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CENTRE

# Health care data for public reporting

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Flinders Medical Centre

## The Clinical Epidemiology Unit at Flinders Medical Centre

- Analyses access, capacity, flows and outcomes of the regional ( and state) secondary and tertiary health services.
- Using both non-public and public data sources
- Non-public include ATS, Emergency Department Info systems, lab systems, imaging systems, Health Information Portal (HIP) etc
- Public include telephone based survey data, Burden of Disease data, cancer registry, social health atlas, etc, national reports about hospital and health service activity, Queensland Measured quality reports, Canadian HSMR reports, Dr Foster etc.



## The Clinical Epidemiology Unit at Flinders Medical Centre

- Don't use national professional registry data-ICCU, Vascular Surgery, Neonatal etc (and some local registries).



# The Clinical Epidemiology Unit at Flinders Medical Centre

- So there are many potential data sources for public health care reporting.
- The Clinical Epidemiology Unit is also heavily involved in a hospital wide clinical and support service process redesign program, using lean thinking and a variety of other industrial and service industry based improvement methods.
- That has taught us to ask three questions before beginning any program of work.



# Public reporting

- What are you actually making?
- Who are your customers?
- What do they value?
- (a customer= someone who uses what you make)



# The Clinical Epidemiology Unit at Flinders Medical Centre

- Data issues only become contentious when what is being made is a report that identifies specific hospitals, services, units or doctors (presumably, in an attempt to influence the services so identified)



# Who are the customers?

There are four potential customers for any report

- The 'owners' of the service:
  - state or national governments representing the community at large (and themselves); not-for-profit; corporate, and; other for profit, operators.
- Potential and actual service purchasers
- Current, past and future service users



# The Clinical Epidemiology Unit at Flinders Medical Centre

For the foreseeable future, the most important data source for secondary and tertiary care will be the national hospital and health service separation data system (the 'casemix' data).

It is comprehensive, developed with extensive and intensive input from clinicians of all kinds

It is regularly updated

And professionally extracted and coded.



# The Clinical Epidemiology Unit at Flinders Medical Centre

The national hospital separation data set is regularly audited at state level- though there is (to my knowledge) no systematic nation-wide program.

Most state-level audits show around 5% of records have some kind of inaccuracy (often minor).

Up-coding occurs, but usually towards increasing patient level complexity (good for providers, not so good for purchasers)



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100240	5	B	43	228678	0.0188%	This indicator identifies records where length of stay is same day or one night and with diagnosis code 'renal dialysis' but not as principal diagnosis. ACS 1404 'Admission for renal dialysis' states that, when a patient is admitted for renal dialysis and
100241	5	A	9	228644	0.0039%	This indicator identifies records where the length of stay is multiday stay and the principal diagnosis is 'care involving extracorporeal dialysis'. ACS 1404 'Admission for renal dialysis' states that, when a patient is admitted for renal dialysis and is
100242	5	B	1	51	1.9608%	This indicator identifies records with bladder neck obstruction as principal diagnosis and the benign prostatic hypertrophy code in combination with the endoscopic incision of bladder neck code. ACS 1420 'Bladder neck incision for benign prostatic hypertr
100244	3	A	2	2192	0.0912%	This indicator identifies records containing both a specific urinary incontinence code and the unspecified urinary incontinence symptom code. ACS 1802 'Signs and symptoms' states that symptoms are not coded when a more definitive diagnosis exists. Therefo

## Extract from published Victorian public hospitals coding audit: 2006-7



# Hospitals vary

- There is little controversy attached to reports of activity.
- Concerns about reliability only emerge when outcomes are reported
- Most worrying (for service providers) are reports that describe outcomes in ways that any potential or actual user can read and understand.



# Hospitals vary

There are three potential sources of variations in outcomes such as in-hospital death or re-admission.

- Systematic differences in patient level severity
- Systematic differences in the outcomes consequent on care received.
- Random variation



# Hospitals vary

In the early to mid nineties, much effort went into complex analyses of data snapshots (one year data sets) to demonstrate that random variation in administrative data sets is so large that no meaningful conclusions can be drawn about the existence of systematic variations in care



# Hospitals vary

In this century, the tide has started to turn.

A number of multi-year studies have shown stable patterns of between hospital outcomes

Substantial levels of agreement between the outcomes within administrative and registry data have been demonstrated



Hospital	1997/98	1998/99	1999/00	2000/01	2001/02
A	110	102	106	112	114
B	86	85	88	93	84
C	124	124	115	123	125
D	68	73	80	68	61
E	52	71	71	58	72

## SA HOSPITAL SMR'S



“We find no evidence that the Hospital Standardized Mortality Ratios cannot be used as an indicator to monitor and compare hospital quality.

1 Measuring and explaining mortality in Dutch hospitals: the Hospital Standardized Mortality Rate between 2003 and 2005 Heijink G et al, BMC Health services Research 2008. 8;73



- Existing data sources are sufficiently reliable to demonstrate systematic differences between hospitals in relation to outcomes of interest to both providers and users of care.
- Can the precision of those reports be increased by the addition of physiological data-certainly. But is that practical?
- Will present on admission flags help-definitely.



- What is the origin of systematic differences?
- That is not yet clear.
- So at this stage, differences are best considered as 'screening', rather than diagnostic tools.
- Should reporting be open or private?
- Or is the real question-will we ever really understand how to improve safety and quality of hospital care without public reporting?

