YEAR IN REVIEW 2018–2019

Specialists in safety, partners in improvement

NSW GOVERNMENT

CLINICAL EXCELLENCE COMMISSION

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Foreword

For 2018-19, we are pleased to report the Clinical Excellence Commission continues to deliver on its commitments, as the lead agency for safety and quality for NSW, to support and facilitate safer care for patients and families.

This year's review showcases highlights across a number of our safety programs and demonstrates how the CEC supports and partners with local health districts and specialist health networks to improve outcomes for patients and families. While the CEC has been a catalyst and enabler for many of these initiatives, the real champions for patient safety are the staff, patients and families who advocate for patient safety first, every day.

We have placed an increasing emphasis in our work with our partners on providing flexible, agile support and expertise. This includes ensuring a strong voice for patients, families and staff in the design and delivery of our safety programs, in promoting the importance of everyone 'speaking up for safety' and in learning collectively about what matters most to everyone involved.

This past year has also seen new initiatives in the areas of mental health and maternity care where we have trained and coached a wider community of staff with the skills and knowledge for improvement work.

We have learned, collaboratively with colleagues across Australia, to improve outcomes for women during childbirth and we have trained and mentored improvement coaches to support local mental health teams. Lastly, we launched our inaugural Health Literacy Framework, which provides fundamental support for better communication with patients and families ensuring everyone has a voice in making care safer.

As digital experiences have evolved in all aspects of healthcare, clinical teams increasingly require access to responsive, real time data and analytics to inform and drive improvement projects.

This past year, we embarked on innovation to improve patient safety through the use of our Quality Improvement Data System. We were excited to launch this online application in 2018 and, already, 5000 users across NSW are using the system to identify and respond to opportunities for safer care.

Our aim is also to inspire and facilitate a safety culture committed to continuous improvement which understands the value and importance of people, their values and relationships and recognises the need to attend to these aspects to optimise outcomes from working together.

Patient safety is everybody's business so our collaboration with patients, staff and families will continue to increase, evolve and strengthen.

Our thanks to our dedicated staff of the CEC and our partners. And to the many health consumers who shared their experience with us to keep us focussed on what matters most. We look forward to the coming year as we enhance and improve our services, take on new challenges and respond to emerging needs.

Carrie Marr
Chief Executive

Associate Professor Brian McCaughan AM
Board Chair

Introduction

Established in 2004, the board-governed Clinical Excellence Commission (CEC) is one of five pillars of the NSW health system. Pillar agencies provide specialist services and support to frontline health teams in hospitals and care settings.

The role of the CEC, detailed in its 2012 determination of functions, is to lead, support and promote improved safety and quality in clinical care across the NSW health system through consultation and collaboration with clinicians, health consumers, other pillars and the NSW Ministry of Health.

The agency has two broad areas of responsibility:

- setting standards for safety, and monitoring clinical safety and quality processes and
- improving performance of individuals, teams and systems in prioritising safety.

The CEC is responsible for over 20 policies related to clinical quality and safety implemented across the NSW public health system and is charged with continuous development of policy and strategy for further improvements.

Included in its functions is identification of priorities for research about clinical quality and safety in health care and review and response to adverse clinical incidents arising in the NSW public health system.

To improve performance of individuals, teams and systems, the CEC initiates and manages a range of programs in collaboration with local health districts and specialty health networks (LHDs/SHNs) to raise capability and support process improvements and safety culture in clinical teams.

The CEC plays a leading role delivering the first priority of the NSW Ministry of Health: Patient Safety First.

Safer care, for every patient, every time

Safe, reliable care is at the heart of everything we do. Our vision, in partnership with hospitals across NSW, is to further develop a strong and reliable safety culture, and ensure that patients, their families and carers have a positive experience of care.

Specialists in safety: partners in improvement

We are safety specialists committed to continuous improvement of patient safety and the experience of care for the people of NSW.

As safety specialists in the NSW health system, leading continuous improvement in safety system excellence and performance. We are responsible for developing the language and concepts of an effective safety system and its associated culture; for educating clinicians, frontline staff and patients and families about those ideas, concepts and methods; and for making sure the resulting safety conversation, across the system, is reflected in everyday practice.

Key achievements

The CEC's online Quality Improvement Data System (QIDS) increased users to over **5,000** by June 2019. QIDS empowers clinicians and managers in NSW Health to drive improvements in patient safety and healthcare quality using their own local data.

Potential harm to patients was minimised by the issuing of **21** Safety Alert Broadcasts requiring immediate action and four medication shortage communications. Of **670** medical devices assessed for risk, **17** were identified as high risk and two as extreme risk, requiring a system level response led by CEC.

The Quality Improvement Academy continued to build patient safety and quality improvement capabilities in the NSW Health workforce, this year training **693** improvement coaches with **417** taking part in safety system skills training. Since 2007, over **5,000** health staff have been trained in improvement science through the Academy.

The CEC and Ministry of Health commenced participation in the Safer Baby Program, a national collaboration to reduce preventable stillbirth from 28 weeks gestation by **20 per cent**.

The NSW Mental Health Patient Safety Program commenced in November 2018, in partnership with LHDs/SHNs, to improve quality and safety of mental health care in NSW. **Fifty-eight** improvement coaches were trained to support local teams to improve their safety priorities.

The **NSW Health Literacy Framework**, released in April 2019, is a guide for frontline staff, leaders and managers to improve health literacy of patients, families and carers and create organisations responsive to the needs around health literacy.

In collaboration with key agencies, the CEC continues to develop resources and strategies to **reduce hospital acquired complications**. With information now provided by QIDS, within the year, consultation commenced with senior clinicians to prioritise high risk targets.

As part of the redesign of the Clinical Incident Review System, a new **Preliminary Risk Assessment** was developed in consultation with clinical leaders and Directors of Clinical Governance and is being piloted in two LHDs.

In collaboration with eHealth, in March 2019, the CEC released Version 4 **Between the Flags** electronic observation charts including the Antenatal Short Stay Observation Chart, the Standard Maternity Observation Chart and the Standard Newborn Observation Chart.

Partnering with patients, families and carers

From our strategic plan:

We empower patients, families and carers by listening to and respecting their voice and expertise.

Patients, their families and carers are at the centre of what we do. We work towards greater respect for, and recognition of, the experience and expertise of patients and their families and carers as partners in care across all stages of their health care journey.

Patient Experience Symposium

In its sixth year, the 2019 Patient Experience Symposium, held in Sydney in 2019, attracted 657 attendees with consumers accounting for almost 20 per cent. A diverse program of presentations and workshops was delivered by health care clinicians, consumers and researchers covering topics such as Aboriginal care experiences, mental health, maternity care, end of life care and consumer empowerment. Achievement of a #consumertick logo recognised the integration of consumer experience and insight into program development.

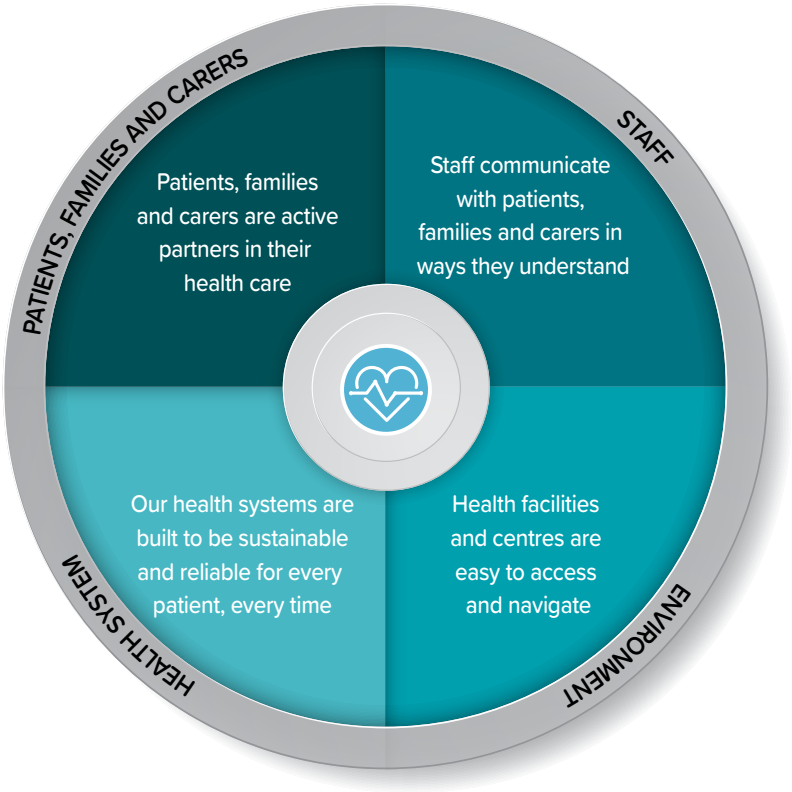
For the second year, Luke Escombe took up the role of Master of Ceremonies for the Symposium. An award-winning singer-songwriter and comedian, Luke has turned his 25 years of living with chronic illness into inspiration for his art. Luke, who is also a member of the CEC/Agency for Clinical Innovation Consumer Council, shared his story and experiences with humour and compassion to create a warm atmosphere and memorable time for Symposium attendees.

Health Literacy Framework

NSW's first Health Literacy Framework was launched at the 2019 Patient Experience Symposium. The Framework is a result of consultation with consumer groups, local health literacy champions and front line staff to identify key principles to guide local initiatives.

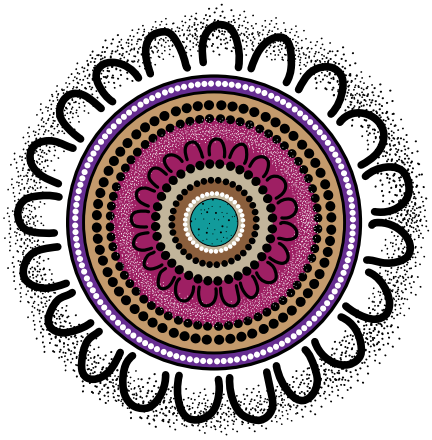
Poor health literacy is a significant social determinant of health and is associated with more hospitalisations, greater use of emergency care, lower uptake of screening and vaccines, less ability to take medications appropriately, less ability to interpret labels and health messages, and, among elderly persons, poorer overall health status and higher mortality rates.

Clearer communication from health staff and higher health literacy enables patients, their families and carers to strengthen their role as genuine members of the healthcare team and partners in decision making. When well implemented, higher levels of health literacy deliver rewards for staff as well as patients.

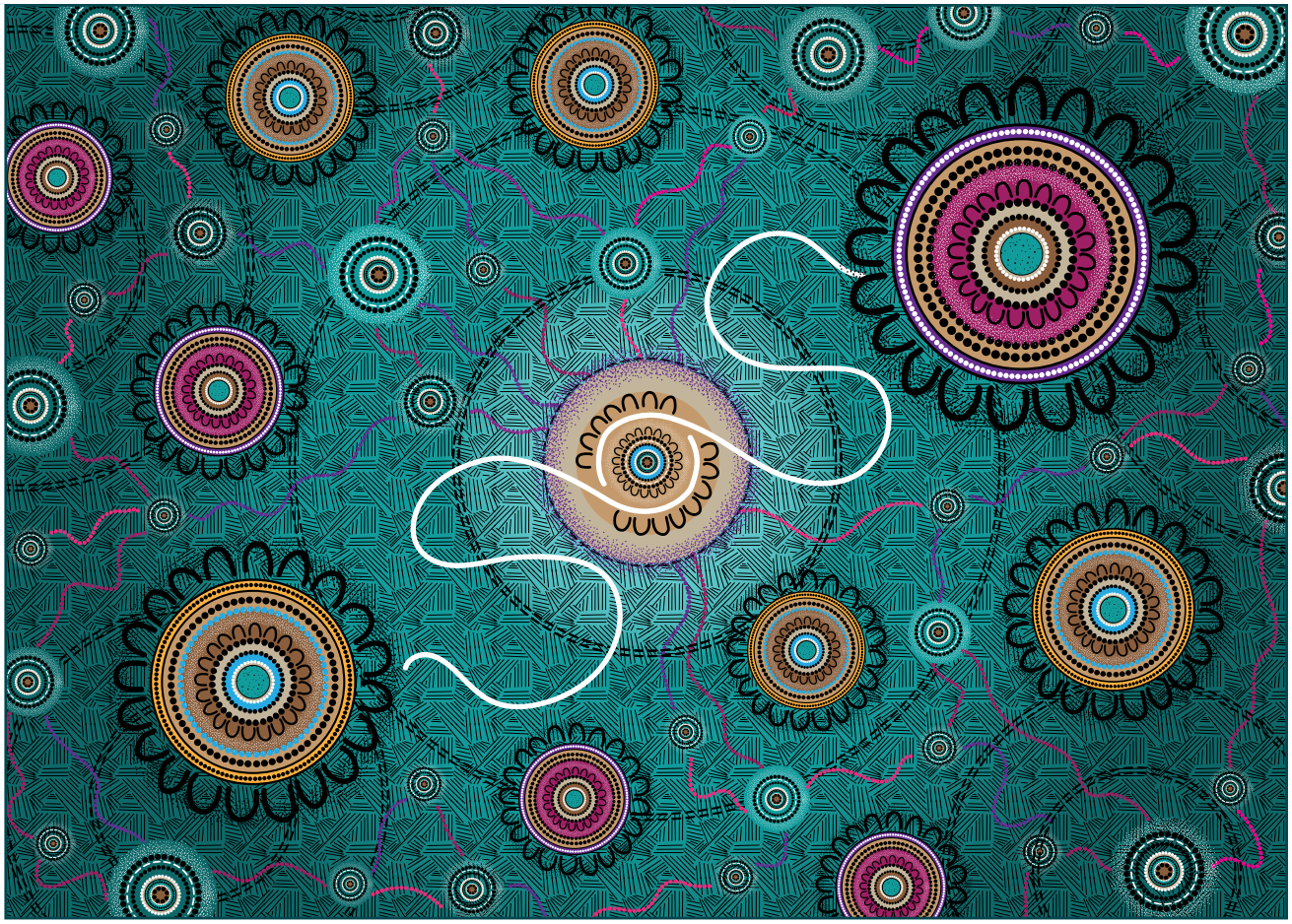


Aboriginal artwork

In 2018, the CEC commissioned artwork to enhance the agency's connection and communication with Aboriginal consumers and communities. The result is an outstanding and vibrant digital artwork, titled 'Health Custodian by Jasmine Sarin, an emerging Aboriginal artist working with the Boomalli Aboriginal Artists Cooperative. Jasmine is a proud Kamilaroi and Jerrinja woman from NSW who grew up on the South Coast in Nowra (Jerrinja and Yuin country) and Wollongong (Dharawal country).

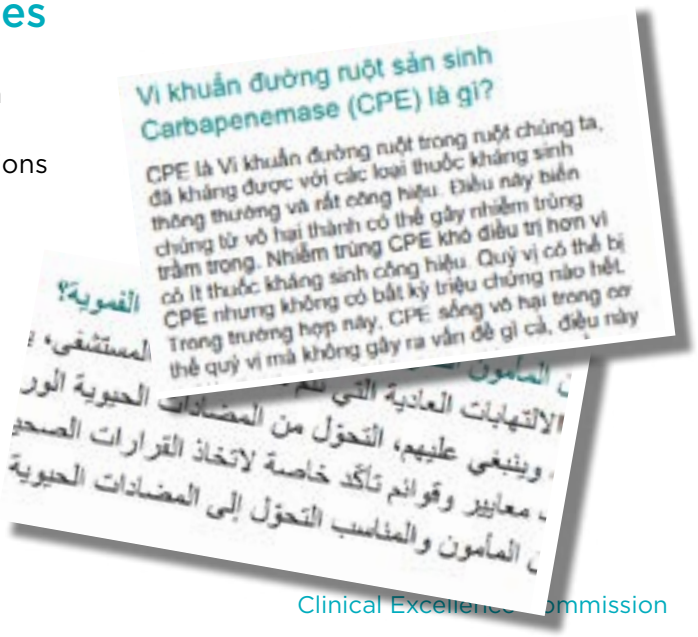


Health Custodian contains individual motifs representing community, care, services and connection as well as one representing the CEC.



Delivering in community languages

Health safety information for linguistically diverse communities can be especially important to infection control and the appropriate use of medications. The CEC continues to increase the number of its publications for consumers available in community languages.



Changing from intravenous to oral antibiotics: Information for Parents and Carers – Arabic, Simplified Chinese, Traditional Chinese, Farsi, Hindi, Korean and Vietnamese

Carbapenemase-Producing Enterobacteriales Information for Patient, Family and Visitors – Spanish, French, Greek, Hindi, Italian, Russian, Turkish, Vietnamese, Simplified Chinese, Traditional Chinese

REACH

REACH: Recognise, Engage, Act, Call, Help is on its way.

REACH is a system where patients, families and carers can access urgent review if they feel their condition or the condition of a person they are caring for is deteriorating and clinical staff are not responding.

The REACH poster was translated and made available in the following community languages:

Spanish, Greek, Hindi, Italian, Turkish, Vietnamese, Chinese Simple, Chinese Traditional, Farsi, Nepali, Arabic, Korean, Macedonian

REACH and Mental Health

The CEC is partnering with local health districts to implement REACH in all NSW public hospitals, including psychiatry hospitals and mental health inpatient units. At present, REACH is implemented in four of the State's eight psychiatry (F1) hospitals, and approximately 20 per cent of the state's mental health inpatient units. There is intention to implement REACH in all remaining NSW public hospitals, including mental health inpatient units.

In June 2019, the Nyngan Health Service was recognised for its innovative REACH program, winning a CEC 'Patient Safety First' award.

"We acknowledge family members and friends know patients better than us, and we need them to raise a hand and let us know" said Nyngan Health Service Manager, Jenny Griffiths.

The Western NSW Health District acknowledged the Nyngan program as the first to use the services of a virtual team in the family-escalated response process.

The Nyngan Health Service partnered with the Patient Flow and Transport unit for Western NSW Local Health Service in Dubbo, to access clinical experts for an independent review of the patient using telehealth technology.

Mary Josephine Connelly and Jenny Griffiths

Staff – speaking up for safety

From our strategic plan:

We listen to, and learn from, staff experience and expertise, to help change the system for the better.

Our role is to support individuals, teams and organisations to speak up for patient safety and quality, so we can help them on their continuous improvement journey. We will work with staff across the health system, and within our organisation, to improve the systems and support for better safety practice that is integrated into every aspect of the health care experience for patients, families and carers.

Team Stripes and Safety Fundamentals for Teams

Within clinical units, effective teamwork and communication are foundational elements in a culture of safety and are key elements of high reliability organisations. Our inability to communicate effectively within teams and with patients and their carers is directly linked to patient harm.

Team Stripes is a practice developed by the CEC to enhance teamwork and communication for clinical teams working at the point of care. Based on human-centred design principles, it was developed to ensure an individualised unit-specific approach to safety and quality improvement, and resulting in culture change and improving the patient experience.

In 2018-19, as part of the Team Stripes program, the CEC developed the concept of Safety Fundamentals for Teams. Each Fundamental is an activity that can change behaviours affecting the quality and safety of care and the staff and patient experience. These are practical interventions, most of which require a short implementation time and have the potential to bring quick measurable gains.

In 2018, the CEC began work with the Moruya Renal Dialysis Unit using the Team Stripes framework to improve multi-disciplinary team communication.

As a satellite unit of Canberra Hospital, the team works across two health systems (ACT and NSW Health) and was seeking new ways to overcome physical distance to improve team connection and cohesion and enhance patient and carer experience.

The Team Stripes framework involved: engaging with leadership and point-of-care teams, on-site visits and observations, formal presentations and facilitated conversations. A range of changes were implemented and have led to more robust multi-disciplinary coordination.

Over 2018-19, the CEC continued to support this team with coaching and identifying further opportunities for improvement.

Compassion Labs

In late 2018, the CEC and the Nursing and Midwifery Office sponsored two Compassion Labs for Directors of Nursing, Nurse Managers, Nursing Unit Managers and District Directors of Nursing.

The two-day Labs attracted 71 attendees and were facilitated by Mary Freer. The Labs were grounded in an evidence-based understanding of how staff can deliver their best in an environment which is characterised by high stress levels, complexity and workload.

> **"Compassion Lab reminded me of the importance of checking in with my colleagues which will lead to better patient outcomes and staff wellbeing."**

Governance and compliance

From our strategic plan:

We monitor compliance and regulation and we manage risks.

We have a continuing key role in governance of the safety system across NSW Health. This quality assurance work in standards, compliance and accreditation underpins and guides our commitment to continuous improvement and remains the foundation of our contribution to a safer system.

Critical Response Unit

As a result of a policy change on responses to urgent system-level medicine or medical device issues, the Therapeutic Goods Authority (TGA) state recall coordination function for NSW was transitioned from the Ministry of Health to the CEC. This included responsibility for and maintenance of email distribution lists for the three recall categories: medical devices, medicines and biological agents.

In 2018-19, the CEC established a Critical Response Unit to routinely review TGA recall notices and circulate to key staff throughout NSW. The Unit conducts a risk assessment for each TGA recall notice and for any issues escalated from LHDs/SHNs, to determine the risk to patient safety. In the event of an urgent system-level medicine or medical device issue, the CEC leads a statewide response. This response may involve convening an interagency management team meeting with key agencies and issuing a Safety Alert Broadcast.

Special Committee Investigating Deaths Under Anaesthesia

Notifications to the Special Committee Investigating Deaths Under Anaesthesia (SCIDUA) demonstrated a strong commitment to the program from anaesthetists and sedationists in the NSW health system. Practitioners submitted a total of 340 cases for the period, providing relevant details for the Committee to assess and classify the patient death.

The SCIDUA Special Report 2017 was released in December 2018 and reflected the continuing improvements in anaesthetic care. The report identified that of the 500 deaths reported for the 2017 calendar year, the Committee classified only six cases where Anaesthesia either directly caused, or substantially contributed to, the patient's death.

Blood Watch

During the year, the CEC developed tools to support reporting and management of transfusion-related adverse events in the Incident Information Management System and conducted sessions introducing Blood Watch network members to the new system and tools available on the CEC website.

Access to blood and blood products in rural and remote areas, particularly in the event of trauma, were reviewed for opportunities for improvement. In response to clinical concerns on compatibility of fresh frozen plasma where the patient's blood group is unknown, work was undertaken to identify and implement education strategies to support effective massive transfusion protocol implementation and enhance clinician knowledge of compatibility of blood products administered in emergency settings.

Multi-resistant organisms

The CEC continues to collaborate with the Ministry of Health on Multi-Resistant Organisms (MRO) management strategies. The *Carbapenemase-producing Enterobacterales* guideline was published after wide consultation. This guideline provides direction to local heath districts on identification, prevention and management of these emerging infections. Guidelines for the management of *vancomycin-resistant Enterococcus* also commenced development.

As part of an improved communication and understanding regarding new, emerging and critical multi-resistant organisms, the CEC commenced development of a guide to assist with escalation of information within hospitals, LHDs/SHNs and to the CEC and the Ministry of Health.

Staphylococcus infections

The CEC plays an oversight role in relation to *Staphylococcus aureus bacteremia* (SAB) infections in NSW. Rates of SAB are declining. Overall SAB infection rates in NSW were consistently lower than the National Health Agreement benchmark of 2.0 per 10,000 patient days in 2018.

The latest available figures show total number of SAB cases in NSW public hospitals has decreased by 48 per cent, from 769 cases in 2010-11, to 494 cases in 2016-17. This correlates to a rate of 0.72 SAB cases per 10,000 days of patient care in NSW, which is compared to 0.76 per 10,000 days of patient care nationally.

Serious Incident Investigation and Management

Immediacy: Accountability: Kindness

New legislation relating to the investigation and management of serious incidents in the NSW health system was passed by Parliament in February 2018. The statewide introduction of the incident management system (ims+) in 2019 and 2020 will provide a modernised electronic incident management system aligned to the legislative changes to support system-wide learning and action.

The CEC continued to contribute to the transition of the NSW Health System to new approaches to serious incident management. Key changes include a Preliminary Risk Assessment, the separation of findings and recommendations and alternate investigation methodologies alongside Root Cause Analysis (RCA). The broader opportunities afforded are earlier and ongoing open disclosure, meaningful and early partnership with patients, carers and families, the appointment of a dedicated family contact and greater support for clinicians and teams.

Widespread consultation with clinicians, teams and experts across NSW Health informed development of the guiding principles of immediacy, accountability and kindness in response to incidents. The collaboration supported the development of a consistent and reliable Preliminary Risk Assessment process to identify immediate actions for people and the environment to be safe and supported following a serious incident. The separation of findings and recommendations allows for the addition of further experts to develop recommendations and opportunities for communication touch points with families, and was broadly supported across NSW.

The CEC is collaborating with an academic partner to develop improved investigation methodologies in the context of limited published healthcare evidence.

The CEC is also leading efforts to scale and scope investigation management to match resources and prioritise learning and action. The legislation commencement will align with and complement the ims+ implementation program and be accompanied by an updated policy, education, training, tools and resources. This body of work is governed by a steering group co-chaired by the Ministry of Health and the CEC with representation from consumers, metropolitan and rural local health district leaders and the Ministry of Health.

During the year, the CEC worked collaboratively with the Australian Commission on Safety and Quality in Healthcare to revise the Australian Sentinel Events list, and with eHealth in designing the data sets for the incident management system (ims+), currently under development, to ensure the capability to monitor and report sentinel events.

Accreditation

Over 2018-2019, the CEC led a range of clinical governance activities, towards accreditation and clinical incident management. In addition, the CEC has provided support to hospitals with accreditation including reviewing significant adverse events and providing reports and advice to health services to mitigate risks identified.

Programs and culture

From our strategic plan:

We foster a commitment to safe reliable care with our partners.

Better patient safety relies on the ongoing commitment from patients, families, carers and all staff to work collaboratively through trust, openness and mutual accountability. We foster this commitment by facilitating a better blend of programs and culture change across the NSW health system.

World Sepsis Day

Sepsis is recognised as a medical emergency where the body's response to an infection is so great that it starts to attack and injure its own tissues and organs. Any delays in identifying symptoms and starting treatment including antibiotics, increase a patient's risk of death, loss of limbs or other long-term disability.

Since the introduction of the CEC's statewide SEPSIS KILLS program in 2011, the median time to start antibiotics has dropped from 104 minutes in 2011 to 59 minutes in 2018, almost halving the time it takes for sepsis patients to start life-saving antibiotic treatment.

As in previous years, the CEC led the promotion of World Sepsis Day across NSW public hospitals in support of the Global Sepsis Alliance on 13 September 2018. The CEC developed an animated video as a resource for raising awareness in LHDs/SHNs and ran a social media campaign through Twitter asking staff to pledge for improved safety in managing sepsis.

Between the Flags

Patients in health care settings can deteriorate unrecognised and without an adequate response. Between the Flags addresses this problem by acknowledging early recognition of deterioration can reduce harm to patients. This idea comes from the pioneering work of Prof Ken Hillman, who developed a simple, but innovative system at Liverpool Hospital, NSW to identify patients who were deteriorating. It consisted of establishing vital sign thresholds (calling criteria) for escalation and a clinical response team with advanced life support skills. This original work by Prof Hillman and his colleagues gave rise to an international collaboration around the development of such systems. They are now common in Australia, the UK, the US and Europe.

Between the Flags was introduced in NSW in January 2010. Since its introduction its estimated there have been 1,500 fewer deaths per year in low mortality diagnostically related group in NSW.

In collaboration with eHealth, the CEC released Version 4 Between the Flags electronic observation charts in March 2019 including the Antenatal Short Stay Observation Chart, the Standard Maternity Observation Chart and the Standard Newborn Observation Chart.

April Falls Day

The theme for the 2019 April Falls Day® was 'Frailty – do you know the signs?' In addition to providing resources on the theme to front line teams in local health districts and specialty health networks, the CEC held two WebEx meetings. Professor Anne-Marie Hill delivered a session on the importance of mobilising frail older people in hospital to prevent further deconditioning and Professor Susan Kurrle presented on recognising the signs of frailty and deciding what to do about it.

Value and impact

From our strategic plan:

We demonstrate the value and impact of committing to continuous systems improvement.

We recognise that the provision of health care is demanding and resource-intensive. We help our health care partners to better organise existing expertise and resources to deliver improved patient safety and quality.

CEC services

The value of the work of the CEC is seen in commissions by local health districts and speciality health networks. All 15 local health districts and specialty health networks commissioned work from the CEC during 2018-19 across a range of programs and services detailed throughout this report. This work involved increasingly complex and diverse interventions and diagnostics.

Leading Better Value Care Falls Collaborative

No other single cause of injury, including road trauma, costs the health system more than falls. In NSW each year, falls lead to approximately 27,000 hospitalisations and more than 400 deaths.

As part of the Leading Better Value Care program, the CEC used a modified version of the Institute for Healthcare Improvement collaborative methodology to bring together 40 multi-disciplinary teams from hospitals across NSW to deliver the Falls in Hospital Collaborative from October 2017 through to September 2018.

The fourth and last Learning Set for the Leading Better Value Care (Falls Prevention) program was held in September 2018, focussing on advanced measurement, spread and sustainability.

Evaluation of the program in 2019 showed the average number of falls per month resulting in serious injury for the 70 years and older cohort reduced by 25 per cent in participating hospitals. This equates to 27 fewer falls resulting in serious harm. At an individual ward level, 32 teams participating in the Collaborative have experienced greater than 100 days and 10 teams greater than 400 days without a serious fall.

Eighty-two per cent of respondents believed that the Collaborative had a positive impact on patients, and 89 per cent of respondents believed the Collaborative will directly benefit patients in the future.

The high standard of the quality improvement science knowledge acquired by the 313 participants has enabled participating clinicians to apply this knowledge when redesigning other clinical processes and improve other patient outcomes.

Clinical Governance Stocktake

The Clinical Governance Stocktake is designed to review the effectiveness of clinical governance across a health organisation. The process is built around open and safe conversations that build a shared understanding of strengths, development needs and ideas for action to enhance the organisation's clinical governance. LHDs continue to commission a partnership with the CEC to apply the Stocktake in alignment with local improvement priorities. Following the workshop phase of the Clinical Governance Stocktake, the CEC's Organisational Effectiveness Team supports identification and follow-through on local value-add initiatives. In 2019, the CEC supported Western Sydney LHD and Nepean Blue Mountains to complete Clinical Governance Stocktakes.

Perineal Tears Collaborative

Approximately 76 per cent of all women who give birth in Australia each year sustain some form of perineal trauma. More than 3 per cent of these women will sustain third and fourth degree tears with the potential for long term, or even lifelong, impact on their wellbeing.

In 2017, the CEC partnered with the Women's Healthcare Australasia on a Collaborative Improvement project addressing rising numbers of women across Australia experiencing a severe perineal tear during childbirth. Twenty-eight maternity services across Australia signed up to participate with the primary aim to decrease the rate of third and fourth degree perineal tears by 20 per cent by 31st December 2018.

At Bloomfield, an older person's mental health facility in Orange, one hundred percent of patient falls are now followed up with a Post-Fall Huddle where team members meet to assess the event.

Since starting the Falls in Hospital Collaborative in October 2017, the older person's acute mental health ward has reduced their falls rates from 11.1 per 1000 occupied bed days to 1.43 per 1000 occupied bed days in March 2019. The team at Bloomfield recently experienced a period of 238 days without a serious fall, an outstanding achievement.

During this Collaborative, 161 multi-disciplinary team members from participating hospitals engaged with quality improvement science methodology to implement an evidence informed bundle of measures designed to protect the perineum during vaginal births.

The perspectives of women were critical in the planning and development of the Collaborative with consumer representatives working on the project from its inception. In addition, participating teams were encouraged to involve consumers in their improvement work.

To facilitate the reporting of data and sharing of learning among teams throughout the Collaborative, a user-friendly online Quality Improvement Data System (QIDS) was developed by the CEC. The QIDS site allowed the sharing of de-identified team data, the development of driver diagrams, monitoring of PDSA (Plan-Do-Study-Act) cycles, resource sharing and interactive chat room facilities.

Participating hospitals offered the resulting Perineal Protection Bundle to over 18,000 birthing women between 1 August 2017 and 31 December 2018.

As a result, there was a decrease of 13.43% in the overall rate of third and fourth degree perineal tears. This equates to an improvement in the lives of 473 women.

There has been a significant increase in quality improvement science capacity within the 163 clinicians including senior obstetricians, midwives and physiotherapists who participated throughout the Collaborative. This knowledge and clinical application can now be applied to other clinical services.

> **"We have improved outcomes for our women first and foremost … we have learnt new ways of doing data, analysis and graphs. It was a whole team effort and included many people at the hospital and the coal face."**

Mental Health Patient Safety Program

In late 2017, the NSW Government released the Independent Review of Seclusion, Restraint and Observation of Consumers with a Mental Illness in NSW Health Facilities with 19 recommendations. The CEC committed to implementing recommendation 2: NSW Health must adopt a mental health patient safety program, informed by contemporary improvement science.

The NSW Mental Health Patient Safety Program commenced in November 2018, in partnership with local health districts and specialty health networks, to improve quality and safety of mental health care in NSW. In early 2019, a three-day workshop was held in partnership with the National Health Service, Scotland providing direction to the program.

Mental Health improvement coaching commenced in April 2019. Fifty-eight improvement coaches have been trained to support local teams improve their safety priorities including over fifty coaches from local health districts. Each coach supported two or more local mental health teams in their safety and quality improvement efforts.

A proactive, generative approach to safety and quality improvement was adopted. This means having reliable systems to predict risk, as well as proactively partnering with consumers and staff to learn from past experiences and define future priorities, roles and expected outcomes.

Program principles

Person-centred

Improvement efforts are centred on what matters most to consumers. This includes giving consumers an equal voice as active partners in safety and quality improvement work.

Transformational leadership

Transformational leadership practice and behaviours are adopted to inspire, support and encourage staff to continuously improve the safety and quality of Mental Health care.

Staff empowerment

A bottom-up approach is adopted by empowering staff to develop and lead safety and quality improvement work through giving permission, time, space and the skills needed for improvement.

Safety culture

Creating a safety culture that encourages learning from mistakes and building on successes, forms an atmosphere of trust and psychological safety, and celebrates success.

Collaborations and partnerships

Collaborations and partnerships within and outside the NSW Health system are established, nurtured and leveraged to support a whole-of-system approach to improving the safety and quality of mental health care.

Maternal Safety

In 2018-19, the CEC progressed integration of support for improving patient safety and reducing harm in mothers and babies into workplans of the CEC and through the following activities.

FONT redesign process

The CEC was a key partner in the redesign of FONT, the primary educational program for maternal safety in NSW in an improvement project led by the Ministry of Health.

FONT stands for Fetal welfare assessment, Obstetric emergencies and Neonatal resuscitation Training and is mandated for all NSW Health maternity clinicians. The FONT program was designed to facilitate and promote a collaborative approach to assessing, detecting, managing and escalating clinical deterioration in maternal, fetal and newborn conditions.

In 2012, the program was updated to align with the CEC DETECT/Between the Flags program. Neonatal resuscitation training was redesigned in 2017-18 with both basic and advanced newborn life support eLearning and practical options.

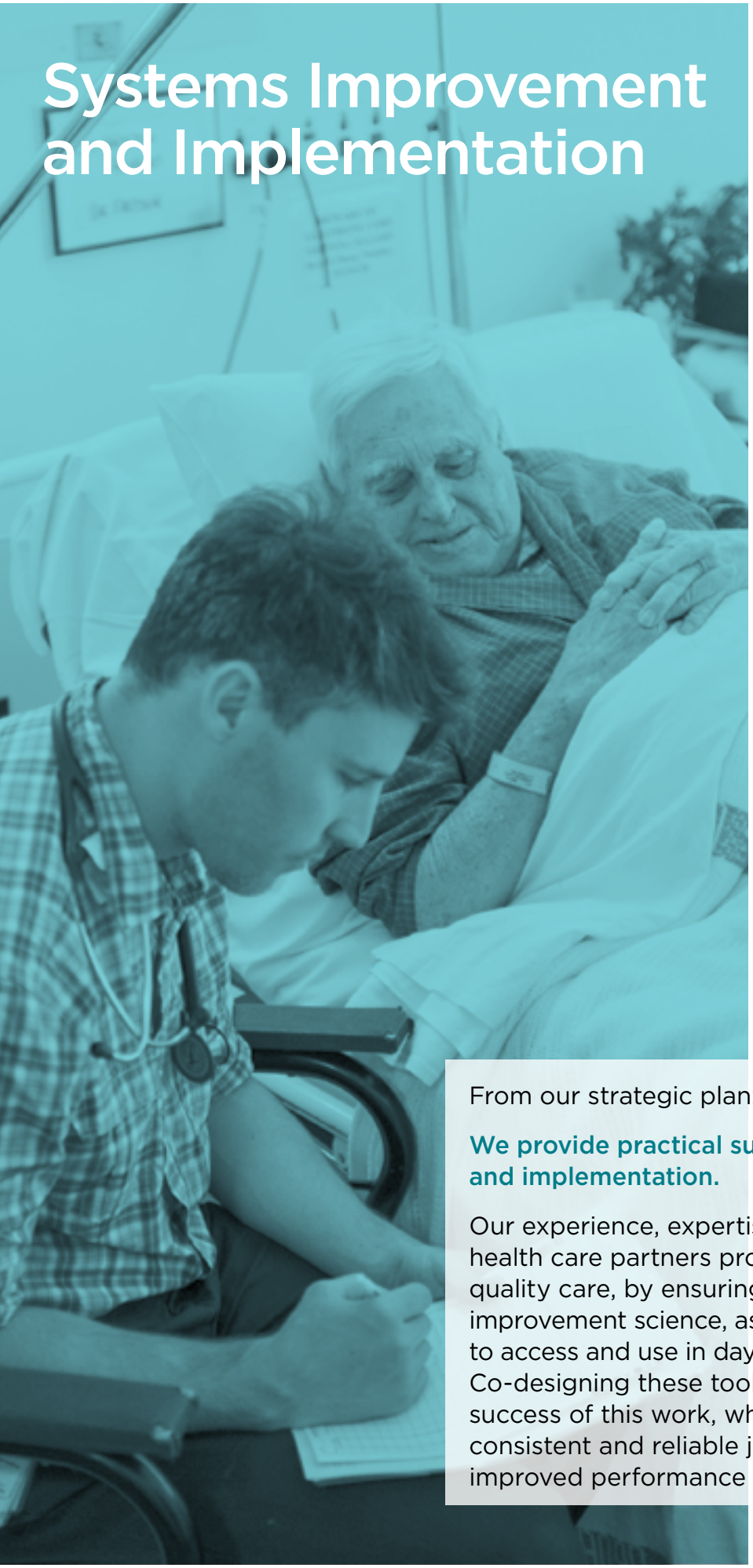
The FONT program has seen major changes to content and delivery of the fetal welfare and the obstetric emergencies components.

Maternal and Perinatal Mortality Review

The transfer of responsibility for the Maternal and Perinatal Mortality Review Committee from the Ministry of Health to the CEC was confirmed in December 2018. The Committee reports to the Minister of Health on clinical and system-wide matters impacting on the safety of maternal and perinatal services, as well as any issues relating to maternal and perinatal health and wellbeing.

The first meeting of the Maternal and Perinatal Mortality Review Committee under the direction of the CEC was held in February 2019 with a high-level overview of integration of maternal and perinatal work into the CEC's Patient Safety Directorate.

Systems Improvement and Implementation



From our strategic plan:

We provide practical support for systems improvement and implementation.

Our experience, expertise and methodology help our health care partners provide better patient safety and quality care, by ensuring the skills and methods of improvement science, as well as reliability tools, are easy to access and use in day-to-day health care settings. Co-designing these tools and methods is key to the success of this work, which will facilitate a more consistent and reliable journey from knowledge to improved performance and experience on the ground.

Enhancing palliative care

The NSW Community Pharmacy Palliative Care Initiative has delivered greater choice about where people can receive care at the end of life.

The two-year Initiative, led by the CEC, enhanced palliative care services within NSW through supporting the role of community pharmacies in medication management for people with palliative care needs.

The program of work delivered a core palliative care medicines list for NSW community pharmacy; a standardised palliative care education package for community pharmacists; and supported expansion of specialist palliative care education programs, such as the Program of Experience in the Palliative Approach to community pharmacists.

In March 2019, the CEC and the Pharmaceutical Society of Australia published an education package for community pharmacists to build their palliative care knowledge and capabilities. This package is accredited as Professional Development for Community Pharmacist's Health Professional Registration and is free of charge.

Surgical antibiotic prophylaxis

Surgical antibiotic prophylaxis refers to use of antibiotics to prevent infections that can occur following a surgical procedure. The CEC's Antimicrobial Stewardship Expert Advisory Committee identified an opportunity to improve prescribing of antibiotics for surgical prophylaxis and a suite of resources was developed to support appropriate prescribing and improve patient safety. These resources were tested in two Public Acute Group A Hospitals in NSW.

To tackle issues identified, primary drivers for change included improved documentation and communication, clinician engagement and education, standardisation, and knowledge of guidelines. The project team at each hospital developed change ideas to address these issues.

Over forty weeks, one hospital improved from 11 per cent of patients receiving timely perioperative antibiotics to 40 per cent. This process measure also improved in Hospital B, from 29 per cent to 75 per cent. The proportion of patients who received the correct antibiotic dose in that hospital also increased during the same period from 62 per cent to 90 per cent. The suite of resources was made available on the CEC website.

Quality Improvement Academy

Over 2018-19, CEC continued a focus on developing a critical mass of improvement leaders across NSW and equipping them with the coaching and tools to drive local improvement outcomes.

The CEC's Quality Improvement Academy continued to build the NSW Health workforce patient safety and quality improvement capabilities training 693 improvement coaches with 417 taking part in Safety System Skills training. Since 2007, over 5,000 participants have been trained in improvement science through the Academy.

The Academy includes modules on leadership and Improvement Science and is the education arm of many of the CEC improvement toolkits such as Open Disclosure, Root Cause Analysis, End of Life, Blood Watch and Medication Reconciliation.

During 2018, work commenced on development of a strategic approach for 2020 and beyond, recognising the range of maturity across LHDs/SHNs, locally delivered programs, and capability required for the future of the NSW health system.

In 2019, the capability development approach broadened to consider capability in Safety Systems, aligning with the CEC Strategic Plan, legislative change in relation to incident investigation, and consideration of opportunities to bring together patient safety and improvement concepts and curricula in a more integrated approach.

2018 QI Academy graduates Lolita Java and Fiona Bailey from the CEC's medication safety team

Key outcomes for 2018–19

- 353 participants trained in safety system skills. These are patient safety workshops that include Open Disclosure, Root Cause Analysis (RCA) Team Leader Training, RCA Training and RCA Awareness training.
- 418 participants in the CEC's WebEx and Webinar series on improvement science and basic measurement.
- 630 improvement coaches trained in the CEC's Clinical Leadership programs, Improvement Science training, International Society for Quality in Healthcare Fellows, Institute for Healthcare Improvement (IHI) Improvement Advisor training, and CEC-led Collaboratives.
- 993 participants in bespoke Quality Improvement training – most notably via the ANZ Neonatal Conference and the visit from Dr Peter Lachman, Chief Executive of the International Society for Quality in Healthcare.
- 13,000+ views of the CEC's quality improvement tools web pages.

Medical Leadership Forums

Medical and Clinical Forums promote networking and sharing of ideas, learnings and experiences for improving safety and quality in health care. They also support effective medical engagement and leadership across the NSW health system. Forum membership includes executive medical and clinical directors, directors of medical services, medical heads of departments and services, staff specialists and visiting medical officers. This group acts as an advisory group to the CEC.

The CEC hosted two full-day Medical Leadership Forums in 2018-19. The first, in September 2018 focused on the shared responsibility of the physical and mental health outcomes of mental health patients with discussion centred on opportunities to improve collaborative leadership to reduce use of seclusion and raise the profile of physical health issues for mental health patients. The theme of the Forum in November 2018 was improving the management of deteriorating patients and the role of clinical supervision.

Academy for Emerging Leaders in Patient Safety

The 4th annual Academy for Emerging Leaders in Patient Safety was held over four days in April 2019. The Academy, involving an intensive, residential interactive workshop, was attended by 13 faculty (from USA and Australia) and 30 Australian scholars comprising nurses, junior doctors, medical students and pharmacists selected through a competitive process, based on their commitment to improving patient safety and potential as emerging leaders.

Evaluations have shown scholars who attend the Academy demonstrate a clear improvement in recognising the importance of teamwork, patient-centeredness and self-care as enablers in improving patient safety.

> **"The presentations from patient advocates were incredibly powerful. They have definitely had an impact on how I work as a clinician."**

Elizabeth Koff, Secretary NSW Health and Brian McCaughan, CEC Board Chair joined graduates from the CEC's Executive Clinical Leadership Program in February 2019

Morbidity and Mortality

A Clinical Leadership Forum on Morbidity and Mortality (M&M) meetings was held in June 2019, attended by over 100 clinicians from a diversity of disciplines and across all Local Health Districts. The forum focused on the role of M&Ms in improving safety and quality.

M&Ms are an invaluable tool for engaging the significant expertise of clinicians at the point of care to identify change and improvement ideas based on their understanding and insight.

The Forum included interactive workshops and panel discussions on international and interstate perspectives, empirical evidence and local examples of the role of M&Ms in patient safety.

During the forum participants had the opportunity to design the architecture of an ideal M&M system and identified their key priorities for improvement. These ideas provided guidance for the future focus of the CEC Statewide M&M reference group and other patient safety processes.

Improving medication reconciliation

Unintentional changes with medicines can occur when patients move between different health care settings with the potential for significant patient harm. In 2018, in response to requests from regional and rural health facilities relying significantly on their nursing and midwifery workforce, the CEC released an education package to assist these staff in medication reconciliation tasks.

The education package contains workshops and supporting materials for in-house training and complements existing resources in medication reconciliation processes. The package can be used towards accreditation against the National Safety and Quality Health Service Standards.

Collaborating Hospitals' Audit of Surgical Mortality

During the year, the Collaborating Hospitals' Audit of Surgical Mortality (CHASM) facilitated successful implementation of the RACS (Royal Australian College of Surgeons) digital reporting system in New South Wales. The CHASM Program is now able to receive same-day independent peer review assessment for patient mortality. Surgeons also have the ability to self-report a patient death using the system.

Recent data analysis shows the move to a digital system had a positive effect on reporting with most surgical case forms being submitted within 30 days of the request being issued by the CHASM Office. There were 88 cases submitted on the same day of the request, a situation not possible in the previous paper-based system.

Digital and Data

From our strategic plan:

We facilitate continuous improvement through innovation and technology.

We strive for continuous improvement in safety and care by harnessing innovation and technology, through an increasingly connected and data-driven model of health care in partnership with eHealth NSW and others. The proliferation of digital tools, apps and platforms, as well as a growing reliance on data, analytics and improved information management provide new and emerging opportunities for safe and reliable care.

QIDS and QARS

The CEC's Quality Improvement Data System (QIDS) was developed to provide support to local health districts and speciality health networks with processing data and sharing information to assist with patient safety and quality improvement activities. The CEC continues to support local health districts and speciality health networks to reduce the harm from a range of hospital complications including but not limited to infections, falls, pressure injuries, venous thromboembolism and medications.

QIDS is a 'one stop shop' for clinicians and managers to view incident and hospital coded data as well as access to tools and resources fundamental to improvement work. The system facilitates collaborative decision making allowing local health districts and speciality health networks to manage and organise their own permissions and information sharing with clinicians and managers. By the end of June 2019, the Quality Improvement Data System had more than 5000 users, more than 200 improvement projects and around 15,000 reports generated or refreshed every month.

Quality Audit Reporting System (QARS) is another electronic tool developed by the CEC in collaboration with NSW Health and LHDs/SHNs, including local health districts and speciality health networks. It has been used in the past six years for clinical audit, patient survey, and other data collection process.

> **"QIDS has been instrumental in provision of visible, meaningful, transparent and relevant data … It gives us the ability to ask what are you doing about it and can we help you?"**

Electronic Sepsis Alert

Sepsis is a medical emergency caused by the body's own attempts to fight an infection, which can lead to multiple organ failure and death. Early detection is crucial but sepsis can be hard to spot – there is no diagnostic test and early symptoms are similar to the flu. It kills at least 5,000 Australians every year and contributes to half of all deaths in hospital.

For some years, the CEC has been collaborating with clinicians and researchers on a potentially lifesaving Australian-first electronic tool to diagnose Sepsis faster and more accurately. The algorithm scans a patient's electronic medical record after they are admitted to an emergency department looking for a combination of symptoms that could point to sepsis.

In 2018, a pilot project compared the performance of the Adult Sepsis Pathway and the electronic sepsis alert in NSW. The CEC is now working with eHealth NSW on how this can be implemented into electronic medical records across NSW.

Ian O'Rourke Scholarship

The scholarship, named in honour of the late Dr Ian O'Rourke AO, Chief Executive Officer of the Institute for Clinical Excellence (2002 – 2004) allows participants to develop better skills in integrating evidence from research in health care quality and safety policy and programs. Under the guidance of a nominated local mentor, Ian O'Rourke scholars investigate an issue of interest, based on improving quality and safety in health care, and include a visit to a nominated national or international agency with expertise in the chosen field.

Four scholarships were awarded in 2018. Matthew Pepper from NSW Ambulance used his scholarship to visit ambulance teams in the United Kingdom to investigate interagency collaboration and governance around patient safety during high threat incidents such as terrorist attacks and dynamic mass casualty incidents. Alanah Bailey, Kate Stewart and Joanna Offord from South East Sydney Local Health District collaborated on a project to develop an effective grassroots hospital-based Critical Thinking curriculum for medical and nursing staff to teach cognitive bias and advanced clinical reasoning.

Slow thinking can also save lives

In diagnosing illness, fast decision making could mean a clinician's brain using unconscious cognitive bias and short cuts to get the result. With funding from CEC 2018 Ian O'Rourke Scholarship, Kate Stewart, Alanah Bailey and Dr Joanna Offord from South Eastern Sydney Local Health District wanted to find out if a slower approach, using critical thinking, could reduce diagnostic error.

As a multi-disciplinary team of Nurse Practitioner (Alanah), Advanced Trainee Neurology (Joanna) and a Patient Safety Manager (Kate), the Ian O'Rourke scholars sought to develop a Hospital-based Critical Thinking program in an inter-disciplinary curriculum to embed a culture of critical thinking in decision-making.

Scholarship funding was used for travel and participation in a seven-day course at the Critical Thinking Program, Dalhousie University Division of Medical Education, Halifax Canada in December 2018. The Scholarship also funded attendance at the second Australasian Diagnostic Error in Medicine Conference, Melbourne in April 2019.

Under the mentorship of Professor Pat Croskerry, the team have successfully developed an evidence-based pilot and training curriculum for nurses and doctors. The curriculum uses theories of critical thinking and cognitive bias alongside real patient examples to deliver a competency-based, inter-professional program to improve diagnosis through discussion in a safe space.

Image: Dr Joanna Offord, Alanah Bailey and Kate Stewart

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