



What is the best costing model for your Pathology Service?

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**Collinson Grant
Healthcare**

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- Lessons learned from the Carter pilot sites
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- Translating data into working models of costing and pricing pathology services
- 'Cost' or 'Price'?
- So what?

What do you mean by 'cost'? (1)

- Acquisition cost
- Depreciated cost
- Direct cost
- Fixed cost
- Historical cost
- Indirect cost
- Marginal cost
- Operating cost
- Opportunity cost

What do you mean by 'cost'? (2)

- Original cost
- Replacement cost
- Standard cost
- Sunk cost
- Total cost
- Transaction cost
- Transfer cost
- Unit cost
- Variable cost
- Cost of managed service contract (at what year, at what volume.....)

What do you mean by 'cost'? (3)

- The total money, time and resources associated with a purchase or activity

Question 1

- Bored yet?

Appropriate costing methodologies for Pathology

- What should be included? The cost of
 - Producing the test result?
 - Interpreting the result?
 - Taking the sample and transporting it to the laboratory?
 - Training / development / multidisciplinary team meetings and clinical duties?

- And in the Laboratory, how to treat
 - Equipment leasing / reagent rental / fully depreciated equipment / PFI deals?
 - A workforce that is not compliant with the Working Time Regulations?
 - Premiums charged by external agencies for the temporary staff?

- And for a fully loaded cost, how to treat
 - Trust overheads 'consumed' by Pathology?
 - Trust overheads 'apportioned' to Pathology?

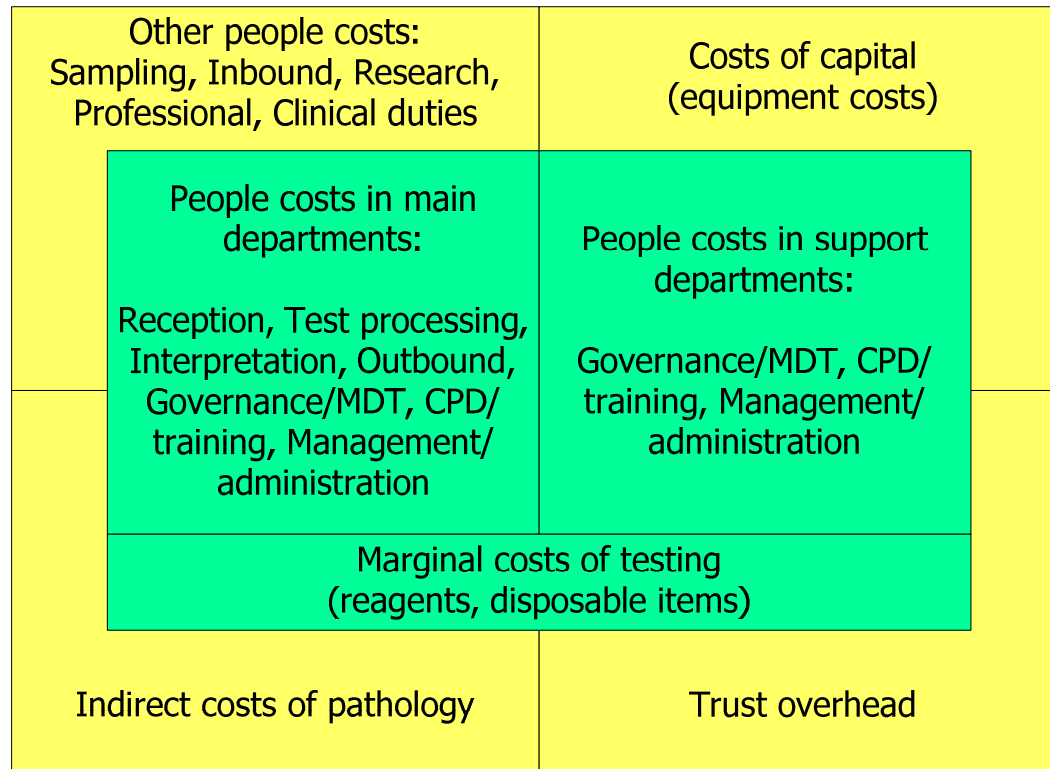
For example – a 'laboratory' cost

- The laboratory cost includes the costs of people and the marginal costs of testing. The cost of people are included for all activities allocated directly to the main departments and to the administrative centre of the pathology service. Marginal costs include reagents and disposable items

For example – a 'fully loaded Pathology' cost

- A fully loaded cost includes the laboratory cost, plus internal overheads and the costs of the external system. Internal overheads cover the indirect costs of the pathology service, its cost of capital and a Trust overhead. External system costs include the costs of sampling outside the hospital, transportation of samples to the laboratory and an overhead to cover the work of the SHA and DH

The Pathology 'onion'



Laboratory
cost

Fully loaded
cost

But how to account for the costs of

- Specialist Pathology Services
- The scientific breakthrough
- Spare capacity created for 'disasters'
- Representing the profession (rather than the employing Trust) at events
- Bidding for Primary Care Pathology work
- Historic deficits

So does it matter what costs we measure?

- Yes and no!

Yet another management consultant who can't give a straight answer!

- 'Yes', if you need to have a common currency to compare costs with others
- 'No', if you are looking to measure the performance of your own unit over time
- 'Yes', if you are making decisions about price!

And the 'currency' measured is important as well

- Cost per request?
- Cost per profile?
- Cost per test?
- Cost per representative 'basket' of tests?
- Cost per interpreted result?
- Cost of a full service Pathology department available when required?
- Or how about the average cost of a full time employee?

Question 2

- Clear now?

Lessons learned from the Carter Review - variation exists!

- Cost per test
 - Productivity of the staff
 - Use of capacity
 - Staffing profiles
- Speed of turnaround
- Accreditation (or otherwise!)

(and in the price charged by Acute Trusts to Primary Care!)

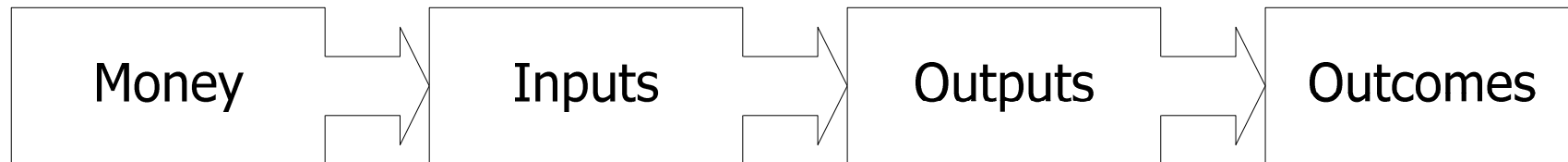
And your point is?

- Variation implies inefficient use of resources
 - who is responsible for the allocation and use of resources?
- Staff costs and productivity vary significantly
 - Workforce planning and development is key

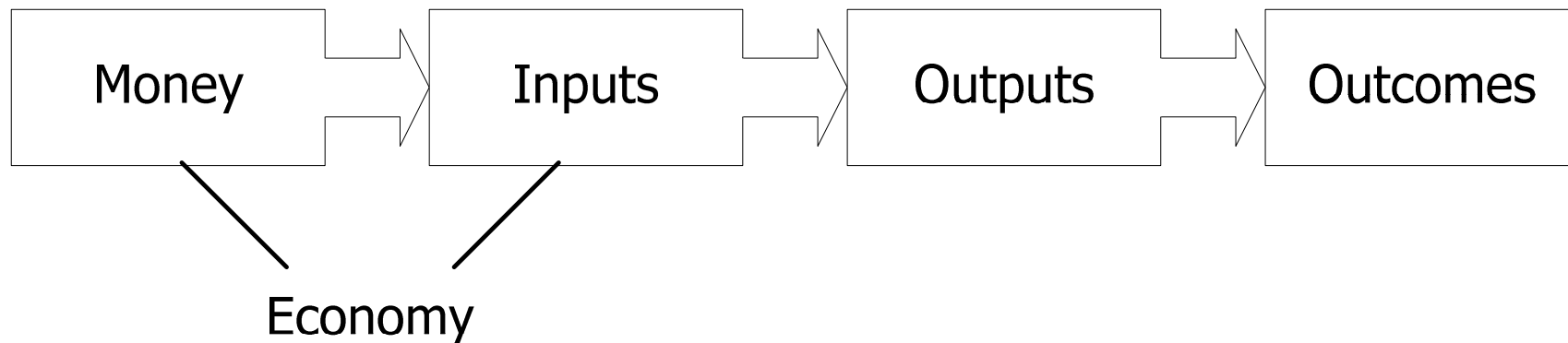
And variation leads to poor value for money

- Efficiency is the optimisation of the use of resources to achieve agreed organisational outputs

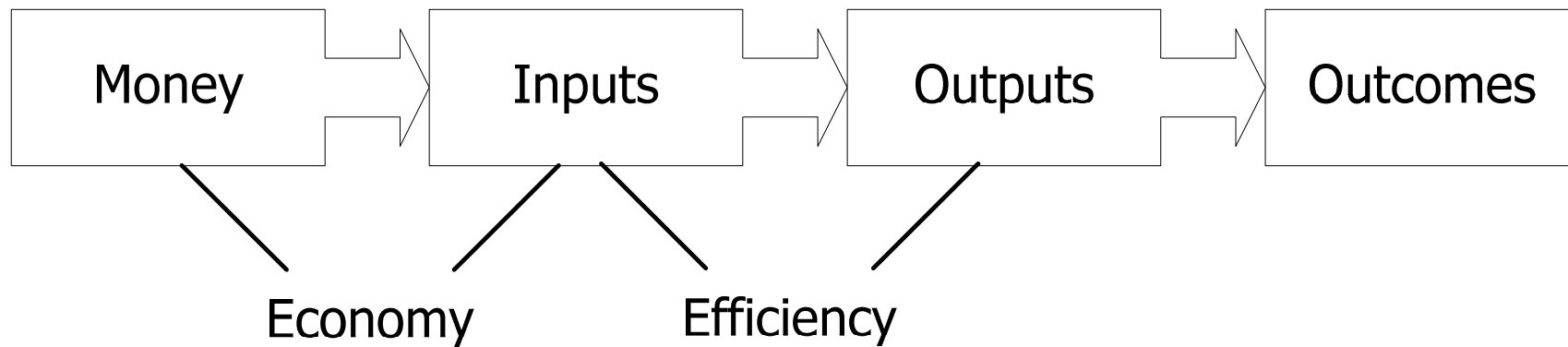
Economy, efficiency and effectiveness (1)



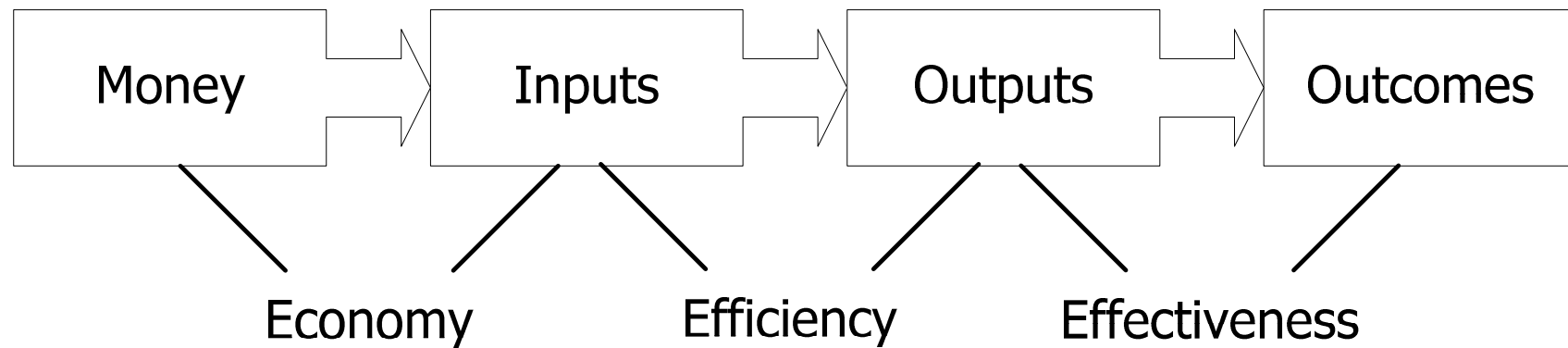
Economy, efficiency and effectiveness (2)



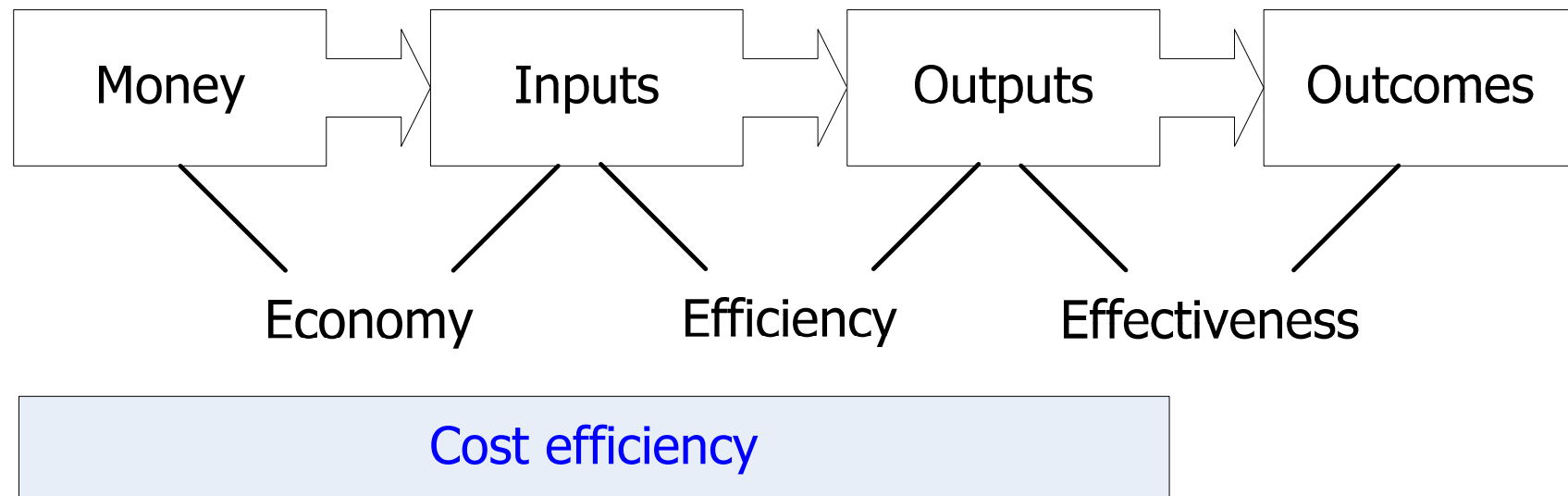
Economy, efficiency and effectiveness (3)



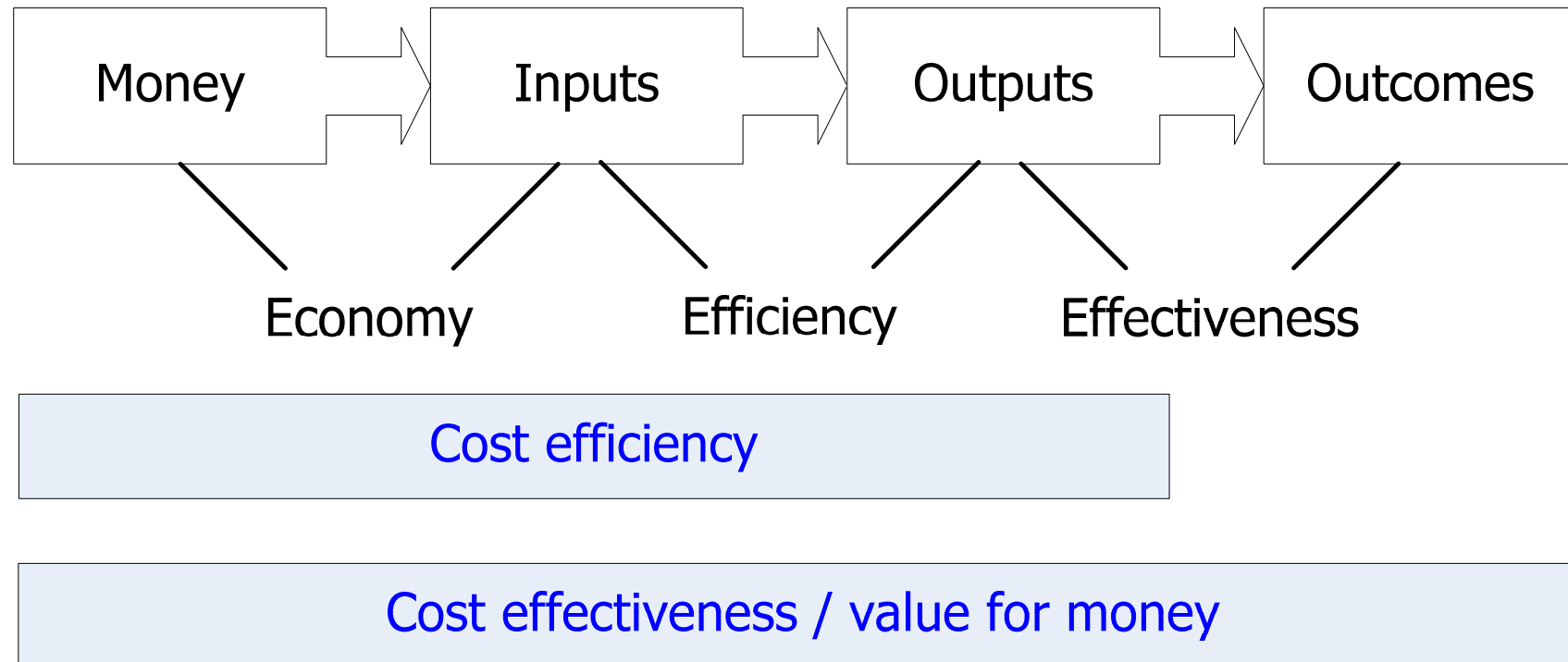
Economy, efficiency and effectiveness (4)



Economy, efficiency and effectiveness (5)



Economy, efficiency and effectiveness (6)



The managerial task

- **Maximise economy** by reducing the cost of inputs
- **Optimise efficiency** in the use of resources to achieve agreed organisational outputs
 - Ask why a process exists in the first place
 - Improvement focuses on increasing flow and eliminating waste
 - 'Lean' is a commonly used methodology
- **Ensure effectiveness** in the conversion of outputs into strategic outcomes
 - Considering the effectiveness of a process is not to challenge the need for it per se, just whether the process does what it is supposed to
 - Improvement focuses on reducing variation and eliminating defective outputs
 - 'Six Sigma' is a commonly used methodology

Question 3

- If the 'value' of the interpreted result far exceeds the cost of production, why should you care about the cost?

Translating data into models of costing and pricing pathology services

- A (very) big question!

Why won't you just tell us how to do it?

- Because the answer depends
 - on what you are measuring
 - how accurate you need to be and
 - why you want the answer!

And your point is? – give me an example

- It is reasonable to assume that Primary Care Directors of Commissioning will soon start to examine whether they might obtain what some consider a 'commodity' service at less cost
 - Top 20 tests by volume requested by Primary Care account for 87% of all Primary Care demand (CGH client, 2008)
- They could seek lower prices and/or more services from the incumbent provider
- Or they could become 'rate tarts', commissioning services from the lowest-priced 'willing provider'
- 41.7% of biochemistry requests and 30.6% of haematology requests originate in Primary Care

(Getting results: Pathology services in Acute and Specialist Trusts, Healthcare Commission, 2007)

But why wouldn't Primary Care simply buy tests at tariff?

Speciality	DH 2008/09 indicative tariff (£)
Biochemistry	1.42
Haematology	2.71
Microbiology / Virology	6.66
Cytology	11.26
Histology / Histopathology	20.69
Immunology	7.12
Phlebotomy	2.63
Neuropathology	1.28
Other	3.48

(BIVDA 2008)

Or from the lowest cost provider?

- The cost of a Biochemistry request varies from £4.67 to £8.45; a microbiology request from £7.26 to £13.71; and a histopathology request from £68.42 to £118.71

(Getting results: Pathology services in Acute and Specialist Trusts, Healthcare Commission, 2007)

- 'and between the pilots there is wide variation in terms of the average cost per test, which applies across all specialties and degrees of complexity'
- 'For example, the direct cost of a routine automated biochemistry test ranges from £0.84 to £3.95'
- 'The direct costs of the most complex histopathology cases range from £122 to £937'

(Lord Carter's speech to the IBMS congress, 2007 (www.thecarterreview.com))

So why won't you just tell us how to do it? (2)

So, for responding to a Primary Care Tender

- *Because the answer depends*
 - *on what you are measuring* (the demand that originates in Primary Care)
 - *how accurate you need to be* (within X% if overheads are 'smeared) *and*
 - *why you want the answer!* (to decide lowest (marginal) price for bid)

So it's actually about price rather than cost? (1)

- Christopher P., PhD, FRCPath, FACB, Visiting Professor at Oxford University
(The old ones are the best – and two jokes for the Price of one!)

or

So it's actually about price rather than cost? (2)

- It depends (again!)
 - 'No', if you need simply to have a common currency to compare costs with others
 - 'No', if you are looking to measure the performance of your own unit over time
 - 'Yes', if you are making decisions about price!

Or to put it another way.....

- *Selling price twenty pounds, cost nineteen nineteen six, result happiness*
- *Selling price twenty pounds, cost twenty pounds ought and six, result misery*
(with apologies to Mr Micawber in Charles Dickens' David Copperfield)

So what?

- They always talk about tendering Pathology services – no-one ever does anything'
- 'Don't worry, the RCPATH / IBMS / ACB / Unions / Clinicians (delete where applicable) will stop anything actually happening'
- 'Benchmarking is the answer for costs – don't know why Lord Carter bothered'
- 'I've been in Keele for years. I know how to fiddle the numbers so my Chief Executive thinks I'm doing a good job'
- 'Primary Care don't know what they're doing'
- 'Keep your head down for a few more months – it'll all go away'

It'll all go away – or will it?

- *Based on the evidence we have collected, we believe there is a strong case for consolidation of pathology to improve quality, patient safety and **efficiency***
- *Characteristics of a good consolidated service would be end-to-end management of the service (including transport and logistics, IT connectivity and **efficient and effective use of resources, including people**) and the concentration of non-urgent and specialist work in one or more centralised and accredited core laboratories where throughput is sufficient to ensure high-quality results*

(The Rt Hon Dawn Primarolo MP, Minister of State for Public Health, Foreword to the Report of the Second Phase of the Independent Review of NHS Pathology Services, December 2008)

And from the Review itself

- *In this second phase of the review we set out our vision for NHS pathology services. The main objective must be improved quality and patient safety, delivered through service consolidation*
- *Based on the evidence we have collected, we believe there is a strong case for consolidation of pathology to improve quality, patient safety and **efficiency***

(Lord Carter of Coles, Report of the Second Phase of the Independent Review of NHS Pathology Services, December 2008)

Yeah, but that was the Review.....

- *The prospects for the UK economy have dramatically worsened since the last Budget. One year ago Mr Darling thought the economy would grow by 2.5% this year; now he says it will shrink by 3.5%. But he is still hoping it will bounce back next year*
- *The current budget squeeze means that the gap between government spending and taxes will continue to widen*
- *The government may also face higher costs as benefits and debt service rise. If it also **tries to protect health** and education, other services could face major cutbacks*

(BBC News, <http://news.bbc.co.uk/1/hi/business/8002618.stm>, accessed 11th May 2009)

And in case you missed it....!

- *SHA chief Margaret Edwards to lead productivity unit*
 - *She has agreed to lead the unit, set up by NHS chief executive David Nicholson and based in NHS London, and will start as national director of **productivity and efficiency**.....*

(HSJ, 6th March 2009)

- *Everyone we have spoken to acknowledges that driving up standards, quality and patient safety, at the same time as reducing costs by between **£250 and £500 million** a year for reinvestment in the service, is a prize worth pursuing vigorously*

(Lord Carter of Coles, Report of the Second Phase of the Independent Review of NHS Pathology Services, December 2008)

Final thoughts

So, within your Trust

- Pick a cost, any cost, measure and attempt to reduce it (economy)
- Reduce waste (efficiency)
- Consider outcomes carefully (effectiveness)

And then

- Consider demand and ambition
- Build a credible model to inform managerial decisions
- Draw up pricing strategies for obtaining additional volumes

A word about Collinson Grant Healthcare

- For over 20 years we have been helping managers in Healthcare - public *and* private - to transform the performance of their organisations
- We have worked in Pathology at all levels of the NHS
 - We played a big part in Lord Carter's independent review
 - We have helped the Department of Health to plan and develop the Pathology workforce
 - A Strategic Health Authority engaged us to examine the costs, structure and effectiveness of a confederated network
 - We have led projects in many Acute Trusts
- We have also supported many private providers of Pathology Services consider how best to succeed in the NHS market

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