the medical workforce, variable supervision and absence of a system to assess current competence. Standardisation in this manner will improve transferability of skill, recognition of prior competence between units and improve patient safety and care.

Acting

Other actions taken in response to incidents

1. The Safety Alert Broadcast System

While making systems improvements can sometimes take time, it is important that the health system is alerted to any concerns as rapidly as possible. The NSW Department of Health has developed the Safety Alert Broadcast System (SABS) for this purpose. Safety alert broadcasts provide health services with early warnings about safety issues and indicate who is responsible for taking action. Focus groups conducted with health professionals show that the system is proving effective.

There are three levels of warning:


Safety Alert: Requires immediate action, designates who is responsible and calls for mandatory reporting of the steps taken to address the risk.


Safety Notice: Alerts designated managers to important issues. Managers must review or develop processes and protocols to ensure that the issue is managed for any safety risk.


Safety Information: Provides information on safety issues.

There were 11 safety alert broadcasts released during this reporting period. Six related to recall by the Therapeutic Goods Administration (TGA) of equipment used in treatment.

Information about these can be viewed on the SABS website at:
www.health.nsw.gov.au/quality/sabs/index.html

Four SABs related to the use of medication are discussed in more detail in the medication section of this report. One SAB related to the diagnosis of pulmonary embolism in young people.

Pulmonary Embolism in Young People

Two of the SAC1 incidents related to younger patients with pulmonary embolism who were misdiagnosed. Pulmonary embolism is an obstruction - usually by a blood clot - of the main artery or one of its branches that leads to the lung. It often results in death. This condition is not common in young people.


A Safety Alert was released to alert clinicians to the diagnosis of pulmonary embolism in younger people.

2. Informing Clinical Services Redesign

Acute Coronary Syndrome

Chest and abdominal pain are two common reasons for people presenting to hospital emergency departments worldwide.

Under the diagnosis classification following review of SAC1s, six incidents related to patients presenting with acute coronary syndrome during the reporting period. This indicated that there was either a delay or failure to diagnose the patient's actual problem and therefore provide the appropriate level of care. The specific issues associated with the difficulties in diagnosing and managing these time-critical presentations is being explored in further detail with Greater Metropolitan Clinical Taskforce networks. Strategies to improve care of these patients will then be shared across the health service.

Fall Incidents

Falls are the most commonly reported clinical incident in IIMS. They happen most frequently among older patients. People who fall in hospital often have more than one chronic condition, may be taking many medications and may be frail. Impaired thinking, caused by dementia, confusion and factors that affect mobility, can also increase the likelihood of a fall. Falls are also of concern in the general community, particularly as the population ages.

It is recognised that even in the safest health care environments patients can collapse when they are sick. They can also fall while being encouraged to regain mobility. As a result, there can be a tendency to accept these events as part of a patient's condition. Falls, however, can lead to serious injury, particularly in elderly people.

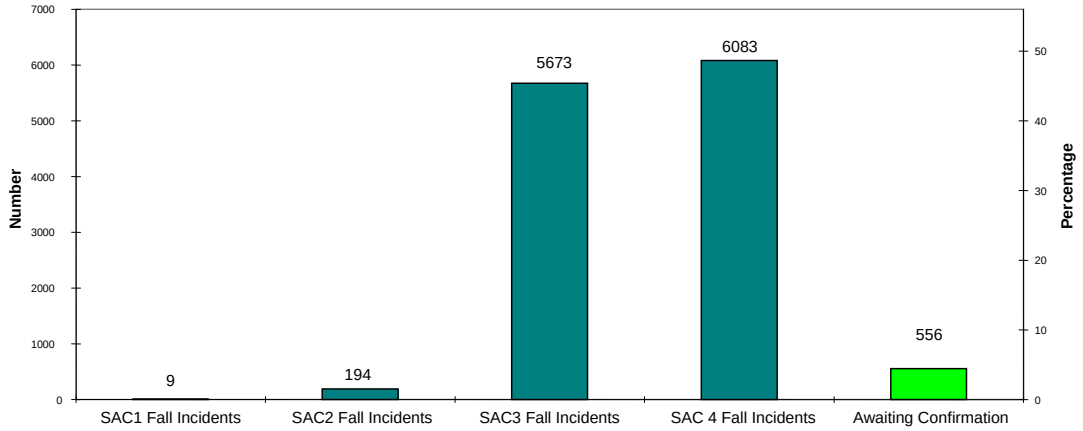
Reducing the likelihood of falls requires a multifaceted approach that includes addressing environmental and patient factors, so that preventative measures can be put in place. Reducing the risk of falls should take into consideration a patient's right to personal autonomy and the need to encourage mobility. All falls require investigation and appropriate management, even if no injury results, because they are an important indicator of a person's wellbeing.

Looking

Fall Incident Notifications

In the 1 January to 30 June, 2008 reporting period there were 12,515 notifications where a fall was identified as the principal incident type. In the previous reporting period there were 13,284. Figure 8 shows the SAC categories for fall notifications in this reporting period.

Figure 8. Fall incidents across SAC categories January to June 2008



Nine of these incidents were classified as SAC1 and all of this group involved patients who died following a fall in hospital. In the previous six months there were 20 SAC1 fall incidents. Most fall notifications were in the SAC3 and SAC4 categories, indicating the willingness of staff to report patient falls, even where there was minimal or no harm.

Learning

Issues identified during analysis of these incidents include:

- the effect of medication on fall risks
- equipment aids to support patients moving around the ward safely
- staff rostering and specialised training
- strengthening policies and staff education relating to post-fall management.

Knowledge to increase our understanding and approach to reducing falls risks in hospitals is gathered through analysis of notifications, insights gained by falls prevention co-ordinators and staff, comparisons made with similar programs in other health systems and the findings of ongoing research.

IIMS data is very useful for clinical unit managers in identifying the time of falls. This often shows that most falls occur during the early afternoon and at night. Tracking when falls occur (from IIMS reports) provides insights which can assist in implementing strategies to reduce patient risk.

Acting

Revised Post-Fall Assessment Guidelines

A fall is a serious event, particularly among elderly people - who are more prone to injury that is not necessarily evident at first glance. Following review of a number of RCAs of incidents where patients who were on anticoagulants and/or anti-platelet therapy suffered harm associated with a fall in hospital, a recommendation was made to revise the guidelines for managing patients following a fall. These new guidelines have been reviewed by the NSW Institute of Trauma and Injury Management and are available on the CEC Falls Prevention Program web-page
http://www.cec.health.nsw.gov.au/pdf/falls/falls_post.pdf

Medication and Intravenous Fluid Incidents

The safe use of medications is an essential part of patient care in the 21st century. As with many aspects of health care, there are many components involved in providing patients with the right dose of the most appropriate medication at the right time. This requires health care services to have in place processes to store, supply, distribute and administer medications to patients in a way that reduces the risk of medication errors and to report incidents so that system-wide learning can occur.

Prescribing of medications requires consideration of their intended effect, as well as known contra-indication, possible drug interactions and patient allergies. Certain drugs are known internationally to have a higher likelihood of being associated with a clinical incident. These include “high-risk” medications such as sedatives, insulin and anticoagulants (blood thinners), as well as paracetamol.

This section of the report is informed by both the IIMS notifications made during this reporting period and the Medication Safety Self-assessment (MSSA) Program.

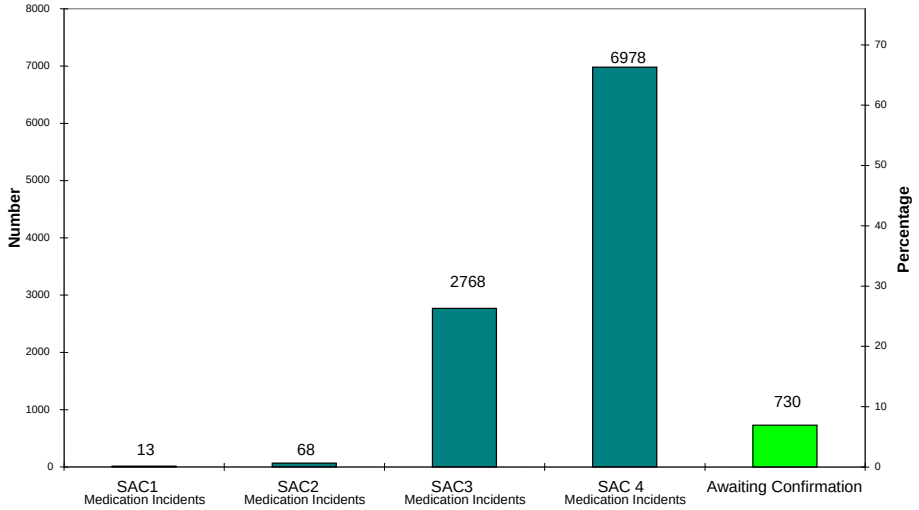
Looking

IIMS Notifications

In the 1 January to 30 June, 2008 reporting period there were 10, 557 notifications about actual and potential risks that identified medication or intravenous fluids as the principal incident type. In the previous reporting period there were 9,966.

Figure 9 shows the SAC categories for medication/IV fluid notifications. Thirteen of these incidents were classified as SAC1 and while twelve of these the patient subsequently died, it is very difficult to ascribe medication as the direct cause. There were five SAC1s in the previous reporting period.

Figure 9: Medication/IV Fluid Incidents across SAC Categories from January to June, 2008



Medication Incidents by Top Ten Agents

The medication agents most commonly involved in incidents reflect international trends (narcotics /opioids, insulin, anticoagulants and paracetamol) and are detailed in Figure 10.

Figure 10: Medication Incidents by Top 10 Agents Jan – June 2008

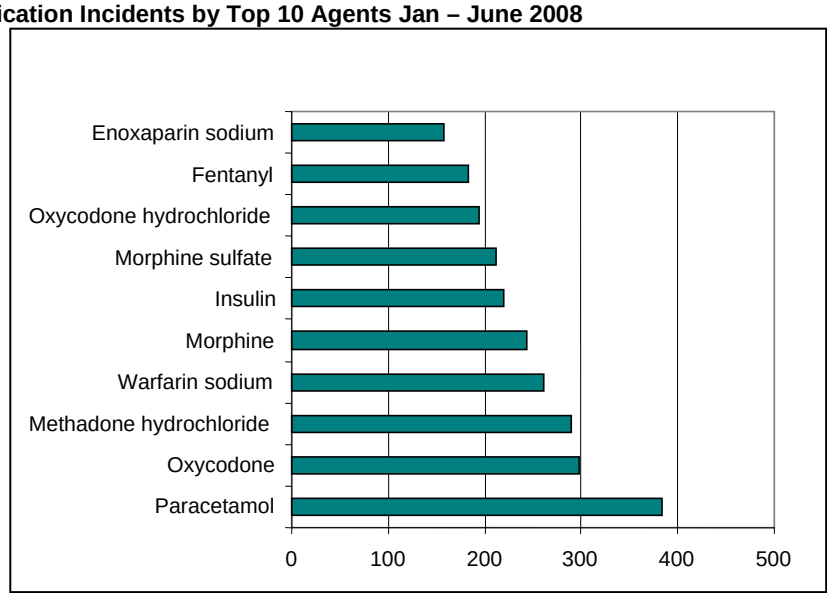


Table 5: Intended Effect of Medication Agents Involved in Incidents

Agent	Intended effect
Paracetamol,	Pain relief
Fentanyl, Oxycodone, Oxycodone hydrochloride, Morphine, Morphine Sulfate,	Opiate-based pain relief
Methadone	Pain relief or management of drug dependence
Warfarin sodium Enoxaparin sodium (Clexane)	Anti-thrombolytic (anti-clotting) agents
Insulin	Synthetic hormone used to manage diabetes

Medication Safety Self-Assessment (MSSA)

The MSSA program is being conducted by the CEC in collaboration with national and international organisations. The MSSA provides health facilities with a structured framework for assessing their current medication safety practices in a way that allows them to:

- assess the effectiveness of their medication policies and procedures in terms of patient safety outcomes
- systematically identify gaps in the delivery of care that could constitute a medication risk and areas for improvement
- benchmark performance against which continual improvement can be measured over time.

Learning

This tool highlights 10 key areas of medication safety of which communication (both written and verbal) and identification are core elements:

1. Access to essential information about the patient
2. Access to information about drugs is readily available to prescribing doctors
3. Communication of drug orders and other drug information.
4. Drug labelling, packaging and nomenclature to ensure that one drug is not confused with another
5. Drug standardisation, storage and distribution
6. Medication delivery, device acquisition, use and monitoring
7. Environmental factors, workflow and staffing patterns
8. Staff competency and education
9. Patient education
10. Quality processes and risk management.

Further information about MSSA can be found at:
http://www.cec.health.nsw.gov.au/mssa/ISMP_introduction.html

The MSSA confirms that concerted efforts need to be made to reduce harm from high-risk medicines, improve continuity of care and reduce the risk of incidents caused by look-alike or sound-alike medications.

Acting

In response to information collected through IIMS and from the Therapeutic Goods Administration, four medication-related safety notifications have been released through the Safety Alert Broadcast System. These concerned:

- Zolpidem (Stilnox)
- Management of paracetamol overdose
- Oxycodone
- Clexane

Communication issues are being addressed on several fronts, including projects conducted through the NSW Health Redesign Program and the Essentials of Care Project. The CEC will continue to support facilities in completing the MSSA and report on lessons learned from this process.

Maternal and Perinatal Care Incidents

Most pregnancies and births proceed with little intervention. Every pregnancy, however requires a thorough risk assessment to ensure mothers who require complex care at any stage are directed to appropriate services before the birth of the child. Safe maternity care relies on tiered networks to provide consultation and where appropriate, referral and transfer to higher levels of care.

The pregnancy and birth cycle involves three stages - the antenatal period, the birth itself and the care of mother and baby afterwards. Provision of care must consider the wishes of mothers, while ensuring the best health outcomes.

Context

Maternity Services in NSW

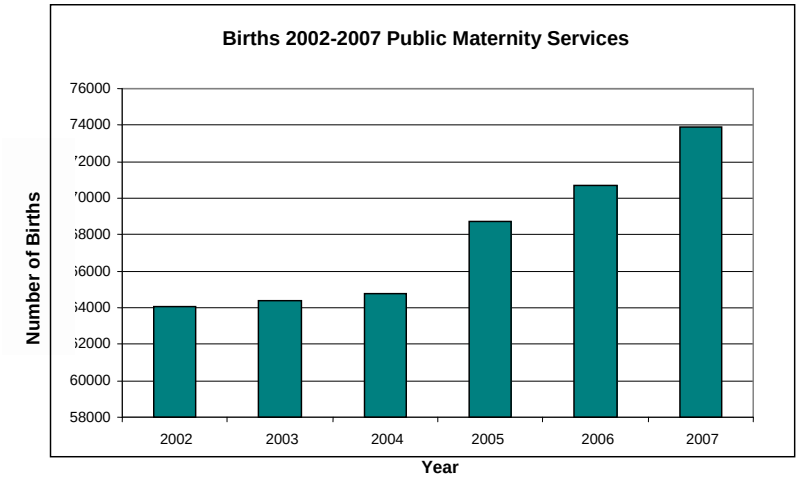
There are over 80 facilities which provide maternity services in NSW. They are classified under six role levels relating to the complexity of care that can reasonably be managed and supported at the service. This care is dependent on neonatal and clinical support services and the skill mix of staff, rather than the particular skills of individual clinicians.

Maternity services are spread throughout NSW, although more women use metropolitan services than those in regional and rural areas, as would be expected given population distribution. There has been a reduction in women using private health care providers in recent years from 32 per cent to almost 23 per cent. Combined with the increase in births, this has resulted in a 10 per cent increase in the use of public maternity services.

A rise in birth rates

There has been a rise in birth rates in NSW. While this has not affected the number of incidents related to maternal and perinatal care, it does influence the planning of service provision. Figure 12 shows the increase in birth rates over the last four years. Funding for increased staffing of $42.8M over four years commenced in the 2008/09 budget. One hundred and fifty midwives and twelve staff specialists will be added to maternity services to support capacity.

Figure 12: Birth Rates in NSW



Looking

IIMS Notifications

In the 1 January to 30 June 2008 reporting period, 648 of the clinical incident notifications collected in IIMS were associated with the provision of maternal and perinatal care. Figure 14 shows the SAC categories for these notifications. Twenty-five of these incidents were classified as SAC1. Seven involved the provision of the wrong breast milk to a baby. In the same six-month period in 2007 there were 36 SAC1s. The provision of the wrong breast milk incidents illustrates the importance of correct patient identification—a theme that has been highlighted elsewhere in this report with respect to other clinical incidents. There were no reported deaths of mothers during childbirth within the SAC1 category.

Learning

Areas of Clinical Practice

Notifications can also be subdivided into specific areas that relate to particular conditions and areas of practice. These include:

- Lower segment caesarean section (LSCS)
- Post-partum haemorrhage (PPH)
- Shoulder dystocia (a rare situation where the baby's shoulders are a tight fit with the mother's pelvis)
- Instrumental birth, such as a high forceps delivery
- Breast feeding and the use of expressed milk
- Induction of labour
- Fetal Heart Rate (FHR) monitoring or fetal welfare assessment.

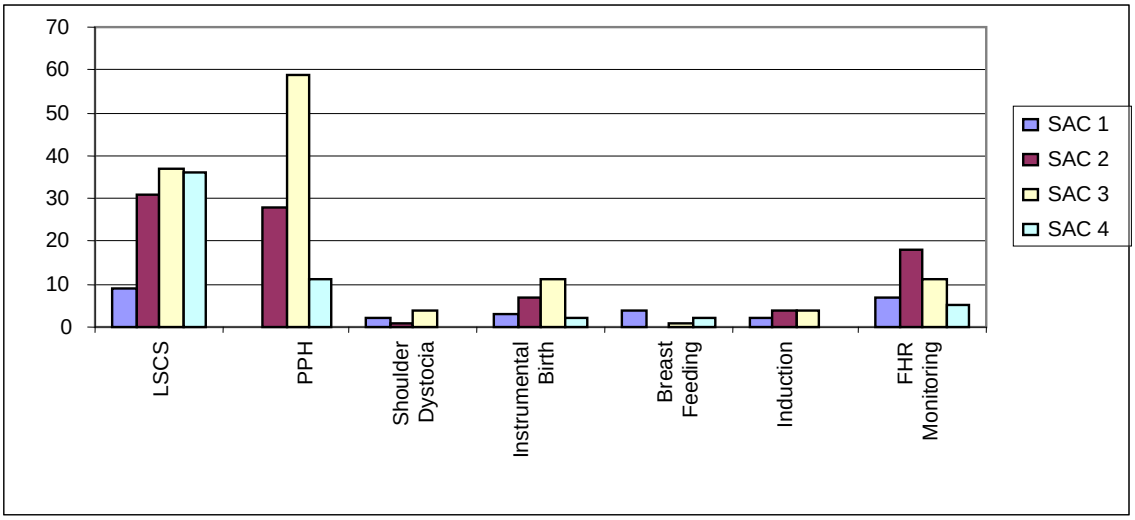
Table 6 and Figure 13 represent the breakdown of SAC ratings and clinical outcomes in areas where the NSW Department of Health is focusing attention to improve clinical care. It should be noted that any one incident can be associated with several categories of clinical practice. For example, a woman who has a LSCS for severe fetal distress associated with induction of labour and then progresses to have a PPH, would fit into four areas of clinical practice.

Table 6: Maternal and perinatal SAC1 incidents January to June, 2008

Component of Care	January/June 2007	July/December 2007	January/June 2008
Antenatal care	5	5	4
Labour and birthing	24	13	11
Postnatal care	7	7	8
Neonatal Intensive Care Unit*			2
Total	36	25	25

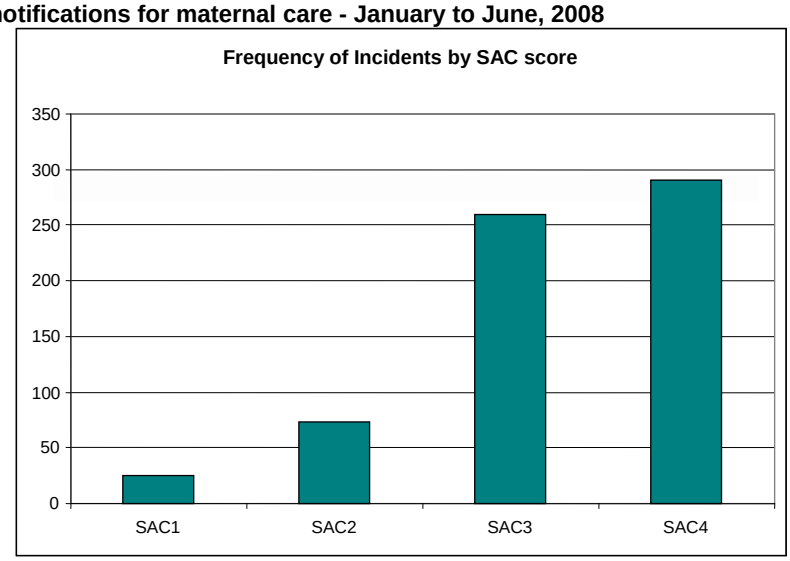
* Neonatal intensive care unit included because of breast milk incidents occurring in this setting.

Figure 13: Maternal and perinatal incidents by identified risk areas - January to June, 2008



Severity of Maternal and Perinatal Care Incidents

Fig 14: Incident notifications for maternal care - January to June, 2008



Expressed breast milk

Two out of 25 SAC1 incidents related to a baby being put to the wrong woman's breast. Five related to a baby receiving the wrong expressed breast milk. This occurred when staff separated the infant from the mother.

Acting

Compliance with identification procedures in every health care situation is essential. The Policy Directive (PD 2006_088 Breast Milk – Safe Management), is being revised to strengthen identification procedures and provide advice about the actions to be taken if a baby is exposed to the wrong breast milk.

Mental Health Incidents

One in five people will experience a mental illness at some stage in their lives. The very worst outcome of a mental illness is suicide. NSW has the lowest suicide rate of all Australian States and Territories. The Australian Bureau of Statistics (2008) advises the general suicide rate in NSW for 2006 was 7.3 per 100,000 people. This is the lowest since 1979. Suicide rates are affected by many issues and may fluctuate.

Looking

In this section of the report we look at patient safety and quality issues relating to the care of people with mental illness, because this is where the health system can make a difference.

IIMS Notifications

In the 1 January to 30 June, 2008 reporting period there were 9029 notifications associated with the provision of mental health care. The most commonly notified incidents are presented in Table 7.

Table 7: Most common mental health notifications across SAC categories January to June, 2008

Principal Incident Type	SAC1	SAC2	SAC3	SAC 4	Awaiting confirmation
Aggression	2	34	2391	1192	47
Behaviour/human performance	68	113	1150	709	20
Fall	0	8	431	514	9
Medication/IV fluid	1	6	140	358	13
Clinical management	0	38	218	215	19

Aggression was the most commonly notified incident. Most notifications came from inpatient units. SAC3 and SAC4 notifications in this category usually involved verbal aggression. SAC2 notifications included assaults on staff and other incidents where aggressive behaviour was extreme.

The IIMS classification of “behaviour/ human performance” was the second most common incident type. Most related to situations where the patient “wandered” or absconded from care. Acts of self-harm are also included in this category, as are situations where inconsiderate and risky behaviour was perceived as creating a safety issue. Notifications about incidents involving aggression and risky behaviour continue to provide insights that are used to inform management techniques aimed at providing safe and effective care.

Learning

The majority of notifications about clinical management incidents related to co-ordination and access to care such as care of mental health patients who present to busy emergency departments, delayed admission to a mental health bed due to availability, clinical handover issues and communication between teams. Some of these issues are being addressed as part of more global clinical management initiatives detailed throughout this report. More specific projects addressing mental health issues are outlined further below.

There were 54 SAC1 notifications related to suspected suicide of current mental health patients, either in hospital or while being managed in the community. There were a further 29 SAC1 incident notifications to the mental health directorate, with 12 related to management of Justice Health patients , two concerning aggression, one related to medication and a group of other events regarded as serious (including suspected accidental drug overdoses and serious injury following self-harm), making a total of 83. The Justice Health incidents include mandated notifications for deaths in custody of seemingly natural causes.

Healthcare Associated Suspected Suicides

Suicide is a complex event affecting people across all social spheres and age groups. This tragic event leaves a legacy of sorrow and lasting effects on family and friends. Not all people who take their own life have formal contact with the health system and/or mental health services. The term “suspected” is used because all suicides are regarded as “suspected” until the formal cause of death is determined by a coroner.

Suspected suicide of patients receiving health care is defined as those involving people who are either an inpatient at the time, on authorised leave, or absent without leave from an inpatient unit, as well as those who are being managed in the community and have had contact with a public mental health facility within seven days of the event.

In the January to June 2008 reporting period there were over 15,000 admissions to mental health inpatient services. During this period there were 54 SAC1 notifications related to suspected suicide of mental health patients from both the inpatient and community setting. These include two suspected inpatient suicides, one of which was within an emergency department. There were five suspected suicides involving patients who were on authorised leave from an inpatient mental health unit.

One was a suspected suicide of a patient absent without leave from an inpatient unit. During the same period there were 46 suspected suicides in the community, where the person had contact with the health service within seven days before the event. These include nine cases where the actual cause of death could not be officially established, despite formal investigations by the area health service involved.

Suspected suicides involving people under the care of a public mental health service are independently reviewed by the Mental Health Sentinel Events Review Committee (SERC). A fourth *Tracking Tragedy Report* is being finalised as part of a series released in 2003, 2005 and 2007. Seventy-six of the 90 recommendations in the first three reports have either been finalised or have mechanisms in place to address them in the near future.

Key themes of the 2007 *Tracking Tragedy Report* included the assessment and management of mental health patients at risk of harm to themselves and others, and standards of care provided to mental health patients referred for depressive disorders.

Recommendations related to these themes can be viewed at:
http://www.health.nsw.gov.au/pubs/2007/response_ttragedy.html

Many of the recommendations of the *Tracking Tragedy Reports* overlap with issues raised through the analysis of incidents notified in IIMS and help to guide systemic improvements relating to the care, management and control of people suffering from a mental illness.

Acting

Patient Safety and Clinical Quality Improvements

During the last two years there has been a focus on improving the patient journey for people with mental illness. These projects include:

- making sure a mental health professional is on hand to assess people presenting with a mental illness who come to emergency departments
- creating a system to ensure that beds for mental health patients are managed on an area-wide basis
- expanding community care so people can leave hospital and be safely supported
- creating integrated community health models where multidisciplinary teams including welfare, housing and community support meet to co-ordinate care.

Initiatives to address these issues have seen the development of better systems to assess and refer mental health patients in a timely manner, a reduction in the number of patients absconding and a reduction in incidents involving aggression.

Psychiatric Emergency Care Centres (PECCs)

PECCs are specialist units which sit alongside emergency departments in major metropolitan hospitals to help better manage mental health emergencies and ensure referral to appropriate services and care. There are now eight PECC units open, with plans in place to develop another two.

At June 2008:

- There was a 15 per cent improvement in the number of people in need of mental health services seen, treated and discharged within eight hours of presenting at an emergency department with a PECC
- There was a 10-14 per cent reduction in the number of short-term admissions to inpatient units when patients were assessed via a PECC
- The median waiting time for PECC admitted patients, from emergency department referral to mental health assessment, was only 15 minutes.

PECC units are an effective and appropriate service model for general hospital settings where there are substantial numbers of presentations of people in need of mental health services.

An evaluation of the first seven PECC units showed that:

- Mental health patients and their carers reported high levels of satisfaction
- Aggressive incidents are rare
- Absconding was reduced by around 66 per cent where there were designated PECC beds
- Very short admissions (1-2) days to acute inpatient mental health units were reduced by 24 per cent.

Clinical Assessment: best practice models and documentation

A clinical documentation assessment tool was refined to help health professionals record mental health assessments, care plans, clinical reviews, discharge summaries and outcome measures in a comprehensive and standardised format. This tool contains clinical models to assist the process. Clinical documentation supports communication between all those providing care during a patient's journey through hospital and community services.

Extensive staff surveys and consultation were undertaken to further improve the use of these tools and to guide the development of best practice models, with over 630 responses from clinical staff. These indicated that the modules had improved documentation standards and were beneficial to trainees and newer graduates. Revised models are being developed in consultation with professional bodies and people who use mental health services. Assessment of the risk of suicide and violence is a key component. Early evaluations from field-testing indicate that they have been well received.

Community-based Care Initiatives

Ensuring that a person who has a mental illness is supported in the community is an important aspect of ongoing treatment and recovery. A consistent daily routine also minimises the risk that the illness will progress. Two important community-based programs showing good results include the Housing and Accommodation Support Initiative (HASI) and the Vocational Education Training and Employment (VETE) Program.

Housing and Accommodation Support Initiative (HASI)

HASI is a Statewide partnership between Housing NSW, NSW Health and non-government services that helps people with mental illness improve their quality of life by supporting their participation in community life and by providing access to both secure housing and clinical mental health services. Through this, people can remain in the community and avoid the risk of readmission to inpatient care. An evaluation of HASI has found that 85 per cent of participants remained with the same housing provider. Most had established friendships that included participating in social and community activities. Other findings include:

- 68 per cent of participants reported improvement in symptoms, social and living skills and a reduction in psychological distress
- 84 per cent of participants had reduced hospitalisation rates, frequency and duration. Time spent in hospital and emergency departments reduced by 81 per cent.

Vocational Education Training and Employment (VETE)

The VETE program provides a co-ordinated pathway to assist in meeting the educational and employment needs of people with mental illness, including those who are experiencing a mental illness for the first time and those with chronic issues. The program is aimed at improving a positive frame of mind for mental health, through productive participation in the workforce. A pilot program has begun. If successful it will be rolled-out over a five-year timeframe. Early findings include:

- 79 per cent of participants seeking employment obtained competitive employment.
- 73 per cent of participants maintained employment.

In Conclusion

This report shows that valuable lessons are learned from incident reporting and analysis. These are used to inform the actions which are taken to effect change across the NSW health system. There are many examples of this both at State and area health service level. These include:

- *Between the Flag project to increase awareness and response to deteriorating patients*
- *Changes to the CLAB Project in response to incident analysis*
- *NSW Health patient identification working party*
- *Hospital falls projects such as a Prince of Wales Hospital group which reduced night sedation in response to incident analysis*
- *Communication projects such as the 'Green Card' (NCAHS) which facilitates follow-up with local doctors after discharge from hospital*
- *Redesign Cardiology Project which streamlines the care given to patients experiencing acute coronary syndrome.*

The information contained in the report demonstrates the commitment of NSW Health to safety and quality at every level of the system.

Review of the IIMS data continues to provide information about more that needs to be done to make the health system safer. Of note from the current report:

- the need to ensure smooth, safe transition of care, through robust systems and timely, streamlined communication of all relevant information - at every point of handover
- the need to better manage patients whose condition makes them more likely to exhibit aggressive behaviour
- the continuing need to recognise and effectively respond to patients whose condition deteriorates.

We are committed to providing ongoing reports on incidents within the NSW health system. We look forward to providing you with more information on the progress of changes made in response to this analysis in our next report. We will continue to look. We continually learn and we again commit to continuous action in clinical practice improvement.

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APPENDIX 1: The Process for Managing Clinical Incidents in the NSW Health System

	SAC1 - Extreme risk	SAC2 - High risk	SAC3 & 4 – Medium or Low risk
Immediate actions	Immediate threats to safety removed. IIMS notification made. Area health service (AHS) Chief Executive informed. Department of Health (DoH) notified via Reportable Incident Brief (RIB) for Statewide risk assessment.	Immediate threats to safety removed. IIMS notification made. Senior management notified. Department of Health notified via RIB of incidents with Statewide implications.	Immediate threats to safety removed. IIMS notification made. Manager notified.
Investigation	Root Cause Analysis (RCA) investigation is completed by the AHS and sent to the DoH within 70 days.	Detailed investigation overseen by clinical governance units at AHS level.	Manager reviews and determines actions required.
Analysis and aggregation of findings	State-level – thematic analysis of RCAs undertaken and reported monthly to the Reportable Incident Review Committee (RIRC) AHS level – peak quality committees and lead clinicians informed.	AHS aggregated data used to determine local actions.	Data is aggregated and regularly discussed with clinical team. Risks which have broader implications are fed-up via management and clinical stream processes.
Actions in response to identified risks	State-level - Actions to address identified risks are determined by RIRC and undertaken by relevant organisation (DoH, CEC). AHS level – RCA recommendations actioned.	AHS level –Recommendations from detailed investigations actioned.	Actions managed at local level.
Feedback	Information about State-level projects / actions is given via monthly meetings with directors of clinical governance. SABS and lessons learned website, six-monthly incident report. AHS processes to feed-back to patients /families via Open Disclosure and to staff and clinical teams via local processes.	Information about State-level projects/actions is given via monthly meetings with directors of clinical governance, SAB and lessons learned website, six-monthly incident report. AHS processes to feed-back to patients and families via Open Disclosure and to staff and clinical teams via local processes.	Information about state-level projects / actions is given via monthly meetings with directors of clinical governance. SAB and lessons learned website, six-monthly incident report. AHS processes to feed-back to patients and families via Open Disclosure and to staff and clinical teams via local processes.

AHS - Area Health Service
DoH - Department of Health
RIB - Reportable Incident Brief
RIRC - Reportable Incident Review Committee
SABS – Safety Alert Broadcast System

APPENDIX 2: Principal Incident Type Descriptors

Accidents/Occupational Health and Safety
This incident type is used to classify incidents related to accidents, occupational health and safety or the physical environment and staff incidents. For example, a needle stick injury, exposure to a hazardous substance, a staff member sustains a burn after spilling a hot drink over his arm, a wet or slippery floor surface.

Aggression – Aggressor
This incident type is used to classify the details of the aggressive incident, in the context of the aggressor. For example, a patient punching another person, a person making physical or verbal threats.

Aggression – Victim
This incident type is used to classify any harm to the victim of an aggressive episode. For example, a patient being punched by another individual, a victim of a physical or verbal threat.

Anaesthesia
This incident type is used to classify the details of incidents related to anaesthesia delivery. This classification does not capture information related to surgical complications or incidents and these need to be reported separately.

Behaviour/Human Performance
This incident type is used to classify the details of behaviour or human performance incidents. For example, a patient exhibiting self-harming behaviour, a staff member behaving in a rude or hostile manner.

Blood/Blood Products
This incident type is used to classify the details of incidents related to blood /blood product transfusion processes, dispensing or quality problems. For example, a patient suffers an anaphylactic reaction to a blood transfusion, a blood unit is mislabelled, blood is stored at the incorrect temperature, incorrect blood pack is dispensed from transfusion service.

Buildings/Fittings/Fixtures/Surrounds
This incident type is used to classify the details directly related to a building, the fittings within a building, the fixtures attached to a building and the external surrounds of a building. For example, poorly designed building/room for its intended purpose, leaky plumbing, loose or insecurely fixed wall mounted appliance, cracked or uneven pathways, power failure.

Clinical Management
This incident type is used to classify the details related to the clinical management of a patient. This includes diagnosis, treatment planning and delivery and ensuring the correct identification of each patient and procedure. For example, unintended injury during a medical/surgical procedure, procedure performed on the wrong body part or side, delay in diagnosis of patient's condition.

Complaints
This incident type is used if a consumer expressed dissatisfaction about health care services. For example, a complaint about the care provided or the manner in which it is delivered.

Documentation
This incident type is used to classify the details of an incident involving a problem with ANY written, typed, drawn, stamped or printed text/information and/or ANY document into which it has been entered. For example, a patient's medication chart is filed into another patient's medical record, a treatment order is ambiguous or difficult to read, incorrectly labelled specimens.

Falls
This incident type is used to classify details related to a fall. For example, a patient found on the floor is suspected of having fallen, a disorientated patient fell after forgetting to use his walking frame.

Hospital Acquired Infection/Infestation
This incident type is used to classify the details of infections or infestation acquired during hospitalisation. For example, a post operative wound infection, an infected IV (intra-venous) cannula site.

Medical Devices/Equipment/Property
This incident type is used to classify the details directly related to medical devices, equipment or property. For example, routine maintenance not performed on an autoclave, no diathermy earthing plates available for a theatre procedure, a damaged or faulty patient lifter.

Medication/IV Fluids
This incident type is used to classify the details related to medication or intravenous fluid incidents. For example, medication prescribing errors, incorrect intravenous fluid infusion rates.

Nutrition
This incident type is used to classify the details of nutrition incidents. For example, a diabetic patient received a non-diabetic meal, the wrong TPN (Total Parenteral Nutrition) formula was infused, a patient's naso-gastric feed was given at 80 mls/hr instead of 40 mls/hr.

Obstetric - Foetal
This incident type is used to classify the details of incidents that occur with a foetus and/or newborn infant up to 28 days of age and are related to obstetric management. For example, while performing an episiotomy during delivery, the baby sustains a laceration from the scalpel blade.

Obstetric – Maternal
This incident type is used to classify the details of incidents related to the obstetric care provided to patients (mothers). For example, a patient undergoing a caesarean section sustains a perforated bladder.

Organisation Management / Services
This incident type is used to classify the details of any incident involving the provision of patient, staff and visitor services or the organisational management of the health care institution. For example, no hospital beds available, inadequate staff supervision, insufficient staff for workload, inadequate staff facilities, no after hours kitchen service available.

Oxygen / Gases / Vapours
This incident type is used to classify the details of incidents involving both therapeutic and non-therapeutic use of oxygen and/or other gas. For example, oxygen administered at four litres per minute when it should have been eight, medical air administered instead of oxygen.

Pathology / Laboratory
This incident type is used to describe issues associated with the collection, transport and processing of specimens.

Pressure Ulcer
This incident type is used to classify details of either new pressure ulcers or the worsening of pre-existing pressure ulcers which occur during clinical care. For example, a bed-bound patient develops a pressure area.

Security
This incident type is used to classify the details of incidents directly related to the security of the organisation. For example, theft of personal property, bomb scare.