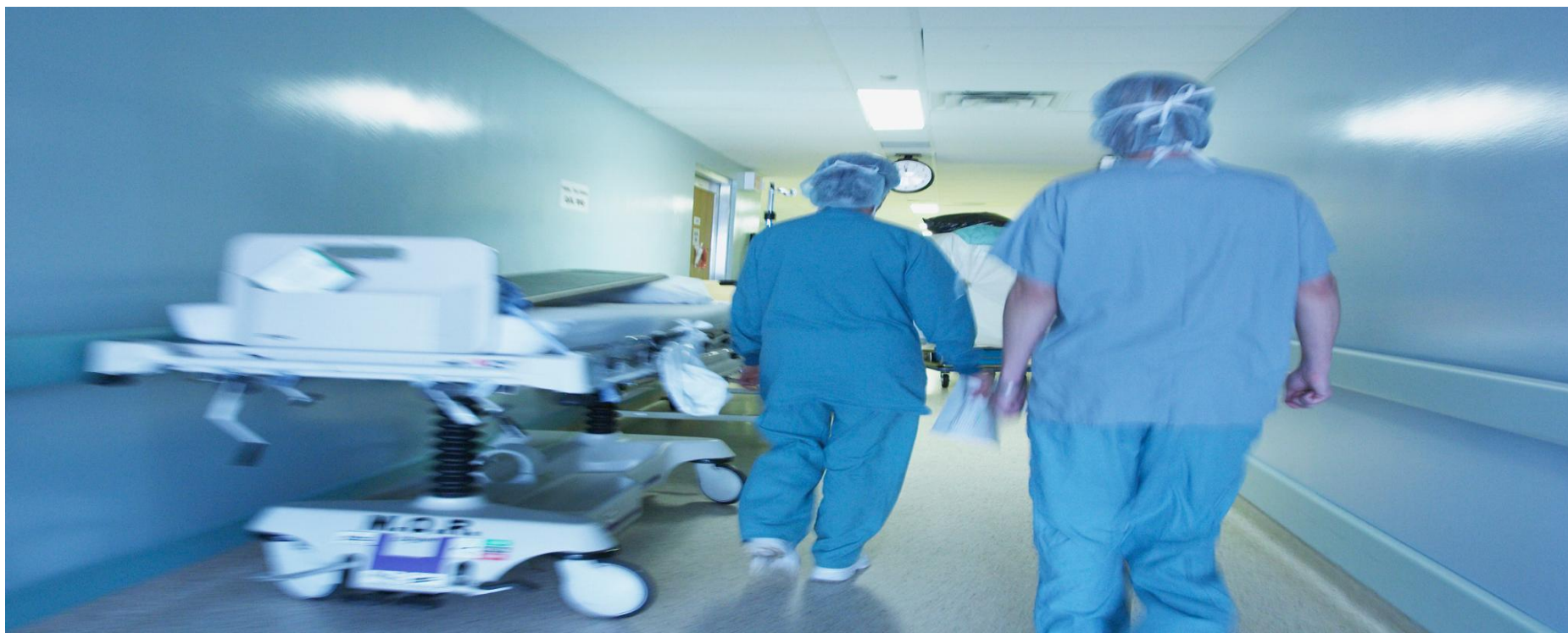


Department of Health Provider Economics Overview



DH INFORMATION READER BOX

Policy	Estates
HR / Workforce	Commissioning
Management	IM & T
Planning /	Finance
Clinical	Social Care / Partnership Working

Document Purpose	Best Practice Guidance
Gateway Reference	15172
Title	Understanding Provider Economics
Author	DH and NHS Confederation
Publication Date	16 Nov 2010
Target Audience	PCT CEs, NHS Trust CEs, SHA CEs, Foundation Trust CEs
Circulation List	PCT Chairs, NHS Trust Board Chairs
Description	<p>This "Provider Economics Commissioning Impact Assess Model" provides further understand of Provider Economics. It enables commissioners and providers to;</p> <ul style="list-style-type: none">• analyse the potential impact of commissioning decisions on service continuity and provider sustainability,• understand how financial system risks of decommissioning and reconfiguration services will materialise in differing economic scenarios and if services provide value for money.
Cross Ref	N/A
Superseded Docs	N/A
Action Required	N/A
Timing	N/A
Contact Details	Sebastian Habibi Deputy Director CSM&NE New Kings Beam House 22 Upper Ground, London SE1 2NS 020 763 37458
For Recipient's Use	

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Section 1

Introduction to Provider Economics

Project deliverables

Assessment framework to facilitate dialogue

- Key issues to consider (relating to provider economics) when making commissioning decisions

Revenue and costing model and associated guidance

- Model to support providers and commissioners in understanding provider economics and potential impacts of local commissioning decisions

Case studies of four commissioners/providers

- Inform the assessment framework and report
- Support development for the model
- Test the model

Section 2

Provider Sustainability Assessment Framework and Guidance

Purpose

The Assessment Framework and Guidance

- Identify and provide guidance on the main questions that are relevant to assessing the impact of commissioning changes on provider economics

The Assessment Framework tool will help

- Guide the decision making process, and ensure that the key provider economics issues have been explored before decisions are made

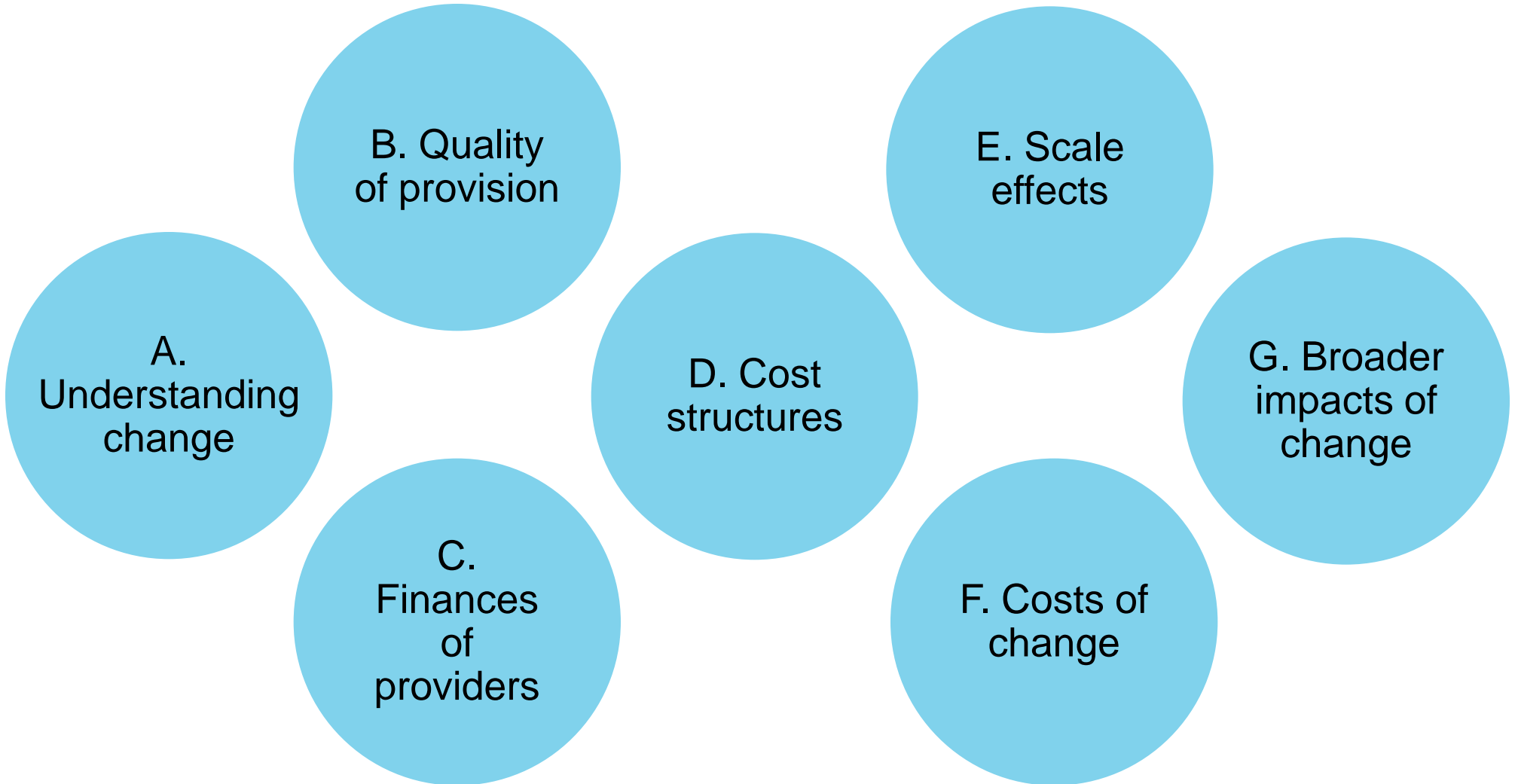
The Guidance can

- Help commissioners to understand the impact of their decisions on a provider's costs and sustainability

Provider Sustainability Guidance



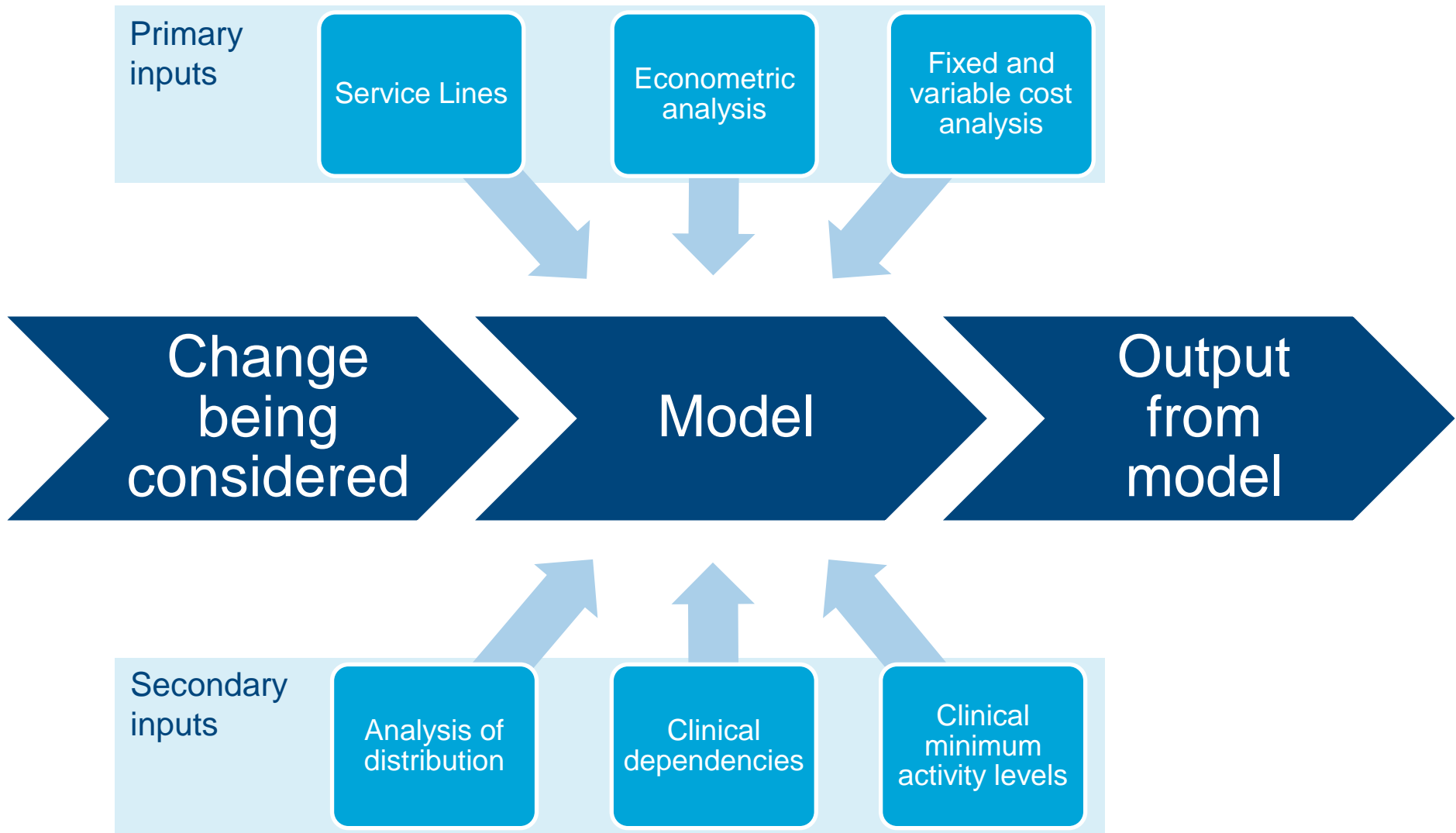
Subject headings



Section 3

Provider Economics Commissioning Impact Assessment Model

Model Overview

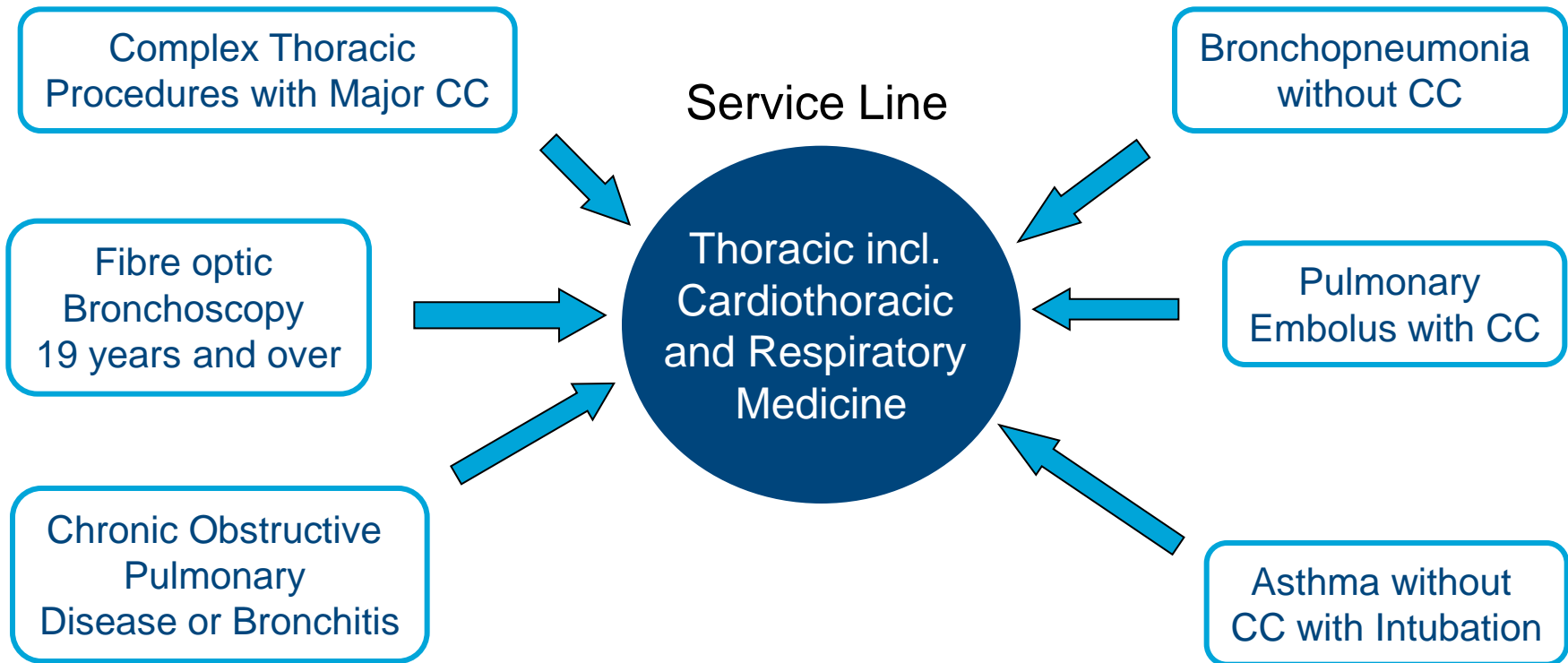


Main Inputs

Service Lines

Service Lines are groups of currencies and are the main building blocks of the model

Example



Main Inputs

Econometric analysis

- Econometric analysis was used to:
 - estimate the relationship between cost and level of activity
 - estimate the cost for a provider with equivalent characteristics
- This was done by estimating the impact of various factors on cost for each Service Line, which included activity and also a range of other variables (see table to the right).

Variable	Description
Unit cost	Activity weighted unit cost for a provider
Activity	Variable of interest, measure of economies of scale
Number of sites	Measure of capital cost
Estate costs	Measure of capital cost
Estate age profile	Measure of capital cost
CQC =excellent/good dummy	Dummy variable for top performing providers
Mortality	Indicator variable to proxy quality
MFF	Local prices and costs
Activity weighted tariff	Case mix
Proportion of elective cases	Case mix
Bed occupancy proportion	Efficiency measure
Total provider activity	Overall economies of scale
Number of HRGs	Economies of scope
Doctor and nurse vacancy rates	To proxy the efficiency of staffing arrangements
Children specialist dummy	Specialist provider
R&D / teaching income	Capture differences between R&D/teaching providers
SHA dummy variables	Geographic differences
OAP cases	Demographic
Year = 2007/08 dummy	Changes in over time

Main Inputs

Econometric analysis

Output from the econometric modelling

- What is the % change in unit cost following a 1% increase in activity
- How does actual unit cost compare to predicted unit cost for a hypothetical provider with the same characteristics

Focus on acute providers due to data quality and availability

Examples below show the expected change in unit cost following a 10% **decrease** in activity

Service Line	Coefficient
Emergency and Urgent Care	1.4%
General Medicine	1.6%
General Surgery	2.4%
Renal	3.0%
Radiology	8.4%
Dermatology	1.2%
Emergency and Urgent Care	1.5%
Pathology	2.5%

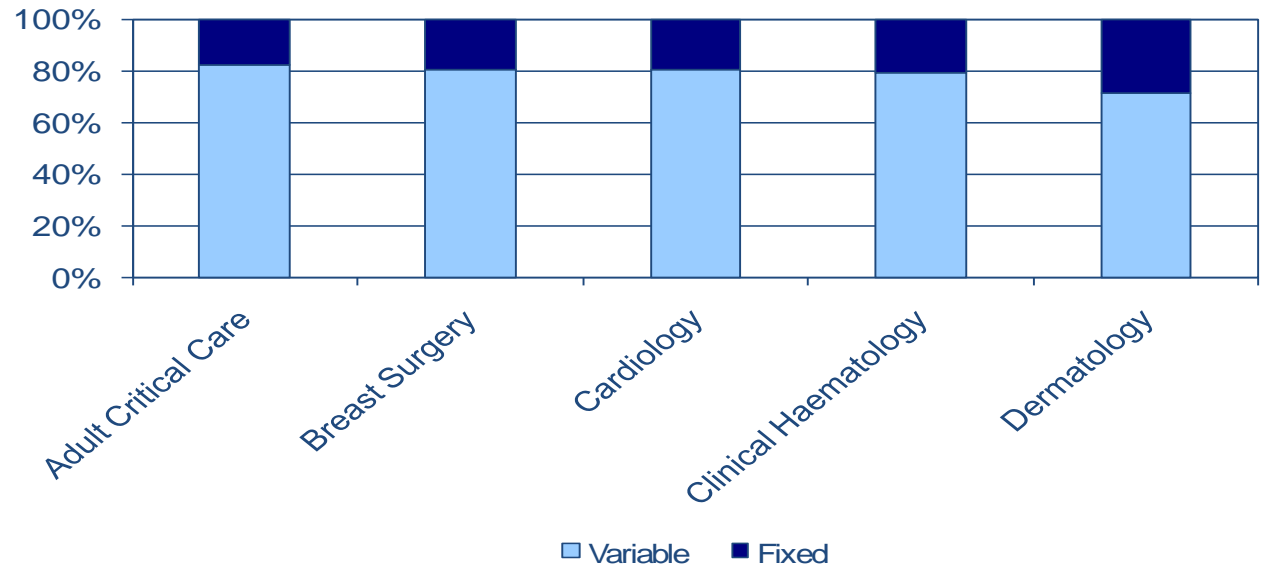
Main Inputs

Fixed and variable cost analysis

Analysis of fixed, semi-fixed and variable costs at Service Line level

Type of costs	Comments
Fixed	Includes: board costs, estates costs, establishment costs, depreciation, transport costs
Variable and semi-fixed	Includes: staff costs, clinical and non clinical supply costs

Example output



Other Inputs

Analysis of distribution

- Information on how the commissioning change affects the activity of the provider relative to other providers of a given service line

Clinical dependencies

- A starting point for dependencies between certain interventions within Service Lines

Clinical minimum activity levels

- A starting point for clinically safe minimum levels of activity at intervention level

Output from Model

Possible quality implications

- likely dependencies that may exist between service lines
- possible minimum clinically safe levels of activity that may need consideration
- impact of change on activity levels and how this compares to other providers

Consideration	Consider at least the following service line
Consideration	Adult Critical Care, Emergency and Urgent Care, Trauma and Orthopaedics

Information on minimum activity level	Consider at least the following areas within service line
Minimum activity level	Appropriation of cover into (>17 treatments per year per hospital), Colorectal (cancer) (>100 cases per year per hospital), Colorectal (cancer) (>100 cases per year per hospital), Oesophageal Cancer (>3 operations per surgeon per year), Pancreatic Cancer (>40 cases per surgeon per year)

	Activity (%)	% of total
2020/21	757	0.02%
After	399	0.02%
Change	-359	-60.00%

Cost and general financial implications

- proportion of total costs that are fixed costs
- the econometric relationship between unit cost of provision and the level of activity
- the approximate impact of a commissioning change on tariff income
- the estimated impact of commissioning changes on unit cost
- the estimated impact on total costs

Information on cost structure from modelling	Unit of measurement	Value used in calculations	Centre estimate	Notes
Econometric analysis	% change in unit cost as a result of a 10% decrease in activity	2.65%	2.65%	Possible range: 1.54% to 3.66%
Fixed and variable cost analysis	Proportion of fixed costs	25%	25%	Derived from fixed vs variable

	Value (£)	% of total
2020/21	1,574,892	0.88%
After	1,252,985	0.70%
Change	-321,907	-20%

	Value (£)	% of total
2020/21	3,973	-
Econometric analysis	4,179	-
Change	206	5%
Fixed and variable cost analysis	4,173	-
Change	167	4%

	Value (£)	% of total
2020/21	3,982,324	0.58%
Econometric analysis	2,664,722	0.48%
Change	-691,661	-18%
Fixed and variable cost analysis	2,658,972	0.48%
Change	-557,411	-15%

Section 4

Case studies

Overview and aims

Four case studies were conducted:

1. the reorganisation of breast services across a local health economy
2. the piloting of an intervention to manage demand for accident and emergency services
3. the impact of reduced demand for in-patient psychiatric services
4. reorganisation in demand across all service lines for a provider

Aims:

- gather additional data to improve the model
- gather front line views on the tools and their usefulness when addressing provider economic issues
- develop the tools to meet the needs of frontline practitioners
- demonstrate the added value of the check list and the model
- provide richness to the provider economics issues by using real world examples
- provide a level of validation for the model