Moving the measurement of performance in healthcare from a volume-based to a value-based perspective

A conceptual framework

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The ACI acknowledges the traditional custodians of the land that we are meeting on. We pay our respects to Elders past and present and extend that respect to other Aboriginal peoples present here today.
value ?
value

/ˈvalju:/

noun

1. the regard that something is held to deserve; the importance, worth, or usefulness of something.

"your support is of great value"

synonyms: merit, worth, usefulness, use, utility, practicality, advantage, desirability, benefit, gain, profit, good, service, help, helpfulness, assistance, effectiveness, efficacy, avail, importance, significance, point, sense; informal mileage

"the value of adequate preparation cannot be understated"
Value = \frac{\text{Experience} + \text{Outcomes} \times \text{Expectations}}{(\text{Cost} + \text{Effort})}
Methods

- Review of peer reviewed and grey literature
- 19 performance frameworks selected
- 110 different distinct terms
- Included logic models, functional models and goal achievement models
- An iterative mapping process clustered terms in 12 key performance domains
Bodies of literature

• Logic model centred
  • Economic production function (e.g. Bogdanoff, 1921; Smith, 2008)
  • Process, outcome, structure measurement (Donabedian, 1998)
• Functional models
  • Theory of social action (e.g. Parsons, 1960)
  • EGIPSS (Champagne et al, 2006)
• Goal achievement
  • Goal setting (Locke and Latham, 1968)
  • Management by Objectives (Drucker, 1954)
  • WHO (Murray and Frenk, 1999)
How to measure value?
1 – Measurable elements
1 – Measurable elements

Receipt and Experience of care

Outcomes
1 – Measurable elements

- Needs and expectations
- Receipt and Experience of care
- Outcomes
1 – Measurable elements

- Resources and structures
- Needs and expectations
- Receipt and Experience of care
- Outcomes
1 – Measurable elements

- Resources and structures
- Needs and expectations
- Receipt and Experience of care
- Functions, processes and context
- Outcomes
Key constructs of performance

• Equity and Coverage: Health for all, care that’s fair
• Accessibility: Care when and where needed
• Productivity: Organising care for high levels of activity
• Appropriateness: Right care, right way, right amount
• Safety and Effectiveness: Care that makes a difference and no harm
• Efficiency: Good outcomes for the resources invested
• Adaptability and Resilience: Responding to communities and change
• Sustainability: Caring for carers, caring for the future
• Impact: Improving the health of the population
2 – Derivable constructs

- Needs and expectations
- Resources and structures
- Receipt and Experience of care
- Functions, processes and context
- Outcomes

Connections:
- Coverage between Needs and expectations and Resources and structures
- Accessibility between Needs and expectations and Receipt and Experience of care

Logos:
- NSW Government
- Agency for Clinical Innovation
2 – Derivable constructs

- Needs and expectations
- Resources and structures
- Receipt and Experience of care
- Outcomes

Coverages:
- Accessibility
- Appropriateness
- Effectiveness
- Safety

Functions, processes and context
2 – Derivable constructs

Resources and structures

Needs and expectations

Receipt and Experience of care

Outcomes

Functions, processes and context

Coverage

Accessibility

Appropriateness

Productivity

Effectiveness

Safety

Efficiency
2 – Derivable constructs

Resources and structures

Needs and expectations

Receipt and Experience of care

Functions, processes and context

Outcomes

Coverage

Productivity

Efficiency

Accessibility

Effectiveness

Safety

Appropriateness

Sustainability

Adaptability

Resilience

NSW Government

Agency for Clinical Innovation
2 – Derivable constructs

- Resources and structures
  - Coverage
  - Productivity

- Needs and expectations
  - Equity
  - Appropriateness
  - Adaptability

- Receipt and Experience of care
  - Effectiveness
  - Safety
  - Sustainability
  - Resilience

- Functions, processes and context
  - Efficiency

- Outcomes
  - Impact

3 – Patient-centred value
3 – Provider-centre value

Resources and structures

Productivity

Receipt and Experience of care

Sustainability

Functions, processes and context
3 – System-centred value

Resources and structures

Efficiency

Productivity

Receipt and Experience of care

Resilience

Sustainability

Outcomes

Functions, processes and context

Impact

Receipt and Experience of care
3 – Population-centred value

- Needs and expectations
- Coverage
- Equity
- Adaptability
- Resources and structures
- Productivity
- Receipt and Experience of care
- Sustainability
- Functions, processes and context
The contribution of the framework to measure value

- Assessing performance in healthcare involves measuring directly observable phenomena AND deriving indicators to reflect on specific aspects of performance.
- Understanding value in healthcare requires measurement to go beyond volume-based metrics but also requires measurement of more than outcomes.
- The proposed framework enables the clustering of measures that capture value from patient, clinician, system and population perspectives.
- The framework can help reduce indicator chaos by enabling the pooling of increasing number of measures under a coherent analytic approach.
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Bodies of literature – logic model approach

- Economic production function (e.g. Bogdanoff, 1921; Smith, 2008)
- Process, outcome, structure measurement (Donabedian, 1998)
Bodies of literature – functional approach

- Theory of social action (e.g. Parsons, 1960)
- EGIPSS (e.g. Champagne et al, 2005; Marchal, 2014)

(EGIPSS, 2005)
Bodies of literature – goal achievement

- Goal setting (Locke and Latham, 1968)
- Management by Objectives (Drucker, 1954)
- WHO (Murray and Frenk, 1999)