Cost-effectiveness Thresholds for Decision Making about Health Care Technologies: Conceptual and Empirical Underpinnings

Chair
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iHEA, Toronto, July 2011
Background

• Widespread use of economic evaluation to support decisions regarding new medical technologies
• Some form of cost-effectiveness analysis predominates
  – Measure of (health) effects in natural units
• Costs and effects ultimately have to be valued in commensurate units for decision making
Decision rules

- Standard ICER decision rule:
  \[ \frac{\Delta C}{\Delta E} < \lambda \]
  Where \( \lambda \) is the threshold

- Net monetary benefit:
  \[ (\Delta E \times \lambda) - \Delta C > 0 \]

- Net health benefit:
  \[ \Delta E - (\Delta C / \lambda) > 0 \]
The region of cost-effectiveness

Difference in cost

Cost-effectiveness threshold

Difference in effect

Region of cost-effectiveness
Alternative sources of the threshold

Implicit and variable
- Lacks transparency
- Doing more good than harm?
- Ignores economic meaning

Empirical estimation
- Implied by budget constraint
- Local detail vs. national average
- Willingness to pay
- Preference-based vs. policy defined
- Previous decisions
- Empirical estimate vs. rule of thumb
Some considerations

- Which type of health care system?
  - Budget constrained
  - Freely funded
  - Mixed

- Should threshold vary by clinical area?

- What methods and datasets exist for estimation?

- What level of precision is need in the estimate?

- How do we deal with the inevitable uncertainty?

- Can different concepts of the threshold co-exist?

- How often should the threshold be re-estimated?

- Should the threshold only reflect only unweighted health?
Our speakers

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