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Quality Initiatives

Entries in the 16th Annual
ACHS Quality Improvements
Awards 2013

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Quality Initiatives

Entries in the 16th Annual
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Quality Initiatives
Entries in the 16th Annual ACHS Quality Improvement Awards 2013 and Student Award 2013

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Quality Improvement Awards

Introduction

The annual ACHS Quality Improvement (QI) Awards were introduced in 1998 to acknowledge and encourage outstanding quality improvement activities, programs or strategies that have been implemented in healthcare organisations.

The QI Awards are open to all current Australasian and international members of the ACHS Evaluation and Quality Improvement Program (EQuIP) and the EQuIP Corporate program.

Judging is conducted externally by separate panels of three in each of the categories:

Clinical Excellence and Patient Safety

This category focuses on quality of care and patient outcomes and relates to EQuIP standards for Continuity of Care, Access, Appropriateness, Effectiveness, Safety and Consumer Focus.

Non-Clinical Service Delivery

This category supports the delivery and provision of safe high quality care. EQuIP standards that are relevant to this category include Quality Improvement and Risk Management, Human Resources Management, Information Management, Population Health, Research, Leadership and Management and Safe Practice and Environment.

Healthcare Measurement

This category supports EQuIP5 criterion 1.1.4, a *mandatory criterion* relating to care evaluation and the measurement of outcome data.

Each judging panel includes an ACHS Councillor, an ACHS surveyor and a representative from an EQuIP member organisation.

Submissions are required to meet specific criteria, each weighted equally:
- Evidence that the activity incorporates the EQuIP principles and an evaluation process, and is effective and sustainable;
- The activity has a demonstrated outcome;
- The activity demonstrates innovation;
- The activity is applicable to other settings.

Each winning organisation receives a Certificate of Acknowledgement and QI trophy from the ACHS. A cash prize is donated by Baxter Healthcare.

The ACHS publishes submissions from all participating organisations to enable sharing of exceptional quality improvement strategies. The full reports of the winning submissions as well as the summaries of all submissions are published on the ACHS website: http://www.achs.org.au/

QI Award Winners 2013

CLINICAL EXCELLENCE and PATIENT SAFETY - Winner

Organisation:	Peninsula Health and Austin Health Vic	**Department:**	Clinical Systems Project Teams

Project: Improving Safety, Quality and Efficiency of Care through the Development of an E-MR

Judges citations:

↘ Good example of collaboration between sites and demonstrates continuous and quantified improvement.

CLINICAL EXCELLENCE and PATIENT SAFETY - Highly Commended

Organisation:	Orange Health Service NSW	**Department:**	Medical Unit

Project: In Safe Hands – Structured Interdisciplinary Bedside Rounds

Organisation:	Royal Perth Hospital WA

Project: Management of Intoxicated Patients Within a Central Business District Emergency Department

NON-CLINICAL SERVICE DELIVERY - Winner

Organisation:	Monash Health VIC	**Department:**	Dietetics and Central Production Kitchen

Project: Innovative Improvement to Food Services for Patients with Allergies

Judges citations:

↘ A simple do-able project. Stood out because it was different. Transferable to other situations

NON CLINICAL SERVICE DELIVERY - Highly Commended

Organisation:	Mater Health Services QLD	**Department:**	Mater Education

Project: Student Placement Online Tool - SPOT

Organisation:	WA Country Health Service South West	**Department:**	Home Safe Project Team, ICT and Clinical Governance Unit

Project: Home Safe Project

HEALTHCARE MEASUREMENT – Winner

Organisation:	Bathurst Health Service NSW	**Department:**	Physiotherapy and Surgical Ward

Project: Up and at 'em. A Trial of early Mobilisation in Elective Orthopaedics in the Rural Context

Judges citations:

↘ Innovative. Well measured. Clearly demonstrated Improvements. Transportable – can be used anywhere.
↘ Examined Length of Stay, pressure ulcers and dollars involved as well as patient outcomes.

HEALTHCARE MEASUREMENT - Highly Commended

Organisation:	Nepean Blue Mountains Local Health District NSW	**Department:**	Perioperative Suite

Project: Today or Not Today? Emergency Surgery within 24 Hours

Organisation:	Healthscope VIC	**Department:**	Healthscope (corporate office)

Project: MyHealthscope Public Reporting

Student Award – Winner

Project: Retrospective audit of piperacillin/tazobactam usage in a tertiary referral hospital

IMPROVING SAFETY, QUALITY AND EFFICIENCY OF CARE THROUGH THE DEVELOPMENT OF AN ELECTRONIC MEDICAL RECORD (E-MR)

Clinical Systems Project Teams
Peninsula Health and Austin Health Vic NSW

Lyn Jamieson

Libby Owen-Jones

AIM

To automate clinical care activities, including prescribing, drug administration, radiology and pathology test ordering and results reviewing; supporting clinical care by providing efficient, effective and timely access to patient data, at the point of clinical decision-making, whilst minimising duplication of information collection for both patient and clinicians.

ABSTRACT

Austin Health and Peninsula Health have been pioneering the use of clinical information systems in Victorian hospitals through their role as lead agencies tasked with implementing electronic work flows in the move to a fully electronic health record across the Victorian public hospital system. One of the major aims was to implement Electronic Medication Management (EMM) to reduce medication errors, which remain the second most common type of medical incident reported in hospitals.

Austin and Peninsula have been implementing this project in parallel during the period 2009-2013; working to a common schedule with shared milestones. This initiative has already delivered improved quality, safety and efficiency of patient care by providing medical staff, allied health staff and nurses with the capability to electronically prescribe, administer drugs, order investigations and review results with electronic access to a range of clinical information at the point of decision making.

The significant work on electronic prescribing completed by Peninsula and Austin will not only inform the clinical system's rollout to other Victorian hospitals, but to health services throughout Australia.

The aims clearly meet the needs of both patients and the health services, with a focus on patient-centred care, through:

- reduced medication errors
- reduced redundant pathology tests by minimising transcription errors and incorporating duplicate warning alerts
- reduced clinician administrative tasks, resulting in more time spent with patients
- improvements in turnaround times for medication orders
- appropriate use of less expensive drugs and tests
- speedy availability of test results, resulting in reduced delays in patient discharge
- improved clinical handover
- centralized data repositories for allergies and alerts
- improved timely access to patient information
- improved monitoring of clinical transactions

Uniquely, both health services worked closely to achieve the same project milestones and dates whilst creating their own communication and change management strategy to ensure stakeholders at each health service from all major clinical business units were engaged.

In preparation, a range of computers on wheels, tablets and mobile devices were deployed and IT infrastructure upgraded including installing new wireless systems.

The implementation was split into two phases. The first 'go live', in June 2011, involved implementing the core software system, with capability for electronic pathology/radiology orders, results, centralized allergy and alerts management, discharge prescriptions, discharge summaries and electronic discharge prescribing. The phase 2 'go live', involving inpatient medication prescribing, dispensing and administration, went ahead in June 2012 and was completed across all sites/services (emergency, acute, sub-acute and mental health) of both Health Services by August 2013.

More than 9,000 staff were trained across both health services in the lead up to the implementation, with super users recruited to provide on-floor support during the go-live periods, and 24/7 helpdesks established for the first couple of weeks.

Baseline data was collected prior to the go lives, including medication errors, pharmacist interventions and observational studies of junior medical staff prescribing medications.

Initial early evaluations of the system across the two health services have found:

- Decrease in medication errors.
- No medication errors due to legibility issues.
- Improved documentation of allergy status.
- Usability of the system.
- GPs are now receiving e-discharge summaries from the Emergency Department and acute Mental Health units.
- Improved electronic discharge summary completion rates.
- No incidences of lost drug charts.
- Enhanced Pathology and Radiology efficiencies.

The health services continue to provide ongoing education for staff and monitoring of the system to ensure it meets the needs of its users. Their close relationship also continues, with ongoing discussions between representatives of the two services regarding increasing the system's functionality to further improve patient safety and efficiency. Ongoing enhancements include developing e-handover reports for doctors and nurses, an on-call medical task system to decrease interruptions from pagers, an internal referral system and building of more evidence-based order sets to improve timely and comprehensive clinical intervention.

Both health services are Australian leaders in the field of Computerised Provider Order Entry (CPOE) especially in electronic medication management.

APPLICATION OF EQuIP PRINCIPLES

Consumer Focus

The electronic clinical system has enabled:

- A centralised Alerts Management System which identifies patients at-risk has been established across all sites and services – Acute, Mental Health, Sub-Acute and Community. An electronic notification system is available which allows for prompt patient identification by specialty units of patients at increased risk of harm e.g. Infection Control, Advanced Care Planning, HARP and Diabetes.
- Patient clinical information is available at point of care across all sites of each Health Service.
- E-discharge summaries are sent to general practitioners and other health service providers in the community.
- Enhanced clinical decision support at the point of ordering.
- History immediately accessible on presentation.

Effective Leadership

- Austin Health and Peninsula Health nominated to be Victorian lead agencies as it was an opportunity to be early adopters of health information technology, which, as cited in the literature, is an enabler of patient safety, quality and efficiency (Simon et al, 2013). The implementation of electronic health records and health IT systems is considered among the highest priorities of modern healthcare systems (Kaye et al, 2010).
- First health services to implement an electronic prescribing system that complied with Australia's **National E-Health Transition Authority** and able to streamline PBS approval.
- First public health services in Australia to implement EMM in an Emergency Department.
- Thousands of staff trained in the new system which involved meticulous implementation planning and change management to ensure safety and quality of care was not compromised

during the change from a paper system to an electronic system.

- Robust governance models across both agencies with an emphasis on multidisciplinary representation and collaboration.

Continuous Improvement

- Many patient safety features have been implemented which include real-time patient identification through scanning barcoded patient ID bands, drug dose recommendations, adverse drug reaction reviews and checks on allergies and test or treatment conflicts. Examples of these safety features include: antimicrobial alert decision support, high dose insulin alert and a renal dose alert.

- Clinician orders can now be standardised across the Health Services yet may be individualised for each doctor or specialty unit by using order sets (a combined set of medication, pathology, radiology and patient care orders). It has patient centred decision support in that evidence based clinical guidelines are available at the bedside to support treatment decisions. Examples of evidence-based ordering through use of order sets include Warfarin, Prednisolone, Clozapine and Ischaemic Heart Disease.

- Access to a range of electronic reports e.g. Discharge Summary compliance, allergy recording, alerts, recording of VTE risk assessments which enables timely access to clinical performance data.

Evidence of Outcomes

Initial early evaluations of the system across the two health services have found:

- Decrease in medication errors – comparison of 12 months post go-live in sub-acute areas with the same period 12 months previous revealed an average decrease in medication incidents across the two health services of 55%, ISR rating 3 (moderate severity) incidents decreased by 77% and ISR 4 ratings (mild severity/near miss) reduced by 37%. There were no ISR 1 or 2 incidents (severe) during either reporting period.

- Types of errors/near misses included a reduction of:
    - 67% in missed doses.
    - 25% in prescribing errors.
    - 72% in wrong drug errors.

- No medication errors due to legibility issues.

- Improved documentation of allergy status. In 2007, the adverse drug reaction box on the written drug chart had 95% completion but only 68% accuracy, In March 2013, there was 99.9% completion of allergy status (93.2% within 24 hours) and 99.9 % accuracy of allergy status.

- Usability of the system – login response time of 2.29 secs, average transaction time of .61 secs and 7.5 clicks per order.

- GPs are now receiving e-discharge summaries from the Emergency Department and acute Mental Health units. Current monthly compliance rate is 73% (n= 934) and 94% (n=71) respectively.

- Overall electronic discharge summary compliance has increased from a median of 68% to 83% completed within 48 hours over the past 2 years.

- Improved access to data to monitor and change clinical practice in test ordering. A recent pilot project to track ordering practice has seen a 10% reduction (to date) in inappropriate test ordering practices for ordering of repeat c-reactive protein (CRP) tests.

- No incidences of lost drug charts.

- Pathology and radiology status is now tracked on-line.

- Efficiencies in the Pathology and Radiology Departments have been realised.

Striving for Best Practice

- Both agencies are very well-placed to progress to a high level on the International Healthcare Information and Management Systems Society (HIMMS) Rating Scale (assesses progress to a fully integrated e-MR.

- Both agencies are members of a state-wide enhancement clinical committee and state-wide clinical reference groups which meet regularly to discuss ways to increase the efficiency and effectiveness of the system and clinical workflows.

INNOVATION IN PRACTICE AND PROCESS

Austin Health and Peninsula Health are leading the way in the implementation of an e-MR in Australia, in particular with the introduction of electronic medication

management across acute (including Emergency), sub-acute and mental health services. They are the first health services to build a full Australian drug catalogue.

APPLICABILITY TO OTHER SETTINGS

This project has attracted substantial interest across Australia and New Zealand. The significant work on electronic prescribing completed by Peninsula Health and Austin Health will not only inform the clinical system's rollout to other Victorian hospitals, but to health services throughout Australia.

The Health Services have gained a great deal of knowledge regarding the critical success factors for a successful healthcare information technology implementation which they can impart to other organisations.

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IN SAFE HANDS – STRUCTURED INTERDISCIPLINARY BEDSIDE ROUNDS

Medical Unit
Orange Health Service

Susan Patterson

AIM

To redesign a Medical Unit to deliver care via daily interdisciplinary patient and family centred rounds; regularly, predictably, delivered in plain English, with collaborative care and goal planning.

ABSTRACT

Structured interdisciplinary bedside rounds (SIBR) is a transformational way of delivering health care. It involves a process where key clinicians involved in the care delivery process meet with the patient and their family each day on a structured / scripted round, sharing and crossing checking information gained from the previous 24 hours of care.

This model is in complete opposition to the traditional model of health care delivery where medical, nursing, allied health and the patient had their structured format to delivery of care with minimal cross pollination of clinical care planning. It has been widely evidence in the literature, good patient care is dependent on well-functioning clinical teams. Early results from this model are aligned to this concept.

In Safe Hands Structured Interdisciplinary Bedside Rounds has achieved a comprehensive patient and family focussed redesign of a general Medical Unit to achieve,

- structured, predictable and authentic patient and family engagement in daily interdisciplinary ward rounds
- embedded and shared joint accountability for a quality and safety checklist within a multidisciplinary team and including patients and family
- integrated comprehensive immediate, medium and long term clinical plans for chronic illness with primary care providers, chronic care outreach programs, aged care including advanced care planning and future hospital avoidance strategies.

"Nothing about me without me"

Nature of the Issue / Project

Current clinical care is delivered by a fractured Nursing / Allied Health / Medical team who rarely encounter the patient simultaneously. Patients and families often remain uninformed and uninvolved in their care. Mixed messages and varied mental models of clinical status and plans are common. Infrequent and unpredictable senior medical decision making can affect discharge and efficiency. The progress towards national emergency access target (NEAT) is dependent on "exit block" emphasising the current focus on Whole of Hospital reform. Inpatient unexpected morbidity and mortality can be ameliorated by the earlier detection of unnecessary sources of infection, complications and functional decline.

The Extent of the Issue

Monday morning bed block in the Emergency Department was the norm for 6-8 patients and general medical patients often spent much of their inpatient stay in the Emergency Department with 1-2 medical patients on average staying >24hrs in ED. General medical patients in Surgical wards as medical outliers were common and caused significant cancellations of elective surgery due to bed availability.

The general medical ward had a poor nursing skill-mix and fractured episodic medical input with disjointed care delivery and planning and poor communication with patients and families. There were significant problems with falls and delirium, frequent need for nursing specials and significant quality and safety challenges with pressure areas, DVT prophylaxis, hand hygiene and hospital acquired infections. Quantitative and qualitative measures of patient experience and staff satisfaction were available from the state wide surveys. Complaints and patient stories provided a rich burning platform for change.

Planning and Implementing Solutions

Structured interdisciplinary bedside rounds (SIBR) is a transformational way of delivering health care. It involves a process where key clinicians involved in the care delivery process meet with the patient and their family each day on a structured / scripted round, sharing and cross checking information gained from the previous 24 hours of care.

In Safe Hands demonstrates an integrated care model not seen before in the health setting. The core value of this model of care is patient engagement. Each morning when nursing staff first introduce themselves to the patient, the patient is asked their goal for the day which is documented on the bedside patient journey board. The patient journey board is the communication tool utilised on the SIBR round to document the estimated date of discharge, plan of care for the day, family questions and answers. Nursing, Medical and Allied health data gathering and specialty specific rounds and examination occur before the daily SIBR round.

The acute medical ward identified care focus areas for the shared safety and quality checklist. At present these are:

- Falls risk
- Deep venous thrombosis prophylaxis
- Advanced care directives
- Indwelling catheter
- Intravenous Cannula
- Observations.

Future issues will include "Frailsafe" elderly screening for falls, delirium/dementia and functional decline with appropriate local protocols, inpatient Glycaemic control and patient / family goals for care.

The addition of the patient journey board enabled seamless communication between the broader health team and the patient and their family. Having the nursing, medical and allied health team all co-located has provided a supportive, seamless environment where each health professional is not only being held accountable for their contribution in the patients care but also a learning environment where each discipline learns and respects each other's contribution to patient care.

MANAGEMENT OF INTOXICATED PATIENTS WITHIN A CENTRAL BUSINESS DISTRICT EMERGENCY DEPARTMENT

**Critical Care Division Drug and Alcohol Service
Royal Perth Hospital**

Tracey Sinclair

Linda Brearley

Dr Amanda Stafford

AIM

To improve access to community AOD services for intoxicated patients by reducing AOD intoxication related presentations in our ED.

ABSTRACT

Many medically stable patients with alcohol and other drug (AOD) intoxication are transported to emergency departments (ED) when these patients can generally receive more appropriate care in other settings. [i]

In 2010-2011, RPH ED experienced a 36% increase of AOD related presentations, with a further increase of 18% in 2011-12. The development of AOD ED initiatives was paramount, given that 92% of all AOD discharges from RPH 2010 -2011 were under the care of emergency medicine.[a] We identified solutions to address this increased activity including:

1. More robust referral practices including a clinical pathway for sobering up services within the ED.
2. Expanding the RPH ED AOD Clinical Nurse Consultant (CNC) service to seven days a week.
3. Consulting with Drug and Alcohol Office and Salvation Army to extend hours and funding for the Sobering Up Centre.

We identified the admission of intoxicated persons into a tertiary ED is an ineffective way to engage people with community AOD services. In addition, there was a duplication of service with a Sobering Up Centre within two kilometres of RPH. When auditing we identified a large number of intoxicated patients bought into the ED by police and ambulance services.

Our project was influenced by key quality principles and a patient-focused approach of 'right care, right place, and right time'.[b]

We systematically reviewed and worked with our partners to find solutions to the 'boomerang effect' of change, where patients were admitted to Sobering Up Centre but then later returned to RPH ED. This resulted in collaboration with our partners to develop a direct pathway from Sobering Up to Next Step Inpatient Withdrawal Unit in Sept 2012. In July 2012 we achieved our goal for the extension of the Sobering Up Centre hours.

In April 2013, a direct pathway between St John Ambulance Australia and Sobering Up Centre was implemented and the Drug and Alcohol Office (DAO) confirmed a commitment to maintain funding for the Sobering Up Centre for the next five years.

In May 2013, we identified a 22.9% reduction in admissions from the previous quarter for intoxicated patients to our emergency observation ward (EMW). This was followed by a sustained reduction in AOD presentations in June and July 2013. These were the lowest admission levels to the EMW within the last 18 months. It also resulted in a reduction of approximately $70,000 in over-all costs for the ED. Bridge House community AOD service reported a marked increase in persons accessing their community assessment, detoxification and rehabilitation programs.

APPLICATION OF EQuIP PRINCIPLES

Consumer Focus

Developing area-wide service models which connect with other health services enables us to coordinate and streamline patient care and promote greater equity of access to services. We identified intoxicated patients as an at-risk and marginalised group. For example, an AOD diagnosis was the second leading reason for hospital presentations by Aboriginal males in the South Metropolitan Area Health Service (SMHS), 2001-2010.[a] [b] [e] Other identified high risk groups who are frequent users of health care services, especially ED's, include the homeless and people with severe alcoholism[k]. Substantive equality recognises that entitlements, opportunities and access are not equally distributed in our community[e] and there may be barriers to service provision resulting in unequal outcomes for substance users in particular. Equal treatment therefore, is not about treating all persons the same; it is about treating people differently in order to cater for diverse needs.[e]

The Sobering Up centre is an effective, safe and cost-efficient non government service for intoxicated persons where people are provided with a bed to rest, bathroom, clothes washing facilities, food and beverages. Staff, conduct half hourly observations of the occupants whilst offering assessment and engagement with detoxification, rehabilitation and welfare support.

Our identified objectives were based on the WA Health Strategic Intent 2010-2015[b] (Strategic Intent) four pillars, and closely relate to the Clinical Clusters Advisory Committee (CCAC)[g].

1. Focusing on the patient
2. Increasing access to community services
3. Utilising resources and funding and avoiding duplication of services
4. Supporting clinical teams with clear, concise pathways, clinical practices and education
5. Working in partnership with secondary, primary care service providers, and non-government and community government organisations to deliver a continuum of care.

Our community partners were embraced at each step of the quality improvement (QI) journey. All had a significant role in the development of clinical pathways for the AOD patients through collaborative communication and review of all our practices. They are listed here with much appreciation for their open, consultative and reflective practises:

- Brendon Robertson – Bridge House Manager, Salvation Army Association, Perth, WA.
- Professor Ian Jacobs – Medical Director St Johns Ambulance Service, Western Australia.
- David Hooper – Operations Manager, Western Australia Police Service.
- James Hunt – Director Clinical Services Development, Drug and Alcohol Office (DAO), WA.
- Dr Alan Quigley – Medical Director Next Step Clinical Services, Drug and Alcohol Office, WA.
- Elizabeth Laing – A/Director Operations Next Step Clinical Services, Drug and Alcohol Office, WA.
- Roger Campbell – Business Manager, Critical Care Division, RPH.

Effective Leadership

- Governance: The Executive provided clinical governance and data support.
- Consultation: Networking with all community partners.
- Primary driving role: RPH Drug and Alcohol (DandA) ED service drove the project with Medical Consultant and RPH's Critical Care Division's Nursing Director support.
- Communication: Ongoing internal and external education of all staff within the ED. Provision of clinical pathways to support practice change. Resource manuals and promotional material.
- Advocating: Nursing Director, Medical Consultant and DandA CNC collectively met with funding providers.
- Benchmarking: Similar program with University of Louisville Hospital, USA and community AOD service provider and international best practice principles.
- Other states: Sobering Up Centres operate successfully in Victoria, Western Australia and the Australian Capital Territory. South Australia has had a twenty four hours a day, seven days a week (24/7) sobering up centre for the past 24 years.
- Internationally: The project was presented in poster to the Inaugural Mental Health and Addiction Nursing Conference in New Zealand June 2013, to encourage other services to look at similar pathways in their provinces.

- Accepted for WA Health Conference Awards November 2013.

Literary research and Evidence Based Practice:

- There have been very few evaluations of sobering-up centres, despite their popularity in Australia[m]
- Arguably, sobering-up centres function primarily as a broad harm-reduction measure, rather than as a treatment[m]
- Brady et al, 2007 states sobering-up centres primary role is to keep people out of the legal system and reduce harm to self or others through the provision of protection, shelter and food.[n]
- Opportunistic interventions can usefully include a more person-centred, motivational component to begin the process of the client considering whether or not to change[k]
- Rollnick et al. (1999) have adapted key features of motivational interviewing to be applicable to brief health promotion interventions. Such an approach is more likely to fit well with the non-judgemental, enabling culture, of many community drug agencies, than an authoritative, advice-based approach, found in a medical model or setting of the ED. This again reinforces the principles of 'right care, right place, and right time'.[g]

Continuous Improvement

Identified issues:

- Review of the activity of RPH ED DandA service showed an increased of 36% for AOD patients in the last eighteen months
- Large number of regular presentations of intoxicated persons bought into the ED by ambulance and police services[a] [b]
- Difficult to engage with community AOD services
- Duplication of care

Continuous improvement although ongoing can be defined in specific stages.

1. Identifying our key objectives, benchmarking
2. Identifying and consulting with partners and stakeholders
3. Advocating for extension of Sobering Up centre hours to 24/7
4. Defining pathways and criteria with partners
5. Implementing changes to clinical pathways and practice through education
6. Evaluating the effects of the changes
7. Working with partners to improve and create alternative pathways
8. Auditing the results
9. Feeding back to stakeholders

Data reviewed demonstrated the effectiveness of implemented changes by auditing the number of intoxicated patients admitted in Emergency Observation Ward (EMW) at regular intervals.

Evidence of Outcomes

- There is considerable pressure on the ability of the department to provide timely care and meet the current National Emergency Access Target (NEAT) with the average daily presentations increasing to 236 patients. This is a 20% increase on 2011, with an overall increase of an additional 8% in 2013.
- A review of the new pathways developed across our service demonstrated a sustained reduction in presentations to the RPH ED in May, June and July 2013, to the lowest levels in the past 18 months.
- Reduction in costs to RPH ED.
- Direct pathway from RPH ED to Sobering Up Centre.
- Direct pathway from Sobering Up Centre to Next Step.
- Direct ambulance pathway to Sobering Up Centre.
- A review of ambulance patient transfers from Sobering Up to RPH ED Centre identified 3 episodes with deteriorating conscious states. In each case patients had consumed additional alcohol and substances following their admission to the Sobering Up Centre. These were episodes of impulsive, deliberate self-harm whilst intoxicated resulting in the need for more intensive medical management. All partners managed their roles and the patients' safety and care effectively.
- There has been one patient transfer to RPH ED with acute alcohol withdrawal syndrome after hours as Next Step Services were not open. This patient was later admitted to Next Step withdrawal service to continue with a detoxification program in the community.

- Anecdotally, follow up with Bridge House AOD services reported an increase in the numbers of persons accessing their assessment, detoxification and rehabilitation services.

Striving for Best Practice

According to Limpahan et al, 2013, the best practices provide feasible standards for evaluating and improving how patients transition out of the ED. This includes providing a framework for emergency department leaders for expanding their collaboration with community partners.[i] Our processes and results demonstrate we have evaluated and improved patient transition to community services for sobering up and provided new pathways and frameworks for ourselves and our partners.

Benchmarking our processes with the recommendations in the Mason P and Bennett G (2004) briefing paper demonstrates a marked similarity with practises and interventions in our service and implementation of the new clinical pathways to Sobering Up services by our partners and us.

The areas in which we reflect their recommendations include:

- Assessments of users to include their drinking
- Use of evidence based assessment tools - World Health Organisation's Alcohol, Smoking, Substance Involvement Screening Test (ASSIST) and Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar)
- Recording of alcohol consumption and areas of concern in clients' notes and care plans
- Functional links with local specialist alcohol agencies that ensures seamless care for clients who are in receipt of care from both services
- Leaflets giving appropriate information about alcohol for substance users
- Reference material available for staff including, Alcohol Drug and Information Service (ADIS) telephone and clinical advisory AOD services[k]

Specialist clinicians who perform drug and alcohol assessments are trained to:

- Enquire about alcohol and assess overdose risk
- Deliver brief interventions advising clients about the risks associated with use

- Use of motivational interviewing and cognitive-behavioural therapy skills in the context of alcohol use
- Assess clients for alcohol dependence with evidence based assessment tools
- Be familiar with the way in which local alcohol services work [k]

INNOVATION IN PRACTICE AND PROCESS

Often health services work in silos with individual service issues as opposed to working collaboratively. The uniqueness of this quality improvement project is the marrying of old processes with new, tertiary with community, government with non-government. These new service models reflect the principles and values of current WA and SMHS Strategic Plans.[a-g] It hallmarks the value of working collaboratively with partners for improved patient and service outcomes.
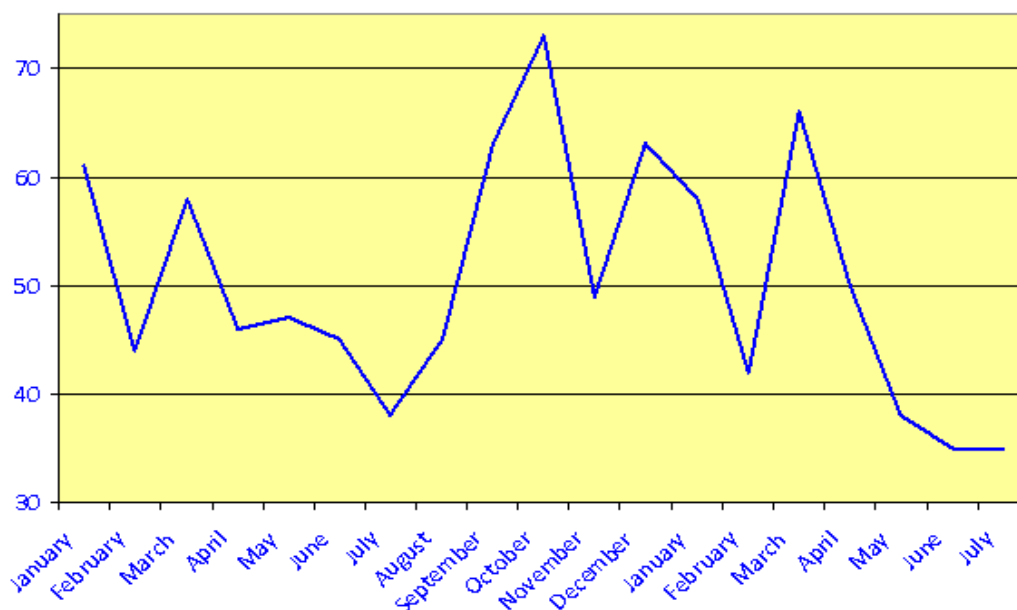
APPLICABILITY TO OTHER SETTINGS

Benefits of these initiatives for other settings may include;

- A health focus as opposed to legal approach to the issue of intoxication in our community
- New models of care and practice that can be replicated in other health services and communities
- A cost effective service utilisation
- Improved access – anecdotal information provided by partner services indicates improved access to drug and alcohol services
- Capacity building - allowing our and other WA metropolitan emergency departments to increase their capacity and maximising the value of tertiary beds through the reduction of costs and duplication of services.

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m) (m)www.preventativehealth.org.au/inte rnet/.../publishing.../alcohol-4.pdf

n) Department of Health and Aging, Preventative Action – A Response to Australia: The Healthiest Country by 2020 – The Report of the National Preventative Health Taskforce. Canberra: 2009.

Appendix (1) Graph: Number of Intoxicated patients admitted to EMW Jan 2012 - Jul 2013

Appendix (2)

EQuIPNational Standards Provision of Care and Service Delivery	
12.1	RPH ED clinical pathway. Triage pathway. Resources available in all areas of ED and green room. Resource manuals in flight deck, EMW and Quick Assessment Centre (QAC).
12.8	Salvation Army, Next Step, DAO, St John Ambulance Australia and Police Service all informed of the changes to Sobering Up Centre
11.5	Documented pathway to Sobering Up Centre inclusive of criteria. Minimisation of duplication of sobering up care within ED and the community with identified pathway and criteria for care directly to Sobering Up Centre
11.6	Diverse needs and diverse backgrounds considered as part of these implemented pathways
11.5	Monitoring of the effectiveness of implement new pathways through observation of activity and liaison with Bridge House, Next Step, Drug and Alcohol Office.
11.3	Increases in the numbers of attendances to metropolitan emergency departments reflects the lack of primary care access and the growing numbers of substance users within our community
12.1	RPH effectively meets its legislative requirements for blood borne virus reporting. And blood borne virus status is a part of our comprehensive assessment of alcohol and other drug users and education of critical care clinicians.
11.5	The St John Ambulance Australia initiative developed out of need and opportunistic intervention. (1) identifying duplication of service (2) right

	place, first time focus (3) impressive cost analysis through dialogue with our partner we are able to implement an improved care of intoxicated patients where they can access community DandA services more easily and have a warm, supportive environment with food, fluids and shelter that is not in an acute tertiary setting.
12.1	Quarterly DandA ED QIC work plan for review and development of strategies to improve patient access, care, service and workforce development. Ongoing evaluation included staff survey identifying deficits in DandA service cover and level of effectiveness of care Critical Care Emergency Department (ED) Drug and Alcohol (DandA) Service Survey Report 2012).
12.8	Meeting with Bridge House and Next Step to develop a direct withdrawal pathway for patients that develop alcohol withdrawal syndrome first to Next Step if no beds available then to RPH ED. Providing clinical support and care and stakeholder support
13.1	Meeting with DAO to advocate for resource funding to ensure the continuance and appropriate material and human resource of the Sobering Up Centre.

Appendix (3

RPH ED DandA service: Quality Improvement Initiative Table.

- 2010 Review of activity in RPH ED DandA patients
- Development of the Inaugural Critical Care DandA QIC work plan.
- Aug 2011 Meeting with WA Health Demand Management Strategy Unit to discuss interventions to improve ED access and reduce presentations of intoxicated patients to ED and EMW = Extension of Sobering Up Centre opening hours.
- Oct 2011 CHOGM conference Perth, WA
- Jan 2012 RPH ED DandA report with recommendations forwarded to Drug and Alcohol Office (DAO) and Next Step an extension of Sobering Up Centre opening hours was identified as a potential effective intervention to address the needs of alcohol and other drug patients and the increasing demand on the RPH ED resources. DAO is funding body responsible for Sobering Up Centre.
- Feb 2012 Review of RPH DandA ED activity identified a large and majority component of patients bought in by ambulance (BIBA) and bought in by police (BIBP).
- July 2012 Extended hours implemented for Sobering Up Centre 24/7
- July 2012 RPH Clinical pathway developed with criteria disseminated to all RPH ED clinical staff.
- Aug 2012 Boomerang effect between Bridge House and RPH ED identified. Liaison with Next Step and Bridge House to develop an agreed pathway from Sobering Up Centre for patients experiencing alcohol withdrawal syndrome direct to Next Step Inpatient Withdrawal Unit.
- Sept 2012 Meeting with Bridge House and Next Step pathway confirmed pathway direct from Sobering Up Centre to Next Step Inpatient withdrawal unit as opposed to referral to metro emergency departments.
- Oct 2012 Review of RPH DandA ED activity identified a large and majority component of patients bought in by ambulance (BIBA) unresolved by extending Sobering Up Centre hours.
- Liaison with Dr Amanda Stafford re: BIBA - St John Ambulance Australia practise is to nominate destination as ambulance unit is despatched generally to nearest metro ED.
- Dec 2012 Case study and request for consideration of review St Johns Ambulance Australia's Service model of practise sent to Medical Director Professor Ian Jacobs to include Sobering Up Centre as a nominated destination.
- Jan 2013 St Johns and Bridge House meet to develop Sobering Up pathway
- April 2013 Meeting with DAO to advocate for extension of funding and five year funding commitment to Sobering Up Centre confirmed
- April 2013 St Johns Ambulance Australia and Sobering Up centre direct pathway implemented
- May 2013 reduction in a alcohol intoxicated patient admissions to EMW, lowest in 18 months
- Ongoing review of alcohol intoxicated patient admissions to EMW demonstrate a sustained reduction over three months May, June, July 2013.
- Projected savings average approximately $24000 per month to date.

Clinical Excellence and Patient Safety Submissions

Fairfield Hospital, Fairfield NSW
Ambulatory Care
Ondasetron for Paediatric Gastroenteritis in the Emergency Department

Queen Elizabeth Hospital, Hospital Authority Hong Kong
Physiotherapy
Pioneering Computerised Robot-assisted Training program for Advancement of Rehabilitation of Debilitated and Neurologically impaired patients in Hong Kong

Royal Prince Alfred Hospital, Camperdown NSW
Executive
Nursing and Midwifery Clinical Standards Program

Lyell McEwin Hospital Northern Adelaide Local Health Network, Adelaide SA
Diabetes Multi-Disciplinary Foot Clinic
A Pilot study to facilitate and refine the referral pathways of patients attending the Emergency Department with a 'high risk' foot complaint

The Children's Hospital at Westmead, NSW
Emergency and Paediatric Surgery Departments
Managing abdominal pain in a Children's ED - Making it NEAT

Hunter New England Local Health District Newcastle NSW
John Hunter Children's Hospital (JHCH)
Reducing infection in Neonatal Intensive Care (NICU)

Liverpool Hospital South Western Sydney Local Health District Liverpool NSW
Renal Services
EMPOWERED A renal care pathway for Chronic kidney Disease patients

Mater Health Services Brisbane QLD
Mater Mothers' Hospital and Mater Practice Improvement Centre
Multi-disciplinary Team Training for Obstetric Emergencies

Armadale Health Service, Armadale WA
Intensive Care Unit
Implementation of Multidisciplinary Critical Care Outreach Service

Dubbo Base Hospital, Dubbo NSW
Nursing Executive Suite/Maternity Unit
Fruits of Our Labour

North Coast Cancer Institute Coffs Harbour NSW
Coffs Clinical Network Organisation
The use of a Bladder Scanner at Simulation to achieve consistently full bladder volumes

Royal North Shore Hospital St Leonard's NSW
Standard 9 Committee
Setting the Standard: A patient Journey at Royal North Shore Hospital - A short film created for education and team Building

Southern Adelaide Local Health Network (SALHN) Adelaide SA
Flinders Medical Centre Physiotherapy Department
The Healthy Hips Project – A partnership between health care settings to improve the management of falls for older at risk patients across the transition of care

Tuen Mun Hospital New territories West Cluster Hong Kong
Quality and Safety Division
Organisation of patient safety Walk Rounds in *Tuen Mun Hospital, New territories West Cluster, Hong Kong Hospital Authority*

Fairfield Hospital Fairfield NSW
Whitlam Joint Replacement Centre and Whitlam Orthopaedic Research Centre
Reducing the Burden of pathology testing following elective surgery using a simple needs assessment algorithm

West Wimmera Health Service West Wimmera VIC
Allied and Community Health
A randomised Controlled study of the effects of oral intake of water in dysphagic patients who have been prescribed thickened fluids with consideration to quality of life and hydration levels

Austin Health Melbourne Vic
Infection Control
Peripheral Intravenous Line Safety Initiative

St John of God Subiaco Hospital Subiaco WA
Palliative Care Team
Improving the Palliative Care Service

Orange Health Service Orange NSW
Medical Unit
In Safe Hands – Structured Interdisciplinary Bedside Rounds

Mater Health Services Brisbane Limited Brisbane QLD
Haematology and Oncology Unit
Reducing the Risk of Intravenous Potassium Errors: A multifactorial approach in the haematology setting

Hornsby Ku-ring-gai Health Service Hornsby NSW
Geriatric Rapid Acute Care Evaluation Service (GRACE)
Introduction of Advance Care Directives to the Residential Aged Care Facilities (RACF's) residents and families

Hornsby Ku-ring-gai Health Service Hornsby NSW
Speech Pathology
Chatter Matters: Helping 0-5 year olds to Communicate

Hornsby Ku-ring-gai Health Service Hornsby NSW
Geriatric Rapid Acute Care Evaluation Service (GRACE)
Emergency department bypass; GRACE imaging

Hornsby Ku-ring-gai Health Service Hornsby NSW
Nursing and Midwifery Services
The Five "P"s- Cultivating Patient Care Excellence through Patient Rounding

Hornsby Ku-ring-gai Health Service Hornsby NSW
Osteoporosis/Fracture Prevention Service, Hornsby Ku-ring-gai Hospital
Capture the Fracture

Children's Health Queensland Hospital and Health Service Brisbane QLD
Infection Management and Prevention Service
Establishing Antimicrobial Stewardship in a Children's Hospital

Skin and Cancer Foundation Australia Westmead NSW
Day Surgery Unit
Antimicrobial Stewardship: A Private Day Surgery's Rise to the Challenge

Peninsula Health Frankston VIC
Eating Disorder Partnership Mental Health, Community Health, GP Liaison Unit, Peninsula GP Network
The Eating Disorder Partnership: Working with GPs to Improve Access to Care

Peninsula Health Frankston VIC
Peninsula Health Community Health
Older Wiser Lifestyle (OWL)

Peninsula Health Frankston VIC
Anaesthesia and Pain Management
'Stop Before the Op'

Peninsula Health Frankston VIC
Surgical Services
First Case Start Time

Hemas Hospitals PVT Ltd Wattala Sri Lanka
Department of Quality Assurance- Quality Core Team, Hemas Hospital,
Nothing is Important for a Baby as MOTHER's MILK- Reducing readmissions due to lactation failure

Hemas Hospitals PVT Ltd Wattala Sri Lanka
Department of Quality Assurance- Quality
Core Team, Hemas Hospital,
Patient Care is Planned and delivered in
collaboration with the patient and the carer

Royal Women's Hospital Melbourne VIC
Neonatal Intensive and Special Care Unit
Newborn Retinopathy Screening Service

The Royal Children's Hospital Melbourne
VIC
Infection Prevention and Control
Redesigning infection prevention strategies to
reduce hospital acquired infections in a new
children's hospital

ACT Health Canberra ACT
Medical Assessment and Planning Unit
(MAPU) and the Quality and Safety Unit in
conjunction with UTS
Effective Clinical Communication in Handover

West Moreton Hospital and Health Service
Ipswich QLD
Executive team
Respecting Patient Choices

Monash Health Clayton VIC
Physiotherapy
Achieving clinical excellence and patient
safety in refugee health

GEO Care Australia Pty Ltd Southbank Vic
Quality and Compliance Unit
Medication Management is Paramount in a
Prison

Royal Brisbane and Women's Hospital
Brisbane QLD
*Confirmation Centre/.*Outpatient Services
CCandCSS
DNR SMS Text Message Reminder Trail

Sir Charles Gairdner Hospital Nedlands WA
Corporate Nursing Services
Introduction of Patient Safety Teams in a
Tertiary Hospital

Northeast Health Wangaratta. Wangaratta
VIC
Nursing Administration - Improving Care for
Older People Project
Improving Dementia / Delirium Care in the
Acute setting

St John of God Murdoch Hospital (SJGMH)
Murdoch WA
Emergency Department
No Waiting for Quality

Nepean Blue Mountains Local Health
District Lithgow NSW
The Perioperative Team,
Saving The List

Our Lady of Maryknoll Hospital, Hong Kong
Central Nursing Division
Safe and Comprehensive Patient Journey

Canterbury Hospital Canterbury NSW
Department of Nursing
Hourly Rounding and The 5P's

Alfred Health Melbourne VIC
General Medicine
"Bridging" the Patient Specimen Labelling
Gap using Positive Patient Identification for
Blood Collection

Royal Perth Hospital Perth WA
Critical Care Division Drug and Alcohol
Service
Management of Intoxicated Patients Within a
Central Business District Emergency
Department

Royal Hospital for Women Randwick NSW
Maternity Services Division
Malabar Community Midwifery Link Service:
The Malabar Midwives

Country Health South Australia Local
Health Network
Safety and Quality Unit
Bloodmove Project

Country Health South Australia Local
Health Network Adelaide SA
Safety and Quality Unit
Clinical Deteriorating Patient Project

Epworth HealthCare Richmond Vic
Clinical Services
Increasing Call bell responsiveness – more than just patient satisfaction

Mater Private Hospital Brisbane QLD
Operating Theatres
Operating Theatres Service Improvement Project

Capital Coast District Health Board New Zealand
Wellington Hospital
Reducing missed immunisation opportunities within Ward 1 Children's inpatient ward at Wellington Hospital

St Vincent's Private Hospital Sydney NSW
Pre Admission Centre
Cardiovascular Disease. The 'Know Your Numbers Project"

INNOVATIVE IMPROVEMENT TO FOOD SERVICES FOR PATIENTS WITH ALLERGIES

Dietetics and Central Production Kitchen
Monash Health

Mary Anne Silvers   Imran Hanif

AIM

The aim of this initiative was to improve the identification and non-medical management of paediatric patients at risk of anaphylaxis due to food allergies, therefore optimising their outcomes and experiences at Monash Health.

ABSTRACT

In recent years, Monash Health Children's wards have been challenged by an increasing need to ensure that paediatric patients with food allergies are not put at risk while in hospital. There has also been a growing incidence of parents of children with food allergies raising concerns about the potential risks and the availability of an appropriate diet.

Monash Health responded to this need for person-centred care by establishing a multi-disciplinary food allergy working party to review processes for identifying and managing paediatric patients at risk of anaphylaxis due to food allergies and identify strategies to reduce risk.

The strategies implemented as a result of the work of this group have led to a reduction in the number of food allergy related incidents, increased confidence among parents that Monash Children's can provide appropriate food for their children, and greater awareness among staff members of patients with food allergies and how we can better care for these patients.

sesame, soy, fish, crustaceans and wheat account for the >90% of food allergic reactions.

In 2011, Monash Children's was challenged by the ingestion of fish by a child with a known fish allergy which led to anaphylaxis. Serious concerns were also raised by a parent of a child with multiple food allergies in regard to the identification of their child with a food allergy and the availability of an appropriate diet.

In addition, there were approximately 17 near misses involving children receiving food they were allergic to or children not being correctly identified as having a food allergy. Most of these occurred in the paediatric wards across Monash Health.

In recognition of the need to better meet consumers' needs, and in alignment with Monash Health's Patient Centred Care priority, a working party was established involving representatives from the three areas most critical to ensuring the delivery of appropriate food to paediatric patients: Monash Children's wards, the Monash Health Central Production Kitchen and the site food service departments.

APPLICATION OF THE EQuIP PRINCIPLES

Consumer focus

According to the Australasian Society of Clinical Allergy and Immunology, food allergy is estimated to occur in 3-5% of children and 10% of infants. Eggs, milk, peanuts, tree nuts,

Effective leadership

A multidisciplinary food allergy working group – which included a parent of a child with anaphylaxis, an Allergy and Anaphylaxis Australia representative, allergists, a food

service manager, dietician, quality and risk representatives and paediatric nursing ward and Emergency Department staff – ably led both a comprehensive review of food allergy incidents and an identification process of areas of risk from presentation at the Emergency Department through to admission to the ward.

These included identification of children with a food allergy, food provided in the Emergency Department and wards, food allergy knowledge and food allowed in on-site playrooms.

Risk reduction strategies were developed, including:

- completion of an allergy identification checklist by nursing staff on admission,
- above bed signage,
- practice changes such as banning food in play areas,
- a food allergy procedure to apply from the emergency department to ward admission, and
- a food allergy menu (See below).

Dieticians and the Central Production Kitchen collaborated to develop an appropriate food allergy menu (sample provided below). This was done by developing a number of individually packed complete meals and by modifying some dishes from the existing menu to remove both major allergens and traces of allergens. Suitable ingredients were also sourced for each of dish and overall menu.

Control measures were also established to prevent cross contamination and produce a safe product. These included:

- obtaining specification lists from suppliers/producers for all ingredients,
- informing suppliers of the food allergy menu and the importance of avoiding cross contamination and of notifying the Central Production Kitchen of changes to ingredient specifications; this led to suppliers individually wrapping ingredients for these dishes,
- storing ingredients used for producing the meals separately,
- providing detailed information for each recipe, including the ingredient brand,
- using new ingredient packs to produce the dishes,
- preparing allergen free meals outside normal production hours, and

- testing of each dish by Food Laboratories (Aust) to detect the presence of major allergens.

Throughout the process, advice was sought from the food allergy working group regarding dish suitability for children, food labelling, presentation and taste. To complement the food allergy menu, suitable mid-meals snacks were also developed.

The rollout of the food allergy procedure and menu was supported by an extensive education program for volunteers, nursing and food service staff.

Continuous improvement

The introduction of the food allergy procedure and food allergy menu represents excellence in healthcare through our:

- commitment to address areas of clinical risk and acknowledge feedback from our patients and families in relation to food allergies, and
- engagement with our patients and families to develop procedures to manage food allergies to ensure optimal outcomes and meet the nutritional needs of our patient population.

The introduction of the food allergy procedure and menu has led to an improvement in the identification of patients with a food allergy and the ability to provide tasty nutritious meals, 24 hours a day, for those with one or more food allergies.

The introduction of the risk reduction strategies provides parents of children with food allergies with confidence that Monash Children's can identify children with one or more food allergies and provides them with appropriate meals.

Reviews of food allergy incidences and compliance with the food allergy procedures are carried out every six months (see Tables 1 and 2).

Evidence of outcomes

The work undertaken by the food allergy working party has led to three key outcomes:

1. Implementation of food allergy procedures which follow the patient's journey
2. Development of a food allergy menu and meals which cater for children with allergies to one or more of the nine major allergens.
3. Heightened awareness and understanding of food allergies and their incidence; non-medical management of food allergies and the provision of 'safe' food.
4. The risk reduction strategies introduced have also led to a reduction in the number of food allergy related incidents from 266 in 2011 to 66 in 2013. (See Table 1 below)

Incidents	1/1/2011-31/12/2011 (12 month period)	1/1/2012-30/6/2012 (12 month period)	1/7/2012-31/12/2012* (12 month period)
Total number of incidents	266	106	66
Total number of food allergy related incidents (% of total incidents)	**19 (7%)**	**4 (4%)**	**1 (1.5%)**
Incident type: food allergen received on tray (% of total incidents)	18 (7% of total number of incidents)	4 (4% of total number of incidents)	1(1.5% of total number of incidents)
Incident type: no red band for patient with food allergies	1	0	0

Table 1: Food Allergy Incidents

Food allergy procedure compliance audits conducted six months after implementation showed a significant improvement (See Table 2 below):

Procedure	Monash Children's (4 wards)
Medical histories reviewed	64
Allergy Identification checklist in history and completed (signed and dated)	43 (67%)
No. patients with food allergy documented on journey board	4
No. patients with food allergy documented on journey board and have an 'Allergy to' above bed sign	1 (25%)
2 red alert bands present for patients with food allergies*	2 (50%)
Patients with food allergy according on journey board and Allergy Identification checklist completed	2 (50%)

*1 patient in precaution room, unable to observe red alert band
*Table 2: Food Allergy Procedure Compliance (six months after implementation)*

Furthermore, this initiative provides parents of children with a food allergy with confidence that Monash Health can provide an appropriate meal for their child (see sample of parent feedback below):

Striving for best practice

This initiative was rolled out across Monash Children's in September 2012 and was extended, in March 2013, across adult bed based services. Throughout the process to develop and implement the food allergy menu, a number of barriers were overcome including sourcing suitable ingredients, obtaining specifications from suppliers, Central Production Kitchen process development, food trialling, developing food labels and meeting the cost of allergen testing.

The Central Production Kitchen and dieticians are continuing to develop additional dishes for the menu to meet our diverse patient population (e.g. vegetarian).

Through Anaphylaxis Australia, other organisations such as school camps have expressed interest in obtaining the allergy free meals, which are also now being made available to Eastern and Peninsula Health.
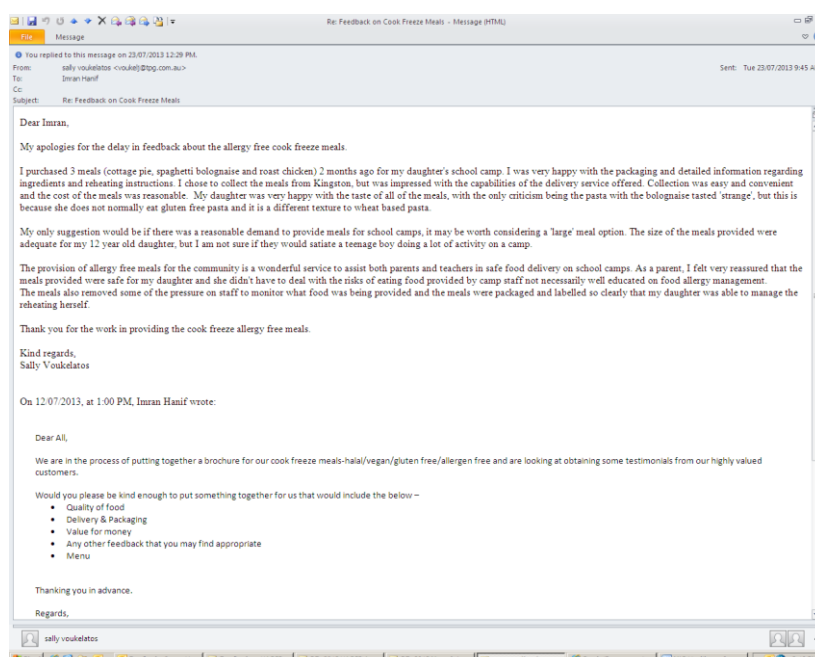
INNOVATION IN PRACTICE AND PROCESS

This innovative initiative was born from the desire of our front line staff to respond to the needs of our patients and their families; to provide exceptional care to a high risk patient population and to maximize the goal of achieving outstanding outcomes for our patients. The food allergy working group thought 'outside the box' and worked diligently to achieve an improved process that has resulted in increased awareness and compliance with the newly developed practices and procedure, both in adult and paediatric bed-based services. It has resulted in the formulation of a fabulous food allergy menu, with new, clearer labeling.

APPLICABILITY TO OTHER SETTINGS

As a credit to the food allergy working group this innovative initiative has successfully expanded from the initial paediatric bed-based service to include adult services. Furthermore, multiple organisations external to Monash Health have expressed interest in obtaining the allergy-free meals.

STUDENT PLACEMENT ONLINE TOOL - SPOT

**Mater Education
Mater Health Services**

Troy Forster   **Caron White**
Donna Bonney

AIM

To develop a comprehensive, integrated and streamlined online application to capture and collate all clinical placement data, through an intuitive and efficient operational user interface for all stakeholders within our clinical placement process.

ABSTRACT

"…Australia is likely to experience limitations in the delivery of high quality health services as a consequence of: workforce shortages…"
HWA (Health Workforce 2025) 2012.

HWA examined Australia's long-term workforce projections for doctors, nurses and midwives. The findings in their study suggest a shortage of up to 109,000 nursing positions by 2025 unless measures are implemented to increase the supply of these skilled workers.

A key objective of HWA's Work Plan in response to this predicted shortage is building placement capacity for the clinical training of health professional students. This includes increases in both quantity and quality of clinical placements.

Concurrent to HWA compiling their report, Mater Health Services undertook a nine month review of the business processes and tools used to manage and coordinate student clinical placements across their multi-hospital, multi-campus sites in Queensland. This review found:

- Management and administration of student clinical placements required a high level of manual processing and administration.
- Only limited technology, such as a variety of individually created spreadsheets and database systems, were used to support and administer student clinical placements, resulting in little or no transparency, especially between health disciplines.
- A manual data retrieval processes that was labour intensive and produced poor quality data was used when information was needed for business planning and funding submissions.

The key recommendation of this review was to implement a user friendly, intuitive tool that would reduce the need for manual processing and accurately record all relevant student placement information for easy retrieval when required.

When MHS went to market they found that there were no available solutions that significantly reduced manual processing by key healthcare staff. The decision was made to internally develop a solution that takes advantage of the "bottom-up information system" and allows organisational capacity for clinical placements to be maximised through metrics, scenario planning and analysis.

The development of SPOT – Student Placement Online Tool commenced with an internal process review of how clinical placements were administered and what data was necessary to collect for reporting and maximising capacity, from the "bottom-up".

Bottom-up Information System

It was identified that providing student clinical placements is a complex and multifaceted

process. It can involve multiple stakeholders, administrators, clinical supervisors and healthcare service managers, clinical placement coordinators, professional and regulatory bodies, government entities and, of course, students.

SPOT has been designed with this complex bottom-up system in mind, where each stakeholder involved in the process adds their own component of information, which builds up to show the complete picture. This is different to a top-down approach in which a central clinical placement coordinator or office seeks out and enters information into a system which then filters out to the various stakeholders.

We've found that a bottom-up structure allows each stakeholder to accurately record their 'piece of the puzzle', while simultaneously accessing pertinent information entered by others. This sharing of information also acts as a verification of accuracy, as multiple sets of eyes review each entry.

including educational institution faculty and

Dashboard Design

These processes were then converted into a series of "user dashboards", a mock-up of a single computer application screen that intuitively supports the user to perform their actions specified in the overall process.

Bottom-up information systems rely on many individual users all interacting and sharing, contributing their own sets of data. Therefore the most important design element in these systems is the user interface, or dashboard, for each user.

SPOT's dashboards display the most relevant and important details to the user in an intuitive and easily accessible way. They allow simple decisions to be made without switching screens and if more information is needed, they guide the user to where that information is.
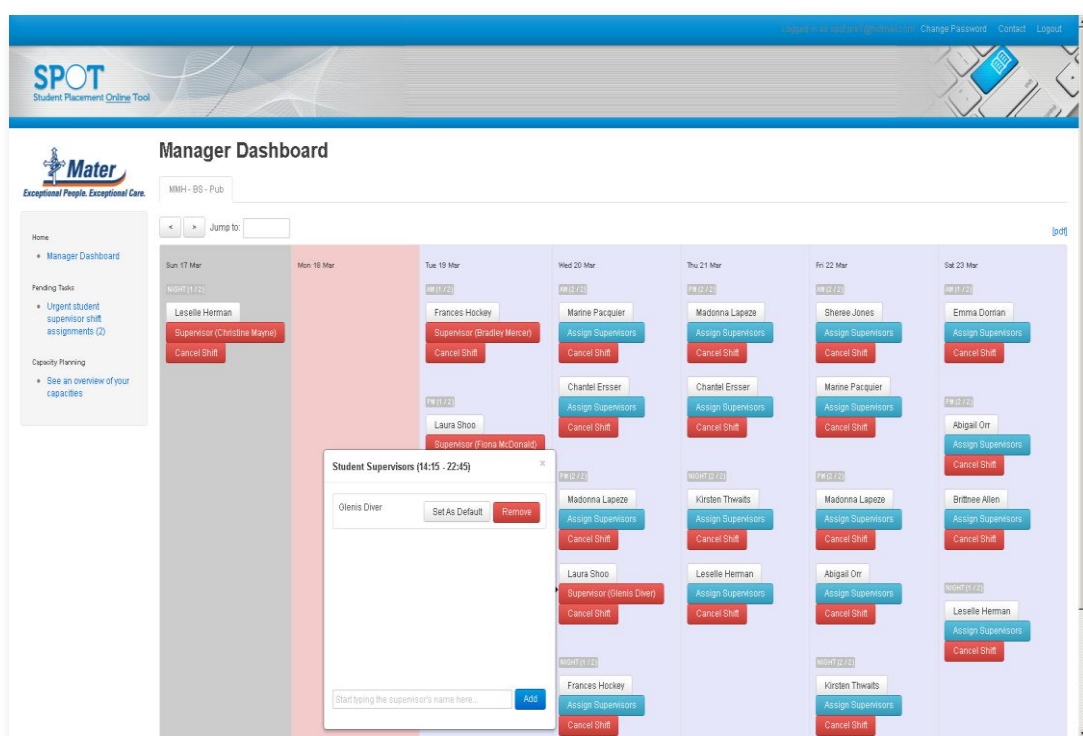
Each user type has a dashboard specifically designed for their needs. This means the look, feel and functionality of two dashboards may be completely different, even though they might be presenting similar information. For example, the Manager Dashboard and

Facilitator Dashboard look and function differently in SPOT, even though both display students and their booked shifts. This is because clinical managers and team leaders interact with students very differently to facilitators, lecturers and tutors.

This dashboard design approach has allowed each individual, no matter their role, to become more than just a number on a spreadsheet. And because the individual pieces of information are accessed by users as part of their daily operations, any missing or inaccurate data quickly gets identified and corrected.

All interactions happen in real time over the internet:

- students can view available shifts, book in for shifts and view written feedback from their supervisors,
- clinical staff can see their student load, assign supervisors to students and see each student's details and photograph,
- education provider staff can access all of the shifts their student has completed and booked, track their student's progress and read feedback,
- supervisors assigned to a student for any shifts can mark attendance, write feedback about the shift and get access to any important learning documents for the student they need,
- placement staff can access all of this information as part of the overall data set of clinical placements.

This instant, interconnected information allows immediate, informed decisions, creates engaged, empowered users and provides more complete and accurate information that can then be collated and presented according to any number of parameters.

Having completed a basic level of functionality with the assistance of an external software development company in late 2011, SPOT was implemented across all Nursing student placements at the Mater South Brisbane campus in Semester 1 of 2012. This was followed by implementations of Midwifery in Semester 2 2012 at South Brisbane and Redlands, and by Medicine and Allied Health disciplines in Semester 1 2013.

Maximising Current Capacity

With SPOT we can now understand where our current capacity levels are and where to find efficiencies. SPOT does this in two ways, visualisation and simulation.

We integrated the data visualization tool Tableau into SPOT, which allows any captured data to be presented in an easy to read, interactive visualisation. For example, we're able to immediately see a graphical representation of individual area usage compared to capacity, which can make it obvious where there is under and over utilization of clinical placements. This has translated into more efficient placement decisions.
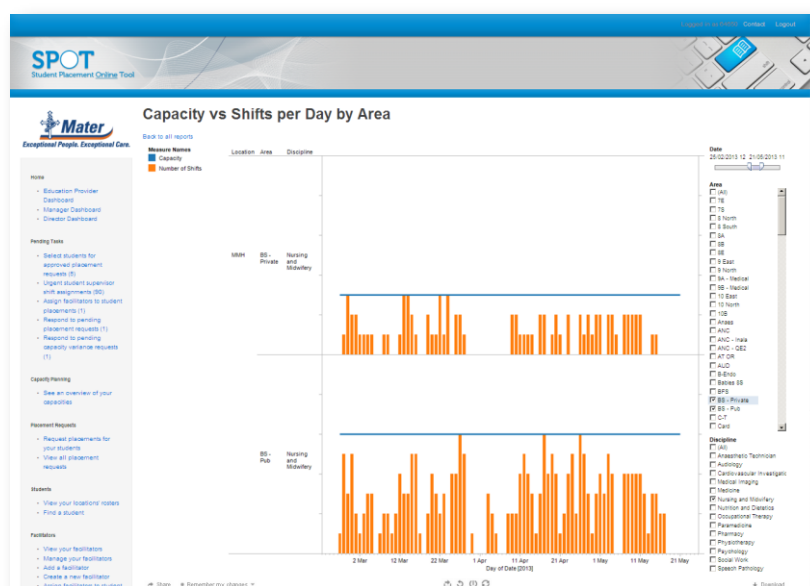
Going further than this is SPOT's Placement Simulation module. We can now enter scenarios based around numbers and disciplines of students, their required hours and their availability to attend shifts. The advanced analytical engine will then run the simulation to determine an optimal allocation of students to areas in a matter of minutes.

This simulation can then be used to place the students accurately. It can also be used to drive decisions on how many placement positions to open to education partners and even inform reviews of current placement models, be they distributed or block.

After only twelve months of use and data collection, SPOT was able to show that current placement models led to a usage of fewer than 20% of total capacity at Mater Health Services. This was despite a common perception that we were at full capacity. Using this information in combination with Placement Simulation scenarios, MHS has been able to provide a substantial increase in student numbers for their education provider partners.

Outcomes

Our successful development and implementation of SPOT has resulted in three major outcomes for our business:

1. We have **complete visibility** of our day to day student clinical placement activity across our campuses. We know in one click who is on campus today, where they are, who their supervisor is and what their learning requirements are.
2. We have an **easily accessible data history** that can be used in decision making and provided to internal and external stakeholders.
3. Our clinical placement stakeholders are more **engaged** in student education and **empowered** to take action. We know that in 2012 SPOT connected:

   820 students and
   74 education provider staff from
   12 Tertiary Education providers with
   2168 student supervisors and
   141 clinical managers and
   5 Directors and
   1 Clinical Placement Coordinator
4. The **quality** of the student experience has increased through the provision of easily accessible written two-way feedback between them and their supervisors, and the increase in operational efficiency allowing students to focus on the learning.

SPOT has been so successful that Mater Health Services is now making the application available to other Health Care Institutions to manage and record their own student clinical placements.

APPLICATION OF EQuIP PRINCIPLES

Consumer Focus

Health Workforce Australia's modeling suggests a shortage of up to 109,000 nursing positions by 2025 unless measures are implemented to increase the supply of these skilled workers. This nation-wide shortage will adversely affect patients by lengthening waiting times and, in some cases, making some health care services unavailable to some parts of the community.

A key objective of HWA's Work Plan in response to this predicted shortage is building placement capacity for the clinical training of health professional students.

A focus on this end goal of ensuring consumers and patients have access to adequate and timely health care services has driven the development and implementation of SPOT. This tool has allowed us to plan on more than doubling the number of Nursing and Midwifery placements we offer over the next 5 years.

This benefit to the consumer will not only be borne out in the next 15 years but is happening now, with improved processes in student allocation and management allowing clinical staff to spend less time organising and more time practicing.

Effective Leadership

Mater has shown leadership by committing to the developing a tool in-house when none existed in the market place. The development of SPOT has created a more vigorous dialogue around clinical placements with partner institutions such as the Queensland Ambulance Service and University of Queensland Health Care implementing SPOT across their organisations. The mapping of the clinical placement process has also increased the dialogue with our own staff and with our partner education providers.

Continuous Improvement

SPOT's bottom-up design has empowered all levels of staff and stakeholders to provide feedback on both the design of the application and student placement business processes. This feedback, and the ability to respond to it through the visibility provided by SPOT, has led to nine functionality upgrades since initial deployment and to multiple business process improvements.

SPOT has also led to a continuous improvement of our workforce, as the students completing placement with us who are enjoying an improved learning experience are taking up graduate jobs with us. They even bring their SPOT feedback transcript to their job interviews.

Evidence of Outcomes

The evidence of the outcome of increasing student clinical placements has been borne out by the negotiation of increased placement numbers for the next five years with the University of Queensland School of Nursing and Midwifery and the Australian Catholic University School of Nursing and Midwifery. The following graph are the projected numbers negotiate. Over time we will seek evidence that SPOT is helping to close the gap of the shortage of trained clinical staff forecast by HWA for 2025.
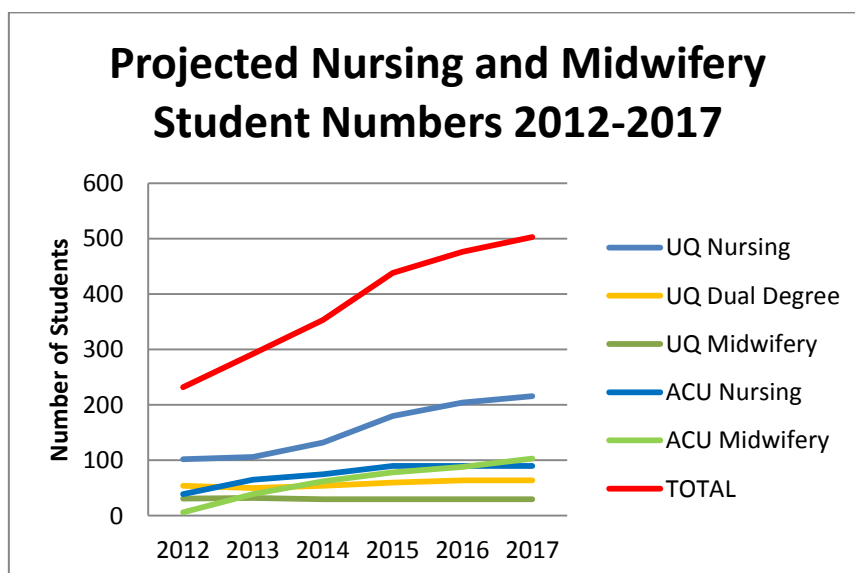
Striving for Best Practice

SPOT has been developed using the same web application technology that powers Facebook and Twitter (Bootstrap). We've also learnt from the social media websites in regards to the bottom-up approach, where many users interact and share in order to collate to a big picture.

INNOVATION IN PRACTICE AND PROCESS

The standard methodology for clinical placements is to implement a top-down, command and control style system of data collection. This gives a high level of control to the data seekers but suffers from lack of input from all other stakeholders. The innovation of SPOT is to incentivise the stakeholders that know the information to enter the information first hand, leading to quicker, more accurate data collection and operational benefits from increased visibility.

APPLICABILITY TO OTHER SETTINGS

SPOT is designed to encompass a multi-disciplinary, multi-specialty, multi-campus, multi-education provider approach. Our Mater system currently operates across 18 Disciplines, 7 Hospitals and 14 Education Providers, while the Queensland Ambulance Service system operates across a single Discipline (Paramedicine), 17 Local Health Areas and 5 Education Providers.

HOME SAFE PROJECT

Safe Project Team/ICT and Clinical Governance Unit
WA Country Health Service South West

Peter Watts   **Jo Moore**
Piari Skeers

AIM

The aim of Home Safe is to reduce the risk to clinical staff by promoting awareness of the risks they might potentially face when working off site, whilst also sharing risk assessment information between health care teams.

ABSTRACT

The South West received a High Priority Recommendation (HPR) in 2010 regarding safety risks for staff working in clients homes. Surveyors identified issues with completion of the staff location logs and procedures for follow up of late return staff. The response to the HPR was new documentation including a risk rated home visiting / working alone risk assessment form and a Working Alone site instruction, staff communication and monthly audits of compliance. These were implemented in early 2011, when evaluated the need was identified for a more reliable solution.

The solution being the creation of a web based program that manages home visit risks and working alone for clinical staff visiting clients within the WA Country Health Service- South West (WACHS-SW). This project was titled 'Home Safe'.

In the initial phase of the Home Safe project several tools were incorporated to assist in the success of this application. Before coding the application an assessment of scope, risk, responsibility and dependencies was taken. Research was also conducted on existing policies and procedures in regards to home visiting and working alone to ensure the Home Safe program conformed to department regulations. Using LEAN methodologies, value stream mapping and waste management we were able to look at the original process for risk assessments of clients and clinicians visiting their homes and compare this with the proposed new application and process.

Issues found and resolved include:

- Risk assessment completion was not mandatory (previous audits indicated, in high compliance locations, only 80% of home visits had a documented risk assessment).
- Clients being asked the same questions and filling out the same risk assessment.
- No visual risk alert if a clinicians' visit was overdue.
- Poor security around travel information (use of whiteboards).
- Unable to monitor clinicians remotely, dependent on staff onsite which, in some cases, was without dedicated administration staff.
- Inaccurate linking to client details such as name, address, contacts.
- Illegibility of handwriting.
- Duplication of clinical details across multiple departments all with differing amounts of information on a single client.

After comprehensive consultation with a range of staff from all areas of Health, the Home Safe project was completed. This system is now very portable and allows visual cues to assist clinical and clerical staff from all backgrounds to use this software. The 'Home Safe: Risk Assessment' and 'Home Safe: Working Alone' applications have been incorporated into all relevant departments throughout WACHS-SW for over a year.

APPLICATION OF EQuIP PRINCIPLES

Consumer Focus

Consultation was required with multiple departments including mental health (identified as having higher risk home visits) through to community health (identified as having more frequent home visits). Shared decision making was promoted so that staff, who would be expected to use the system, were involved in the process.

Consultation was performed with all staff levels including Executive, Regional Managers, Clinical Coordinators and Administration staff members who assisted in the design. The application was developed with representation from community health, mental health, midwifery and aged care services.

- Meetings were held for major decision making and milestones.
- E-mails were used for smaller milestones and to send out meeting minutes for when decisions were made.
- Phone calls to staff have been used to notify clients on updates and testing feedback.
- Presentations and training sessions have been held to show the application and receive feedback, gathering new ideas to improve the system.

The lead developer of the application had an IT background so it was important for him to have an understanding of the complexities of clinical and clerical duties in regards to home visiting in order for the functionality to align with expectations. This required a high level of consultation to achieve this understanding and resolve the issues identified.

Effective Leadership

The development of the application has not only conformed to the required policies and procedures but is easier to use and safer for all clinicians out on the field. The organisation aimed to develop a system that would meet customer needs (our staff) whilst also using available technology and more reliable controls. The other WA Country Health Service regions have expressed interest in the Home Safe program and its potential application across the other six country regions.

Continuous Improvement

Risk assessment completion is mandatory before a home visit can occur and completion is monitored. A major benefit from this has been the automatic monthly audit reports recording compliance with the process so the target areas are identified for further enhancement. Managers now receive automatic reports at a clinician level, making monitoring of compliance easy and there is no longer a need to undertake manual, time consuming audits. Staff training was conducted at each of the 22 sites and strategies for ongoing training incorporating the Learning and Development department are in place. After the application was deployed Home Safe team meetings continued striving for further enhancements and setting new goals to achieve in promotion and education. Ongoing feedback is received to ensure that the application meets staff and manager expectations. Further evaluation on the success and continual improvement is scheduled for late 2013.

Evidence of Outcomes

There is now strong visibility and a cross-reference between client risk and information with checking times. As you can see from Figure 1 the risk level (via the risk assessment figure 2) is shown as well as contact details. The application also prioritises the list to the next scheduled clinician check in date, as well as colour codes via the standard "traffic light" colours, easily showing any expired visit. There are escalation procedures at each site should a clinician not return in the specified time.

One issue resolved by this application was if a Risk Alert had been placed on a client, particularly in maternity, then home visiting staff receive that information immediately. Prior to this, there was anecdotal evidence that risk was, on occasion, not known before the visit.

There is now a set review date for risk assessments and an alert if the risk assessment has expired.

Due to the comprehensive consultation process as well as promotion and training, staff across multiple departments were quickly able to incorporate the application into their 'Working Alone' procedures. This evidence can be show in Graphs 1 and 2.

Graph 1.

(filtered to the last full month taken on the 11/07/13)
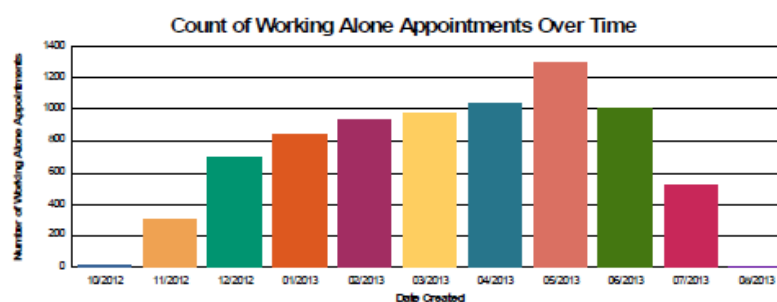
Graph 2.

(Taken on 11/07/13)

At the time the statistical snapshot was taken and graphs were created there was a total of 3,810 Risk Assessments of clients completed and 7,640 Working Alone Appointments that were monitored. Thereby demonstrating the efficient use of a single risk assessment for clients receiving multiple visits by different services.

Striving for Best Practice

Information Technology reviewed practices in other WA Country Health Service regions to ensure an existing system was not already in place that could be adapted. The application

developed by the South West integrates with the open patient administration system (TOPAS) so client details are sourced from that system promoting accuracy and prompts the need to update details if required.

With this application, which has such a broad scope and impacts many different types of clinicians and administration staff with various backgrounds, it was vital to seek a universal understanding on how home visiting and working alone visits were achieved in an effort for this system to be successful and embraced by staff.

Further to this, existing policies and procedures were researched in regards to home visiting and working alone to ensure the Home Safe application created conformed with the regulations.

INNOVATION IN PRACTICE AND PROCESS

The intent was always that the risk assessment form and working alone tracker system would not only support various quality assurance and administrative processes but also minimise the risk to the clinicians. The application has achieved this in a simplistic, innovative way thereby improving workplace safety and health performance.

During coding the application, change management strategies to design and implement the Home Safe system were also embraced. Ongoing feedback was gained from select 'testers' of the application from clinical and clerical staff across departments which was imperative for the success of this application. The feedback given resulted in a stronger understanding of what the staff required from the system which refined the development of the application before it was launched. This resulted in staff embracing and claiming ownership over the new process.

To prevent 'change resistance', the online form was modified to make it more *familiar*; asking similar questions and using a similar layout to the paper based forms, yet combining the existing three pages (two forms) into one online form and removing duplicated information (see figure 2- online form and compare with Appendix 1 MR00A Home Visiting Risk and Appendix 2 Risk Alert Notification forms). The outcome was that not only were clinician's familiar with the content of this form and it was aligned with policy, it was also more efficient from both a learning and data entry perspective.

POTENTIAL RISK DETAILS AND CONTROLS
Based on the Prompts for Assessment and Other Considerations please detail each risk and how you intend on managing each risk identified.

	ID	Details of Risk	Controls in Place	Responsibility	Clinician	Created	
Edit	45	ACCESS TO KNIFES	2 PERSON HV	Clinician	he86883	14-Jun-2012	Delete

Risk | Control | Responsibility

Clinician | Add

Based on these answers how would you rate the risk level?

*Risk Level: High

HIGH RISK
You have selected this Patient is a **High Risk**. Home Visits, patient transport, travel or working alone cannot proceed.
Your Line Manager will need to authorise any risk level change. The control Plan will need to be filled out before the risk can be reduced.
The Action Notification Team will also be notified and will update these details in TOPAS/HCARe CMS/EDIS as required.

*Your Managers HE Number: he75568   Display Name: *ging, christy*[1]

RISK ALERT CODES   Detail the risk. Leave blank if not applicable.

Child at Risk	
Physical	CONSTANT RISK OF AGGRESSIVE BEHAVIOUR
Self Harm Risk	
Verbal	
Possession of Weapon	
Include all Family members	
Other	

Is a home visit essential?   ○ No   ● Yes

☐ **Recommend No Home Visit**
(if unclear as to the reasons why please contact the clinician)

Please state the reasons why you feel a home visit would be essential:
LONG Hx OF NON COMPLIANCE

The Manager Has Approved this application and an E-mail has been sent to Action Notification Team. You Cannot Save this Form. Please Create a 'New Risk' if modification needs to be made.

Delete Risk	Print Risk	Main Page Search	Save Risk

* = Required Field   [1]Name resolution is via ICT system HPOV if not displayed please inform ICT Helpdesk on 1800 794 748 and ensure your name is entered into their system.
This risk was created by: he86883 Last Updated: 18/06/2012 7:57:44 AM by he71827
You are currently logged as user: he85900

APPLICABILITY TO OTHER SETTINGS

This application has been implemented at 22 sites across the South West region. The database and web application have been created to allow for expansion and to potentially be used across the WA Country Health Services at minimum.

Ensuring staff get home safely, client risk assessments are completed and shared between services means services are delivered safely and the administrative requirements are reduced.

Non-Clinical Service Delivery Submissions

Sir Charles Gardiner Nedlands WA
Patient Support Services
Modification to Environmental; Cleaning to Assist VRE Control Cleaning.

Austin Health Melbourne VIC
Food Services
Improving Meal Service for Oncology Patients

Sydney Local Health District Liverpool NSW
Triple I (Hub) Community health, South Western
Triple I (Hub) - Beyond Intake

Central Coast Local Health District Wyong NSW
Education Team nursing Administration: Casual pool and Afterhours
RED: real education Delivered

Corporate Bodies International North Sydney NSW
Product and Quality Management Team
The use of a health passport system to address individual employee risk factors for lifestyle related disease and improve workplace health outcomes

The Children's Hospital at Westmead NSW
The expanded EMR; Enabling quality documentation and improving Activity data collection

GEO Care Australia Pty Ltd Southbank VIC
Quality and Compliance Unit
Introducing Students to Correctional Nursing

Hunter New England Local Health District Newcastle NSW
Infection Prevention and Control - Manning Rural Referral Hospital and Lower Mid North Coast Cluster
It's not easy being clean

Hunter New England Local Health District Newcastle NSW
Clinical Nursing and Midwifery Services
A support program to enhance the transition into the Australian Healthcare workforce by building the capacity and skills of Overseas Qualified Nurses

Rochester and Elmore District Health Service Rochester VIC
Staff Development
Making Mandatory training Fun

Orange Health Service Orange NSW
Emergency Department - Trauma
10 Minute Trauma Topics

Mater Health Services Brisbane QLD
Mater Education
Student Placement Online Tool - SPOT

WA Country Health Services - Wheatbelt Northam, WA
Information Management Service
Wheatbelt Health Information Management I^3 Quality Program – Integrity, Innovation and Improvement

WA Country Health Service South West WA
Home Safe Project Team, ICT and Clinical Governance Unit
Home Safe Project

St John of God Subiaco Hospital Subiaco WA
Ethics Office SJGHC
Research Governance to Foster Healthcare Research That Improves Patient Care

Orange Health Service WNSWLHD Orange NSW
Orange Health Service Executive Team
CRITICAL PARTNERSHIPS - Consumer Relationships Integral to Improving Care, Access and Leadership

Children's Health Queensland (CHQ) Brisbane QLD
Division of Support and Infrastructure
Children's Health Queensland Emergency and Disaster Management

Peninsula Health Frankston VIC
Human Resources
The Post Incident Response Staff Support (PIRSS) Project: Implementing Psychological First Aid in a Health Service

Hemas Hospitals Pvt. Ltd, Sri Lanka
Engineering Department
Motivated Team Will delivers the best Results - Performance Management System for Non-Executive staff

Monash Health Clayton VIC
Dietetics Monash
Innovative Improvement to Food Services for Patients with Allergies

The Sydney Clinic - Healthscope Ltd NSW
Allied Health Department
The Sydney Clinic – University Partnerships

St John of God Subiaco Hospital Subiaco WA
Occupational Safety and Environment Department
Improvements in the St John of God Subiaco Hospital Occupational Health and Safety Management System

The Royal Children's Hospital Melbourne VIC
RCH Education Institute
An innovative arts-based education program for children and young people at The Royal Children's Hospital Melbourne

The Royal Children's Hospital Melbourne VIC
Research and Ethics
Breaking down the ethical red tape – from adversary to facilitator and partner in research

The Royal Children's Hospital Melbourne VIC
People and Culture- Emergency Management
Realising the potential of the new RCH in Emergency Management

The Royal Children's Hospital Melbourne VIC
Strategy and Improvement
Consumer Engagement – A new frontier

Hong Kong Baptist Hospital Hong Kong
Department of Pathology
Reagent Inventory Control Improvement – A Cross Organizational Six Sigma Application Experience

Alfred Health Melbourne VIC
Pathology
Best practice ward rounds – ticking all the boxes by improving efficiency, safety and quality and the patient experience

UP AND AT 'EM. A TRIAL OF EARLY MOBILISATION IN ELECTIVE ORTHOPAEDICS IN THE RURAL CONTEXT

Physiotherapy and Surgical Ward
Bathurst Health Service

Andrew Muldoon   **Catherine Poschich**

AIM

Primary aim to decrease length of stay for joint replacement patients by 20%, with secondary aims to increase quality of life outcomes; consistency in anaesthetic/post-operative analgesia; decrease incidence of pressure ulcers; and admissions to Rehabilitation Unit.

ABSTRACT

2011 heralded a significant shift in the model of care for Bathurst Health Service Orthopaedic Services. Increasing demands for total hip and knee replacements, increased waitlist times (compared to peer hospitals and National averages); increased lengths of stay and inconsistent models of anaesthetic and post-operative service delivery highlighted the need for change. Secondary sequelae from these increased lengths of stay were increased pressure ulcer incidence, increased rehabilitation bed use and occupancy rates and inconsistent post-operative analgesic regimes that limited functionality and capacity for enhanced recovery.

Under the framework of activity based funding, a new multi-disciplinary model of care was developed. A single blinded randomised control trial involving 64 patients (32 in control and 32 in intervention groups) was conducted assessing the efficacy of early mobilisation on length of stay, secondary sequelae development and overall quality of life using the Short Form 36 (SF-36).

Outcomes included:

- Significantly decreased length of stay,
- $1,466,460.30 savings,
- Increased quality of life/patient satisfaction,
- Decreased post-operative complications (pressure ulcers),
- Consistency in post-operative functional analgesia,
- Efficiency in service provision.

APPLICATION OF EQuIP PRINCIPLES

Consumer Focus

While success or failure of projects similar to this typically lies in the morbidity or mortality statistics and the financial savings, todays "marketplace" mandate a need for non-traditional outcome factors such as patient satisfaction and interdisciplinary communication as well as quality of life outcomes. In order to best ascertain gaps in satisfaction, participants in the study were encouraged to participate in using a pre-set structured questionnaire. The validated Short Form 36 (SF-36) will be utilized in this instance to provide the key data.

The quality of life data was assessed pre and post-operatively, ensuring patients were the key focus of the trial and how their experience and overall quality of life could be improved from their surgery and through early mobilisation, standardised pathways for anaesthetics and post-operative functional analgesia, reduction in pressure ulcer occurrence, and decreased length of stay.

They could be safely home within a shorter time frame, fewer complications with associated improvements in quality of life.

Effective Leadership

The trial was a multidisciplinary approach to patient care. Ward staff, Allied Health and Medical staff had input into the clinical focus and changes required to current practices of post-operative joint arthroplasty management. Advice and recommendations from the multidisciplinary team were readily welcomed to study improvements, with regular feedback provided to all staff on trial progress. This inspired and continually motivated the team on progress and outcomes.

Continuous Improvement

From the increasing trends in average length of stay, pressure ulcer incidence, and introduction of activity based funding, ways to improve service delivery were reviewed. The trial regularly reviewed strategies that monitored improved outcomes in patient care, reduced length of stay, and incidence of pressure ulcer development. This was through continual review of patients, early intervention if pressure ulcers developed and ways of future prevention enacted. Meetings with Anaesthetic department in obtaining functional post-operative analgesia for patients was vital, and the early mobilisation of patients the night of surgery also assisted this. This has now become embedded as standard practice.

Evidence of Outcomes

The ethically approved single blinded randomized control trial commenced in January 2012 and completed May 2013, with full analysis of the result completed at this stage. The results achieved were:

- Significant increases in quality of life physical components in the intervention group with a 51.8% improvement compared to baseline function at a six week follow up. There was a 12% increase in the control group.
- Statistically significant decreases in pressure ulcer incidence, with none in the intervention group and 6 in the control. This was related to the epidural patient controlled analgesia post-operatively being non-functional and this evidence presented to anaesthetic department and practices changed as a result of this evidence. No pressure ulcers have developed in joint arthroplasty patients in 2013 in the study period.
- A clinically and statistically significant mean length of stay reduction in acute

ward admission of 42% and rehabilitation admission length of stay decrease of 58%.
- Based solely on these occupied bed day decreases, the estimated per annum economic benefits/savings for this core clinical group across the period of the study was $1,466,460.30.
- Incidental findings: The intervention group was independently mobile earlier (2.44 versus 4.75 days) with a subsequent statistically significant decrease in admission to the Rehabilitation unit (one form intervention group, 13 in control group), a further saver of costs.
- No readmissions of any of these patients.
- No adverse events in intervention or control groups.

Striving for Best Practice

Only two other studies worldwide have looked at an early mobilisation focus in elective total joint arthroplasties. Neither of these are Australian based and both definitely do not have a rural focus. This study is the first to look at this process in the rural Australian context. The core interventions for this study were two fold – sitting on the edge of the bed on the day of and a medication of functional post-operative analgesia to allow this to occur safely. The results achieved have shown the simplest solutions often enable the best for outcomes.

The early mobilisation and post-operative functional analgesia achieved optimal patient outcomes through reduced complications in pressure ulcers, reduction in length of stay, and significant improvement in their quality of life with associated economic benefits to the hospital.

This model has application for easy transferability to other surgical settings including major gynecological procedures/major abdominal procedures, and applicability to any facility undertaking joint arthroplasties, the world over. This project and subsequent study required a commitment from all the multidisciplinary team, Medical, Nursing, Allied Health to achieve the outcomes of the trial and significant improvement in patient quality of life.

PROJECT OVERVIEW

The demand on health is exponentially increasing, compounded by a combination of aging populations, less functional capacity and greater co-morbidities. Admissions relating to age correlated diseases like osteoarthritis are increasing demand and health expenditure.

Total joint arthroplasties are documented (Cushnaghan et al, 2009; and Naylor et al, 2009) and promoted to be the most successful and cost effective in alleviating pain, improving function and quality of life (Burns et al 2006) in these patients. Current projections show the numbers of these surgeries is set to increase 10% per annum, such that 2016 will see a two-fold increase in current numbers.

Locally, lead clinicians recognised the need for change. Old, out-dated processes with minimal evidence based practice, needed to be modified to address increasing lengths of stay, inconsistent service delivery, frontline patient care and overall efficiency.

A systematic needs analysis recognised and reviewed this. As a result, a new model of care and standardised pathway was postulated and clinically trialed. Key performance indicators under the activity based funding model supported clinician engagement in making local solutions into action to meet the health needs of their patients, and support Local Health District core values.

2011 strategic planning by the Surgical Ward and Physiotherapy Department in conjunction with hospital Quality and Safety Reviews recognised a need to change the management within existing cultural and clinical ideologies for patients undergoing total hip and knee arthroplasties. The recruitment of an additional Orthopaedic surgeon further compounded these issues as a direct result of increased demand and surgical numbers. A systemic needs analysis of waitlist and inpatient data, IIMS reports, clinical and literature reviews of best practice models of care and patient journeys and quality of life reviews showed:

Waiting list times and average length of stay were increasing with concomitant flow on effects on the patient journey and outcomes

Total Days Wait – Lower Limb Arthroplasty 2008 – 2011.
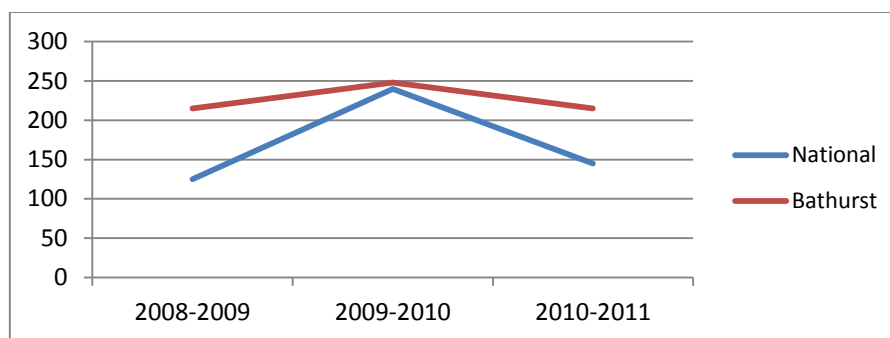
Average Length of Stay - Lower Limb Arthroplasty 2008 – 2011
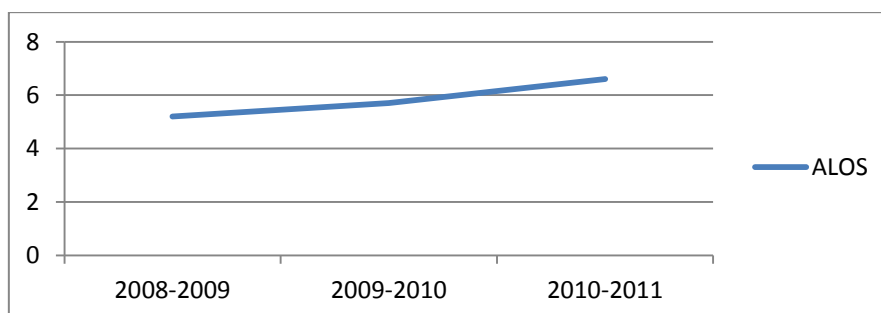
Increased incidence of pressure ulcers due to increased surgical throughput; type of anaesthetic/post-operative analgesia

Pressure Ulcer Incidence - Lower Limb Arthroplasty 2009 – 201.
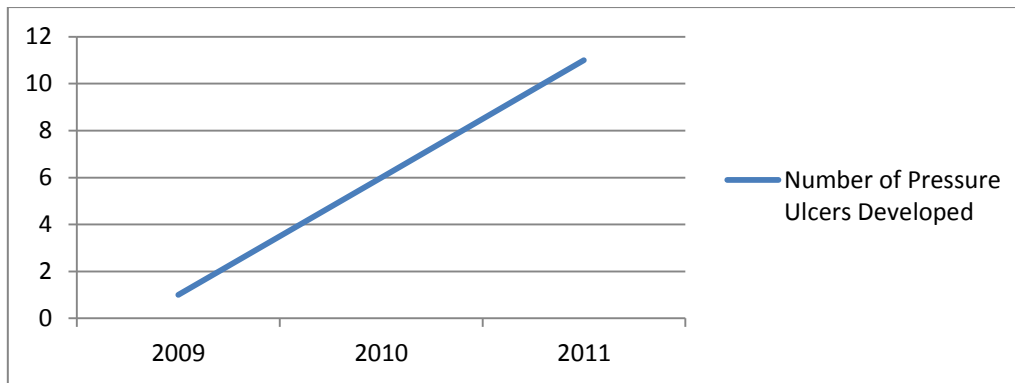
A needs analysis and systematic review of current best practice multi-disciplinary models of care was undertaken. Outcomes of this highlighted deficiencies in current practice models of anaesthesia and analgesia. Group planning sessions/team meetings with key stakeholders of the Anaesthetic Department resulted in modification to consistent anaesthesia and analgesia modalities.

A Physiotherapy review of current practices at Bathurst Health Service showed current practice met all evidenced standards, however, the recognition for practice improvement and enhanced patient outcomes was theorised, with early mobilisation as the answer. Limited scientific research surrounds this in elective lower limb arthroplasty patients, despite increasing evidence in other specialities. The recently released Agency for Clinical Innovation (ACI) Evidence Review of Primary Total Hip and Knee Replacements showed only two research articles that reviewed early mobilisation (n=261) (Agency for Clinical Innovation, 2012).

An ethically approved (HREC/12/GWHAS/66) randomised single blinded control trial was conducted to analyse the effect of early mobilisation on length of stay and quality of life outcomes within a projected cost framework ($600).

Core implementation steps included:

- Ethical processes were maintained (consent, privacy)
- Consecutive recruitment and random number allocation to control and intervention
- Pre and post-operative quality of life (6 weeks post discharge) were assessed using the validated Short Form – 36 (SF-36)
- Length of stay was calculated using the i-soft Patient Manager system
- Intervention patients were sat on the side of the bed for a period of five minutes on return to the ward on the day of surgery, while the control received nothing on this day
- Ongoing Physiotherapy for both groups from day one onwards followed the standard pathway (range of motion and progressive functional mobilisation), with a 'blinded' assessor completing follow-up
- Discharge occurred when the participant was functionally independent, surgically stable and able to ascend and descend three stairs.

Outcomes and Evaluation

Study Flowthrough

Average Length of Stay

```
┌─────────────────────┐        ┌──────────────────────┐
│ Assessed for         │        │      Excluded        │
│ Eligibility          │        │       n= 9           │
│ 2012-2013            │        │  Bilateral Knee      │
│ n= 73                │        │  Replacement n = 3   │
└─────────────────────┘        │   Declined n = 6     │
                               └──────────────────────┘
        │
┌─────────────────────┐
│    Randomised        │
│      n=64            │
└─────────────────────┘
    │            │
┌─────────┐  ┌─────────────┐
│ Control │  │ Intervention│
│ n = 32  │  │   n = 32    │
└─────────┘  └─────────────┘
    │            │
┌─────────────┐  ┌─────────────┐
│ Total Knee  │  │ Total Knee  │
│ Replacements│  │ Replacements│
│ n = 15      │  │ n = 23      │
│ Total Hip   │  │ Total Hip   │
│ Replacements│  │ Replacements│
│ n = 17      │  │ n = 9       │
└─────────────┘  └─────────────┘
    │            │
┌─────────────┐  ┌─────────────┐
│ Follow-Up   │  │ Follow Up   │
│ n = 31      │  │ n = 31      │
│ Lost to     │  │ Lost to     │
│ Follow Up   │  │ Follow Up   │
│ n = 1       │  │ n = 1       │
└─────────────┘  └─────────────┘
```
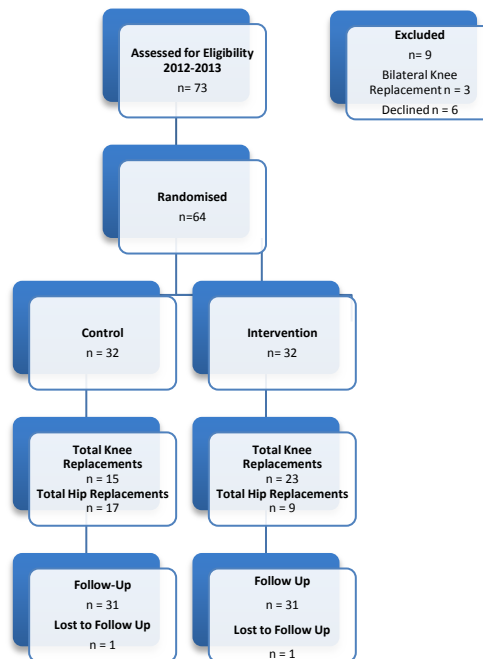
Difference between intervention and control groups:

- Acute ward 3.45 days (p=0.000) – 42% decrease
- Rehabilitation Unit 7.06 days (p=0.001) – 58% decrease

Economic per annum benefits/saving equate to (1 occupied bed day $2325) $481, 378.50 for acute stay, $985, 081.80 for Rehabilitation stay, totaling $1,466,460.30.
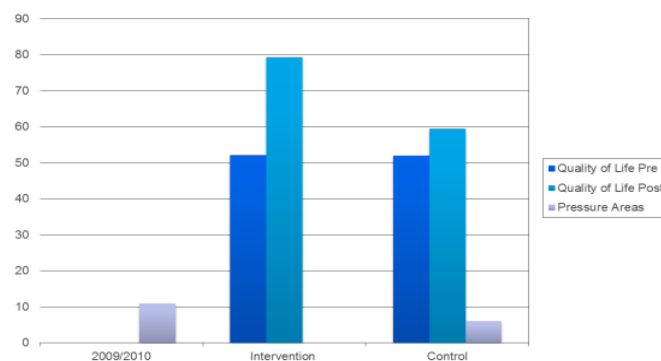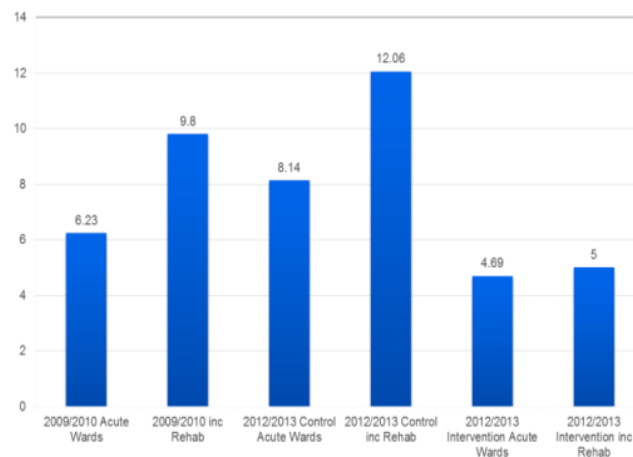
Pressure ulcer development:

- Control n = 6.
- Intervention group n = 0 – directly related to consistency in anesthesia/analgesia – no epidural patient controlled analgesia (EPCA) or peripheral nerve blocks.

Mean difference in physical outcomes on the Short Form-36 showed statistically significant increase ($p=0.008$) in intervention group of 51.8%, compared to 14% increase in control; with no difference in emotional scores ($p=0.068$).

Quality of Life Mean Score Difference – Physical.
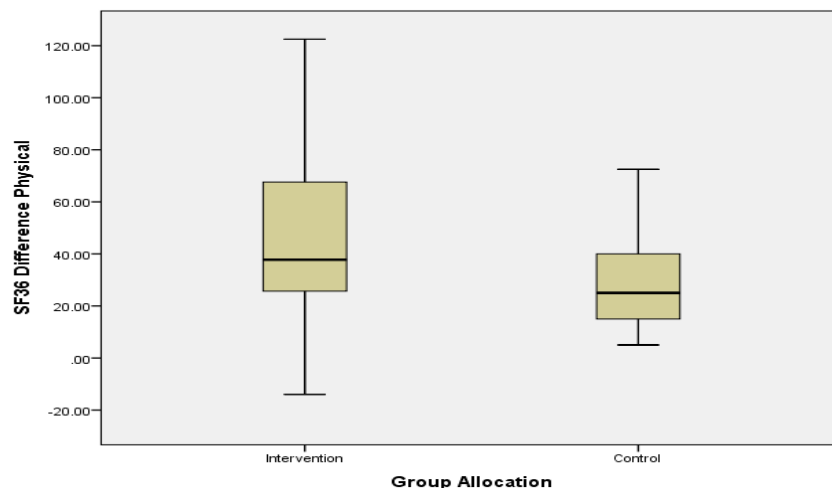
Quality of Life Mean Score Difference - Emotional
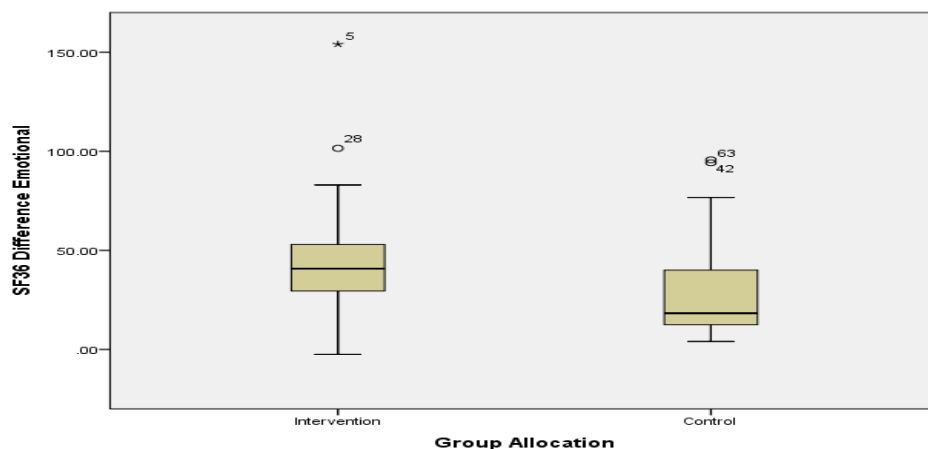
Incidentally, the intervention group was independently mobile earlier (2.44 versus 4.75 days) ($p=0.002$) with minimal rehabilitation admissions (1/32 versus 13/32) ($p=0.002$).

Project relation to the Local Health District core values:

- Collaboration – multidisciplinary partnership;
- Openness – feedback and acknowledgement;
- Respect – consent and privacy;
- Empowerment – practice development changes, improved outcomes/service delivery

These improvements directly relate to NSW 2021 Goal 12 – Provide world class clinical services with timed access and effective infrastructure (p.26).

INNOVATION IN PRACTICE AND PROCESS

The early mobilisation project undertaken has now become embedded in the ethos of nursing, allied health and surgeons alike. A new standard of practice, development of local key performance indicators (reduction in pressure areas, decreased LOS, improved quality of life) and desire to improve patient care and outcomes, combined with significant

cost savings, has ensured top down support for sustainability. Ongoing development of the project continues, with the integration of this strategy to core clinical groups.

- Needs to be a multidisciplinary approach
- For a small outlay of cost, major gains attained
- Simplest solutions are often the best
- Smarter not harder

APPLICABILITY TO OTHER SETTINGS

This pilot study has provided foundation for the notion of early mobilisation in the elective orthopaedic population. Results showed a downward trend in length of stay, pressure ulcer incidence and increased quality of life compared to the current standardised pathways. Further research is required, within similar contexts/patient demographics to confirm the findings of this study.

This process is easily adaptable, safe and cost effective equating to transferability between sites within or external to the Local Health District. Future scope of the study is a feasibility study reviewing Nurse initiated early mobilisation outside Physiotherapy hours providing the same intervention; application to other surgical procedures to decrease length of stay; Local Health District support of a multicentre trial; and application to whole Local Health District as standard post-operative management for total joint arthroplasties.

References:

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TODAY OR NOT TODAY EMERGENCY SURGERY WITHIN 24 HOURS

Perioperative Suite
Nepean Blue Mountains Local Health District

Jill McCarthy **Kerry Rodgers**

AIM

The purpose of this project was to enhance the surgical journey of the patients in the emergency 24 hour category at Nepean Hospital.

ABSTRACT

With Nepean Hospital's new Surgical Building (East Block) coming on-line it was timely to assess the processes surrounding emergency surgery sessions. In addition, the NSW Surgical Services Taskforce had released emergency surgery guidelines, which define the criteria for each of the emergency surgery categories. KPI's were set for each of the categories to ensure timely access to care for surgical patients across NSW. Please see table below for KPI explanations.

Category	Priority	Definition	Key performance indicator
E0	<15 mins	Immediate life threatening	100%
E1	<1 hour	Life threatening	100%
E4	<4 hours	Organ/ limb threatening	85%
E8	<8 hours	Non-critical, emergent	85%
E24	**<24 hours**	**Non-critical, non- emergent, urgent**	**85%**
E72	<72 hours	Semi-urgent, not suitable for discharge	95%

Nepean's emergency surgery performance is tabled and discussed at the weekly Surgery Operations Meeting (SOM), attended by District and Facility Managers and other key personnel. This group identified the need for clinical redesign in order to reach the benchmark and to provide faster access to care for surgical patients.This Clinical Redesign Project was designed to enhance the surgical journey of the emergency patient booked in the E24 category (surgery to be completed within 24 hours from time of booking) at Nepean Hospital. This is the largest group of emergency surgery patients at Nepean, accounting for an average of 46% of the emergency surgery workload.

The Ministry of Health sets a KPI of 85% for patients in this category, however, at Nepean the average performance was 73%. This meant many patients in this category were fasted and cancelled, sometimes repeatedly, preoperatively. This impacted on the hospital's length of stay, bed availability and patient, carer and staff satisfaction.

Using the Clinical Redesign methodology, and with e collaborative support of the Project Sponsor and team, the project successfully met and exceeded the 85% benchmark by February 2013. In addition the team were successfully able to delete the E72 Category as one requiring to be monitored and measured.

Identified Patient Journey Road Blocks
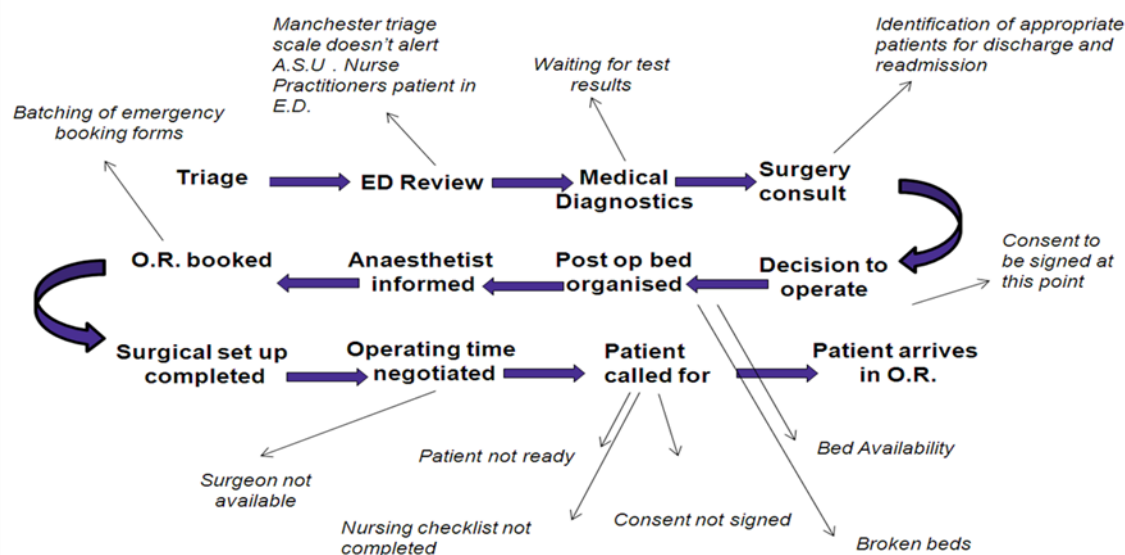
APPLICATION OF EQuIP PRINCIPLES

Consumer Focus

This project offers a specific and significant contribution to patient safety and quality of care. With improved performance on this indicator, patients do not need to stay longer in hospital, reducing the availability of beds for other patients and the faster access to surgery has had a positive effect on patient and carer satisfaction. In addition the more streamlined processes ensured that patients were attended to in the shortest possible time.

Effective Leadership

This project demonstrated leadership by both the Project Sponsor in supporting an initiative to refine and streamline the patient journey for patients requiring surgery; and the Project Leads in drawing together their team to have

input on the process, participate in the diagnostic and solution design workshops and to deliver solid outcomes for the team and our patients. Staff, having had a positive experience of the Clinical Redesign project process, are more likely to now put forward ideas for service improvement, future projects and to work collaboratively as a team.

Two major staff consultation workshops were held, one in the diagnostic phase to highlight the issues, and one in the solutions phase to design sustainable systems to support achieving the benchmark and delivering a better patient journey. Patient stories were collected to inform the process. These methods provided evidence to support the original hypothesis of where the problems lay. Regular communication occurred through staff meetings and Theatre Management Group.

Category Emergency 24 hour issues

Issues	Bed availability	Patient not ready	Delay in E.D. assessment	Surgeon not available	Waiting for test results	More urgent cases	other
C1	10	8	7	7	7	6	4
Percent	20.4	16.3	14.3	14.3	14.3	12.2	8.2
Cum %	20.4	36.7	51.0	65.3	79.6	91.8	100.0
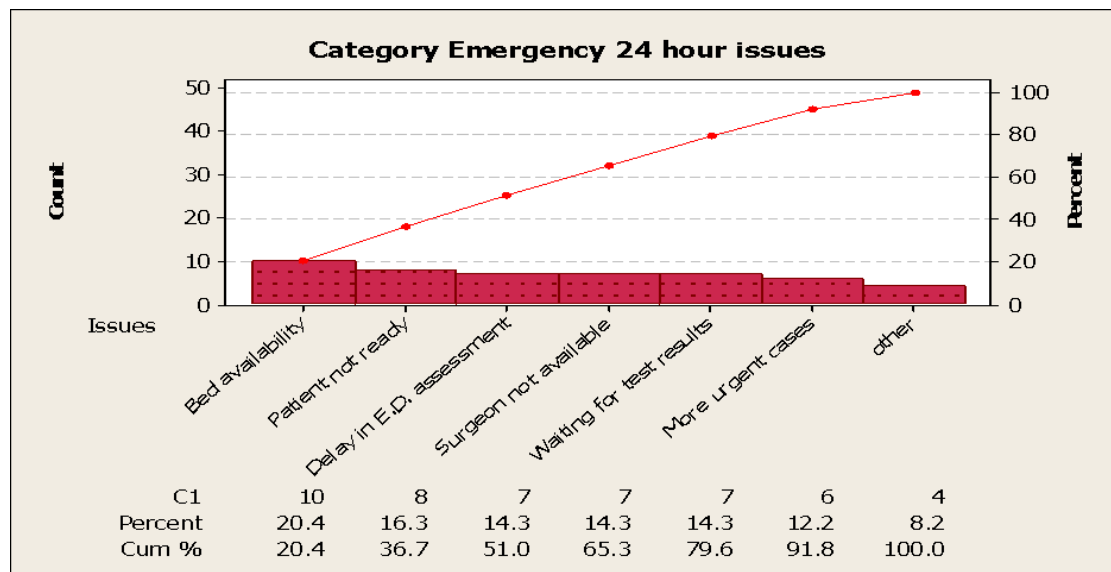
Diagnostic Workshop results:

Solution Design Workshop – Team, Stakeholder and Organisational Involvement

Working Groups

ED Working Group

Inpatient Working Group

Operating Suite Working Group

Solution Design Process

- The solution design process involved The same group targeted in the diagnostic workshop with the addition of an extra surgeon who is part of the Acute Surgical Unit

- Results from the Diagnostic workshop were revisited .

- The top five issues were brainstormed in the working groups with consideration of the six thinking hats and the 5 what if's.

- Staff interviews were also conducted and a Literature search.

- The Working groups concentrated on the process of prioritising issues and solutions and considering challenges for implementation.

Key attendees included:
- General Manager, Nepean Hospital
- Director of ED, Nepean Hospital
- Operating Theatres staff
- NUMs of surgical wards.

Continuous Improvement

This project has assisted in strengthening the continuous improvement culture through a consultative process with staff, stakeholders and patients and carers. The Service, through the skills obtained attending the Clinical Redesign Program run by ACI, now has the skills and tools to continue driving improvement. This project has spurred others on to tackle other issues and challenges facing Surgery and Operating Theatres at Nepean Hospital, with several other projects now in the pipeline.

Evidence of Outcomes

- The project has successfully eliminated the Emergency Surgery in 72 hours (E72) category.
- Nepean Hospital is the only Facility in the NSW to have achieved this outcome.
- Nepean Hospital is currently meeting the Ministry of Health and the Surgical Services taskforce KPI of 85%. This target has now been successfully reached for 10 consecutive months.
- Preoperative length of stay is being addressed by the Orthopaedic and

Plastics teams to produce a reduction in unnecessary bed days through appropriate patient selection for discharge prior to surgery to be readmitted on to an allocated session. This will also impact on total length of stay.
- A preoperative nursing checklist to be filled in prior to admission to the Operating Suite has been developed and implemented.
- The Emergency booking form is in development to go electronic (on-line) including mandatory field completion to ensure all patient and procedure details are recorded.
- Patient and carer satisfaction has measurably improved with more positive patient journey stories being reported and a reduction in complaints.
- Staff satisfaction has also improved significantly. Medical and nursing staff have both embraced the changes with no resistance and the changes have been operationalised.

Commencement of Clinical
Redesign Project
May 2012

E72 category ceased
September 2012

E24 Performance 2012

	January	February	March	April	May	June	July	August	September	October	November	December
# E24 Cases	279	212	233	259	263	271	283	338	288	332	286	297
Benchmark	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
Performance	58%	72%	75%	64%	89%	89%	94%	93%	85%	89%	92%	85%

E72 Performance 2012

	January	February	March	April	May	June	July	August	September	October	November	December
# E72 Cases	36	52	53	65	59	33	46	28				
Benchmark	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%	95%
Performance	89%	87%	94%	80%	83%	94%	96%	93%				

Striving for Best Practice

This project aimed to deliver faster access to surgery for patients. The Project Leads and team had a vision for a more streamlined and well co-ordinated patient journey whilst also providing significant benefits in terms of bed days saved, reduced length of stay for patients and contributing to the optimal utilization of theatres.

INNOVATION IN PRACTICE AND PROCESS

The Project Leads and project team searched for better ways to process the requests for surgery; maximize the use of resources and utilizing technological solutions. The use of the Clinical Redesign methodology was new for this Service and application of the methodology has been well received by the

staff. This project has delivered considerable outcomes demonstrating innovation in practice and in business and clinical process re-engineering to deliver an enhanced patient journey for surgical patients.

PLEASE NOTE: This project was successful in winning the Chairman's Award at our recent Nepean Blue Mountains Local Health District's Quality Awards.

APPLICABILITY TO OTHER SETTINGS

The improvements will be sustained through regular monitoring by the Theatre Management Group as part of regular service performance and KPI monitoring. The new processes around consent have been communicated effectively to all staff and this is working well. On-line forms will replace the paper-based forms to ensure that staff comply. The preoperative checklist is also in use and has been made mandatory. A further project evaluation is scheduled for September.

The outcomes for this project are transferable to other facilities across the state. In particular, the ability for sites to eliminate the E72 category. The preoperative checklist and on-line booking forms may be transferable subject to appropriate IT infrastructure with state-based implications. Key process improvement learnings can be applied to patient journeys in other care settings as well as other aspects of surgical patients' journeys across the District.

Future work includes evaluation of room schedules to ensure we are balancing the elective and emergency surgery demand to meet patient needs and Ministry of Health benchmarks.

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MYHEALTHSCOPE PUBLIC REPORTING

Healthscope (corporate office)
Healthscope

Cathy Jones   **Michael Coglin**

Ruth Nguyen

AIM

MyHealthscope (www.MyHealthscope.com.au) was developed to display comprehensive clinical and quality performance data for Healthscope's 44 private hospitals.

ABSTRACT

Public disclosure of hospital performance has been routine in the USA and UK for many years, however this is not the case in Australia. The MyHospital website, mandatory for Australian public hospitals, was launched in 2010, however has been slow to include quality outcome data.

MyHealthscope (www.MyHealthscope.com.au) was developed to display comprehensive clinical and quality performance data for Healthscope's 44 private hospitals. By developing the MyHealthscope website, we hoped to highlight to the community the high quality of care in our hospitals.

MyHealthscope was launched in November 2011. Hospitals are rated against established industry benchmarks and averages in categories including falls, infections, rehabilitation outcomes, unplanned hospital readmissions, unplanned returns to the operating theatre and emergency department waiting times. Where possible, categories align with the MyHospitals government website. New key performance indicators (KPIs) are continually under development. Hand hygiene data was added in early 2012 and four additional indicators in 2013.

The Healthscope Board made the decision to publish not only positive outcomes, but also negative. At a national level all (21/21) key indicators showed performance at or better than the established benchmark. At the individual hospital level 95% (611/645) indicators are equal to or better than the industry rate. For the 5% outliers, an action plan to improve rates is described on the website.

Besides reporting performance outcomes, MyHealthscope provides resources for patients and visitors, including tips for improving safety. Consumers were involved in drafting the webpages and reviewing the content, to make sure that it was relevant and clearly understood.

Healthscope is the first private hospital group in Australia to voluntarily publish comprehensive performance data, and has been recognised with an "OA" (outstanding achievement) accreditation rating at corporate accreditation. In 2012, MyHealthscope won two Australian Business Awards in the categories of Innovation and Community Contribution.

MyHealthscope is concisely described and presented in the PowerPoint presentation attached - Appendix 1.

APPLICATION OF EQuIP PRINCIPLES

Consumer Focus

MyHealthscope has been written for consumers. Consumers are able to access clinically significant information relating to any of Healthscope's 44 hospitals.

MyHealthscope also offers useful resources for patients and visitors including tips for improving safety and preventing infection, such as hand washing techniques.

Consumers were involved in drafting the webpages and reviewing the content, to make sure that it was relevant and clearly understood.

Consumer participation in development of MyHealthscope

- Consumer consultants involved in drafting and reviewing
- Changes made according to feedback
- Specific section for patients/visitors – "How can you help?"
- Links to resources for consumers to improve quality and safety
- Layperson explanations preferred, eg: hand sanitiser rather than "alcohol based hand rub".
- Evaluation of MyHealthscope – involving consumers

Effective Leadership

From the first concept presentation to the Managing Director of Healthscope, Robert Cooke in mid 2011, the Board and Executive have shown significant vision and leadership regarding MyHealthscope. The Executive and Board did not hesitate in approving the project and supporting it at every milestone. MyHealthscope has become a key defining characteristic of the company and quality outcomes are spoken about with great pride and equal importance with operational and other business outcomes. The Board and Executive have shown MyHealthscope full support and recognise the value it adds to the business. Leadership from Managing Director Robert Cooke and Chief Medical Officer Michael Coglin has been outstanding and is exemplified by the internal email in Appendix 2.

Quotes from Chief Medical Officer – Dr Michael Coglin

"Our goals are to inform the public accurately and promote continuous improvement which is why MyHealthscope displays results of each individual hospital, whether the performance is above or below industry standard."

"The story of quality in Healthscope hospitals is a great one and we are committed to telling this story with a level of transparent detail unmatched throughout the Australian public and private hospital systems."

Continuous Improvement

MyHealthscope (www.MyHealthscope.com.au) was developed to display comprehensive clinical and quality performance data for each of Healthscope's 44 private hospitals. Healthscope was the first and remains the only Australian private healthcare provider to publish detailed quality performance data.

On the website, each Healthscope hospital is rated against established industry benchmarks for 21 clinical and quality indicators. These indicators help patients make informed decisions about their healthcare. The website was launched in November 2011. In June 2013 there was a major update, increasing from 15 to 21 indicators (345 to 645 KPIs across all hospitals nationally).

Both positive and negative results are displayed on MyHealthscope. It is one of the first private hospital groups in the world to include any "less than favourable" outcomes. This is absolutely critical to continuous improvement. Without inclusion of negative data, the website is a mere marketing exercise. Inclusion of all rates inspires improvement. Greater transparency is beneficial to patients, doctors, hospitals and the healthcare system. Although Healthscope has been benchmarking a large suite of Quality KPIs for over 5 years, internal motivation for improvement has increased as a result of public reporting on MyHealthscope.

Suite of Indicators

There are 21 indicators in total; not all are relevant to every hospital (e.g. if no Emergency Department).
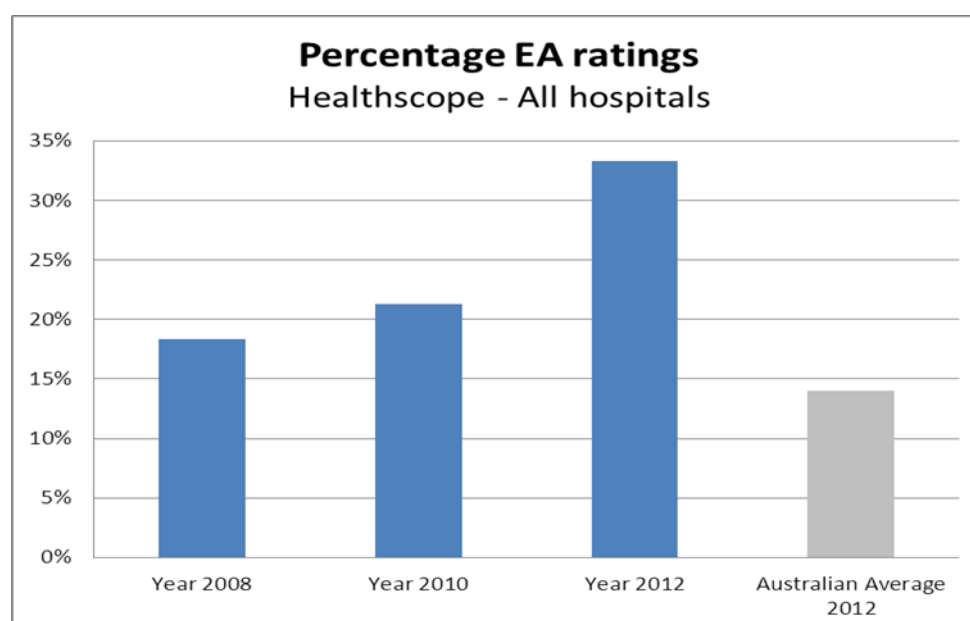
Health improvement	• FIM scores (rehab outcomes)
	• HONOS rates (mental health outcomes)
	• **MHQ-14 rates (mental health patient self-ratings)**
Accreditation	• % EA ratings (ACHS accreditation)
	• Other awards
Events to Avoid	• Falls (medical/surgical/rehab patients)
	• **Patients developing pressure ulcers**
Emergency	• Triage categories 1-5 seen in required time
Infection Control	• Staph Aureus Bacteremia
	• Clostridium Difficile infection
	• Hand Hygiene compliance for different staff groups
Surgery	• Unplanned return to theatre
Unplanned readmissions	• Medical/surgical patients
	• Mental Health patients
Obstetrics	• **Babies with healthy APGAR scores at 5 minutes**
	• **Length of stay after delivery**

The graphs below give an indication of the presentation of KPIs on MyHealthscope. For more details, refer ww.MyHealthscope.com.au. The graphs presented here are the Healthscope aggregate national rates, showing Australia-wide improvement. Individual hospital graphs are available on the website.

The graphs show that performance has improved in the reported indicators from commencement of the project in 2011 to most recent data (2012/13).

ACCREDITATION

Percentage "EA" extensive achievement ratings awarded at hospital accreditation has risen and is above the Australian average.

Percentage EA ratings
Healthscope - All hospitals

Accreditation Outcomes
EA Ratings as Percentage of Total Ratings Received

Other Australian Hospitals

EA Ratings 14%

Other Ratings

Healthscope Hospitals

EA Ratings 32%

Other Ratings
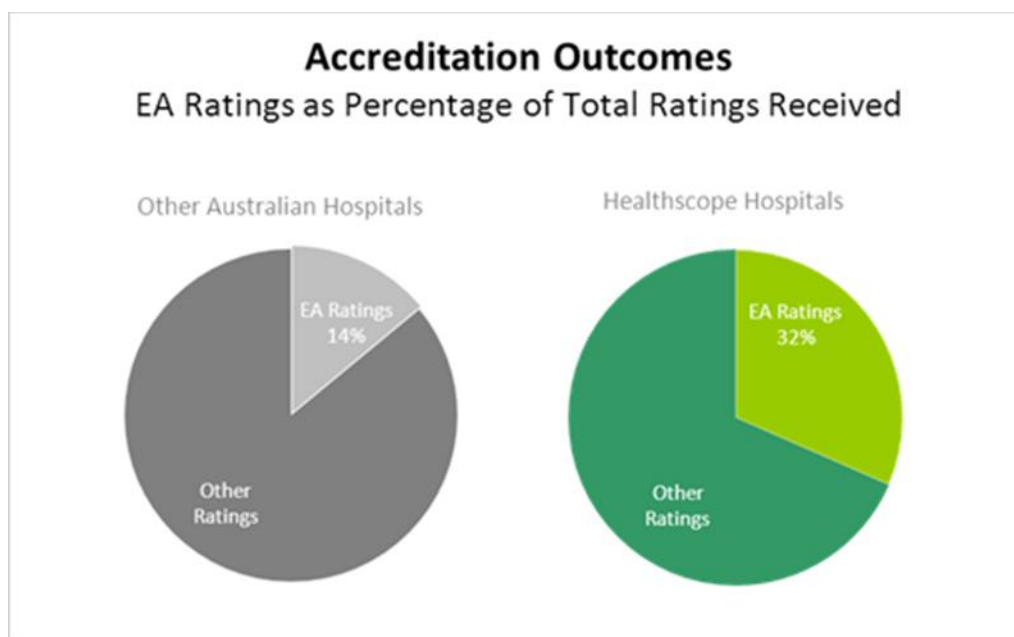
INFECTION CONTROL INDICATORS Staphylococcus Aureus Bacteraemia (SAB) infection rate has decreased since reporting on MyHealthscope began.

Staphylococcus Aureus Bacteraemia Infections
Healthscope

A lower rate is better.

Cases per 10,000 Days of Patient Care

Year	
2010/2011	~0.35
2011/2012	~0.28
Australian Government Target	2.0
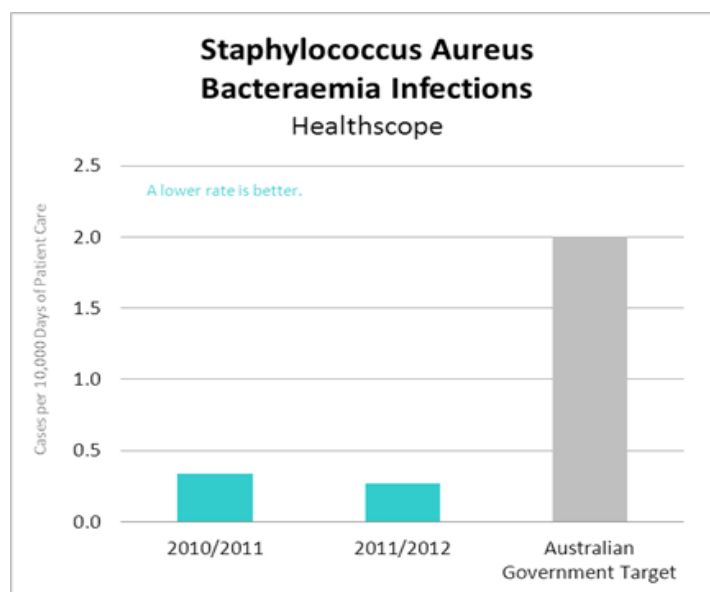
Hand hygiene compliance is rising.

Hand Hygiene Compliance
Healthscope

A higher rate is desirable.

95% Cls [68.1, 69.9], [70.9, 72.4],[69.8, 71.7], [70.4, 72.1],[77.1, 78.4],[78.4, 79.9],[76.4, 77.7],[78.3,79.5],[69.0, 69.5]

FALLS IN HOSPITAL

The national falls rate is steadily decreasing.

Patient Falls Rate
Healthscope

A lower rate is better.

IMPACT ON DATA CLEANLINESS

Often when quality KPIs and clinical indicators show up as outliers, it is not because the clinical performance or quality is substandard – it may simply be a data collection or reporting 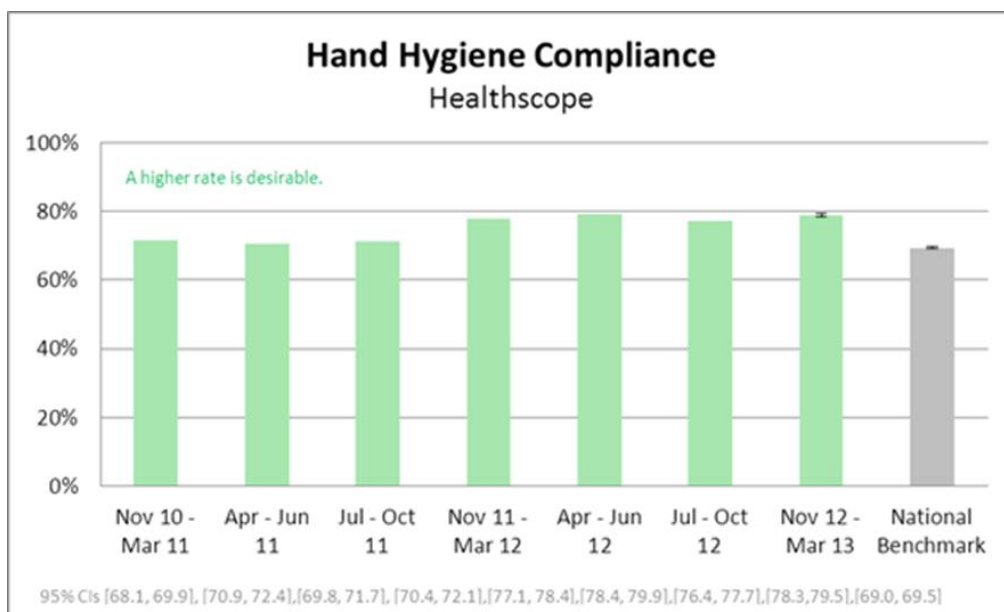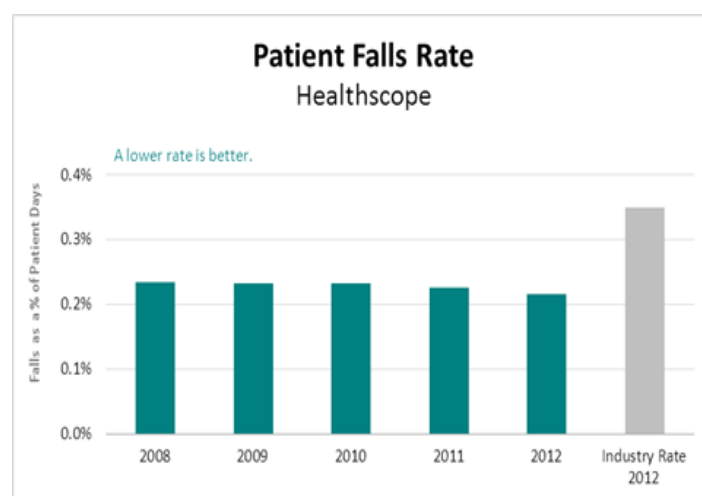issue. This pattern was shown in the Emergency Department Triage indicators on the MyHealthscope suite. Although most performance was within national benchmarks, a number of hospitals had outliers and when this was investigated, this was due to poor record keeping and data entry within the Emergency Department, rather than any actual time delay in treating patients. Although internal benchmarking and longstanding ACHS Clinical Indicator reporting had shown this in the past, hospitals had not necessarily targeted this area for improvement. External benchmarking via MyHealthscope, provided the added impetus for hospitals to address any issues that remained. Although these were simple data issues they were important to address. These triage KPIs are very important at showing access and timeliness, as well as assisting hospitals to plan for services, and demand management.

Triage Category 3: Patients Seen Within 30 Mins
Healthscope

A higher rate is better.
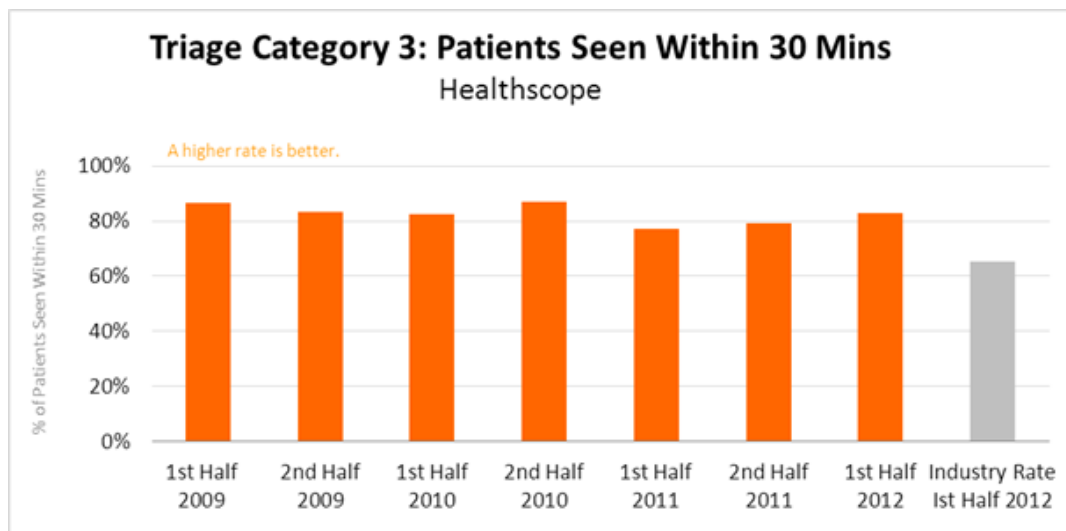
UNPLANNED RETURNS

Two of the hospital-wide ACHS Clinical Indicators are included in MyHealthscope and both show positive trends. Consumer feedback indicated that the trend over time was interesting to include, as it showed a long term approach to quality and also allowed any issues to be explained in the text.

Unplanned Return to Theatre
Healthscope

A lower rate is better.

Unplanned Hospital Readmissions
Healthscope

A lower rate is better.
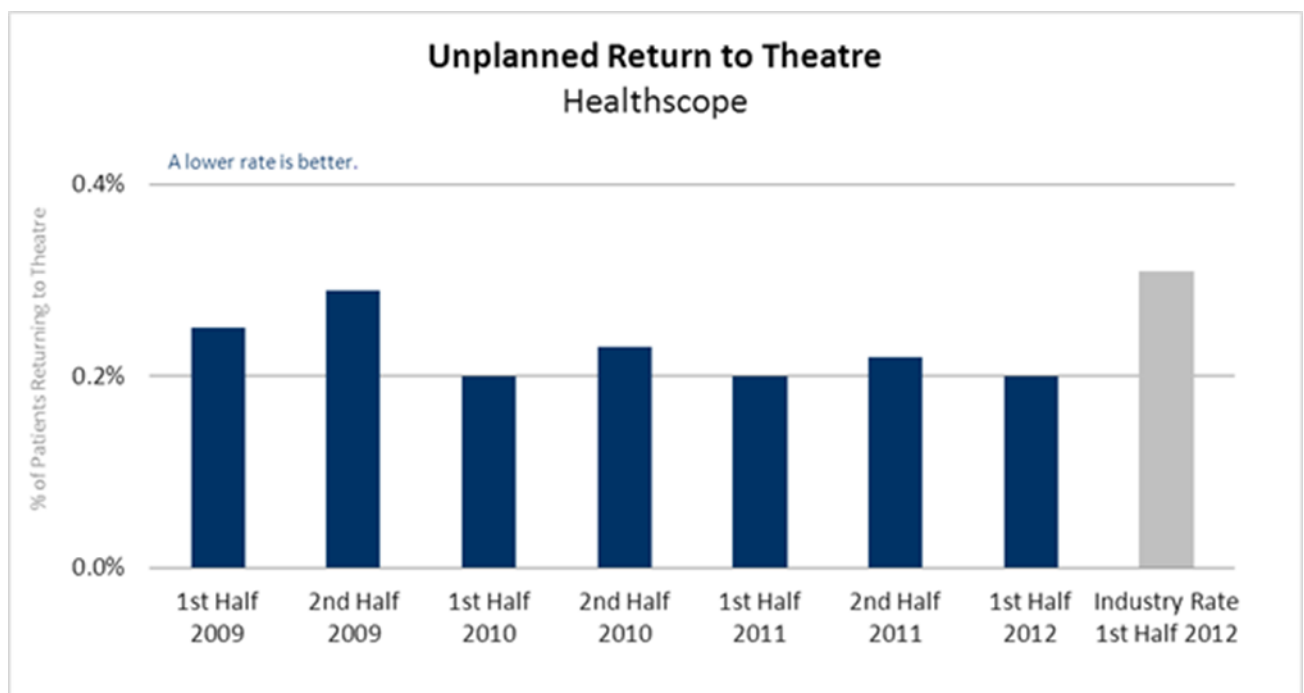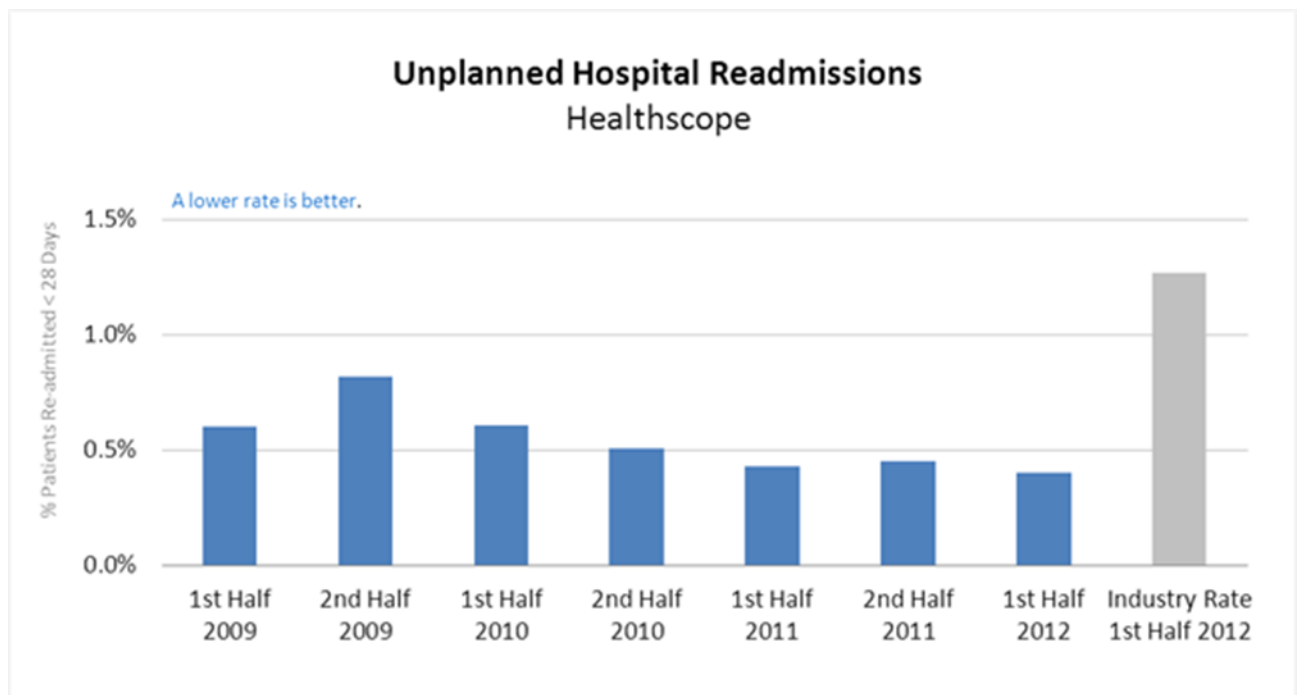
OUTCOMES OF HOSPITAL STAY

Consumers reported that indicators showing improvement from admission to discharge are the most interesting on MyHealthscope. Data available and reported are for rehabilitation in various areas (Functional Independence Measure – FIM) and mental health improvement (Health of the Nation Outcome Scales – HONOS). Patient self-ratings of mental health outcomes (MHQ-14 scale) was also added in 2013.

Outcome of Hip/Knee/Shoulder Replacement
Healthscope

Pale coloured bars show that patient abilities have improved on discharge - a higher rate is better.

Mental Health Problems on Admission and Discharge
Healthscope

Pale coloured bars show a decrease in patients' mental health problems on discharge - a lower score is better.

Mental Health - Self Assessment Score on Admission and Discharge
Healthscope

Pale coloured bars show an increase in self-assessed mental health - a higher rate is better.

EXPANSION OF WEBSITE - NEW INDICATORS

In mid-2012, approximately 12 new indicators were suggested by staff, executive, manager and consumers for consideration to be added to the suite in MyHealthscope. This list was narrowed down to four, based on the selection criteria and consumer testing. Hospitals were told that these new indicators would be added to MyHealthscope and began preparation, which included more targeted quality improvement plans. These indicators went live on the MyHealthscope website in June 2013.

- Pressure injuries
- Length of stay for childbirth
- Babies born with a healthy Apgar score
- Mental health patient self-assessment of improvement

The knowledge that indicators would soon be publicly reported for each Healthscope hospital (whether good or bad results) motivated improvements. As seen from the graphs below, performance for these new indicators is also favourable. In particular, pressure injury rates were rising from 2010 to 2011. The public reporting of these rates on MyHealthscope has contributed to a decrease in the rate of pressure injuries nationally in 2012 (although some individual hospitals remain above the benchmark).

% of Patients Developing Pressure Ulcers
Healthscope

A lower rate is better.
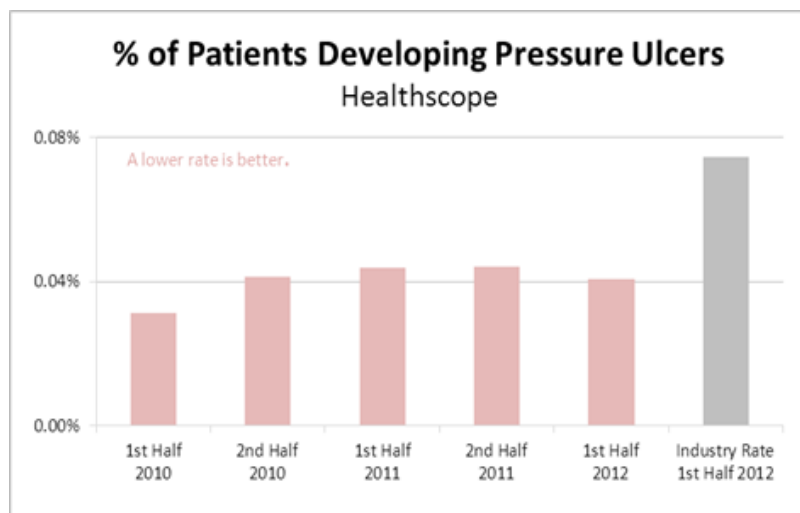
Evidence of Outcomes

National aggregated data shows that Healthscope either meets or exceeds industry standards for all 21 indicators.

Across the 44 hospitals Healthscope owns and operates there are 645 indicators in total. Of these 645 indicators, 611 (95%) are equal to or better than industry average.

At its Corporate Accreditation survey last November, the Australian Council on Healthcare Standards awarded Healthscope an outstanding achievement (OA) (national leader) for MyHealthscope.

The website also won two Australian Business Awards in the categories of Innovation and Community Contribution.

Most importantly, the original 15 indicators have shown improvement from year 1 to year 2 – showing an impact on hospital and staff behaviour and clinical care.

In the first 3 months after the launch, MyHealthscope averaged approximately 1000 web hits per month.

Finally, the media outcomes were strong. On release of infection data on the MyHospitals website in November 2011 there was close to 50 negative stories and one positive story. In contrast, the MyHealthscope launch a week later, resulted in over 140 positive news stories and not a single negative report.

Examples of media are contained within Appendix 1 – MyHealthscope presentation.

Qualitative Outcomes

Positive feedback has been received from the private insurance sector, government agencies, private and public hospital groups and even the Federal Minister for Health.

Many favourable quotes were received about MyHealthscope, however only a few can be included here:

- "I was pleased to see the information that has been released by the Healthscope group this week. This is an important step as it clearly demonstrates that there is a desire of some in the private sector to also transparently report performance indicators. I strongly support the principle of Healthscope's actions. I want to see this reporting become standard practice with the private sector". Nicola Roxon (Minister for Health and Ageing 2011)

- "A terrific initiative… "I am very pleased that you are taking a leadership role in this area. Congratulations, I am hopeful that you will be showing the light for others to follow." Richard Bowden, BUPA Australia

Striving for Best Practice

MyHealthscope shows innovation in use of ACHS Clinical Indicators to further drive best practice. Using MyHealthscope, individual hospitals can easily identify potential problem areas and develop strategies to improve their ratings. Internal benchmarking over many years already allowed hospitals in the Healthscope group to learn from each other about best practice. Research shows that public reporting further energises organisations to improve or maintain high standards and focus on areas of priority. External publication provided an added impetus for improvement, particularly when hospitals understood that results would be published whether good or bad. Best practice benchmarks are used for comparison in all cases.

Established best practice indicators and devinitions are used wherever possible. The Australian Commission for Safety and Quality in Healthcare and the Australian Council on Healthcare Standards have worked hard to harmonise national data and Healthscope is following their recommendations. Where possible, Healthscope aims to collect quality indicators based on the recommendations of both of these bodies as well as MyHospitals. For example, Healthscope has used the standard definition for Staphylococcus aureus bacteremia (SAB) rates since 2009. Healthscope are reporting this indicator in the same way as the public sector.

INNOVATION IN PRACTICE AND PROCESS

IMPLEMENTATION PROCESS

Choice of Indicators

Indicator choice was based on the following criteria:

- Relevant, interesting and easy to understand for general public to understand
- Readily available benchmarks
- No major issues currently being addressed relating to the data
- Indicators that are currently recommended by ACSQHC (Australian Commission for Safety and Quality in Healthcare)
- Reflect predominantly hospital rather than doctor performance
- Robust and can stand up to challenges to their accuracy and integrity
- Involve minimal or no manual data extraction / manipulation
- Meaningful when reported on basis of crude v risk-adjusted data

Project Timelines

- Concept presented to Managing Director, Robert Cooke - Feb 2011
- Executive briefing - May 2011
- Board sign off - June 2011
- MyHealthscope goes live – Nov 2011 345 data points
- Hand hygiene added – Mar 2012
- 4 additional indicators – June 2013
- 645 data points in total

Personnel

- Content by National Manager – Quality and Compliance – Cathy Jones, assisted by Ruth Nguyen, Data Assistant
- Assistance from hospitals, IT Department consumer representatives

- No committees, working parties, scoping studies, budget, additional staff or consultants
- MyHealthscope implementation proves that high project budgets are not necessary if correct quality structures and processes and routine measurement are in place within the organisation as part of daily business.

Consultation

- First draft generic wording – circulated to all hospitals
- Feedback changed and a general script developed
- Specific wording for each hospital – sent x3 times to hospital Executive team
- Medical Advisory Committee consultation at each hospital
- Consumer consultation – corporate and at key hospitals
- Consultation and permissions obtained from external agencies providing benchmarks
- eg: Australian Council on Healthcare Standards

Data Limitations

It is important to recognise limitations of the data on MyHealthscope and other public reporting sites. In some cases it may be unfair to draw too many conclusions when comparing data from two very different hospitals. For instance a hospital with an emergency department and coronary care unit may have higher adverse events than a specialist orthopaedics hospital performing largely elective surgery, for understandable reasons. Further development of the system does need to consider risk adjustment.

Other commonly cited concerns include data quality, cost-benefit, lack of objectivity, selective reporting and gaming. Data may be misinterpreted, and the few areas of poor performance given undue attention. We are well aware of these criticisms. However, if healthcare organisations waited until the data was perfect, nobody would ever publish anything. Use of private and public benchmarks

- We strive to use a benchmark comprising of an aggregate of public and other private hospitals in Australia. However these are not always available and so in those instances, we use whatever external benchmarks are publicly available.
- For rehabilitation indicators, for example, we only have data on the private hospital sector.

- It is valid to compare private hospitals to the public sector as they are the 2nd largest provider of private healthcare in Australia. Ramsay Australia admitted 731,605 inpatients,Healthscope 570,000. With 702,522 private patient admissions, by a clear margin the public hospital system is the #2 provider of private patient inpatient care in Australia.

APPLICABILITY TO OTHER SETTINGS

The MyHealthscope model of public reporting could easily be applied to any public or private hospital or healthcare organization. All it requires is leadership and commitment to quality by the Board and Executive.

Healthcare Measurement Submissions

St Vincent's Private Hospital Sydney NSW
Practice Development and Research
Improving the venous thromboembolism (VTE) prevention for medical patients

Central Coast Local Health District Gosford NSW
Central Coast Youth Health Service
Youth GP Clinics: Helping young people for over 10 years

Tweddle Child and Family Health Service Footscray VIC
Quality
Tweddle PASDS Client Satisfaction Survey

WSLHD Mental Health and Drug Health Parramatta NSW
Mental Health Information Development Program – MHIDP
Effective management to accurate measurement and better care

Bathurst Health Service Bathurst NSW
Physiotherapy and Surgical Ward
Up and at 'em. A trial of early Mobilisation in Elective Orthopaedics in the rural Context

Royal Brisbane and Women's Hospital Metro Brisbane Qld
North Mental Health - RBWH
Monitoring consultants' performance –who would dare?

Mater Health Services South Brisbane QLD
Mater Mothers Birthing services
It's not all about the outcomes – using Multidisciplinary review of processes to facilitate change

Peninsula Health Frankston VIC
Skin Integrity
Are Pressure Injury incidents under reported?

WA Country Health Service – South West (WACHS-SW) Bunbury WA
Bunbury Hospital and the South West Transfusion Committee
Informed Consent for Blood Transfusions – improving the baseline

Monash Health Clayton VIC
Physiotherapy, Monash Health
Development of a new physiotherapist-led shoulder assessment clinic

Healthscope Melbourne VIC
Healthscope (corporate office)
MyHealthscope Public Reporting

Kareena Private Hospital Caringbah NSW
Risk Manager/ Anaesthetic and Recovery Manager
Nurse Driven Clinical Governance

Epiclinic Pty Ltd Adelaide SA
Imaging Research
Measuring Clinical Outcomes in Cosmetic Medicine

Epworth HealthCare Richmond VIC
Quality and Risk Division
Robotic Surgery Quarterly Audit

Epworth HealthCare Richmond VIC
Quality and Risk Division
Development of an integrated patient safety performance monitoring system

Hunter New England Local Health District Newcastle NSW
John Hunter Children's Hospital
Reduction of time on oxygen and length of stay for infants with moderate bronchiolitis using a novel procedure that embeds health policy in a paediatric clinical trial.

Nepean Blue Mountains Local Health District Penrith NSW
Perioperative Suite
Today or not Today? Emergency Survey within 24 Hour

Student Award 2013

Bachelor of Medicine students at the University of Newcastle, NSW, are required to identify and implement a quality project in the facility in which they undertake their nine-week rotation in surgery and the emergency department.

The aim is to develop skills in identifying safety issues and apply the quality tools to determine the causes and make recommendations to improve patient safety and procedures.

The projects are developed as a team effort and are judged by the Faculty of Health.

Each project is judged by the following criteria:

- **An important problem was identified**
- **Appropriate tools were used to analyse the problem**
- **A recommended intervention was established**
- **The outcome of the intervention was measured.**

The ACHS enthusiastically supports this safety initiative by providing certificates of achievement and a small prize to each member of the successful team.

RETROSPECTIVE AUDIT OF PIPERACILLIN/TAZOBACTAM USAGE IN A TERTIARY REFERRAL HOSPITAL

Year V Quality in Health Care
Bachelor Medicine
University of Newcastle

Alice Bellingham   **April Hunt**
Bhavjan Balakrishnar   **Hildah Nhandara**
Keelan Sheridan

Background:

Piperacillin/Tazobactam (P/T) is a commonly used broad-spectrum antibiotic. The worldwide increase in multi-resistant organism infections can be linked to the inappropriate use of such antibiotics. This problem can be curbed by effective antimicrobial stewardship (AMS) programs, including electronic drug usage surveillance systems such as Guidance-MS.

Aim:

We aim to analyse the appropriateness of P/T prescriptions in a tertiary referral hospital in Newcastle, and to determine the adequacy of the hospital's current AMS program in relation to P/T use.

Methods:

Prescriptions of P/T to inpatients were identified retrospectively by the Hospital Pharmacy Department at John Hunter Hospital (JHH) for a one month period (June 2013).

Indications and clinical data were obtained from patient records. Inpatients at JHH prescribed P/T (ICU excluded) during the one month period were eligible for inclusion. A total of 175 patient records were audited and identified patterns of inappropriate usage.

Results:

175 patients were prescribed P/T during the month of June 2013. The mean duration of P/T therapy was 7.2 days. 38% of prescriptions received Guidance approval. Overall, 49% of prescriptions were judged appropriate.

Conclusion:

P/T prescribing at JHH is frequently inappropriate, despite the best efforts of their antimicrobial stewardship program. The low rate of Guidance use was particularly concerning. The study made recommendations to improve the hospital's AMS program.

Highly Commended

Safe Surgery Saves Lives: an audit and survey in the HNEAHS regarding surgical time out compliance and staff attitudes

Vanessa Lee, Junise Cox, Elizabeth Weissman, Marcus Simonian, Stuart Sugito

End of Life Documentation in Gosford Hospital

Victor Yan, Shoena Wotherspoon, Carmen Buchanan, Abhishekh Ponnudurai

Hand Hygiene Compliance in Visitors to Armidale Rural Referral Hospital: An Interventional Study

Jayde Cromarty, Sailaksmi Krishnan, Nicole Lim.

Student Award Submissions

Blood Transfusion practices in Gastrointestinal Haemorrhage at JHH
Eric Quin, Anupam Rao, Adam Horvat, Christopher Lim

End of Life Documentation in Gosford Hospital
Victor Yan, Shoena Wotherspoon, Carmen Buchanan, Abhishekh Ponnudurai

Factors impacting on the National Emergency Access Targets for over 70 year olds
Kristie-Lea Byrne, Heather Allard, James Green

Adherence to Cervical Spine Clinical Decision Rules
Elle Harrison, Rheily Wood, Tim Berwick, Rowan Walker, Eric Donaldson

Psychosocial Screening in the Mater Hospital
Kylie Cheng, Meher Tabassum, Jessica Barker, Caitlin Driscoll, Peshala Navaratne

Interruptions to junior doctors
Ben Hardy, Simone Williams, Fiona Diog, Alexandra Kullen, Daryl Chan Chee Yeow

Factors contributing to Haemolysis in ED at JHH
Cale Lawlor, Roseanna Hoswell, Melissa Keith, Daniel De Wit, Daniel Ashrafi

Use of head CT scans for minor head injury
Huong Wei Ting, Anis Zarina Zaman, Anis Hamdan, Izzatul Ismail, Mohamed Mohamed Ebrahim

End of Life Documentation in JHH ICU
Lauren Ryden, Courtney Jennings, Andrew Sampson, Janet Odani, Huizhong He

RRT (MET) attendances for patients with documented limits on treatment
Emily Shiel, Robyn Wong, Daniel Lennon, Anna Keedwell, Lucy Anderson,

Completion Rate of Surgical Pathology Requests,
Leo Li, Michael Pittard
Young Kim, Arman Ouveysi, Arul Ravindran

Is Catherisation Policy being followed in Gosford Hospital?
Tae Jun Kim, John Lawson, Ashley Porter, Derek Fleming, Shahn Forrester, Antony Nguyen

Whole body scanning for trauma patients in JHH
Thomas Yu, Nikki Harmey, Nicholas Croker, Shane Nebauer, Tegan Scholes

Advanced Care Plans in Patients > 79 years
Shaun Pala, Preet Gosal, Matthew Rowlandson, Carmella Gunasingam

Analysis of bed block in the Manning Rural Referral Hospital CCU
Dean Letchford, Dean Willis, Anand Pawar, Charles Passmore

Positive pressure ventilation in the management of Acute Respiratory Failure
Catherine Brown, Tessa Thorne, Christopher Brokenshire, Shaveen Kanakaratne

Colonoscopy waiting lists: Does existing documentation support the implementation and audit of NSW Health Policy?
Madelin Fisher, Kathryn Kerr, Bree Rebolledo, Christopher Robinson, Clare Tiedman, Saumiyar Sivaji

The 4-hour Rule? Is it as NEAT in the Country
Mihiri Amaresekara, Belinda Chung, Matthew Khoury, Jacky Liu, David She, Lisa Zhao

Audit of pre-operative deep venous thrombosis prophylaxis for patients with fractured neck of femur in the Gosford Hospital Emergency Department
Dona Adikari, Arianna Arulampalam, Theresa Cook, Suzie K Teo, Carrie Yang

Analysis of clinical compliance in providing adequate relevant clinical history on pathology requisition forms - Pathology Department Gosford Hospital
Wan Wan Murtadza, Siti Sallehin, Nur Mohd Zaki, Nurul Imam Supaat, Ahmad Suffian Wee

Medication Chart Errors: an audit of the National Inpatient Medication Chart at Gosford Hospital
Ellen Hardy, Genevieve Ryan, Eliza Wziontek, Michael Azzi, Chris Egan, Sophie Kerr

Paediatric Pain Management in the Emergency Department
Eliza McConnell Michael Mulcahy, Michael Papanikolas, Krishnan Parthasarathi

Junior Medical Officer - prescription of postoperative maintenance intravenous fluids
Steve Hurwit, Eliza Milliken, William Moor, Sadhana Roy, Ahileshwara Satchithananda

Retrospective audit of piperacillin/tazobactam (Tazocin) usage in a tertiary referral hospital
Alice Bellingham, April Hunt, Bhavjan Balakrishnar, Hildah Nhandara, Keelan Sheridan

The CUTE Study: Conservative use of TFT's in the ED
Thomas Barrett, Catriona Downie, Tim Karbowiak, Varahini Kumar, Andrea Odelli

Audit of the pre-operative anaesthetic assessment of emergency surgical patients in the John Hunter Hospital
Kulanka Premachandra, Gaik Si Quah, Shalena Ragavan, Arvinf Rajandran, Rithvik Reddy

Appropriateness of closed reduction under anaesthesia in the Emergency Department as a first line intervention for closed displaced wrist fracture
Hani Zakaria, Hajir Mohammed, Nurul Norman Dunsah, Nur Affifah Mohammad Lukman, Mohammad Syazwan Mohd Zain

The use of the interpreter service in the Emergency Department
Jacquelyn Boschke, Jessica Stabler, Jessica Gani, Helen MacCallum, Cassie Daros

Quality of care in women undergoing hysterectomies at John Hunter Hospital
Megan McCracken, Lori-Lee Willoughby-Crole, Kyi Saw Tin, Rebecca Landers, Sarah Neumann

Fast track performance in regards to NEAT in JHH Emergency Department
Siti Ismail, Nurul Hidayati Saidi, Fairuz Mod Ghazi, Paul Lin

Safe Surgery Saves Lives: an audit and survey in the HNEAHS regarding surgical time out compliance and staff attitudes
Vanessa Lee, Junise Cox, Elizabeth Weissman, Marcus Simonian, Stuart Sugito,

Appropriate prescribing of benzodiazepines in the elderly
Rebecca Collins, Maryam Cassim, Jane Kauhanen, Dharshan Giritharan, Jarryd Drinkwater

Telemedicine and Critical Care: added benefit or progress without a point?
Alexandra Croker, Jayne Schofield, Nylie Martin

After hours radiography in regional NSW
Nilakshi Kotalawala, Louise Richards, Mark Song, Amanda Whale, Tracy Foran

Hand Hygiene Compliance in Visitors to Armidale Rural Referral Hospital: An Interventional Study
Jayde Cromarty, Sailaksmi Krishnan, Nicole Lim

VANISH: Vaccination against Influenza in Students in the Hospital
Anuj Bohra, Peter Burke, Eric Chan, Alexander Humphrey, Lucy Morris, Rakulan Sothirajah.

Safety | Quality | Performance