'JEC 23'

16. Bundaberg HSD: Bundaberg Hospital, 1:30pm Tuesday 15/04/03

Attendees
Peter Leck - District Manager
Patrick Martin - A/Director Community Health Services
Dr Darren Keating - Director Medical Services
Judy Williams - Staff Paediatric
Leonie Raven - Quality Management
Jenny Kirby - Clinical Benchmarking Unit
Kees Nydam - Medical Officer, Sexual Health, Community Health

There was some discussion regarding the restrictions on the distribution of the hospital reports, but there was general understanding that this had hampered both the MQPA team as well as being inconvenient for the end-users (hospital staff).

Clinical – Three mortality indicators were significantly high for the 3 years combined at the 99.9% confidence level – AMI, stroke and pneumonia. On the positive side, maternal postnatal long stays for vaginal births were significantly lower than the peer group mean. No new results – the extra data has just confirmed that the Phase 1 results were indicative of a long term trend. Investigation into the reasons for the high mortality rates will continue, but appeared to be predominantly due to poor data quality from Phase 1.

Efficiency – Sick leave was significantly low for all staff vs. the peer group median. The DOSA rate was significantly low, and had decreased further from 2000/01 to 2001/02. Four of the top 10 DRGs were outliers – 2 were high cost and 2 were low cost.

System Integration and Change – Cost of education and conferences per FTE was significantly low compared against the peer group median. Both internal and external benchmarking were scored at 100%. Use of clinical pathways were also consistently above the peer group medians. Telehealth usage was also a positive outlier, although it was still very low (6%).

Patient Satisfaction – No outliers reported.

Measured Quality Program Area

District Presentation

Quality Improvement & Enhancement Program

Queensland Government

Queensland Health

AIM, PURPOSE & SCOPE of Measured Quality

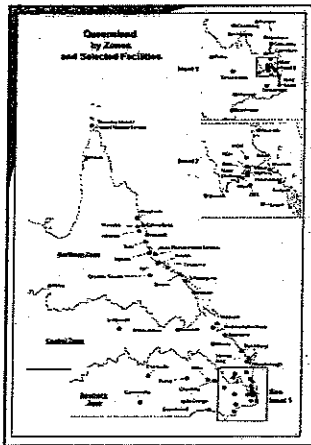
Aim of Measured Quality

To improve the capacity of the Queensland public health system to provide quality services and deliver optimal outcomes by: **developing systems to routinely measure and utilise performance data.**

- It is in essence a quality monitoring program
- It will develop a core set of indicators for measuring quality of services
- It is about identifying variation

Purpose of Measured Quality

- Provide 60 major QH public hospitals with data on a set of core indicators measuring the quality of services
- Identify indicator results where hospitals:
  - Are potentially performing at 'best practice'
  - Could potentially make improvements
- Present the indicator results in a framework which evaluates four areas of quality in hospital service



Scope of Measured Quality

- Hospital in-patient Services

Participating Hospitals

Peer Group	Central	Northern	Southern	Total
Principal Referral and Specialised	4	2	6	12
Large	7	2	4	13
Medium	3	4	3	10
Small	6	10	9	25
Total	20	18	22	60

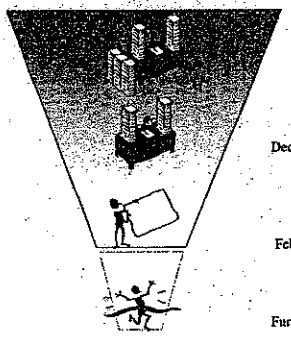
Four areas of quality in hospital services & Balanced Score Card

Four Areas of Quality & Balanced Score Card

CLINICAL UTILISATION & OUTCOMES	PATIENT SATISFACTION
• Internal Business	• Customer
EFFICIENCY	**SYSTEM INTEGRATION & CHANGE**
• Financial	• Learning & Growth

CREDIBILITY

Culling of Indicators



1999 - 400 Indicators

December 2001 - 190 Indicators

February 2002 - 130 Indicators

Further Reductions Anticipated

Credibility

Criteria for measure selection

- Have been identified as a key performance indicator in national or international literature
- Some testing of reliability and validity (by others)
- Capable of being collected in other Australian states
- Applicable to many or all hospitals covered
- Preferably available from existing data

Credibility

Indicator Selection

Expert groups consulted

- **Clinical Utilisation & Outcomes**
  - Medical, Surgical, O&G
- **Efficiency**
  - Cost of Service, Activity, Staffing
- **System Integration & Change**
  - People (in org), Systems, Processes
- **Patient Satisfaction**
  - Based on Victorian DHS Patient Satisfaction Monitor

Credibility

Robustness of results

Statistical Methods

- Clinical - Risk adjustment with measure of statistical significance against peer group mean
- Patient satisfaction - Weighted, with measure of statistical significance against peer group mean
- Efficiency - Single hospital score, compared to peer group median
- System integration and change - Single hospital score, compared to peer group median

Credibility

Data Availability

Clinical Outcomes	Patient Satisfaction
• 2001/2002 • 2000/2001 • 1999/2000	• 2000/2001
Efficiency	**System Integration & Change**
• 2001/2002 • 2000/2001	• 2001/2002 • 2000/2001

Purpose of this visit

Purpose of this visit

- Provide context of the Measured Quality project
- Provide details about the data & the process by which the indicators were derived
- Present results for the indicators across the four areas of quality (using graphs)
- Explain the criteria that have been used when determining "outlier" indicator results
- Highlight indicator results that have appeared as "outliers" when the criteria were applied

Purpose of this visit (cont'd)

- Answer any questions on how the indicators were derived, the criteria that was used and the rationale
- Provide some suggestions on the next steps in the dissemination of the reports at the hospital level & existing QH projects/units & guides that may assist

Scope of this visit

- Provide each Hospital with their data (explain distribution restrictions of the report)
  - Advice from Cabinet (11 Nov 02)
  - Develop a strategy to disseminate the contents of the hospital reports
    - Clinical-3 years, Efficiency-2 years, SI&C-2 years, PS-1 year
    - Collaborative approach to dissemination
    - PDF / Electronic availability of results to DM only
- Promote further action with hospitals through interpretation of the results in light of local contexts

'OUTLIER' CRITERIA

'Outlier' Criteria

Clinical
- Higher or lower than group mean at 99.9% confidence level
- Moved through more than 1 confidence level in 2 years
- Higher or lower than group mean at 90% CL for 2 years

Patient Satisfaction
- Higher or lower than group mean at 99.9% confidence level

Efficiency
- 10th or 90th percentile for the peer group

System Integration & Change
- 10th or 90th percentile for the peer group

DISSEMINATION

Dissemination

- assessment of potential opportunity or risk
- engage clinicians & managers to determine possible causes of variation (local context)
- possible causes investigated further
- favourable results / good practice - share with peers
- less favourable results - investigate ways to improve

Dissemination

Areas that may be able to assist:

Collaborative for Healthcare Improvement (CHI)
- network of clinicians improving patient care by sharing resources & learning

Clinician Development Program (CDP)
- wide range of programs may be accessed

Organisational Improvement Unit (OIU)
- change management consultancy

Guides available:

Easy Guide to Clinical Practice Improvement: www.health.nsw.gov.au

Measured Quality Program Area

Where to from here?

Queensland Government
Queensland Health

Measured Quality Program Area

District Presentation

Quality Improvement & Enhancement Program

Queensland Government
Queensland Health

Measured Quality Program Area

Hospital Report Presentation

Queensland Government

Queensland Health

Clinical Utilisation and Outcomes

Credibility
Indicator Selection

Expert groups consulted

- Medical
  - Dr Ian Scott, PAH
  - Prof Charles Mitchell, PAH
  - Dr Stephen Read, RBH
- Surgical
  - Dr Christina Steffen, Cairns Base
  - Dr Russell Stitz, RBH
  - Dr Don Pitchford, Gold Coast
  - Dr David MacIntosh, Cairns
  - Dr Peter Steadman, PAH

Credibility
Indicator Selection

Expert groups consulted (cont'd)

- Obstetrics & Gynaecology
  - Prof Michael Humphrey, Cairns Base
  - Dr Glenda McLaren, Mater Mothers
  - Dr Dereyck Charters, Gold Coast
  - Dr Mano Haran, Logan

Clinical Indicators Quadrant

- Objectives:
  - to identify and report the quality of clinical performance by identifying variation in performance for chosen indicators.
  - to improve service and accountability
  - to allow facilities to focus their efforts to target improvement strategies in particular clinical areas

Clinical Indicators Quadrant

- Quadrant Use:
  - enable hospitals to compare their performance with that of peers
  - alert hospitals to evaluate services if significant variation occurs
  - support local, national and international benchmarking
  - facilitate the use of evidence based practice

Criteria for Indicator Selection

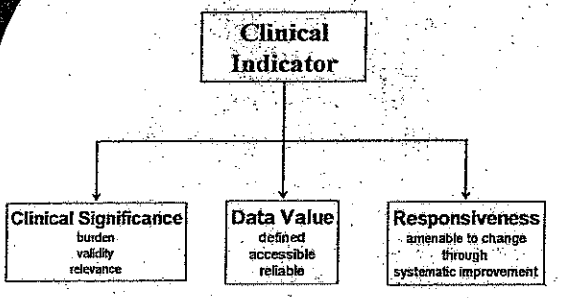
- Have been identified as a key performance indicator in national or international literature
- Some testing of reliability and validity (by others)
- Capable of being collected in other Australian states
- Applicable to many or all hospitals covered
- Preferably available from existing data

Pruning Measures

- Initially identified a large set of potential measures
- Local consultation with expert groups
- Precise indicator definitions relating to data sources
- Data collection and collation (was there variation? Did the results have face validity?)
- Suitable for local or State reporting?

Overriding Criteria for Selection

(Based on Victorian Department of Human Services Strategy)



ocedure/Condition/Event Indicators

- Acute Myocardial Infarction
- Heart Failure
- Stroke
- Pneumonia
- Asthma
- Diabetic Foot
- Fractured Neck of Femur
- Knee Replacement
- Hip Replacement
- Colorectal Cancer Surgery
- Hysterectomy
- Standard Primiparae
- Low Birth Weight for Gestational Age
- Maternal Post Natal Stay - Vaginal and Caesarean Births

Outcome Indicators

- In hospital mortality rates
- Long stay rates (stays >90% for that cohort)
- Nursing home separation rates
- Complication of surgery rates
- Amputation rates
- Surgery (hysterectomy) on women <35 years
- Caesarean section rates
- Induction of labour rates
- Perineal tear rates
- Small for gestational age rates (<3percentile)

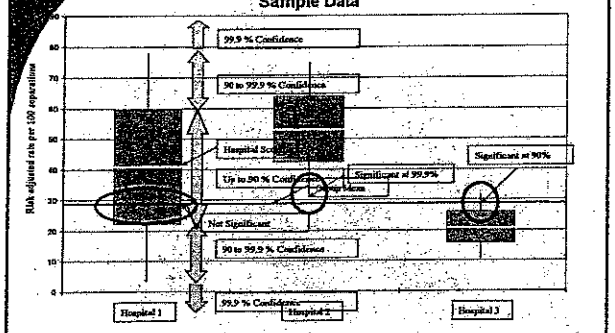
Hospital Score Calculation

$$\left[\frac{\text{Observed number of outcomes for hospital}}{\text{Expected number of outcomes for hospital}}\right] \times \left[\frac{\text{Observed number of outcomes for State}}{\text{Total separations for State}}\right] \times 100$$

- **Observed number of outcomes** - raw number of cases meeting the outcome criteria
- **Expected number of outcomes** - risk adjusted for age, sex, selected comorbidities. Calculation of the probability that a patient with a specific risk profile would experience the outcome under investigation
- **Total separations** - raw number of cases meeting the procedure / condition criteria

linical Utilisation and Outcomes

Sample Data



Reporting Criteria

Outliers

- Result <> Group mean at the 99.9% CI
- CI Shift more than one Interval in either direction
- <> Group mean at 90% CI for two Consecutive Years.

linical Utilisation and Outcomes

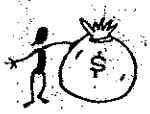
Clinical Report

CONTACT LINK !

Clinical Utilisation and Outcomes

Questions?

Efficiency



Efficiency

- Why measure Efficiency?
  - Increasing throughput, technology, ageing population leading to increased demand on existing resources
  - The hospitals ability to spend is far greater than the Governments' ability to supply resources
  - Identified as a key dimension of the NHPF
- Improving efficiency may lead to increased throughput or improved quality of services provided with existing resources

Efficiency

Development of Indicators

- Phase 1 (2000 - 2002)
  - Two workshops to identify possible indicators
  - Consultation with data custodians
  - Findings presented to MQ Board / Sponsors
  - Data verification with hospitals
  - Suitability assessment by selected Executives
- Phase 2 (2002 - 2003)
  - MQ Efficiency Indicator Review Working Party
    - Review and refine Phase 1 indicators
    - Identify additional or alternative indicators
  - Findings presented to MQ Board / Sponsors

Efficiency

Working Party Membership

- Finance Department
- FAMMIS System Support and Development Team (DSS)
- HR Data Directions Working Party
- Q Health Human Resource Information Management System Project
- Statewide Asset Management Service
- Surgical Access Service
- Pricing Strategy Team
- Data Services Unit / Health Information Centre
- Support Services Reform Project
- Nursing Workforce Advisory Unit
- Organisational Improvement Unit
- Southern Zone Management
- PAH HSD
- Fraser Coast HSD
- Bayside HSD

Efficiency

What are we measuring?

Cost of Service	Activity	Staffing
$/Wsep	Occupancy Rate	FTE
Top 10 DRGs	ALOS	Sick Leave
Casemix Efficiency	% same day	Overtime
Asset Condition	Waiting List	Unscheduled Leave
Food Services	Day Surg / DOSA	WorkCover
Cleaning		
Linen		
Energy		

Efficiency

Data sources

- Cost of the Service
  - NHCDC / TII — PST
  - FAMMIS — SAMS / Finance Dept
  - Support Services Reform Project Survey — SSRP
  - FRAC data collection — DSU
- Activity of the Service
  - Monthly Activity Collection — DSU
  - QHAPDC — DSU
  - Executive Support System — SAS
- Staffing Resources
  - Lattice / HRDSS — QHHRIMSP
  - WorkCover — Finance Department

Efficiency

Data Presentation

- Hospital result for current year, previous year
- Peer group and state median
- Quartiles calculated
- Outlier determined at 10th / 90th percentile for peer group for current year

Efficiency

Efficiency Report

CONTENT link!

Efficiency

Questions?

System Integration and Change

System Integration and Change

- Kaplan and Norton Balanced Scorecard
  Learning and Growth perspective
- Focuses on:
  - People within the organisation
  - Systems
  - Organisational processes
- Measure investments in relationships, technologies and work processes that yield long-term results

System Integration and Change

Indicator Development
Two Key Questions

- How well placed are public hospitals to develop and implement new practices that meet future health care changes, demands and challenges?
- To what extent do major public hospitals integrate their services with community partners (facilitation of continuity of care)?

System Integration and Change

Indicator Development

Areas for indicator development were chosen :

- They map with the National Health Performance Framework (NHPF)
- Are supported by QH and QIEP
- Have been examined in parallel processes (Ontario Hospital Association)
- May be amenable to sustainable change in the short term

Indicator Development

- A list of areas to be explored was developed
- Key stakeholders with required expertise were identified
- Information regarding potential performance indicators was collected through semi-structured interviews.
- An additional review reference group was convened

Reference Group

Sabrina Walsh, Logan-Beaudesert Health Service District

Tracey Silvester, QEII Health Service District

Christine Ryan, Royal Brisbane Hospital

Claire Jackson, University of Queensland

Eric Dommers, Health Outcomes Unit

Odette Pagan, Northern Zonal Management Unit

Toni Peggrem, Procurement Strategy Unit

Data for Indicator Development

- Inclusion criteria for indicator development:
  - relevance to QH policy and practice;
  - relevance to a significant aspect of hospital function;
  - had a whole-of-population application;
  - could be used to measure variation in hospital performance;
  - openness to action so that a measurable change was attainable over time;
  - practicality in terms of cost and time; and
  - data available was of acceptable quality.

Data for Indicator Development

- Exclusion criteria for indicator development included:
  - Data collected at the HSD level was too difficult/ time-inefficient to break down to hospital level (eg data on access to QHEPS);
  - Aggregate data existed at hospital level but extracts could not be made for specific conditions. Data on specific conditions was required to maintain consistency with other quadrants.
  - Inconsistent definitions used across different hospitals.

Indicator areas chosen for development were:

Accreditation

Credentialling and Privileges

Workforce Management

Quality of Information

Use of Information

Benchmarking

Clinical Pathways

Facilitating Continuity of Care

Telehealth Usage

Indicator Data Sources

Data was collected from two sources:

- **Corporately** (accreditation, credentialling, workforce management, quality of information)
- **Survey instrument** (use of information, benchmarking, clinical pathways, facilitating continuity of care and telehealth usage indicators)

The Survey Instrument

- The survey was focus tested with a reference group who have interest/expertise in integration and change and considered to be representative of the target pop.
- The reference group included:
  - HSD management (District Manager);
  - senior hospital management (Medical Superintendent, DON);
  - senior quality coordinators (Zonal Quality Coordinators);
  - local level Quality Coordinators; and
  - Board members of the MQ Program Area.
  - Sponsors of the MQ Program Area.

System Integration and Change

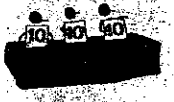
System Integration and Change Hospital Report

Content Links

System Integration and Change

Questions?

Patient Satisfaction



Patient Satisfaction

- TQA Research / Patient Complaints & Surveys Program Area
  - Purpose
    - To develop a sound methodology for measuring patient satisfaction based on the Victorian DHS Patient Satisfaction Monitor.
    - To create reports detailing patient satisfaction by the dimensions of satisfaction for each type of care.
  - Provide results on the six selected indices.
  - Survey conducted May/June 2001

Patient Satisfaction

- Measured Quality
  - Purpose
    - Measure the degree of satisfaction with the services provided in Qld public hospitals
    - Develop and apply a Balanced Scorecard approach of which Patient Satisfaction is a component
    - Enable Peer Group comparison

Patient Satisfaction

Main Differences Between the Reports

- Revised AIHW peer groups for the MQPA report to allow for consistency across quadrants.

- Revised weighting of the survey results due to peer group alteration has resulted in minor differences between some results in the TQA report and MQPA report.

Patient Satisfaction

What are we measuring?

Indices	Service Types
Access and Admission	Medical
Complaints Management	Surgical
Discharge and Follow-up	Mental Health
General Patient Information	Maternity
Physical Environment	All types combined
Treatment and Related Information	
Overall Care	

Patient Satisfaction

Data Presentation

- Hospital result for May/June 2001
- Peer group and state mean
- Confidence intervals calculated
- Outlier determined at 99.9% CI for State or Peer Group result

Patient Satisfaction

Patient Satisfaction Report

(CONTACT LINK!

Patient Satisfaction

Questions?

Measured Quality Program Area

Hospital Report Presentation

Queensland Government

Queensland Health