



Improving health system productivity: the role of performance measurement

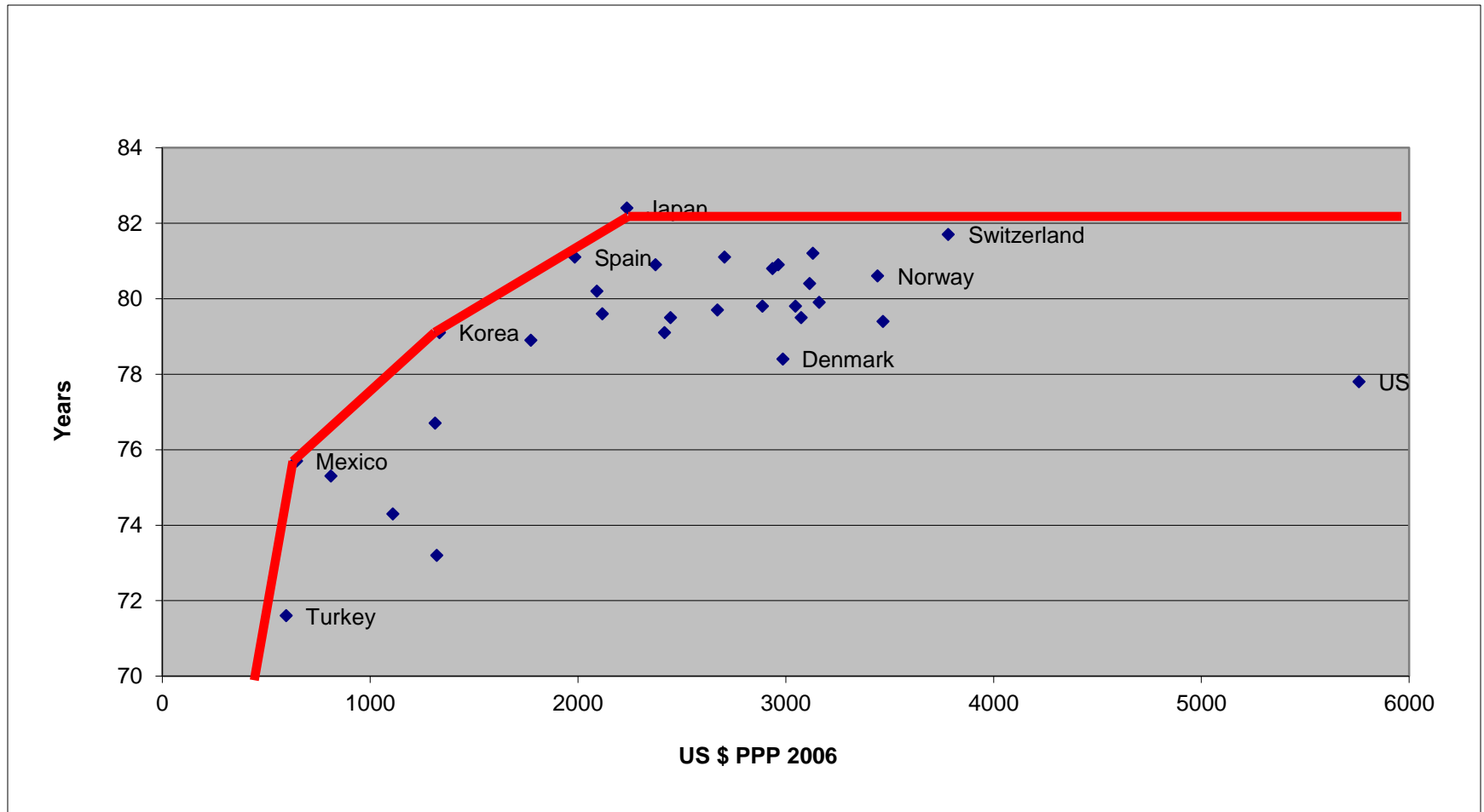
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Efficiency: some preliminary issues

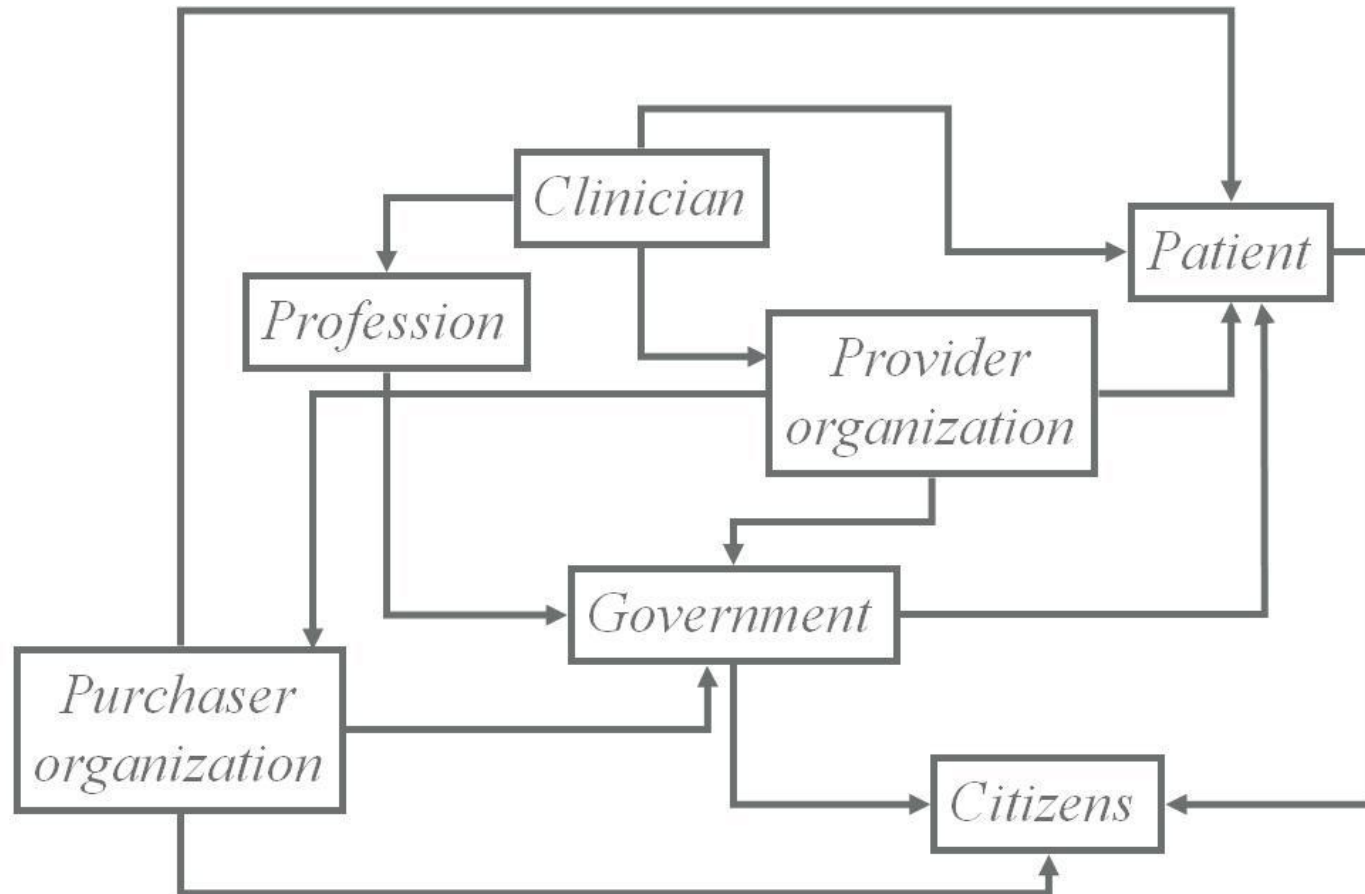
- Efficiency as a ratio of valued outputs to costly inputs
- Inefficiency often considered a 'residual' after all other legitimate explanations of variation have been taken account of
- Need to distinguish between efficiency and expenditure control
 - Improved efficiency can arise from higher levels of attainment at the same cost, as well as lower expenditure for the same attainment.
- Often a need to adjust for uncontrollable constraints on better attainment
 - E.g. diet; smoking; geography

Spending and life expectancy



Source: OECD Health Data

Some accountability relationships within the health system



The universal role of performance information

- ... to enable actors throughout the system to make better decisions
- The thesis:
 - that measuring and reporting performance offers one of the most powerful instruments for improvements in effectiveness and efficiency
 - its potential has hitherto been largely unexploited.

Whose decisions need to improve?

- Governments
- Regulators
- Purchaser organizations (insurers, local governments etc)
- Provider organizations
- Healthcare professionals
- Service users (patients and caregivers)
- Citizens

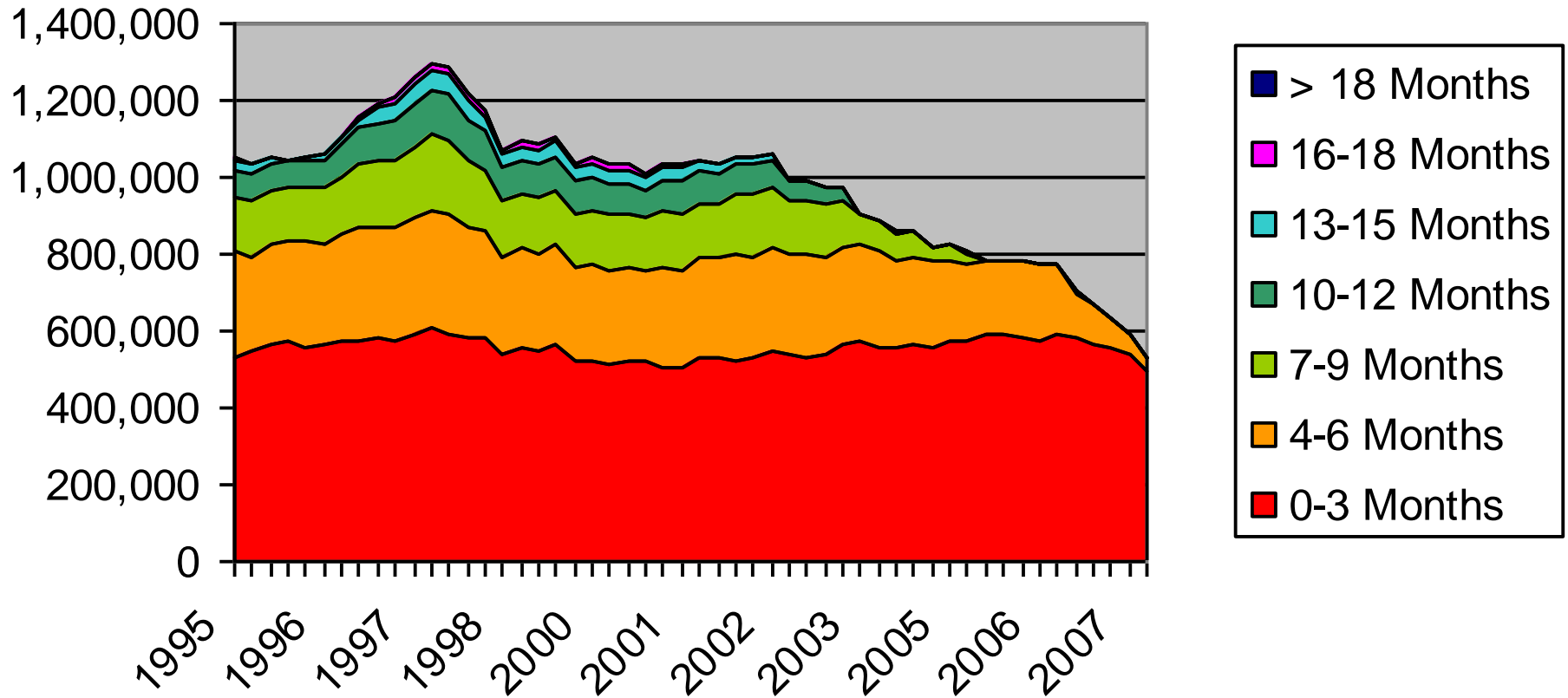
Three performance measurement policies

- Public reporting of performance
 - Public
 - Provider organizations
- ‘Pay for performance’
 - Governments
 - Purchasers
- Patient-reported outcome measures
 - Professionals
 - Public

Performance measurement for efficiency 1: Public reporting

- Stated intention is usually to help patients and the broader public
- Main impact is on providers – reputational
- Can be highly effective, but beware:
 - Needs aligned accountability instruments, such as patient choice or other sanctions
 - Unintended side-effects

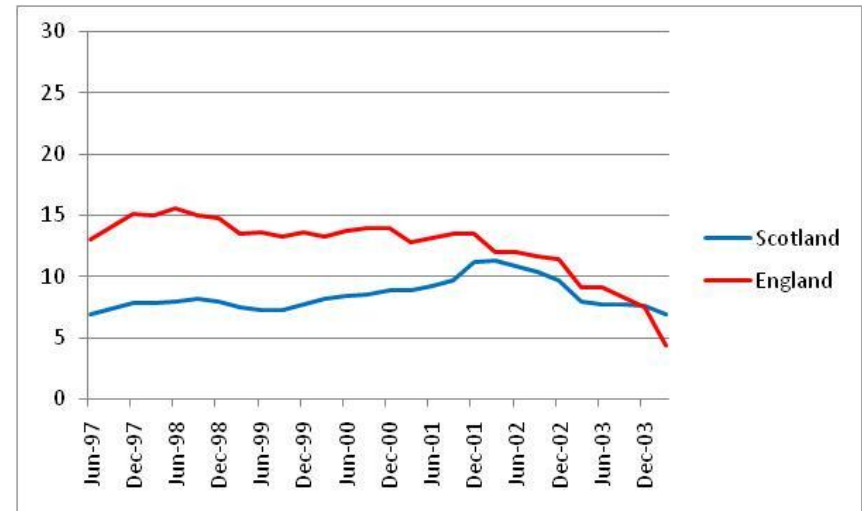
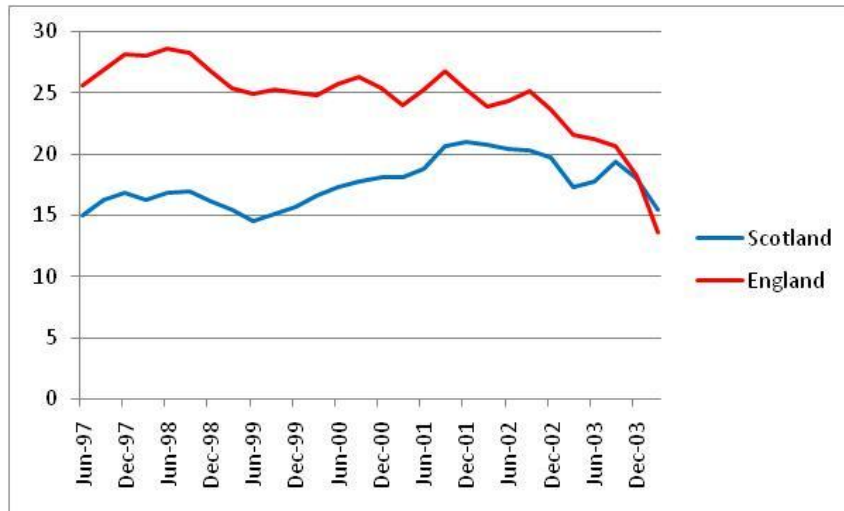
Inpatient waiting list by length of wait



Propper *et al* (2008): England vs Scotland

Waiting more than 6 months

Waiting more than 9 months



Carol Propper, Matt Sutton, Carolyn Whitnall, and Frank Windmeijer (2008) “Did ‘Targets and Terror’ Reduce Waiting Times in England for Hospital Care?,” *The B.E. Journal of Economic Analysis & Policy*: Vol. 8: Iss. 2, Article 5.

Available at: <http://www.bepress.com/bejeap/vol8/iss2/art5>

Why did Scotland's clinical indicators scheme have low impact?

- poor credibility, relevance and timeliness of the data,
 - a lack of awareness and expertise on the part of clinical staff
 - a lack of incentives and effective external scrutiny.
-
- Mannion, R. and M. Goddard (2001). "Impact of published clinical outcomes data: case study in NHS hospital trusts." *British Medical Journal* 323, 260-263.

Performance measurement for efficiency 2: Pay for performance

- Intention is to align the payment of service providers with health system objectives – more efficient use of health funds
- Experiments in many countries at all income levels
- Rewards can be based on either processes of care or outcomes
- Results so far modest, but some signs of improved traction

Some examples

- France Contract for Improved Individual Practice
- Germany Disease Management Programme
- Australia Practice Incentive Programme
- UK Quality and Outcomes Framework

Quality and Outcomes Framework (QOF)

- Developed in negotiation between government and providers
- Implemented in April 2004
- Major emphasis on clinical quality
- About 20% of income determined by quality incentives
- Major reliance on self-reporting (with external audit).

<http://www.qof.ic.nhs.uk/>

<http://www.nhsemployers.org/pay-conditions/primary-890.cfm>

Hypertension: indicators, scale and points at risk

Records

Min Max Points

BP 1. The practice can produce a register of patients with established hypertension			9
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Diagnosis and initial management

BP 2. The percentage of patients with hypertension whose notes record smoking status at least once	25	90	10
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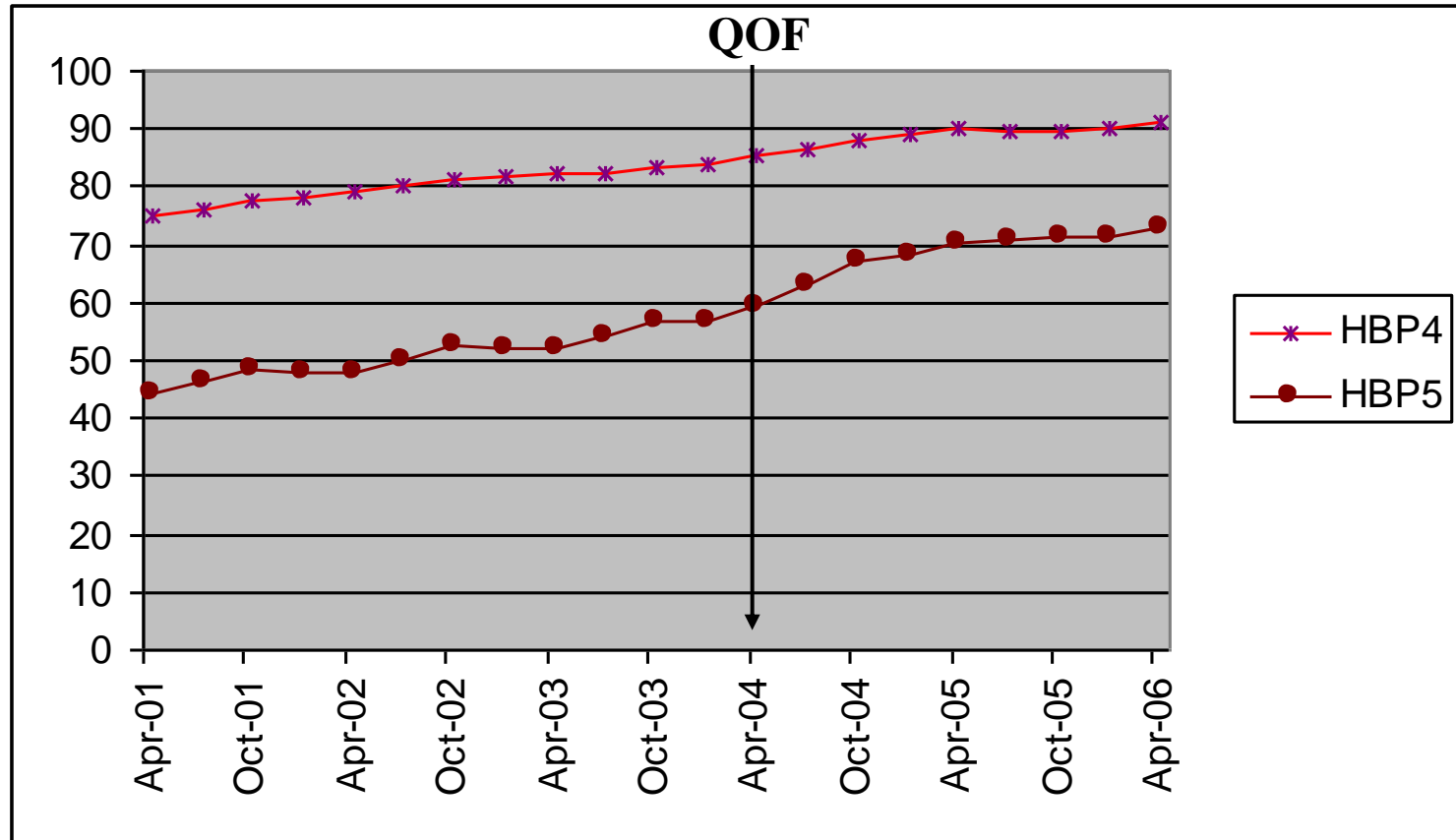
BP 3. The % of patients with hypertension who smoke, whose notes contain a record that smoking cessation advice has been offered at least once	25	90	10
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Ongoing Management

BP 4. The % of patients with hypertension in which there is a record of the blood pressure in the past 9 months	25	90	20
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BP 5. The % of patients with hypertension in whom the last blood pressure (in last 9 months) is 150/90 or less	25	70	56
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Hypertension 2001-2006



HBP4 Blood pressure recorded in last 9 months

HBP5 Blood pressure < 150/90 in the last 9 months

Performance measurement for efficiency 3: Patient reported outcome measures (PROMs)

- Intention is to better measure the outcomes of treatment from a patient perspective
- In principle can be used to compare providers or treatments
- Many methodological challenges, but potentially very important for treatments with high volumes, where mortality is not a reliable indicator of outcome

On the MORTALITY of LONDON HOSPITALS: and INCIDENTALLY on the DEATHS in the PRISONS and PUBLIC INSTITUTIONS of the METROPOLIS. By WILLIAM A. GUY, M.B., F.R.S., F.R.C.P., Professor of Forensic Medicine, King's College, London; Physician to King's College Hospital, &c.

TABLE III.—*General Mortality for the Five Years 1861-65.*

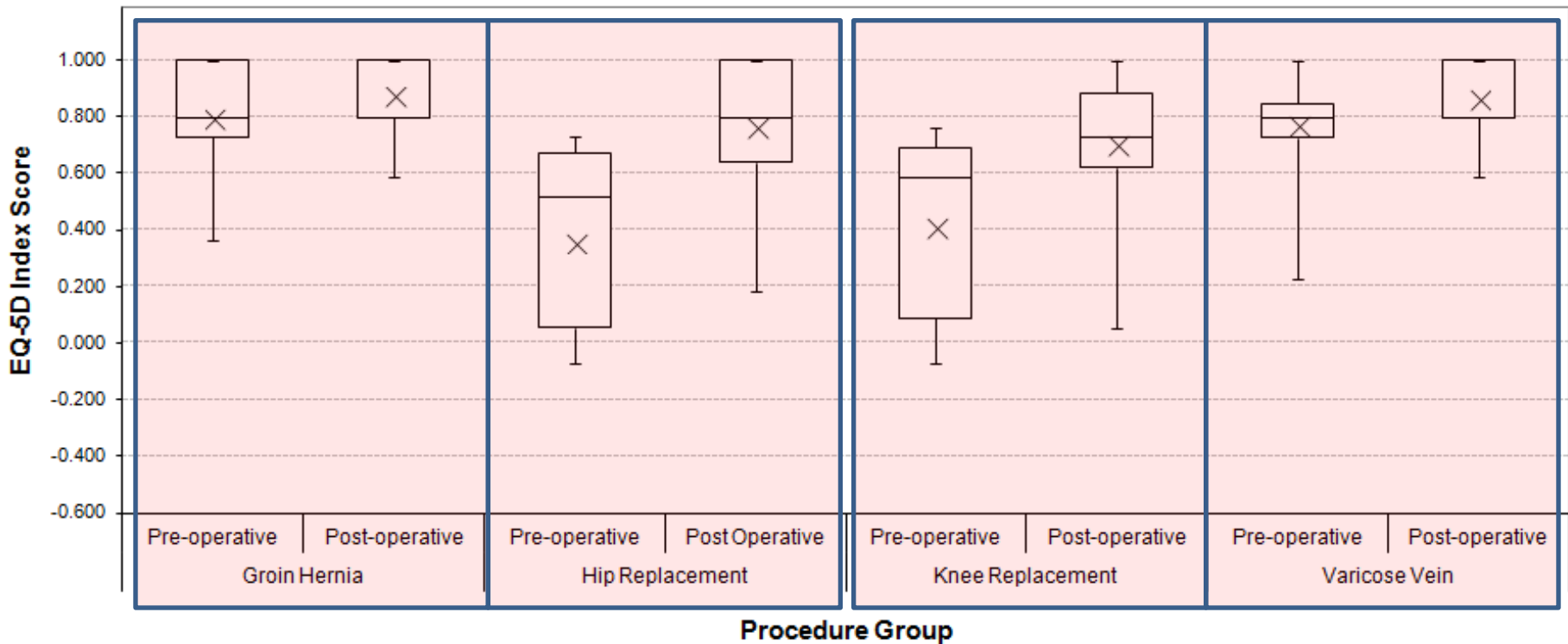
Hospitals.	Deaths per 1,000.					Maximum.	Minimum.	Mean.	Range.	Ditto per Cent.*
	1861.	1862.	1863.	1864.	1865.					
1. St. Bartholomew's	107	112	102	111	102	112	102	107	10	9
2. Guy's	94	96	97	96	93	97	93	95	4	4
3. St. Thomas's	98	97	103	125	101	125	97	103	28	22
4. London.....	84	76	87	105	89	105	76	88	29	28
5. St. George's.....	87	85	83	86	97	97	83	88	14	14
6. Westminster	98	103	91	106	92	106	91	98	15	14
7. King's College.....	107	101	123	151	126	151	101	120	50	33
8. St. Mary's	103	96	98	112	106	112	96	103	16	14
9. Royal Free	67	73	64	74	77	77	64	71	13	17
10. Charing Cross (3 years)	83	87	77	—	—	87	77	82	10	11
11. Metropolitan Free (4 } years)	69	56	69	—	56	69	56	63	13	19
12. Great Northern (2 yrs.)	82	45	—	—	—	82	45	66	37	45

EQ-5D: A Generic Quality of Life Measure

Your own health state today	Your own health state today
<p>By placing a tick in one box in each group below, please indicate which statement best describes your own health state today. Do not tick more than one box in each group.</p> <p>Mobility I have no problems in walking about <input type="checkbox"/> I have some problems in walking about <input type="checkbox"/> I am confined to bed <input type="checkbox"/></p> <p>Self-care I have no problems with self-care <input type="checkbox"/> I have some problems washing and dressing myself <input type="checkbox"/> I am unable to wash and dress myself <input type="checkbox"/></p> <p>Usual activities (eg. work, study, housework, family or leisure activities) I have no problems with performing my usual activities <input type="checkbox"/> I have some problems with performing my usual activities <input type="checkbox"/> I am unable to perform my usual activities <input type="checkbox"/></p> <p>Pain/discomfort I have no pain or discomfort <input type="checkbox"/> I have moderate pain or discomfort <input type="checkbox"/> I have extreme pain or discomfort <input type="checkbox"/></p> <p>Anxiety/depression I am not anxious or depressed <input type="checkbox"/> I am moderately anxious or depressed <input type="checkbox"/> I am extremely anxious or depressed <input type="checkbox"/></p>	<p>To help people say how good or bad a health state is, we have drawn a scale (rather like a thermometer) on which the best state you can imagine is marked 100 and the worst state you can imagine is marked 0.</p> <p>We would like you to indicate on this scale how good or bad your own health is today, in your opinion. Please do this by drawing a line from the box below to whichever point on the scale indicates how good or bad your health state is.</p> <div style="text-align: right;"> <p>Best imaginable health state</p> <p>100</p> <p>90</p> <p>80</p> <p>70</p> <p>60</p> <p>50</p> <p>40</p> <p>30</p> <p>20</p> <p>10</p> <p>0</p> <p>Worst imaginable health state</p> </div> <div style="text-align: center; margin-top: 20px;"> <p>Your own health state today</p> </div>

Improvement in self-assessed health status after operation

Figure 1: Pre- and post-operative mean, median, quartiles and percentiles at a National level



Eight excuses for ignoring performance data

- ‘You cannot measure what we are trying to achieve.’ (eg mental health)
- ‘Our objectives go beyond what you are trying to measure.’ (eg waiting time targets)
- ‘The data you are using are of poor quality and cannot be relied on.’
- ‘There are external factors that influence our performance that you have not taken account of.’ (eg low income population)
- ‘The risk adjustment methods you have used are inadequate.’
- ‘There is huge uncertainty in the reported measures.’
- ‘The data you are using are out of date.’
- ‘We are unique and cannot be compared with other institutions.’

Some basic principles of performance measurement

- Seek to measure attainment of all objectives
- Vigorous data quality assurance and audit
- Good risk adjustment for external influences on performance
- Uncertainty intervals for all performance scores
- Better analytic techniques to understand performance data
- Effective accountability arrangements to ensure that providers take note

Without performance measurement:

- No means of identifying good and bad delivery practice ('what works')
- No evidence with which to design health system reforms
- No means of identifying good and bad practitioners
- No protection for patients or payers
- No case for investing in health care.

Performance Measurement for Health System Improvement



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Cambridge University Press
January 2010