

Government policy and clinical research

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PRIVATE EYE

NHS CRISIS HEWITT STEPS IN



The drugs bill and the NHS deficits

NICE approval of Herceptin for early stage breast cancer predicted to cost additional £109m a year – “could put the NHS budget under great financial pressure and lead to services for less high-profile diseases and conditions being cut”

The Guardian 9 June 2006

17% of 2005/6 NHS cash increase (=£602m of £3.6b) was absorbed by the increasing cost of drugs and NICE recommendations

(Appleby, J, (2006) *Where's the money going?*, Kings Fund briefing)

BUSINESS-FRIENDLY MANIFESTOS



1. Health policy or industrial policy?

Key points:

health research is often underpinned by competing and sometimes conflicting objectives

governments are increasingly conscious of the economic and commercial aspects of research

health research seen as key to knowledge economy investment, jobs and exports

UK research environment to be 're-engineered' in face of threats to relocate

Multiple objectives of health research

Scientific progress

Clinical progress

Public health

Economic welfare

Commercial advantage

Health policy or industrial policy?

“Research is the linchpin of better medical care for patients, improved health of the population and the generation of wealth through new drugs, medical devices and diagnostics.” –

Mary Harney TD, Tánaiste and Minister for Health and Children (2006)

“Health research provides us with the means to tackle the increasing challenges that disease and ill health are placing on our society. It also plays a key role in the knowledge economy of our country through its contribution to international competitiveness and economic growth.”

Rt Hon Patricia Hewitt MP, Secretary of State for Health (2006)

“Health R&D is an area of marked UK strength. In addition to the obvious public health benefits, the quality of the UK’s health research base, including medical research, is an important factor in retaining and growing R&D investment from the pharmaceutical industry.”

HM Treasury (2006) *Science and innovation investment framework 2004–2014: next steps* (March 2006)

Trade v Public health

Govt view is that good health and economic prosperity are a by-product of industry partnerships in clinical research

What is the evidence base ?

Pharma–“Jewel in the crown” of the UK economy?

highest R&D spend – £3.3b in 2004

73,000 UK employees; 29,000 in R&D

250,000 UK jobs in supply chain

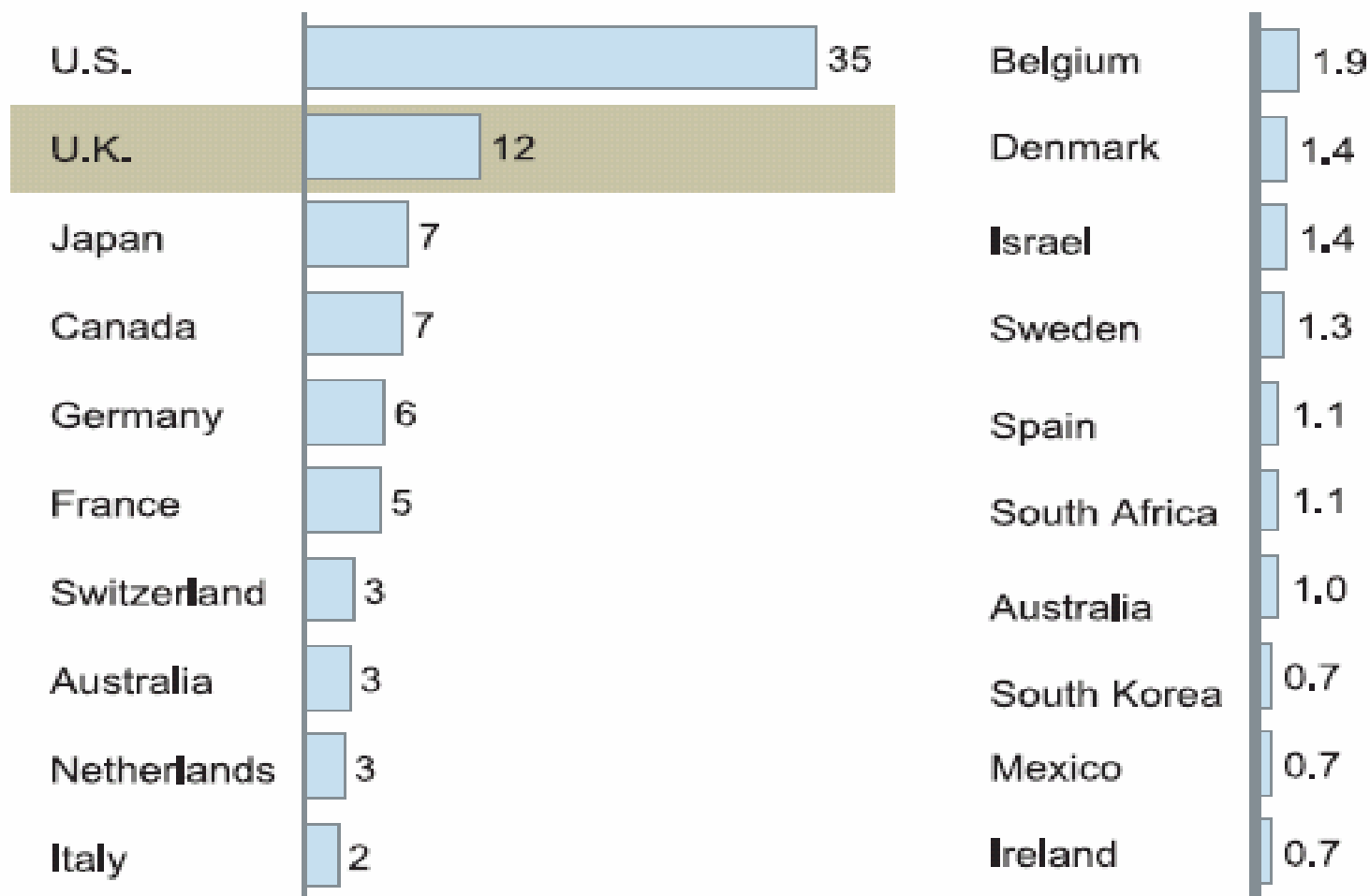
4–5 per cent growth per annum

£12.3b exports 2004; £3.75b trade surplus

(HM Treasury (2006), figures taken from Association of the British Pharmaceutical Industry (ABPI))

A leading site for commercial trials (UKCRC 2006)

%, 100% = 5,005 ongoing commercial clinical drug trials



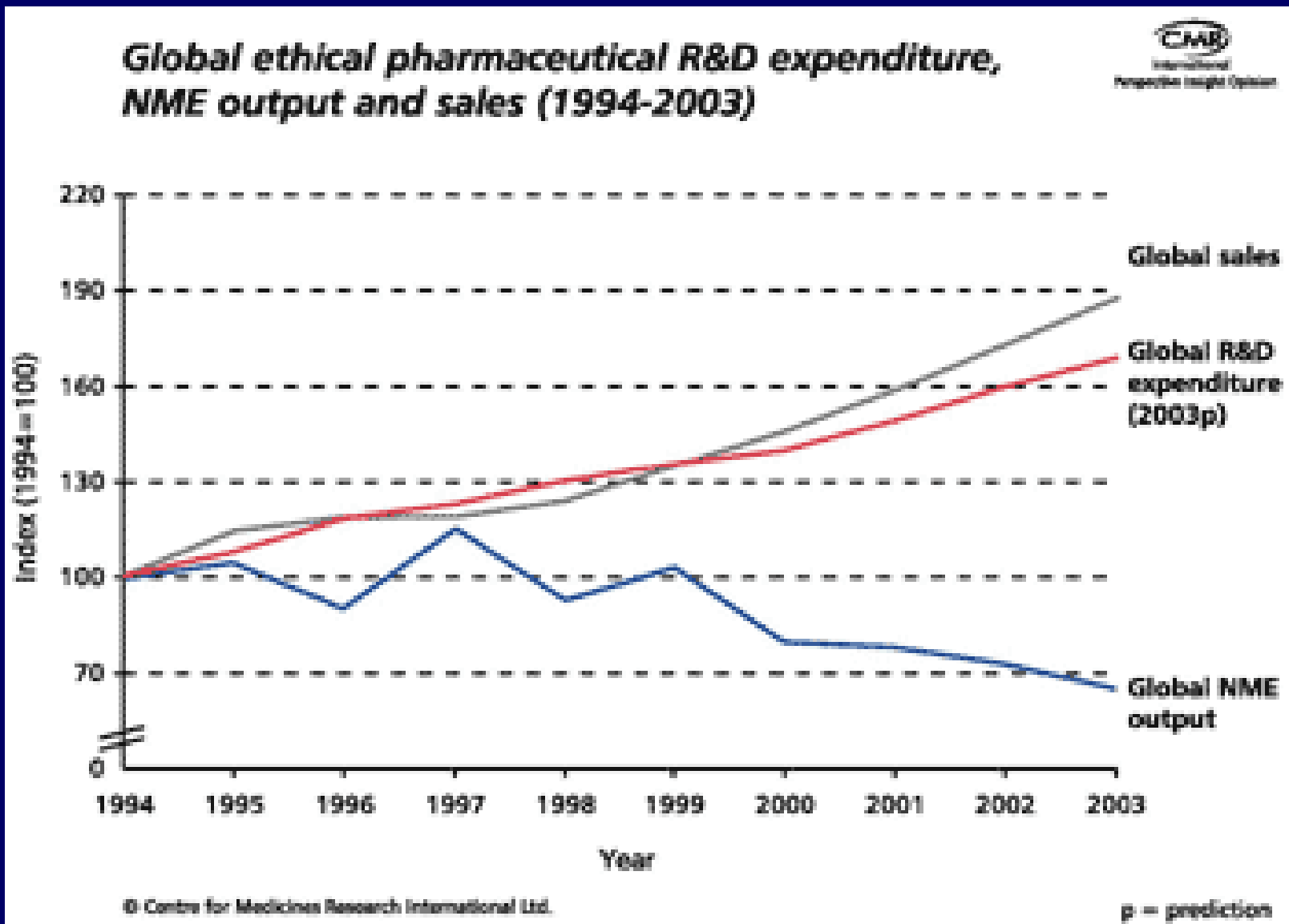
An industry in crisis?

drug pipeline drying up – rising R&D; fewer ‘new molecular entities’

concerns over time, reliability and costs of clinical research in UK

threat of relocation to low-cost, low-regulation areas
eg Eastern Europe, Asia

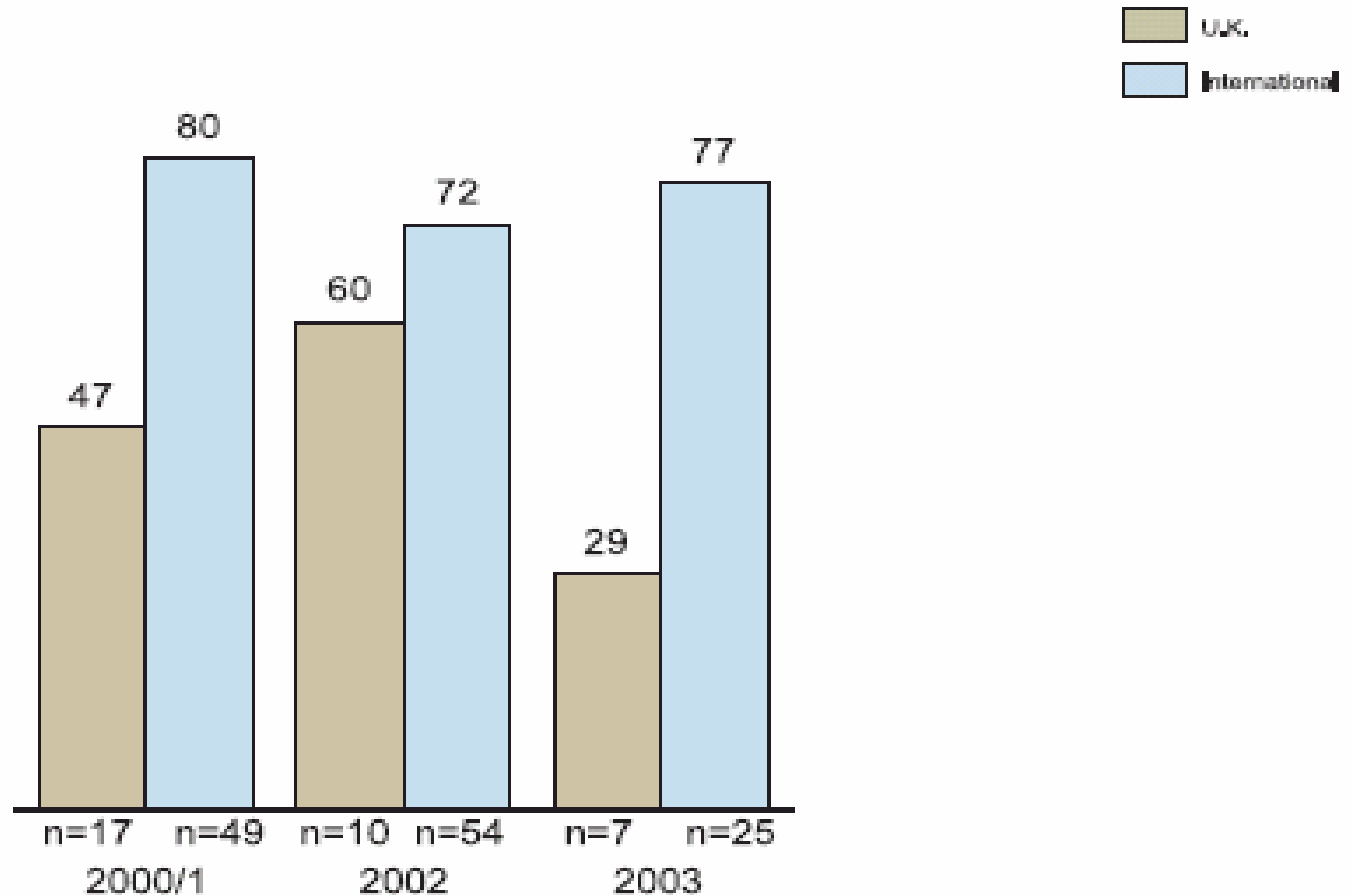
'Innovation on the wane' (CMRI 2006)



Slowed by red tape? (UKCRC 2006)

EXHIBIT 11: STUDIES COMPLETED WITHIN PLANNED TIMELINES

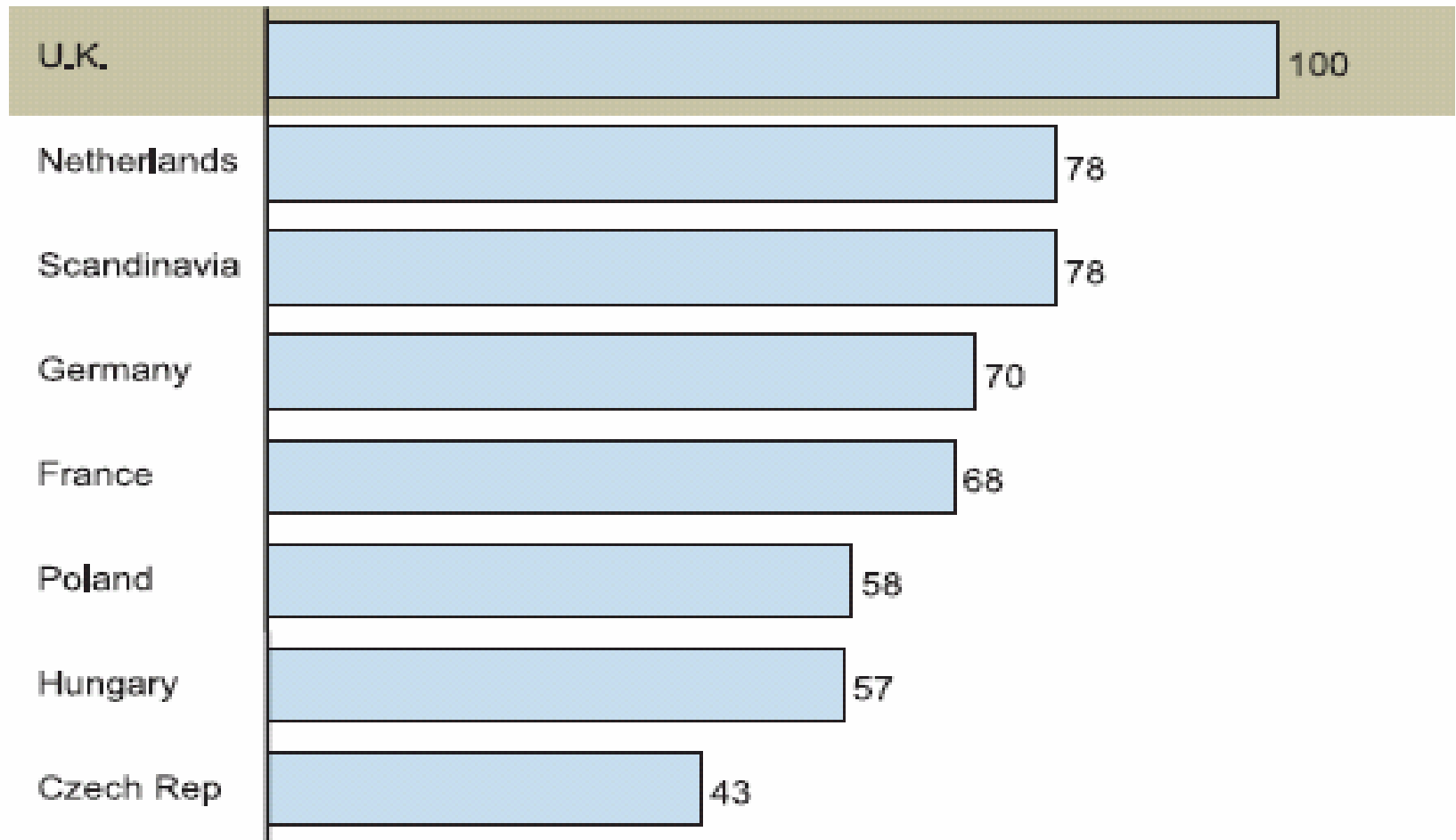
% of studies



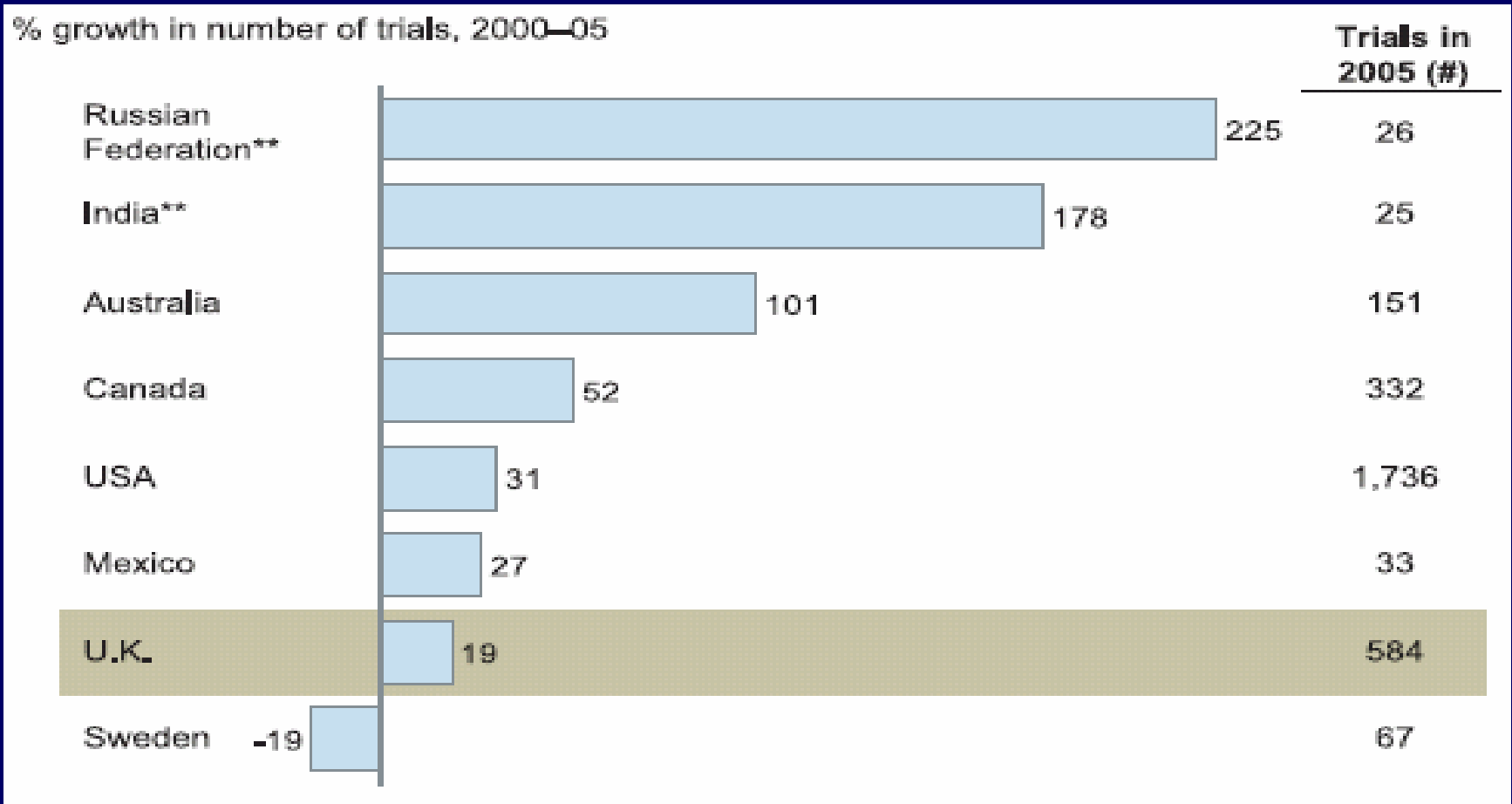
Costs of research (UKCRC 2006)

Comparison of phase 2/3 costs per patient, 1995–2002

U.K. = 100 base



Private investment relocating?



Growth rate of commercial clinical drug trials (UKCRC 2006)

“Re-engineering the research environment”

BIGT, PICTF, AMS → UKCRC

“In response to the threat of the UK losing its leading position in commercial clinical research, the UKCRC initiated a project with three aims:

- to assess the UK’s positioning in the global clinical research market

- to articulate a clear overall value proposition to industry for clinical research...

- to suggest initiatives that the Department(s) of Health R&D Directorate(s) and UKCRC should consider to strengthen the value proposition”

(UKCRC McKinsey Report 2006)

DoH England NHS *Best Research* strategy 2006

research funding and capacity concentrated in new 'academic centres of excellence' – funding, accountability?

universities and NHS lose control over funds and staff to new 'National Health Research Institute' – competition for NHS funds

priorities determined by 'research networks' with strong industry presence and no formal accountability to NHS

IT system to facilitate recruitment of NHS patients to clinical trials

reforms to 'streamline unnecessary regulatory procedures' – bureaucracy busting!

Best Research

The two key drivers behind the strategy are the belief that economic growth can only be achieved by harnessing the UK biomedicine research strategy to the needs of industry, and, that research efficiency and research productivity can only be achieved through market competition.”

(Pollock A, McNally N, Kerrison S Best Research. The new UK medical research strategy helps industry, but will it improve health? BMJ 2006;332:247–8.)

2. Will we get the research we need?

Key evidence casts doubt:

commercial research priorities and benefits do not always align easily with public health and health service priorities

commercial research is driving an escalation of health care costs while important cost-saving research is neglected

commercial imperatives can create conflicts of interest and problematic influence on research design, conduct and reporting

Commercial conflicts in clinical decision making

A. Health benefits of commercial research

“The pharmaceutical industry increasingly creates the impression that there is an imperative for a faster development and approval of innovative interventions that patients should rapidly have access to. Yet professionals working in independent drug bulletins have shown that this impression is misleading ...

Overall, no more than a few percent of newly approved drug interventions in one year offer a worthwhile advantage to patients over previously available options.”

International Society of Drug Bulletins (2001) *ISDB Declaration on therapeutic advance on the use of medicines.*

Diminishing health returns in practice?

2/3 of drugs launched are “me-too” medicines Economist 2006

“results suggest that, while still positive, the contribution of health care to life expectancy is diminishing ...

In England, NICE has evaluated a number of drugs ..few provide massive benefits: rather, they extend quality and length of life by small amounts ...

“... the impact of new drugs has been diminishing: in the most recent time period studied, a 10 per cent increase in new drug approvals produced a 5 per cent reduction in mortality, much lower than in previous years.”

(Appleby, J, Harrison, A, (2006) *Spending on Health Care - How much is enough?*, Kings Fund)

New cancer drugs in Europe

– more cost, questionable benefit

12 anticancer drugs approved by EMEA 1995–2000

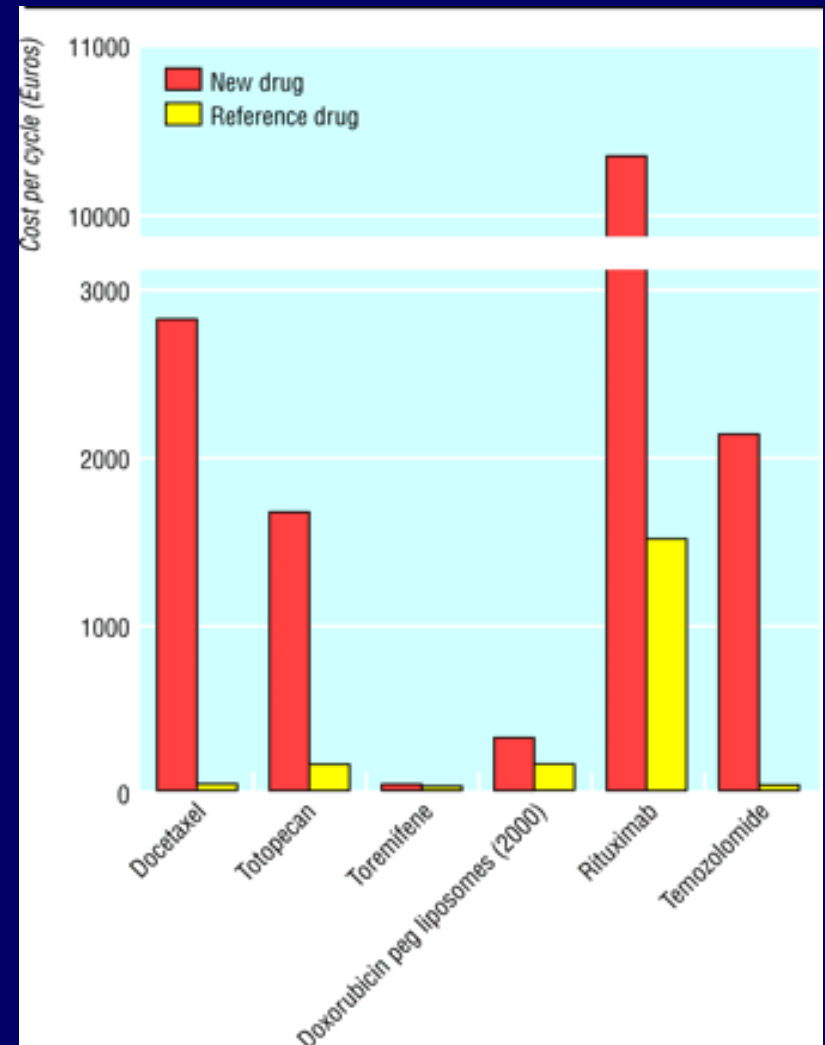
few attempts made to establish the value in relation to reference drugs

no clear cut advantage, in terms of adverse reactions, over reference drugs or analogous agents

“expectations, fuelled by the pharmaceutical companies' direct and indirect promotion ... but these expectations may not be justified by the results of trials”

“approval of new drugs that offer no substantial advantages puts further burdens on national health services, insurers, and patients.”

(Garrattini & Bertele 2002)



Commercial priorities vs patient priorities

“mismatch between the amount of published work on different interventions, and the degree of interest of consumers.”

review of research on osteoarthritis of the knee
59% concerned pharmaceutical interventions
26% studied surgical interventions

focus groups of research consumers – clinicians and patients
need for more on physiotherapy, exercise, education & self-help
widespread view that oral drug treatments were ‘over-researched’

(Tallon D, Chard J, Dieppe P. ‘Relation between agendas of the research community and the research consumer’ *Lancet* 2000, 355: 2037–40.)

B. R&D and health care cost increases?

“... findings confirm ... [the] conjecture that changes in R&D spending, a proxy for changes in technology, is a statistically significant long-run driver of the rising health care expenditure...

“if R&D spending continues to rise at historical rates and real income rises, health insurance is likely to be more expensive or change characteristics (e.g. higher deductibles, more supply-side rationing) and this in turn would tend to have equity ramifications”

(Okunade, A.A. and Murthy, V.N.R. (2002), Technology as a 'major driver' of health care costs: a cointegration analysis of the Newhouse conjecture, *Journal of Health Economics*, Vol. 21, No. 1, pp. 147–159.)

)

Impact on UK health care costs

Purchase of medicines accounts for about 12% of the NHS budget.

(House of Commons Health Committee 2005)

690 million prescription items were dispensed in England in 2004/5

= 5.6% increase on previous year

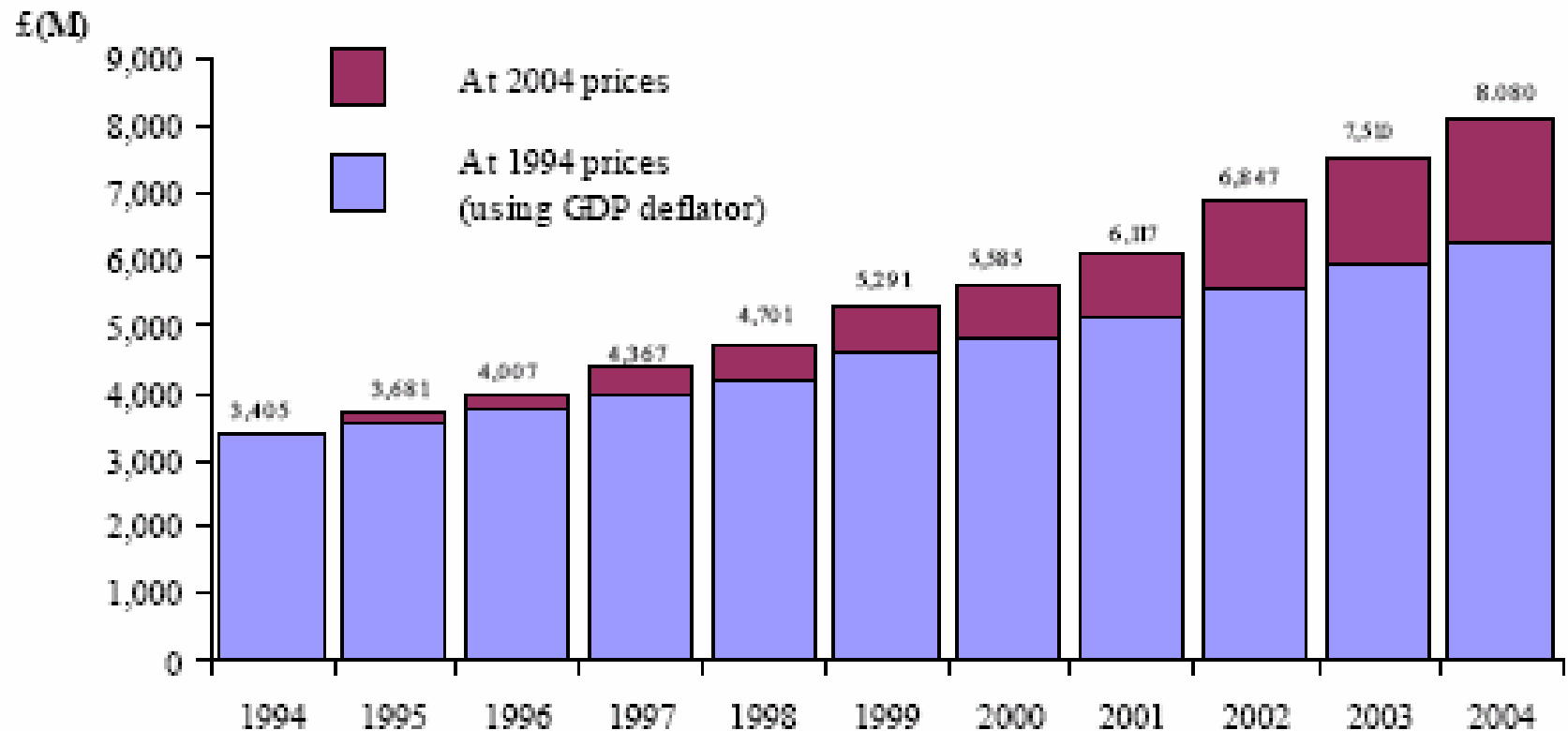
Cost to the NHS has risen from £3.1b in 1993/4 to £8b in 2004/5

= increase of 46% since 2000

(NHS Confederation (2005) *Money in the NHS: The facts*)

A rising drugs bill

Figure 1 Net ingredient cost (£millions), 1994 to 2004



ONS/DOH (2006) *Prescriptions Dispensed in the Community Statistics for 1994 to 2004: England*

'Me-too' drugs and health care costs

“In British Columbia most (80%) of the increase in drug expenditure between 1996 and 2003 was explained by the use of new, patented drug products that did not offer substantial improvements on less expensive alternatives available before 1990...

“Given that the list of top 20 drugs in global sales includes newly patented versions of drugs in long established categories ... me-too drugs probably dominate spending trends in most developed countries.”

(Morgan SG, Basset KL, Wrigh JM, et al 'Breakthrough' drugs and growth in expenditure on prescription drugs in Canada. BMJ 2005, 331: 815-6)

c. Publication and reporting bias

Commercially sponsored trials are more likely to be subject to publication bias than other trials

(PJ Easterbrook, J Berlin, R Gopalan and DR Matthews, Publication bias in clinical research, *Lancet* 337 (1991), pp. 867–872.)

“The manufacturer-associated [treatment] is almost always reported as being equal or superior in efficacy and toxicity to the comparison drug. These claims of superiority, especially in regard to side effect profiles, are often not supported by trial data.”

PA Rochon, JH Gurwitz and RW Simms *et al.*, A study of manufacturer-supported trials of nonsteroidal anti-inflammatory drugs in the treatment of arthritis, *Arch Intern Med* 154 (1994), pp. 157–163.

“industrial sponsorship of a study correlated positively with the likelihood of an outcome in favour of the sponsors' treatment”

(Paul Dieppe, Jiri Chard, Deborah Tallon and Matthias Egger ‘Funding clinical research’, *The Lancet*, Volume 353, Issue 9164, 8 May 1999, Page 1626)

d. Commercial conflicts and clinical decision making –

Postgraduate education and training–

Postgraduate research –technician or original enquiry

Clinical research bounties –

Hybrid trials

Disease management

Patient focus groups

Consumer lobbying

Direct to consumer marketing

A distortion of health policy?

“Medicalisation (*commercialisation*) could lead to unsustainable demand on the NHS, a confused vision of how good health is maintained and a failure to ensure preventative public health measures are at the forefront of health policy.”

(House of Commons Health Committee, *The Influence of the Pharmaceutical Industry*, 2005)

3. Reappraising research policy

Key evidence – We need

to assess whether industry prices and profits are justified

better information about who is really paying for health research

better information as to how research is prioritised to ensure that
public funding is serving the public interest

we need appropriate structures of accountability and representation

a. A profitable industry

“By the standards of other industries, most big pharmaceutical companies are hugely profitable: operating margins are more than 25%, against 15% or so for consumer goods”

(The Economist, 18 June 2005)

How the price is justified?

Industry claims that “on average, it takes around 10 to 12 years and £550 million to develop a new medicine, with no guarantee that a medicine will go on to be a commercial success”

(ABPI, 2006)

But this figure has been disputed as “based on confidential, unsystematic data, and has dubious scientific validity”

(D.W. Light and R. Warburton, Extraordinary claims require extraordinary evidence: comment, *Journal of Health Economics* 24 (2005) (5), pp. 1030–1033.)

A transparent drug pricing regime

The Pharmaceutical Price Regulation Scheme (PPRS)

“For the Department of Health a conflict exists between its own attempts to control NHS expenditure and the scheme's implicit subsidy of the industry's research and development...

“Without explicitness about the goals and performance of trade and health policies, drug expenditure will continue to inflate with little accountability and insufficient benefit for patients. “

(Bloor K, Maynard A. (1997) Regulating the pharmaceutical industry. *BMJ*;315: 200-1)

Price and Intellectual Property

UK Commission on IP found little evidence to support claims that IP results in innovation in research and development

True costs of R and D unknown –

Call for state funding of independent research

b. Funding for health research?

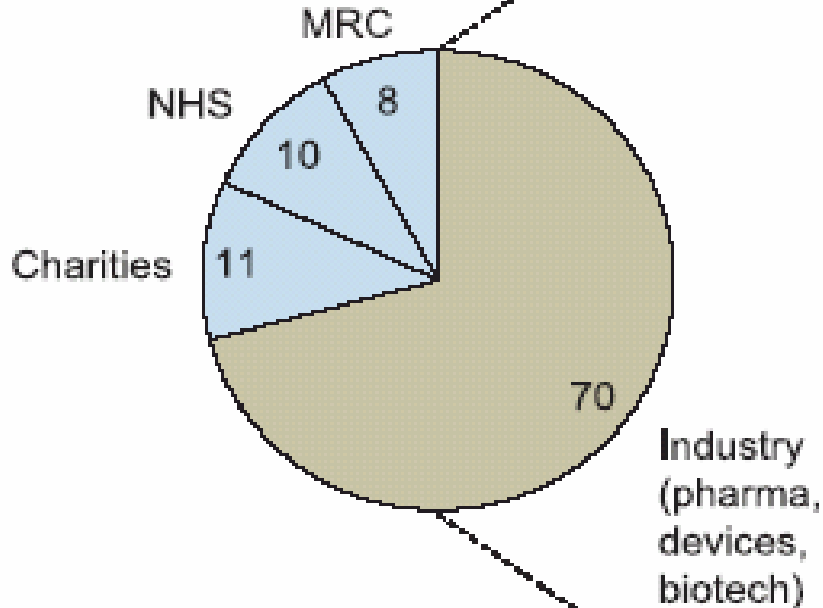
£m	Industry	Charities	Public	Total
DoH estimate (2005)	5,000 (68%)	650 (8.5%)	1,700 (23%)	£7.35b
UKCRC estimate (2006)	4,200 (70%)	£660 (11%)	£1,080 (18%)	£6b

Source and use of UK medical research funds (UKCRC, 2006)

U.K. medical research spending by source of funds, 2003

%

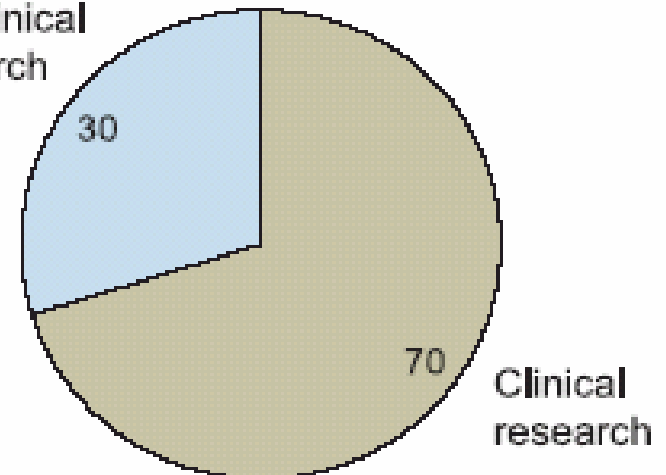
100% = £6b



Breakdown of industry R&D spend by function, 2003

%

Discovery and pre-clinical research



c. Prioritisation of research into practice–

“Problems ... exist with the political process through which topics are chosen for NICE ... At present, the selection process remains largely political and only indirectly influenced by those who face difficult decisions in service delivery.”

“the approval of some therapies with small benefits—for instance, in cancer treatment ... cause NHS provider organisations considerable difficulty because of the other cost pressures they face...”

(Maynard, A, Bloor, K, and Freemantle, N, ‘Challenges for the National Institute of Clinical Excellence’. *BMJ* 2004;329:227–229 (24 July))

effective evaluation systems needed

“ways have to be found to economise the use of drugs and other technologies ... The pharmaceutical industry is unlikely to react positively to these proposals, as they would make rationing tighter and potentially shrink its UK market. Such a reversal of NICE's current propensity to be the marketing arm for companies would have political consequences and requires careful management.”

“The success of commercial, provider, and regulatory interests in focusing NICE's work on new, expensive technologies has been self serving and inflationary.”

(Maynard, A, Bloor, K, and Freemantle, N, 'Challenges for the National Institute of Clinical Excellence'. BMJ 2004;329:227-229 (24 July))

Health research in the public interest

“A greater focus on *health* (as opposed to wealth) creation would be more likely to improve the health returns (that is, the benefits) of the NHS pharmaceutical budget ...

“The vast majority of private and publicly funded research and development is not devoted to cost control or the promotion of system objectives such as equity of access, but rather increases in the use of drugs and other devices or the development of new forms of treatment. To help control costs, the department should become more independent from the pharmaceutical industry (as recommended by the Health Select Committee), and strengthen its role in promoting health and regulating health care.”

(Appleby, J, Harrison, A, (2006) *Spending on Health Care – How much is enough?*, Kings Fund)

Summary

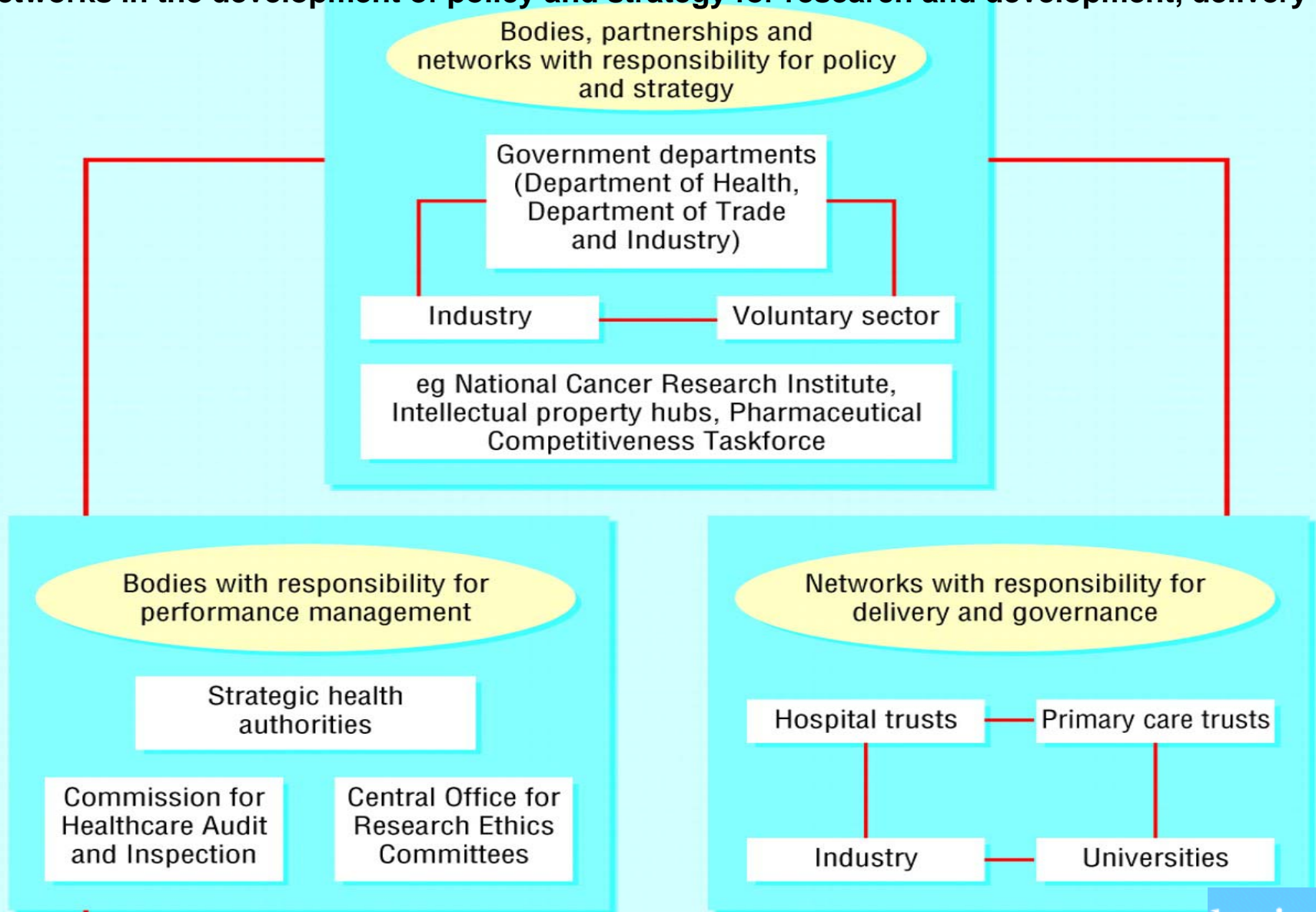
Governments are increasingly focused on the economic and commercial benefits of health research

But commercially oriented research does not always meet public health need and can create problems for health services

3. We need to look carefully and critically at how health research is prioritised and funded in relation to health care needs and services



Fig 2 Plurality of stakeholders in NHS research and development. Bodies, partnerships, and networks in the development of policy and strategy for research and development, delivery of



McNally, N. et al. *BMJ* 2003;327:550-553