



Co + THE Create FUTURE



Steps towards *costing* DRGs in the public healthcare sector

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Different systems, Different structures

Public Sector

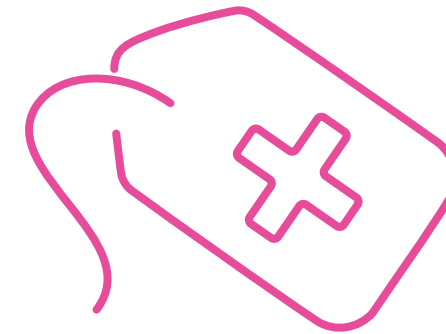


Budget driven

Organised by cost centres

Data stored in different systems

Private Sector



Payment driven

Organised by services rendered

Data linked to claims and billing



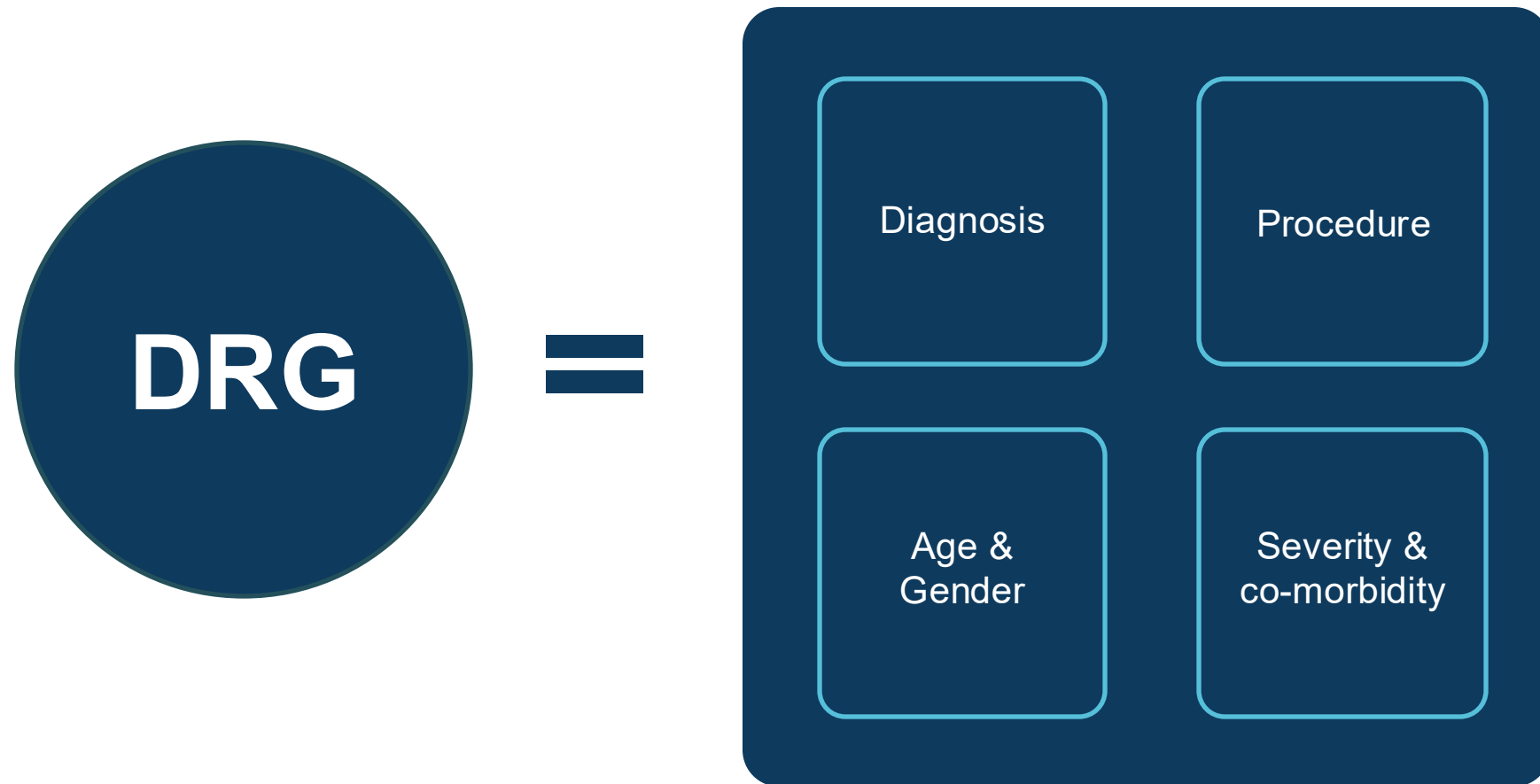
Purchasing of health care services

- 35.** (1) The Fund must actively and strategically purchase health care services on behalf of users in accordance with need
- (2) The Fund must reimburse payment directly to accredited and contracted central, provincial, regional, specialized and district hospitals based on a global budget or **Diagnosis Related Groups**

What is a DRG?

Diagnosis Related Group (DRG)

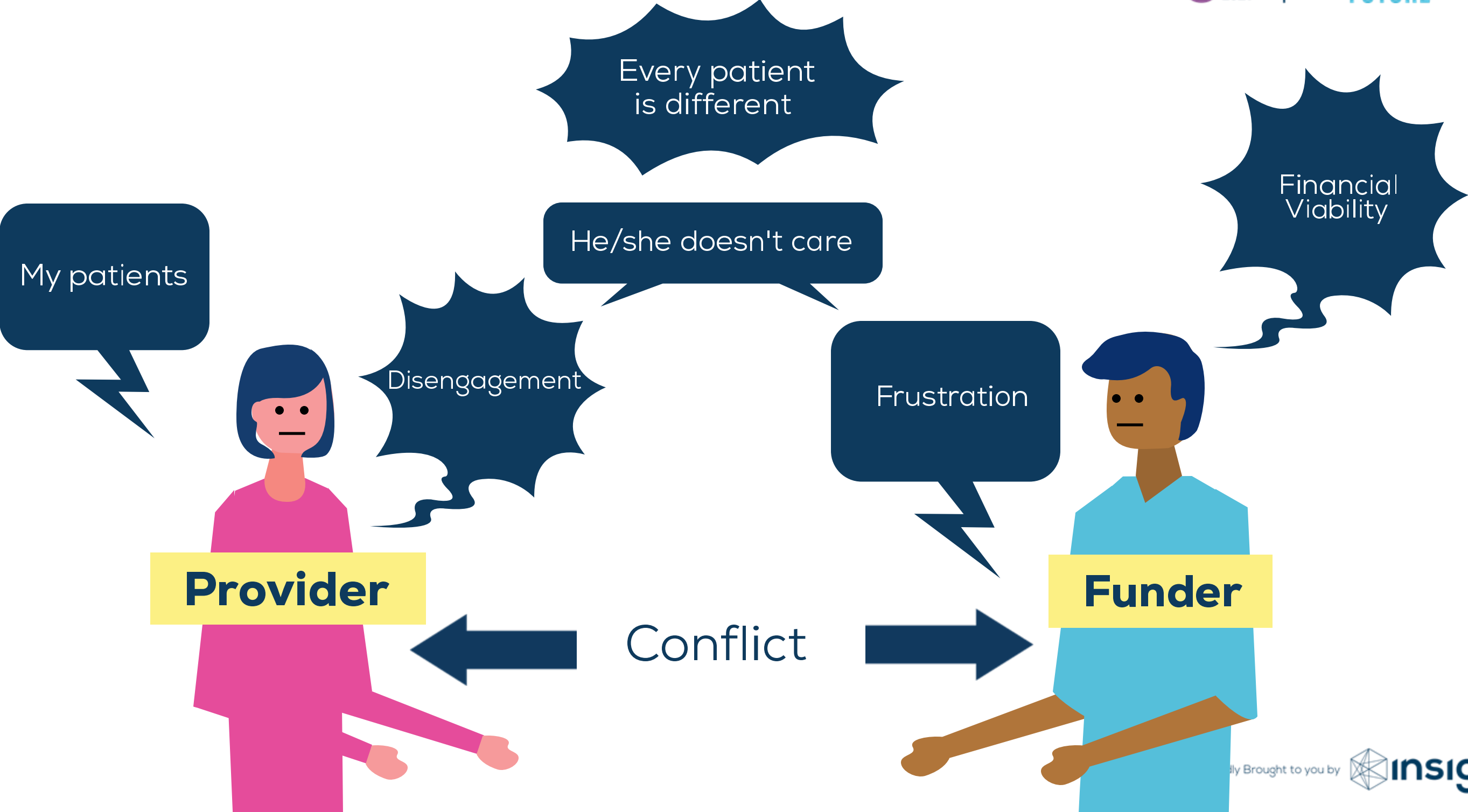
A diagnosis related group classifies hospital admissions into clinically intuitive and homogenous groupings which are expected to require similar levels of resource utilisation.



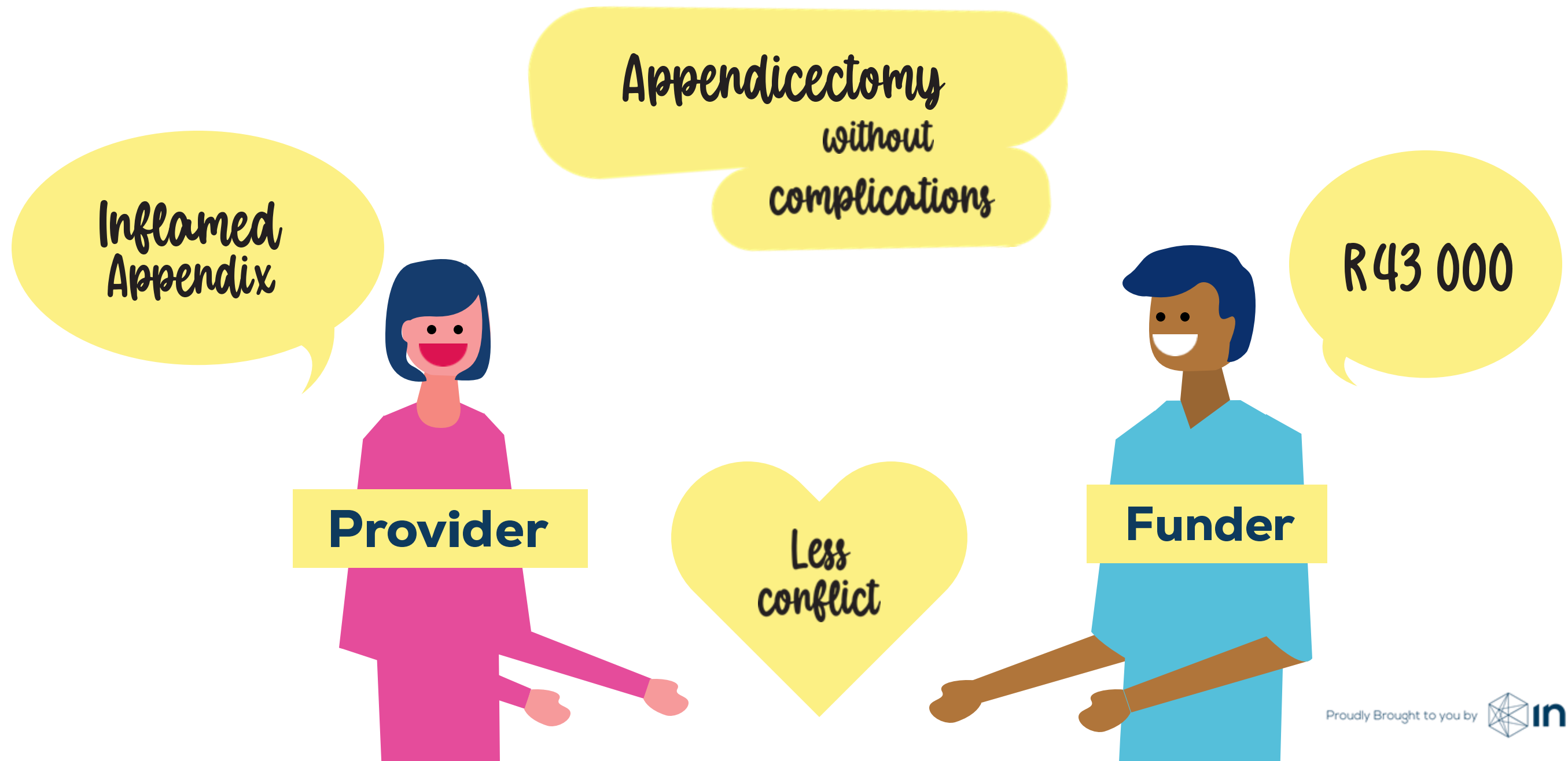
Aims for the Grouper

- Clinically meaningful clusters
- Similar expected resources use (Cost)
- A manageable, meaningful number of groups
- Incorporates complexity and severity

Quick Overview



Quick Overview



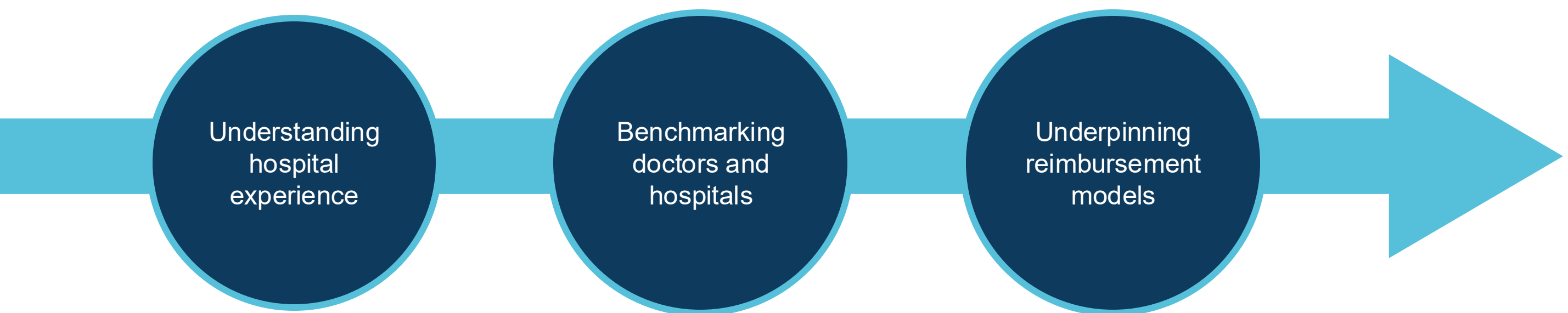
Case Mix 😊

foresight
2025

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What are DRGs used for?



Understanding
hospital
experience

Benchmarking
doctors and
hospitals

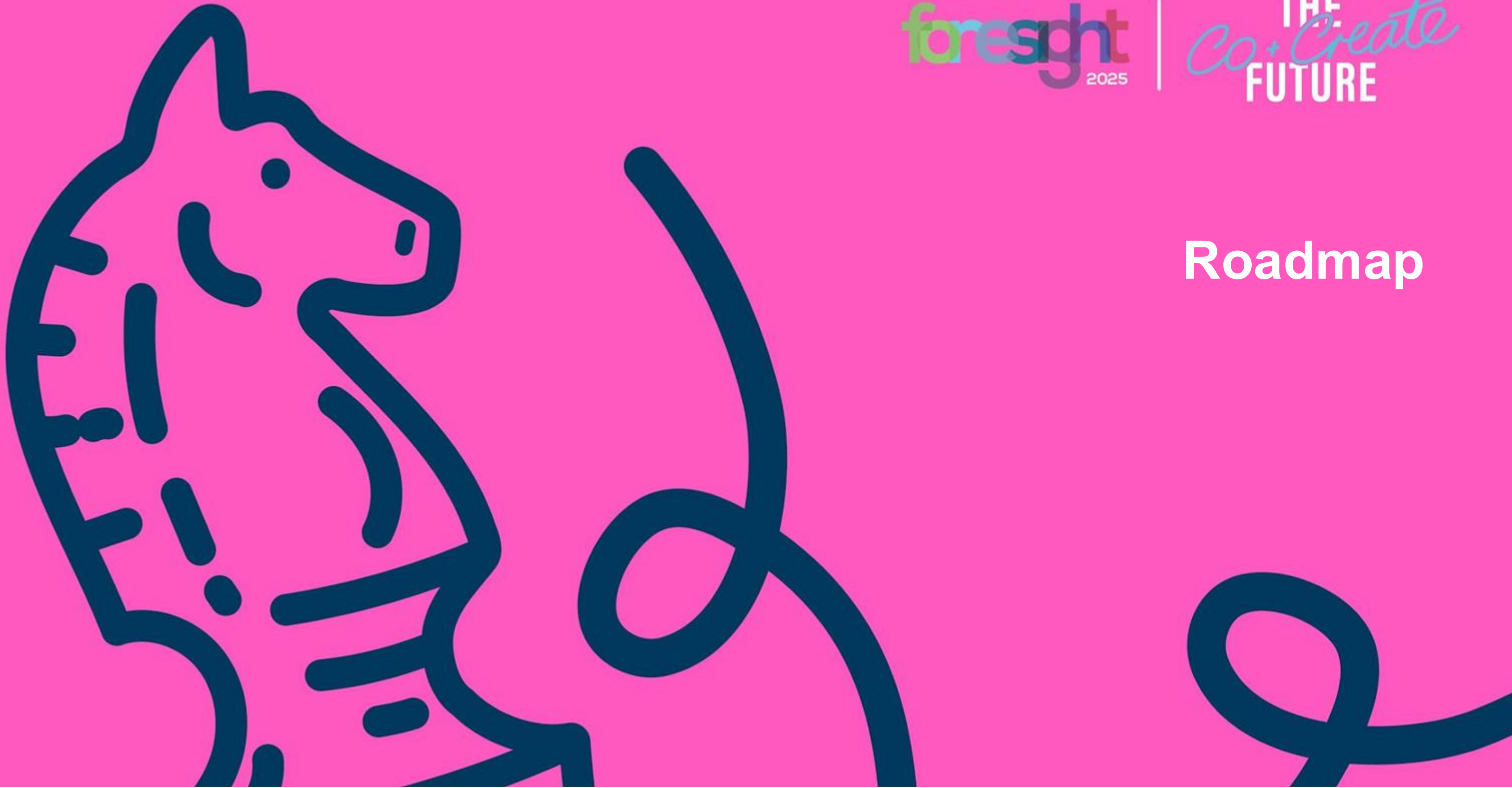
Underpinning
reimbursement
models

DRG-based reimbursement

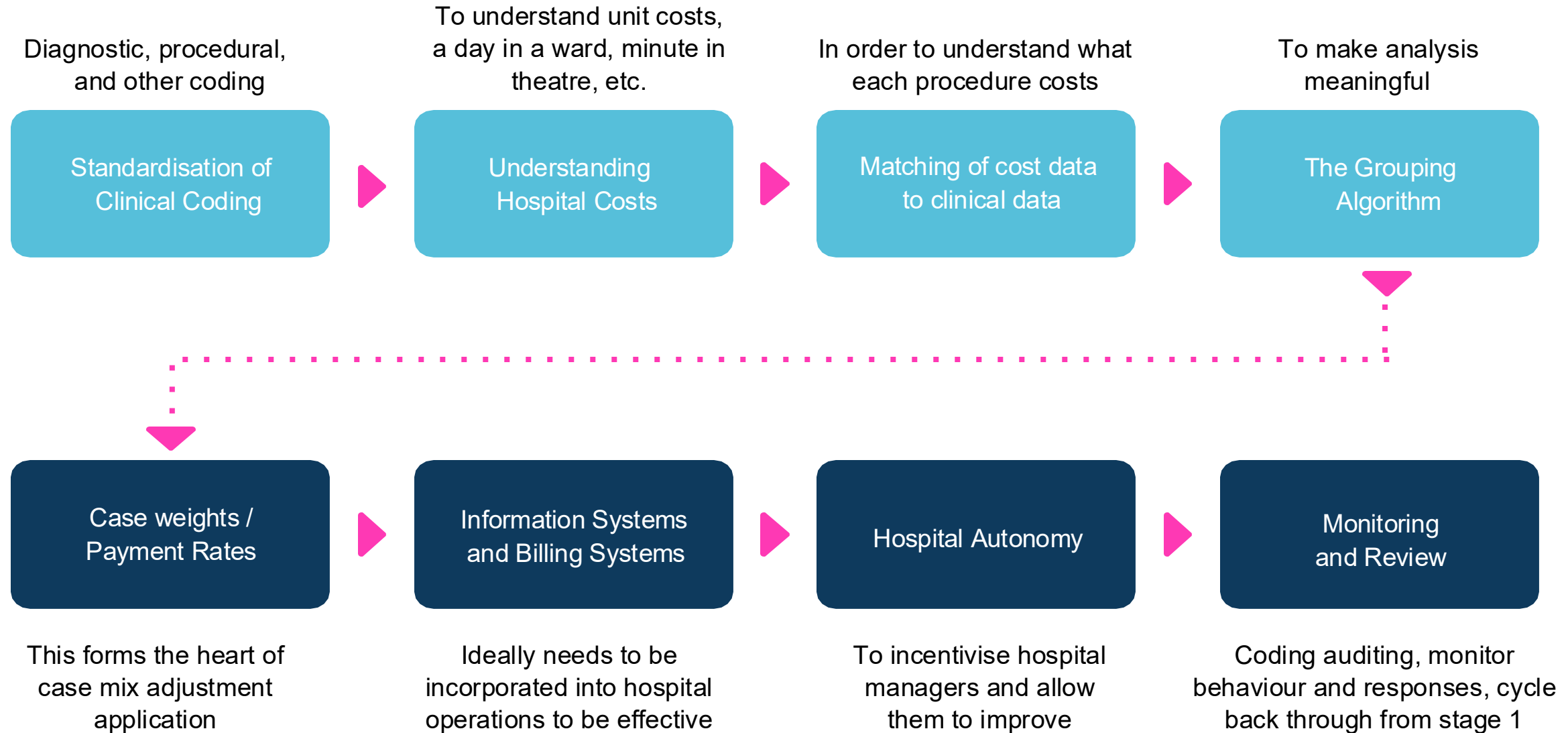
- DRG-based fixed fees
- DRG-based per diems
- DRG based bundled fees
- DRG-based global fees
- DRG-based fees linked to healthcare outcomes



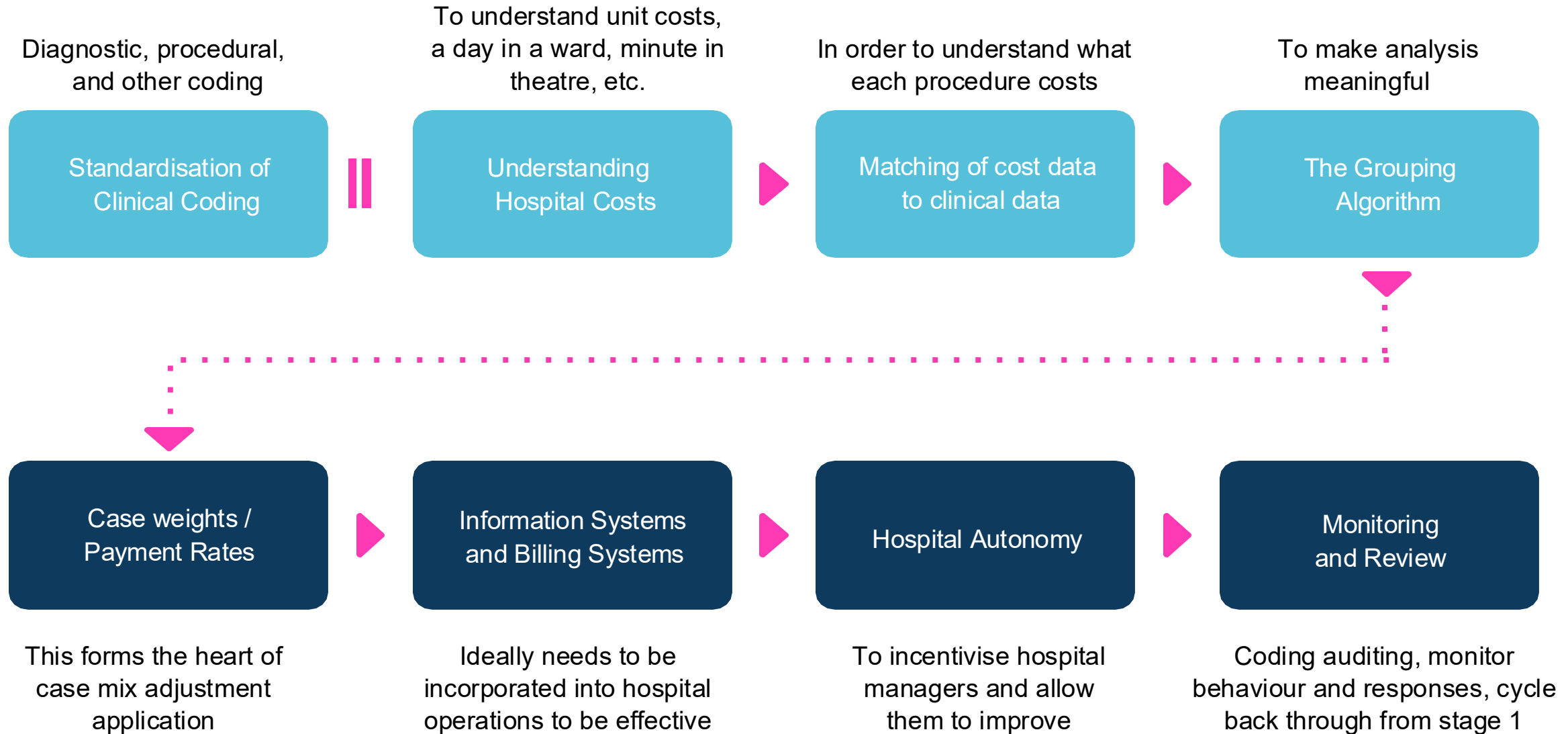
Roadmap



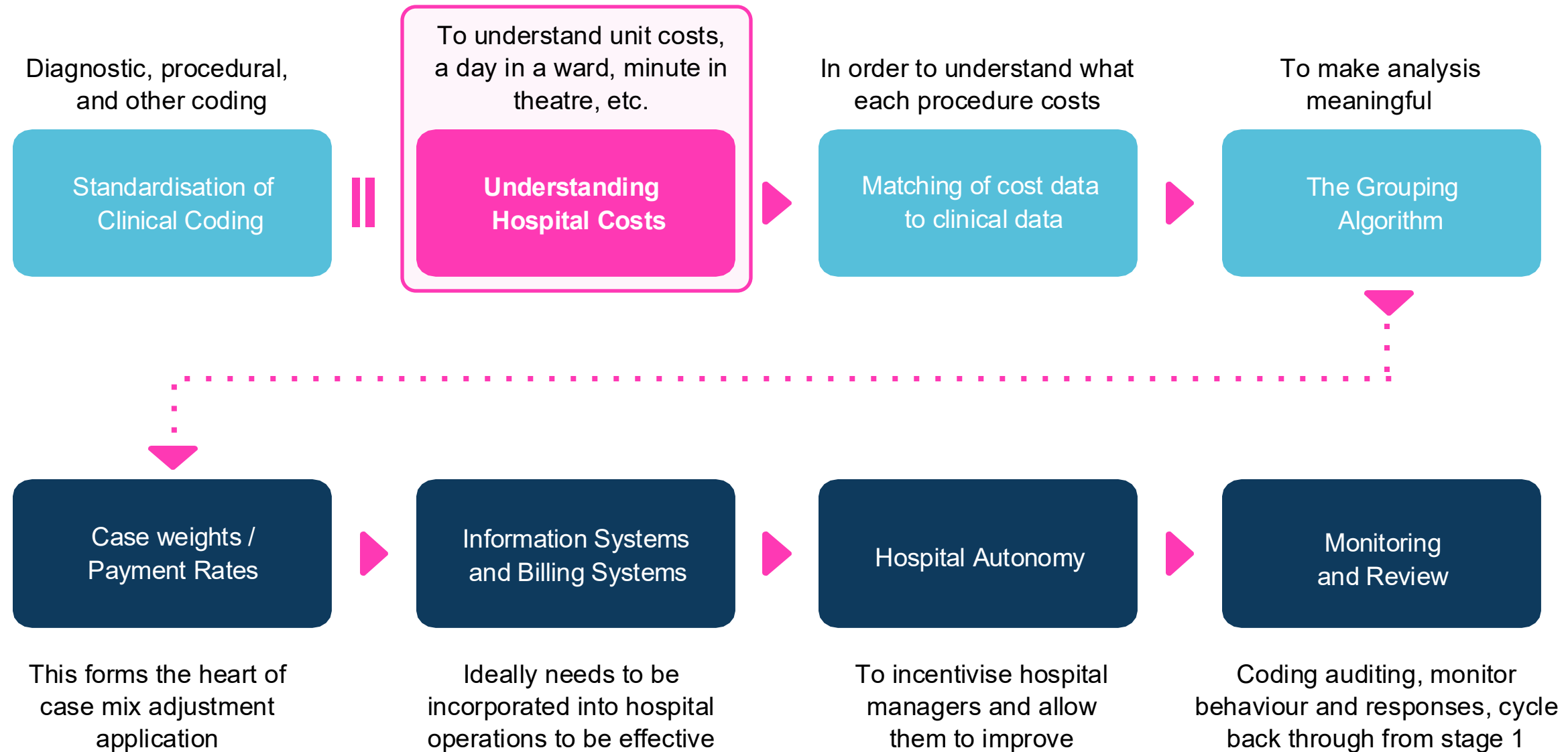
The Roadmap



The Roadmap

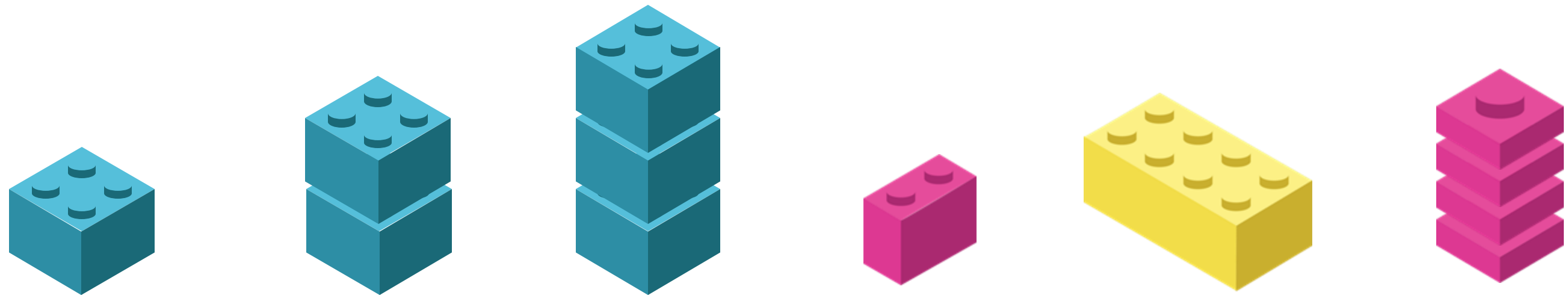


The Roadmap



Understanding Hospital Costs

In the ideal case, the actual resources used for each and every admission are known, but this is not practical, so we must use an approach that gives us best estimates for the cost per case.



Need a methodology for how to classify, group and assign costs to each component of service delivery.

Understanding Hospital Costs



Critical to understand **what it costs** to provide hospital services.



Important to understand the **component costs** – staff, equipment, maintenance, capital recovery, catering, laundry and other costs.



How **cost combine** into a day in a general ward, or an ICU day, or time in theatre.



These become the building blocks of the cost **per individual admission**

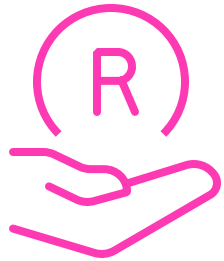


It is possible to **use proxies** in the interim



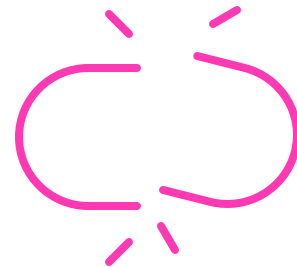
Western Cape DoH experience

Establishing an information baseline



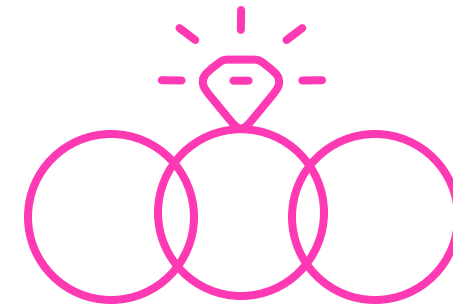
Budgets in public sector

Each Department receives funding through largely voted funds. Revenue is minimal in comparison and generated through funded patients



Financial data independent of patient data

Systems were created independently as needs were separate



Challenge to “marry” the various systems

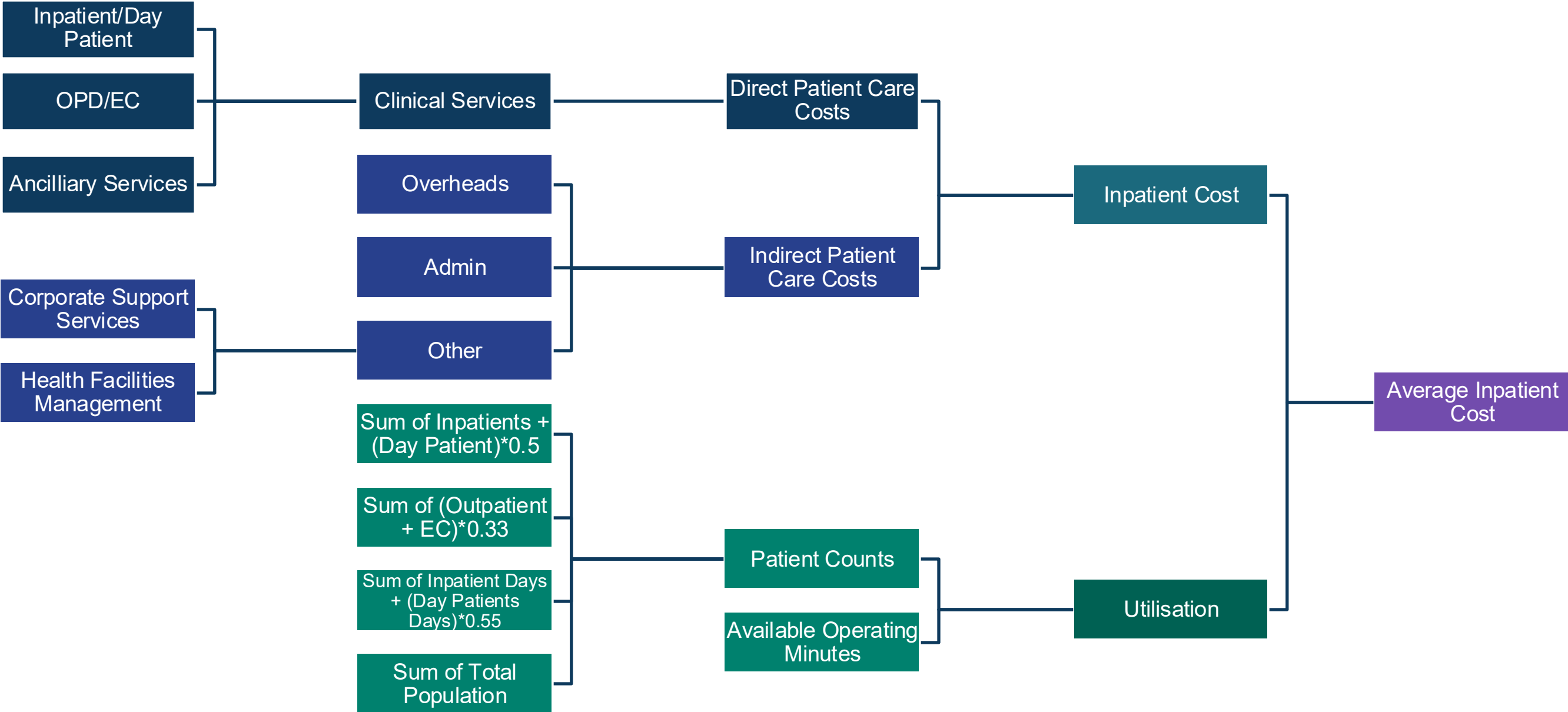
To enable understanding cost per admission and the unit costs associated with an admission. Costs are not captured at a patient level

What are our sources: systems in use



System Name	Data Type	Purpose
CMM (previously known as JAC)	Comprehensive Medicine Management: Pharmacy	This is a pharmacy system that is mostly used by pharmacists to manage medicine stock control and dispensing
WPBTS	Blood and Blood product services (WPBTS)	This is a blood product and blood services view. The system is owned by Western Province Blood and Transfusion Services.
NHLS	Laboratory services (NHLS)	This is a Lab results system with a view only access by Clinicians that provides patient's lab results
LOGIS	Procurement	Stock control and provisioning system. Items on LOGIS are identified by unique numbers and unique descriptions
SYSPRO	Procurement	Handles stock control, procurement and related cost centre information for central hospitals and dental hospitals
Sinjani	Patient Administration Statistics	This is a central repository system that stores aggregated routine health information data
Persal	Personnel and Salary Administration	The PERSAL system is a standardized Human Resource and Payroll system for all the Central Government Departments, Provincial Administrations, SAPS, Education and Correctional Services.

Level up: organising data



Building Blocks

Basic building blocks

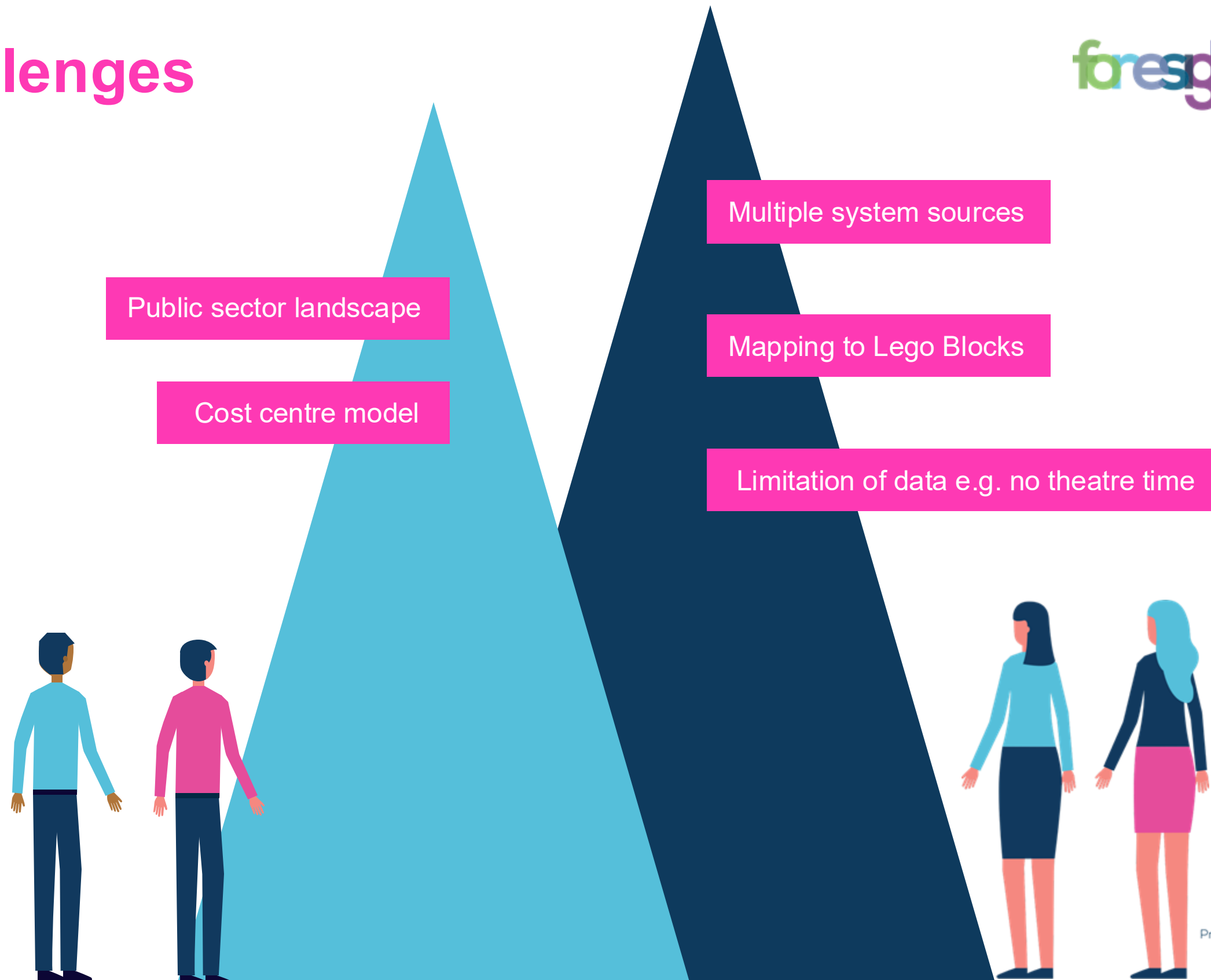
- Ward (Grades of General, High Care and ICU)
- Theatre
- Auxiliary
- Nuclear Medicine
- Hospital
- Head Office Support
- Infrastructure

Key Phases

- Discovery
- Design
- Model
- Reflection



Challenges

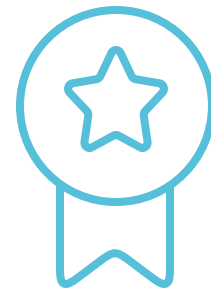


What we've achieved so far



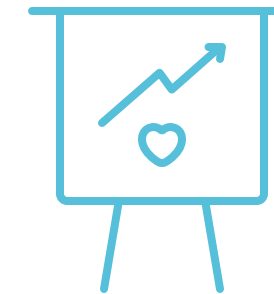
Achieved

- Level 3 Central Hospitals: Tygerberg, Groote Schuur and Red Cross War Memorial Hospital
- Level 2 Regional Hospital: Paarl Hospital
- Level 1 District Hospital: Citrusdal Hospital



Key wins

- Produced a cost per day per ward type and cost per operating minute
- Comparison between facilities
- Informs other ARMs



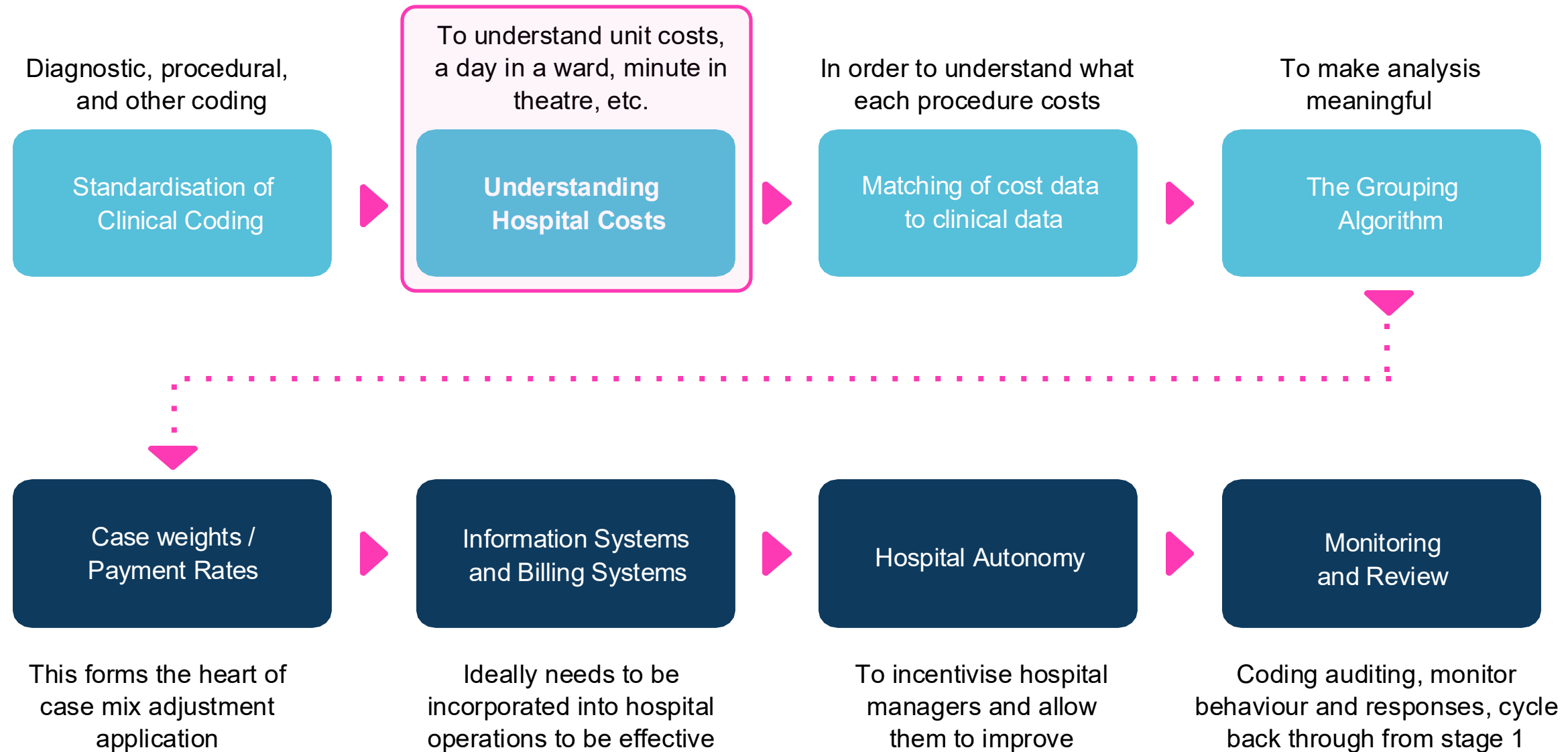
Lessons learnt

Public sector will need to enhance elements which were not previously prioritised for health care delivery

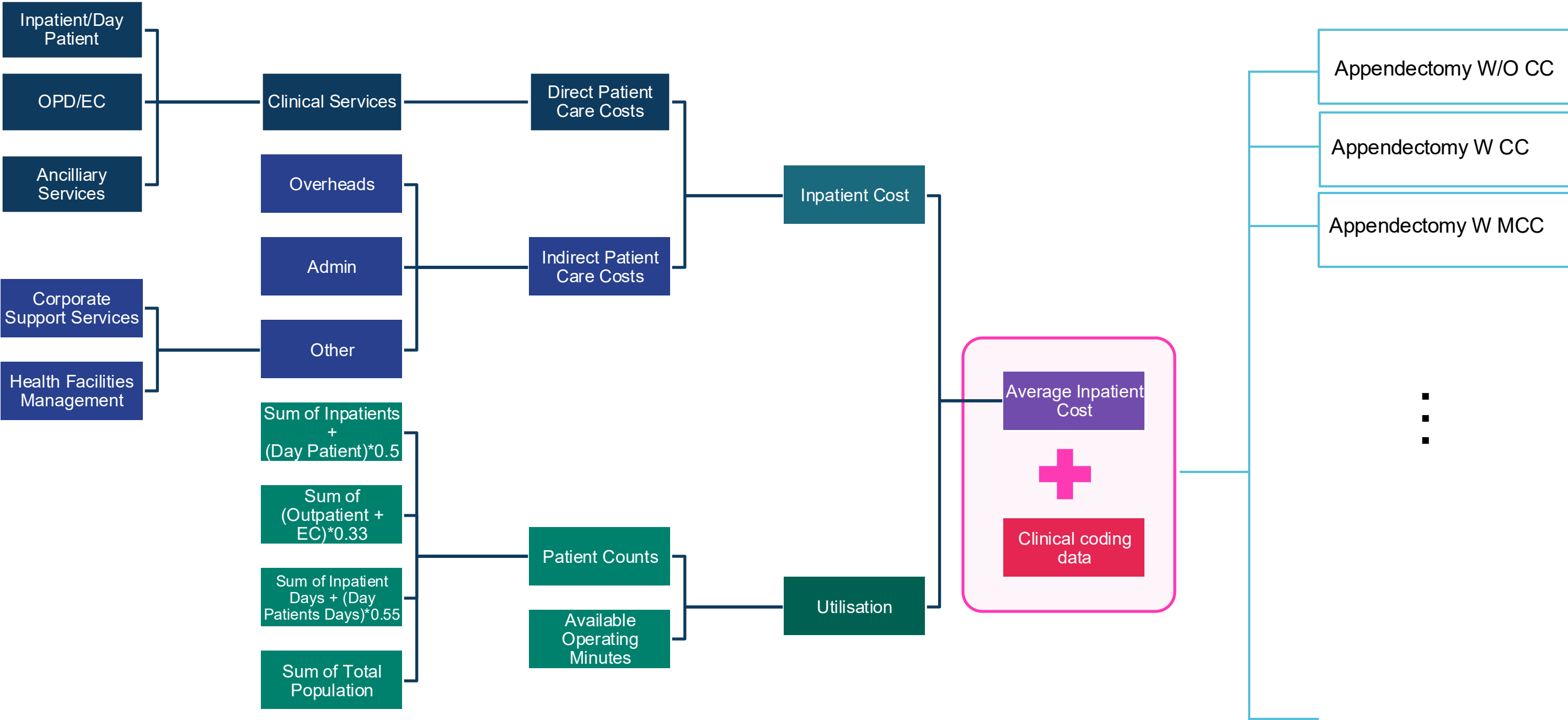
Next steps



The Roadmap



Matching cost and clinical data



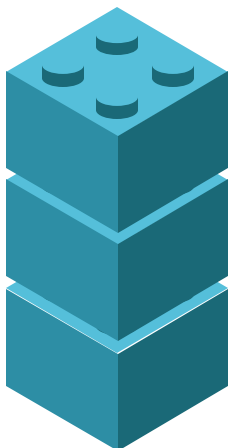
Matching cost and clinical data

ICD-10 K80.0
ICD-9-CM 47.01



DRG:
Appendectomy
W/O CC

Cost components
for an admission

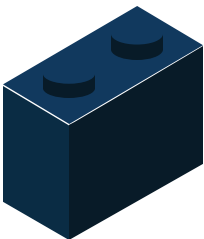


General Ward

3 days

x

Unit cost per GW day

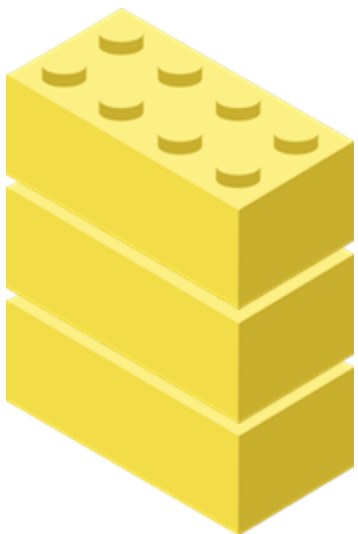


Theatre time

60 min

x

Unit cost per minute



Number of auxiliary contacts

3

x

Unit cost per contact



Other costs

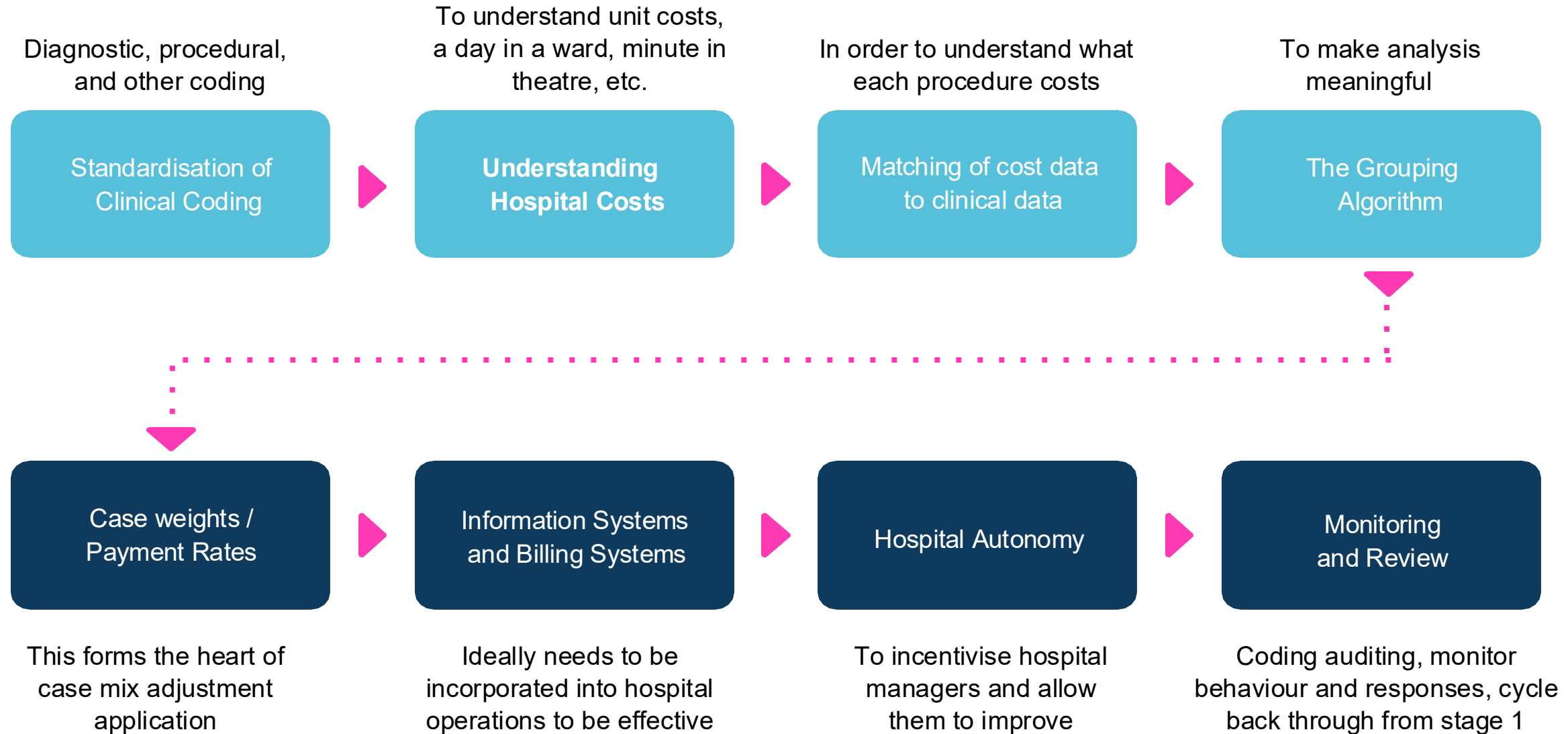
3 days

x

Unit cost per day

= R60 000
per admission

The Roadmap





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**THANK
YOU**