

Improving Elective Surgery Patient Flow. *The future, or an excuse for under-funding?*

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Objectives

To consider the importance of patient flow to modern elective surgery management

To consider key concepts in patient flow in an organisation

To consider theoretical frameworks for patient flow

To highlight some of the experiences of Queensland Health

Alice: Which way should I go?

Cat: That depends on where you are going.

Alice: I don't know where I'm going!

Cat: Then it doesn't matter which way you go!

(Lewis Carroll, Alice in Wonderland, 1872)

What type of health system do you want?

A story about patient flow.....

Anger over 8-year wait for surgery

By HANNAH DAVIES

MORE than 1500 patients from across Queensland face a wait of up to eight years for operations.

The Australian Medical Association says hundreds of those waiting for ear, nose and throat surgery at the Royal Brisbane Hospital may never be treated.

Patients are not being told the likely wait and many give up waiting and seek private treatment.

People with the longest waits are those classified as Category 3 patients — needing operations to fix sinus problems and recurrent tonsillitis.

"They are constantly pushed to the bottom of the list while surgeons treat more urgent cases."

State president of the Australian Medical Association Zelle Hodge said the waiting time had blown out due to a lack of resources.

She said 1500 patients were waiting for surgery.

"People aren't told by the hospital how long the waiting lists are and I think when they eventually find out they just don't believe it," she said.

"Even I find it begging to think of an eight-year wait, but it is true."

"Although people will move up the waiting list, they keep getting pushed down again because of new urgent cases that keep coming in."

"Unfortunately the Royal Brisbane looks after the majority of ear nose and throat patients in the state so that makes the situation worse."

"Many people give up waiting and seek treatment from private hospitals, while others who can't afford to do that will continue to wait and never get their operation."

Queensland Health says that it has reduced waiting times for patients classified as urgent and life-threatening cases.

In January there were 187 patients waiting longer than the clinically recommended time of 30 days, compared with 360 in October last year.

But figures also reveal an increase in semi-urgent and non-urgent patients waiting longer than the fastest times.

A quarter of semi-urgent Category 2 patients now wait longer than the target of 90 days, and more than one third of Category 3 non-urgent patients are waiting longer than the recommended 365 days.

The total number of patients waiting longer than recommended is 3020.

The Queensland Cancer Council said even cancer patients were being forced to wait too long.

Coalition health spokesman John-Paul Langtry said that Queensland Health performed fewer operations than the public health system in other states.

"QNT is failing patients anyway, but to be saying eight years to people, but they might as well be saying they can't provide the service at all," he said.

Queensland Health said emergency surgery must always take priority over other surgery.

Courier Mail 19/3/07

Canberra Times
15 April 2008

Sick of waiting: patients walk out

By Danielle Cronin
Health Reporter

About 200 patients a week are walking out of emergency departments at Canberra and Calvary hospitals because they are sick of waiting for treatment.

More than 5000 patients – who went to casualty departments at local public hospitals – left before they received medical care during the first six months of this financial year.

The walkout rate has spiked since the same period in 2006-07 when fewer than 4000 patients failed to wait for treatment.

The ACT Opposition is alarmed but the Government believes the problem is linked to the severe shortage of GPs and the bulk-billing

people who gave up waiting to be seen in the ACT's emergency departments in the quarter has decreased from nearly 3000 in the last reported quarter to around 2200 people, this remains a real cause for concern," Mrs Burke said.

These patients had been assessed by a triage nurse but left the emergency department before they saw a doctor.

Ms Gallagher said there was "still more to do" to reduce waiting times for patients with urgent or semi-urgent medical problems.

But all of the most gravely ill patients were seen immediately in emergency departments.

"At the same time, there has been high demand for urgent emergency department services, with total presentations for category one and two being 16 per cent higher in the

WAITING FOR HELP

Canberra hospitals' performance

- 19 per cent of emergency patients not treated within recommended 10 minutes
- 45 per cent of urgent patients not treated within recommended 30 minutes
- 44 per cent of semi-urgent patients not treated within recommended one hour
- 18 per cent of non-urgent patients not treated within recommended two hours

Source: ACT Health Public Services Performance Report Quarter Two 2007-08



Gold Coast Bulletin

09/05/2008

Page: 6

General News

Region: Gold Coast QLD Circulation: 42529

Type: Regional

Size: 255.62 sq.cms

MTWTF--

Patients lose hope

Hospital boss says its fiscally responsible not to fit out facilities

by Leah Fineran and
Sue Lappeman

CANCER patients are losing hope for a public radiotherapy service on the Gold Coast after reports the State Government was considering privatising or cutting it from the over-budget Gold Coast University Hospital.

The Gold Coast Bulletin yesterday

Cancer support co-ordinator Leslie Donnelly from The Cancer Council Queensland Gold Coast office said public services were desperately needed for local patients, many of whom relied on the council's weekday bus to Brisbane.

"We don't have any public services on the Coast and there are times when the bus is full," she said.

"To have a public service on the

Dr Nowitzke said the leaked document was a list of brainstormed options but nothing was finalised.

"We considered we could get an outside source to lease the radiotherapy space but we now don't think that model will work for our patients," he said.

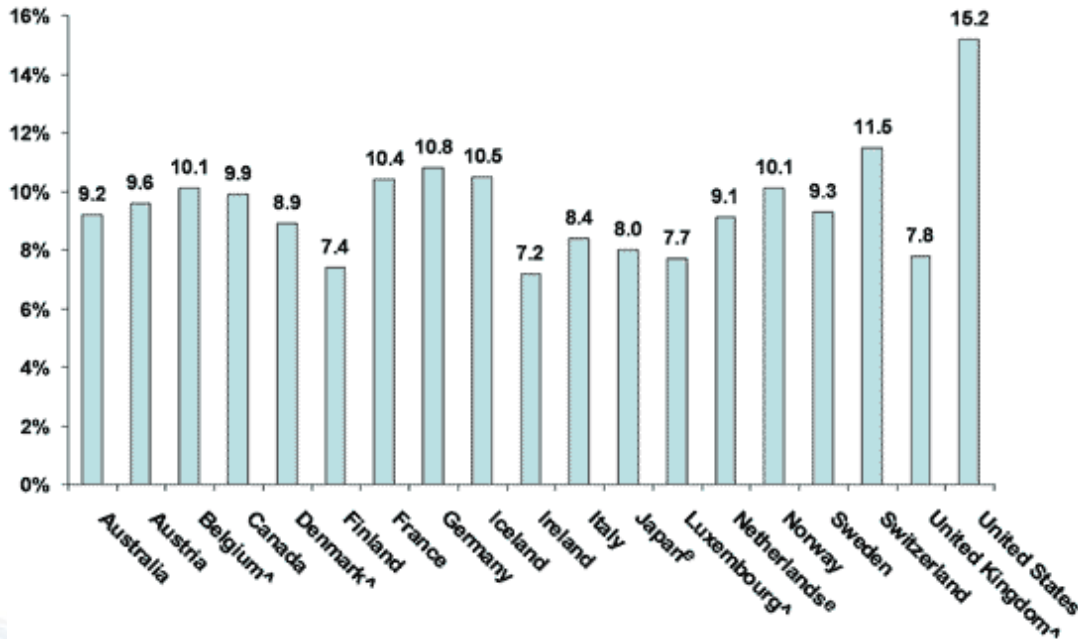
The leaked document shows other services could potentially be downgraded by 'shelling', or build-





OPD section Brisbane Children's Hospital 1964.
Ladies auxiliary were planning a doorknock to raise funds
to ease overcrowding.

Total health expenditure, % of GDP, 2003

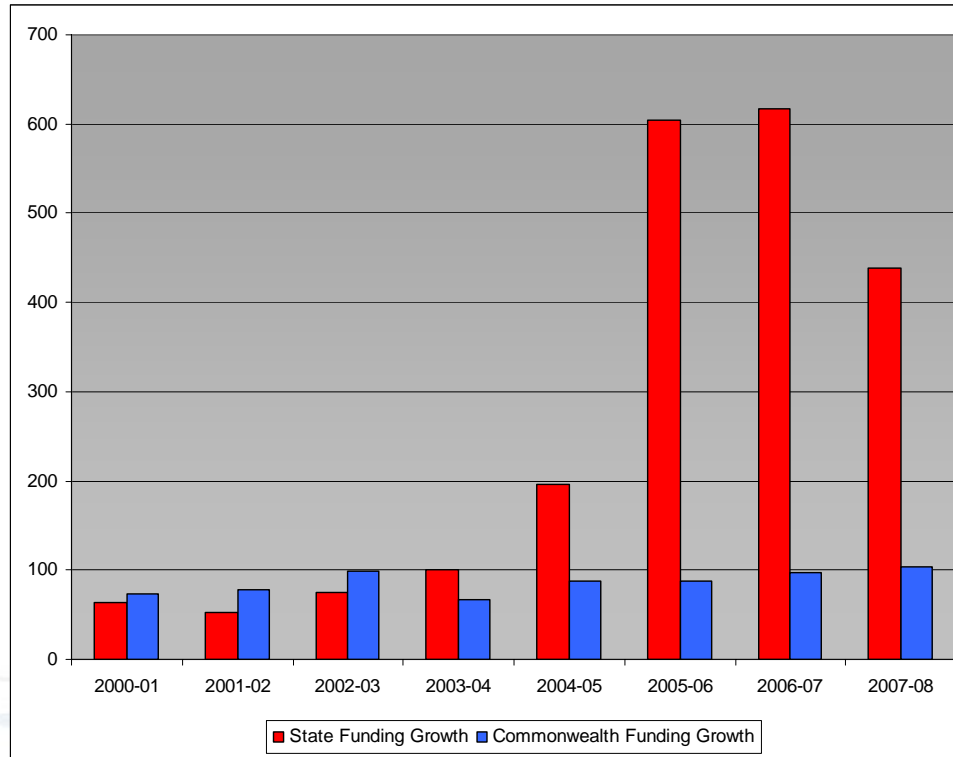


Australia	
1970	5.4%
1980	6.8%
1990	7.5%
2003	9.2%

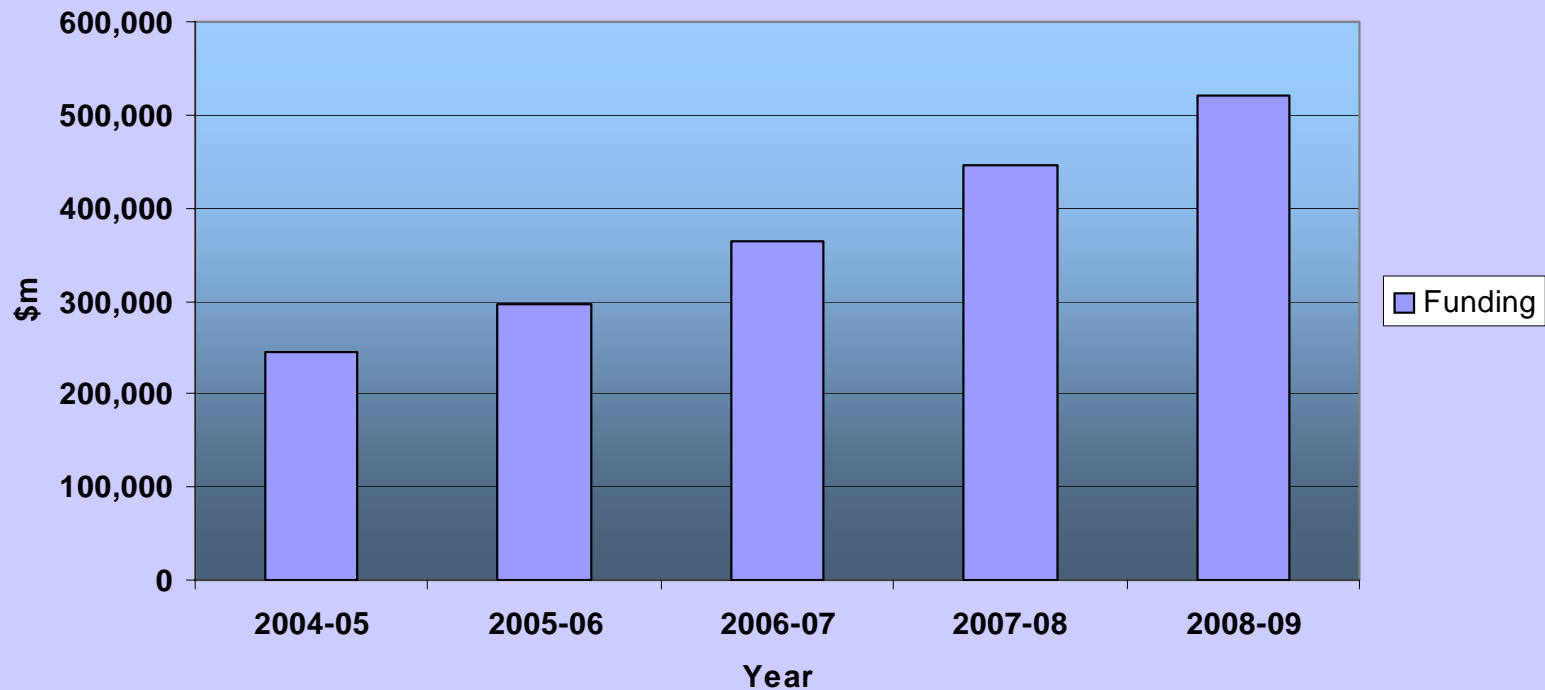
OECD Health Data 2006

<http://www.oecd.org/health/healthdata>

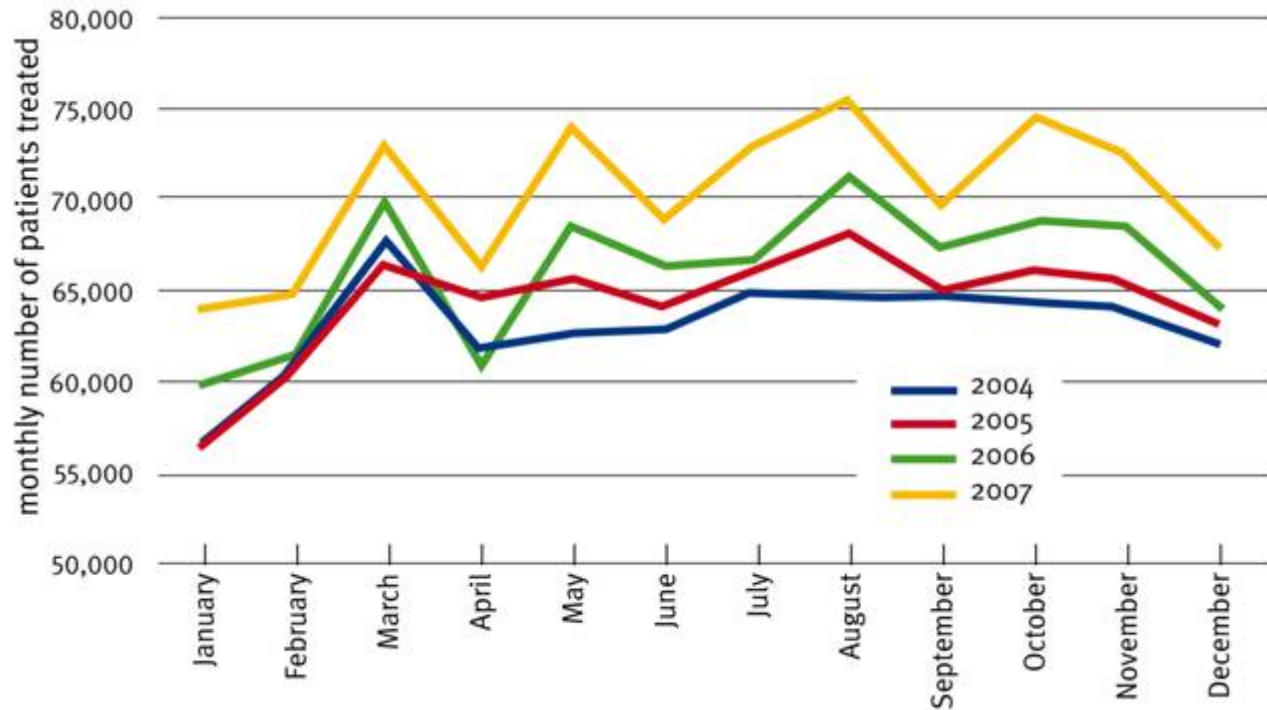
Growth in funding for health in Queensland



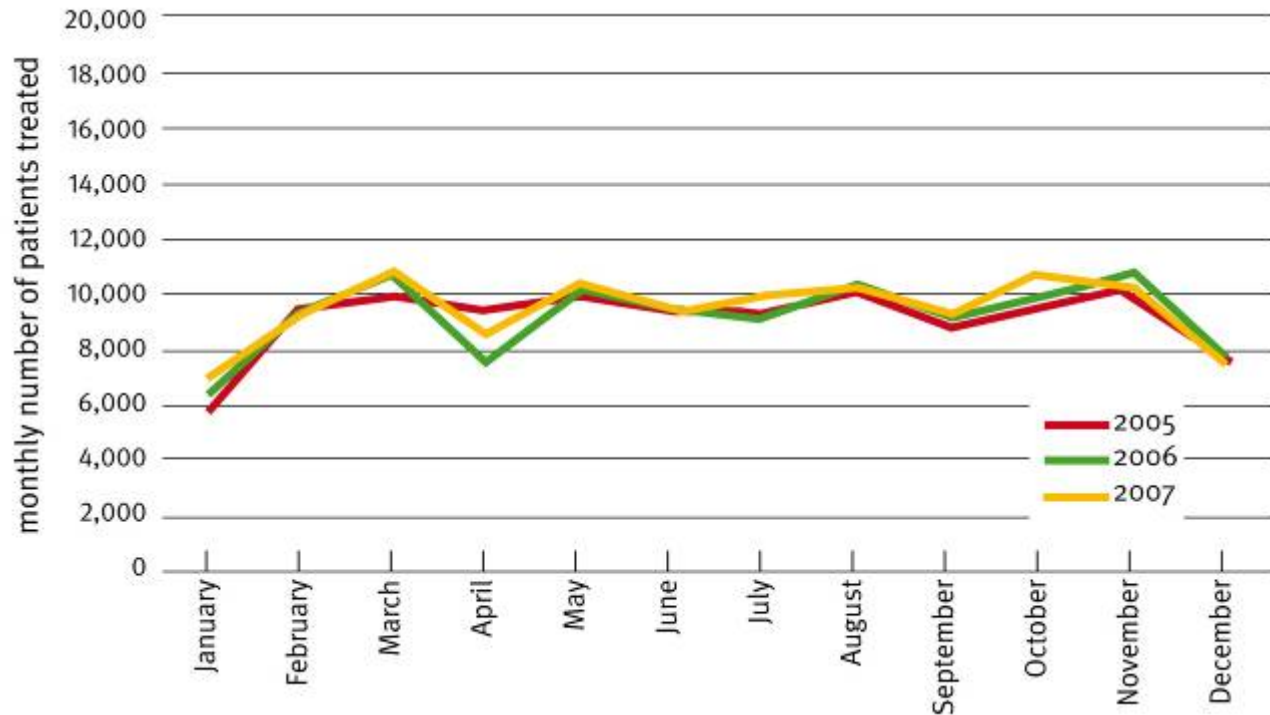
Gold Coast Health Service District Funding 2004 to 2009



Admissions to Qld Public Hospitals



Queensland Elective Surgery Performance





Who is your customer?

What do the payers incl government / owners / senior executive of the health system want?

What do the buyers / patients / families / public want?

Are they mutually exclusive?

Which customer should you serve?

Two sides of the coin for patient flow...

Efficiency

Service

Efficiency Attributes Dominate Top Ten for Surgeon Loyalty

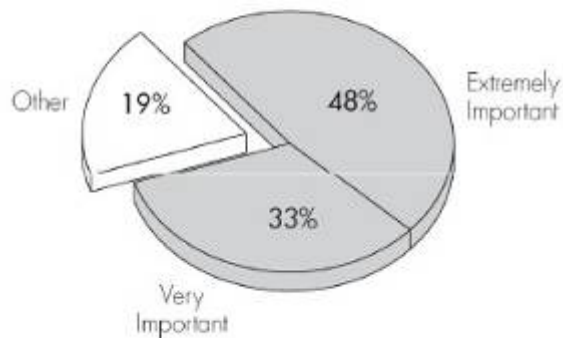
#1	Availability of preferred OR times	62%
#2	Timely execution of diagnostic tests and medical orders	59%
#3	Availability of skilled anesthesiologists	57%
#4	High level of clinical nursing skills	57%
#5	Ease of scheduling outpatient appointments	54%
#6	High degree of consulting physician expertise	53%
#7	Strong reputation for clinical excellence	51%
#8	Quick room turnover	49%
#9	High rate of on-time starts	48%
#10	Administrative responsiveness to physician concerns	46%

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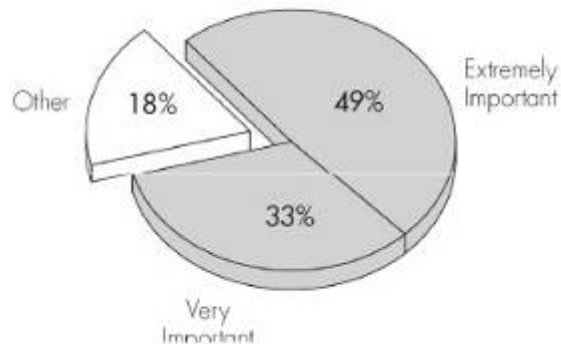
OR Efficiency Driving Surgeon Admitting Decisions

How Important Is Each of the Following in Your Decision to Admit to a Specific Hospital?

High Rate of On-Time Starts



Quick Room Turnover

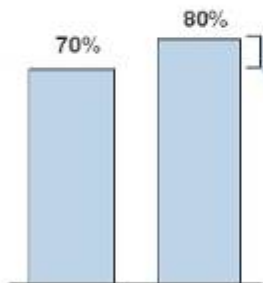


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Increasing OR Utilization to Create “Virtual Capacity” and Boost Volume Growth

Raising OR Utilization Rates



Equivalent Capacity or Throughput Gains¹



1.4 ORs



1,260 additional patients per year



\$2,142,000 in additional contribution profit year

¹ Assumes a 10-OR hospital; assumes that additional utilization yields 900 cases per OR per year; \$1,700 average contribution profit per surgical case.

Who is responsible?

Who owns surgical patient flow?

Who is responsible for access block?

Organisational structures for patient flow

Dedicated patient flow units

– ? Run by nurses

Integrated into the business units

Widespread leadership capability?

Management

Leadership

Each action causes a reaction. In a system...

Outcome	Timing	Visibility
Planned	Early	Obvious
Unplanned	Late	Latent

Theoretical Frameworks for Patient Flow

Queueing theory / Variability Theory

Lean thinking



Complex systems...



Inefficiency Begins Before Day of Surgery



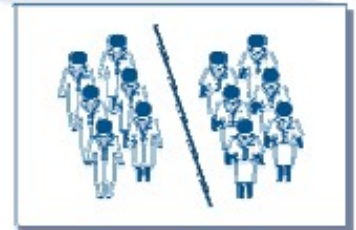
- ☞ Scheduling inefficiencies, resulting in mid-day down-time
- ☞ Pre-op testing not coordinated with Anesthesia
- ☞ H&Ps not forwarded to hospital, leading to day of surgery delays
- ☞ Release times not specialized, constraining access to schedule

Day of Surgery Challenges



- ☞ Late first case starts drive exponential delays throughout the day
- ☞ Lack of clarity in roles and responsibilities leads to diminished accountability in turnover
- ☞ Lack of consistent definition for on-time starts
- ☞ Lack of parallel processing promotes acceptance of delays associated with sequential flow

Surgeon and Staff Incentives Misaligned

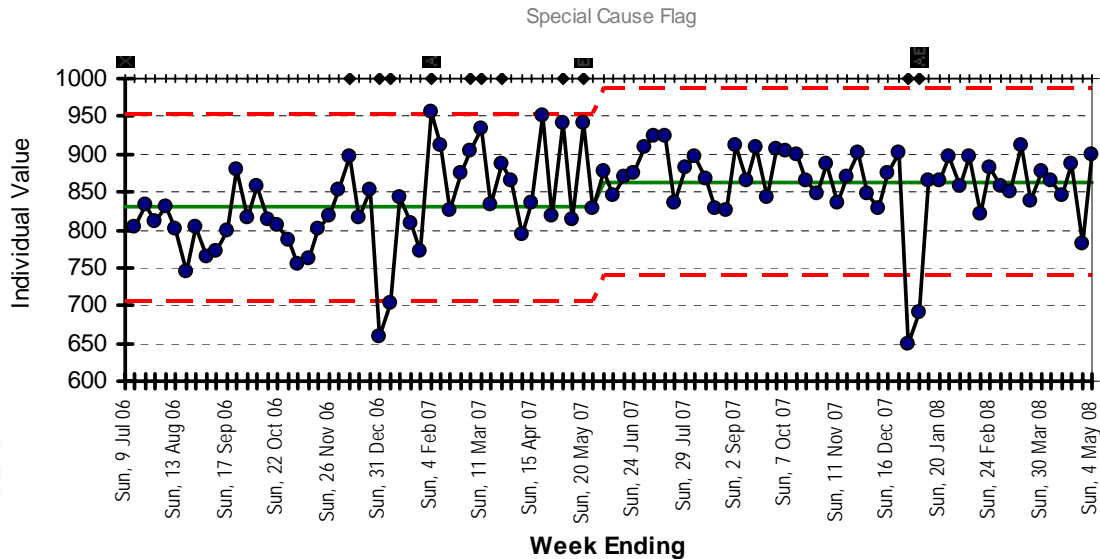


- ☞ Hospital staff do not have incentives for operational performance
- ☞ Surgeons and hospital are not aligned
- ☞ No rewards for efficiencies throughout the system

Variability Theory

• Boston University – Program for the Management of Variability in Health Care Delivery

2.2a Total Overnight Admissions



Variability Theory

- **The Compassionate Society**

- Yes Minister, Series 2 (BBC TV)

- The brand new St Edwards Hospital has been open for 15 months with 350 administrators and 150 ancillary staff. But it has no patients...*

- **Sources of variability**

- Clinical variability

- Flow variability

- Professional variability

- Artificial variability

Variability Theory

- Defines variation as deviation away from an ideal and stable pattern
- Reduce variation as much as possible
- Identify, classify, measure and manage
- First step – eliminate artificial variability
 - Aka “smoothing”
 - E.g. theatre start times, acute vs elective theatre loads, leave times, unexplained surgeon preference

Queueing Theory

Extension of the notion of variability

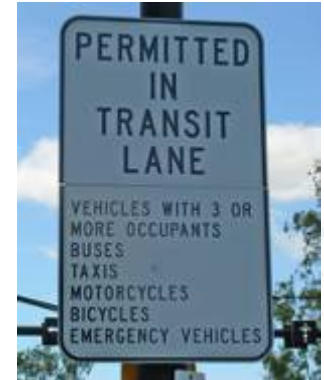
Approximately 40 models

Application needs to be made carefully and in context

Uses mathematics to predict
the probability of demand
e.g. Poisson distribution



Are we prepared for space?



Pacific Motorway

<http://farm3.static.flickr.com>

Lean Thinking in Healthcare

- Waste
- Healthcare requires multiple complex tasks to provide value to the patient – waste of time, energy, supplies and goodwill reduce value
- Major change program throughout the organisation
- Lead from the top

Figure 2. Results of 175 Rapid Process Improvement Weeks at Virginia Mason Medical Center

Category	2004 Results (after 2 years of "lean")	Metric	Change from 2002
Inventory	\$1,350,000	Dollars	Down 53%
Productivity	158	FTEs	36% redeployed to other open positions
Floor Space	22,324	Sq. Ft.	Down 41%
Lead Time	23,082	Hours	Down 65%
People Distance	Traveled 267,793	Feet	Down 44%
Product Distance	Traveled 272,262	Feet	Down 72%
Setup Time	7,744	Hours	Down 82%

Source: Virginia Mason Medical Center

Ref: Going Lean in Healthcare
 Institute for Healthcare Improvement, 2005

Selected Queensland Activity



Qld Health Initiatives

The Townsville Hospital

- Long wait cat 1 and 2 at zero
- Regular attention / audit
- Close liaison with surgeons
- Close management – operations manager and elective surgery coordinator
- Extended day surgery unit
- Specific programs
 - Surgery Connect in private sector
 - Weekend surgery

Qld Health Initiatives

Royal Brisbane and Women's Hospital

- Dashboard data demonstration
- Enhanced discharge program
- High level nursing staff
 - Nursing Director PFU as direct report EDNS
- Capacity alert program – 18 months development
- Bed manager software

Qld Health Initiatives

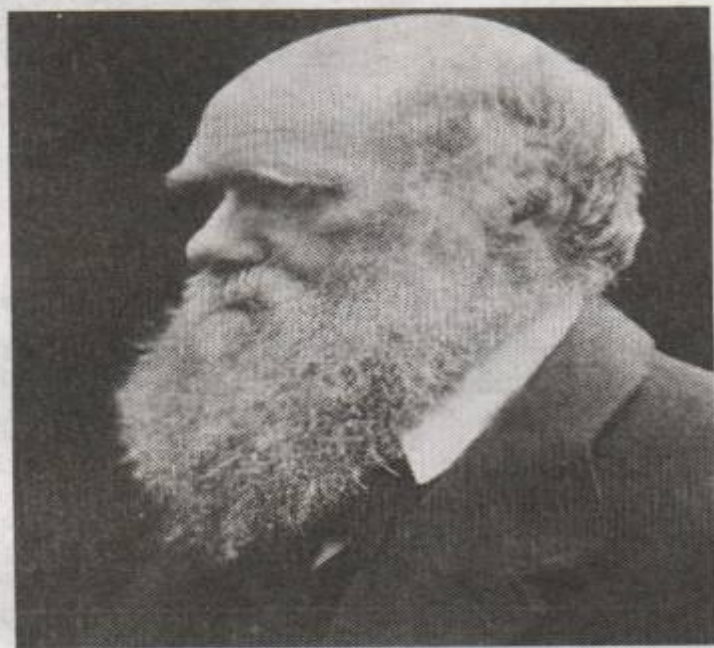
Princess Alexandra Hospital

- Similar to RBWH
- Early morning pathology collection
- Afternoon bed management meeting
- Day procedure unit
- Two by ten discharge program
- Single entry point for interhospital transfers

Summary and conclusion

The best system = optimal patient flow
Management
Various models
Leadership





"It's not the strongest of the species that survives, nor the most intelligent; but the one most responsive to change."

Charles Darwin