PLENARY 5

Data from a health perspective

With
Dr Stephen Duckett

Facilitated by
Martin Stewart-Weeks

27 - 28 March 2018, QT Hotel Canberra
Dials, can openers, siloes and stuff: data choices for hospital safety

Stephen Duckett
aka @stephenjduckett

27 - 28 March 2018, QT Hotel Canberra

The objects of policy

Access

Quality

Efficiency
Shorter consultations are the most remunerative

But what happens in these consultations?
We need to know more than length of consultation

>$4b p.a. on un-referred consultations
Lake Wobegone effect

Proportion of board members Victorian LHNs, views on own network relative to average Victorian network

Overall quality of health care
Safe and skilled workforce
Responding to health care incidents

Measurement is crucial

In physical science a first essential step in the direction of learning any subject is to find principles of numerical reckoning and practicable methods for measuring some quality connected with it.

I often say that when you can measure what you are speaking about and express it in numbers you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind: it may be the beginning of knowledge, but you have scarcely, in your thoughts, advanced to the stage of *science,* whatever the matter may be.

William Thomson

Lord Kelvin

Different ambitions, different conception

<table>
<thead>
<tr>
<th></th>
<th>All admissions</th>
<th>Same day admissions</th>
<th>Multiday admissions</th>
</tr>
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<tbody>
<tr>
<td>Sentinel events</td>
<td>0.0012%</td>
<td>Not published</td>
<td>Not published</td>
</tr>
<tr>
<td>Designated ‘Hospital Acquired Complications’ (HACs)</td>
<td>2%</td>
<td>0.001%</td>
<td>5%</td>
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<tr>
<td>All complications</td>
<td>11%</td>
<td>3%</td>
<td>27%</td>
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</table>
Polarity Management

Judgement about causation/’preventability’

Record review

Inter-rater reliability

Cheap

Analysis of routine data

Accuracy of recording

Johnson, B Polarity management: identifying and managing unsolvable problems HRD Press 1996
The evolution of safety thinking

Safety as secret doctors' business
- Individual bad apples
- Individual case review e.g. Mortality & Morbidity meetings
- Protection of quality review processes

Safety is hospital wide issue
- 'Systems approach'
- Incident reporting systems
- ↑ role of nurses
- Government agencies

Safety is a public issue
- Public reporting
- Epidemiology of outcomes?

Safety is a payer issue
- Financial incentives
- Focus on value

How do we facilitate this?
Blowing up the siloes

Enhance the value of existing hospital morbidity data set by adding more variables

## What should be added and why

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Duckett, Stephen (2013), 'Tracking devices with bar codes is a way to monitor their safety', *British Medical Journal*, 346, f3380.

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Hazard ratio (compared to average) Total conventional hip replacement

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<tr>
<th></th>
<th>1 year</th>
<th>3 years</th>
<th>5 years</th>
<th>1 year</th>
<th>3 years</th>
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<td>ML Taper Kinectiv (344 in 2014)</td>
<td><img src="image1.png" alt="Graph" /></td>
<td><img src="image2.png" alt="Graph" /></td>
<td><img src="image3.png" alt="Graph" /></td>
<td><img src="image4.png" alt="Graph" /></td>
<td><img src="image5.png" alt="Graph" /></td>
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Many more NICE do-not-dos can be measured with data we already collect.
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<td>After achieved stability</td>
<td>Enhance ability to review performance</td>
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<td>Improve efficiency of data collection and management</td>
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