

# 10 YEARS

OF QUALITY AND SAFETY IN HEALTH CARE



CLINICAL  
EXCELLENCE  
COMMISSION



YEAR IN REVIEW  
**2013/14**

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National Library of Australia Cataloguing-in Publication entry

Title: Clinical Excellence Commission Year in Review 2013-14  
ISSN: 2204-0994  
ISBN: 978-1-74187-075-6  
SHPN: (CEC) 140403

Suggested citation

Clinical Excellence Commission, 2014, Clinical Excellence Commission Year in Review 2013-14  
Sydney: Clinical Excellence Commission

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The Clinical Excellence Commission (CEC) is responsible for leading safety and quality improvement in the NSW public health system. It was established in 2004, to promote and support improved clinical care, safety and quality across NSW. The CEC is guided by NSW Health values of Collaboration, Openness, Respect and Empowerment.

Our programs, projects and initiatives address quality and safety issues identified in the NSW health system. Areas of focus include engaging patients and consumers in care, improving clinical practice, building capacity in health care and using data to drive change.

The CEC is a board-governed statutory health corporation established under the Health Services Act 1997.

The CEC improves safety and quality in the NSW public health system by:

- Co-ordinating system-wide analysis of issues through audit and review
- Working collaboratively with clinicians, patients, managers and the community
- Implementing programs, projects and initiatives to address identified issues.

We work closely with local health districts and specialty health networks, the Ministry of Health, the Agency for Clinical Innovation, the Bureau of Health Information, the Health Education and Training Institute, NSW Kids and Families and the Cancer Institute NSW, to deliver safety and quality improvement in the NSW public health system.

OUR MISSION

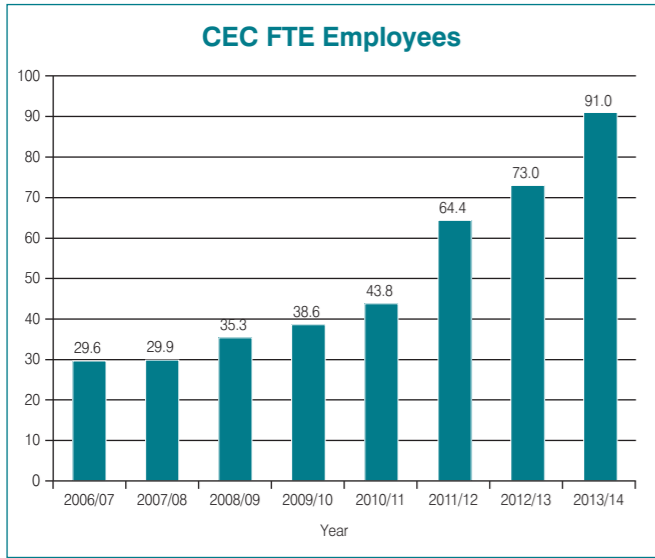
To build confidence in health care in NSW, by making it demonstrably better and safer for patients and a more rewarding workplace.

OUR VISION

The Clinical Excellence Commission will be the publicly respected voice providing the people of NSW with assurance of improvement in the safety and quality of health care.

OUR STAFF

CEC staff come from a range of professional backgrounds, many with extensive clinical experience. Together, we drive positive change to improve the quality and safety of health care in NSW.



OUR LOGO

The symbol is derived from the wings that top the caduceus, the “staff of medicine” that commonly symbolises medical care. Importantly, for the CEC, wings also stand for the work of reaching a high standard – in this case, the ideal of excellence.

The lines in the wing symbol all curve to converge on a single point, reflecting the way the CEC initiates and manages system change from varied starting points and helps guide it towards a common goal – that of best practice. Secondary lines loop in as a metaphor for feedback, an important element in the CEC’s collaborative approach.

The lines also divide the symbol into layers, reflecting the different levels within (and beyond) the health care system in which the CEC works.

The palette of aqua and green communicates a fresh approach and suggests glass-like transparency.

Combined with a neutral, modern typeface, the symbol suggests authority without pomposity, a concern for quality and excellence, a professional and clinical approach and an openness that invites involvement.



CLINICAL  
EXCELLENCE  
COMMISSION

A/PROF BRIAN MCCAUGHAN, AM

It is hard to believe that the CEC has been around for ten years – time flies when you’re making such a difference.

Having been associated with the CEC since its foundation and its chair since 2011, I congratulate the CEC and its committed staff on reaching this significant milestone.

On behalf of the board, I particularly acknowledge the work of Prof Cliff Hughes, his executive team, program leaders and support staff, whose commitment and contribution to making our health system safer and better and a more rewarding workplace, continues to drive and inspire improvements across NSW.

The board, as part of its governance reporting framework, reviews performance and progress regularly. I am pleased to report that in 2013/14, the CEC met all key performance indicators listed in its service compact and demonstrated solid progress in all programs, as per work plan deliverables.

Throughout the year, the CEC has continued to deliver and enhance its flagship programs, while also responding to issues relating to end-of-life care, open disclosure, pressure injury prevention, clinical analytics, clinical supervision and children’s health.

It has expanded its Sepsis Kills program to inpatient wards, rebadged hand hygiene initiatives under the ‘Clean In, Clean Out’ campaign and developed policies and databases designed to improve care.

These initiatives will continue to be progressed in 2014/15, along with other emerging areas, including Venous Thromboembolism prevention, human factors, aspiration pneumonia and medication reconciliation.

The following pages profile achievements of the year, as well as the past ten years. While the CEC has been a catalyst for many of these initiatives, the real champions are the clinicians who work with the CEC to implement the programs and enhance care for patients, carers and staff within the health system.

The CEC relies on these clinicians, as well as managers and other organisations within the NSW health system, to identify and achieve improvements. Together, we can truly make NSW Health better, safer and more rewarding for all.

A/Prof Brian McCaughan, AM



# CEO'S MESSAGE

## PROF CLIFFORD HUGHES, AO

"How can we make health care in NSW demonstrably safer and better for patients and a more rewarding workplace?" That was the question on our minds in January 2005, as the newly appointed chair of the Clinical Excellence Commission (CEC), Prof Bruce Barraclough, and I took up our appointments. The CEC was born in August 2004, with 12 staff from the Institute of Clinical Excellence moving into a new role. The change was one of the recommendations from Bret Walker SC, following his Inquiry into the Campbelltown and Camden hospitals, and a key component of the NSW Health Patient Safety and Clinical Quality Program.

For quite a few weeks, our question remained unanswered. 'Whistle-blowers' had caused a sensation, the system had been investigated, but improvement was still needed. Then the penny dropped. We had to build on the culture of the whistle-blower (itself a derivation from the role of the referee – to keep a level playing field!). A unique opportunity followed almost immediately with the (then) Department of Health building an Incident Information Management System (IIMS).

This provided the CEC with access to raw, unfiltered notifications of incidents by staff within the NSW public health system, no matter who they were or where they were. Now we were able to see what was really 'wrong' with the system, not just what everyone thought was wrong with it. IIMS became the Statewide 'whistle' that has subsequently led to the development of virtually all quality improvement programs the CEC supports across NSW.

Many pages could be filled outlining how CEC programs have been informed by, and help address, identified clinical risks and issues. Infection control is a prime example, which we embarked on early. Observational audits had revealed that, as with many other jurisdictions, less than 30 per cent of some staff in NSW hospitals were regularly washing their hands before patient contact. In response, we launched a Statewide 'Clean Hands Save Lives' program, as part of the National Hand Hygiene Campaign and saw compliance rates become some of the best in Australia.

Later, we were able to demonstrate that infection associated with central venous lines was a continuing risk in our hospitals and that sepsis was a major problem in our EDs and wards, which carried an unacceptably high mortality risk. After developing the Central Line Associated Bacteraemia and Sepsis Kills programs in collaboration with clinicians, we began to see changes in line with international best practice. All these programs were possible because NSW staff were prepared to identify and tell us about perceived risks.

In reviewing patient deaths through Root Cause Analysis reports, we worked with clinical governance units across the State to undertake a series of diagnostic studies. These showed that junior staff felt unsure of their diagnoses and often felt alone, especially in the middle of the night, with little effective way of communicating their concerns. Not only that, busy staff were not taking the time to measure the most sensitive of all clinical signs – the respiratory rate.

Armed with this knowledge and recommendations from the Inquiry into Acute Care Services in NSW Health, conducted by Peter Garling SC, we began the Between the Flags program, with the aim of improving recognition and management of the deteriorating patient. It has demonstrated a dramatic reduction in cardiac arrest calls, the saving of more than 1,000 lives over the last three years and a transformation in the culture in NSW hospitals. Now, every staff member looking after any patient, anywhere, has become a whistle-blower, using the Standard Adult General Observation (SAGO) chart that is the hallmark of this program.

With patients at the heart of our work and efforts, the CEC is building patient care into a new paradigm, known as Patient-Based Care. The Partnering with Patients program seeks to partner first and foremost with patients and then with other stakeholders.

Space allows us to feature only a small sample of the many flagship programs that the CEC has developed and rolled-out across the system, to improve patient care. All have been formed in response to priority clinical issues relating to quality and safety. I encourage you to read the following pages, to gain a fuller understanding of the work of our many initiatives and staff.

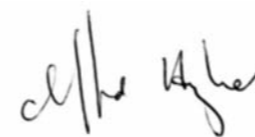
The CEC has a dedicated staff base which is committed to improving patient care within the NSW public health system. In this edition, we feature two people who were here when I started with the CEC in 2005 – Celia Mahoney and Lorraine Lovitt. Their experience and commitment continue to enrich our organisation, as do those who have joined us along the way.

Over the last twelve months, we have been able to draw on the experience and expertise of our international colleagues, with the CEC hosting guests from across the world. We hosted workshops and seminars with these presenters to share their expertise across NSW Health. Guests included Dr Adrian Hopper (AMBER Care Bundle and quality issues in the NHS); Dr Greg Maynard (VTE Prevention); Dr Dafydd Thomas (Haemovigilance); Sir Bruce Keogh (Head of the NHS); Dr Susan Frampton (Patient Based Care),

Dr Michael Wolf (Health Literacy & Medication Safety), Dr Brian Robson (Safety & Quality), Dr Clifford Ko (Quality Improvement) and Prof Dilip Nathwani (Infectious Disease).

The CEC is not a silo. We rely on and work well with our newer pillar partners – the Agency for Clinical Innovation, the Health Education Training Institute, the Bureau of Health Information and NSW Kids and Families. Our key partners and those we rely on, however, are the many clinicians and managers in the wards, emergency departments, multipurpose centres, hospitals and local health districts across NSW, who deliver patient care daily. Together, all of us can make effective use of all of our resources (not just beds and staff numbers) to release ingenuity and improve the wellbeing of our patients.

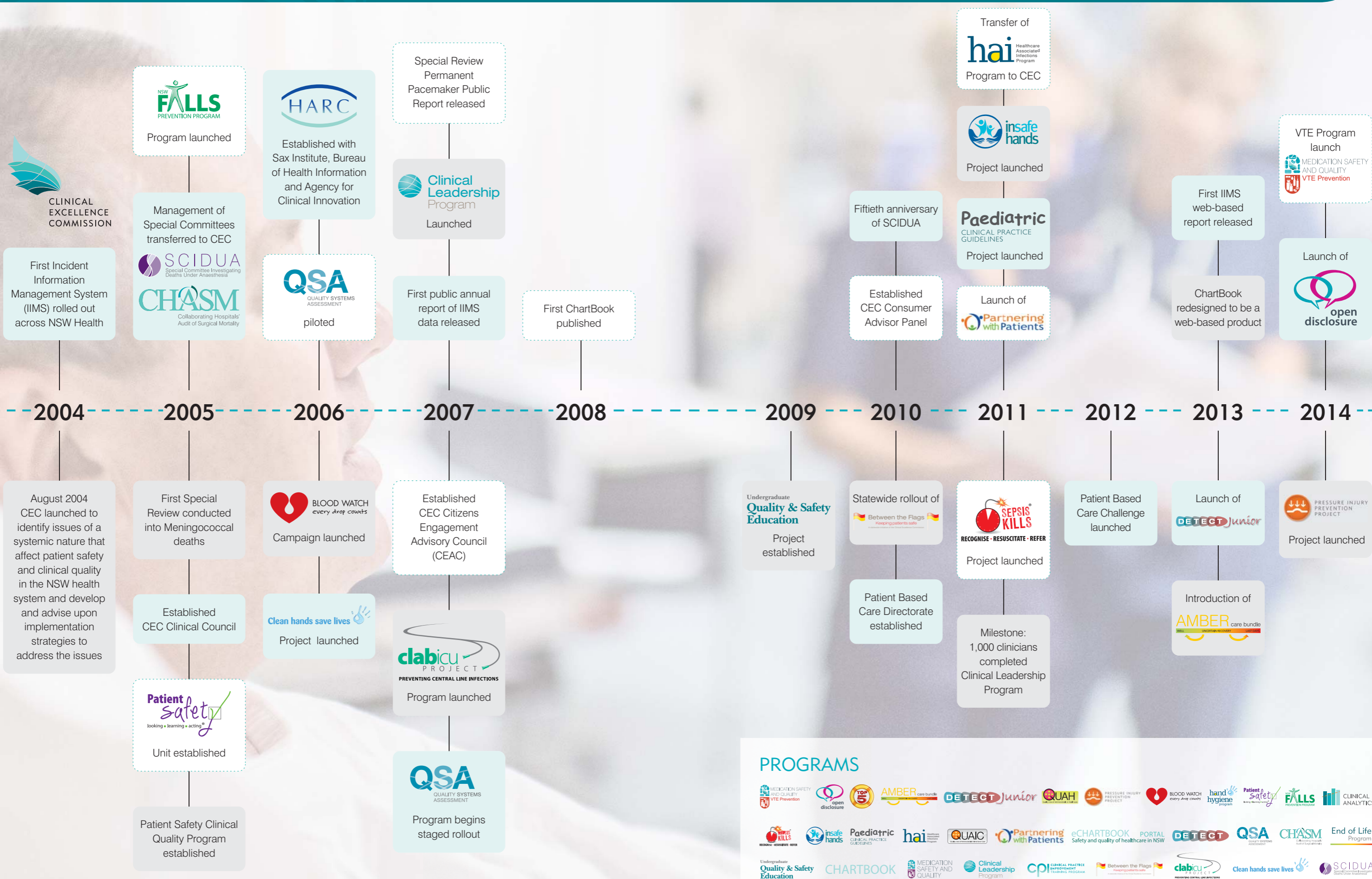
The CEC's first ten years make for an interesting reflection, while posing the greater challenge of 'where to from here?'. We think the future looks exciting. We look forward to refining our meaning, purpose and contribution and to continuing to add realism to our values of Collaboration, Openness, Respect and Empowerment, in making NSW Health demonstrably better and safer for patients and a more rewarding workplace for staff.



Prof Clifford Hughes, AO



# TEN YEARS OF QUALITY AND SAFETY



## CELIA'S STORY



Celia Mahoney wins the award (if we invented one) of being the CEC's 'longest-serving employee'.

Celia started at the Institute of Clinical Excellence (ICE) in 2003, providing administrative support to the Patient Flow and Safety Collaborative (PFSC). Having just come out of an extremely busy and stressful job in the private sector, she was looking forward to taking on what looked, at face value, to be a "quieter" position for a short-term period, which would enable her to recharge her batteries.

The PFSC team were great to work with and the position met her expectations in being closer to home and a less stressful environment. However, it wasn't long before it proved to be "busy, busy, busy", with conferences to organise for 200+ people, toolkits to develop and events to manage. She found the work challenging but fulfilling and enjoyed meeting the many motivated staff across the State who wanted to improve the health system.

As part of the small ICE-age team that made the transition into the CEC in 2004, Celia has experience and corporate knowledge of the CEC that is difficult to surpass. She remembers the day when the new CEO, Prof Cliff Hughes, came in for morning tea with his wife, to meet staff prior to taking up the position.

She was at the CEC when it was a small unit based in Sydney Hospital, with limited resources and reliant on the hospital for infrastructure support. She was there when it moved over the road to the Reserve Bank building and later to Elizabeth Street. She was on board when the inaugural executive management team started and programs were introduced and expanded across the State. She was there when staff sat around the boardroom table and had input into selecting a new logo, with hearty discussion with the designers about what the 'wings' and colours might signify.

In summary, Celia has been part of the fabric and life of the CEC 'family' since its inception.

As the CEC grew and underwent structural and staff changes as part of broader NSW Health reforms, so did Celia's role. Her project-related activities reduced, while operational and corporate services support increased. What is now 'second nature' to her, in getting new staff on board, in terms of payroll, computer access, security passes and orientation support, dates back to those early days. Counting temporary and permanent appointments, Celia calculates she has probably 'set-up' and inducted at least 200 staff over the last ten years.

Celia can see many changes between 'then' and 'now', in terms of CEC's staff base, program base and reach. Today, the pace of life is a lot faster, with little 'down time'. In addition to keeping on top of the many policies, there are multiple dealings with building managers and contractors to get equipment fixed or in place. There are discussions with Statewide support personnel to get new HR technology rolled-out and staff correctly paid. Building up networks and being nicely persistent has proven a very useful strategy in meeting deadlines and getting things done.

When asked to come up with one word to describe her experience at CEC over the last ten years, Celia replied: "met some great people over the years – some of whom I am still in contact with today; committed hard-working colleagues; a tremendous learning curve; proud to be part of something that has achieved so much over 10 years".

Obviously, some experiences can't just be summed up in one word!

## LORRAINE'S STORY



Lorraine Lovitt is one of a small posse of staff that has been at the CEC since it hung up its shingle at Sydney Hospital in 2004. Her involvement and experience within the NSW health system, however, extends way beyond this.

Lorraine's foray into NSW Health began as a trainee nurse at Armidale and New England Base Hospital. Completing her nursing and midwifery training at Royal North Shore "a few years ago", her working life has covered an extensive range of clinical areas in northern Sydney and the Sydney CBD.

Like an "I've been everywhere ..." track, Lorraine has worked with mentally disturbed adolescents; been part of a home nursing team; been Deputy Matron at a community hospital specialising in rheumatology and orthopaedics ("a cool place with all the skiing and rugby injuries"); developed clinical resources at the UNSW Medical School around nurse engagement and HIV; run healthy lifestyle programs and vacations for the elderly as part of a Statewide senior adult health promotion unit; nurse unit manager (rehabilitation); CNC in Aged Care; Area Co-ordinator for Aged Care; long term board member for a non-profit Aged Care provider; discharge planner at a busy metropolitan hospital; manager of a large private nursing service; and developed the first NSW Statewide discharge policy.

She was also in the vanguard of the innovative and rapidly rolled-out ComPacks initiative; co-ordinated the rollout of area health service dementia CNCs and Statewide Patient Flow and Chronic Care Collaboratives; and, last but not least, has been Program Lead for the CEC Falls Prevention Program since 2005. Clearly, she is very adept at meeting new challenges!

When Lorraine started at the CEC, things were "pretty humble", as it started to find its feet, with limited office space and staff, but a lot of enthusiasm and goodwill. Soon, things became more established, with partnerships forged with the Ministry of Health and local health districts around patient safety and clinical quality.

As part of this, a Statewide model and plan for falls prevention was rolled-out, which Lorraine has co-ordinated since 2006. A key component of the program's success has been the Falls Co-ordinators collaborative that meets regularly to share resources, ideas and energy. So sustainable has the network been that, even with recent restructures, two of the original co-ordinators – Patsy Burke and Margaret Armstrong – are still part of the team.

Spurred on by wedding bells and the call of the mid north coast, Lorraine was instrumental in helping the CEC establish its first rural office in 2008 at Coffs Harbour, where she is now based. She enjoys having the mixture of an on-the-ground presence and links to the CEC for collegial support.

Lorraine has seen many changes within the CEC and the broader NSW health system over the last ten years. She considers the National Safety and Quality Health Service Standards, rolled out in 2013, with 'preventing falls and harm from falls' as Standard 10, as a particularly significant change in helping to foster a standardised and collaborative approach to improved patient care.

As a CEC team member, Lorraine has enjoyed the professional development of her skills and experience, including completion of the CEC Executive Clinical Leadership Program, collegial support and challenge, exposure to innovations and ideas, networking with professional partners inside and outside NSW Health and the expanding reach, recognition and influence of the CEC.

Looking forward, she sees that the biggest challenge facing the CEC is not only to improve our health system and make it safer for our patients, but to work in an engaging way with clinicians, so they want to work with us in helping meet this goal.

Fortunately, Lorraine has the stamina and commitment for another ten years to help the CEC achieve this goal!

# IMPROVING PATIENT CARE

## SANDY'S STORY



Sandy Everson has worked as a registered nurse for 26 years, where she has crafted a career in aged care. She spent three years studying nursing with the Cumberland College of Health Sciences, completed a postgraduate Diploma in Gerontology at Sydney University and worked as a Dementia Care Facilitator in an aged care facility.

She has worked as a Clinical Nurse Specialist in Aged Care, as a Registered Nurse – General Medical and has held a number of nursing roles since moving to Coffs Harbour in 2000. She is currently an Aged Care Clinical Nurse Specialist (Grade 2) working in the Medical Unit at Coffs Harbour Health campus which has 48 beds and encompasses about ten different specialities. The focus of her role is to improve the care and management of confused hospitalised aged patients, including those with dementia or delirium.

Sandy has seen dramatic changes in nursing, compared to when she first started. "There is a higher level of education for new nurses nowadays. They have a higher level of knowledge and skills when they start", she says. "The major change is the type of patients that are admitted into hospital. Self-caring patients used to be in the wards for longer periods of time, but the model has moved more toward community and home care, meaning that patients are not kept in acute care unless it is absolutely required."

In 2012, the CEC engaged with 21 hospitals throughout NSW to implement the TOP 5 initiative – a framework for clinicians to work with family and carers, to capture tips for effective communication

and personalised care for patients with dementia or other cognitive impairments. Sandy's nursing unit manager presented the concept of TOP 5 after the unit was invited to participate in the initiative. "TOP 5 seems to be the simplest of effective person-centred care strategies", she says.

The program has been well received and has been a major change implementation, led by senior executive, the nurse unit manager, through to all staff. Sandy notes the implementation has been successful, because CEC and local leaders have worked with all staff to make sure they understand what the program is about and the benefits that come from it. "We have about 75 staff on the ward, so we developed an education calendar and introduced all staff to the materials.

"I've noticed a real change in the culture of care on our ward. Previously, if patients were confused, staff would be looking to give medications to settle them. With education, there is more awareness and confidence in managing behaviour of patients with dementia and delirium, by using person-centred care strategies such as TOP 5.

"Preferred name is a major tip that makes a huge difference for nurses to engage with the patient". Sandy also notes that the TOP 5 gives staff information on the patient's likes and dislikes and helps staff to understand their baseline function. "It removes assumptions around patients' abilities and functions", she says.

"The strategies provide staff with a means to engage the patient and can be a lifesaver to help with managing behaviours", says Sandy. "We had a gentleman with severe dementia who had significant behaviour symptoms, including agitation and shouting. The nursing staff were able to use the TOP 5 care strategies to talk gently with him, to engage his old memories about where he grew up, about his days surfing at his favourite beaches and about how he made hand paddles for surfing the waves. Using these strategies, the behaviour settled without having to use medications."

By prescribing fewer anti-psychotic medications, the patient is more likely to have a reduced length of stay, fewer complications and have a lower risk of falls. The TOP 5 strategies help to improve the quality of care provided to patients, their hospital experience and their quality of life.

For Sandy's team, the next steps are sustaining the program in a busy ward with ongoing demands and continuing to build support for the program by all staff, including doctors and the allied health team. "Our nursing team are seeing the importance of developing the TOP 5 care strategies and the benefits that come with them." Phase 2 of the program is looking at how the TOP 5 can be embedded across the hospital, so the strategies can be developed at the point of admission.



For people with cognitive impairment, an acute admission to a health service is an event that often causes distress and anxiety. Hospitalised people with dementia tend to have poorer clinical outcomes from their admission, and are more likely to experience adverse events while hospitalised. By 2050, it is predicted that the number of people in NSW living with dementia will increase to 341,000.

The TOP 5 initiative acknowledges the value of carer information about people who have memory and thinking problems and utilises this information to reduce levels of stress and anxiety.

The principles of TOP 5 are:

- T – Talk to the Carer
- O – Obtain the information
- P – Personalise the care
- 5 – 5 strategies developed

It involves talking with the carers when the person is admitted to gain non-clinical information that will help to personalise the care for that person. The information is then made available to every member of the health care team who will interact with the person.

The TOP 5 concept was conceived in the Central Coast Local Health District (CCLHD), with a pilot study involving five wards.

Supported by two grants from the HCF Research Foundation, the CEC is investigating the impact of TOP 5 across NSW for staff, carers of hospitalised patients with dementia and patient outcomes.

Key Achievements

Implementation

During 2013, the TOP 5 program was successfully implemented in 21 hospitals across NSW. To support services in the implementation and evaluation, a toolkit and resources for hospital settings were developed and made available on the CEC website.

Evaluation of the original program has indicated that TOP 5 is a low cost patient based strategy for patient care. It is associated with improvements in patient outcomes, safety, carer experience, and staff work environment, whilst providing potential cost savings to health services.

Transfers of Care

Following a second grant from the HCF Research Foundation in May 2014, the TOP 5 program was expanded to look at the transfer of care and communication across health care settings. It aims to improve the care for people living with dementia, before, during and after their transfer between facilities.

It includes ten of the original participating hospitals, plus residential aged care facilities and community services.

To support the implementation of the expanded program, pre-implementation teleconferences with local site contacts and clinical champions were held. These provided an introduction to the program and the steps required for effective implementation of the program. On-site visits were also completed, to provide education on the program, the principles, and evaluation components.

Specific TOP 5 Residential Aged Care Facilities and Community Services toolkits and resources have been developed to support, implement and evaluate the program in participating facilities.

Partnerships

The CEC will continue to work closely with local health districts, the Ambulance Service of NSW, residential aged care facilities and community services to support the uptake and sustainability of TOP 5.

Representatives from the Agency for Clinical Innovation and the Carers Support Unit (CCLHD) are on the TOP 5 Steering Committee, which is chaired by the Director of Clinical Governance from the Mid North Coast Local Health District. Consumers and clinicians are also represented.

Future Directions

The program will continue to work to improve outcomes for people living with dementia across health care settings. It will also work with key organisations to further promote the uptake and sustainability of the TOP 5 program.

An evaluation of TOP 5 across health care settings is underway. The first report will be made available towards the end of 2014.



# AMBER CARE BUNDLE



In 2012, the CEC's Quality Systems Assessment program identified that one of the major challenges for clinicians in providing end-of-life care was initiating patient and family discussions. Early identification of people who may have end-of-life care needs is the foundation for providing safe, high quality care. It enables appropriate planning, transfer, interventions and communication with the person and the family.

The AMBER care bundle is a systematic approach for multi-disciplinary teams to follow, when clinicians are uncertain whether a patient may recover and are concerned that he or she may only have a few months to live. It encourages clinicians, patients and families to continue with treatment, in the hope of a recovery, while talking openly about preferences and wishes and putting plans in place to prepare for end of life.

The AMBER care bundle was developed at the Guy's and St Thomas' NHS Foundation Trust in the United Kingdom and has been localised for use in NSW health care facilities. It is consistent with both State and national directions in improving the provision of safe, quality end-of-life care.

## Key Achievements

A pilot study undertaken between October 2013 and May 2014, assessed the transferability of the UK AMBER care bundle to the NSW health system. Seven facilities participated, four from metropolitan local health districts (LHDs), the remainder from rural LHDs.

LHD	Hospital	Ward/Department
NBM	Blue Mountains Hospital	Medical/Aged Care
NBM	Nepean Hospital	Medical/Aged Care
SSW	Campbelltown Hospital	Cardiology
NNSW	Murwillumbah Hospital	Medical/Aged Care
SES	St George Hospital	Aged Care
SES	Sutherland Hospital	Medical/Aged Care
WNSW	Orange Base Hospital	Medical

While all sites had small numbers of patients commenced on the AMBER care bundle, there was sufficient evidence to show that the UK tool could be used in NSW.

Some of the main findings and opportunities from the pilot related to the branding of the program; improving clarity around how the AMBER care bundle is different from what teams were already doing in patient management; improving clinician (both medical and nursing) engagement; and better defining the roles and responsibilities for team members.

The main recommendations from the pilot were that CEC:

- act on the findings and opportunities identified through the pilot phase
- implement the AMBER care bundle across NSW facilities from July 2014
- develop a training and education strategy to support implementation and practice change.

## Future Directions

Stage two of implementing the AMBER care bundle will be undertaken over the first half of 2014/15 and will act on the findings and opportunities identified in the pilot.

The results from the second phase of the pilot study will support the refinement and full implementation of a care bundle that is a valuable resource for improving end-of-life care across NSW Health.



# PARTNERING WITH PATIENTS



Patient-based care is focused on the person, rather than a disease or medical condition. It recognises that patients, families and carers should be an integral part of our health care teams. There is a growing realisation that health outcomes and the patient experience can be improved through partnering with patients, their families and carers.

The Partnering with Patients program supports local health districts across NSW to transform services, to include patients and family as care team members and to improve consumer engagement, to promote safety and quality in health care. It provides strategic advice, guidance, program materials, practical support and training. It works across all levels of health to promote patient engagement.

- Excellence in patient-based care is achieved through:
- improving communication and information sharing
  - engaging patients, families and carers and treating them with dignity and respect
  - fostering collaboration in governance, program and policy development
  - consumer engagement in health service design, delivery and evaluation.

## Key Achievements

### The Patient-Based Care Challenge

The Patient-Based Care Challenge provides a strategic framework and recommendations to assist health services in improving patient-based care. It is based on international evidence from leading health services that have improved their patient focus and patient care experience.

In 2013, the Partnering with Patients program released an online guide to support LHDs in rising to the challenge of patient-based care. At 30 June 2014, 95 per cent of LHDs had committed to the Patient-Based Care Challenge. This helps health services to achieve

performance goals and National Safety and Quality Health Service Standards. Program streams, such as REACH (for patient- and family-activated escalation of deteriorating patients), continue to expand and support the uptake of the Challenge.

### Health Literacy Guide

Poor communication, information provision and signage, can present barriers for patients engaging with health services. In 2013, the Partnering with Patients program released an online guide to health literacy issues, assisting health services with resources to address barriers experienced by patients. It provides practical support to LHDs and aligns with the National Safety and Quality Health Service Standards.

### Partnerships 4 Safety and Quality

The CEC's continued focus on building partnerships with patients, family and carers culminated in a seminar bringing together international experts, consumers, clinicians, researchers and policy makers. Practical strategies for partnership are highlighted through the ongoing work of the CEC's consumer advisors on a range of programs, initiatives and events.

### Keeping all communities safe

A program focusing on *Safer Use of Medicines through Better Communication*, was developed in conjunction with the NSW Multicultural Health Communications Service and NPS MedicineWise. It promoted the benefits of better communication to improve medication safety for culturally and linguistically diverse (CALD) patients.

Evidence suggests that multicultural patients, especially those with limited English, are at a significantly higher risk of harm than those who speak English well. For CALD patients, 49 per cent of incidents result in some physical harm. This is 20 per cent higher than English-speaking patients. The program, launched in Multicultural Health Week, raised awareness about the effect of miscommunication between health care professionals and patients and the impact on medication safety incidents.

## Partnerships

The Partnering with Patients program works closely with the Australian Commission on Safety and Quality in Health Care, the NSW Ministry of Health, local health districts and other pillar agencies.

Representatives from the Agency for Clinical Innovation, the Bureau of Health Information, NSW Kids and Families, Health Consumers NSW, Community Participation Managers' Forum, National Health Performance Authority and the World Health Organization Patients for Patients Safety are involved in the Partnering with Patients Advisory Committee.

The program auspices a health literacy network, that includes representatives from the Australian Commission on Safety and Quality in Health Care, NSW Health Care Complaints Commission, The University of Sydney School of Public Health, NPS MedicineWise and the CEC Consumer Advisor Panel.

## Future Directions

Initiatives will be implemented to promote patient engagement in improving hand hygiene and avoiding diagnostic error.

A resource will be developed to support consumer engagement in improving safety and quality, based on the Partnering with Patients program.

Materials to support LHDs with patient-based visitation will be released, aligning with The Patient-Based Care Challenge.



# EARLY RECOGNITION & PREVENTION

## KIM'S STORY



Kim Cornish has been a nurse since 1990, working mainly in emergency and intensive care. She has worked at a number of public hospitals throughout Sydney and spent five years in the UK in emergency, before returning to Sydney in 2001. She is now a Clinical Nurse Educator working in one of Sydney's private hospitals.

Kim had always been healthy and active. In 1995, however, six months into her first pregnancy, she was on an afternoon shift, when she started to feel unwell and went home sick.

Thinking it was a bad flu, she saw her GP the next morning. He agreed and recommended paracetamol and rest. However, with a raging fever and shivering, she saw another GP for a second opinion. He also suspected a bad flu and recommended rest and paracetamol.

By 5pm that afternoon, she was feeling horrible and called her mother, who recommended she go to hospital. On arrival, the doctor took blood cultures and suspected a urinary tract infection. She was sent to a ward, where she was given fluids and oral antibiotics. Kim recalls the pain being horrendous. "I spent most of the night screaming into the pillow."

A work colleague happened to come past her on the ward and they discussed her treatment. This prompted a medical review and doctors suspected she may have contracted tuberculosis, following her last shift in intensive care unit. Tests were conducted and it was confirmed that she had contracted *Staphylococcus Aureus* and was septic.

Kim was sent for further tests to try to find the source of the infection, but nothing could be identified. She was eventually moved to a pre-natal ward where she continued treatment.

One night she started to get severe abdomen pain, which lasted well into the morning. She was speaking with her mother, who suggested that all her symptoms sounded like she was in labour and to alert the nursing staff. The nurses monitored her and confirmed that she was in the early stages. She was given a steroid to try to stop the labour, as she was less than 31 weeks pregnant.

The next morning, doctors performed an amniocentesis – a medical procedure whereby a needle is inserted into the amniotic sac via the abdomen, to check for a foetal infection. When the needle was inserted, the doctors removed pure pus. They'd found the source of the infection. Unfortunately, some of the bacteria got into Kim's bloodstream and her body started to react violently. It was recognised that they needed to get the baby out.

Due to the infection, she could not have a caesarean section and was induced. Doctors made her aware there was a significant risk that the baby may not survive because of the infection and that she was delivering at 31 weeks.

Kim delivered a baby girl who took a breath when she was born, before having a breathing tube inserted and moved to the neonatal intensive care unit. Fortunately, her baby only required the breathing tube for nine hours before breathing on her own. She remained in the ICU for two months.

Kim realises now how the experience has transformed her. "When a patient tells me something now, I absolutely listen. Their story, along with the non-verbal cues and history, helps put the puzzle together. What patients need to know is that you are there for them and you are listening.

"I also found it became much easier to detect sepsis after being through it. Sepsis wasn't something on the 'normal' radar in most emergency departments, but knowing how it feels and what it looks like, meant I could relate. From my own experience, I realise that patients don't like to interrupt or question anything that is being said, so being their advocate and working with them makes a huge difference", she says.

As a part of her current role, Kim has shared CEC's sepsis pathway around her hospital. "Teams can use the pathway as a structured approach to help identify and diagnose potential sepsis. Even an inexperienced nurse could use the pathway, and save someone's life", she says.

She has also been approached by the emergency department director, who expressed a desire to implement the pathway across their hospital.

"I love nursing now more than ever", says Kim. "I would say I've grown into it."

# SEPSIS KILLS



## RECOGNISE • RESUSCITATE • REFER

Sepsis is a life-threatening condition that arises when the body's response to infection injures its own tissues and organs. It is difficult to diagnose and requires immediate clinical care. Appropriate recognition and timely treatment of patients with severe infection and sepsis is a significant worldwide problem in health care.

The CEC's SEPSIS KILLS program is working with clinicians and health service managers to improve the recognition and treatment of sepsis to reduce its impact, mortality and financial costs in NSW. The program was launched in May 2011 in NSW public hospital emergency departments and has been expanded to inpatient wards in 2014.

The program is based on three key actions:

- RECOGNISE**  
the risk factors, signs and symptoms of sepsis
- RESUSCITATE**  
with rapid intravenous fluids and intravenous antibiotics
- REFER**  
to appropriate senior clinicians and teams, with retrieval if needed

Sepsis is one of the top causes of clinical deterioration in hospital and it is estimated that approximately 30 per cent of patients who require a Rapid Response are septic. There are direct links with the Between the Flags (BTF) system, which ensures an integrated and comprehensive approach to recognition and management of the deteriorating patient with sepsis.

The program has attracted national and international interest from clinicians, clinical managers and quality improvement personnel, seeking to utilise the sepsis resources available on the CEC website.

## Key Achievements

### Implementation in hospital wards

The Inpatient SEPSIS KILLS program was launched in May 2014. The Inpatient Sepsis Toolkit provides tools and resources to implement and evaluate it. Pilot studies have been undertaken in a range of metropolitan and rural settings, in both adult and paediatric wards. Lessons learnt have been applied in the development of the program, which is being progressively introduced in wards throughout NSW.

### Implementation in emergency departments

In 2011, 50 emergency departments (EDs) enrolled in the program. This has increased to 180 EDs across NSW in 2014. Sepsis Program Leads in local health districts have provided strong support to embed systems to monitor and sustain improvements in the care of patients. Patients with sepsis are being treated urgently and NSW aggregate time to treatment exceeds international benchmarks.

The paediatric sepsis pathway, antibiotic guidelines and education resources were launched in May 2013. More than 145 EDs are utilising the paediatric sepsis pathway and it continues to be rolled-out to EDs across NSW.

### Education

A program of 'Sepsis Learning Sessions' for clinicians, has been provided via Webex and teleconference on a range of sepsis-related topics. They have provided clinicians with clinical education and lessons from EDs and wards implementing the program.

A short video has been developed to promote the SEPSIS KILLS messages and is available on the CEC website. A sepsis eLearning module has also been developed, in collaboration with HETI, to enable clinicians, in any setting, to learn about best practice in sepsis recognition and treatment.

## Future Directions

There will be a focus on embedding the inpatient program within the deteriorating patient strategy in all acute care public hospitals in NSW. This will ensure that patients with sepsis are appropriately identified, escalated and treated within the framework of the Between the Flags system.

The CEC will continue to engage with and provide support to LHDs and networks to implement and evaluate the program, working closely with Sepsis Program Leads in LHDs, executive sponsors and clinical leads.

Processes to incorporate the sepsis pathways with the electronic medical record and other existing health software programs will be investigated. This will help clinicians to identify patients with sepsis, enable relevant data collection and a means to monitor performance.



# BETWEEN THE FLAGS



Failure to recognise and appropriately manage deteriorating patients is a significant issue, not only in NSW public hospitals, but in hospitals and health care organisations around the world. While many hospitals have cardiac arrest teams, their response is normally only triggered when a patient's condition becomes critical.

The Between the Flags (BTF) program is addressing this issue. BTF helps staff to identify early warning signs of deterioration and provide an appropriate response.

The program uses the analogy of Surf Life Saving Australia's lifeguards and life savers, who keep people safe by ensuring they are under close observation and rapidly rescue them, should something go wrong.

Between the Flags has a five element strategy, which is essential to its long-term sustainability.

1. A governance structure in each local health district and hospital in NSW, to oversee the implementation and sustainability of the program.
2. Standards for the criteria used for early recognition of the deteriorating patient (clinical observation and 'track and trigger' system), incorporated in standard observation charts e.g., the Standard Adult General Observation Chart (SAGO).
3. Standards for a process for escalation of concern and response to the deteriorating patient (Clinical Emergency Response System).
4. Education packages for all staff to give them the knowledge and skills to recognise and manage the deteriorating patient confidently.
5. Standards for key performance indicators to be collected, collated and applied to inform the users of the system and those managing the implementation and continuation of the program.

## Key Achievements

The policy directive underpinning the Between the Flags program 'Recognition and Management of Patients who are Clinically Deteriorating,' was revised, updated and released in December 2013, in collaboration with the NSW Ministry of Health, local health districts, specialty networks and pillar agencies. The new policy incorporates standards and principles for improving the recognition, response to and management of, paediatric and maternity patients who are clinically deteriorating.

Following a Statewide consultation process, the Standard Adult General Observation and Standard Paediatric Observation Charts (SAGO and SPOC) were revised. The review provided the opportunity to reinforce the importance of discretion and clinical judgement in caring for patients with early signs of deterioration. The release of the new charts meant that those hospitals that had not yet made the transition to the program are now using the Standard Observation Charts. Therefore **every** public hospital in NSW is now using the Between the Flags program to improve the early recognition and management of patients who are clinically deteriorating.

The British Medical Journal – Quality and Safety published the first article about BTF in April 2014. 'Between the flags': implementing a rapid response system at scale, co-authored by CEC's Prof Cliff Hughes and Dr Charles Pain, introduced the *Between the Flags* program to the international literature.

## Partnerships

### Local health districts

Local health districts, directors of clinical governance and their teams have been critical to the success of BTF. The CEC supports LHDs by establishing standards and developing tools and education required for implementation. The BTF team regularly visits LHDs. The CEC also chairs a meeting of directors of clinical governance, clinical leads and Between the Flags project managers monthly. This provides an opportunity for feedback and recommendations on the effectiveness of the program's implementation at their local level.

### NSW Ministry of Health

Representatives from the Ministry of Health provide expert advice on their specialty areas and serve on the steering committee.

### eHealth (formerly HealthShare NSW)

CEC has worked closely with HealthShare NSW to incorporate *Between the Flags* into existing Health software programs. This relationship has encompassed work on electronic medical records (eMR), First Net, PowerChart and SurgiNet.

Other notable partnerships include:

- Australian Commission on Safety and Quality in Health Care
- Health Education and Training Institute
- Agency for Clinical Innovation
- NSW Kids and Families
- Sydney Children's Hospitals Network
- NSW Pregnancy and Newborn Services Network
- Ambulance Service of NSW
- Justice Health & Forensic Mental Health Network
- University of NSW
- Expert advisors on the Between the Flags steering and advisory committees.

## Future Directions

During 2014/15, the BTF team will collaborate with HETI to focus on improving the education component of the program. This will involve a complete revision of the current eLearning modules and their implementation in the new HETI online learning management system.

Continuing to embed Between the Flags as core business in clinical units is paramount to the sustainability of the program. The BTF team will continue to formalise the links with other deteriorating patient programs at the CEC and demonstrate to the system how these work together to keep patients safe.

Following the success of the first article published in the international literature, the CEC plans to write more papers for peer-reviewed journals to demonstrate the effectiveness of the program and the good work being done in NSW to improve patient safety and quality.



# FALLS PREVENTION PROGRAM



When an older person falls, it can have serious consequences, including a reduction in quality of life, disability, reduced physical activity, social isolation, functional decline and even death. Falls are a significant cause of potentially avoidable harm to older people and fall-related injuries impose a substantial burden on the health care and aged care systems.

Projections indicate that unless preventative measures are taken, the demand on health care will escalate due to the rapidly ageing NSW population. No other single injury, including road trauma, collectively costs the health system more than fall injuries.

The NSW Falls Prevention program provides Statewide leadership, co-ordination and collaboration to support the implementation of evidence-based falls prevention practices. The NSW Falls Policy Advisory Group provides strategic leadership and integration across a range of relevant health program initiatives. The NSW Local Health District (LHD) Falls Co-ordinator collaborative supports standardised approaches in the implementation of LHD falls plans.

Collaboration across many programs to improve outcomes for older people is important in preventing falls. Key links have been formed with ACI's Aged Health and Musculoskeletal Networks.

## Key Achievements

### *Consumer Consultation Workshop*

In December 2013, a workshop was held with representatives of a number of groups that advocate for, or provide support and services to older people and/or their carers and families. It explored ways to broaden the scope of consultation and work together more collaboratively to promote best-practice initiatives.

Key outcomes included agreement for continued engagement with this group, in both an advisory and advocacy capacity on behalf of patients, families and carers. It also led to developing information to prepare older people, carers and families about falls prevention interventions, to keep them safe if admitted to hospital.

### *Quality Systems Assessment (QSA) survey – Good Clinical Care to Prevent Falls*

Evidence from QSA site visits mirrors the QSA self-assessment findings, in that falls prevention strategies are highly evolved across most of NSW. Where local recommendations have been identified, they are most commonly aimed at reviewing medications to reduce falls risks and increasing the uptake of cognitive, delirium and malnutrition screening. QSA survey results indicate that in 86 per cent of cases, there is a standardised approach or protocol implemented around assessment and management for patients who have a fall during the admission.

### *April Falls Day/Month – Medicate right to stay upright*

The focus of the 2014 April Falls Campaign was improving awareness of the role of medication management in reducing the risk of falls. A range of resources was produced for hospital, community care and residential aged care staff and consumers. Information included flyers, logos, posters and PowerPoint presentations. This year, key April Falls messages were also tweeted.

### *Falls Prevention Resources*

A suite of resources has been developed to support the implementation of the National Safety and Quality Service Standards (NSQHSS) Standard 10: Preventing falls and harm from falls. They have been added to the Falls Prevention page of the CEC website.

## Partnerships

The CEC is a key partner of the NSW Falls Prevention Network. It provides support through professional development, advocacy and communication and through a research partnership with Neuroscience Research Australia. There are over 1,300 members, with an average 1,600 visits per month to the NSW Falls Prevention Network website.

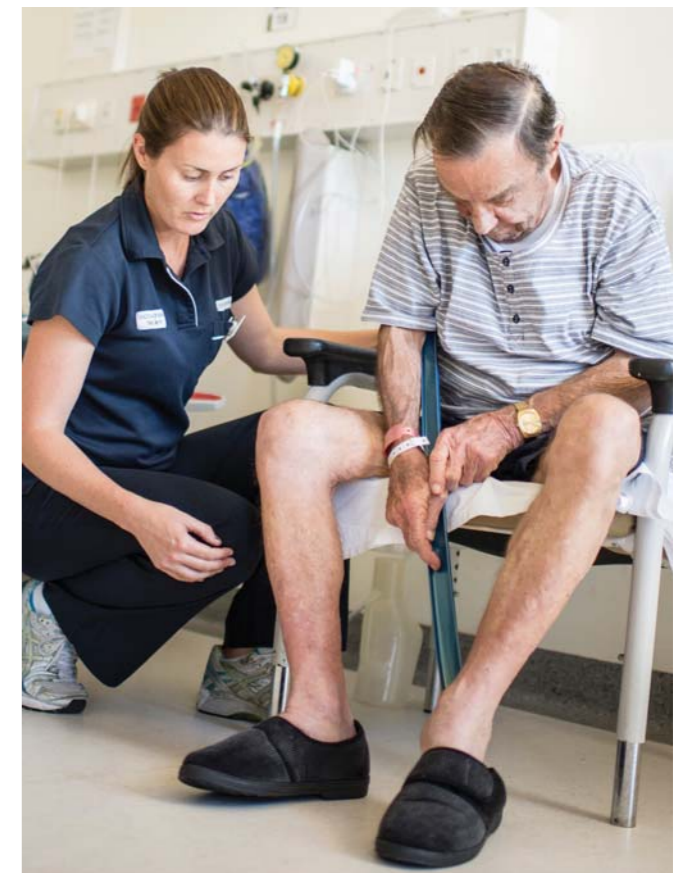
The network held collaborative rural falls forums in Batemans Bay and Coffs Harbour. It included a focus on falls and cognitive impairment, with latest falls research updates by researchers from Neuroscience Research Australia and the Agency for Clinical Innovation.

NSW Falls Prevention Network – Falls Links April 2014 provides a comprehensive overview of activities from across the State.

The NSW Falls Prevention Network Annual Forum, '*Balancing falls research into practice*', was held on 23 May, with over 330 people attending. This year, concurrent sessions provided a showcase of over 20 falls best-practice initiatives, presented by hospital and community staff from across the State.

## Future Directions

The program will continue to work to improve clinical practice in health care settings. It will also work with key organisations in identifying ways to improve access to appropriate follow-up for older people living in the community.



# PRESSURE INJURY PREVENTION PROJECT



## PRESSURE INJURY PREVENTION PROJECT

Many pressure injuries are preventable. It is recognised that their lengthy healing time has consequences for quality of life, including susceptibility to infection, pain, sleep and mood disturbance. They also impact on rehabilitation, mobility and long-term quality of life. The Australian Commission on Safety and Quality in Health Care (ACSQHC) has recognised pressure injuries as the fifth most costly commonly-occurring preventable condition.

The Pressure Injury Prevention project was established in October 2012. It promotes evidence-based practice for the prevention and management of pressure injuries and increases awareness among health care professionals.

It assists health professionals to:

- Identify patients at risk
- Identify strategies to assess pressure injuries and factors related to their risk
- Prevent or delay complications
- Optimise management of pressure injuries
- Optimise quality of life.

### Key Achievements

A steering committee established in February 2013 informs the project and support LHDs and networks to improve pressure injury prevention and management. It has representation from all LHDs and networks, with regular monthly teleconferences and bi-annual workshops. Five sub-working groups have progressed work to support the project, policy revision and its implementation.

On 25 March 2014, the CEC, in collaboration with NSW Health's Nursing and Midwifery Office (NaMO), launched the Pressure Injury Prevention Project at The Mint, Sydney. The 100 guests included wounds specialists, clinicians, senior nurse educators and health executives from across the State. The launch marked the release of the Pressure Injury Prevention and Management Policy and coincided with the 2014 Wound Awareness Week.

Central to the launch was the collaboration between the CEC, the Agency for Clinical Innovation (ACI), the Health Education and Training Institute (HETI), HealthShare and NSW Health's NaMO, in developing resources to assist clinicians in the prevention and management of pressure injuries. Each organisation, along with the Australian Wound Management Association (AWMA), delivered a presentation on its current work and featured resources and interactive tools on information stands.

Special guest speaker, A/Prof William McGuiness, National President of AWMA, presented on the evolution of pressure injury prevention to where we are today, with a focus on risk management. Work continues internationally to standardise approaches to pressure injury prevention and wound management.

To support the project, new resources were developed and relevant links made available on the Pressure Injury Prevention project page of the CEC website. Materials include:

- A patient information brochure, *Pressure Injury Prevention – Information for Patients and Families* (translated into eight languages)
- Monitoring and Auditing Framework and documentation pack
- Policy implementation guide
- The pressure injury classification system
- Links to pressure injury prevention resources.

The CEC has supported the project and policy implementation, by delivering presentations to LHD and network executives, providing regular updates via the Senior Executive Forum and arranging visits to LHDs and networks to attend forums and deliver presentations.

### Partnerships

The CEC continues to work closely with NSW Health's NaMO, with the Chief Nursing Officer being chair of the steering committee. A collaborative approach with the ACI, the HETI and HealthShare has ensured that new resources are available for Statewide use.

### Future Directions

The CEC will continue to promote evidence-based practice to clinical staff, while ensuring that patients, their family and carers are involved in their care planning. There will be a focus on engaging with, and providing support to, LHDs and networks to implement the policy.



# IMPROVING CLINICAL PRACTICE

## LINDY'S STORY



When Lindy Ryan started as an infection control practitioner in 1998, it was quite a change going from the floor to an office. She started in nursing in 1984 and worked in a number of hospitals across Sydney, before travelling to the UK working in private home care nursing. She returned to Australia, working at Hornsby Hospital as a Clinical Nurse Specialist in Intensive Care and Coronary Care, before becoming the Acting Clinical Nurse Consultant in Infection Control. In 1999, she was successful in her application for the position of Clinical Nurse Specialist Infection Control at Nepean Hospital.

Lindy was involved in the initial pilot program, Hospital Infection Surveillance Systems in 1998 and has seen infection control become an increasing priority over the last 16 years. Many changes in the health system have impacted her role, including the change from area health services to local health districts, as well as other factors such as the Garling Report and the Hand Hygiene project.

Lindy recognises that one of the key points was when mandatory data was reported and the hospital executive became accountable. Coupled with the focus from the then Department of Health, infection control had an increased profile and much of the work she had been trying to implement gained strong support from key leaders in the organisation.

She has also seen a shift in the way information is being viewed. "The focus used to be solely on the data, but there is an increasing focus on quality as well", she says. "Looking at it slightly differently, data is information without outcomes, whereas quality is information coupled with leadership that improves outcomes."

She also notes the role of the CEC's Healthcare Associated Infections program, which supports local health districts to improve systems to manage and monitor the prevention and control of HAIs. "Having a team of experienced staff available who listen and who understand the issues and culture of infection control professionals makes a huge difference."

Lindy still spends a lot of her time on the wards engaging with staff and patients. "At the end of the day, I am still a nurse and happy to help where I can. I don't think nursing really leaves you – you still have empathy for people and in my role it is important to be at the coalface and see what is happening."

More recently, she has been focused on ownership of issues and pre-empting any potential problems, concentrating on compliance, rather than infection rates. "By counting infection rates, the infection has already happened and we have not addressed the underlying cause. We are being proactive, rather than reactive and developing quality improvement plans.

"I see my role as being there to support staff to give quality care. I try and support teams to make their own informed decisions. This way, they are providing the best care for a patient and they are doing it because they want to – not because they've been told they have to."

The reward behind Lindy's work is that Nepean Hospital is in the top three hospitals nationally for hand hygiene compliance. "We've extended the hand hygiene focus to everyone in the hospital, across all staff, as well as patients and visitors, making hand hygiene everyone's business.

"A while back, our performance dropped, so we worked with clinicians and changed our processes and now we focus on three areas: we are immediate, we are human and we prioritise. It generates buy-in, because it's not about blame. By asking questions, we are half way to solving the problem.

"With the support of the CEC, we are in a better position to demonstrate improved patient outcomes."



There are around 200,000 healthcare associated infections (HAIs) in Australian health facilities each year, making them the most common complication affecting patients in hospital. They not only cause great suffering to patients. It is estimated that two million bed-days are lost to HAIs in Australia each year.

HAIs can occur in any healthcare setting, but it is possible to reduce the rate significantly by effective infection prevention and control. Prevention is the responsibility of everyone who works in health, regardless of location or position. Everyone – staff, patients and their visitors – have a role to play in the reduction of HAIs.

The HAI program assists local health districts (LHDs) to improve systems to manage and monitor the prevention and control of HAIs, by providing guidance, clinical advice and input on the development of related policies and guidelines.

### Key Achievements

The HAI Steering Committee continues to provide strategic advice about HAI prevention and control in NSW. It is supported by the HAI Expert Advisory Sub-committee, HAI Sterilisation Services Working Party and HAI Environmental Cleaning Working Party. These committees provide advice on a range of complex issues.

In November 2013 and May 2014, the CEC conducted HAI education forums for infection control nurses, infectious disease physicians, medical microbiologists and antimicrobial stewardship pharmacists from across NSW. Participants were updated on recent developments from the CEC, while the forums' content included accreditation requirements under the National Safety and Quality Health Service Standards – Standard 3 (on HAI prevention and control), strategies for communicating HAI messages, engaging and changing clinical behaviour and antimicrobial stewardship programs.

Peripheral intravenous cannula (PIVC) insertion is an invasive procedure with potential for serious immediate or delayed complications, including the risk of infection. A guideline on the principles for the safe insertion, management and removal of PIVCs in adult patients in NSW Health facilities was released by the CEC in November 2013. It aims to minimise complications from the procedure.

A review of current NSW Health infection control policies is underway, all nine being consolidated into a manual, with one overarching infection control policy. These documents, which outline and mandate infection control and HAI management within NSW public health facilities, will be due for release in late 2014.

Staphylococcus aureus bacteraemia (SAB) data has been reported nationally four times since July 2013. It shows levels of SAB across NSW are below the national benchmark and there has been a slight reduction. The data has been published in the Report on Government Services 2014 (Australian Productivity Commission), Australian Hospital Statistics 2012–13 (Australian Institute of Health and Welfare), Hospital Performance: Healthcare-associated Staphylococcus aureus bloodstream infections in 2012–13 (NHPA) (C2, P3, L8) (National Health Performance Authority) and Australian and New Zealand Intensive Care Society, Central line associated blood stream infection, national report 2012-13. Individual hospital data is available from the MyHospital website <http://www.myhospitals.gov.au/>

### Partnerships

Much of the program's success would be unachievable without significant input from HAI experts and others from the LHDs, the Agency for Clinical Innovation, the Bureau of Health Information, the Health Education and Training Institute and the NSW Ministry of Health.

HETI has provided expertise and input on the development of training materials.

Health Infrastructure, HeathShare NSW and eHealth seek advice and partnerships with the HAI program, in development of documents and programs, such as the electronic medical record.

The program is working with the Australian Commission on Safety and Quality in Health Care to help define national initiatives, support quality practice and define HAI surveillance.

### Future Directions

Catheter associated urinary tract infections (CAUTIs) occur when germs (usually bacteria) enter the urinary tract through the urinary catheter and cause infection. CAUTIs have been associated with increased morbidity, mortality, health care costs, and length of stay. A CAUTI prevention project is under way to reduce their incidence. A range of tools is in final stages of development, with a Statewide release planned for 2015.

Other areas of focus include the release of the infection control policy and manual; completion of the HAI Clinical Indicator

Surveillance Manual; a review of the current notification methodology, with a view of creating a more streamlined web-based notification system; scoping the need for a stand-alone policy and guidelines for reprocessing of re-usable medical devices.





## BLOOD WATCH

every drop counts

Blood is a precious but limited resource. Although very safe, the use of blood does have some risks. There is strong evidence associating blood transfusion with adverse outcomes, including increased morbidity, mortality and length of stay.

The Blood Watch program aims to improve the sustainable, responsible, safe and appropriate use of blood and blood products. The CEC implemented the program in 2005, with significant support and participation from medical, nursing, scientific and executive partners within NSW Health and the broader Australian health care community.

In the initial years, key focus areas included appropriate use of red cells, establishment of local and State clinical governance frameworks, standardisation of education and other resources and implementation of clinician engagement and communication strategies. More recently, the program has expanded to include quality care, quality systems, safety and system efficiency. The National Patient Blood Management Guidelines and the implementation of the National Safety and Quality Health Service Standards have shaped the evolution of Blood Watch.

### Key Achievements

#### NSW Wastage Working Group (Efficiency)

The demand for blood is influenced by many factors and can change significantly. Minimum levels must be maintained to ensure that blood is available when clinically required. This means that a level of discard of blood products is inevitable and appropriate. When the level becomes inappropriate, it is defined as wastage. In partnership with the Office of the Chief Health Officer, the Blood Watch program has convened the NSW Wastage Working Group. It includes NSW Health Pathology, private pathology providers and the Red Cross Blood Service.

The purpose is to identify and develop systems to support wastage reduction in NSW (including the private sector) and to support NSW Health in ensuring a sustainable blood supply. It has progressed work on mapping the supply chain, improving the collection, analysis and dissemination of wastage data and collating and disseminating best practice opportunities in NSW. This work supports the National Blood and Blood Product Wastage Reduction Strategy 2013-2017.

#### Information and resources (Efficiency, Quality Care, Quality System)

In 2014, 'A general guide to blood transfusion: Information for patients and families' was reviewed, updated and redesigned to provide user-friendly information for consumers. The information is now available in 13 languages, with support of NSW hospitals in identifying specific language diversity in local areas. Informing consumers to enable active participation in their care is a core principle in health care, and is a criterion used to assess quality practice through the national accreditation process. Blood Watch has long provided consumer resources on blood for transfusion.

Blood Watch has undertaken red cell data linkage, providing transfusion and utilisation information for local improvement teams since 2006. The data is used locally and as a benchmark tool, for hospitals and specific specialty populations. Within NSW Health, there has been a demonstrated and sustained reduction in red cell use for admitted patients. In 2014, Blood Watch developed and disseminated transfusion process audit tools for hospitals. These support local monitoring of improvement and compliance with best practice for accreditation.

#### Haemovigilance (safety)

"Haemovigilance is required to identify and prevent occurrence or recurrence of transfusion-related unwanted events, to increase the safety, efficacy and efficiency of blood transfusion, covering all activities of the transfusion chain from donor to recipient" (World Health Organization)

In 2014, Blood Watch convened an expert reference group to analyse and format 2011-2013 transfusion-related incident data for inclusion in the National Blood Authority's National Haemovigilance Report. NSW has been providing information for inclusion in the national report since 2008, however the required detailed data set has not

been analysed. The Blood Watch program was able to provide a compliant data set for the first time, and has progressed a standardised methodology for ongoing analysis, reporting and feedback across the system.

### Future Directions

Blood Watch will continue to focus on the key elements of efficiency, safety, quality system and quality care and will build on our key achievements over the previous 12 months. This includes:

- Developing and implementing the NSW Wastage Reduction Plan, in collaboration with our key partners

- Implementing an audit strategy for Patient Blood Management and developing benchmark measures and KPIs for health services
- Working in partnership with national bodies, NSW pillar agencies, expert clinical groups and local health services, to improve patient access to PBM care principals in NSW
- Completing the retrospective analysis of NSW haemovigilance (2006-2011), to identify opportunities to improve the notification and management of adverse transfusion events
- Developing a process to improve the collection, reporting and analysis of data, to support ongoing haemovigilance requirements in NSW.





Clinicians caring for the same patients, in many clinical units typically operate in silos or isolation from each other. As a result, teamwork is not cohesive and causes deficiencies in communication and information sharing. This may lead to delays in the provision of care, an unco-ordinated approach to care planning, a poor patient experience, inefficiencies in patient flow and an adverse impact on patient safety.

The CEC introduced the In Safe Hands program in 2011, to provide a platform for building and sustaining efficient and effective teams within a complex health care environment. It is supported by 10 functions that enable teams to become a cohesive unit, placing patients at the centre of care.

Highly reliable clinical teams are developed and supported with relevant standards, tools, skills and resources. This empowers them to make good decisions based on a full understanding of the patient’s clinical condition and care needs. Greater teamwork and communication improves inpatient unit processes, which has a positive outcome for patient safety, patient flow and access to care.

Structured Interdisciplinary Bedside Rounds (SIBR) is a key tool currently being utilised to improve teamwork and communication for units implementing In Safe Hands. SIBR brings the team together around the bedside, to involve the patient in the planning and co-ordination of the care. Models for specific specialities (i.e., emergency, aged care) have been developed and are being spread across the system.

The CEC, through the In Safe Hands program, is supporting the NSW Ministry of Health’s Whole-of- Hospital Program.

Key Achievements

Orange Health Service, which was a pilot site for the program, received the 2013 Minister for Health and Minister for Medical Research Award for Innovation. From the University of NSW evaluation report on the implementation of the program in the Orange Health Service Acute Medical Unit, responses from staff have been overwhelmingly supportive of the program and its impact.

Fifteen units attended the In Safe Hands residential school, held at Orange in June 2013. Thirteen have implemented the program. The In Safe Hands team has since supported several hospitals in implementing the program across metro, regional and rural sites. A number of local health districts are utilising In Safe Hands as a method to improve teamwork and communication between members of health care teams across all their facilities.

A tool kit was developed to support facilities implementing the program. It includes guidance in implementing SIBR. The overall framework has been utilised as a foundation for the model of care for high-dependency units and medical assessment units. Clinical handover has been embedded into the program and is now a core component.

The success is due to health care teams taking ownership of the program throughout the planning and implementation phases, with clear leadership from senior nursing and senior medical staff. Early evaluation has shown improvements in process measures, patient and staff experience and patient safety.

Future Directions

The major goals are to continue to spread the program across NSW Health. This will involve working with health care teams on how to customise In Safe Hands to fit their unit.

The program will continue to support the NSW Ministry of Health’s Whole-of-Hospital program, by focusing on an interdisciplinary team approach to improve inpatient unit processes, such as care co-ordination and patient flow.

It will also continue to support the Agency for Clinical Innovation in improving the medical inpatient journey, through criteria- led discharge and clinical management plans.



# HAND HYGIENE



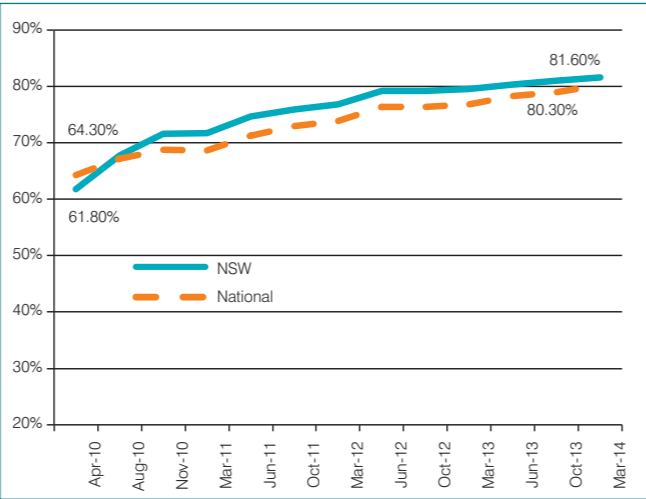
Healthcare associated infections (HAIs) are a significant and growing problem in our health care system. Improving hand hygiene among health care workers is the single most effective intervention to reduce the risk of HAIs in Australia.

Since February 2009, the CEC's Hand Hygiene program has led the implementation of the National Hand Hygiene Initiative (NHHI) in NSW. It is based on the *5 Moments for Hand Hygiene*, promoted by the World Health Organization's World Alliance for Patient Safety Campaign.

The Hand Hygiene program advocates and assists local health districts (LHDs) to improve and sustain the hand hygiene of health care workers. The aim is to help reduce the spread of potentially life-threatening infections in health care facilities.

## Key Achievements

NSW maintained its position above the national benchmark hand hygiene compliance rate and is the State with the highest compliance rate. NSW public hospital compliance rates continue to improve in every audit period, as outlined below.



The CEC developed the "Clean in Clean out" campaign, which is a suite of tools designed to improve awareness and compliance "Before touching the patient" and "After touching the patient or surrounds" with clinicians. They include posters, patient information pamphlet and clinician engagement. NSW Health Minister, Hon Jillian Skinner launched "Clean in Clean out" on International Hand Hygiene Day - 5 May 2014.

The CEC conducted nine two-day Gold Standard Auditor (GSA) training days across NSW in 2013/14. These guide health care staff to be auditor trainers, who return to their facilities and provide training for other hand hygiene auditors.

The Infection Control Policy (PD2007\_036) and Hand Hygiene Policy (2010\_058) have been reviewed. They will be incorporated into the new Infection Control Manual, which will be released in late 2014.

Hand hygiene rates have been reported on at a national level four times since January 2013. NSW data is provided to Hand Hygiene Australia three times a year and is available from [www.hha.org.au](http://www.hha.org.au). Yearly data is reported for individual hospitals and is available from

the MyHospital website [www.myhospitals.gov.au](http://www.myhospitals.gov.au). NSW hand hygiene compliance rates have shown incremental improvements in each report and remain above the national average.

## Partnerships

Much of the program's success stems from significant input from HAI experts and others from the local health districts, the Agency for Clinical Innovation, the Bureau of Health Information, the Health and Education Training Institute (HETI) and the Ministry of Health.

HETI has provided expertise and input on the development of training materials for hand hygiene.

The Australian Commission on Safety and Quality in Health Care and Hand Hygiene Australia, to develop national priorities and to collaborate in hand hygiene audit data.

## Future Directions

The program will develop partnerships with external bodies, such as medical colleges, professional associations and unions, to engage members and support hand hygiene messages and training. This will help to embed a culture of sound hand hygiene practices across the NSW public health system and help reduce the risk of infections for patients in hospital.



# MEDICATION SAFETY AND QUALITY PROGRAM



Medicines are a vital part of treatment for most patients admitted to hospital. They can have great benefits, but their use can also be associated with harm. There are many steps involved in managing medicines and at each there is an opportunity for error. Around 20,000 incidents involving medication are reported in NSW public hospitals each year and some cause significant patient harm.

The Medication Safety and Quality program aims to reduce the number and severity of incidents occurring. It provides tools and resources that enable hospitals to assess and improve on their medicine management systems. It focuses on four main areas: communication of medicine information, reducing the number of patients developing blood clots (venous thromboembolism) during a hospital admission, medication safety self-assessment tools and high-risk medicines.

The **Continuity of Medication Management** program supports hospitals to improve communication about what medicines patients are and should be taking, especially as they transfer in and out of hospital.

The **Venous Thromboembolism (VTE) Prevention** program helps to support hospitals to reduce the occurrence of venous blood clots, by helping them to identify patients at risk and prescribe appropriate prophylaxis in a timely fashion.

The **Medication Safety Self Assessment**<sup>®</sup> tools were designed by the Institute for Safe Medication Practices, USA. They help hospitals to assess their medicine use critically and identify opportunities for improving their practices and systems.

**High-Risk Medicines** have a high potential to cause injury or harm if misused, or used in error. The CEC is working to provide specific tools and resources to assess the use of certain high-risk medicines and to reduce harm associated with their use.

## Key Achievements

The Continuity of Medication Management program has developed and trialled tools and resources to support hospitals with improving the capture of information about what medicines patients are taking when they present to hospital. Hospitals involved in the trial have demonstrated improvements in this area.

Elements of the VTE Prevention program have progressed and will be launched during 2014. A revised version of the National Inpatient Medication Chart has been released, which includes a dedicated section for documentation of VTE risk assessment completion and prescribing of prophylaxis. Work has started with NSW eHealth in developing an electronic prompt for VTE risk assessment in the electronic medical record. Further tools and resources have been developed to support hospitals to reduce the occurrence of venous blood clots in patients.

Participation in the Medication Safety Self Assessment<sup>®</sup> for Australian Hospitals (MSSA) program continues to grow. As of 2014, 478 self-assessments have been completed by 322 facilities, ranging from rural multi-purpose facilities, through to major tertiary hospitals. In 2013/14, 130 were completed, 76 for the first time. The Medication Safety Self Assessment<sup>®</sup> for Antithrombotic Therapy in Australian Hospitals (MSSA-AT) has not been as widely used as the MSSA, but there has been some growth. Since 2008, 54 self-assessments have been submitted online, with 14 facilities completing in 2013/2014. Of the 14, 11 completed for the first time.

## Future Directions

During 2014/15, the Continuity of Medication Management program will be partnering with NSW eHealth to assist hospitals with improving the capture and transfer of medication information on admission and discharge. This will be a major focus.

The VTE Prevention program will move into its implementation phase during 2015. It will help hospitals to incorporate VTE risk assessment into everyday practice and to monitor progress.

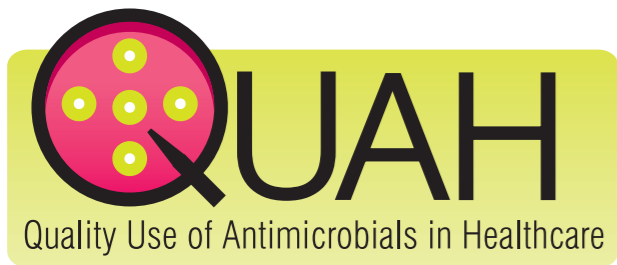
A focus for the High-Risk Medicines program in 2015 will be the establishment of an anticoagulant medicines working party and the

development of strategies to improve the safety and quality use of anticoagulant medicines.

Since 2007, there have been many advances in medication safety, especially regarding electronic medication management. There have also been changes in Australian policy, legislation, terminology and clinical practices. A 2014 version of the MSSA for Australian Hospitals is in development. The revision of the MSSA is taking all of these developments into consideration, to ensure that the tool remains relevant in the contemporary Australian health care system.



# QUALITY USE OF ANTIMICROBIALS IN HEALTHCARE



Antimicrobial resistance is a global problem and an increasing threat to public health. Indiscriminate use of antibiotics has contributed to this problem. Antimicrobial resistance limits the ability to treat infections and there is a dwindling supply of new antibiotics in development. Efforts must be made to improve the use of antimicrobials to preserve their effectiveness.

Established in 2010, the Quality Use of Antimicrobials in Healthcare (QUAH) program aims to optimise antimicrobial use, improve patient care and reduce the development of antimicrobial resistance, by facilitating and supporting antimicrobial stewardship (AMS) initiatives in NSW public health facilities.

Quality use of antimicrobials means patients will receive appropriate antimicrobial therapy, which is prescribed safely, effectively and only when needed. In this context, 'antimicrobials' generally refers to medicines used to treat infections caused by bacteria, fungi and viruses.

The program seeks to:

- raise awareness of AMS principles in NSW local health districts (LHDs) and hospitals
- develop tools and resources to support NSW health services in implementing effective programs that meet the National Safety and Quality Health Service (NSQHS) Standards
- create a supportive and collaborative network of clinicians interested in improving quality use of antimicrobials in NSW LHDs and hospitals.

## Key Achievements

### AMS Tool Kit

A tool kit was developed to support facilities implementing AMS programs and/or expanding their existing programs, to ensure they are effective and meet the requirements of the NSQHS Standards.

It includes guidance on establishing AMS teams and committees, monitoring and reporting antimicrobial usage, recommended antimicrobial restrictions and suggested ways of administering them and setting key performance indicators for AMS programs. These resources can be found on the QUAH program website.

### 5x5 Antimicrobial Audit

A tool called the '5x5 Antimicrobial Audit' was developed to facilitate assessment of antimicrobial prescribing. It measures two indicators – documentation of an indication for antimicrobial therapy and whether the choice is in agreement (concordant) with guidelines. The primary aim is to introduce frequent and directed measurement and reporting of antimicrobial prescribing indicators in NSW LHDs and networks. It is based on work of the Scottish Antimicrobial Prescribing Group. Fifteen facilities are participating in a pilot program for the audit, supported by the CEC.

The 5x5 Antimicrobial Audit tool requires data collection for up to three data points per patient and prompts intervention where necessary, giving prescribers real-time feedback on their antimicrobial prescribing practices. The simplicity of the audit allows results to be collated regularly and frequently. The audit has been designed for use by hospital-based health care professionals without any specialist training in AMS. Supporting material for the audit is on the QUAH program website and is available to pilot and non-pilot sites.

### Healthcare Associated Infections Leaders Forum and Round Table

The CEC hosted a visit by Prof Dilip Nathwani, Consultant Physician from Ninewells Hospital and Medical School, Dundee, Scotland, on 9 April 2014. He is chair of the Scottish Antimicrobial Prescribing Group and has extensive knowledge and experience on the implementation of AMS programs, particularly the use of antibiotic prescribing indicators to engage clinicians.

Prof Nathwani was a guest speaker at the CEC Healthcare Associated Infections Leaders Forum and a roundtable on AMS.

This was an opportunity for managers, physicians, medical microbiologists, pharmacists and infection control professionals from NSW LHDs and networks to learn about different approaches to AMS and the prevention and management of HAIs in a multi-disciplinary environment.

### Antibiotic Awareness Week 2013

Antibiotic Awareness Week was held from 18-24 November 2013. The CEC liaised with other states and territories and national partners, promoting key messages about responsible antibiotic use and the threat of antibiotic resistance.

The CEC distributed information on campaign resources to all LHDs and networks. A new initiative was the CEC photo campaign, which encouraged staff to discuss behaviours and beliefs related to antibiotic use and have their photo taken with 'belief statements'.

Several NSW hospitals also participated in the National Antimicrobial Prescribing Survey, which provided valuable data to feed into their AMS program. Many facilities also organised activities for the week, which included educating and interacting with staff, visitors and patients about antibiotics.

## Partnerships

During 2013/14, the QUAH program has worked in partnership with a number of organisations, including:

- eHealth NSW
- NSW Therapeutic Advisory Group
- Australian Commission on Safety and Quality in Health Care
- National Antimicrobial Utilisation Surveillance Program (SA Health)
- Society of Hospital Pharmacists of Australia, particularly the Infectious Diseases Committee of Speciality Practice (SHPA ID-COSP).



## Future Directions

The QUAH program is focused on improving the way antimicrobials are used in NSW public health facilities. The pilot program for the 5x5 Antimicrobial Audit will provide an opportunity for the CEC to work more closely with 15 facilities, ranging in size and location. Pilot sites will be supported through regular teleconferences and correspondence and site visits. This will provide an opportunity to discuss concerns and challenges and learn from one another.

A number of NSW hospitals which contribute to the National Antimicrobial Utilisation Surveillance Program are sharing antimicrobial usage reports with the CEC for review and analysis. Case studies on hospitals or LHDs with exemplary AMS programs will be developed and published, as a means of sharing information and providing guidance to NSW facilities.

Activities and resources for the QUAH program will further support NSW LHDs and networks in meeting Standard 3, Preventing and Controlling Healthcare Associated Infections, from the NSQHS Standards.

# BUILDING CAPACITY IN HEALTH CARE

## NARINDER'S STORY



Dr Narinder Kaur is an advanced trainee registrar in general paediatrics. She is currently working at The Children's Hospital at Westmead, after completing a rural term at Bathurst Hospital. She intends to start her fellowship specialising in paediatrics in 2015.

In June 2013, Narinder was part of the second cohort undertaking a Clinical Practice Improvement (CPI) program. This is a joint initiative between the Royal Australasian College of Physicians (RACP) and the Clinical Excellence Commission (CEC). The CPI program aims to improve the safety and quality of care of patients. It provides advanced trainees of the RACP with methodology to undertake comprehensive diagnoses of the causes of process failures, which lead to inefficiencies and/or patient harm. It also provides tools to assist them in designing solutions to improve patient care.

As part of the CPI program, participants are required to undertake a quality improvement project. Before starting, Narinder had not undertaken such a project, however, with support and guidance from the CEC, she felt very confident that she could make a difference.

She found inspiration for her project, following an experience in Bathurst, where a paediatric patient came in with an allergic reaction to an insect. The child needed adrenaline and was hospitalised overnight, but recovered well and was discharged the next morning.

The issue was about not having enough resources available to educate parents of children with allergies on how to use life-saving medication, like an EpiPen. It also involved what the parent would be required to do if the child had another reaction in the future.

"Imagine giving parents a medication to save their child's life, but not showing them how to use it. Especially when the child could potentially die from that condition within minutes," she says.

Narinder worked with staff from the paediatric ward and from the emergency department. Patients are sent home from either, so the project needed to cover both. Together, they brainstormed the issues and causes and came up with around 40 ideas, which they were able to narrow down to four main points: lack of staff confidence, lack of knowledge of access to resources, lack of staff education and inadequate equipment (trainer pens for practice and demonstration to parents).

The team conducted eight education and training sessions, which highlighted the different techniques for the two injectors available in Australia: EpiPen and Anapen. They got all the participants to practice with trainers and developed an anaphylaxis education kit for the paediatric and emergency departments, containing EpiPen and Anapen trainers. The staff were made aware of available resources, such as the Australian Society of Clinical Immunology and Allergy (ASCIA) website, which has online education.

As a result of this process, staff self-reported that confidence increased from 34 to 93 per cent. Confidence in demonstrating the auto injector use also increased from 51 to 100 per cent.

Narinder's project was submitted to the RACP Congress in Auckland in May 2014, where it placed fifth. "Being accepted for Auckland and placing in the top five has increased my confidence in my skills and ability to help", she says.

She is working on a new project at The Children's Hospital at Westmead, looking at how clinicians can better manage vitamin D deficiencies in pregnant mothers and babies.

The CPI course has had a positive impact on Narinder and changed her way of thinking, to become more focused on fixing the process, as well as solving the immediate issue. "It's changed the way I look at things. I'm looking more at why things did or didn't happen. I've learned that you can't just put a BAND-AID over the problem, which would be temporary measure, but rather look into the process leading to the problem and improve the process."



When patients present to hospital, clinical staff ask questions to help them understand the cause of the problem for the patient and assist them in making a diagnosis. This means that each patient is likely to get an accurate diagnosis and the cause of problem can be addressed.

Clinical Practice Improvement (CPI) methodology provides a framework for clinicians to review, identify and understand causes of the failure and design solutions to continuously improve processes of patient care. This is particularly useful to address problems or issues raised by patients and staff, or where there is a process failure which might lead to patient harm.

The CEC has enhanced the CPI training program from 2010, based on previous work from Dr Brent James (Intermountain Healthcare). It provides training to participants of the Clinical Leadership Program, front-line clinicians in NSW Health facilities and advanced trainees of the Royal Australasian College of Physicians. We also work closely with local health districts (LHDs) and speciality networks, Justice & Forensic Mental Health and NSW Ambulance service quality managers.



- By working together, we are able to build the capacity and capability for local facilities to support health care improvement projects and teams. Local improvement is the key and one of the driving forces for sustainability of improvement.
- The basic principles of Clinical Practice Improvement are listed below.
- Health care is a process which can be analysed.
  - Both the process and the outcomes of clinical work can be measured.
  - Profound knowledge of the processes of care exist within individuals who work in the system, in particular 'microsystems'.
  - Interdisciplinary teamwork and the design of innovative solutions are essential in effecting improvements in health process.
  - There is the will and leadership to implement change.

**Key Achievements**

CPI is one of the modules in the Clinical Leadership Program and forms the basic methodology for the Clinical Service Challenge (see Clinical Leadership Program report). During 2013/14, 15 CPI workshops were held, involving 148 participants as part of the Foundational Clinical Leadership program. A further 120 took part in in three CPI workshops as part of the Executive Clinical Leadership program. CEC staff provided support at each of these sessions, assisting with workshop facilitation.

Participants taking part in Clinical Practice Improvement workshops (2013-2014)

Type	Number of participants	Number of workshops
Clinical Leadership (Executive)	120	3
Clinical Leadership (Foundational)	148	13
Clinical Practice Improvement (stand-alone)	239	12

The CEC continues to provide advice, support, resources and tools to quality managers (CPI facilitators) at LHDs to provide them with the skills to improve their capability for delivering CPI workshops locally.

Within the CPI facilitator network, 24 participants undertook a two-day workshop in May 2014, the theme being 'building the will for improvement'. The network continues to meet monthly via teleconference, where participants discuss their experiences. Resources are also shared through the HSNet group. This has helped to guide improvements to the content of the program.

Six participants from the second collaborative CPI training program with the Royal Australasian College of Physicians (RACP), Advanced Trainee Doctors each completed a CPI project. They have presented at national and international conferences and one project was a top-five finalist in the RACP Congress in New Zealand in May 2014.

Some of the projects included:

Project	Result
Improving the management of pain for patients during their end-of-life care	100% of patients were identified early and had a plan in place to assess and manage pain
Improving anaphylaxis education for nursing and medical staff in a rural hospital	54% increase in staff being confident in completing an anaphylaxis action plan
Improving supervision and structure of evening medical handover	100% of JMOs found the supervision at evening handover 'useful' or 'very useful'

A number of projects have been published, including one from the Clinical Leadership Program, which identified strategies to reduce unnecessary blood tests. There was an associated cost saving of \$33,000 per quarter in one unit.

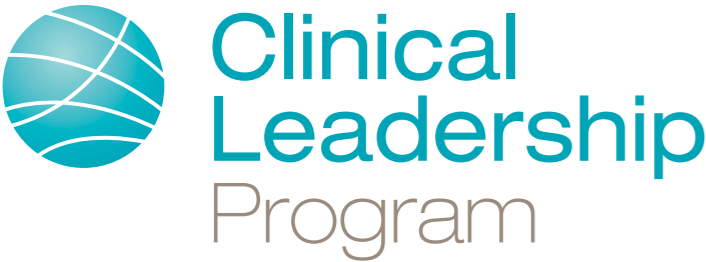
**Partnerships**

The CEC has worked in partnership with the Agency for Clinical Innovation (ACI) and the Health Education and Training Institute (HETI) to collaborate on and consolidate health care improvement training.

**Future Directions**

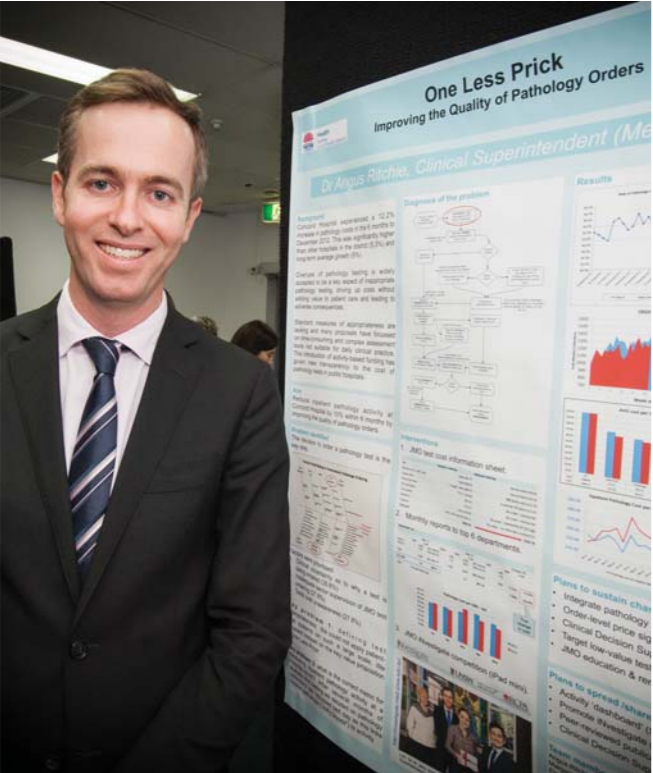
The CPI tool kit has been developed for facilitators to use within their own LHD or network. Additional resources will be created and made available over the coming year. This will provide additional support to LHDs and networks to deliver their own workshops as a blended model of learning.

# CLINICAL LEADERSHIP PROGRAM



The value of investing in clinical leadership programs is recognised at a Statewide, national and international level. Strategies for sustainable patient safety and system improvement are dependent on strong clinical leadership.

A central premise of CEC's Clinical Leadership Program (CLP) is that leadership occurs at all levels in health care and is not dependent on the position to which a person is appointed. In this, the CLP supports clinical leaders in the workplace to develop extraordinary leadership skills. The CLP recognises the relationship between leadership and patient safety and quality, ensuring that the interests of patients and staff remain at the heart of health care delivery.



The purpose of the program is to build a cohort of clinical leaders with the skills and commitment to shape a sustainable culture of patient safety, professionalism and positivity within the NSW health system.

The program aims to:

- enhance knowledge of contemporary approaches in relation to patient safety and clinical quality systems
- enhance the skills of clinicians in relation to communication, conflict resolution and team leadership within an environment of health care resource limitation
- enhance personal and professional clinical leadership skills
- improve the ability of clinicians to influence the direction of health policy
- develop the knowledge of clinicians about the workings of NSW Health.

The program is offered in two formats: Foundational and Executive. The Foundational program is multidisciplinary, delivered by local facilitators within a local health district (LHD) or network. The Executive program is also multidisciplinary, delivered as six intensive modules in Sydney, targeted towards senior clinicians. Both programs are delivered over a calendar year.

## Key Achievements

We continue to build a cohort of effective clinical leaders, who progressively become the 'critical mass' needed for patient-centred system change. In 2013, 242 participants completed the program, all undertaking an individual or team clinical improvement initiative to improve patient safety and clinical quality. By the end of 2013, over 1,540 health professionals had completed the program since its inception in 2007. For 2014, 180 have enrolled in the Foundational and 80 in the Executive program. Retention levels remain positive in both, with over 90 and 95 per cent respectively.

Participants are required to lead a clinical improvement project (clinical services challenge) with their local teams. They are intended to deliver benefits to the participating LHDs, in terms of improved patient safety, staff morale, the quality of clinical care and/or efficiency. Recent project examples include:

Project	Result	Local Health District
Reducing unnecessary pathology tests for patients in a Stroke unit, without impacting negatively upon patient care.	5.3 per cent reduction of pathology testing from Jan to Mar 2014. Cost saving \$1,744 per month, with potential over 12 months \$20,924.	Illawarra Shoalhaven
Reducing length of stay for patients following routine percutaneous coronary intervention (PCI).	Average LOS reduced to 9.6 from 28 hours, with avoidable overnight stay for uncomplicated PCI cases and no clinical complications identified. \$918 saving per case, with potential over 12 months \$183,600, with a risk discount of 50 per cent is used, based on some project constraints.	St Vincent's Health Network
Changing the way we think: Resetting the ambition and reversing the trend – To reduce the number of nursing FTE vacancies.	Nursing FTE vacancies reduced by 94 per cent over five months. The project has demonstrated year to April 2014 savings of \$202,000.	South Eastern Sydney
Reduction LOS for patients with undifferentiated chest pain (low-risk, with AMI excluded) through the use of chest pain clinical pathway for 12 months period.	Project demonstrates 50 per cent of cases (increase from 10 per cent) have used the chest pain clinical pathway in six months. If reduction in LOS is realised, the estimated cost benefit for 12 months ~ \$280,689.	Western Sydney
Avoidable admission of patients with cellulitis, through home-based cellulitis therapy (two treatment regimens) with support by online treatment algorithm and education.	Project demonstrates 85 per cent use of decision support algorithm and a total of 2,688 home visits. The strategy increased the DRG capacity by 52 per cent (representing avoidable hospital stay of 1,396 bed days). Potential avoidable hospital cost of cellulitis admission for 12 months would be \$1,010,000.	Central Coast
Managing the distribution, efficiency and stock of medications on a mental health unit, so it is streamlined, safe and efficient.	Reduced the time of medication round by 30 per cent and drug cost saving over 12 months \$24,000 in one clinical unit.	Mid North Coast

There have been increased inquiries from organisations throughout Australia for their clinical leaders to participate in the CEC CLP. Currently, the Executive program includes attendees from the Australian Red Cross Blood Service.

## Future Directions

The CEC will grow the profile of the program to encourage wider participation, resulting in an increase in the capacity for improvements in the quality and safety of health care in NSW.

## Partnerships

The CEC works with the Ministry of Health, LHDs and networks and external business partners to deliver the CLP. Key departmental relationships within LHDs and networks include learning and development, clinical operations and clinical governance.

Additional partnerships and networks have been forged, particularly among other jurisdictions looking to implement their own clinical leadership programs. This includes working in partnership with the Health Education & Training Institute (HETI) Rural Clinical Team Leadership Program, which is modelled on the CEC CLP.

Undergraduate  
Quality & Safety  
Education

The Australian Hospital Statistics 2011-12, published by the Australian Institute for Health and Welfare, reports that 6.1 per cent of patients in public hospitals nationally, have an adverse event while in hospital.

Adverse events are defined as incidents in which harm resulted to a person receiving health care. They include infections, falls resulting in injuries and problems with medication and medical devices. Some of these adverse events may be preventable.

The Undergraduate Education program aims to make medical students safer clinicians when they graduate. The program introduces Health Science students to crucial concepts in patient safety in the early years of their undergraduate courses.

While the initial focus was on medical student education, the success of the program has resulted in other professional groups requesting similar teaching for their students.

The Clinical Excellence Commission's program in patient safety is now taught in four medical schools, three schools of nursing and to Sydney University allied health students, who come from a range of disciplines.

Key Achievements

Video Series: Patient Safety Principles

In 2013/14, the program has expanded, with the development of a series of videos focusing on patient safety principles. They highlight the real life impact of patient safety in clinical care. They support undergraduate medical courses and have been prepared initially for allied health professionals at the University of Sydney Cumberland campus. Over 1,000 Allied Health students have viewed the videos.

Online Modules

Work on an interactive online module is underway, in partnership with the University of Wollongong Medical School. It covers diagnostic error and open disclosure and will be launched in early 2014/15, to approximately 250 students.

Survey and Evaluation

A multi-campus survey has been undertaken on four medical school sites, and will be repeated after 12 and 24 months. This is to measure change in student attitude and knowledge of patient safety and quality principles before, at the conclusion of, and 12 months after the program is completed.

The importance of the program is that it is far-reaching and targets developing health professionals at an early stage of their careers, an important time to stress these crucial concepts. The program reaches approximately 3,000 students each year.

Partnerships

Successful partnerships have been established with the five universities where the Patient Safety program is taught, with those universities providing academic staff to facilitate the discussion groups, which are a key part of the program.

Other partners include MedStar Health and the University of Chicago, Illinois (where Prof Kim Oates is on the Teaching Faculty for their annual Telluride Roundtable for medical students, who are chosen for their potential as future leaders in patient safety). The University of Wollongong is a partner in the medical student knowledge research project and for developing an online patient safety course with the CEC. The IHI Open School and the BMJ Quality program are also partners.

Future Directions

The next steps include expanding into additional medical schools, developing additional online modules to increase the participation and reach of the program, measuring its impact through continuing research and expanding the program through organisations associated with postgraduate training, so that an ongoing program of patient safety continues.



# USING DATA TO DRIVE CHANGE

## MICHAEL'S STORY



A/Prof Michael Fearnside graduated from Sydney University and completed his residency and surgical training at Royal North Shore Hospital as a neurosurgeon, before working in the United Kingdom for four years.

On returning to Australia, he worked at Westmead Hospital from 1978 as a neurosurgeon and was a VMO until his retirement from clinical neurosurgery in 2006. He also held the role of Head of Surgery for Western Sydney Area Health Service from 2001 to 2009.

In his role as a surgeon, Michael was familiar with the processes and benefits associated with the Special Committee Investigating Deaths Under Anaesthesia (SCIDUA). In 2005, he was approached to become chair of the new Collaborating Hospitals' Audit of Surgical Mortality (CHASM) program.

CHASM is a systematic peer-review audit of deaths of patients who were under the care of a surgeon at some time during their hospital stay in NSW, regardless of whether an operation was performed.

In order to engage surgeons and health managers and encourage participation in the voluntary program, Michael visited many hospitals across NSW in the program's infancy. It was piloted in Western Sydney Area Health Service and Hunter New England Area Health Service during 2008, before expanding to all public hospitals in 2009. To gain greater support, the CEC provided funding for support

within clinical governance units to act as a liaison with surgeons, on behalf of the program and to source additional information on individual cases, where required.

Michael points out that a significant point for the program was in 2010, when the Royal Australian College of Surgeons mandated participation for all Fellows in NSW public hospitals and a number of private hospitals.

"Surgical audit increases the likelihood of following best practices. If you adhere to protocols and compliance process, performance improves", he says.

A review of the data from the program has highlighted 13 surgical indicators which are now a major area of focus. They are:

- Pre-operative delay or error in confirmation of surgical diagnosis
- Delay and/or problems with pre-operative transfer
- Would have benefited from care at intensive care unit (ICU) or high-dependency unit
- Appropriate use/non-use of prophylaxis against venous thromboembolism (blood clots)
- Elective surgery performed as planned
- Consultant surgeon in theatre
- Definable post-operative complications
- Unplanned return to theatre
- Unplanned admission to ICU
- Unplanned hospital re-admission within 30 days of surgery
- Issues with fluid balance
- Surgical site infection
- Potentially preventable deficiency of care identified by assessors.

The program has also published a casebook each year, which is distributed to surgeons and selected staff across NSW health facilities. It aims to provide learning points for surgeons, with different themes covered in each publication.

The program has steadily grown, with over 1,400 cases reviewed last year by the committee. Moving forward, Michael Fearnside recognises the importance of the program maintaining its educational focus and publishing data and findings. "With over six years of data collected in the program, there is a significant opportunity to do an in-depth analysis of the information available", he says.

"The program aims to change practices, through reflective consideration of the peer reporting. It's about changing surgeons' attitudes, to be even more thoughtful and considered in their approach to operate."

# COLLABORATING HOSPITALS' AUDIT OF SURGICAL MORTALITY



Mortality review is a long-recognised method of monitoring the quality of health care and is undertaken worldwide. In NSW, the Collaborating Hospitals' Audit of Surgical Mortality (CHASM) audits the deaths of patients who were under the care of a surgeon at some time during their hospital stay, regardless of whether an operation was performed.

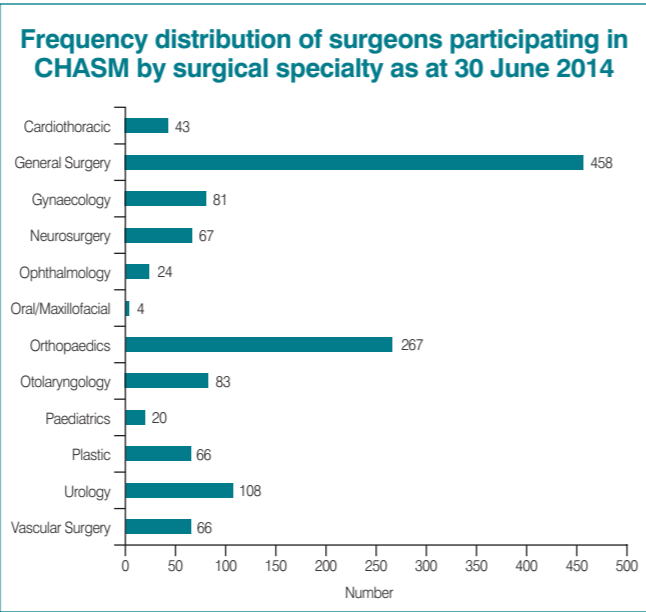
CHASM is an education program led by surgeons for surgeons. It uses a systematic peer review methodology and provides feedback on the review findings to the treating surgeons for their consideration and learning. The methodology is based on the Scottish Audit of Surgical Mortality, established in 1994.

CHASM is overseen by an expert committee, appointed by the Secretary, NSW Health, under section 20 of the *Health Administration Act 1982*. Information collected for CHASM is privileged by section 23 of the same Act and the Commonwealth Qualified Privilege Scheme under Part VC of the *Health Insurance Act 1973*.

The Royal Australasian College of Surgeons (RACS) requires all surgeons who are in operative-based practice and have a surgical death, to participate in the Australian and New Zealand Audit of Surgical Mortality (ANZASM), which includes CHASM in NSW, for its Continuing Professional Development Program.

## Key Achievements

At 30 June 2014, 1,287 surgical fellows of the RACS were participating in CHASM, with 493 of them also agreed to be first-line assessors and 371 second-line assessors.



During 2013/14, CHASM recorded 2,087 deaths notified by all local health districts (LHDs), received 1,558 completed surgical case forms from surgeons and completed the audit of 1,453 notified deaths. The peer review identified 177 potentially preventable deficiencies of care in 8 per cent (118) of audited deaths.

CHASM provided confidential feedback on the audit findings to participating surgeons. To facilitate surgical learning and improvement, the following publications were produced using de-identified and aggregate audit data:

- an individualised program report for each LHD
- the fifth case book, with a commentary on the recognition and management of post-operative complications in patients who have undergone abdominal surgery
- the fifth batch of individualised annual feedback reports to 481 participating surgeons
- the program report, 2008-2012.

CHASM also submitted de-identified audit data from 2009 to 2013, to ANZASM for national reporting.

On 6 November 2013, committee members presented five surgical topics, using the CHASM data, at an evening seminar. It was one of the professional development activities of the inaugural NSW Surgeons' Month organised by the NSW State Committee of RACS. The seminar was well attended by medical students, surgical trainees and surgical fellows and feedback was highly positive.

After ten years of close engagement and dedication to CHASM, the founding chair, A/Prof Michael Fearnside retired from the committee on 13 May 2014. The CEC and the NSW State Committee of RACS jointly hosted a farewell function to pay tribute to him. The Secretary, NSW Health was a special guest and presented a certificate of appreciation to the retired chairman.

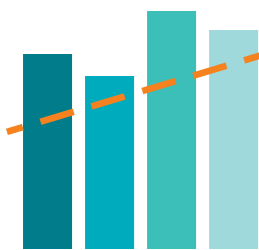
The Secretary, NSW Health approved, under delegation by the Minister for Health, Prof Peter Zelas as chair of CHASM from 14 May to 31 December 2014, pursuant to section 20 of the *Health Administration Act 1982*.

## Future Directions

Over the next 12 months, CHASM will:

- Expand the audit to all private hospitals in NSW
- Explore ethics review requirements for using CHASM data for surgical fellowship training and publications
- Develop a business case for an online reporting and assessment application
- Develop a mortality profile for selected surgical procedures
- Continue to publish the individualised program reports for each LHD, an annual report for all NSW surgeons, the sixth case book and sixth batch of individualised annual feedback reports to participating surgeons
- Continue to improve the audit process, based on feedback from surgeons and LHDs
- Continue to improve database functionality for a more efficient and cost-effective audit process.





## CLINICAL ANALYTICS

Systems that capture patient information electronically provide an opportunity to analyse how the health system is performing. They can provide real-time feedback at all levels of the health service, from individual clinicians through to the Ministry of Health.

Major implementations, including electronic documentation, intensive care unit data and medications administered, means that thousands of data points will populate the electronic medical record (eMR). This wealth of data provides insights into how patients receive their care, in a way which is not possible in the paper world.

Clinical analytics provides intelligence for improvements in quality, safety and efficiency in health care.

Turning data into useful information at the point of care will help clinicians make the best decisions for the patient. Masses of free text can be analysed and used to identify risks for patients and to provide valuable insights for research. The effectiveness of treatment protocols can be measured and refined.

### Key Achievements

The implementation of the electronic medical record in NSW started in 2008. While it will take a number of years to complete, it is a growing source of new clinical information. A pilot project sponsored by eHealth was initiated to demonstrate how using information from the eMR could be accessed by clinicians and used to bring about improved clinical practices.

Three areas of focus were selected: an analysis of diagnostic test-ordering practices; an analysis of hospital inpatient emergency calls (Rapid Response calls); a review of data showing how clinicians are using the eMR.

Information was presented to the clinicians in dashboards, enabling them to search it and answer questions. The process created the awareness of ordering practices and encouraged new thinking about appropriateness. A reduction in ordering has been achieved.

Likewise, the analysis of rapid response calls has enabled new insights, such as the time of day the call occurred and a history of what was happening to the patient prior to the call, to assist with targeting new preventative initiatives.

A detailed study of how clinicians are using the eMR has highlighted the opportunity to find those who need additional training and to improve their satisfaction with the system.

The pilot project has demonstrated the value of providing meaningful data to clinicians so they can take action in a timely manner. New projects are emerging as the interest in the eMR data grows.

### Future Directions

The interest and need for an analytics capability has become a priority. Work which builds on the pilot activities has been planned in four areas.

The first will focus on embedding analytics into quality and safety programs at the CEC and eHealth. This will be done by working with program managers/stakeholders to determine key data sets that will act as the intelligence behind improvements in quality and safety in health care.

The second will focus on increasing the use of information as intelligence to improve outcomes for patients. The CEC will engage

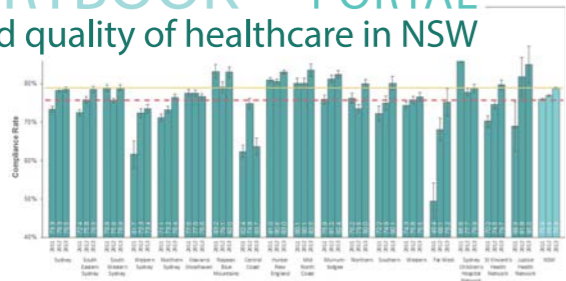
with LHD clinicians and Clinical Leadership Program participants to support and implement this focus.

The third will focus on establishing common standards and definitions for data across all care settings. This will ensure that data is comparable and information can be relied upon as intelligence for quality improvement.

The fourth area will work on identifying potential issues and gaps between systems' operability that may impact on the ability to extract reliable data.



eCHARTBOOK PORTAL  
Safety and quality of healthcare in NSW



The eChartbook builds on the success of the previous paper-based publication series, Chartbook. It provides a revised focus on clinical indicator data from CEC’s projects and programs, reporting and commenting on variation at an LHD and Statewide level.

The eChartbook portal identifies issues related to unexplained system variation. It is intended to stimulate action across the health system that will improve quality and safety and drive improvement in health care. It provides expert informed analysis and commentary on a range of CEC project- and program-based indicators of safety and quality.

Timely data is provided through the use of dynamic charts updated in real time, with feedback encouraged through the web-based format. The more accessible, timely and relevant information is, the more likely health professionals will use it to identify and take up opportunities for improvement.

It also provides information to patients and the NSW community about safety and quality issues, changes over time and the implications for their health care services.

Key Achievements

*eChartbook Launch*

Since the publication of the first Chartbook in 2007, CEC has been working toward a dynamic, more up-to-date publication. In October 2013, the eChartbook Portal was launched, following a year of redevelopment work. Data presented in the Initiatives in Safety and Quality section of the eChartbook Portal initially covered 12 CEC projects and programs.

In 2014, new indicators were developed and/or loaded for Between the Flags, Clinical Leadership Program, Clinical Practice Improvement Program, Hand Hygiene Program, NSW Ambulance (Pain Management, Administration of Aspirin for suspected AMI or ACS) and Quality Systems Assessment (QSA) Survey 2012.

Since the launch in October to 30 June 2014, the portal has had over 19,000 hits and over 2,500 visitors.

*Statewide Roadshow*

Prior to the launch, CEC visited all LHDs and speciality networks to re-introduce chief executives, board members, executive leadership staff, directors of clinical governance and interested hospital staff to the renewed product, its purpose, intended audience and use. These presentations were well received.

Early indications from the web access data (summarised above) and from conversations held with senior staff during the roadshow, suggest that we have created a product of value and utility to the system, that has been further enhanced by renewed focus and relevance, greater timeliness and capacity for feedback, by moving the product to the internet.

Partnerships

The CEC works closely with a number of organisations and individuals to produce the eChartbook. Key relationships include the Ministry of Health, the Bureau of Health Information, the Agency for Clinical Innovation, the Cancer Institute NSW, the Centre for Health Record Linkage, the Pregnancy and Newborn Services Network and the Australian and New Zealand Intensive Care Society.

Subject matter experts from within and outside NSW have provided commentary and suggestions, most notably Prof Sheila Leatherman, Prof Bruce Barraclough, Prof David Ben-Tovim, A/Prof Brian McCaughan and Dr Diane Watson.

The portal has been developed with input from CEC programs, including Blood Watch, Between the Flags, CHASM, HAI, Hand Hygiene, Incident Management, Medication Safety, Patient Based

Care, SCIDUA, SEPSIS KILLS and the Quality Systems Assessment – with assistance from the CEC Data Management team, the board and clinical council and the DCG group.

Future Directions

At the launch, nine CEC projects and programs and Ambulance data were presented. Through 2014 and 2015, we will progressively add more projects and programs, output from CEC internal databases and selected safety and quality data from other sources in the health system. We will also continue to reduce the time to data release from one-to-two years, down to three-to-six months, making it more timely and thus more actionable.



# PATIENT SAFETY PROGRAM



Nearly two million people receive care in NSW public hospitals every year. The standards of care are among the best in the world. Occasionally, however, an unplanned event occurs that causes, or has the potential to cause harm. This is known as a clinical incident.

NSW Health staff members are required to report all identified clinical incidents, near misses and complaints in the Statewide Incident Information Management System (IIMS). It is one of the world's largest clinical incident reporting systems, with over 140,000 incidents reported and 600 root cause analysis (RCA) reports completed annually.

The Patient Safety program helps to improve the quality and safety of health care in NSW by identifying system gaps and informing effective Statewide strategies for improvements to clinical care.

It includes monitoring, analysis, feedback and reporting about the clinical incidents reported in IIMS and associated RCA reports. It is based upon a core philosophy that openness and sharing of information about risks to patients is pivotal to improving clinical care across NSW.

The Patient Safety program is a key component of the CEC's commitment to improving safety and quality of clinical care across the NSW health system and is closely aligned with all CEC's programs and projects.

## Key Achievements

### Safety Publications

A part of CEC's role is to undertake aggregated analysis of clinical incidents in IIMS and RCA reports in relation to issues identified through monitoring and RCA review processes. The findings are distributed across the health system in the form of Clinical Focus Reports, Safety Alert Broadcasts and in a new Patient Safety Watch format. These publications highlight risks to patient safety and recommended strategies to reduce the likelihood of similar incidents.

There were four clinical focus reports published in 2013/14, titled:

- Falls
- Retrieval and Inter-hospital Transfer
- Patient Controlled Analgesia
- A Review of Acute Coronary Syndrome Incidents.

There were five Patient Safety Watches released in 2013/14, titled:

- Edition 2/13: Mental Health Patients Absconding from the ED
- Edition 3/13: Retained Vascular Guide Wires
- Edition 4/13: Career Medical Officers and Patient Safety
- Edition 1/14: Supervision of Clinicians
- Edition 2/14: Ten-Fold Medication Dosing Errors.

The CEC also facilitated the revision and finalisation of NSW Health Incident Management Policy (PD2014\_004), which was released in January 2014.

### Projects

Three new projects started within the Patient Safety program during the last year. The first relates to the review and enhancement of NSW Open Disclosure (OD) and early incident response processes, beginning with review of OD policy, guidelines and training. The second, Management of Diagnostic Test Results, aims to identify, communicate and implement system-wide practices, to ensure that all clinical tests are reviewed and the results are communicated and acted on. The third project, Delegation and Escalation, aims to develop Statewide guidelines and best-practice models for appropriate supervision of less experienced clinicians.

### Clinical Incident Management Data Portal

Providing feedback on lessons learnt is an integral part of the ongoing system improvement cycle. In December 2013, the CEC launched an online clinical incident management data portal to improve accessibility of information and data for both consumers and health professionals. This can be viewed at <http://www.cec.health.nsw.gov.au/clinical-incident-management>

## Partnerships

The Patient Safety program works primarily in partnership with LHD staff, particularly in clinical governance. It also works closely with the NSW Ministry of Health, ACI and HETI, NSW Kids and Families, the Mental Health and Drug and Alcohol Office and the Ambulance Service of NSW.

## Future Directions

The Patient Safety program will continue work to identify emerging clinical risks in health care across NSW. During 2014/15, three new clinical focus reports will be prepared for publication. One will cover diagnosis and clinical management of abdominal pain; the second will be after hours clinical incidents and the third will relate to paediatric incidents. Other focus reports will be developed as identified through the RCA review committees.

The CEC will continue to provide timely clinical incident monitoring feedback and work closely with clinicians across Statewide groups, such as clinician networks. Linkage with the Agency for Clinical Innovation, directors of clinical governance and clinical governance units within LHDs, will utilise the information gained and drive and support system improvement.



# QUALITY SYSTEMS ASSESSMENT



Failures in the delivery of health care, however small, reflect the resilience and reliability of the whole system, not just one element or individual. Despite clinicians and managers delivering world class care in NSW, there is still the risk to patients of systems failing.

The Quality Systems Assessment (QSA) is a core element of the Patient Safety and Clinical Quality program (PD2005\_608). It was established in 2007, to challenge proactively the reliability and resilience of patient safety and clinical quality systems in NSW, top-to-bottom and end-to-end.

The QSA is unique in Australia. It is a system-wide, multi-level commitment to clinical risk management and continuous learning in NSW. It identifies practice as it happens, with clinicians, at the clinical unit level. This allows local teams to see how the systems and processes implemented through the organisation translate into practice that benefits (or causes risk for) patients. It also gives clinicians a direct collaborative voice into the systems that guide their work with patients every day and night.

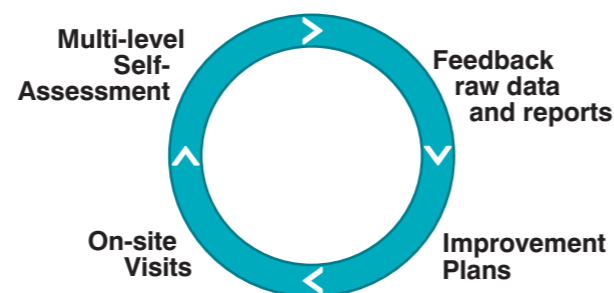


Through evidence-based methodology, the QSA is able to identify risks and support improvements locally, through detailed local data returned directly to local teams and systemically, through aggregation of local data to identify high-priority themes for action.

All local effort invested in the QSA process is also valuable evidence towards local accreditation against the National Safety and Quality Health Service Standards.

There are four main components to the annual cycle:

- Completion of an online multi-level self-assessment
- Feedback and reporting
- Using the information to drive improvement
- Onsite visits that validate the self-assessment responses and facilitate improvement discussions.



## Key Achievements

### 2013 Self-Assessment

The QSA improved its representative sample of clinical units from across NSW in the 2013 self-assessment. A record number of self-assessments (1,745) were received between August and October 2013 - 97.6 per cent. Responses were inclusive of all local health districts, specialty health networks and the Ambulance Service of NSW. For the first time, the 2013 self-assessment includes representation from community health units in NSW.

### Reporting from the 2013 Self-Assessment

Detailed local reports were provided at the facility level (December 2013) and organisational level (January 2014), following the 2013 self-assessment.

Local reports provided local unit-level data and relevant aggregations, to allow identification of local strengths and risks, as well as comparison across services and with NSW averages.

Timely return of tailored reports to local teams has allowed clinicians and managers to develop prioritised improvement plans that are most relevant to their local context. A key feature of the local reports is the heat-maps that provide an at-a-glance overview of unit and facility level responses to selected questions.

The State-level 'Safer Systems Better Care report (2013)' raises the importance of commitments to continuous learning and improvement to system resilience in our health system. It identifies State-level recommendations aimed at improving systems and outcomes in transition of care, medication safety, falls, integration of care between acute and community services and environmental cleaning.

### Onsite Visits

Each year, onsite visits reach 20 per cent of facilities across the NSW public health system. Most importantly, they engage directly with local clinicians and managers in improvement-focused conversations on local- and system-level risks to patient safety and clinical quality. Shared conversations enable shared understanding for improvement.

Onsite visits from the 2013 self-assessment between February and June 2014 engaged directly with 1,100 clinicians and managers.

Through onsite visits, the validity of the self-assessment responses was again proven, with a 97.7 per cent accuracy rate. This high level of validity provides great confidence in the responses, as a key input to driving local safety and quality improvement plans.

## Future Directions

The 2014 cycle of the QSA starts in August 2014 and will focus on health care teams, nutrition care, and pressure injury prevention and wound management systems. Community health services will also review elements of transition of care.

Meeting current and future health system needs is a key requirement for the QSA to ensure value for clinicians and patients. During the 2014/15 financial year, the QSA will undertake a consultative pulse-check to review the current and future directions of the program.

As a multi-level clinical risk management process, the most important partners of the QSA program are the clinicians and managers working directly with patients and at the middle and executive organisation levels. Their collaborative input enables local teams to see how the systems and processes implemented through the organisation translate into practice that benefits (or causes risk for) patients.

Internally, the QSA connects with CEC programs to ensure that relevant tools and resources are available to support local action. Externally, the CEC continues to enhance system-level partnerships (e.g., the Agency for Clinical Innovation and the Health Education and Training Institute) to ensure that local improvement efforts are supported by a responsive and integrated system.

The QSA will continue to work as required with the Australian Commission on Safety and Quality in Health Care, to facilitate appropriate alignment between local QSA engagement and accreditation processes against the national standards.

# SPECIAL COMMITTEE INVESTIGATING DEATHS UNDER ANAESTHESIA



Modern anaesthetic techniques have made much of today's surgery possible and brought great benefits to patient safety. The administration of anaesthesia has become safer and more routine than ever before. In NSW, more than one million individual episodes of anaesthesia care are recorded annually in all public and private hospitals.

Anaesthesia in Australia is very safe. Its administration, however, produces physiological changes that may lead to morbidity and mortality. The Special Committee Investigating Deaths Under Anaesthesia (SCIDUA) has been reviewing deaths which occur while under, as a result of, or within 24 hours after the administration of anaesthesia or sedation for medical procedures, in NSW since 1960.

The committee aims to determine the causal and/or contributory factors associated with anaesthetic sedation deaths and provides confidential feedback on the audit findings to anaesthetists. It also examines emerging trends in anaesthetic techniques and medical interventions over time.

Notification of deaths arising after anaesthesia or sedation for operations or procedures is a legal requirement stipulated in section 84 of the *Public Health Act 2010*. Information collected by SCIDUA is privileged.

## Key Achievements

During 2013/14, SCIDUA received 265 notifications of death, reviewed 282 notified deaths (including notifications received prior to 1 July 2013) and classified 248 notified deaths.

The three longest-serving members of SCIDUA, namely Prof Ross Holland, Prof John Hilton and Prof Barry Baker, retired from the committee at the expiry of their term of appointment on 31 August 2013. The CEC hosted a farewell function to pay tribute to them. The Minister for Health was a special guest and presented a certificate of appreciation to the retired members.

The Secretary, NSW Health, approved under delegation by the Minister for Health, the following appointments to SCIDUA from 1 September 2013 to 31 August 2018, pursuant to section 20 of the *Health Administration Act 1982*:

• Dr David Pickford	Chair
• Dr Michele O'Brien	Deputy Chair/Medical Secretary
• Prof Clifford Hughes	Ex-officio member
• Dr Damien Boyd	Member
• Dr Matthew Crawford	Member
• Dr Carl D'Souza	Member
• Dr Elizabeth O'Hare	Member
• Dr Benjamin Olesnicky	Member
• Dr Frances Smith	Member

SCIDUA published its report, *Activities of the Special Committee Investigating Deaths Under Anaesthesia, 2011-2012*. It documented the committee's audit activities and findings during the reporting period. From the report, the estimated mortality of anaesthetic deaths with correctable factors for 2011-2012, was 1 in 86,667 procedures, which indicates a slight improvement on the last reported rate of 1 in 80,147 procedures in 2010.

The report highlights the increasing age and frailty of patients now undergoing surgery. Orthopaedic and cardiothoracic surgery performed on elderly patients contributes the majority of cases reviewed by the committee. It encourages the community, medical practitioners, the patient and their families to consider what surgery is appropriate.

Copies of the report were distributed to heads of anaesthetic departments, directors of clinical governance and the chairs of the Australian and New Zealand College of Anaesthetists, Australian Society of Anaesthetists, Royal College of Surgeons and the Australian Medical Association.

SCIDUA also provided de-identified and aggregated audit data from 2009 to 2011, to the Australian and New Zealand College of Anaesthetists, for triennial national reporting on safety of anaesthesia in Australia. The data is collated to present nationally every three years and benchmarks NSW against participating States.

## Future Directions

Over the next 12 months, SCIDUA will:

- Publish its report: *Activities of the Special Committee Investigating Deaths Under Anaesthesia, 2013* on the committee's audit activities and findings
- Publish its first casebook to highlight key learnings in the audit cases
- Continue to oversee the development of a web-based application for online notification of patient deaths after anaesthesia and sedation administration. The online system will simplify the notification process and reduce the timeline between notification, review and reporting back to the medical practitioner.





## SUPPORTING ACCREDITATION

The National Safety and Quality Health Service (NSQHS) Standards are an integral part of the Australian Health Safety and Quality Accreditation Scheme, endorsed by health ministers in November 2010. They were developed by the Australian Commission on Safety and Quality in Health Care (ACSQHC) to provide a nationally consistent and uniform set of clinical safety and quality standards, for application nationally across all health services, both public and private.

The NSQHS Standards comprise ten standards covering topics such as governance, partnering with consumers, clinical handover and pressure injuries.

In December 2011, the CEC took a leadership role in accreditation for NSW public hospitals against the NSQHS Standards. Assessment started on 1 January 2013.

From 1 January to 31 December 2013, 77 NSW public health services underwent assessment against the NSQHS Standards. A total of 33 met all actions. Some actions were not met by 44 health services at the time of initial assessment, but were achieved in the subsequent remediation period (120 days).

### Key Achievements

#### *Accreditation Network*

A network of over 100 staff across the NSW health system was established. It facilitated the sharing of information, tools and resources between facilities, local health districts (LHDs), specialty health networks (SHNs) and State-level organisations, to help with accreditation. During monthly teleconferences, participants heard from and were able to question leaders of programs relevant to the NSQHS Standards. Topics included incident management, open disclosure, healthcare associated infections, care of the deteriorating patient, antimicrobial stewardship, sepsis and clinical handover.

#### *Mapping of CEC programs to the NSQHS Standards*

The NSQHS Standards reflect many of the key CEC programs already in place. Tools and resources have been mapped to the standards to assist LHD/SHN staff to identify and use as evidence during their assessments.

#### *Interim panel of accrediting agencies*

As part of the accreditation process, health services are required to have an accrediting agency complete an assessment of performance against accreditation standards. The CEC, in conjunction with HealthShare, convened an interim panel of approved accrediting agencies to undertake assessment of health services. The convening was requested by chief executives of LHDs/SHNs to reduce the burden associated with identifying and selecting suitable accrediting agencies. The initial benefit of the panel is to allow health services to engage an accrediting agency without undertaking the tender process. The next step is to develop a pre-negotiated standard contract for health service engagement of any accrediting agency on the panel.

### Partnerships

The CEC is working with the Health Education and Training Institute to identify and develop education and training packages to address the education and training requirements throughout the NSQHS Standards.

### Future Directions

The CEC is developing a database to support LHDs and SHNs to manage and undertake their accreditation assessments. It will provide staff at the facility, LHD, SHN and State levels with current information about the status of accreditation of individual NSW Health facilities.

The NSQHS Standards require health services to undertake a large number of audits. The CEC is developing an audit database – Quality Audit Reporting System (QARS) – which will allow health services to develop and share audit tools, undertake audits and benchmark their performance against other health services.



## EMERGING PROGRAMS



## PAEDIATRICS AND QUALITY

In NSW in 2013, one in four hospital admissions were for children under the age of 16 years. Approximately 1 in 10 clinical incidents reported in the Incident Information Management System (IIMS) involved children and young people under 20.

The health care needs of children can be very different from those of adults with the same condition. For example, the 'normal' range for standard observations such as breathing and heart rate will be different. The dose of some medicines can vary by factors of ten or more and there can be greater anxiety and emotional involvement from parents. Some illnesses, like meningitis, present in different ways in children and can be very difficult to diagnose.

### Overview

There is an increasing recognition of the importance of ensuring quality and safety in paediatric healthcare. The Paediatric Quality Program provides expertise and support to emerging and established quality and safety programs at the CEC, addressing issues that are unique to paediatrics.

The CEC has contributed for many years to improving outcomes for children, through the paediatric components of individual programs. Both the Sepsis Kills and Between the Flags programs have significant paediatric components which have been demonstrated to be effective and well received by clinicians.

### Future Directions

Initially, the program will review data from IIMS and other sources to identify priority and emerging issues in paediatric quality and safety in NSW. Early areas of focus for the program will include falls, medication safety and end-of-life care in the paediatric population.

The CEC will work collaboratively with NSW Kids & Families across a range of areas, to improve the quality and safety of health care for children and young people in NSW.

Other stakeholders include metropolitan paediatric units (MP4) and Children's Healthcare Australasia. MP4 is a group of clinicians across paediatric units in NSW hospitals focused on paediatric care. A high priority is to work with regional and rural paediatric units to identify issues and concerns around quality and safety.

The CEC is working with Children's Healthcare Australasia on a number of quality and safety initiatives, including supporting hospitals with paediatric wards to meet the National Safety and Quality Health Service Standards.

## DELEGATION AND ESCALATION

Patient care provided by unsupervised staff, with limited clinical experience, is unsafe and inefficient. Supervision of inexperienced or unskilled clinical staff that is inadequate, haphazard, or driven by issues other than those related to patient care or optimum training, is harmful to patients and increases clinician stress and burnout.

Safe clinical care should be provided either directly by experienced skilled staff, or by inexperienced staff under a level of supervision that is appropriate for the patient's illness and circumstances and for the level of competence of the staff member performing care. Currently in NSW, there is very little data on supervision provided at the point of care, but a great deal of data indicating that supervision was sub-optimal in critical patient safety incidents in acute facilities.

The Delegation and Escalation project originated from the Special Commission of Inquiry into Acute Care Services in NSW Hospitals, which recommended that NSW quickly develop and implement State-wide policies setting out a best-practice model for the supervision of junior clinicians. A Clinical Excellence Commission (CEC) patient safety report published in 2012, identified that there were nine barriers to effective supervision and made 17 recommendations.

### Overview

The Delegation and Escalation project aims to address NSW Health system deficiencies related to supervision at the point of clinical care. Specifically related to ensuring that patient care plans are appropriate, care is provided with appropriate supervision. Deterioration in patient condition is escalated to the most appropriate clinician.

Changing the way supervision is conducted and documented is a large culture change for NSW Health. To ensure that the appropriate support is provided to less experienced clinicians, it is important that:

- Supervision of clinical staff is built into core work practices
- Supervision is structured to allow clinicians to be trained, without compromising patient care
- Supervision provided by clinicians at the point of care is appropriate for the level of expertise of those involved
- Practices are in place to establish the level of expertise of less experienced staff
- Supervision is treated as a skill that needs to be learned by any clinicians providing supervision
- Supervision training is available to any clinicians providing a supervisory role
- Procedural supervision is clearly documented in the clinical record.

### Future Directions

The CEC is working with many clinicians and a number of agencies, to identify supervision benchmarks and evaluation strategies. Diagnostic data is currently being collected to determine the best way to achieve the aim of the project.



Effective open disclosure is fundamental to maintaining or re-building the trust and honesty between health care staff and consumers. It facilitates appropriate resolution for patients, their support people and health care staff involved in a patient safety incident. It supports effective system improvement, through helping to prevent the recurrence of patient safety incidents.

The Open Disclosure project aims to improve the quality of care following a patient safety incident, by providing a standardised structure to support effective open disclosure practice in NSW Health facilities.

The project supports the implementation of recommendations outlined in the NSW Ombudsman's Final Investigation Report, June 2009, into the Department of Health, Northern Sydney Central Coast Area Health Service and North Coast Area Health Service.

### Overview

The Open Disclosure framework provides clear directions for health care staff about when open disclosure is required, what is expected of them by the patient and the health system, the 'how to' for open disclosure discussions and where to access help with open disclosure processes. The program incorporates advances in national and international best practice in patient-based care and support for staff who are preparing to participate in open disclosure and is informed by the Australian Open Disclosure Framework (ACSQHC, 2013).

It comprises three phases.

- Development of an open disclosure framework:
  - revision of the NSW Health Open Disclosure Policy
  - developing the CEC Open Disclosure handbook and accompanying resources
  - developing a set of open disclosure eLearning modules to be hosted by the Health and Training Institute (HETI).

- Enabling uptake:
  - providing an education framework to support clinicians in open disclosure practice, comprising online lessons and face-to-face training
  - promoting the revised policy and resources among target groups across NSW.
- Evaluation:
  - local open disclosure processes are in place
  - education available and accessed by health care staff
  - education is meeting the learning needs of health care staff
  - the incidence of open disclosure discussions, associated with patient safety incidents, reflects the requirement for open disclosure for all patient safety incidents.

### Future Directions

The four main objectives for the Open Disclosure project during 2014/15 are:

- Completion of the open disclosure framework, which includes the Open Disclosure policy, the CEC Open Disclosure handbook and other resources and three online education modules
- Increased awareness of the requirements for open disclosure for all patient safety incidents is reflected in increased reporting of timely open disclosure in the incident management system
- Increased patient and/or family satisfaction with the care provided to them following a patient safety incident, in particular the provision of timely, open and honest information and an apology for the incident
- Increased confidence among health care staff about participating in open disclosure discussions.

# THANK YOU

Thank you to all the staff of the CEC and local health district media units, who helped with the report and to the health professionals, volunteers, patients and their families who feature in it.

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