

# The measurement of performance in healthcare: from a volume-based to a value-based perspective

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AGENCY FOR  
**CLINICAL  
INNOVATION**

value ?

# value

/ˈvɒljʊː/ 

*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"

$$\text{Value} = \frac{\text{Experience} + \text{Outcomes}}{(\text{Cost} + \text{Effort}) \times \text{Expectations}}$$

# Methods

- Review of peer reviewed and grey literature
- 8 stage process
- Mapping, synthesis, resynthesis, iteration, validation
- 19 performance frameworks identified
- 110 different distinct terms
- Included logic models, functional models and goal achievement models
- Few grounded in theory
- 12 key performance domains

access acquisition adaptation adjustment affordability allocation appropriateness art attraction avoidable  
behaviours better blocks building capacity capita **care** choice chronic circumstances clientele climate clinical comprehensive conditions conformity  
consumer context continuity coordination coping **cost** coverage creating design disability dying **effectiveness**  
**efficiency** employees end engaged enhancing ensuring environment episodes **equity** expenditure  
**experience** financial financing following form getting **governance** harm **health** healthcare healthy  
helping ill **improve** individual infrastructure injury innovation inputs integrated leadership learning level life living long-term  
money **needs** organisation orig output patient **patient-centredness** people per person-centred policy  
**population** positive prematurely prevention primary production program promotion **protection** provision **quality** recover  
regulation **resources** respect **responsiveness** risk safe **safety** satisfaction services  
**social** staff stakeholder standards status **system** stewardship sustainability timely treating treatment unit value volume work workforce

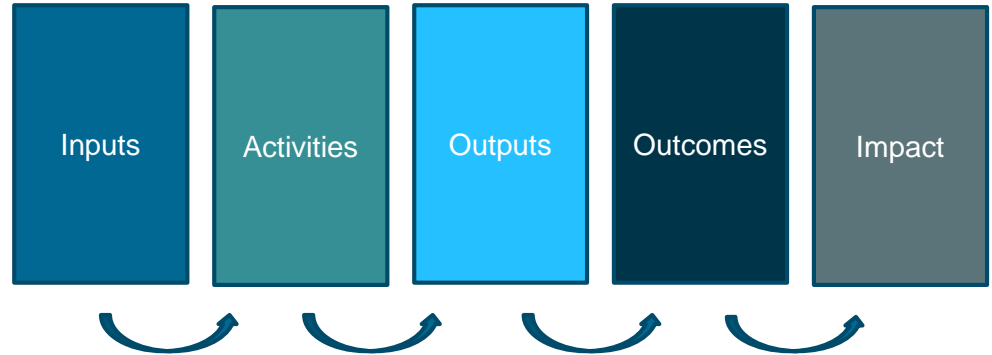


# Towards a theory of performance

- **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)

# Bodies of literature – logic model approach

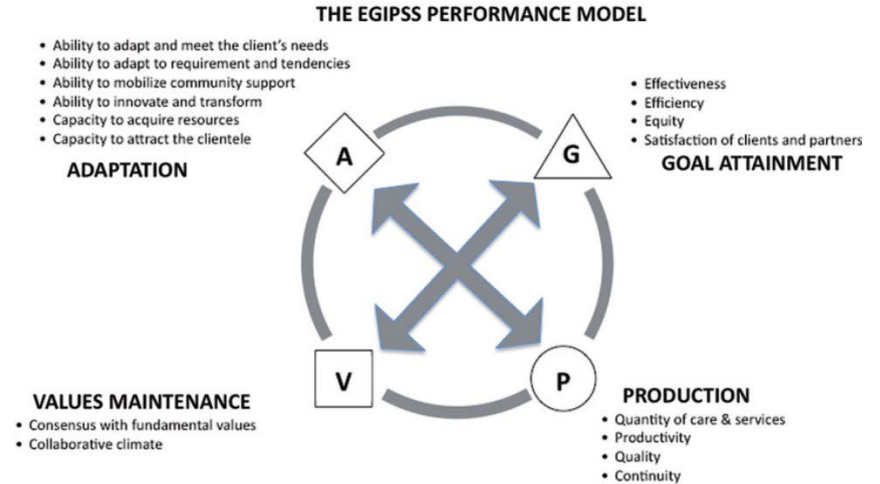
- **Economic production function** (e.g. Bogdanoff, 1921; Smith, 2008)
- **Process, outcome, structure measurement** (Donabedian, 1998)





# Bodies of literature – functional approach

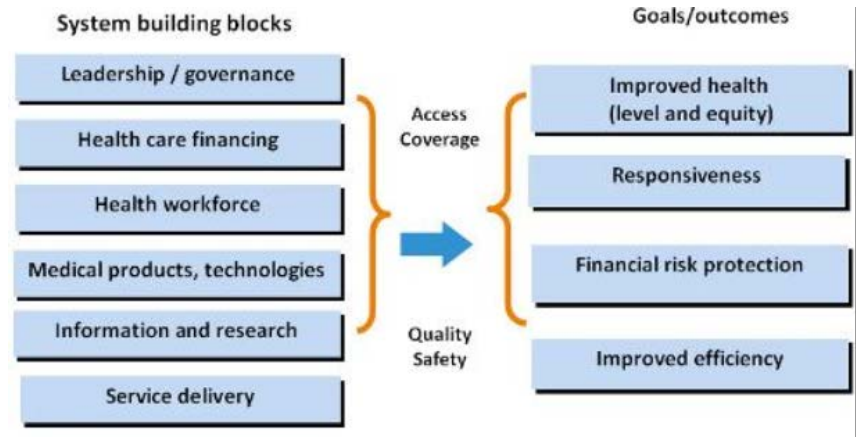
- Theory of social action (e.g. Parsons, 1960)
- EGIPSS (e.g. Champagne et al, 2005; Marchal, 2014)



(EGIPSS, 2005)

# Bodies of literature – goal achievement

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



(WHO, 1999)

***A conceptual framework is not merely a collection of concepts, but rather a construct in which each concept plays an integral role***

**(Jabareen, 2009: p 55)**

How to measure value and performance ?

# 1 – Directly measurable

Receipt  
and  
Experience  
of care

# 1 – Directly measurable

Receipt  
and  
Experience  
of care

Outcomes

# 1 – Directly measurable

Needs and  
expectations

Receipt  
and  
Experience  
of care

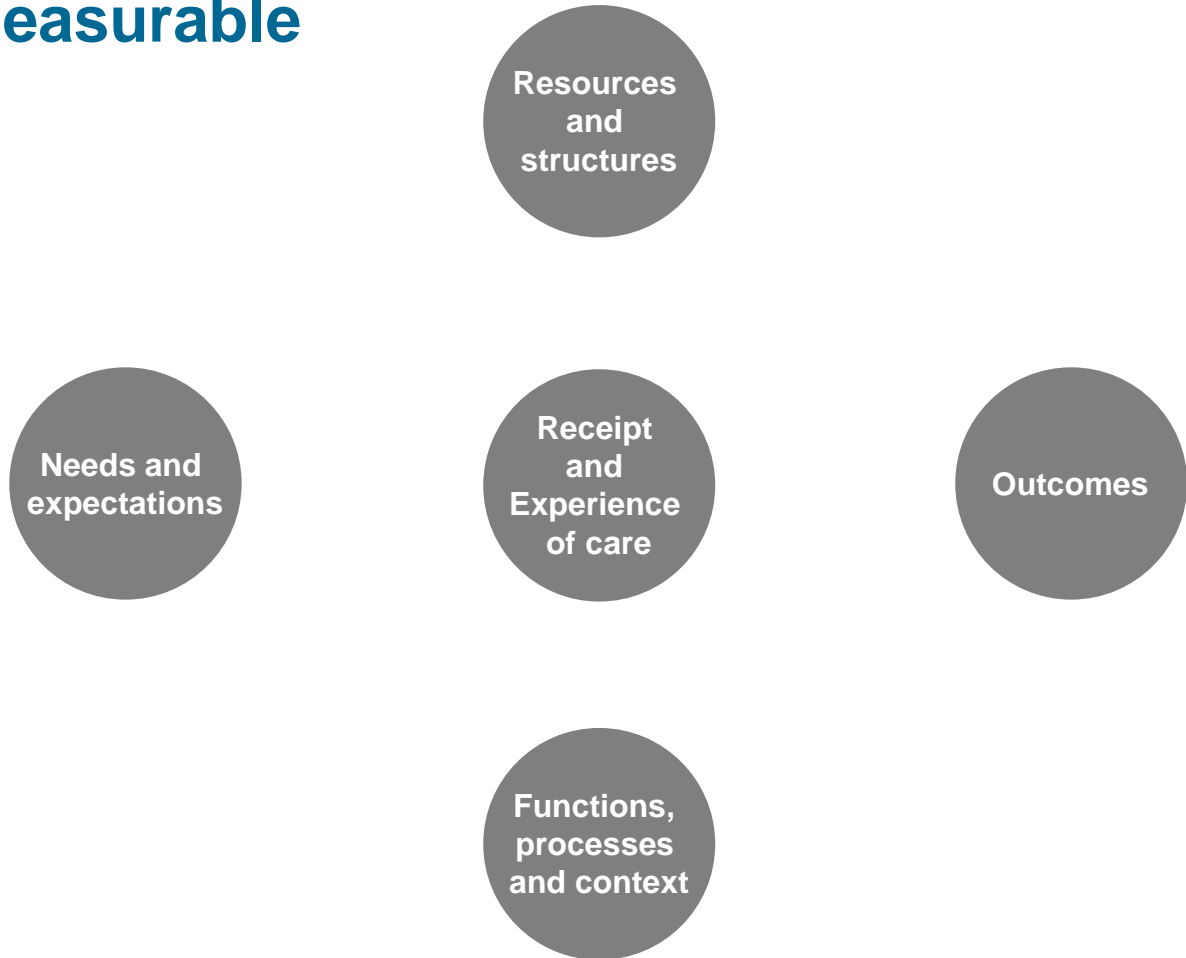
Outcomes

# 1 – Directly measurable

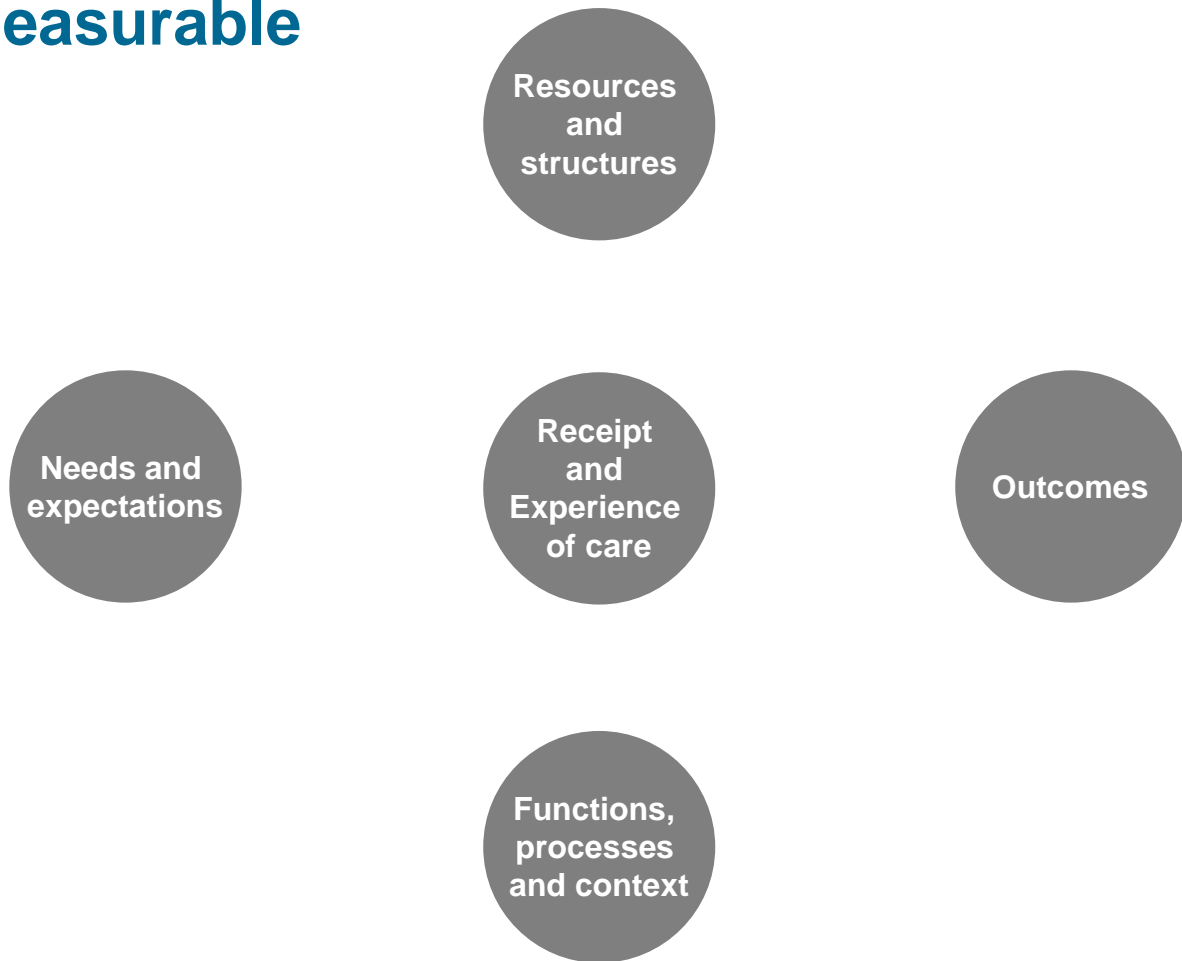




# 1 – Directly measurable



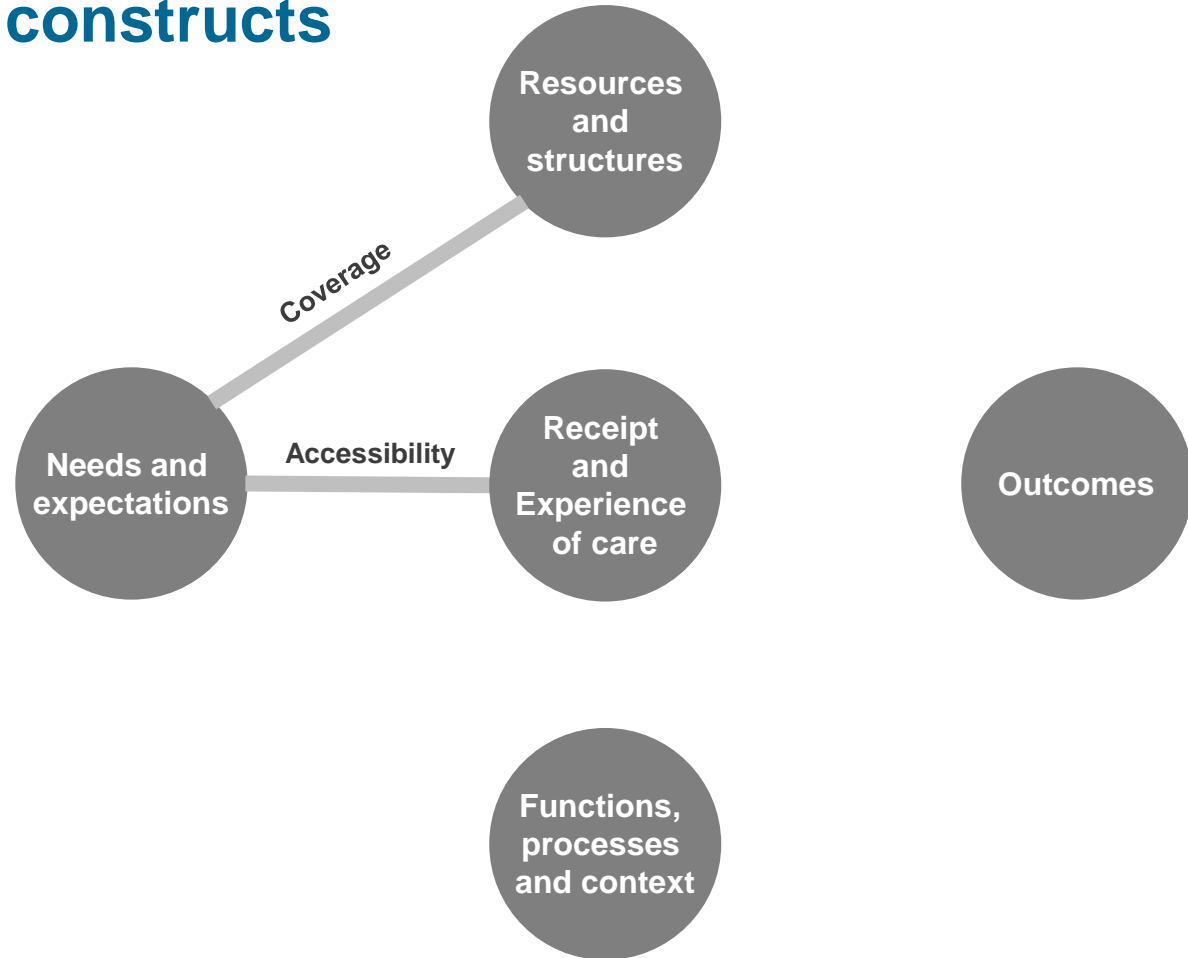
## 2 – Directly measurable



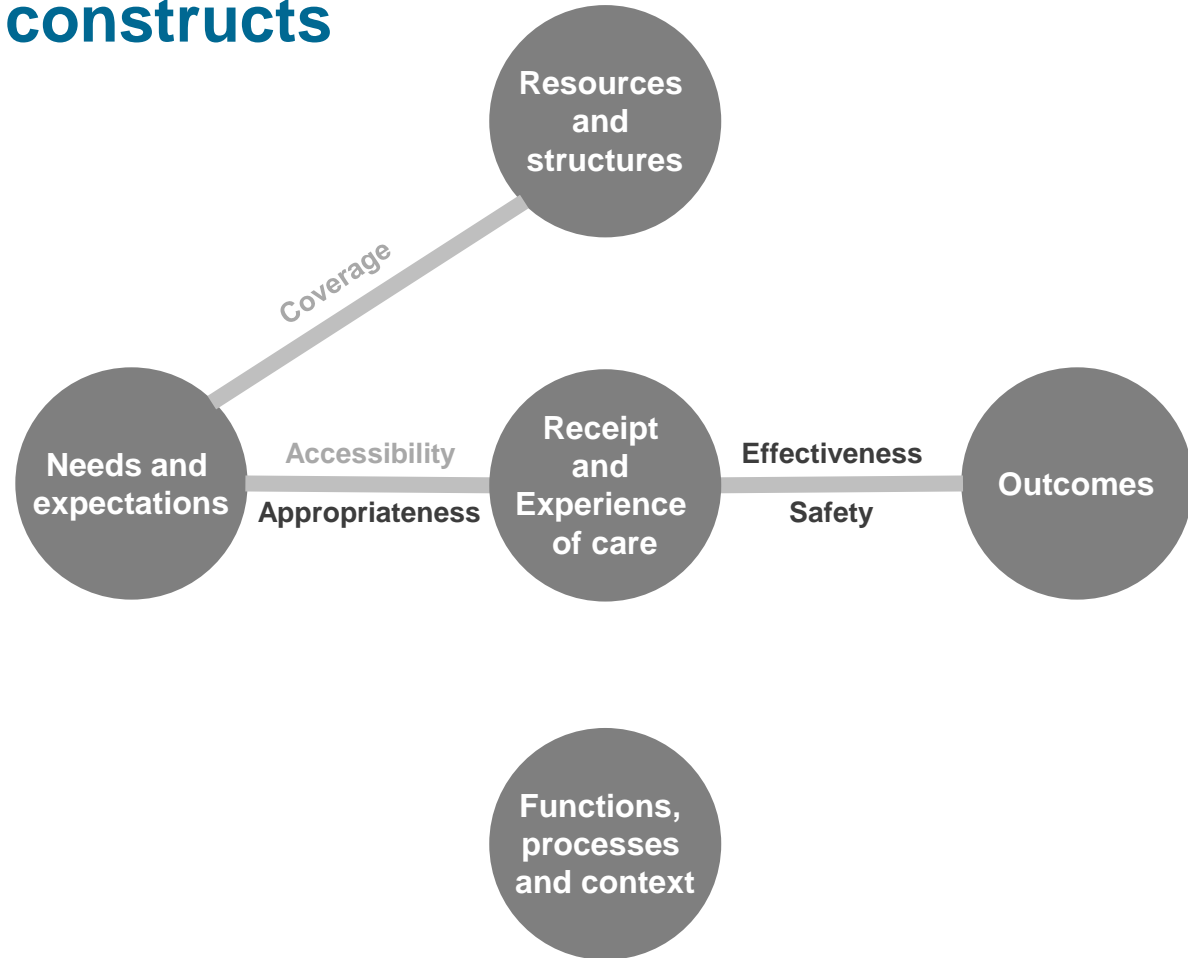
# Key constructs of performance

- 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 causes no undue 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

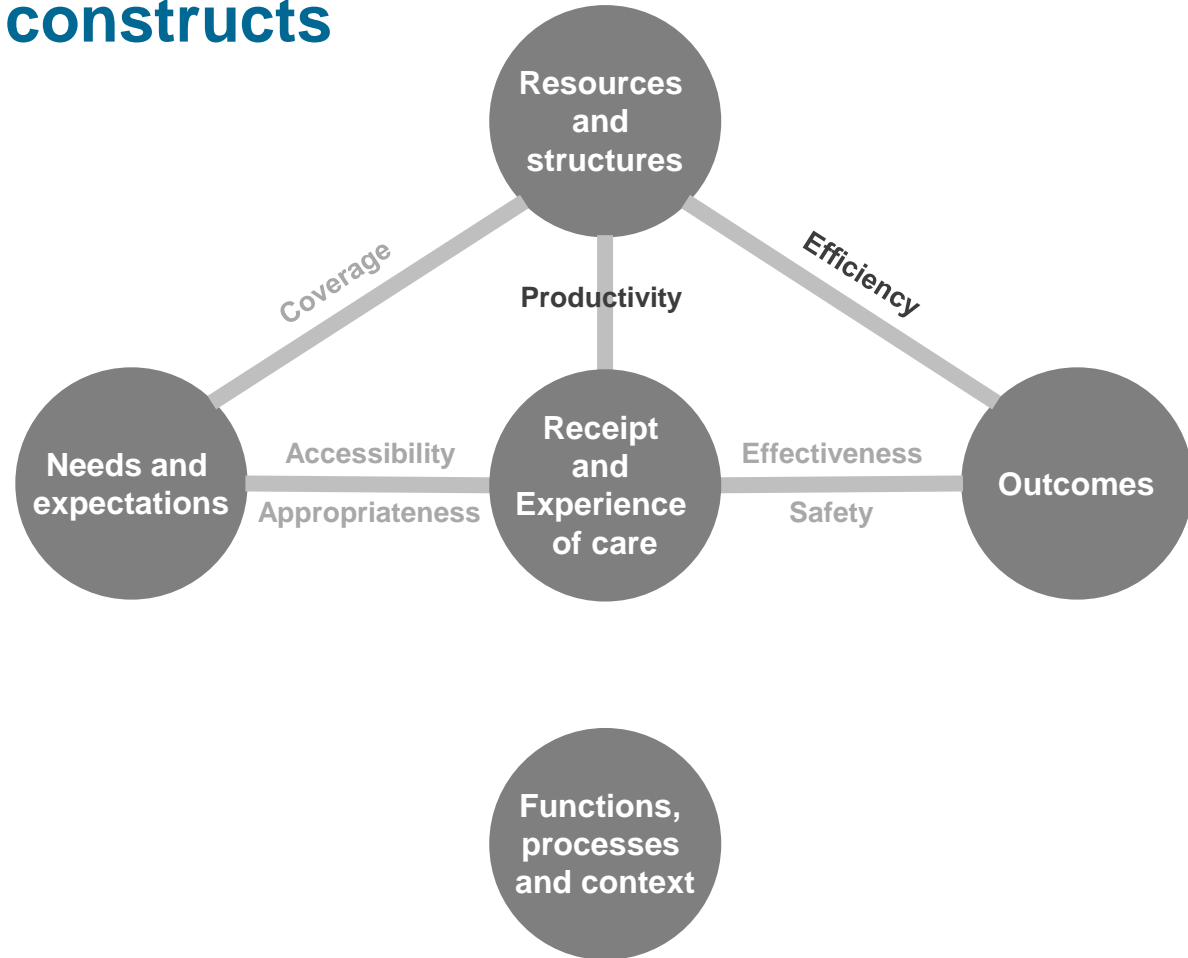
## 2 – Derivable constructs



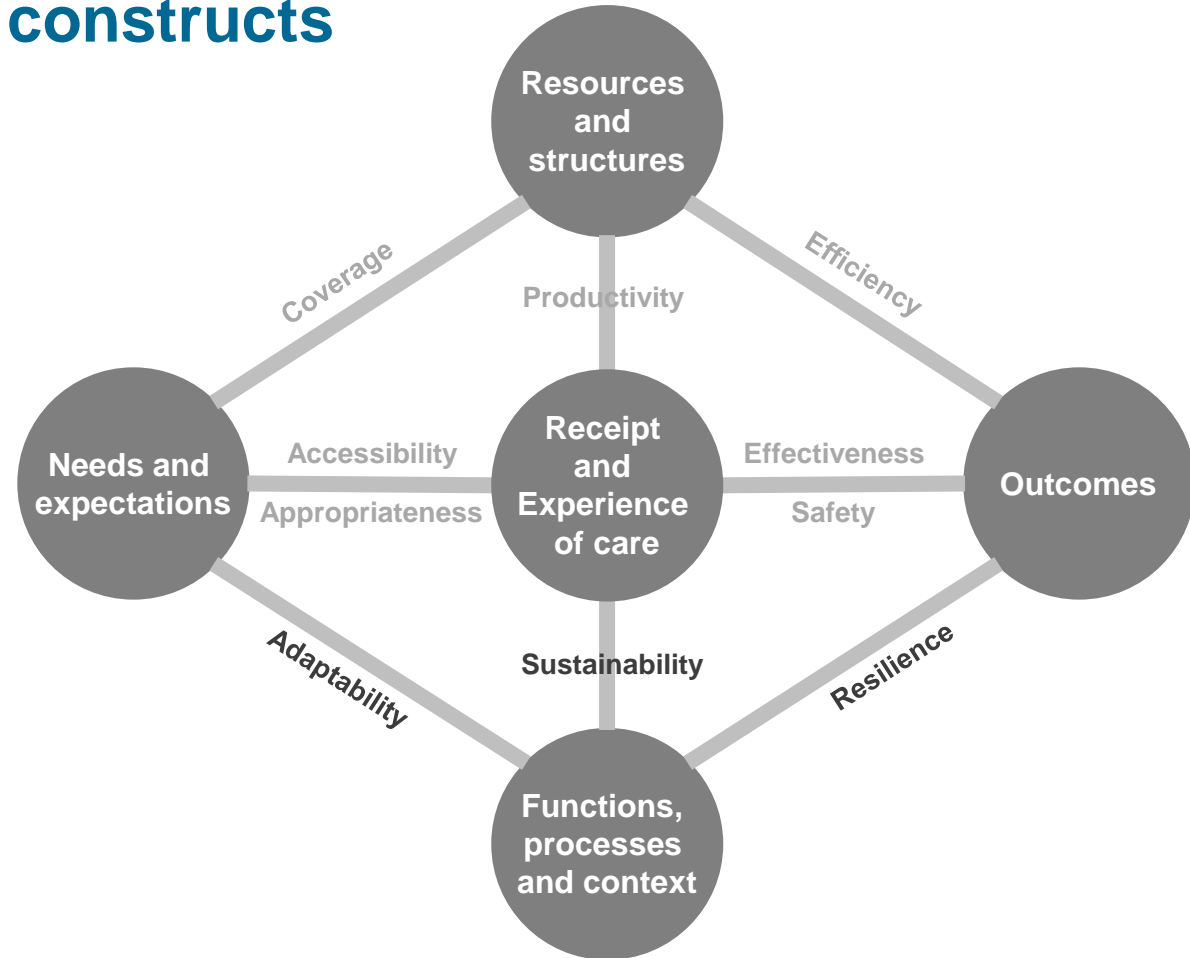
## 2 – Derivable constructs



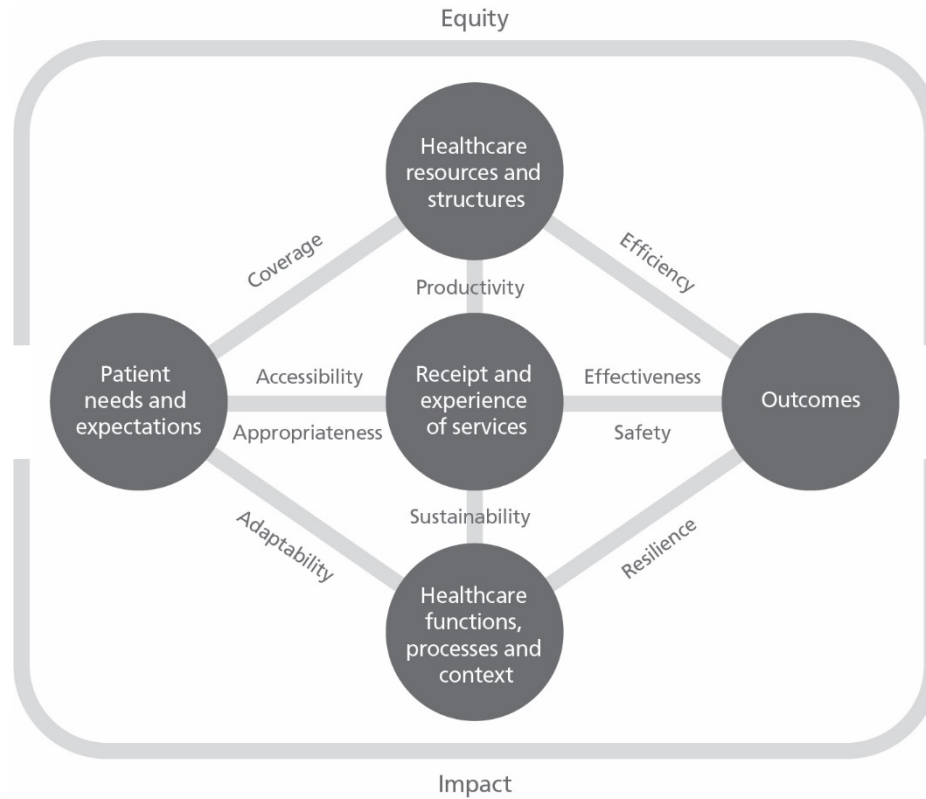
## 2 – Derivable constructs



## 2 – Derivable constructs



# Conceptual model





Value for

Patients?

Providers?

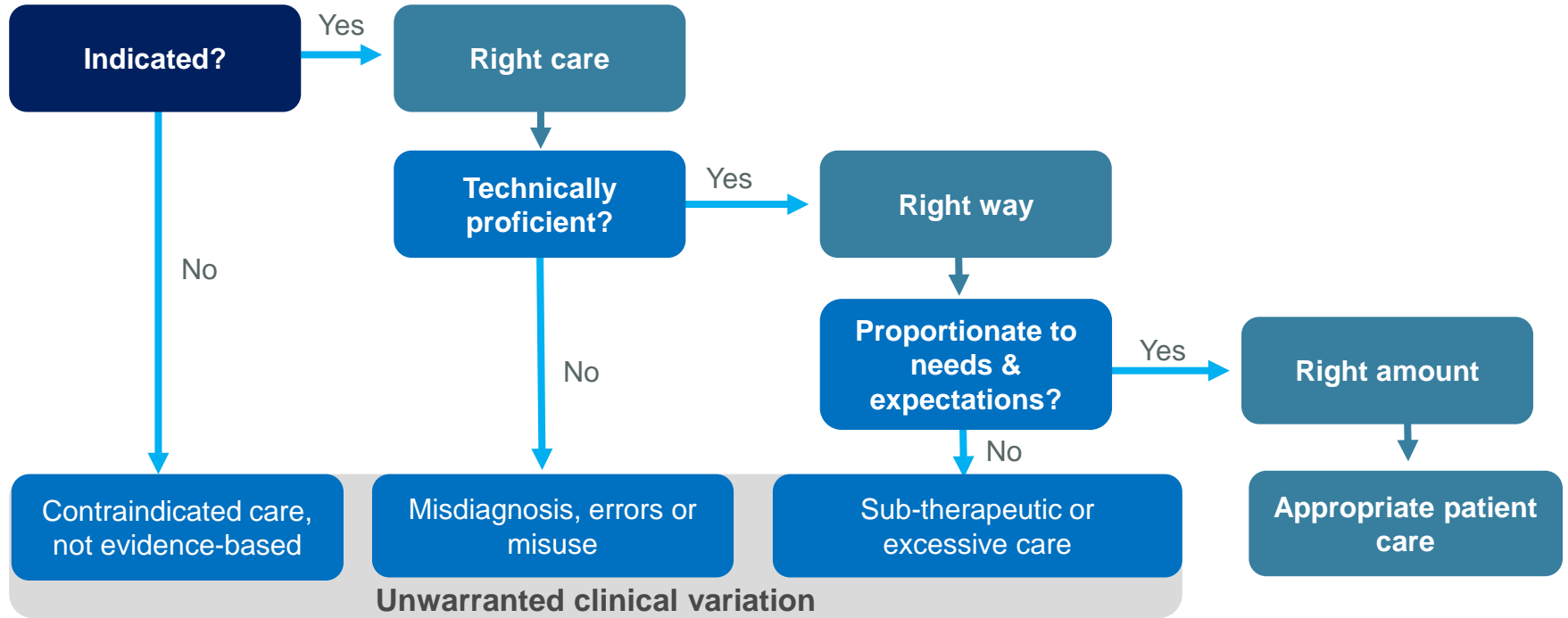
System?

Population?

# Inter-construct dynamics

- Reinforcement and antagonism
- Temporality
- Maximising all performance domains simultaneously

# Appropriate processes of care



# 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

# Key messages

- Overall we found that most frameworks lack a theoretical basis
- Empiricism dominates
- Some reductive models resonate
- More theory and conceptual clarity allows measurement parsimony
- Tolerance for empty metric categories
- Future proofing
- A well-constructed conceptually sound model can be used for a range of purposes - measurement, quality improvement and policy – and in a range of contexts

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**Collaboration.  
Innovation.  
Better Healthcare.**

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