Principles of decisions making at NICE

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CHE/OHE Workshop, What perspective should be used in health care decisions?
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Outline

• International context
• What the literature gives us
• Framework for NICE decision making
  – Simple world: all costs fall on NHS
  – More complex world: some effects outside NHS
• Considerations in selecting an appropriate perspective
What do we learn from international comparison?

<table>
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<tr>
<th>Payer</th>
<th>Societal</th>
<th>Both</th>
<th>Not stated</th>
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<tbody>
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<td>13 (50%)</td>
<td>6 (23%)</td>
<td>6 (23%)</td>
<td>1 (4%)</td>
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Acknowledgements: Marco Barbieri
Absence of clear rationale for selected perspective

• 50% of guidelines offer no rationale for their preferred perspective

“There is broad consensus nationally and internationally that the societal perspective is the most appropriate choice.” (Netherlands)

“The perspective chosen should fit the needs of the target audience.” (Canada)

• 27% (7/26) make reference to a budget constraint
Does the theoretical literature help us?

• Normative foundations of economic evaluation – two broad paradigms

• Neo-classical welfare economics (‘Welfarism’)
  – Prescriptive framework for social choice
  – Application in terms of cost benefit analysis
  – Little consideration of budget constraints and consequent opportunity costs

• ‘Non-Welfarist’ approaches
  – Other outcomes can be considered other than just preferences
  – Less prescriptive – legitimacy comes from political and administrative system
A simple world: NHS budget constraint and health maximisation

New technologies
- Health gain ($\Delta h$)
- Additional cost ($\Delta c_h$)

NHS: Budget constrained health care system

Displaced services
- Health forgone
- Resources released

Cost-effectiveness threshold ($k$)
- Additional cost that would displace 1 unit of health
The role of the threshold?

Cost-effectiveness Threshold
£20,000 per QALY

Cost

Price > P*  £60,000
Price = P*  £40,000
Price < P*  £20,000

QALYs gained

1  2  3

Net Health Benefit
1 QALY
Net Health Benefit
-1 QALY

Decision rules

\[ \frac{\Delta c_h}{\Delta h} < k \]  
Incremental cost effectiveness ratio

\[ \frac{\Delta h - \Delta c_h}{k} > 0 \]  
Net health benefits

\[ k.\Delta h - \Delta c_h > 0 \]  
Net monetary benefits
More complex world: effects falling outside the NHS

New technologies
- Health gain ($\Delta h$)
- Additional cost ($\Delta c_h$)

Displaced services
- Health forgone
- Resources released

NHS: Budget constrained health care system

Net health impact
- Non NHS direct costs/saving
- Indirect costs/savings economy (e.g. production net of consumption)

$\Delta c_c$

Consumption value of health ($v$)
- Consumption considered equivalent to one unit of health

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More general decision rule

\[ \nu \cdot \left[ \frac{\Delta h - \Delta c_h}{k} \right] - \frac{\Delta c_c}{v} > 0 \]

Accept technology if the net consumption value is positive.

If \( \Delta c_c = 0 \) the decision will be same as ‘standard’ decision rule regardless of \( \nu \).

Accept technology if net health gained in health sector is greater than the health equivalent of net consumption costs.
What questions are posed?

• Measurement issues:
  – Where do we get $v$ from?
  – Can we specify all the trade-offs?
  – Do QALYs already include (some) consumption effects?
  – How do we measure productivity effects?

• Displaced services can also have wider effects

• Long-term dynamic effects