**Dr R Cheung: Measuring Healthcare.**

Why measure healthcare:

1. To look for improvement
2. To motivate
3. To have accountability

Data should be based on something that:

* matters
* is meaningful
* can be attributable for improvement
* in based on evidence based standards

Data can be split into indicator types: (based on Avedis Donabedian)

1. Structural measures e.g. capacity, beds, training, medicine.
2. Process measures e.g. patient pathways
3. Outcomes measures
4. **Outcomes**

Outcomes remain the ultimate validators of the effectiveness and quality of medical care.

* You can reflect the health status as the result of healthcare.

Examples:

* Population – How many people get measles?
* Biomarkers – HbA1c
* Adverse outcomes – Admissions
* Experience – Friends and Family
* Wellbeing – Functional ability after having TB

This has advantages and disadvantages

e.g. Take mortality as an outcome measure (standardised hospital mortality index *SHMI* is how hospitals are measured)

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| **Advantages** | **Disadvantages** |
| Binary | Doesn’t take into account the complexity of the patient group or what services are nearby |
| Everyone measures it | Small numbers |
| There is access to this data | Doesn’t reflect the quality of care |
| The public understand it | Takes time to make a change |
| Effective if a causal pathway is clear |  |
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1. **Structure**

Attributes of service which impact on care quality.

Examples:

* Physical – size of unit
* Numerical – staff ratios
* Technical - equipment
* Knowledge – qualifications

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| **Advantages** | **Disadvantages** |
| Easy to measure – much better if it can be linked to evidence | No idea if it will affect anything. |

1. Processes

Describe steps and systems.

Examples:

* 24 hour wait in A and E
* 1 hour to CT brain for TBI
* Echo following Trisomy 21 Diagnosis.
* NICE diabetes care processes.

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| **Advantages** | **Disadvantages** |
| Directly reflect healthcare received | Causality often tenuous |
| Easy to define and measure | No face validity |
| Processes easy to change | Unintended consequences |
| Useful if evidence based | Link to outcomes and sometimes tenuous |
| Correlation to quality / experience | Narrow focus |
| May be relevant to many outcomes. |  |

When you decide what to measure try to balance all of the above indicators.

Measure fixation: When you become fixated on the thing you are measuring and forget the rest – you may improve something that you do measure but you won’t improve anything you don’t measure.

There is lots of data available:

Administrative data:

* Hospital Episode Statistics - Most data can be access through fingertips website: <https://fingertips.phe.org.uk>
* NHS right care: Commission for value packs – more sophisticated comparison. <https://www.england.nhs.uk/rightcare/>

In Primary Care:

* Institutional / national data can occur on request – but costs
	+ CPRD
	+ THIN
* Primary care data from practices – see practice manager
* From individual CCGS

Every hospital has an analytical team working for them to churn data back to the government – they may be able to help you.