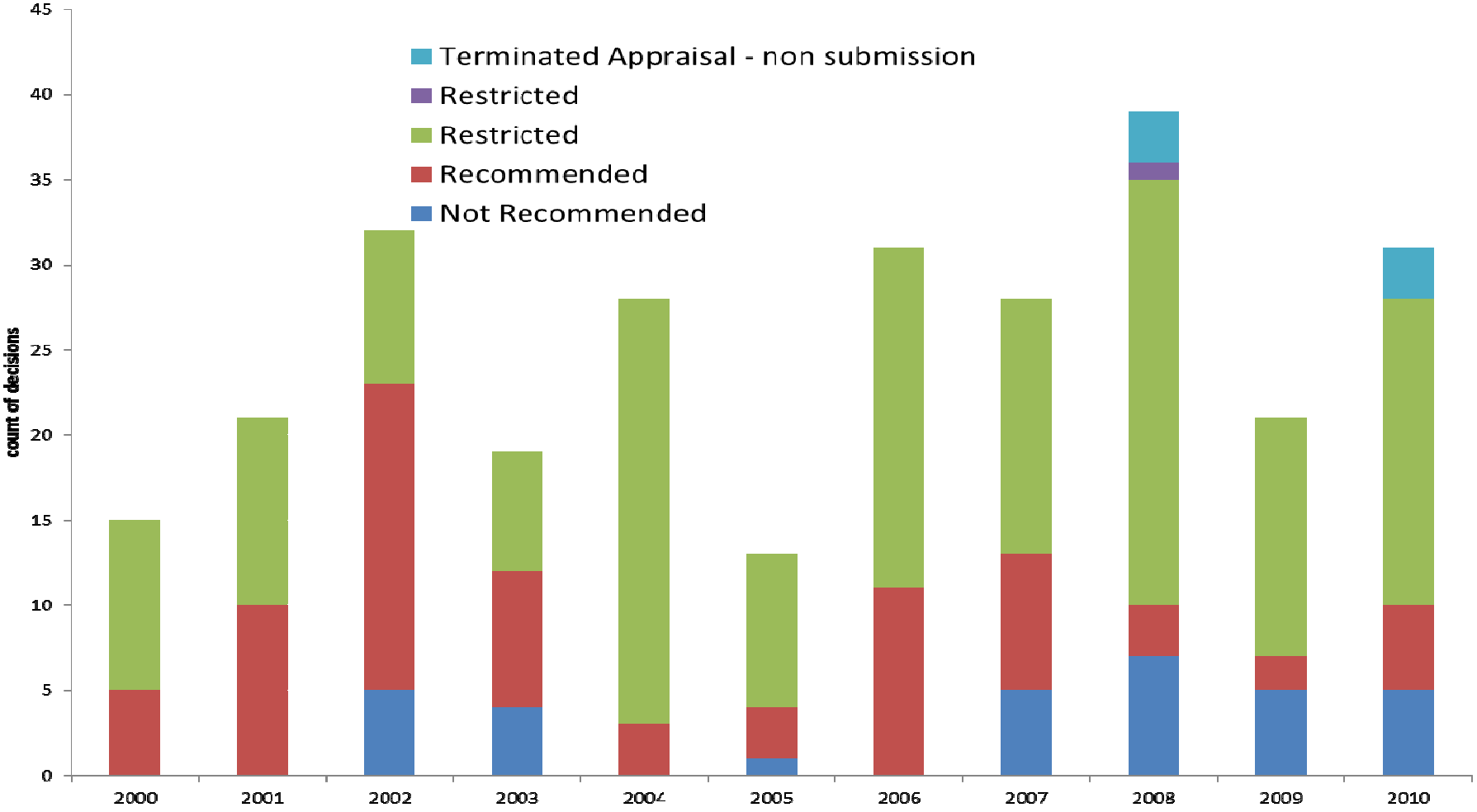
Value based pricing, societal perspective, only in research, lots of things happening in the UK

Professor Adrian Towse
Office of Health Economics

Agenda

- Is there are problem with NICE?
- Thoughts on the VBP Consultation Paper
- Societal Perspective
- Where next?

Count of medicines appraised by NICE through HTA process



Source: OHE

Research OHE Consulting
Office of Health Economics

NICE's cost effectiveness threshold revisited:
new evidence on the influence of cost effectiveness and other factors on NICE decisions

Devlin N, Dakin H, Rice N, Parkin D, O'Neill P.

Presenter: Professor Nancy Devlin
Director of Research, Office of Health Economics
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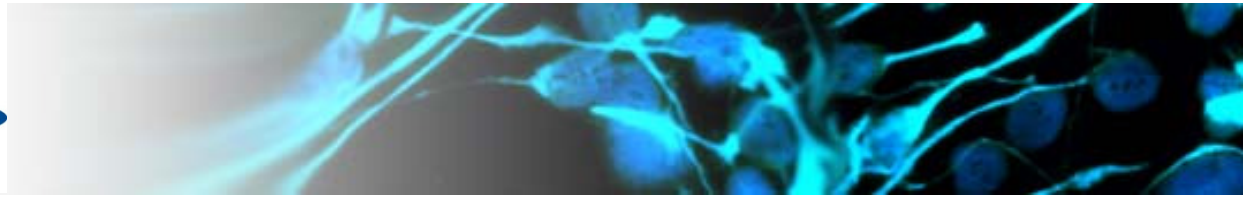
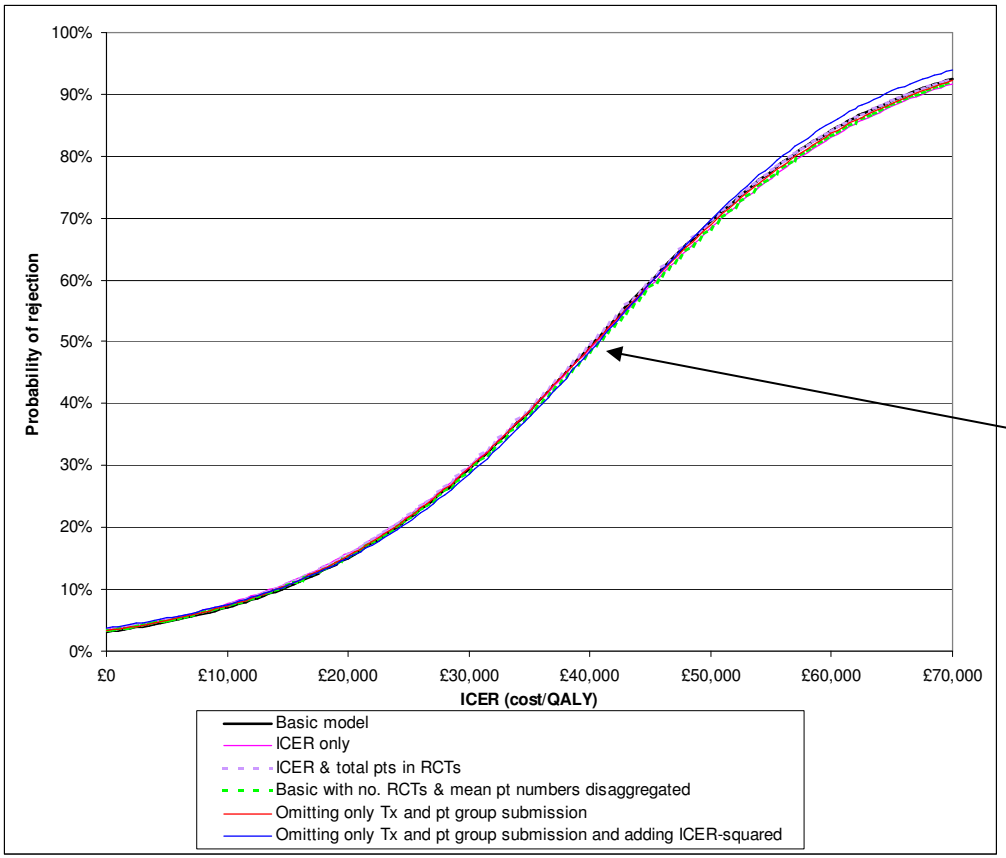
European Conference on Health Economics
Helsinki, July 7-10 2010



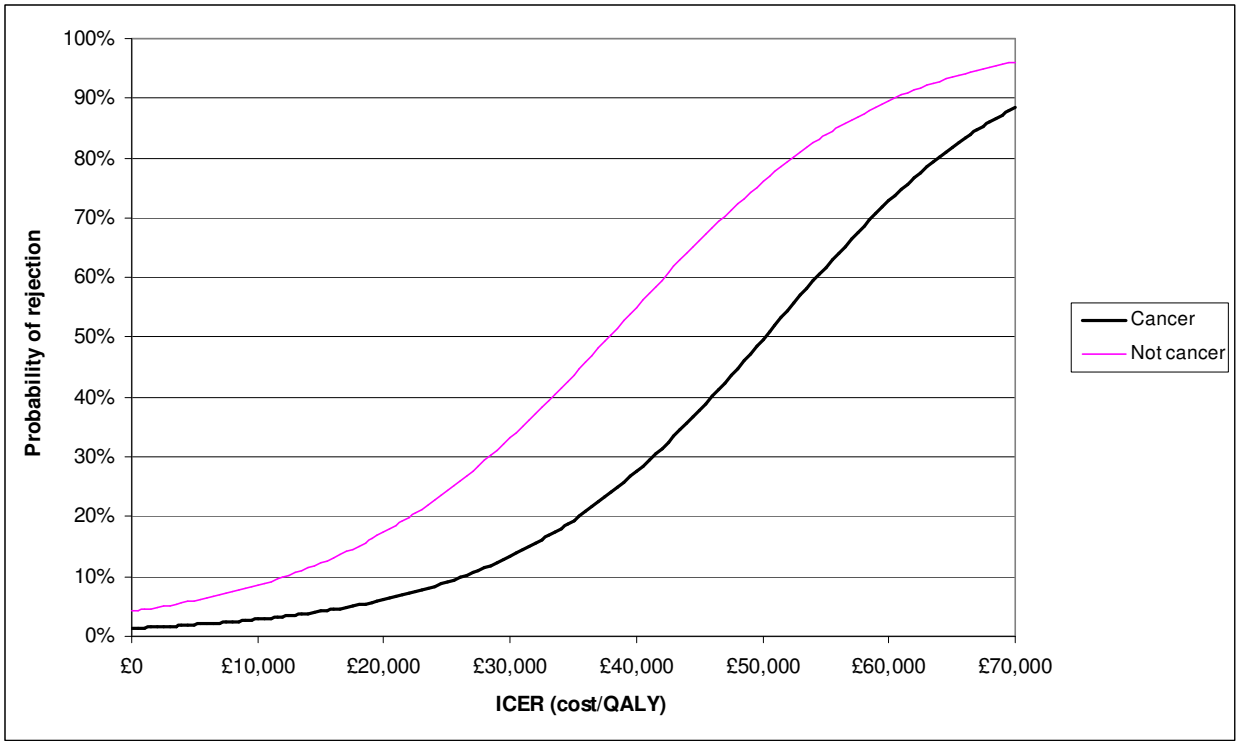
5. Results (2): estimated threshold



Model	Threshold: ICER giving X% chance of acceptance (mean values for other parameter)		
	50%	**25%**	**75%**
ICER only	**£40,552**	£27,066	£54,006
Basic Model	**£40,345**	£27,383	£53,271
Min & max; All models	**Min: £40,206 Max: £40,721**	Min: £27,066 Max: £27,446	Min: £52,856 Max: £54,006

- 50% probability of rejection used to identify the 'threshold' (but what 'p' best defines the threshold?).
- Further illustrates the conclusion that alternative models yield very similar estimates.

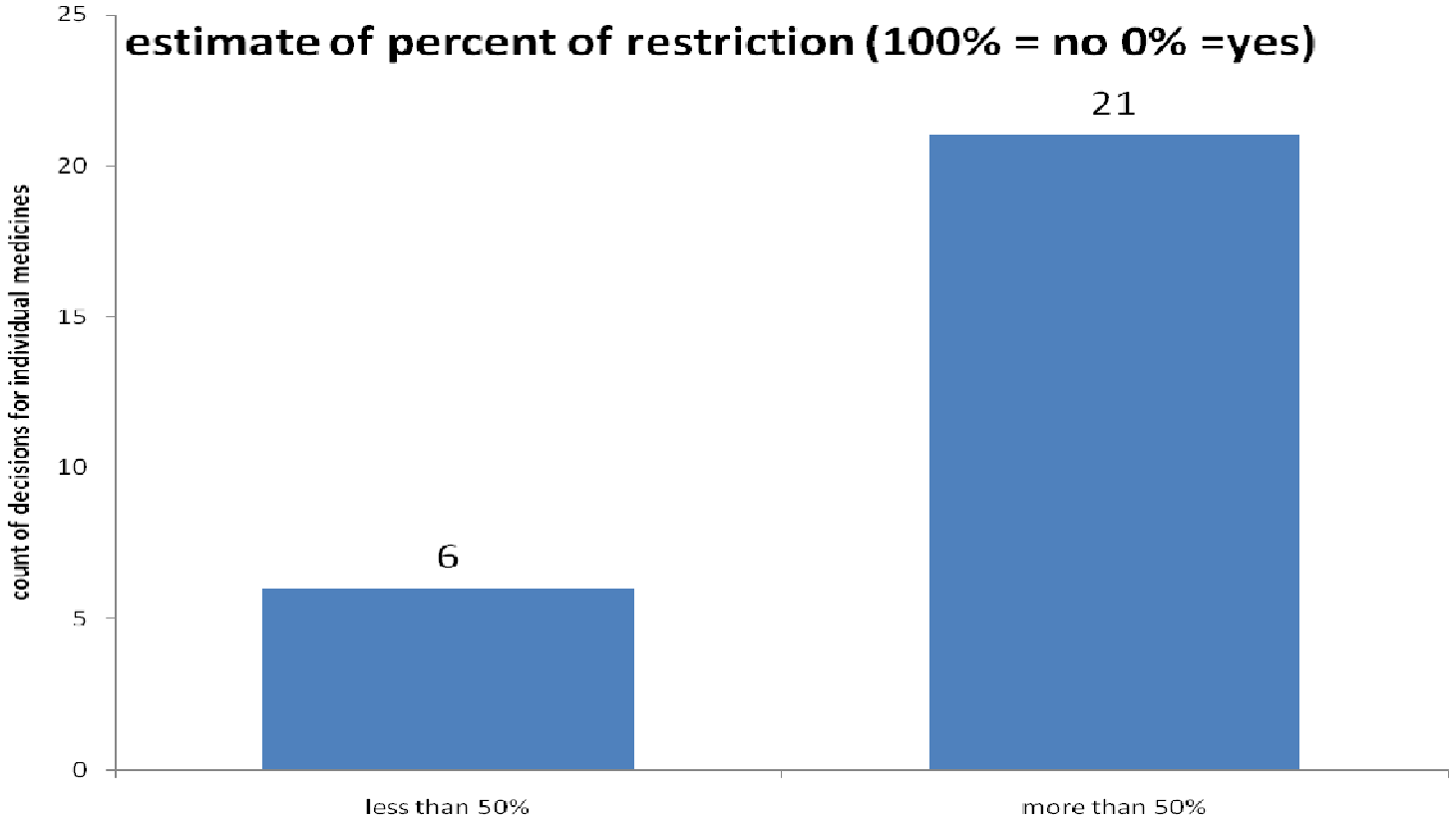
5. Results (3): cancer



- 'Cancer' dummy significant
- 102 cancer decisions included in the analysis
- 92 pre-EOL (38 no, 54 yes); 10 post EOL (7 no, 3 yes, of which 2 considered under EOL).

- The estimate of the threshold (probability of rejection = 50%) is:
  - £50,139 for cancer drugs
  - £37,805 for non-cancer drugs
  - NICE decisions reveal a willingness to 'pay' an additional > £10k per QALY gained by cancer patients

Estimate of extent of "restriction" for recent NICE decisions



The percentage is calculated using NICE reported patient numbers for all potential patients eligible for medicine for indication under consideration divided by number of patients eligible for treatment before considerations of market share or uptake are incorporated into estimate.

All restricted decisions since January 2007 were analysed although around half were excluded as not possible to find relevant detail

Sources: NICE costing templates/statements, NICE guidance documentation

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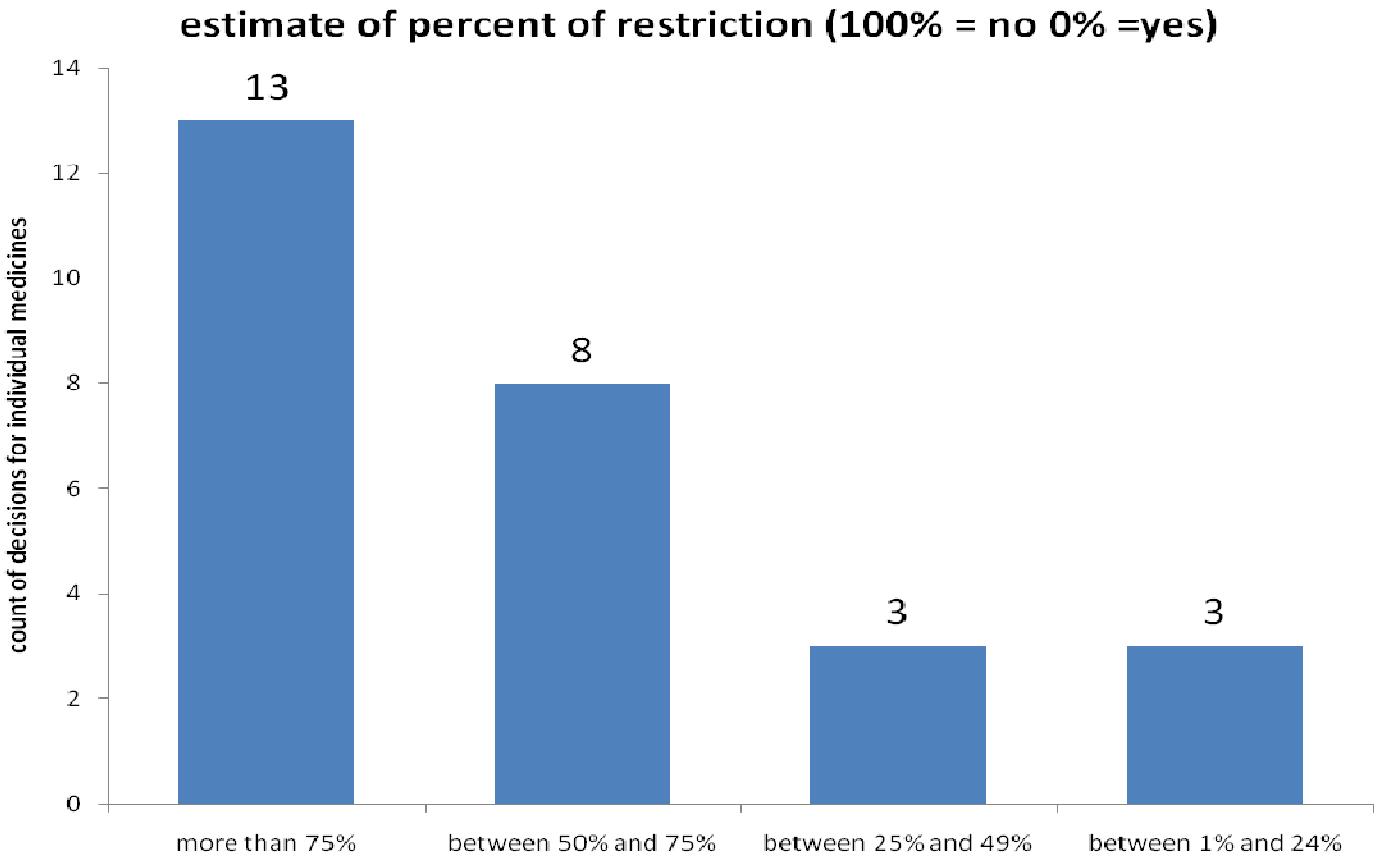

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Sources: OHE calculations based on NICE costing templates/statements, NICE guidance documentation

Richards Report, July 2010: Extent and causes of international variations in drug usage

Table A5: Summary of country rankings

Rank	Country
1	France
2	Austria
3	USA
4	Germany
5	Spain
6	Switzerland
7	Denmark
8	Sweden
9	Italy
10	Norway
11	Australia
12	**UK**
13	Canada
14	New Zealand

Richards Report, July 2010: Extent and causes of international variations in drug usage

Table 1: Summary table of international rankings by therapy area

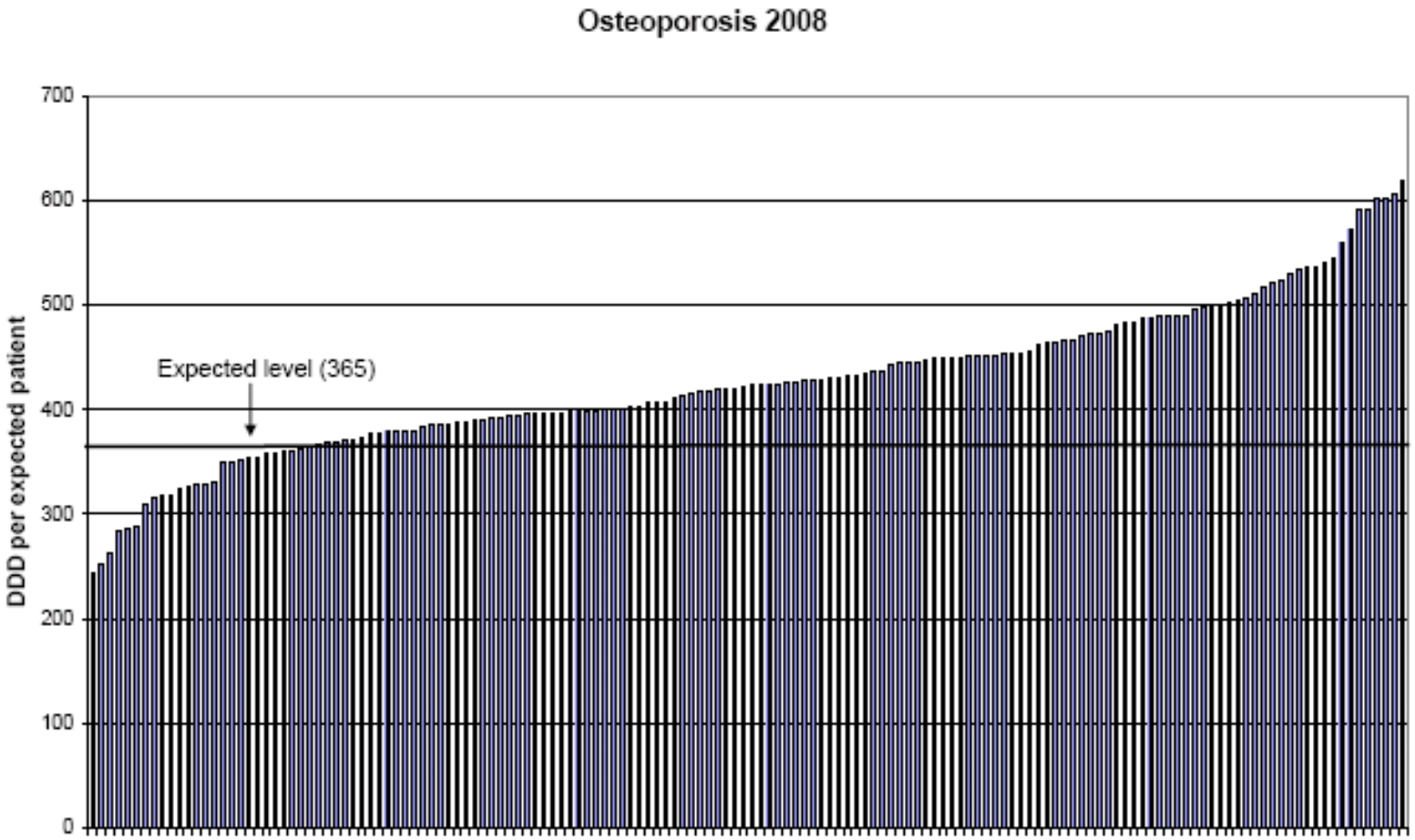
	Australia	Austria	Canada	Denmark	France	Germany	Italy	New Zealand	Norway	Spain	Sweden	Switzerland	UK	USA
Acute MI	4	11	10	1	7	9	12	3	8	5	6	n/a	2	13
Antipsychotics	5	6	4	2	10	12	14	7	9	3	13	8	11	1
Dementia	12	5	4	8	2	9	13	14	6	3	7	10	11	1
Hepatitis C	5	4	11	14	3	8	1	12	10	2	7	9	13	6
Multiple sclerosis	10	12	5	2	11	1	3	14	6	8	7	9	13	4
Osteoporosis	9	12	10	7	2	8	5	14	11	1	13	4	6	3
RDS	5	3	13	12	6	8	2	9	11	7	10	14	4	1
Rheumatoid arthritis	11	8	5	4	9	13	12	14	2	7	3	6	10	1
Statins	1	13	4	6	8	12	14	7	5	10	11	9	2	3
Wet AMD	1	12	6	4	3	9	13	14	11	10	7	2	5	8
Cancer	12	3	13	6	1	3	3	14	11	2	9	6	10	8
Cancer <5 years	11	2	13	7	1	4	9	14	10	5	8	6	12	3
Cancer 6–10 years	10	4	12	2	1	7	6	14	13	5	11	3	9	8
Cancer >10 years	13	6	11	7	1	4	2	14	12	3	9	5	10	8
Cancer hormones	12	6	11	8	4	3	1	14	9	2	7	10	5	13
Total ranking points	75	89	85	66	62	92	92	122	90	58	93	77	87	49
Mean ranking	6.818	8.091	7.727	6.000	5.636	8.364	8.364	11.091	8.182	5.273	8.455	7.700	7.909	4.455
Overall rank	5	9	7	4	3	11	11	14	10	2	13	6	8	1

Denotes the rank which is closest to the all-country average

Notes:

- The overall rank is based on the mean ranking across all categories. Switzerland has been calculated on 10 categories rather than 11, as data on the usage of acute MI drugs were not available.
- Due to only one drug being in each category, country ranks cannot be included for stroke or RSV on the grounds of commercial confidentiality.
- The cancer sub-categories have been combined to create an overall rank for cancer. Due to the absence of a DDD or an equivalent measure, it is not possible to demonstrate which ranking is closest to the all-country average.

Variation in uptake of NICE recommended drugs between PCTs



Source: The Information Centre, 2009

Issues with NICE

- Some elements of value missing. Need for a broad perspective
- Lack of clarity and therefore understanding about what matters in decision making
- Patient Access Schemes and Flexible Pricing to tackle discounts and handling uncertainty
- Drugs can end up not being used by the NHS

Agenda

- Is there are problem with NICE?
- **Thoughts on the VBP Consultation Paper**
- Societal Perspective
- Where next?

The VBP Consultation: best bits

- In the short term the NICE mandate continues (paragraph 6.9) This is a very important concession, and the rationale “until we are assured that the improvements in access to medicines we want to see are realized” could justify and indefinite extension. This is very important.
- The reference to different prices for different indications (paragraph 4.19) is helpful and important
- The use of a “contingent price” to address the timing issue is very helpful and important. (paragraph 5.9)
- Having a successor PPRS (paragraph 4.3) is clear and important

The VBP Consultation: nasty bits

- The loss of the NICE mandate seems to be confirmed by the statement (paragraph 5.12) that GPs will use / commission use of the new VBPed medicines because of their outcomes framework.
- The “move away” from 5 year PPRS negotiations (paragraph 4.12) is a step backwards, as it implies VBP is “fixed” and shows a lack of understanding of PPRS as a procurement bargain with a key industrial sector of the economy
- Patient Access Schemes are to be dropped (paragraph 4.33) but Flexible Pricing (by implication) kept (paragraph 5.8). However, dropping PAS for discounting sounds OK if there is no need to offer hidden discounts (which isn’t clear) but there is the small matter of handling uncertainty at launch. This seems to be a major weakness
- Clear attempt to shift the blame for non-availability from NICE to the company (paragraph 5.7

The VBP Consultation: overlooked items

- There is no discussion of differences between list price and transaction price, which is probably sensible
- The question of how much of the “plus” part of this “QALY plus” process will be done by NICE is left unstated. Where will the expert panels (paragraph 5.6) sit and who puts it all together?
- Are these the right “pluses” in a “QALY plus” system?
- Is it a “QALY plus” or a “QALY + /-” system?

A perspective on VBP and uncertainty

Uncertainty about the value	Uncertainty about the price and revenue that this value will bring		
Uncertainty about underlying cost-effectiveness	Uncertainty about the HTA assessment of the scientific issues	Uncertainty about the deliberative process of decision making	Uncertainty about opportunism in a price negotiation
Solutions: •Pre-launch dialogue •Forms of coverage with evidence development	Solutions: •Clarity of assessment methods •Quality control of assessment groups	Solutions: •Clarity of criteria to be applied •Use of MCDA	Solutions: •Let companies set price •Transparency of hurdle

Source: Towse 2010. British Journal of Clinical Pharmacology. Value based pricing, research and development, and patient access schemes. Will the United Kingdom get it right or wrong? Volume 70, Issue 3, pages 360–366, September 2010

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- Is there are problem with NICE?
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- **Societal Perspective**
- Where next?

Agenda

- Karl's main points
- A societal perspective used to be so simple
- I used to be an extra-welfarist. Now I am not sure I can get admitted to the club
- What does nice Mr Lansley (the social decision maker) want?
- The fixed budget – blessing or problem?
- One person's bias is another person's difference
- Will it make a difference? Am I at the margin? (… of NHS expenditure of course ..what did you think?)
- Investment Appraisal 101 – back to the Green Book (and could Karl be right for the wrong reasons?)
- Can we "have our cake and eat it?"

Karl's main points

- k is to be celebrated as the embodiment of democratic decision making
- k is what is foregone by the NHS if it adopts a NICE recommendation = (say) £20,000.
- v is the WTP value of a QALY = (say) £60,000
- Policy D has an exchange rate with *k /v* (say) one third of the weight given to non-health costs and benefits
- More difficult with non-marginal change
- Resource transfers into the NHS budget to compensate for health money buying extra non-health benefits or reduced non-NHS costs are sometimes efficient
- NICE's remit should not change?

The societal perspective

- Essence of economic appraisal is to look at all of the costs and benefits associated with an investment decision (including delay, collection of more evidence)
- This is true of a "social decision maker" perspective as well as of an individual agent. The social decision maker:
  - Can ignore some benefits and costs
  - Give different weights to difference costs and benefits
- Of course, if the decision maker has already decided not to include particular costs or benefits (give them a weight of zero) then there may be little point in quantifying them and/or valuing them

Mr Lansley's 2010/2011 Revised NHS Operating Framework now published

- Improving cleanliness and reducing healthcare-associated infection;
- Improving access through achievement of the 18-week referral to treatment pledge and improving access (including at evenings and weekends) to GP services;
- Keeping adults and children well, improving their health and reducing health inequalities;
- Improving patient experience, staff satisfaction, and engagement; and
- Preparing to respond in a state of emergency such as an outbreak of pandemic flu

The Fixed budget – blessing or problem?

- The fixed annual budget *is* a problem. It can lead to sub-optimal decisions leading to static and dynamic inefficiency (Jönsson)
- Take an analogy inside the NHS. We have (for example) a hospital pharmacy budget in which all benefits and costs other than drugs (effects and costs), pharmacists wages and rent for floor space are ignored.
- Silo budgeting is a tool to create management accountability (and enable organisational "stability")
- Within a time period and across time periods virement is needed for investment decisions that cross departments and/or years
- Drugs that reduce crime, education disruption should trigger a virement to the NHS budget from elsewhere in government
- More spending on treatments that get people back to work could be funded by a rise in NI

101 in investment appraisal

- "All changes in real resources should be measured and they can be classified in changes in service production, changes in resources used by patients and their helpers, and changes in the gross domestic product, Alan Williams (1981, page 272)"
- Value real effects using market values or proxies or social valuations
- This would involve valuing QALYs using *v* as a proxy WTP
- We can derive a net benefit (an NPV)
- If there are too many projects with positive NPV to be funded by the available budget then need to select the highest and also take account of indivisibilities.
- This sounds a bit like the Birch and Gafni world of PBMA and of course it is.

It is not just productivity effects

- These have the biggest impact and yet are the most controversial because of the issues raised around valuing peoples' time and age discrimination
- DH Value Workshops
  - Out-of-pocket costs to the patient
  - Wider public sector: crime, education, social services
  - Carer impact
  - Productivity benefits
- The social decision maker can "pick and mix"
- There is the question of unrelated medical costs. If a treatment extends life then patients will need more health care in the future for unrelated illness. These would fall on the NHS at some future point but are not included.

Can we “have our cake and eat it?”

- The NHS budget is fixed in a messy political process
- Delivering health gain is only part of the NHS mission (although hopefully a large part)
- Policy D looks like a starting point
  - Similar to NICE’s earlier policy
  - Can be applied pragmatically within the existing framework
  - Can apply in the context of NHS values
- Will need the social decision maker (Mr Lansley) to be clear about what is in and what is out)
- Look at productivity effects and unrelated medical costs in more detail, but can get on with the rest
- Budget transfers within Whitehall would be good policy, but not essential

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