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Steps towards *costing* DRGs in the public healthcare sector

Poonam Vala & Suzanne Daniels

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Compliance and Training
Western Cape Government

Proudly Brought to you by insight

Different systems, Different structures

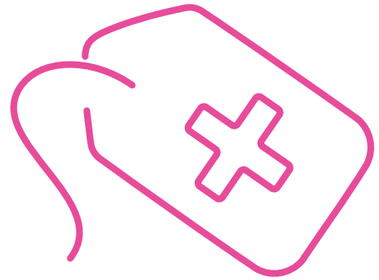
Public Sector

Budget driven

Organised by cost centres

Data stored in separate silos

Private Sector



Payment driven

Organised by services rendered

Data linked to claims and billing

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NHI Bill

Purchasing of health care services

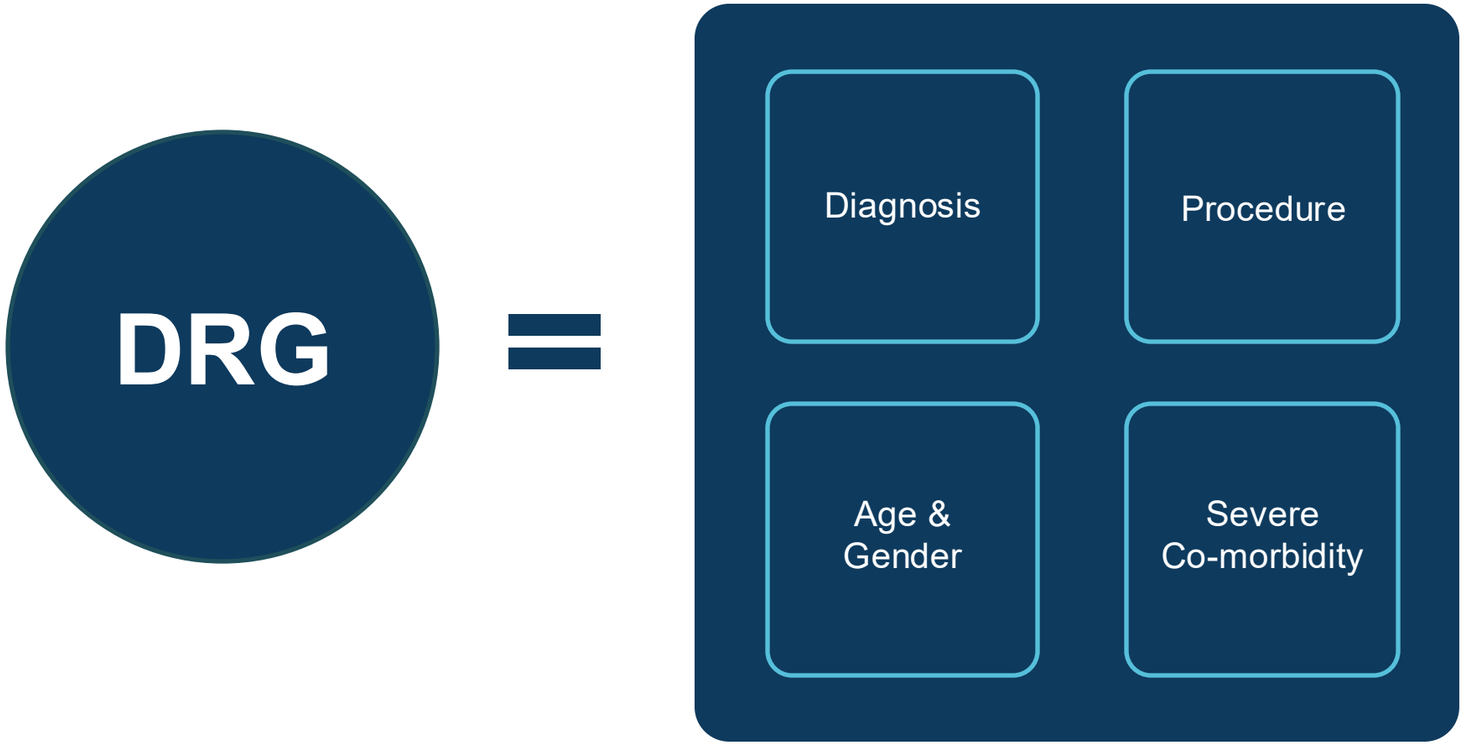
35. (1) The Fund must actively and strategically purchase health care services on behalf of users in accordance with need

(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 Incorporating complexity and severity

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Quick Overview

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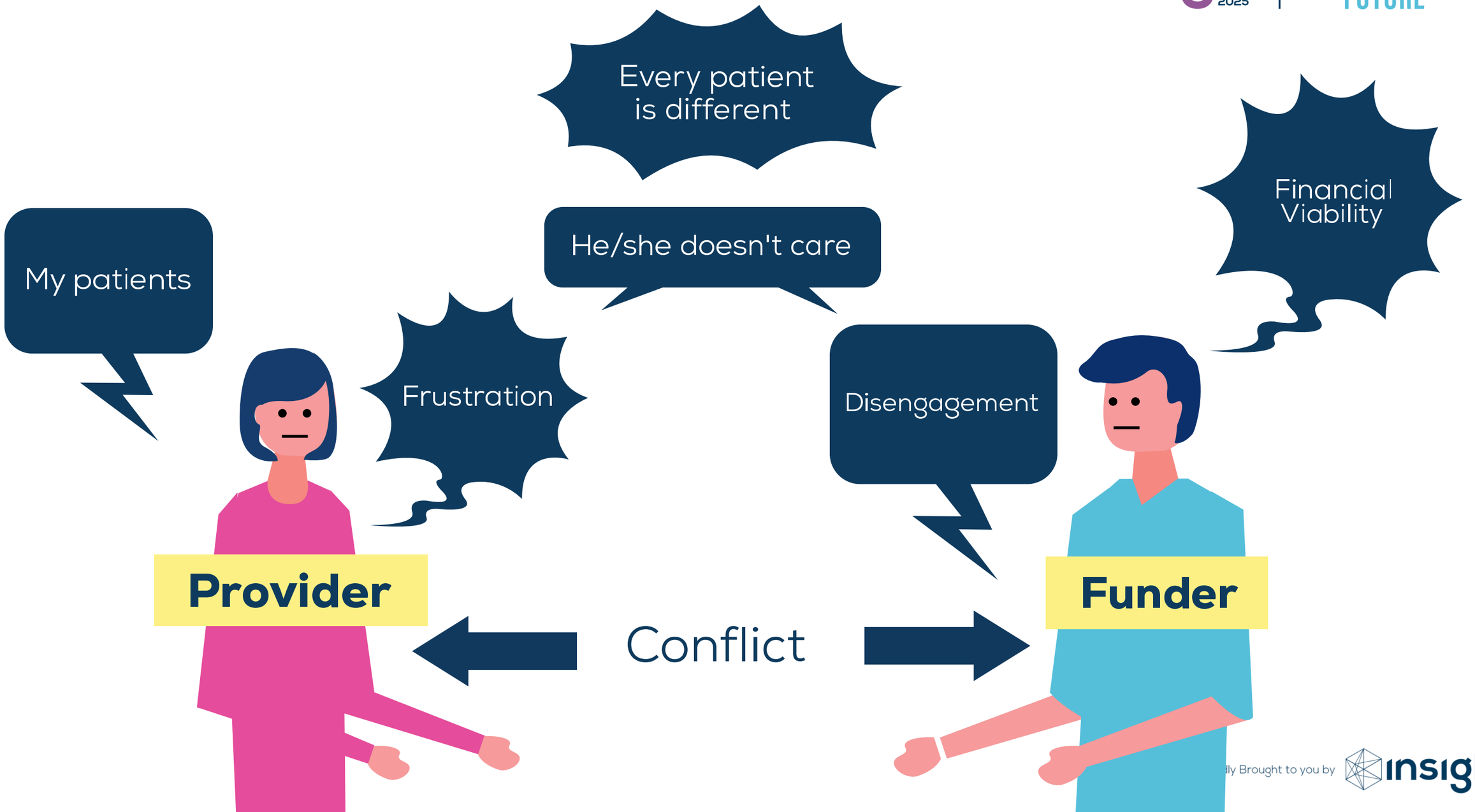

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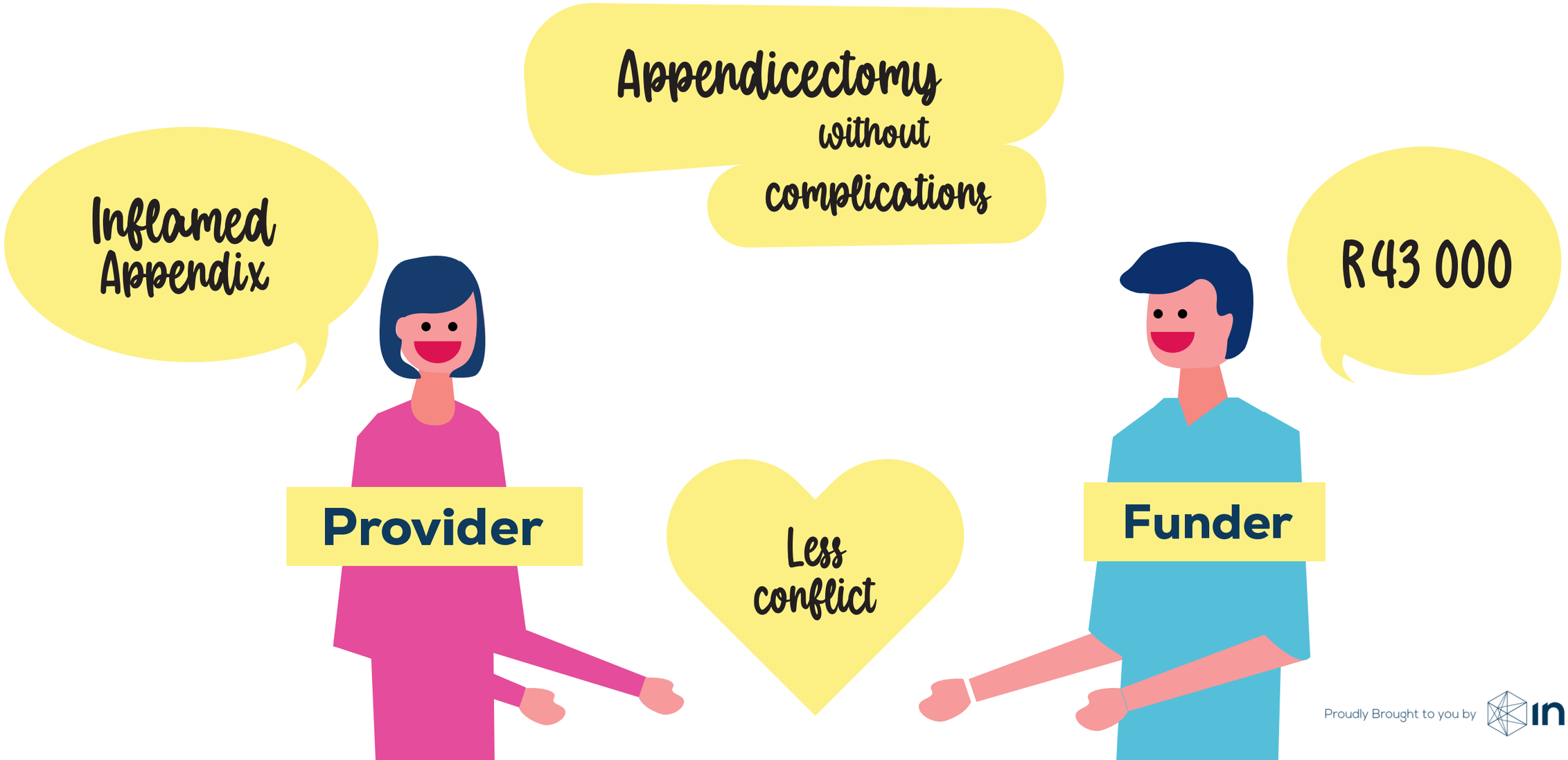
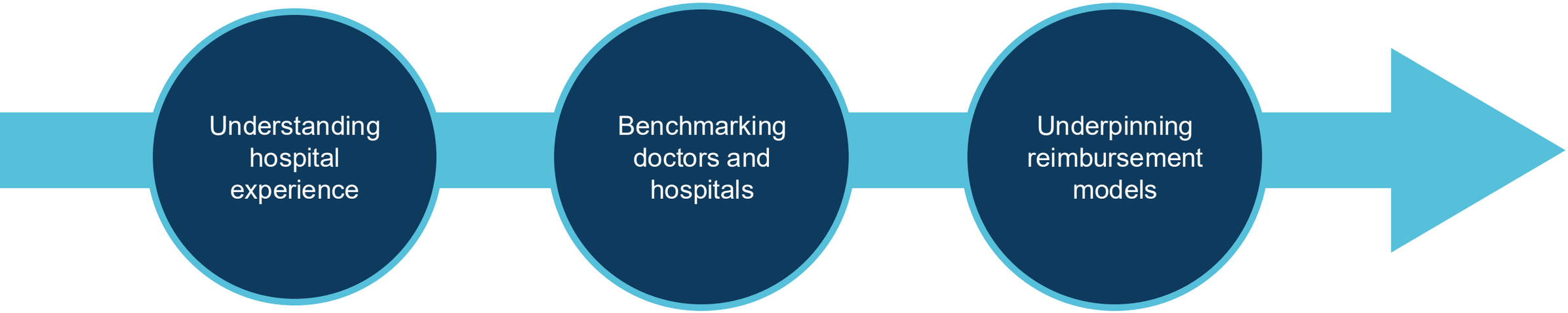


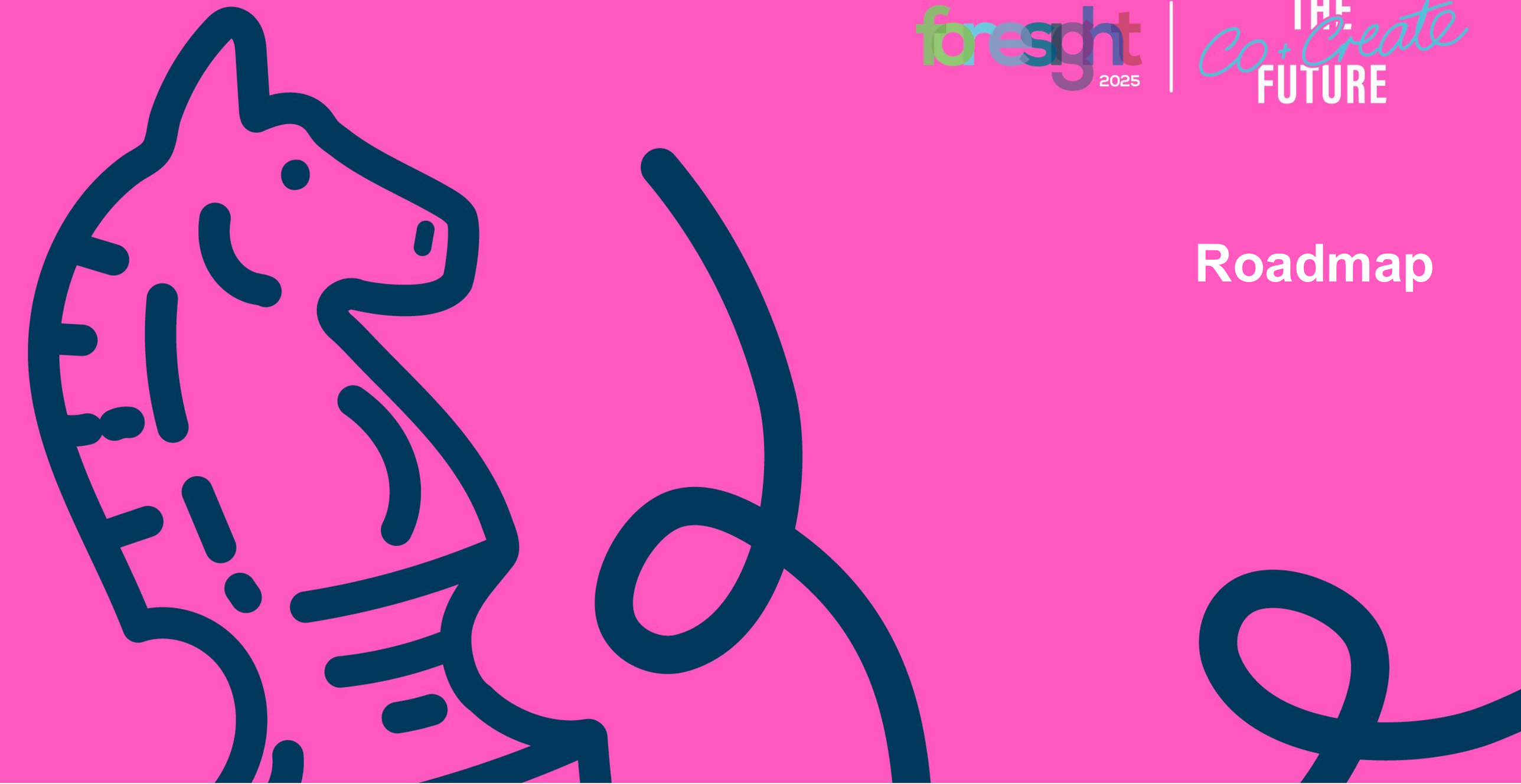
Case Mix ☺

What are DRGs used for?



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



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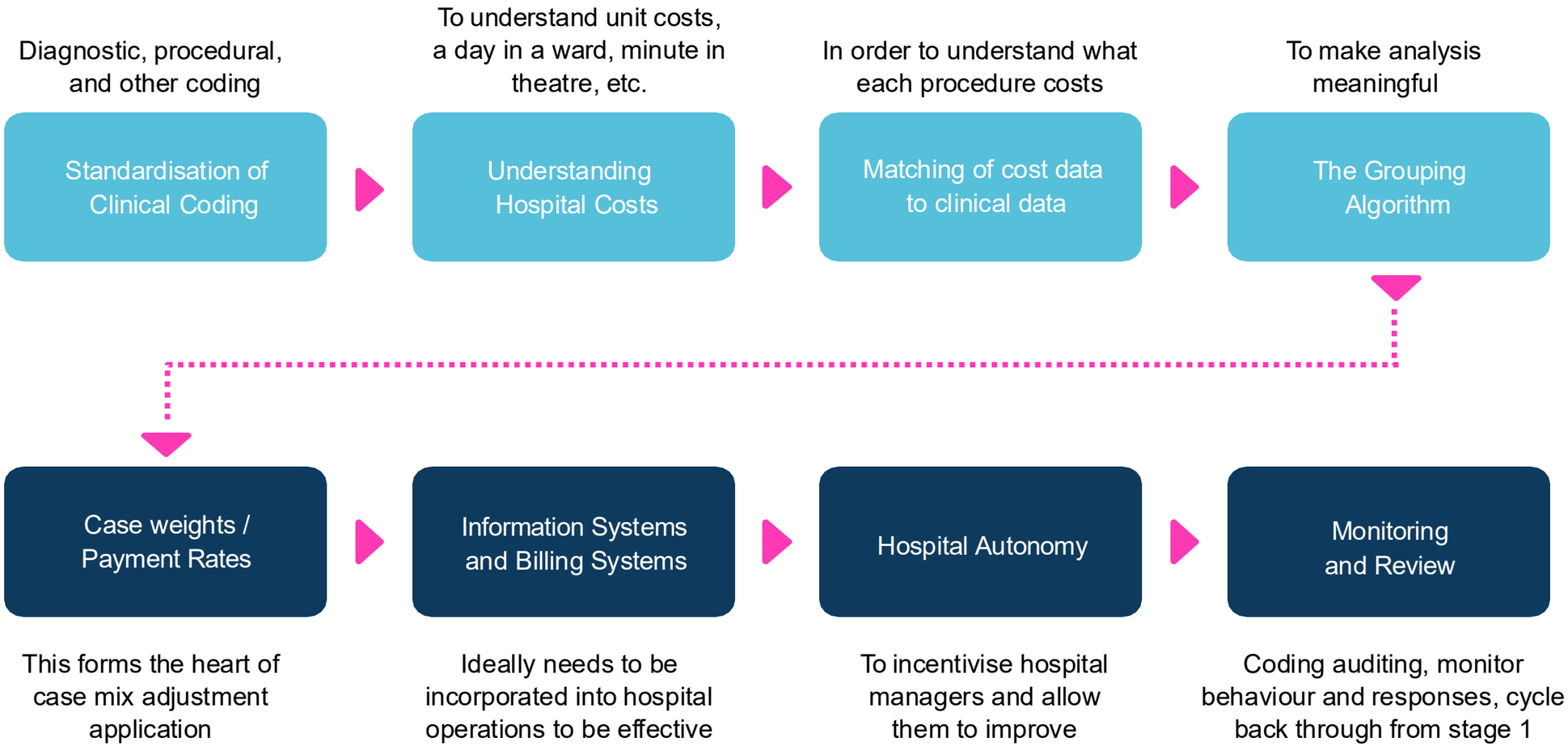
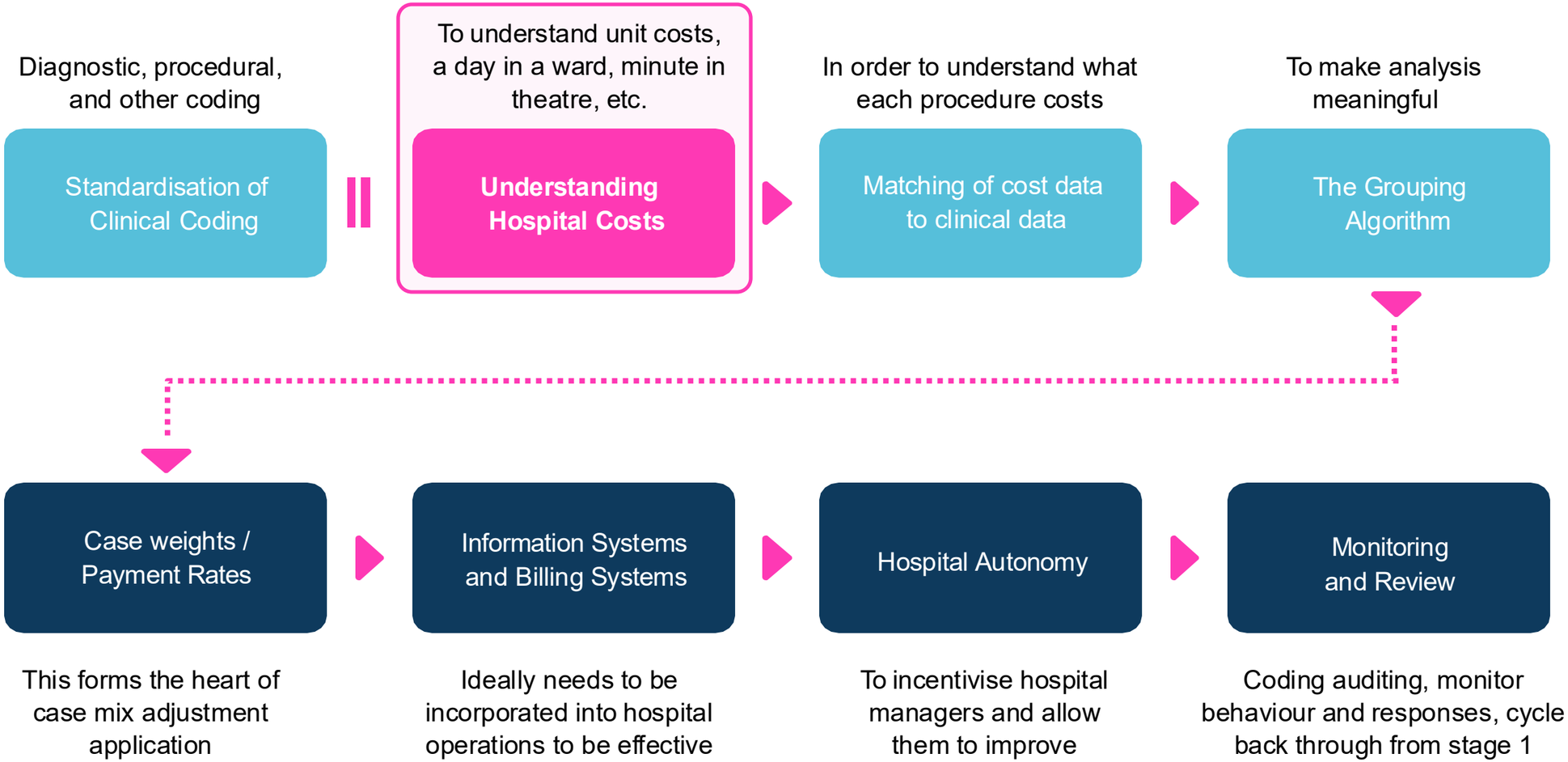
Roadmap

The Roadmap


Diagnostic, procedural, and other coding
Standardisation of Clinical Coding
To understand unit costs, a day in a ward, minute in theatre, etc.
Understanding Hospital Costs
In order to understand what each procedure costs
Matching of cost data to clinical data
To make analysis meaningful
The Grouping Algorithm
Case weights / Payment Rates
This forms the heart of case mix adjustment application
Information Systems and Billing Systems
Ideally needs to be incorporated into hospital operations to be effective
Hospital Autonomy
To incentivise hospital managers and allow them to improve
Monitoring and Review
Coding auditing, monitor behaviour and responses, cycle back through from stage 1

The Roadmap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Understanding Hospital Costs

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.

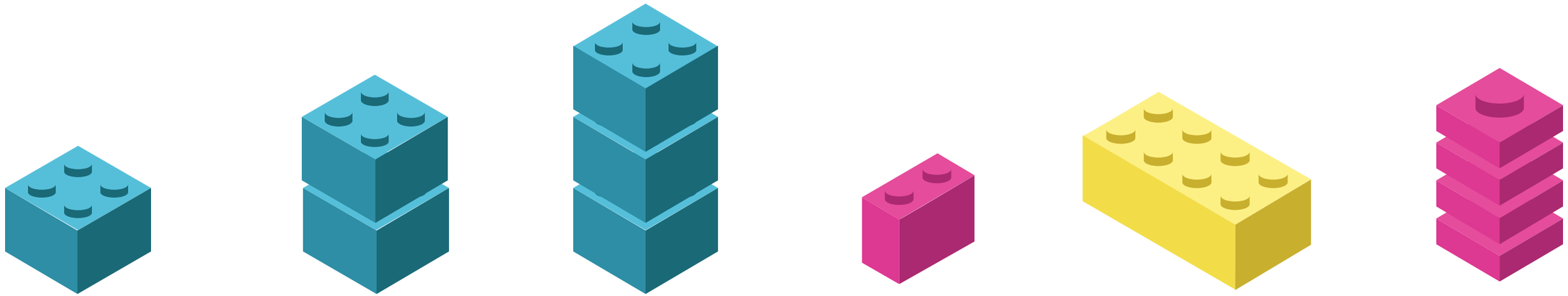
How **cost combine** into a day in a general ward, or an ICU day, or time in theatre.

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

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

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.

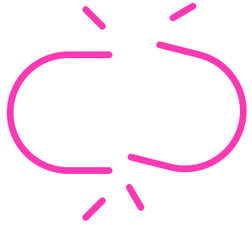


Need a methodology for how to classify, group and assign costs to each component of service delivery.

Starting from the top

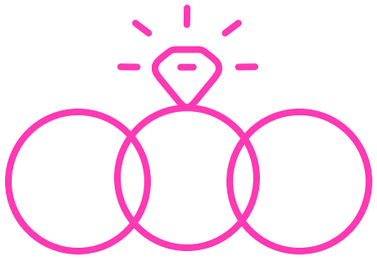
Budgets in public sector

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



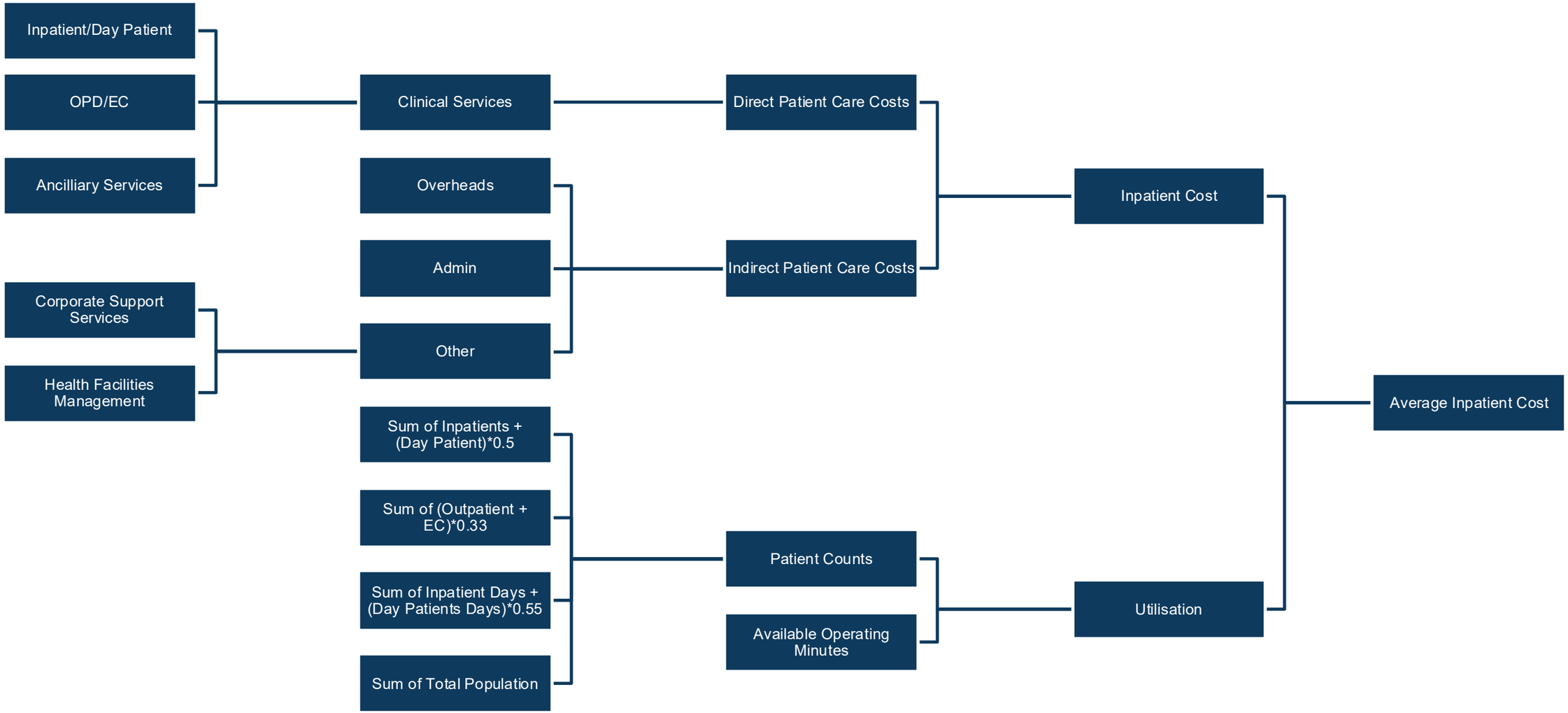
Challenge to “marry” the various systems

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)	
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



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Make the first move

Building Lego Blocks

Evolution of co-creation

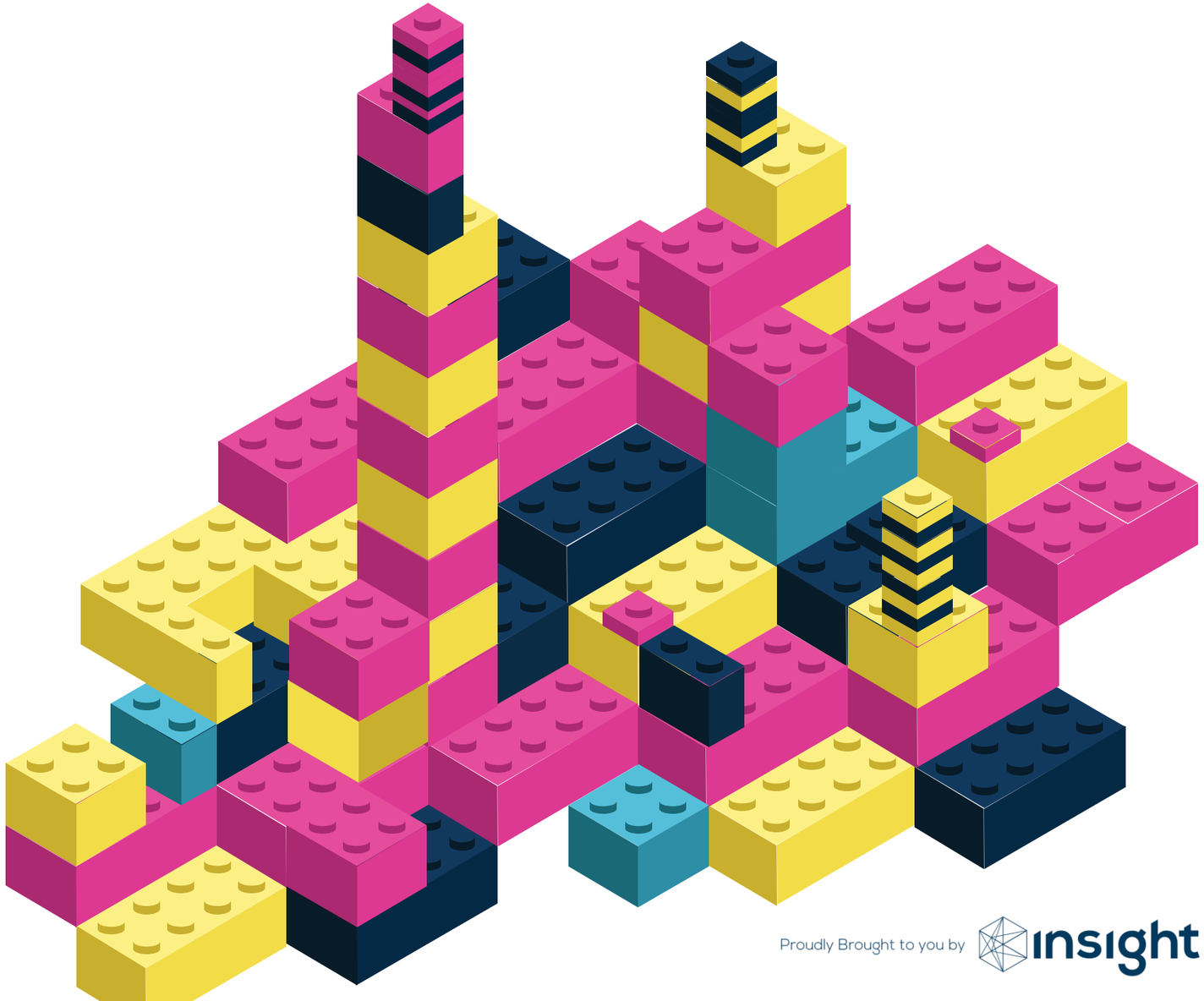
- Analogy of building blocks

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

Public sector landscape

Cost centre model

Multiple system sources

Mapping to Lego Blocks

Limitation of data e.g. no theatre time

What we've achieved so far

Achieved

Mapped 3 central hospitals for basic block outputs

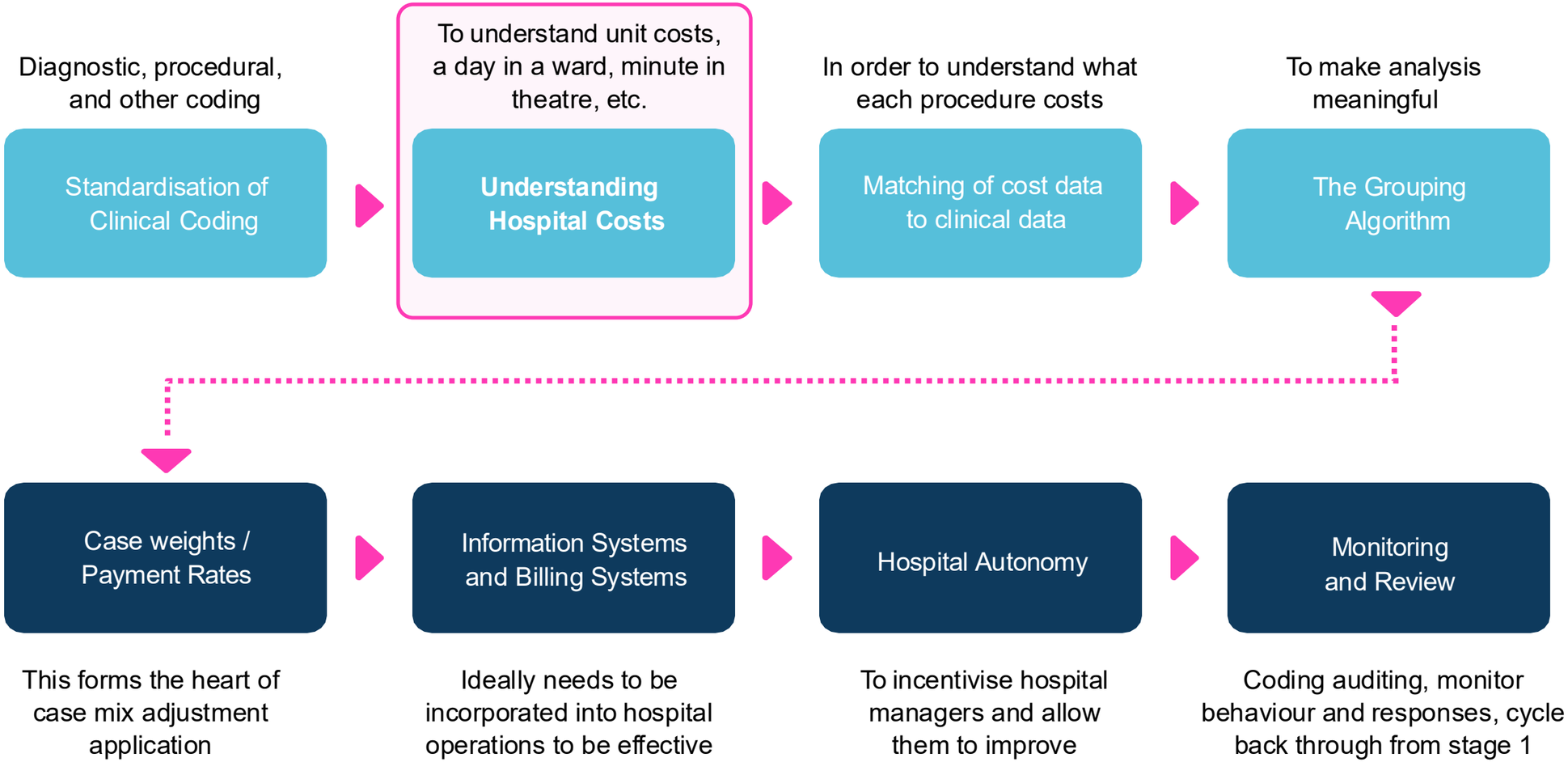
Key wins

- 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

The Roadmap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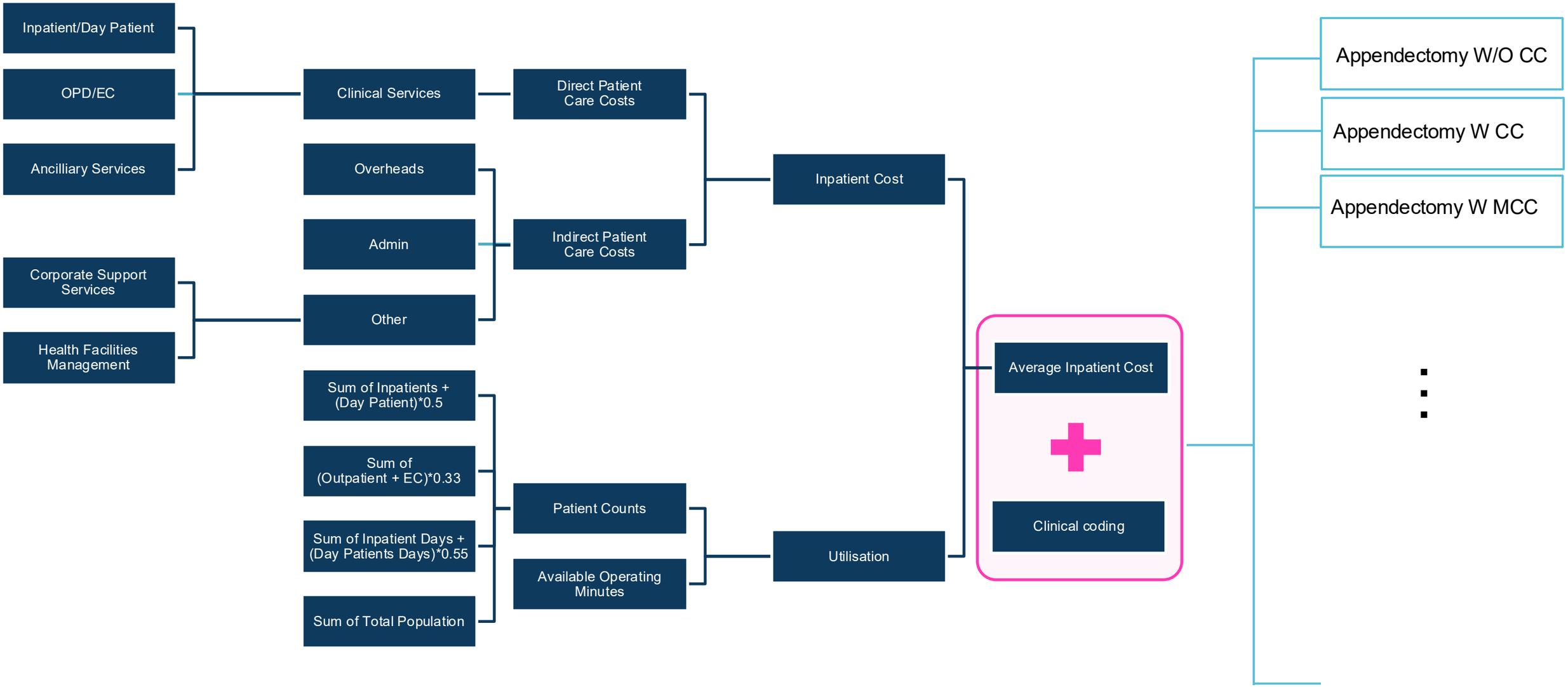
Matching cost and clinical data



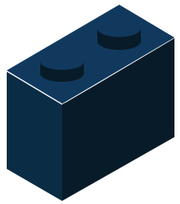
Matching cost and clinical data

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

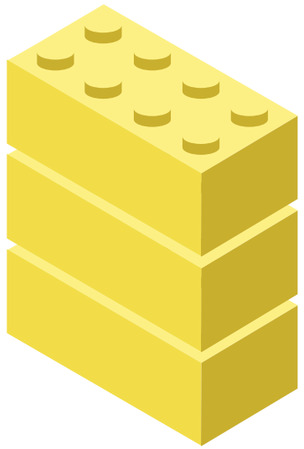
DRG:
Appendectomy
W/O CC

Cost components for an admission

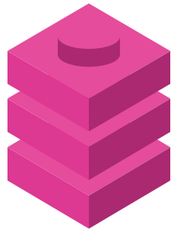
General Ward
3 days
x
Unit cost per GW day



Theatre time
60 min
x
Unit cost per minute



Number of auxiliary contacts
3
x
Unit cost per contact

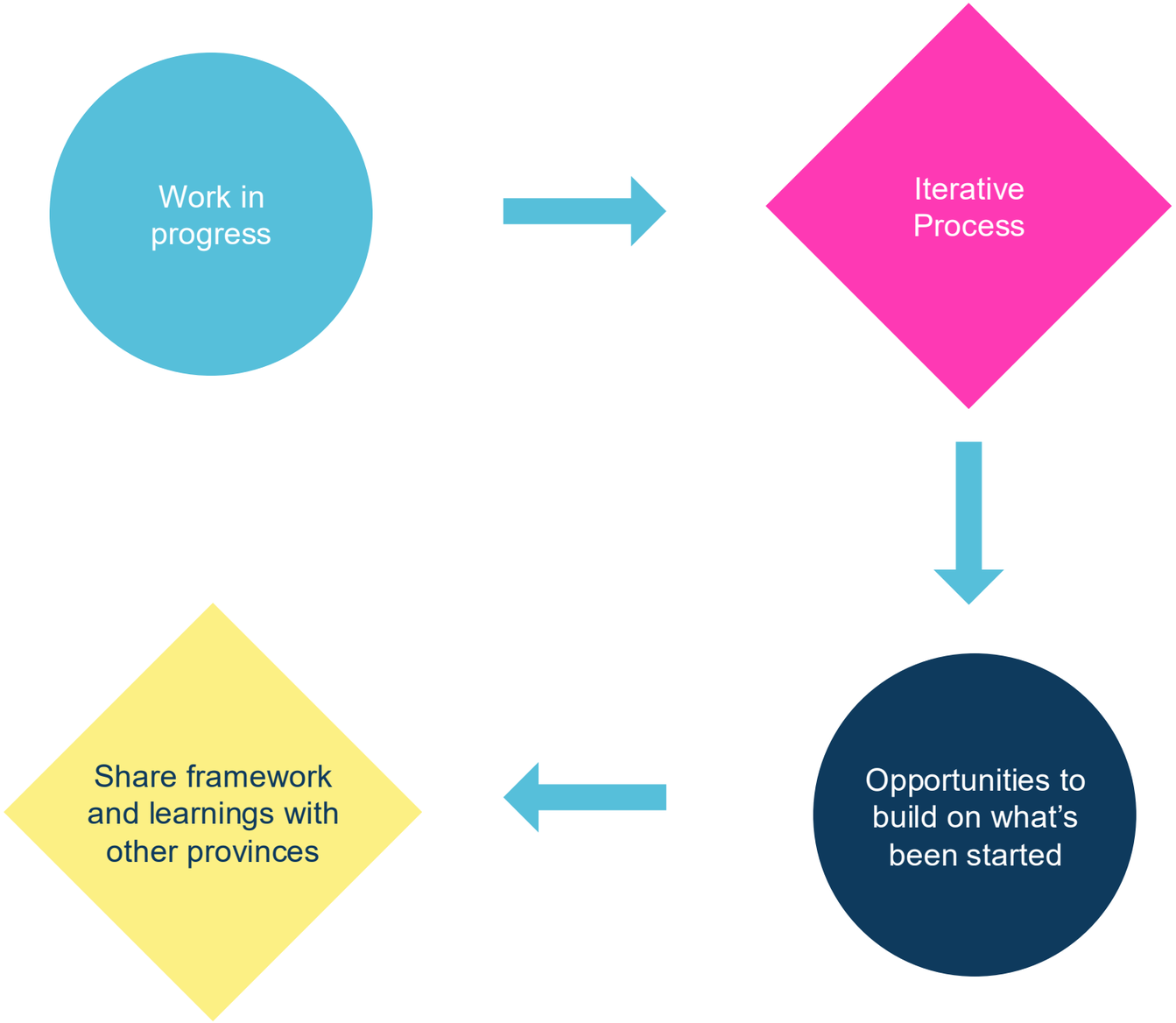


Other costs
3 days
x
Unit cost per day

= R60 000
per admission

Next Steps

Next Steps


Work in progress
Iterative Process
Opportunities to build on what's been started
Share framework and learnings with other provinces

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THANK YOU