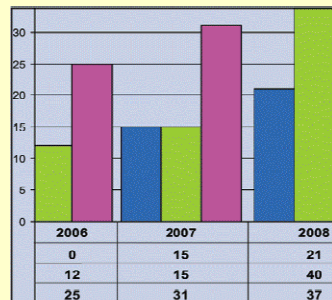# Early recognition of the deteriorating patient
Nominee CEC Award for Improvement in Patient Safety

October 2008

2008 NSW Health EXPO

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Early recognition of the deteriorating patient (ERDP) project

Greater Western Area Health Service

Aim

The project aims to enable health care professionals to recognise the deteriorating patient in the acute setting and initiate appropriate and timely interventions

Nature and extent of the problem

- The ERDP project resulted from a number of critical incidents at DBH involving the management of the deteriorating patient

- Analysis of the issues identified that if clinicians were able to detect the deterioration, they were often unable to clearly and concisely communicate the situation to the appropriate person and gain an appropriate response

- In line with Australian and international experience that
  - Warning signs often precede serious adverse events
  - Warning signs not always identified
  - If identified, warning signs may not be acted on
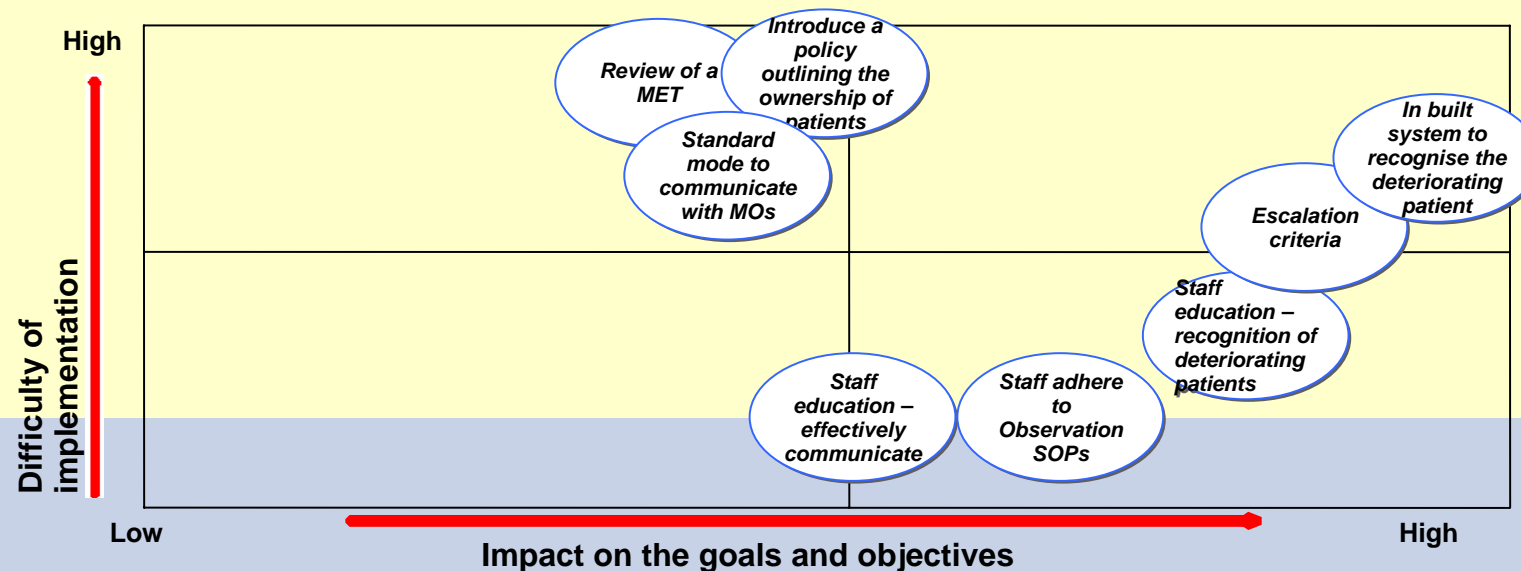
Strategic importance

- **State Plan**

    – Delivering better services

- **NSW Health & GWAHS**

    – Create better experiences for people using health services

- **Clinical Excellence Commission**

    – "Between the Flags" initiative

- **GWAHS**

    – Providing high quality health services

    – The project was sponsored by the CGU and also selected to participate in the inaugural NSW Health 'Healthcare Redesign Course'

- The project linked in with the ERDP team from ACT Health and joined their research efforts as a pilot site

Nature and Extent of the Problem

- 14 Clinical SAC 1 & 2's relate to a deteriorating patient in a four month period

- Approx 230 bed days estimated as attributed to an unplanned admission to critical care, due to deterioration ($884,580)

- Audit of inpatient notes showed

  - 24 patients fulfilling the MET call criteria not called (3 shifts over three weeks)

  - 6.5% of patients had a complete set of observations (as defined by GWAHS policy)

  - Respiratory rate documentation ranged from 3.4-55%

- In a scenario lead survey nursing staff were unable to identify a deteriorating patient, and felt they were not supported when they did

Planning & Implementing solutions

- Two clinical champions were recruited from each area, to give the project carriage on the ground

- Solutions were prioritised into a matrix that identified the greatest impact and ease of implementation, to most difficult

- The clinical champions met to discuss the issues raised at the process mapping sessions, and worked to devise solutions for identified problems

Planning & Implementing solutions

Category	Solution	Details	Date	Status
Observations recorded	**Staff to comply with baseline general observations and to complete observations at regular intervals**	• Staff to comply with current Standards of Practice (SOP) for the regular completion of baseline and subsequent general observations • Ward audits to be conducted to measure compliance with SOP	Dec 07	Ongoing
Patient deteriorates	**Staff education targeting the recognition of the deteriorating patient**	• All nursing staff of wards in scope to attend an educational session on the recognition of the deteriorating patient • All staff to be provided with an education handbook on the recognition of the deteriorating patient	Dec 07	4 weeks *Complete*
	Introduce the Modified Early Warning (MEWS) System	• New General Observation Chart to be "rolled out" to each ward in scope. Chart to contain Modified Early Warning scoring system and criteria to be followed for a call of medical review. • Staff to be orientated to the new form	Dec 07	8 weeks *Complete*
Decision to notify	**Educate staff to effectively communicate a patients condition**	• All nursing staff of wards in scope to attend an educational session on effectively communicating a patients condition	Dec 07	4 weeks *Complete*
	Introduce an escalation criteria and plan for the deteriorating patient	• Escalation criteria based on general patient observations to be introduced to guide staff in the notification of Medical Officers • Escalation plan to be developed	Dec 07	4 weeks *Complete*

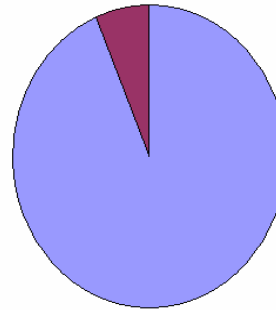# Outcomes & evaluation

Respiratory rate documentation
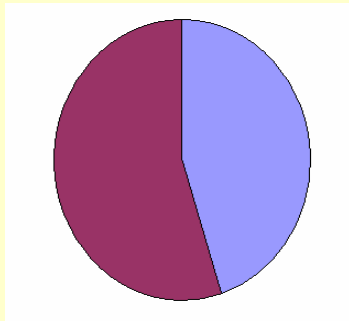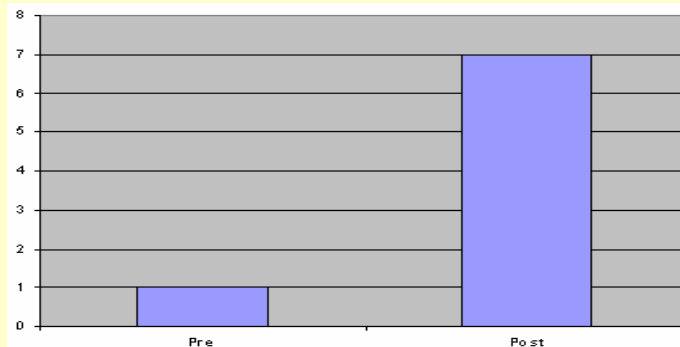

55% then   **97% now**

Complete sets of observations

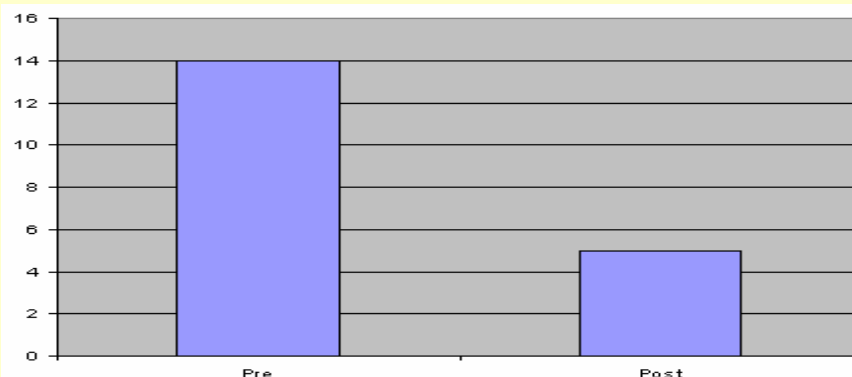**6.5% then**   **97% now**

METS called
Pre project **1 in 12 months**
Post project **7 in 4 months**

Outcomes & evaluation

Clinical SAC1 & 2's
Pre project (06/07)   **14**
Post project (YTD 07/08) **5**

92% of nursing staff have received training in the early recognition of the deteriorating patient.
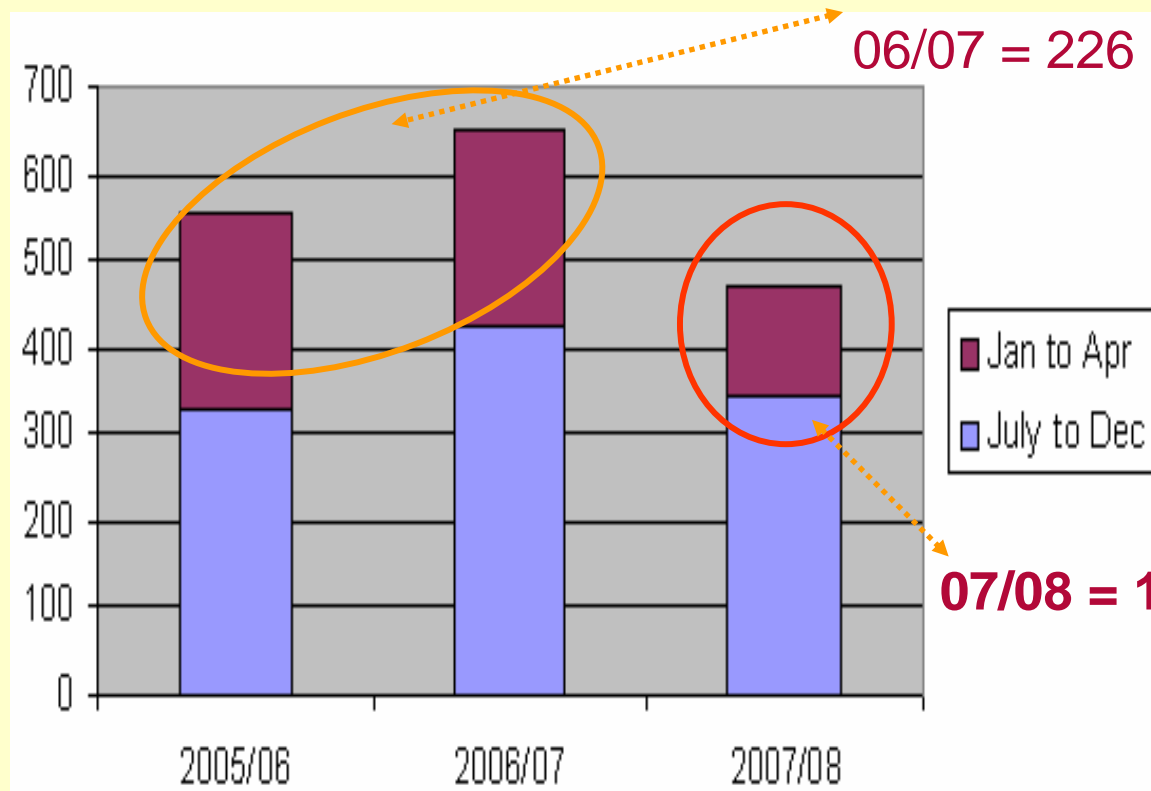
Take home resource folder with CD Rom

Online exam

3 hour interactive face-face education session

Pre-change survey results have improved significantly with all staff now demonstrating the ability to recognise a deteriorating patient.

Outcomes & evaluation

ICU bed day reduction

05/06 = 227

06/07 = 226

07/08 = 122

**Post project
46% reduction**

1 ICU bed day = $3,846
(Peer cost reference)
46% reduction = 104 bed days
104 bed days x $3,846 = $399,984 in 4 months
= approx $1,199,952 per annum

Legend:
- Jan to Apr
- July to Dec

Chart axis: 0, 100, 200, 300, 400, 500, 600, 700

Categories: 2005/06, 2006/07, 2007/08

Sustaining change

- The observation chart and program is now well integrated into clinical practice and the culture amongst staff

- Nursing Unit Managers will now include monthly auditing of charts on their monthly KPI's. Auditing processes will form part of the Quality Plans for accreditation

- Regular education with new doctors occurs at orientation on each rotation. An explanation of the chart, escalation processes and responsibilities are clearly explained

- Nurse Education Team will continue to provide the 3-hour education. All been trained and have access to the appropriate resources to provide this training regularly

- A shortened version of the training has been developed to be provided with mandatory education for all clinical staff on a yearly basis

Lessons learned

- Planning, planning, consultation and more planning!!

- The processes undertaken prior to implementing change meant that staff felt they had identified the need for change and that they sourced solutions that met their needs

- Ownership needs to sit with the facility, staff and clinicians implementing the change

- Executive sponsorship is essential

Future scope

- The project is flexible with its delivery modes and will require very little change to tailor it to the variety of facility types in GWAHS or NSW

- Implementation would initially require some facilitation on site, but could then be carried by existing staff resources