

Creating incentives for health quality by publishing information on performance

Health Care Quality
Portuguese National School
of Public Health

Lisbon 11 March 2010

HEALTH CARE
QUALITY
Ciclo
de Conferências
2011



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FUNDAÇÃO
CALOUSTE
GULBENKIAN

Objectives

- To be able to describe 4 models of delivery

1. Altruism
2. Choice & competition
3. Hierarchy & targets
4. Reputation

- To be able to cite evidence of impacts in

- US health care
- National Health Services (NHSs) in England & Wales

Knights & Knaves in public policy

- ☐ Knights: ideal – wholly altruistic
 - No need for external incentives
 - ☐ Altruism
- ☐ Knights / Knaves: realistic – partly selfish
 - Need external incentives
 - ☐ Choice & competition
 - ☐ Hierarchy & targets
 - ☐ Reputation ('naming & shaming')?



Source: Le Grand (2003)

Models in principle

Individual

- Altruism
 - Low cost & popular
 - Variation & perverse incentives
 - reward failure
- Hierarchy & central targets
 - Powerful in short run
 - Gaming: dysfunctional in long run?

Organisational

- Choice & competition
 - Responsive & high performance?
 - Problems in design & implementation
 - entry & exit
- Reputation
 - Powerful
 - Gaming

Evidence of impacts

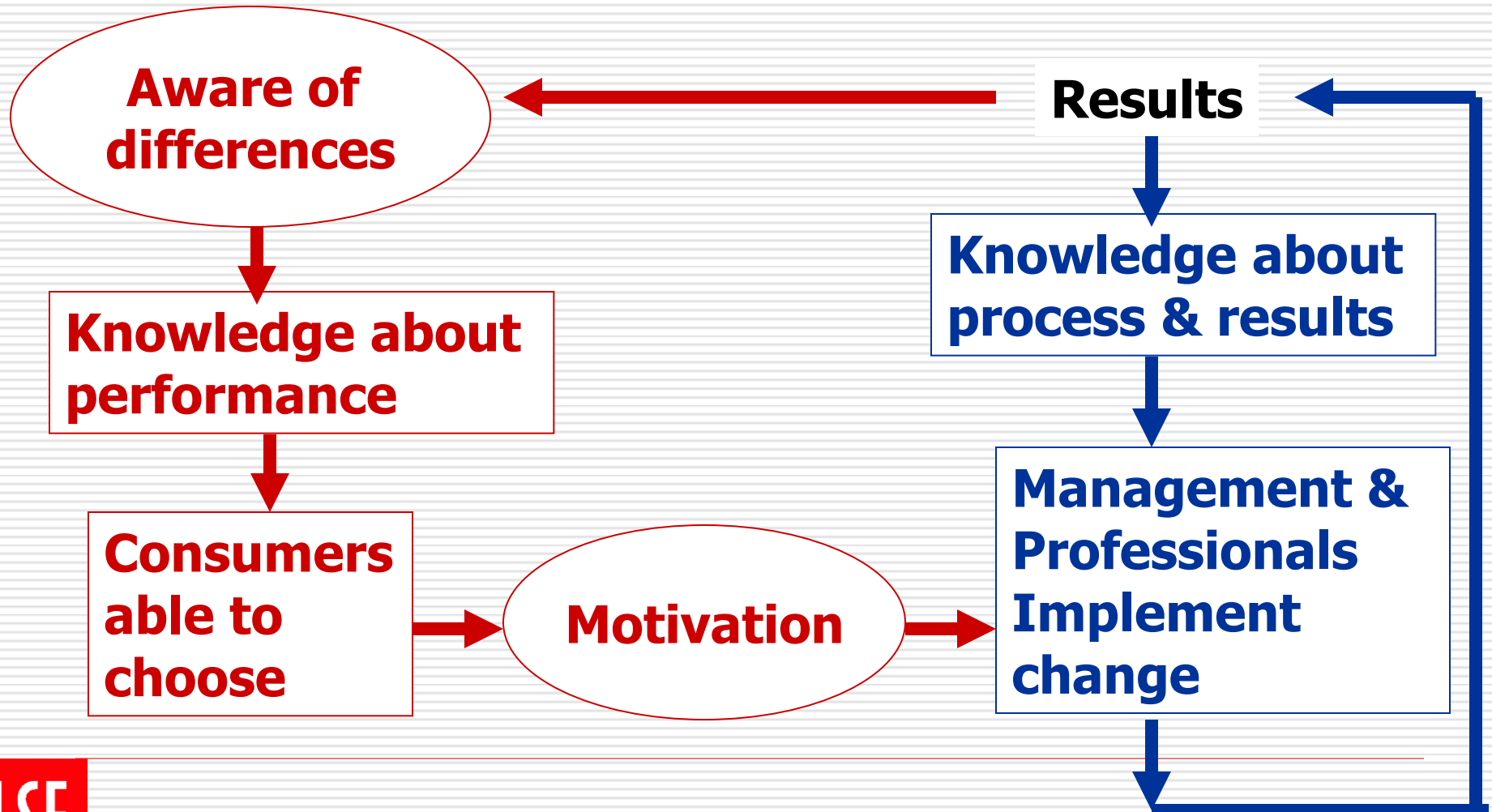
	USA	E & W 91-97	E: 97-00 W: 97-	E:00-05	E:06-
Altruism	✓		✓	✗	✗
Choice	✓	✓	✗	✗	✓
Hierarchy	✗		✗	✓	✓
Reputation	✓		✗	✓	✓

Structure

- US health care: three models (pathways)
 - Altruism
 - Choice & competition
 - Reputation
- NHSs in England & Wales



Choice & Altruism



Public reporting: US Hospitals evidence systematic reviews

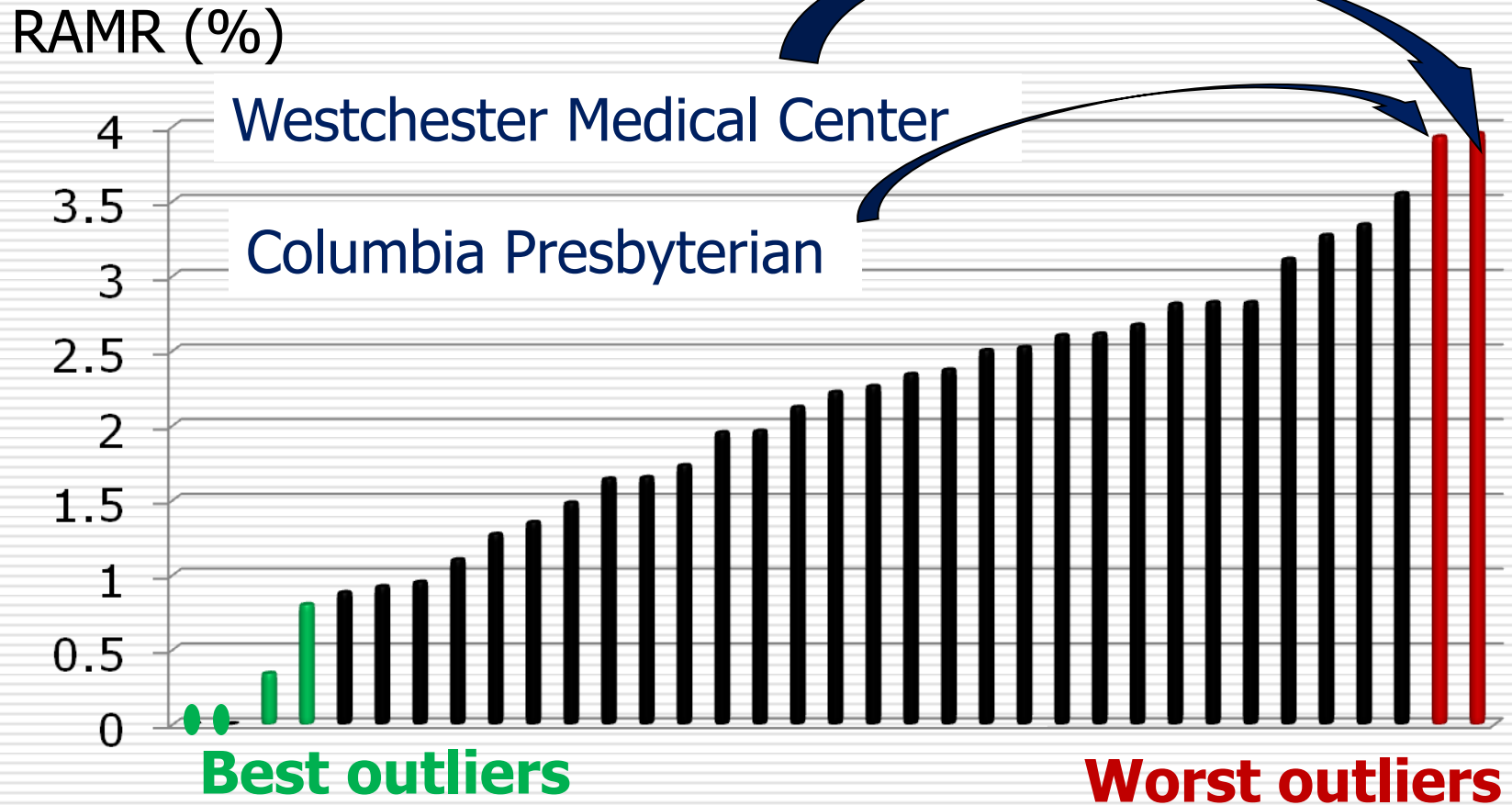
- Few rigorous evaluations
 - New York Cardiac Surgery Reporting System (CSRS) & 6 other US systems
- No evidence providers respond to threat of patients using information as consumers
 - *Ineffective in US → effective in Europe?*

September 2004: Coronary Artery Bypass Graft (CABG)

- sudden onset of chest pains & shortness of breath
 - small hospital near home
 - cardiologists @ Westchester Medical Center
 - quadruple bypass @ Columbia-Presbyterian



CSRS (2004): CABG 1999-2001 Risk-Adjusted Mortality Rate (RAMR)



3rd Pathway: *Reputation & Characteristics*



1. Ranking
2. Published & widely disseminated
3. Easily understood: performance good or poor?
4. Regular reporting: performance improved?



Reputation: Paradoxes

- ❑ Information **not** used by patients to switch from poor to good hospitals
- ❑ Managers of poor hospitals respond to repair perceived damage to public reputation **not** market share
- ❑ Effective but disliked by those who are 'named & shamed'

Controlled experiment in Wisconsin

- Summary indices adverse events
 - Deaths & complications)
 - General: surgery / nonsurgery
 - Specific: cardiac, maternity, & hip/knee

<i>Report</i>	<i>Altruism</i>	<i>Choice & competition</i>	<i>Reputation</i>
Public*	☒	☑	☑
Private	☑	☒	☒
None	☒	☒	☒

* System characteristics: Ranking, transparent, followed up

Wisconsin: Altruism, Choice & Reputation

- ❌ *Altruism*: Private report
 - ❌ *little* effort to improve quality
- ❌ *Choice & competition*: Public report
 - ❌ *no* anticipated changes in market share
 - ❌ *no* actual changes in market share
- ✅ *Reputation*: Public report
 - ✅ *significantly greater efforts* to improve quality because of concerns over threats to reputational

CSRS: Altruism, Choice & Reputation

❌ *Altruism*

- ❌ poor performance but not *outlier*: failed to use rich performance data

❌ *Choice & competition*

- ❌ *outliers* with good / poor performance: no changes in market share

✅ *Reputation*

- ✅ *outliers* with poor performance: galvanised to improve

CSRS: reported improvements & gaming

- Chassin (2002): reported improvements
 - By 1992 New York had lowest risk-adjusted mortality rate of any state in nation & most rapid rate of decline of any state with below-average mortality
- Dranove et al. (2003): gaming
 - mandatory reporting mechanisms inevitably give providers incentive to decline to treat more difficult & complicated patients

Structure

- US health care
- NHSs in England & Wales
 - Failing NHS → star rating
 - Reported improvements
 - Gaming
 - Star rating → choice & competition

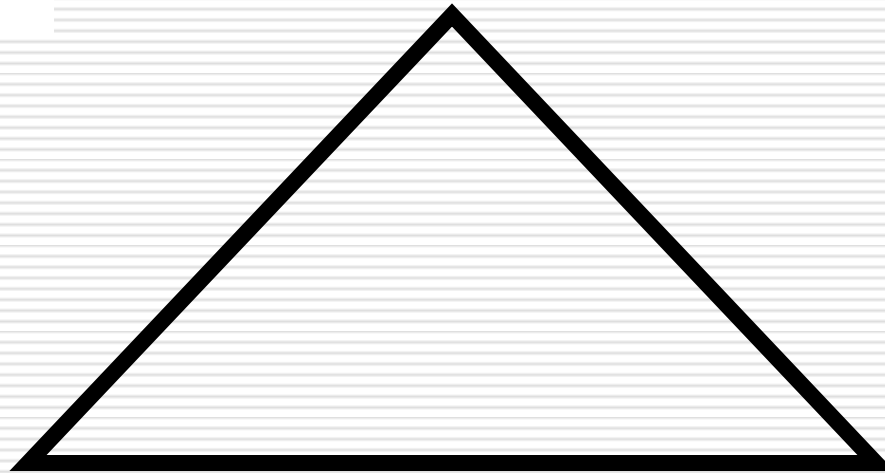
The troubling apex in health policy in England since 1979



Cost containment

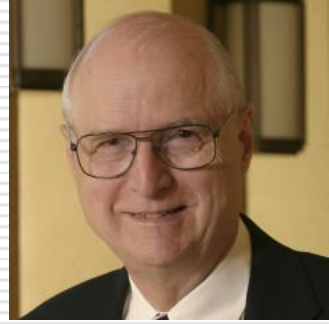


Equity: formula funding



System performance?

Internal market (1989 -97): Design*



- ❑ Purchaser / Provider
- ❑ Provider competition
 - 'money follows the patient'
- ❑ Selective contracting
 - health authorities
 - GP fundholders
 - (no patient choice)



**Working for Patients*

Internal market (1989 -97): Impact

- Le Grand (1999)*
 - Little evidence of change
 - *Incentives too weak & constraints too strong*
- Tuohy (1999)**
 - *NHS logic*
 - Ministerial accountability
 - Collegial decision making
 - Poor information on prices & quality

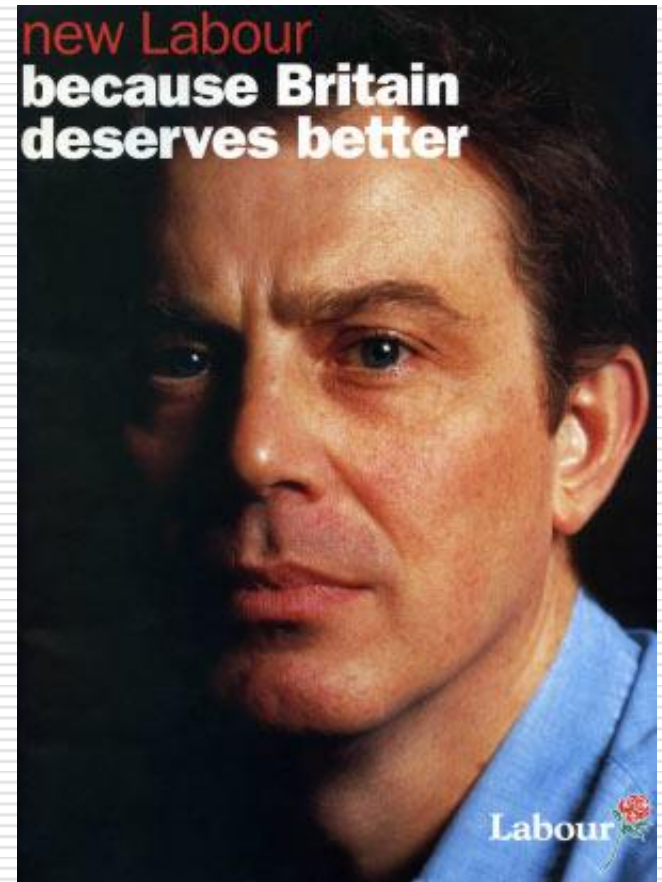


* Le Grand (1999) Competition, cooperation, or control? Health Affairs

** Tuohy (1999) Accidental Logics. Oxford University Press

1997 new Labour manifesto

- We will save the NHS
 - End the Tory internal market
 - End waiting for cancer surgery
- Five manifesto pledges
 - NHS: 100,000 people off waiting lists



Lord Winston's verdict NHS under Labour (17 January 2000)

- ❑ gave categorical promises would abolish internal market ... not done that
- ❑ want NHS steadily deteriorate rationed & inferior for heart disease & cancer?
- ❑ NHS "much the worst in Europe"



medical expert & Labour peer

Source: *The New Statesman*, interview, 17 January 2000

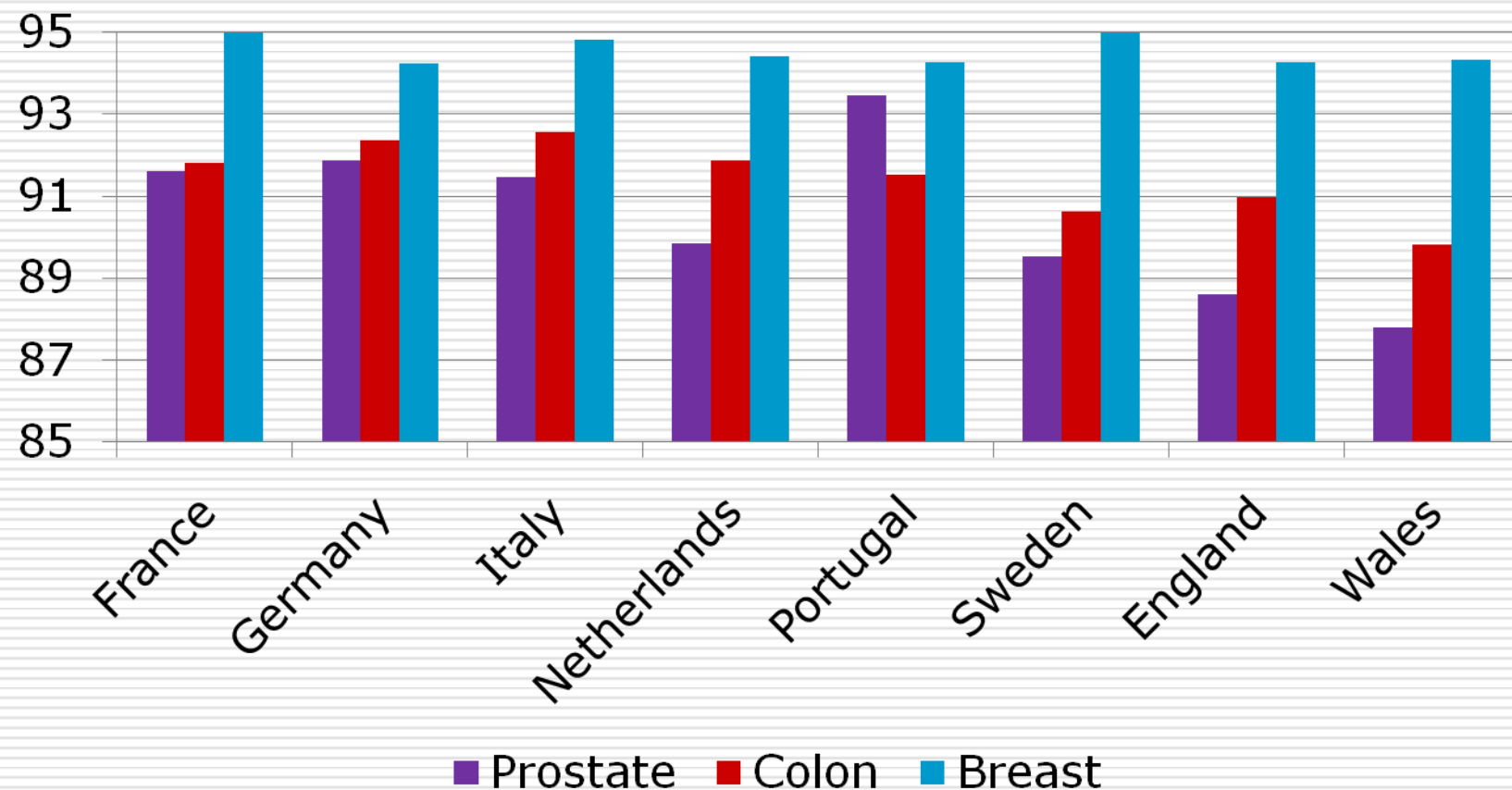
Typical patient experience?

Lord Winston's 87-year-old mother

- ❑ waited 13 hours for a bed -- on a mixed-sex ward
- ❑ drugs not given on time, missed meals & found lying on floor in morning
- ❑ caught infection: ulcer on her leg

Cancers diagnosed 1995-1999

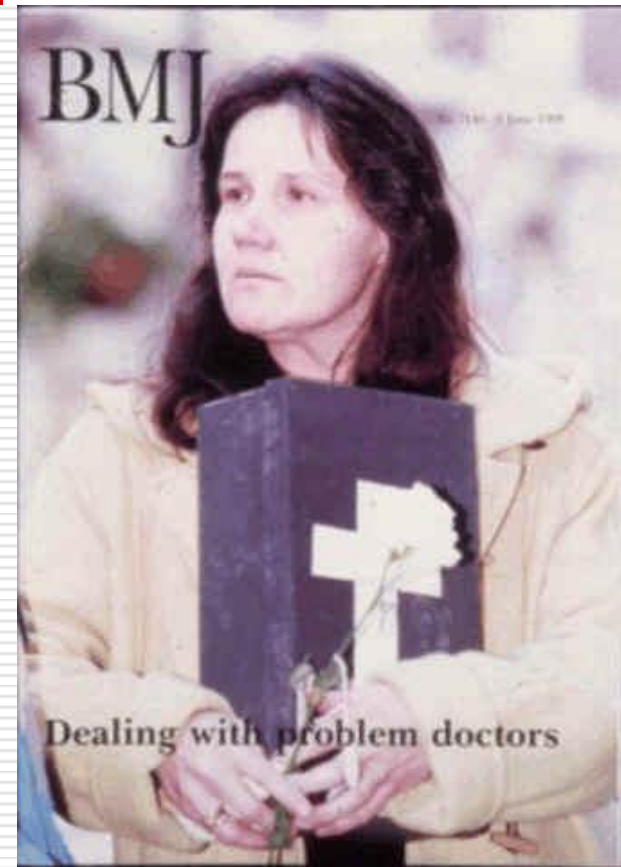
5-year survival rates



Professional self regulation: dedicated clinical staff knights?

- mortality rate double other centres in 5 years 1988 to 1994
- British medicine will be transformed by the Bristol case

Smith (1998) *All changed, changed utterly*



Professional self regulation: clinical staff knaves?

Horror stories of medical
incompetence, arrogance &
libidinousness filled
newspapers ... united in
condemnation of profession
unable to regulate itself
except when it's too late

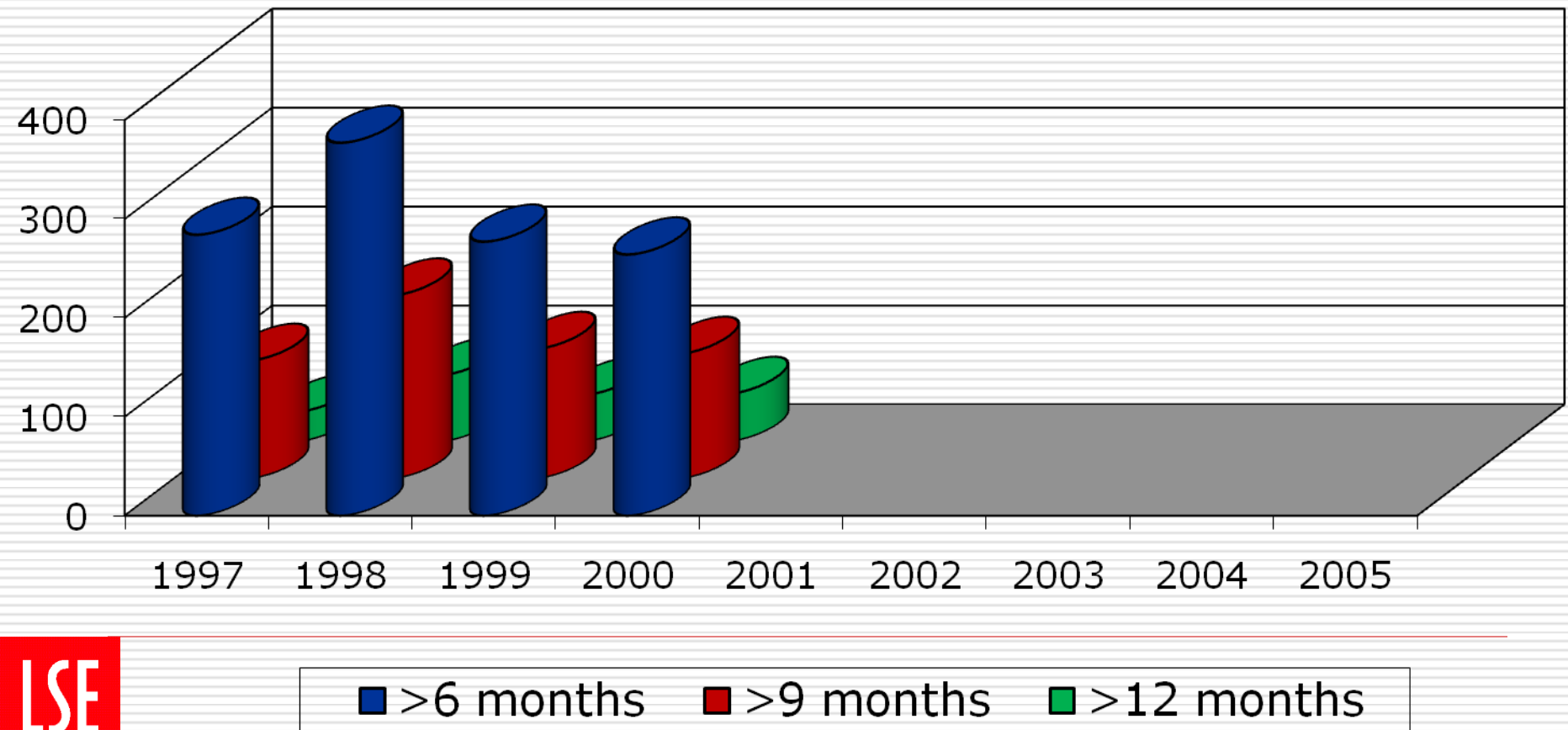
Abbasi (1998) *Butchers & Gropers*



England: *Selection* → *Change*

1997 manifesto pledge ↓ waiting lists

Numbers waiting elective admissions (England) ('000s)

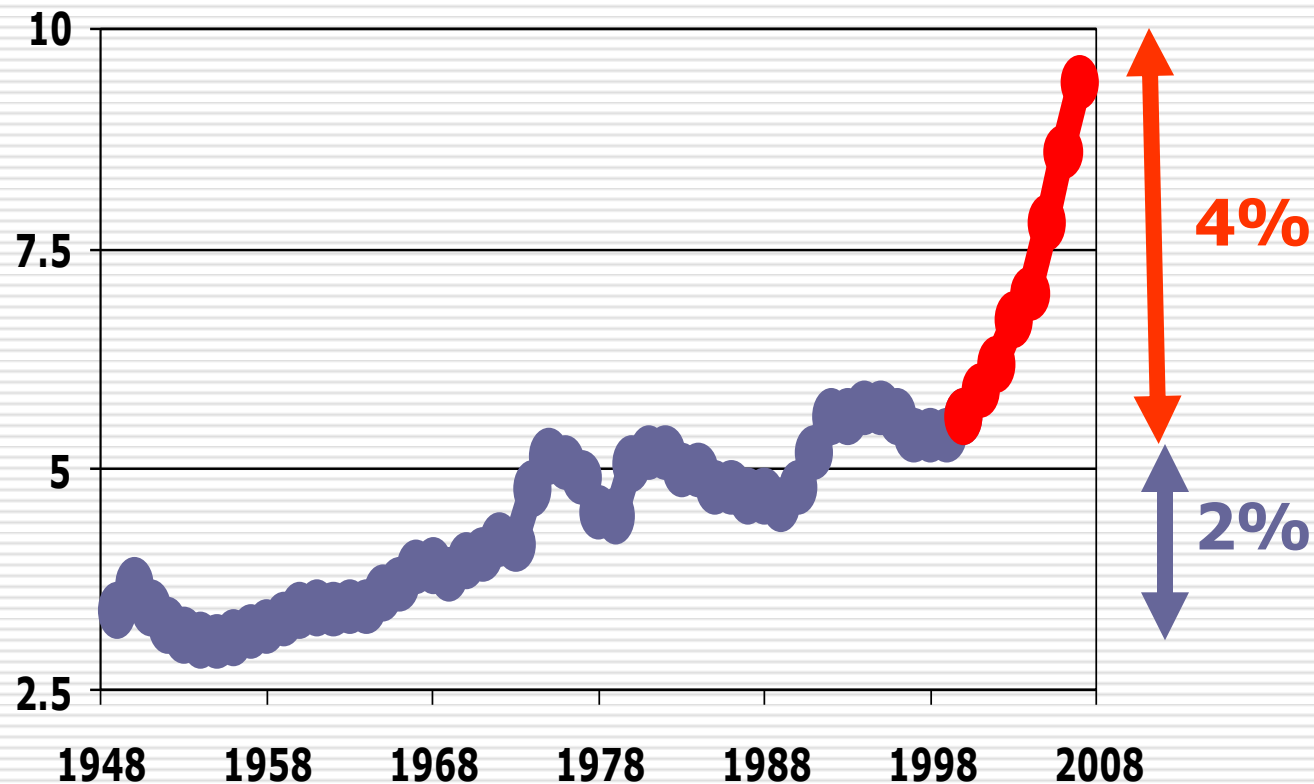


Most expensive breakfast in British history

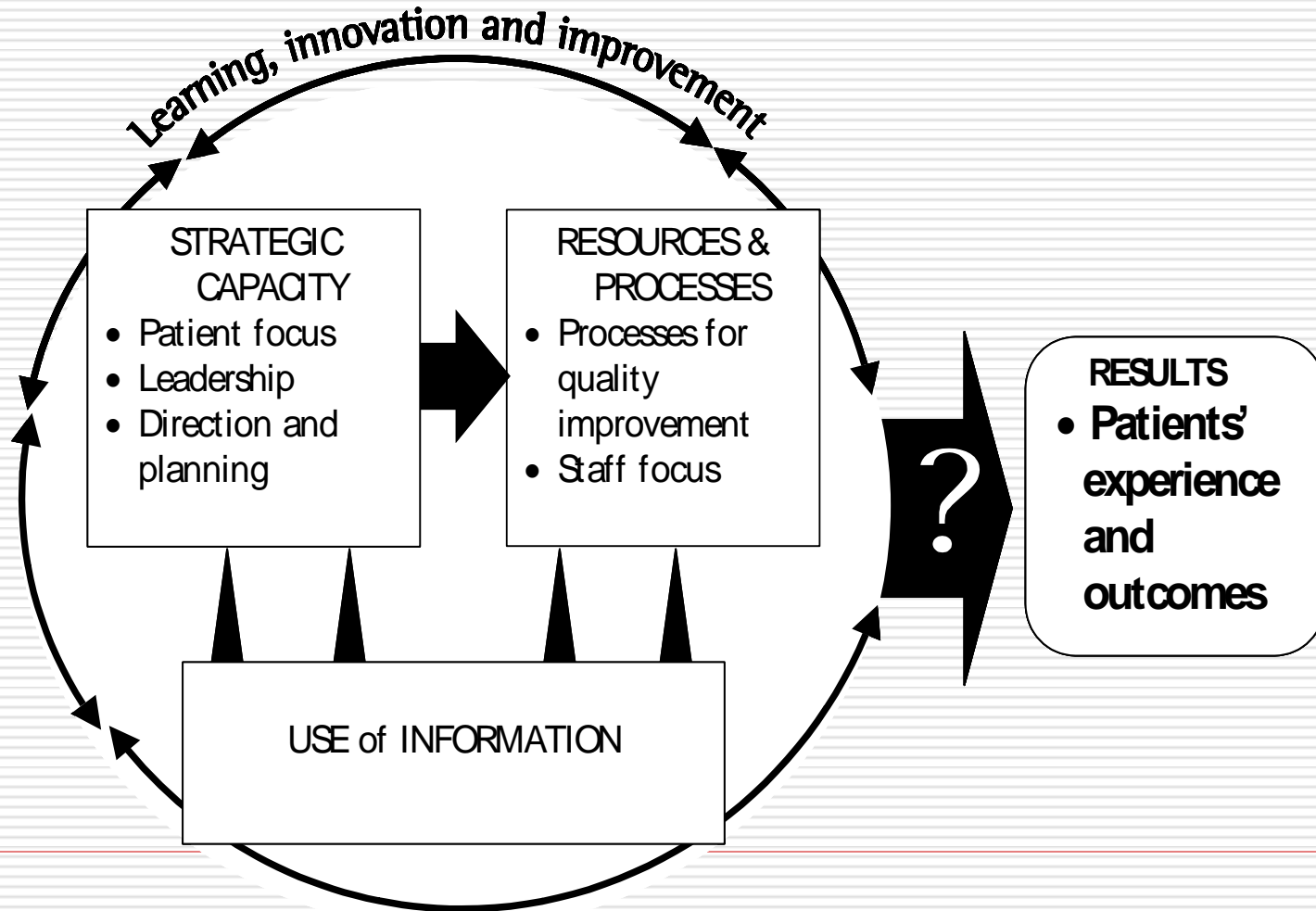


20 January
2000: *We've
decided to raise
NHS spend to
European
average*

NHS spend (% GDP)



Commission for Health Improvement (2000-04)



Star ratings: separating knights from knaves



Zero



9 Key targets

CGR

'balanced scorecard'

- patient surveys
- clinical outcomes
- capability & capacity

CGR

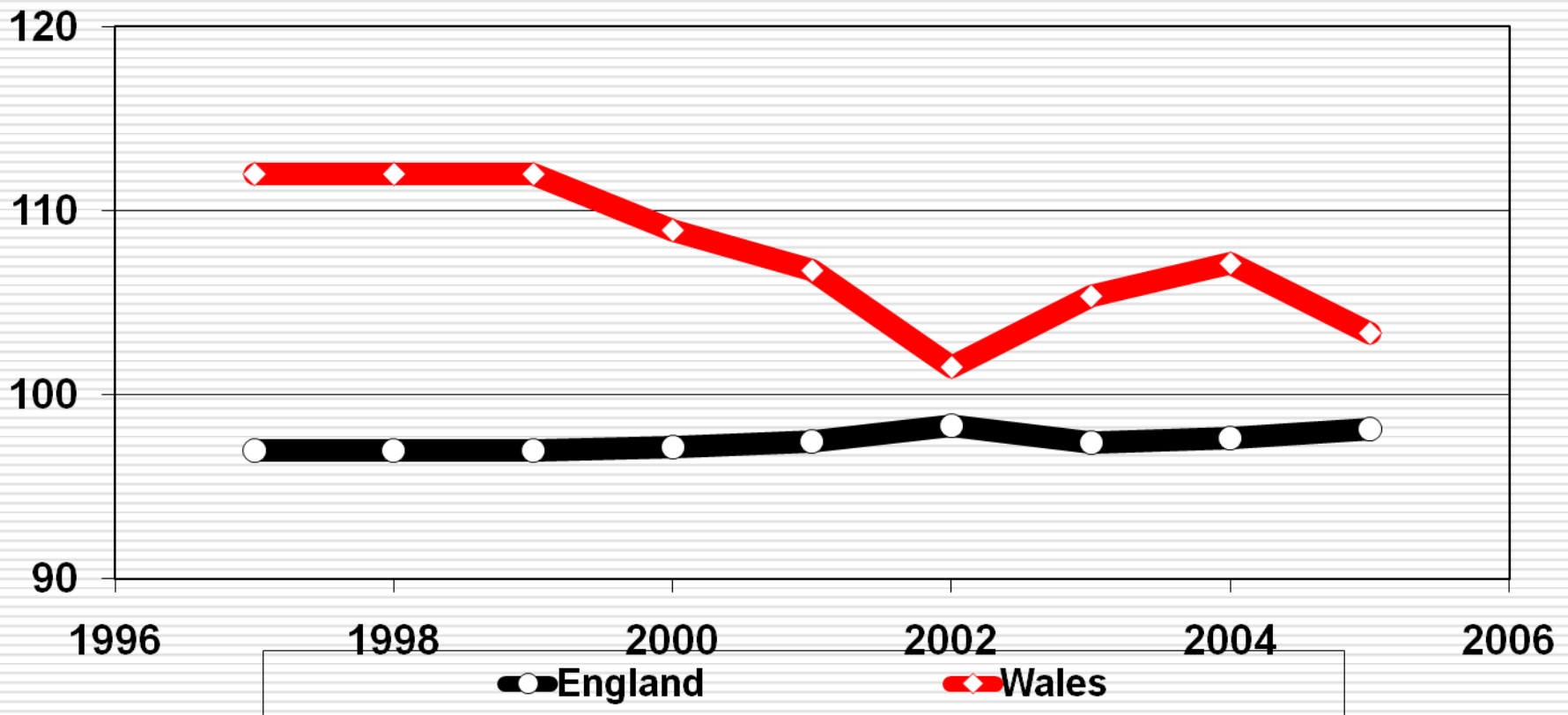
Structure

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- NHSs in England & Wales
 - Failing NHS → star rating
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NHS in England & Wales: 1997 to 2005

	England	Wales
Altruism	☑ Until 2000	☑
Hierarchy & targets	☑ 2001 & 2002	☒
Choice & competition	☒	☒
Reputation	☑ 2001 to 2005	☒

NHS spend per capita (UK = 100)



Sources: <http://www.archive2.official-documents.co.uk/document/cm54/5401/5401-00.htm#tables> & http://www.hmtreasury.gov.uk/economic_data_and_tools/finance_spending_statistics/pes_publications/pespub_pesa05.cfm

Star rating: *Reputation*

'naming & shaming' zero stars

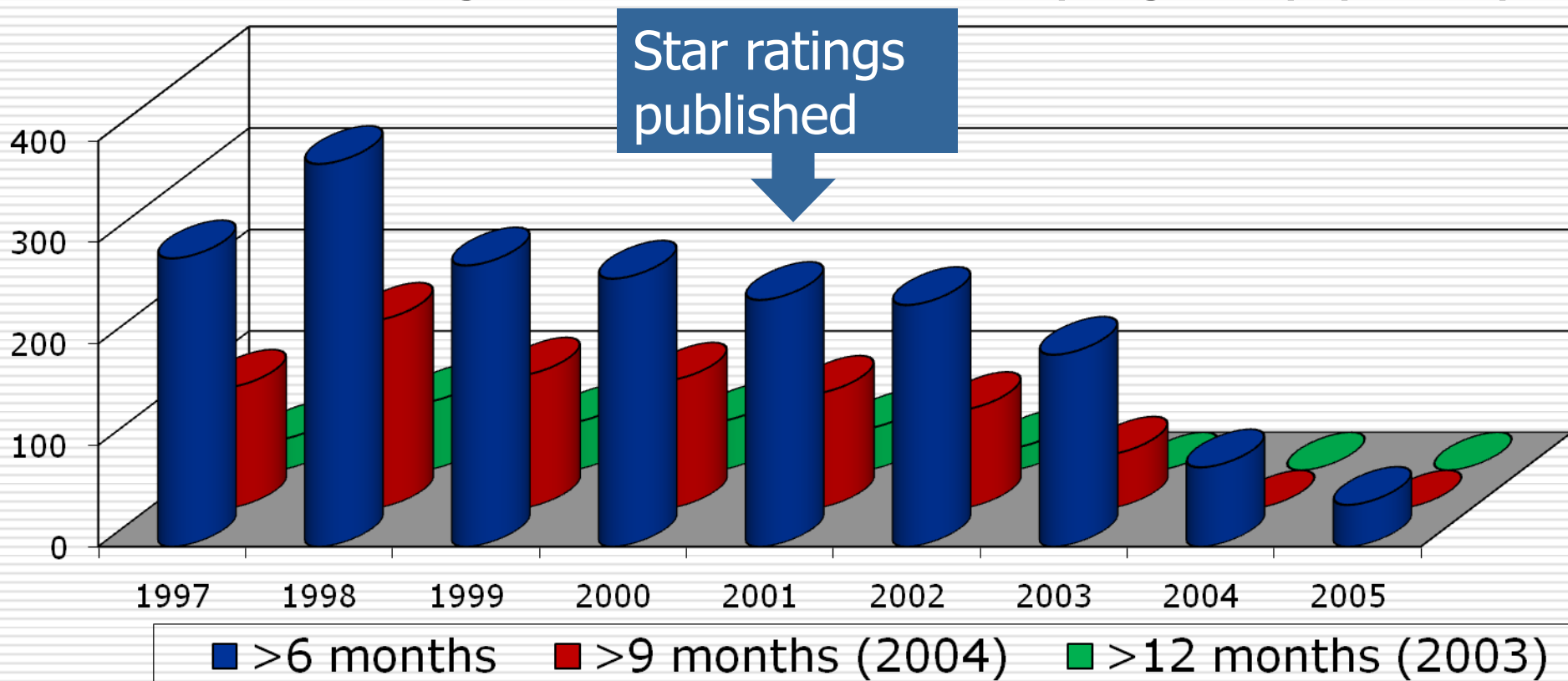
- 'devastating ...hit right down to the workforce – whereas bad reports usually hit senior management upwards ...nurses demanding changing rooms .. because being accosted in streets'



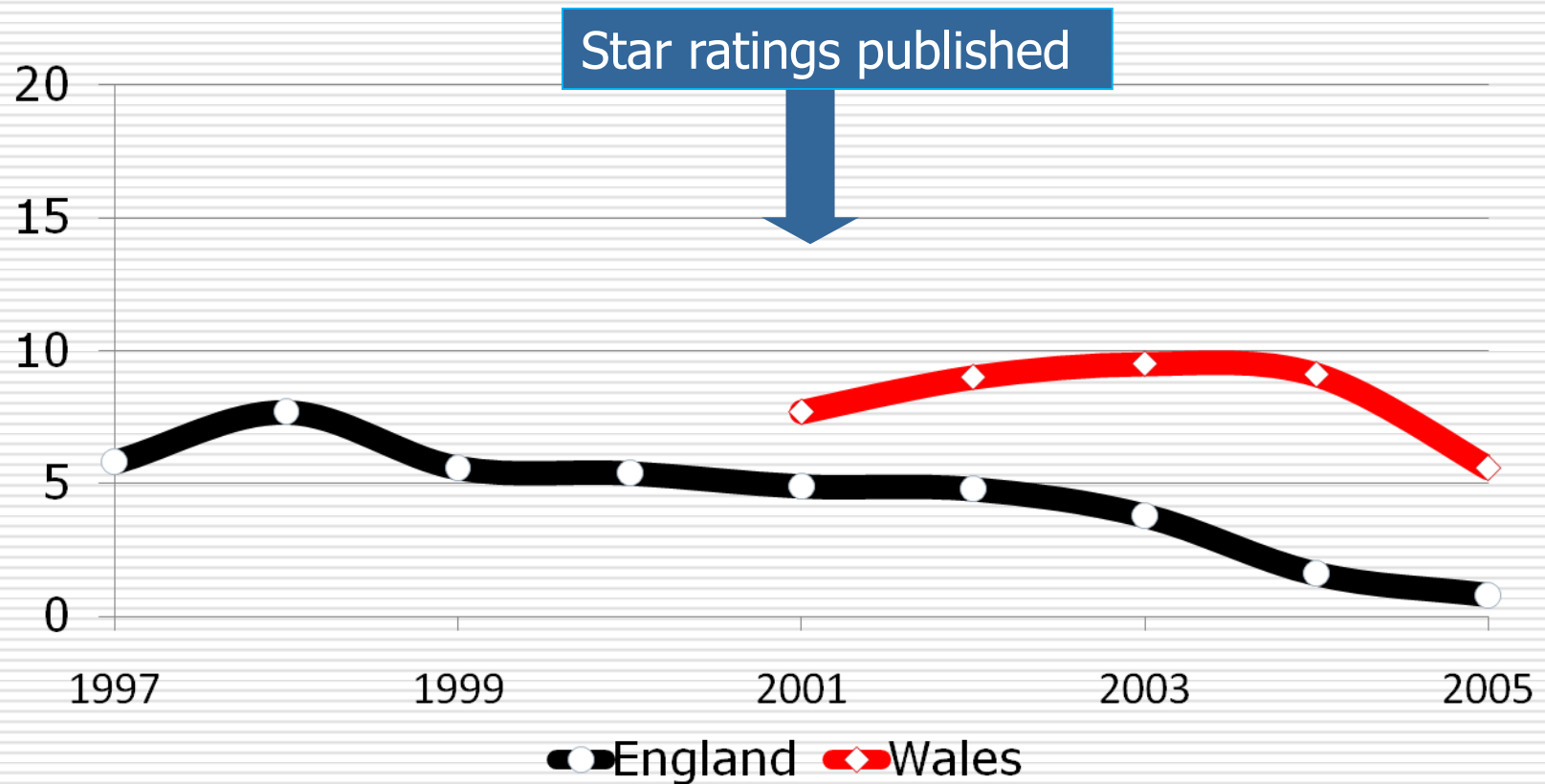
2001: *the dirty dozen*

England: *Change* → *Reputation*

Numbers waiting elective admissions (England) ('000s)

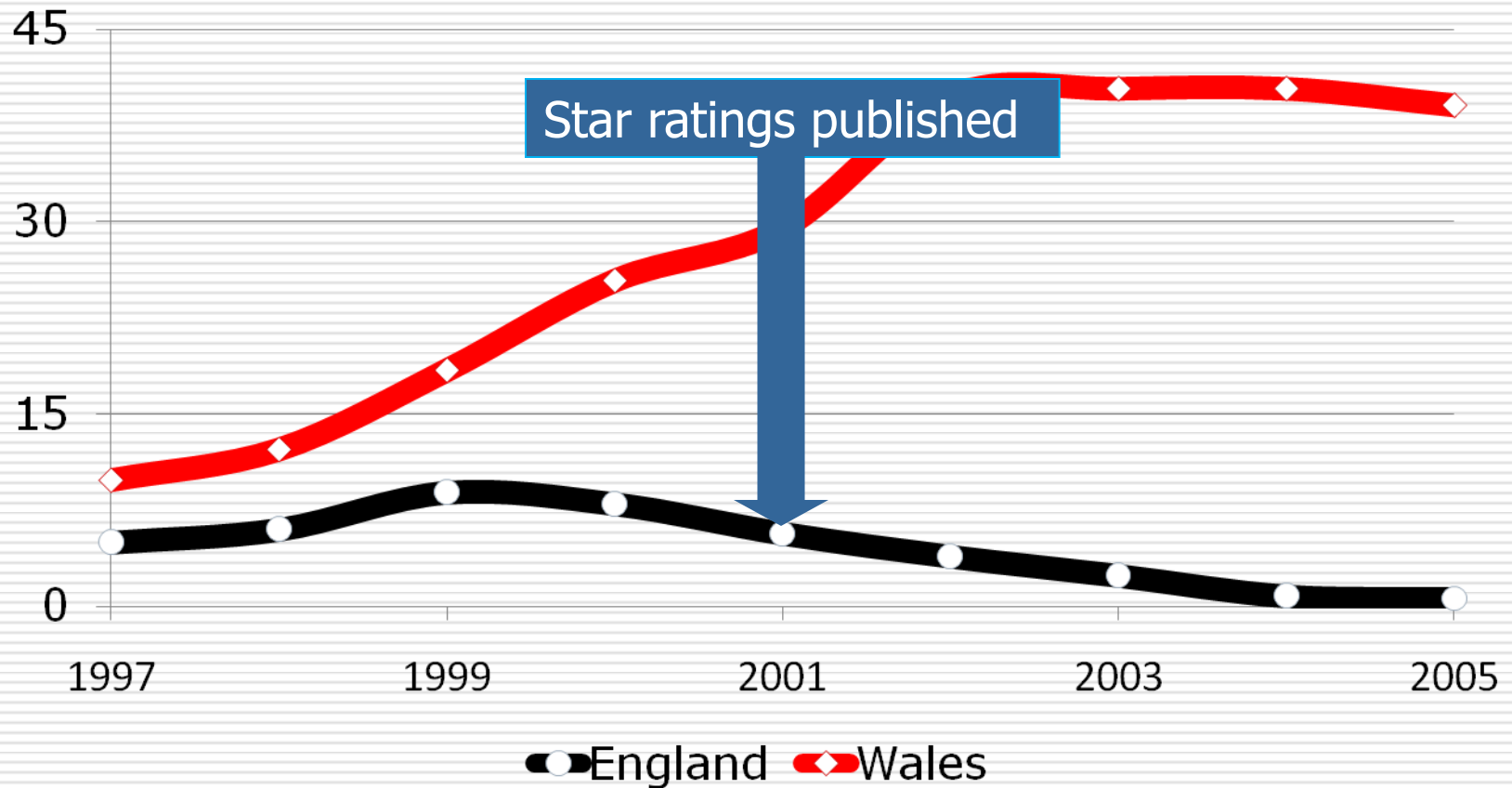


No/000 waiting > 6 months elective hospital admission

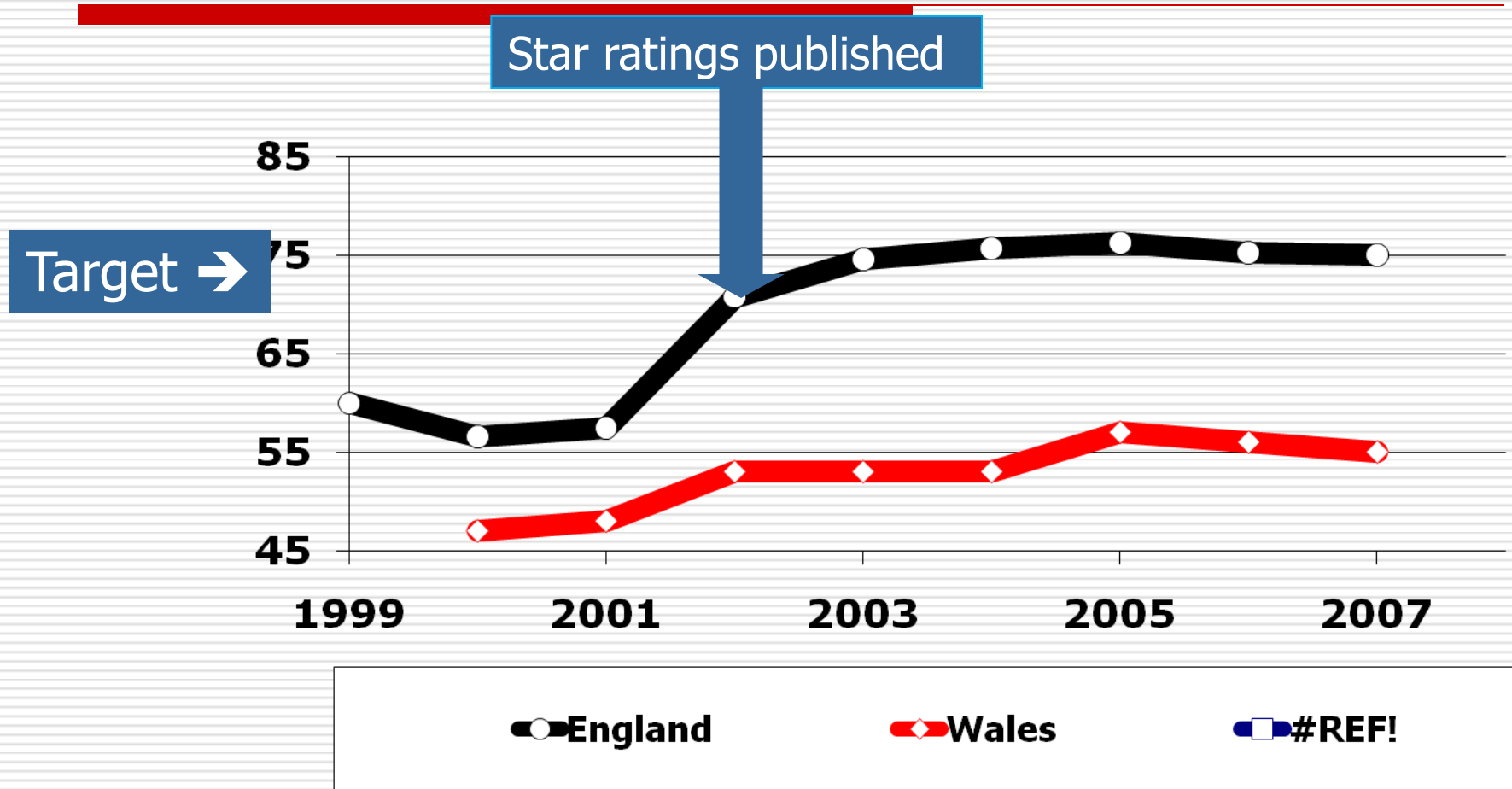


Source: Bevan (2009)

No/000 waiting > 3 months GP → 1st outpatient appointment



% Ambulance response times to life-threatening emergencies < 8 minutes



Types of indicators

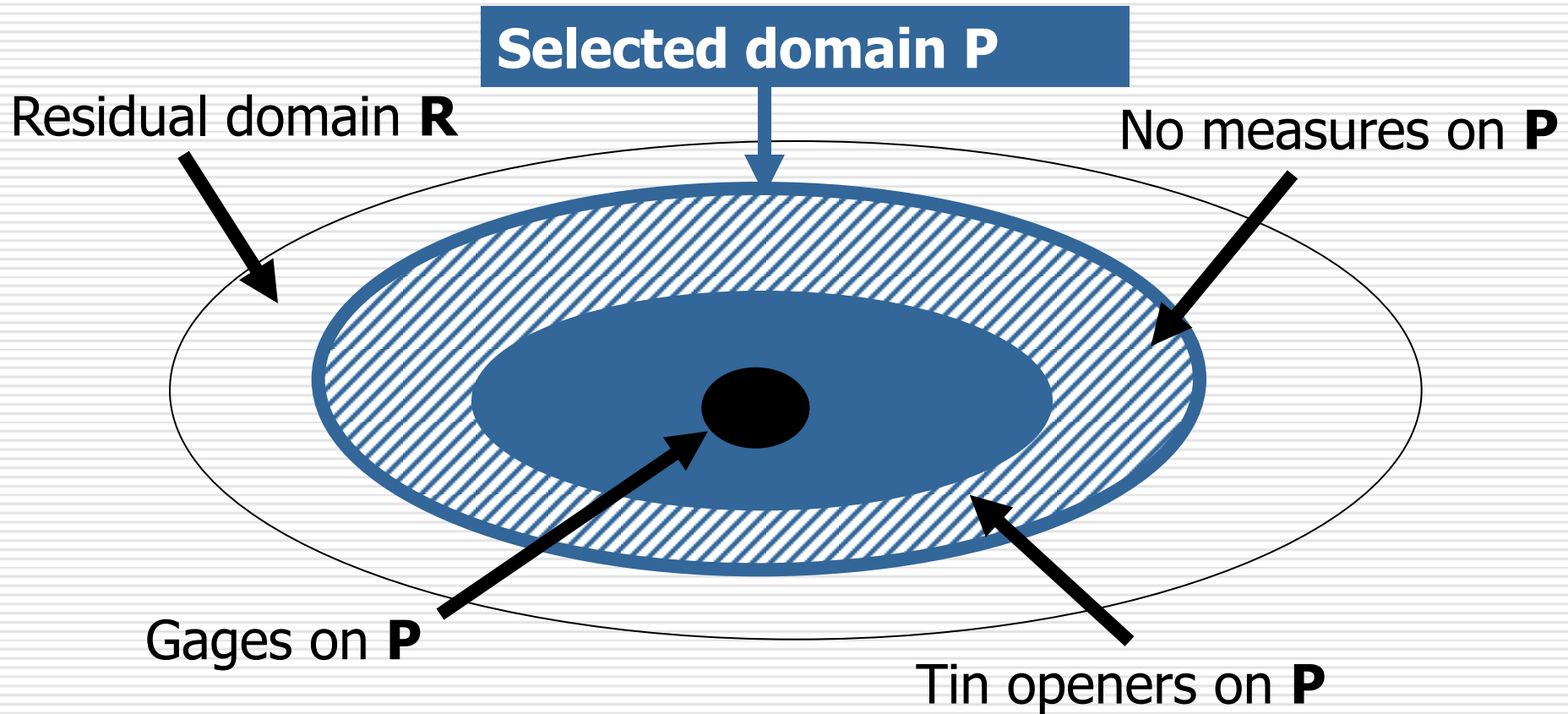
- Gages

- Good measures of performance

- Tin openers

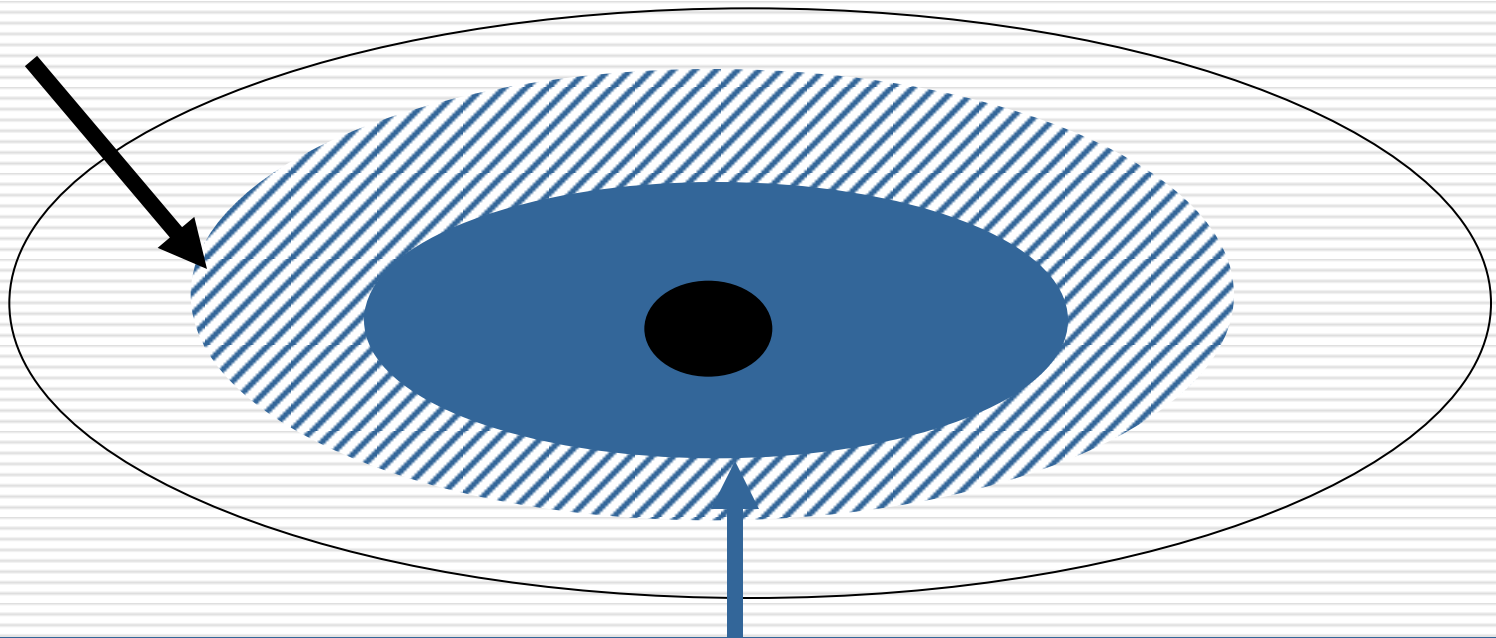
- Ask questions about performance

Problems of selection & measurement



Problem of synecdoche: part measured represent whole?

Excluded domain **N**: unimportant or cannot be measured



Selected domain T : incentives apply to measures $M[T]$

Unintended consequences & gaming

□ Holmstrom & Milgrom

- Targets omit key dimensions of performance:

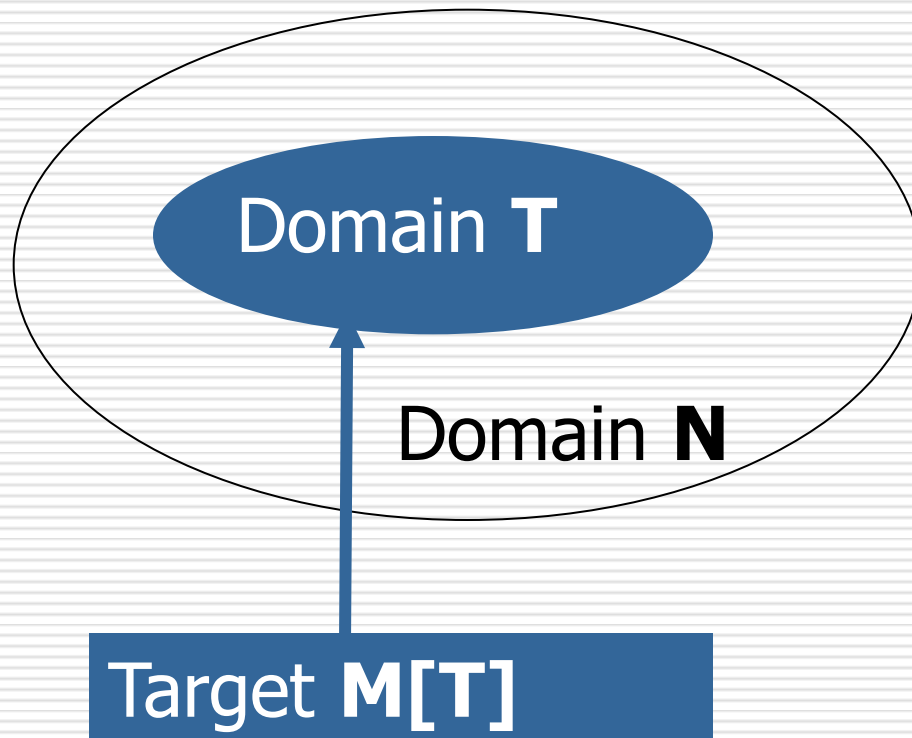
- limited set of good signals / larger set of poor signals → gaming

High-powered incentives

+ imperfect measures

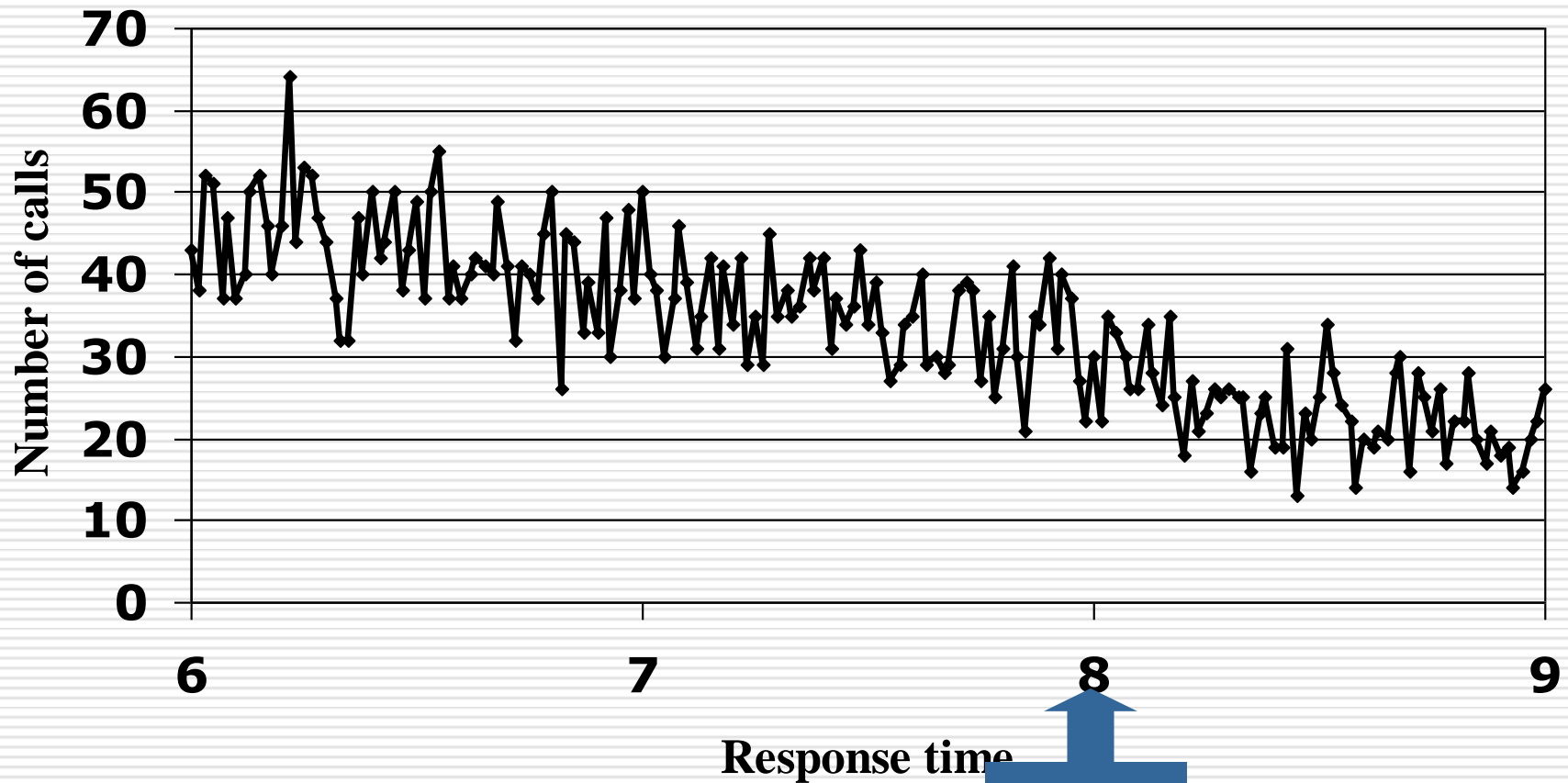
→ unintended consequences & perverse outcomes

Problems from synecdoche & gaming: hit targets **M[T]**?

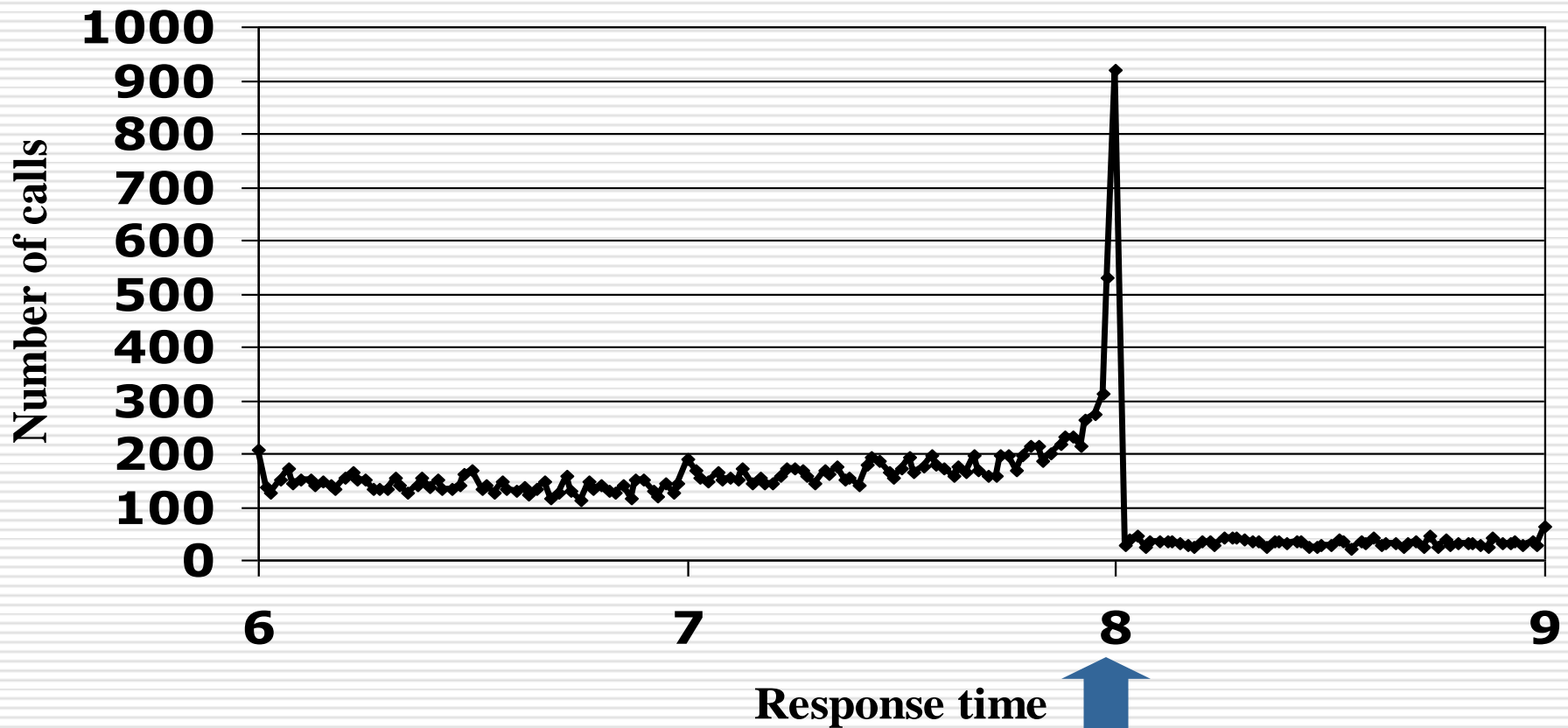


- ❑ Synecdoche (**N**)?
 - Worsen performance?
- ❑ Gaming **M[T]:?**
 - Hit the target & miss the point
 - 'Reporting error'
 - Aggregation → trade-offs between targets

M[T] reliable: automated ambulance response times



M[T] unreliable: manual Ambulance response times



M[T]

Source: Commission for Health Improvement (2003c) What CHI Has Found in: Ambulance Organisations.

M[T] reliable & unreliable 4-hour target A&E (2004)

☐ Reliable

- Survey 55,000 patients: 77%

☐ Unreliable

- ☐ Hospitals report 96%



Gaming

Structure

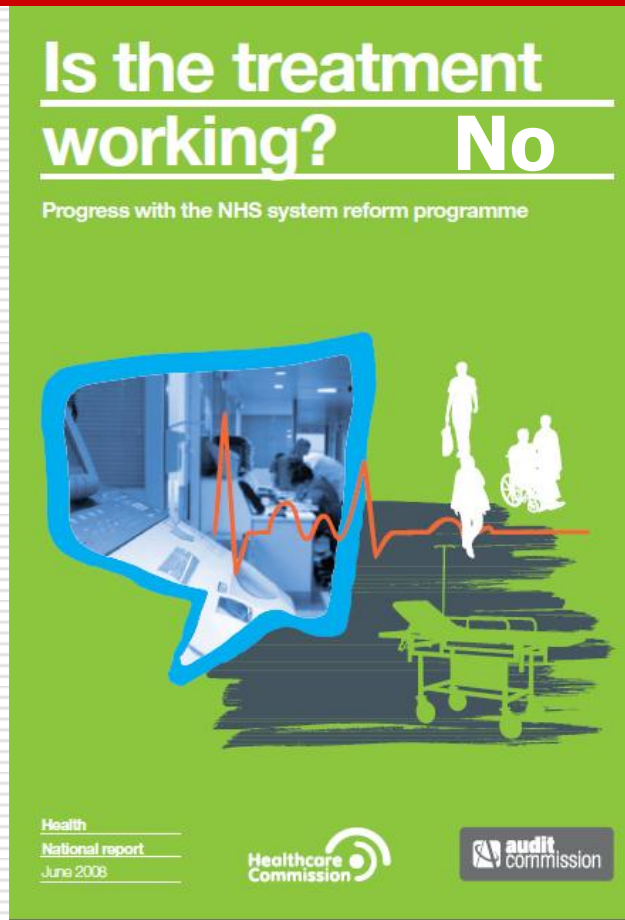
- US health care
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Barber (2007) *Instruction to Deliver*

- Awful → adequate
 - Command & control
 - public not satisfied
 - have to keep flogging the system
- Adequate → good / great
 - quasi market & consumer choice
 - innovation from self-sustaining systems



Patient choice & competition (2006 - 10): Impact



- ❑ Failure to create functioning market*
 - political interference
 - weak purchasers
 - barriers to exit & entry
 - changing policies
 - reorganisations

* Brereton & Vasoodaven (2010)
http://www.civitas.org.uk/nhs/download/Civitas_LiteratureReview_NHS_market_Feb10.pdf

The impact of the NHS market: An overview of the literature*

- No good evidence reforms produced beneficial outcomes classical economic theory predicts of markets
 - ✗ provider responsiveness to patients & purchasers
 - ✗ large-scale cost reduction
 - ✗ innovation in service provision
- *NHS incurs transaction costs of market without benefits*

Continuing problems

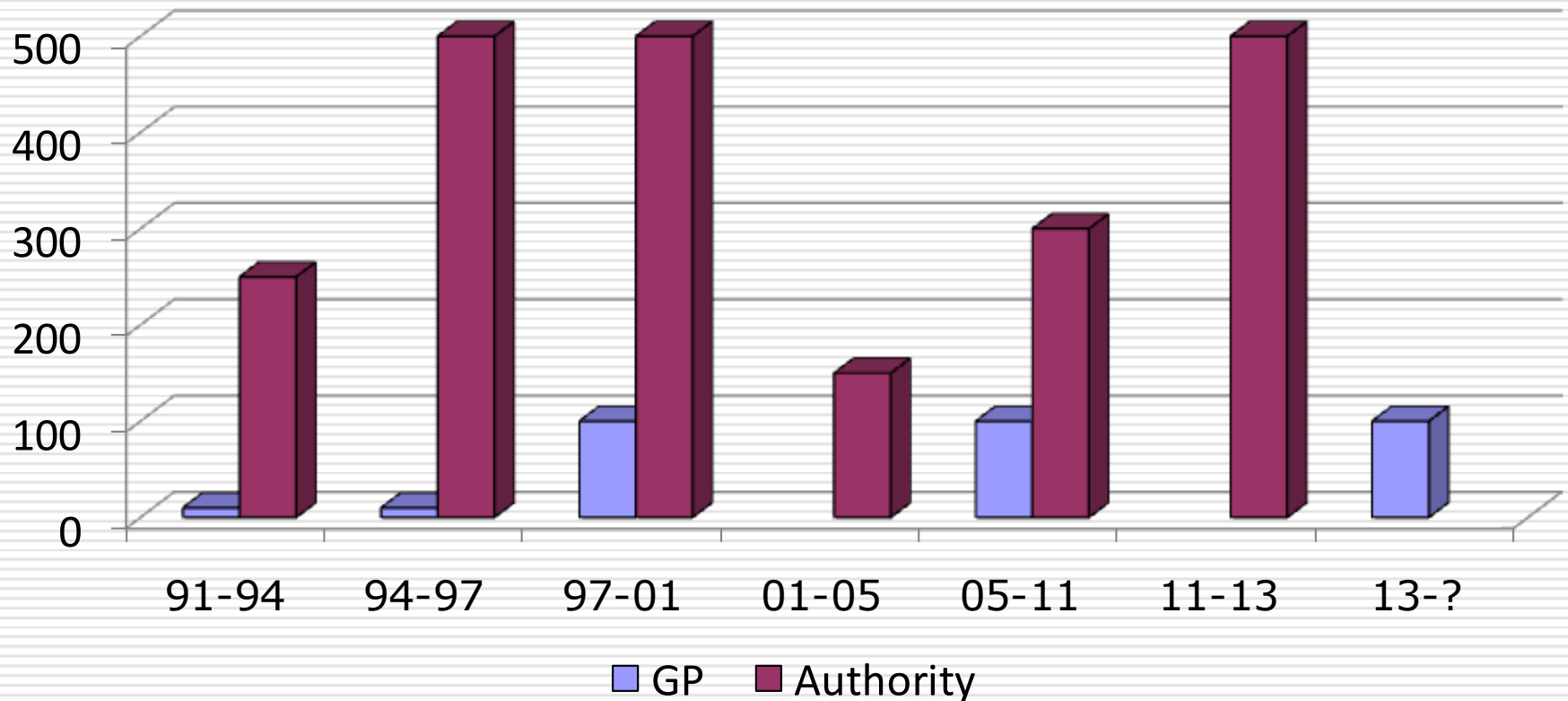
- ❑ Failure to create true functioning market
 - political interference
 - weak purchasers
 - barriers to exit & entry
- ❑ Lack of a stable policy environment

Source: Brereton & Vasoodaven (2010)

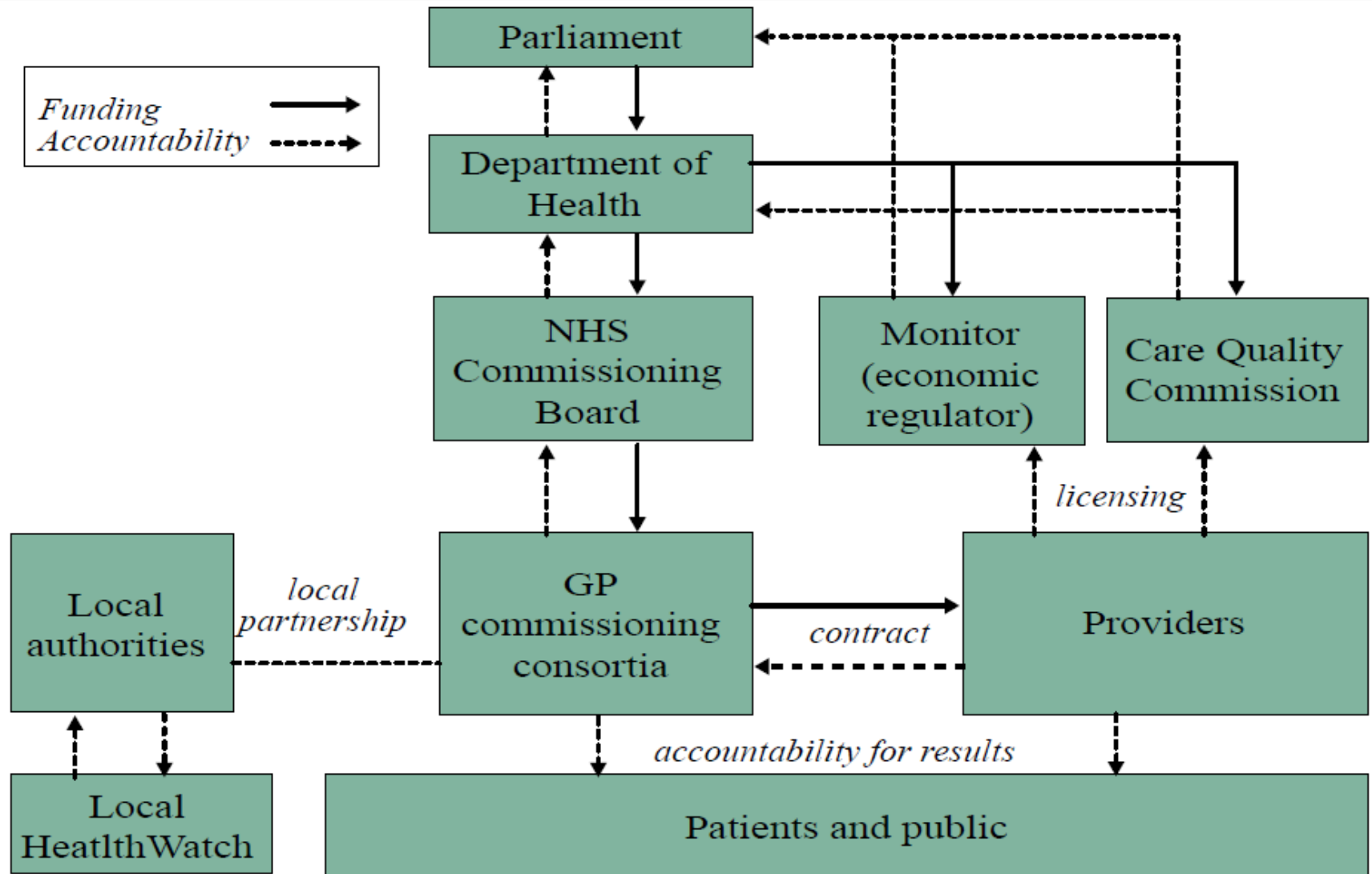
http://www.civitas.org.uk/nhs/download/Civitas_LiteratureReview_NHS_market_Feb10.pdf

If reorganisation of purchasers is the answer ...

Population ('000s)



Liberating the NHS



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