Costing, Curing and Quantifying

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Symposia:
"Researching Public Sector Accounting Change"

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Public Sector Accounting Change?

- When Markets and Models Fail: Rethinking Risk, Regulation and the State

  (*Risk and Regulation, 2008*)

- Trust in numbers?

- Trust in financial numbers? (single financial figure)

- Implications for regulatory complex surrounding the public sector?

Some themes

- Governing
- Hybridising
- Mediating

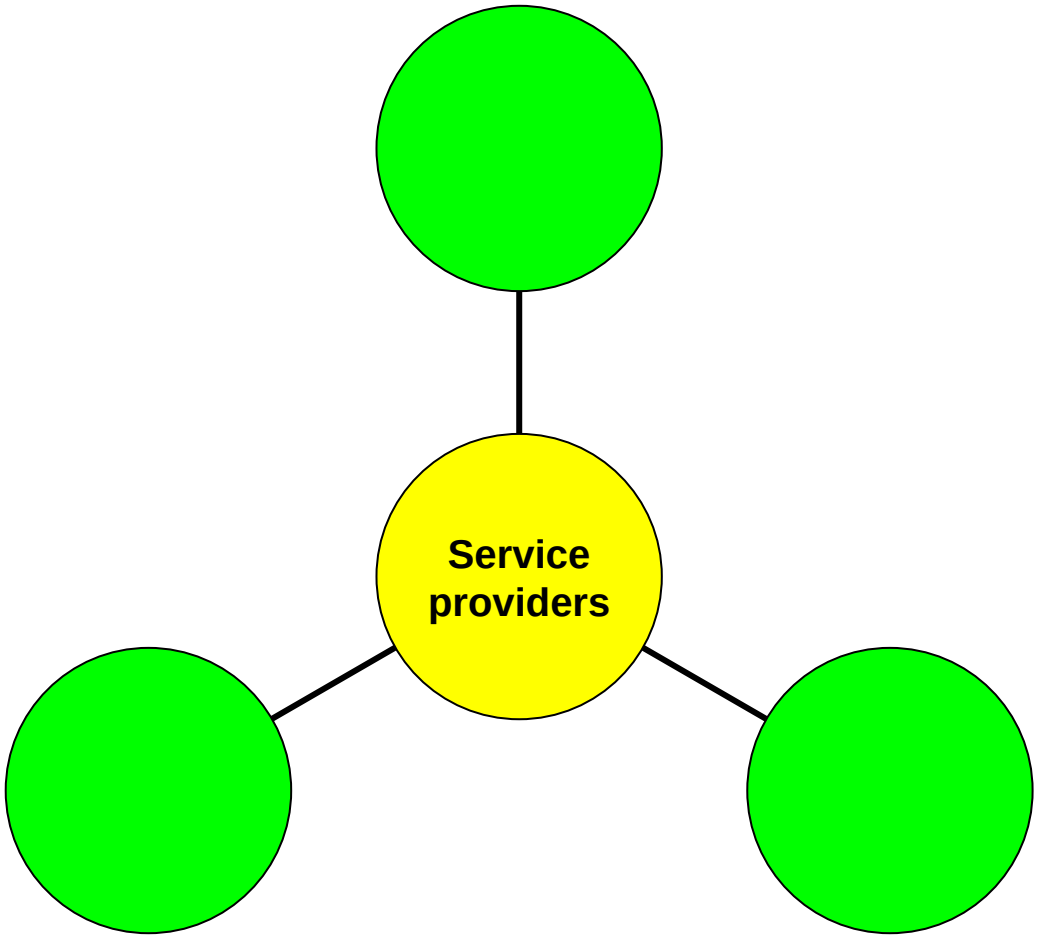
Some themes

- Governing (laboratories of)
- Hybridising (expertise)
- Mediating (instruments)

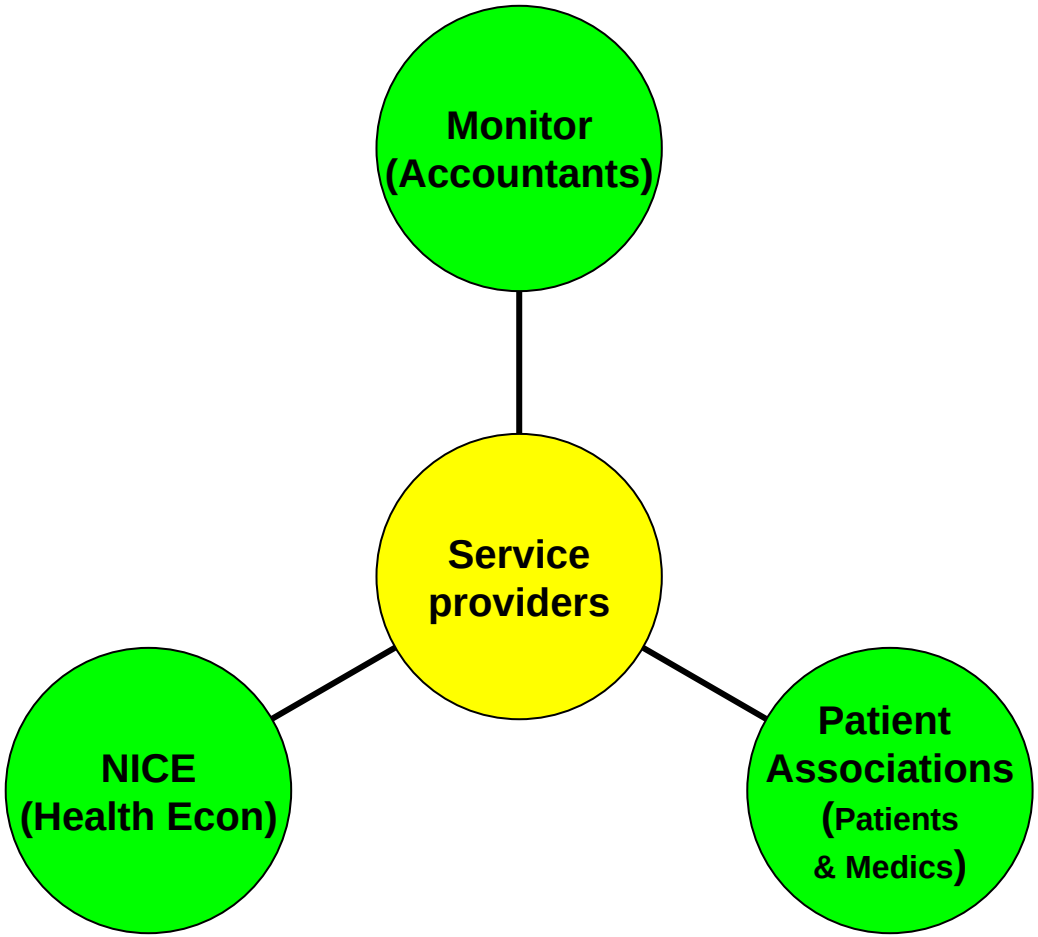
Question:

How did we travel from curing to…

Curing…



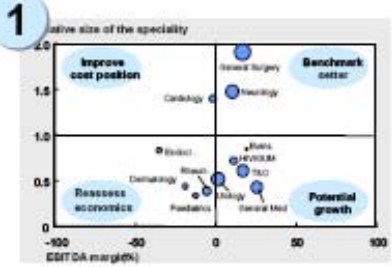
Costing, Curing and Quantifying



To…

Monitor: Service Line Reporting

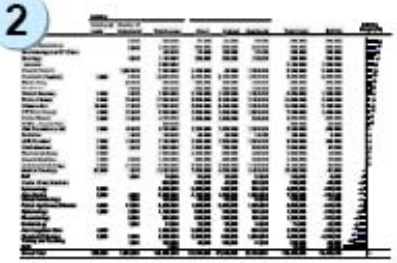
1



Portfolio matrix

- A portfolio analysis tool for priority setting and strategy development

2



EBITDA table

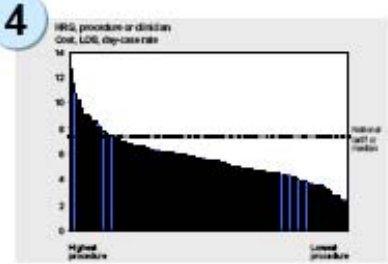
- A comparison table for key financial metrics

3

Detailed income and expenditure (I&E)

- A detailed breakdown of income and expenditure (I&E) for a directorate, service line, point of delivery (POD) or healthcare resource group (HRG)

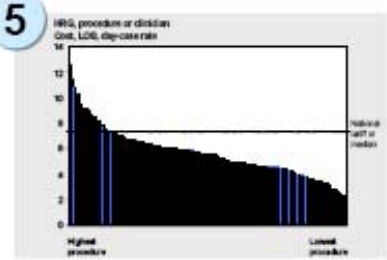
4



Variance analysis

- Ad hoc reports to identify outliers in performance (e.g. Length of stay (LoS), day-case rates, costs)

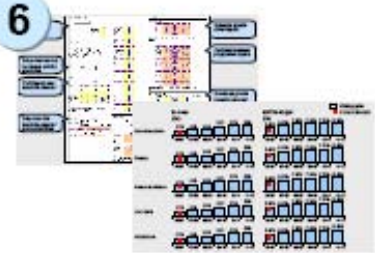
5



Cost matrix

- A detailed breakdown of costs by cost-line and cost-centre

6



Forecast model

- The population and use of a model to forecast five-year performance at the service-line and POD level. Used for sensitivity and 'what if ?' analysis

Tools can be independently used or combined to create greater insight

Many steps…

- 1960s: monetarising of medicine
- 1970s: delegated budgets
- 1990s: internal markets
- 2002: ‘Payment by Results’ (reimbursement system based on national average cost – ‘reference cost’ - per HRG)
- ”Payment by Results aims to support NHS modernisation by paying hospitals for the work they do, rewarding efficiency and quality. It also carries risks that need to be managed effectively both locally and nationally.” (Audit Commission)
- ‘Service Line Reporting’

Renal Dialysis, Reference Costs 2006, Cambridge University Hospitals NHS Foundation Trust

Code	Description	Unit cost (£)
RD1	Hospital Based Dialysis (incl. Inpatient, Outpatient Settings, Ward Attenders etc.)	158
RD1H	Hospital / Satellite Based Holiday Haemodialysis	
RD1ID	Hospital Based Dialysis for Patients with Infectious Diseases (incl. Inpatient, Outpatient Settings, Ward Attenders etc.)	
RD1S	Satellite Based Haemodialysis	132
RD2	Home Dialysis	281
RD3	CAPD	21
RD4	APD	14

Renal Dialysis, Indicative Tariff for 2007-08

Code	Description	Tariff (£)	
RD1	Hospital Based Dialysis (incl. Inpatient, Outpatient Settings, Ward Attenders etc.)	163	+5
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But…

- Accountants not the only ones involved in regulating health care…
- Health economists busy too…
- Along with those analysing and seeking to regulate risk…
- Means two bodies:
  - NICE
  - Monitor

NICE & Monitor

- **NICE**:
  - considers the economic costs and health benefits of interventions such as new drugs
  - makes recommendations on whether they should be funded by the NHS and,if so, which patients should have access

- **Monitor**:
  - "Monitor *authorises* and *regulates* NHS foundation trusts making sure they are well-managed and financially strong so that they can deliver excellent healthcare for patients."
  - Risk-based approach to regulating; risk rating in three areas:
    - Finance
    - Governance
    - Mandatory services

Risk Based Regulation by Monitor

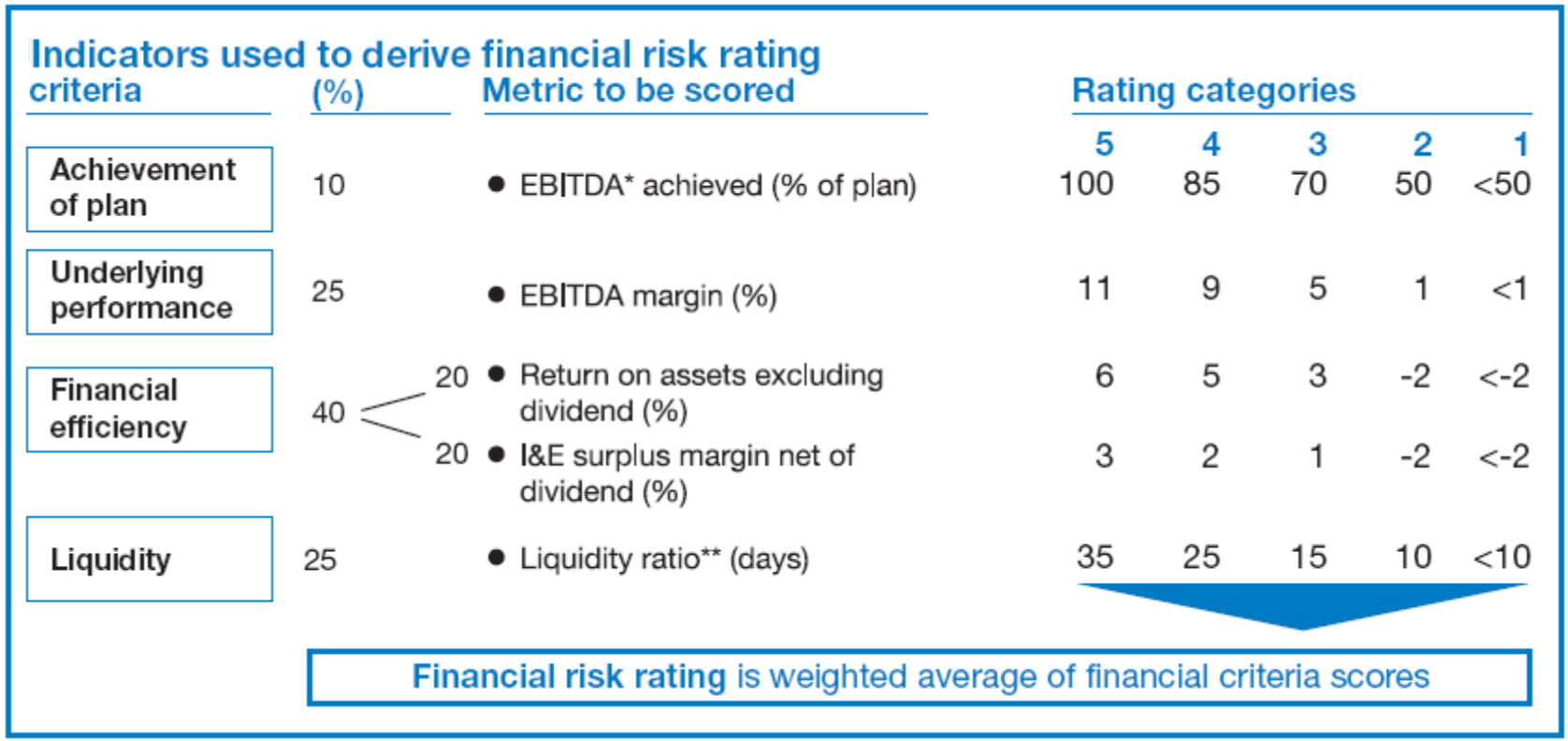
- "Monitor will assess the risks identified in each NHS foundation trust's annual plan and in-year submissions and assign a risk rating in three areas – **finance**, **governance** and **mandatory services**. Monitor will use the risk ratings to guide the intensity of its monitoring and signal to the NHS foundation trust its degree of concern with the specific issues identified and evaluated."

- "Where an NHS foundation trust's **financial risk rating** falls to 2 or 1 in-year, it will be required to provide Monitor with an analysis of income and EBITDA **by service line** (for any service accounting for more than 5% of revenue) for the previous and current year."

- Shift in emphasis: from 'trust' level financial reporting -> managerial accounting and financial management

- Leads us to 'Service Line Reporting'…

Financial Risk Rating by Monitor



EBITDA = Earnings Before Interest, Taxes, Depreciation and Amortization.

Financial risk rating - Implications (by Monitor)

	Description	Implications
Rating 5	• Achieving weighted average of 5 across assessed components and no over-riding rules applied	• Quarterly/six-monthly monitoring* • MDCR is 40%
Rating 4	• Achieving weighted average of 4 across assessed components and no over-riding rules applied	• Quarterly monitoring • MDCR is 25%
Rating 3	• Regulatory concerns in one or more components. Significant breach is unlikely	• Quarterly monitoring, however monthly monitoring in case of deteriorating trend • Supplementary information if required • MDCR is 15%
Rating 2	• Risk of significant breach in the medium term, e.g. 12 to 18 months in the absence of remedial action	• Monthly monitoring with supplementary information and service line information • Remedial plan may be required • Potential for intervention under section 52 of the Act • MDCR is 10%
Rating 1	• High probability of significant breach of Authorisation in the short term, e.g. < 12 months, unless remedial action is taken	• Likely intervention under section 52 of the Act • MDCR decided case-by-case

(MDCR=maximum debt to capital ratio)

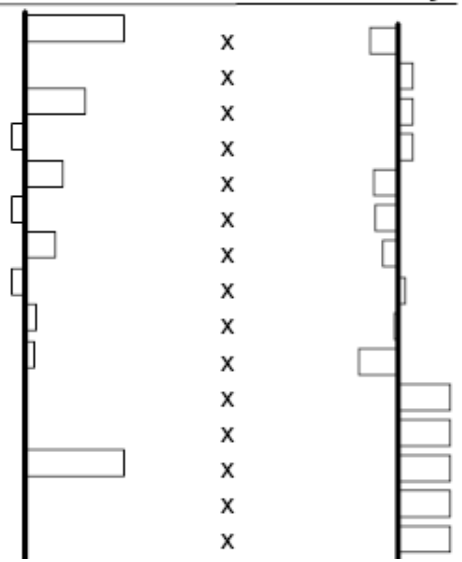
Service Line Reporting (SLR) & Service Line Management (SRM)

NHS foundation trusts are organised around a portfolio of services, each with their own distinct set of patients, medical conditions treated and clinical leaders. **In business terms, the service line is the natural "business unit" of the hospital** - a distinct unit with identifiable customers, products, revenues and costs that is run as an independent business with its own income and expenditure. Managing service-lines well enables effective delegation of accountability to a unit of a size and scale that is manageable for developing strategy and driving performance. Thus it is the primary means through which a trust can drive improvement. In effect, **each service-line could be thought of as a "mini-foundation trust" with autonomy for managing its own performance within an agreed set of goals and risk management practices. This enables clinicians to become true leaders of the service with the autonomy and accountability to deliver quality and productivity.** Enabling effective service-line management requires good leadership at service-line level, a clear strategy for the goals that the service will achieve, effective operational planning and budgeting through which annual targets are set against all key metrics, effective financial controls for delivering against plan, and effective operational performance management. **A critical gap to enable this** model to operate **has been the absence of meaningful information on profitability at the service-line level.** It is this gap that we have focused on addressing.

What is SLR?

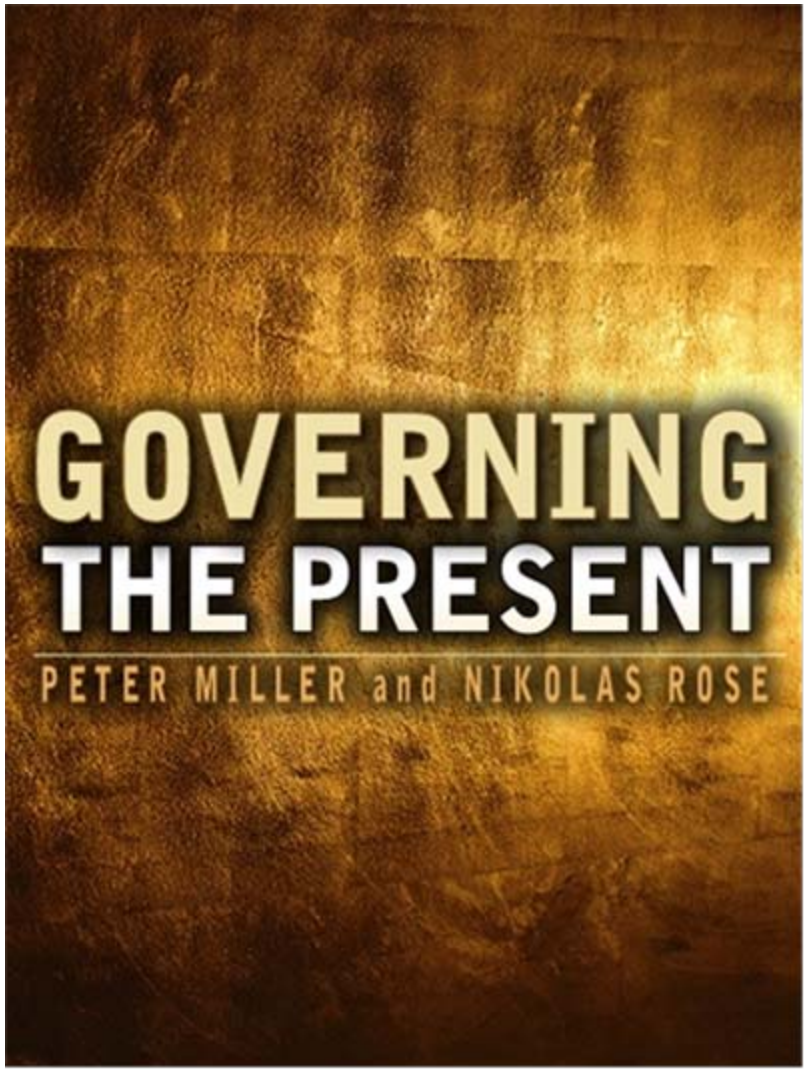
“SLR measures a trust’s profitability by each of its service-lines, rather than just at an aggregated level for the whole trust. SLR helps managers and cilincians to analyse and understand the overall actual profitability of their service, what drives profitability, or what impact different decisions have on profitability.”

Service line	No. of spells/ bed-days	No. of out-patients	Revenue £000s	Costs £000s			Total EBITDA £000s	EBITDA margin %	% change in activity
				Direct	Indirect	Overhead			
ITU	x	x	x	x	x	x		x	
Pain management	x	x	x	x	x	x		x	
Palliative medicine	x	x	x	x	x	x		x	
GUM	x	x	x	x	x	x		x	
HIV	x	x	x	x	x	x		x	
Accident and emergency	x	x	x	x	x	x		x	
Cardiology	x	x	x	x	x	x		x	
Care of the elderly	x	x	x	x	x	x		x	
Clinical haematology	x	x	x	x	x	x		x	
Dermatology	x	x	x	x	x	x		x	
Endocrinology	x	x	x	x	x	x		x	
Gastroenterology	x	x	x	x	x	x		x	
Medical oncology	x	x	x	x	x	x		x	
Neurology	x	x	x	x	x	x		x	
Rheumatology	x	x	x	x	x	x		x	



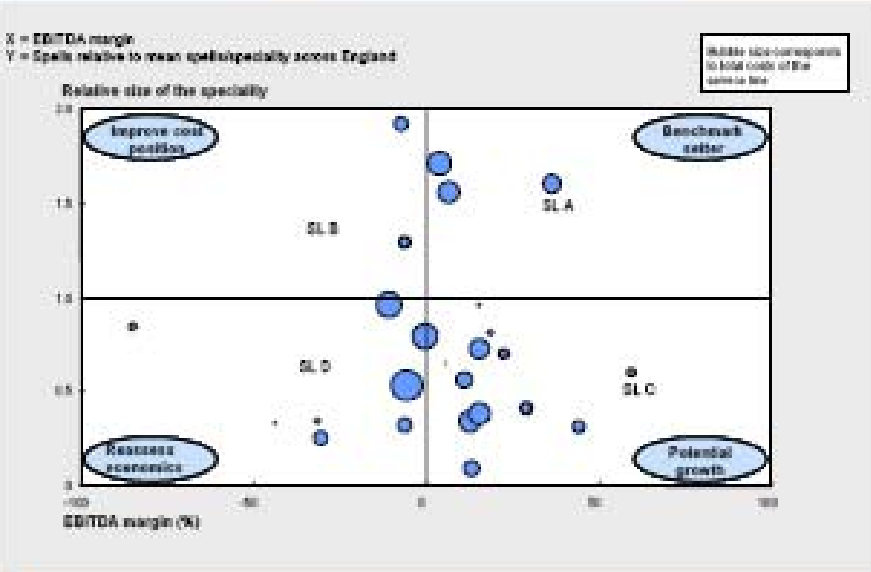
Summary

- Curious growth of ‘governing by financial numbers’ in healthcare field
- Importance of studying the complex of regulatory actors/expertises (rather than only accounting)
- Role of ‘mediating instruments’
- Increasing importance of risk-based regulation
- Hybridising – of regulatory agencies and service delivery?


GOVERNING
THE PRESENT
PETER MILLER and NIKOLAS ROSE

1 PORTFOLIO MATRIX

Monitor
Independent Regulator of NHS Foundation Trusts



Purpose of using this tool

- Identify priority areas for further work and/or analysis
- Inform long-term portfolio management decisions (e.g. growth, capital allocation)

How to talk to this tool

- Explain how each axis is derived and the meaning of the size of the bubble
- Bring the chart to life by talking about an example service-line in each quadrant

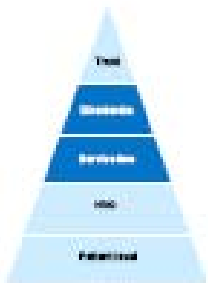
What to do after using this tool

- Decide which service-lines require further analysis
- Agree which tools will be used next

Possible customisation

- Use contribution or net income instead of EBITDA
- Show changes over time

Levels of analysis



Hints and tips

- Stress that decisions are not made based on which quadrant a service-line is in. It is just the start of a conversation
- Ask the audience if there are any surprises
- The discussion is likely to focus on service-lines in the bottom left quadrant. Therefore, make sure you are ready to talk about these in advance and have additional data ready if needed

2 EBITDA TABLE

Monitor
Independent Regulator of NHS Foundation Trusts

Service-line	Number of spells/ bed -days	Number of out-patients	Revenue £'000s	Costs Direct £000s	Indirect £000s	Overhead £000s	Total EBITDA £000s	EBITDA margin %	% change in activity
ITU	x	x	x	x	x	x		x	
Pain management	x	x	x	x	x	x		x	
Palliative medicine	x	x	x	x	x	x		x	
GUM	x	x	x	x	x	x		x	
HIV	x	x	x	x	x	x		x	
Accident & Emergency	x	x	x	x	x	x		x	
Cardiology	x	x	x	x	x	x		x	
Care of the elderly	x	x	x	x	x	x		x	
Clinical haematology	x	x	x	x	x	x		x	
Dermatology	x	x	x	x	x	x		x	
Endocrinology	x	x	x	x	x	x		x	
Gastroenterology	x	x	x	x	x	x		x	
Medical oncology	x	x	x	x	x	x		x	
Neurology	x	x	x	x	x	x		x	
Rheumatology	x	x	x	x	x	x		x	
Thoracic medicine	x	x	x	x	x	x		x	
Burns	x	x	x	x	x	x		x	
General surgery	x	x	x	x	x	x		x	
Ophthalmology	x	x	x	x	x	x		x	
Plastics	x	x	x	x	x	x		x	
T&O	x	x	x	x	x	x		x	
Urology	x	x	x	x	x	x		x	
All paediatrics	x	x	x	x	x	x		x	
Gynaecology	x	x	x	x	x	x		x	
Obstetrics	x	x	x	x	x	x		x	

Purpose of using this tool

- Identify differing performance between service-lines
- Uncover drivers of variance in performance
- Complement the portfolio matrix

How to talk to this tool

- At the start of the conversation, make sure everyone in the room is comfortable with the definitions used
- Try to keep the debate focussed on outliers of performance rather than talking about every number on the page

What to do after using this tool

- Decide which service-lines require further analysis
- Agree which tools will be used next

Possible customisation

- Show additional changes over time and/or forecasts
- Include variance against plan
- Break down revenue and costs at a lower level of detail

Levels of analysis

Hints and tips

- Know your audience -- work out in advance what they are likely to be interested in, and customise the table for them (i.e. in-year performance, comparisons against plan and/or changes over time)
- Circulate the tables beforehand and ask people to come to the meeting with questions
- Order the table by EBITDA margin to make it easier to pick out outliers in performance

3 DETAILED I&E

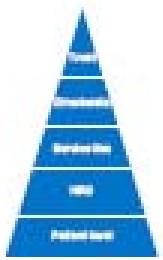
Monitor
Independent Regulator of NHS Foundation Trusts

Directorate, service-line, POD or HRG	Actual	Plan	Variance	Commentary
Income				
• Tariff income	X	X	X	—
• Non-tariff income	X	X	X	—
• Non-NHS clinical income	X	X	X	—
• Other income	X	X	X	—
Total income	X	X	X	—
Direct costs				
• Direct pay costs				
– Nursing	X	X	X	
– Consultants	X	X	X	—
– Other clinical	X	X	X	—
– Non-clinical	X	X	X	—
• Non-pay costs				—
– Drug costs	X	X	X	
– Supplies	X	X	X	—
– Other direct costs	X	X	X	—
Indirect costs				—
– Allied healthcare professionals	X	X	X	
– Radiology	X	X	X	—
– Pathology	X	X	X	—
– Theatre	X	X	X	—
– Other services	X	X	X	—
Total direct and indirect costs	X	X	X	—
Contribution	X	X	X	—
Contribution margin (%)	X	X	X	—
Overhead costs				—
• Site costs	X	X	X	
• Corporate costs	X	X	X	—
EBITDA	X	X	X	—
EBITDA margin (%)	X	X	X	—
Interest, depreciation and amortisation	X	X	X	—
Earnings	X	X	X	—

Possible customisation

- Compare over different time periods (e.g. previous year)
- Break down costs and revenue differently and/or to greater degree

Levels of analysis



Purpose of using this tool

- Understand reasons behind variance against plan
- Identify areas for improvement
- Enhance understanding of the key drivers of EBITDA performance

How to talk to this tool

- Begin by ensuring that the definitions of each of the cost lines are understood
- Ideally, the general manager or lead clinician should be leading this discussion

What to do after using this tool

- Identify areas for further analysis
- Agree frequency at which you will review these reports

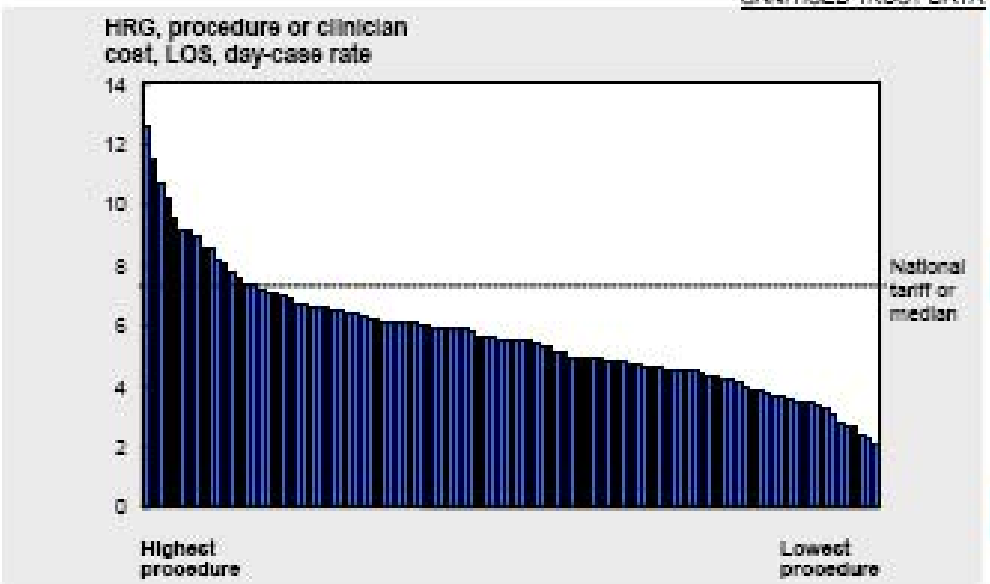
Hints and tips

- Getting general managers and clinicians to jointly fill out the commentary section prior to the meeting will greatly enhance the quality of the discussion
- Be sure that you know where non-PbR costs and revenues sit (e.g. R&D, training, private patients)

4 VARIANCE ANALYSIS

Monitor
Independent Regulator of NHS Foundation Trusts

SANITISED TRUST DATA



Purpose of using this tool

- Identify outlying HRGs, procedures or clinical practices
- Understand reasons for variance
- Identify ways to reduce this variance

How to talk to this tool

- Begin by explaining why you have undertaken this analysis
- Use this tool as a jumping-off point for more detailed analysis rather than a standalone discussion

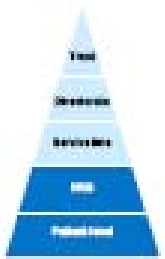
What to do after using this tool

- Look at the causes behind variances by examining individual procedures

Possible customisation

- Customise for HRG, procedure or clinician
- Produce for various metrics such as cost, average length of stay (ALoS) or day-case rate

Levels of analysis



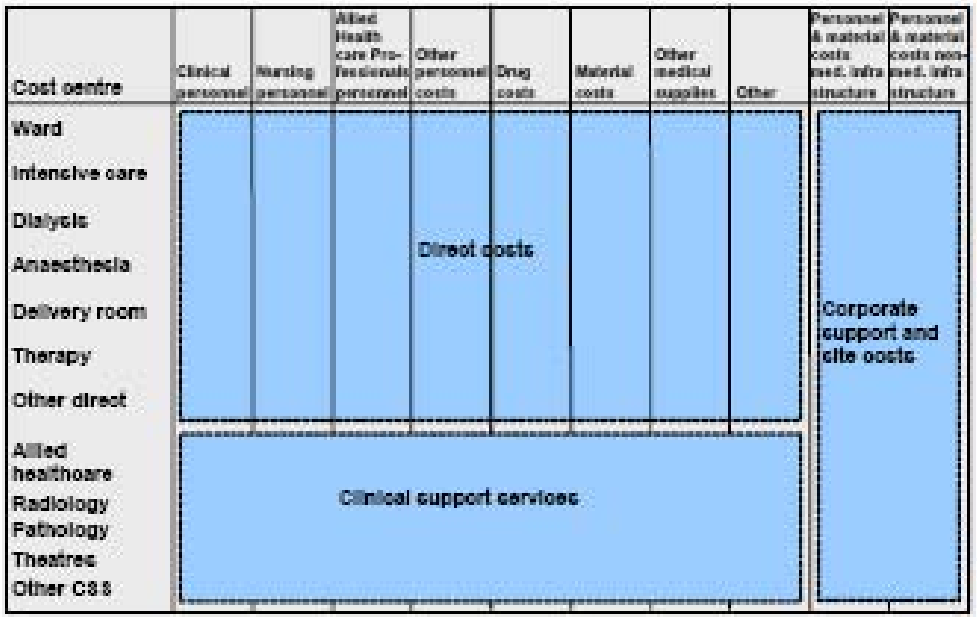
Hints and tips

- Be sure to acknowledge that some variance is to be expected and that there may be very good reasons for it (e.g. clinical necessity, coding errors)
- Highlight areas you would like to talk about by using different coloured bars
- If you are discussing individual clinician performance, make sure you do not sound confrontational

Note: Analysis of cost variance requires patient-level costing

5 COST MATRIX

Monitor
Independent Regulator of NHS Foundation Trusts



Purpose of using this tool

- Identify the key underlying drivers of costs
- Help to understand the reasons behind variances in costs for the same HRG with the same LoS
- Identify areas for improvement

How to talk to this tool

- Start by explaining how the matrix combines cost lines and cost centres
- Circulate matrices beforehand and/or give people time to look at the charts before discussing implications
- Do not go through each number, but highlight the key areas for discussion

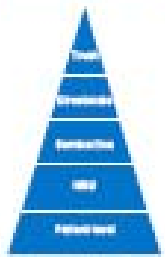
What to do after using this tool

- Identify areas for improvement and develop plans

Possible customisation

- Compare over different time periods (e.g. previous year)
- Break down costs and revenue differently and/or at a greater level of detail

Levels of analysis



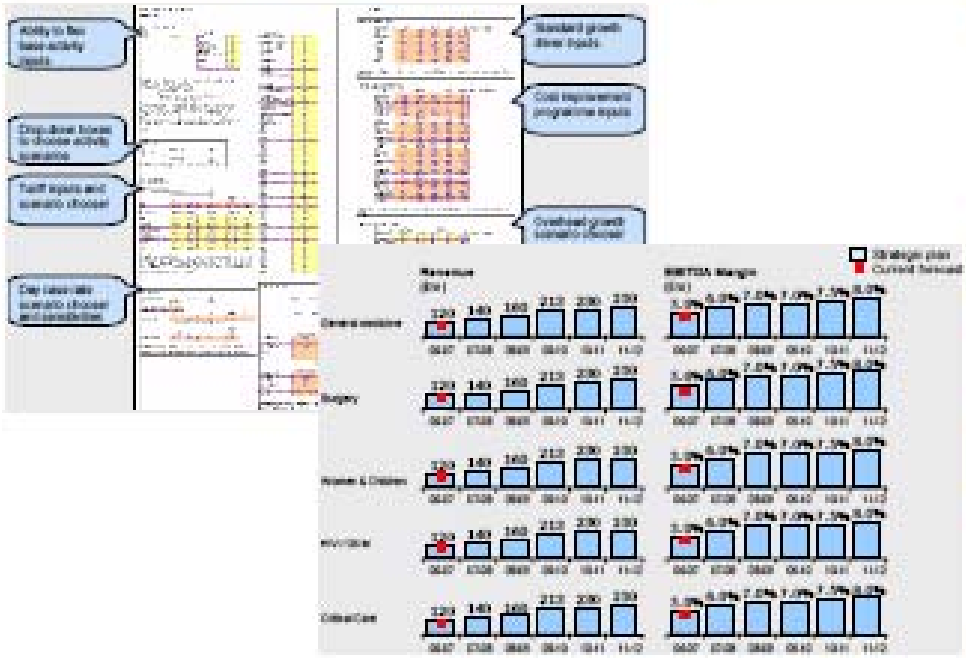
Hints and tips

- Before sharing this analysis, be sure you can explain what allocation rules have been used to derive each number on the matrix
- Make sure the cost centres mirror your organisation's design

Note: Analysis of individual procedures requires patient-level costing

6 FORECAST MODEL

Monitor
Independent Regulator of NHS Foundation Trusts



Purpose of using this tool

- Produce five-year forecasts and facilitate sensitivity and 'what if' analysis
- Generate the data needed to populate reports from other tools with forecast data
- Forecast implications of the strategic plan

How to talk to this tool

- Explain rationale behind the forecast
- Focus on input needed from each directorate and/or assumptions for sensitivities

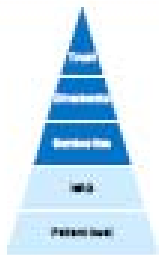
What to do after using this tool

- Adjust strategic plan based on this analysis
- Follow up with directorates to develop detailed plans for the coming year

Possible customisation

- This model is an example of the type needed. You may already have a tool you would prefer to use or wish to develop one of your own
- The model is designed to allow increased customisation as the user's knowledge increases

Levels of analysis

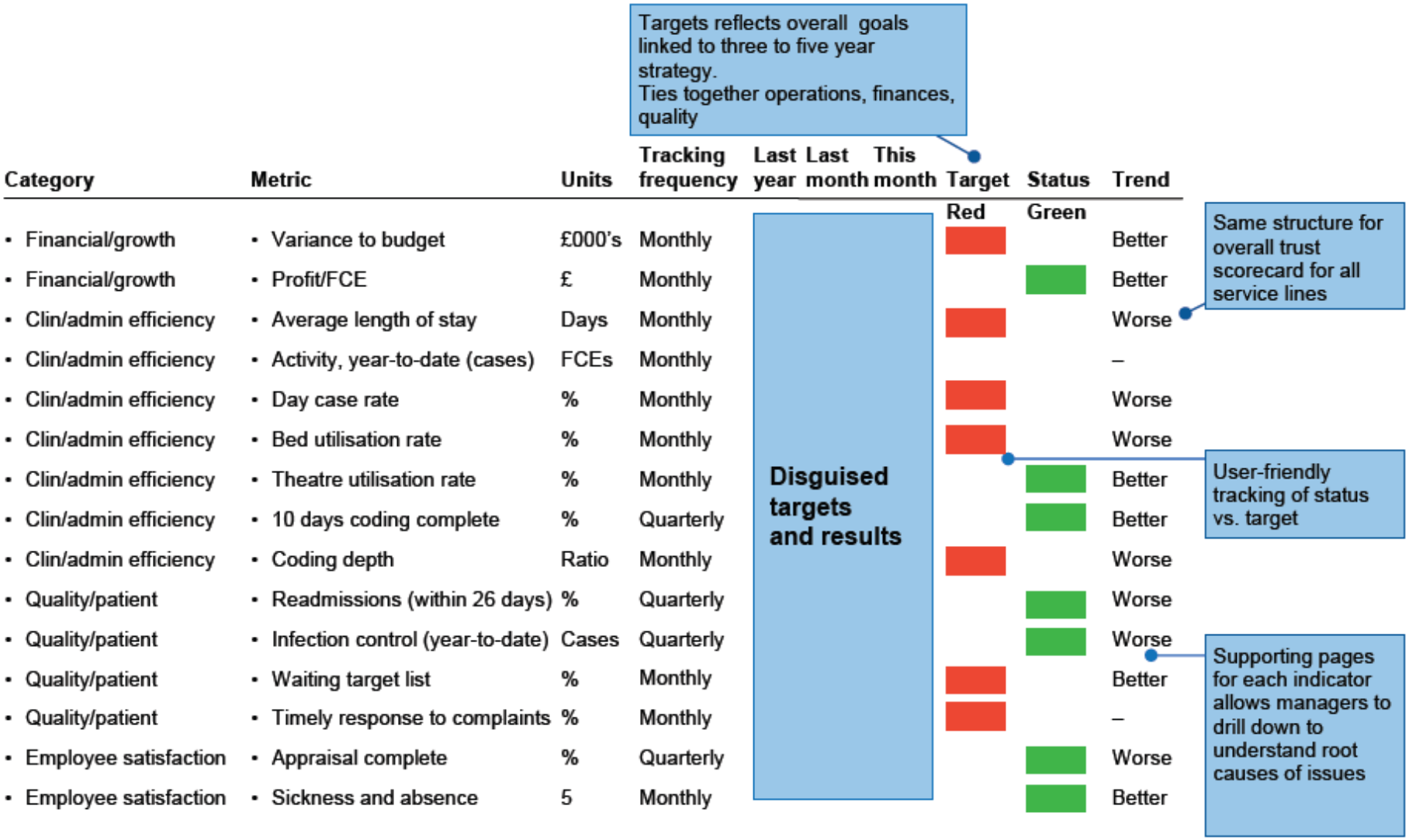


Hints and tips

- Read Appendix B - Guide to the forecast model before using the model provided
- One person needs to ensure that all input and assumptions are clearly catalogued
- Be vigilant with version control to ensure that you can keep track of different scenarios
- Set up a base scenario which you can revert to easily once sensitivities have been run

(Source: Monitor, Getting the most out of service-line reporting: organisational change and incentive-based performance management, March 2007)

Performance tracking:



Category	Metric	Units	Tracking frequency	Last year	Last month	This month	Target	Status	Trend
							Red	Green	
• Financial/growth	• Variance to budget	£000's	Monthly						Better
• Financial/growth	• Profit/FCE	£	Monthly						Better
• Clin/admin efficiency	• Average length of stay	Days	Monthly						Worse
• Clin/admin efficiency	• Activity, year-to-date (cases)	FCEs	Monthly						–
• Clin/admin efficiency	• Day case rate	%	Monthly						Worse
• Clin/admin efficiency	• Bed utilisation rate	%	Monthly						Worse
• Clin/admin efficiency	• Theatre utilisation rate	%	Monthly						Better
• Clin/admin efficiency	• 10 days coding complete	%	Quarterly						Better
• Clin/admin efficiency	• Coding depth	Ratio	Monthly						Worse
• Quality/patient	• Readmissions (within 26 days)	%	Quarterly						Worse
• Quality/patient	• Infection control (year-to-date)	Cases	Quarterly						Worse
• Quality/patient	• Waiting target list	%	Monthly						Better
• Quality/patient	• Timely response to complaints	%	Monthly						–
• Employee satisfaction	• Appraisal complete	%	Quarterly						Worse
• Employee satisfaction	• Sickness and absence	5	Monthly						Better

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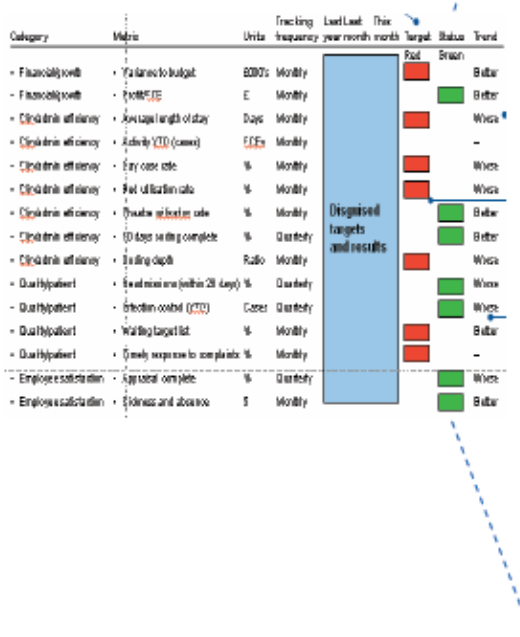
Performance conversations:

Based on solid facts . . .



. . . ask the questions in a solution focused way

What is happening?	Why?	What needs to be done?	Who is going to do it?	When is it going to be done?
• What are the gaps to target? • Are any trends causing concern?	• What has happened to cause the performance gap? • Do we understand the true root causes? • Do we need to investigate further to really understand the problem?	• Do we need to take any short term containment action? • What needs to be done to correct the problem and prevent this happening again? • Will these actions completely resolve the problem or do we need to do any additional things to close the gap?	• Who will take responsibility for completing the action? • Does the owner need support from any of the other team members?	• Is it a priority action? • What is the deadline for completion? • When are the intermediate milestones? • How is progress going to be tracked?