Technology Assessment in Europe and the UK

Professor Sir Michael Rawlins
Chairman, National Institute for Health and Clinical Excellence
London
Health Technologies

Encompass:

• Pharmaceuticals
• Devices
• Procedures
• Diagnostic methods
• Health promotion techniques

Clinical effectiveness
Economic evaluation
Economic evaluation

1. Cost effectiveness analysis:
   • Not budgetary impact
   • Not affordability

2. Perspective:
   • Clinical = National Health Service
   • Public health = Publicly available funds
Cost effectiveness

Approaches:

Cost minimisation

Incremental cost effectiveness (ratio)
  – Natural units
  – Life years gained
  – Quality adjusted life years
Cost Ineffectiveness

1. No empirical basis
2. Inflexible
3. Implies efficiency has an absolute priority over equity
4. Anti-competitive

Probability of Rejection

Cost per LYG/QALY
Case-by-case approach

Based on:

• degree of uncertainty of the ICER
• innovative nature of the technology
• wider societal interests
• reference to previous appraisals
• special features of the condition (eg prognosis, equity issues etc)
Cost Ineffectiveness

Probability of Rejection

Cost per LYG/QALY

- £5,000 - £15,000
- £20,000 - £30,000

A
B

0% 100%
Value of preventing a statistical fatality?

\[
\text{VpF = Willingness-to-pay} = £1,170,000 \\
\quad \text{plus} \\
\text{Gross output} = £430,000 \\
\quad \text{less} \\
\text{Consumption} = £349,000 \\
\quad \text{plus} \\
\text{Medical and ambulance costs} = £1000
\]

\[
\text{Total} = £1,250,000 \text{ (per life saved)} \\
= £31,250 \text{ (per life year gained)}
\]
Special considerations

Social value judgements:

- Society not science
- Preferences of people not scientists
- Ethical dilemmas
The Citizen’s Council
No shrinking violets...
Special considerations

Explicit:
- Age
- Gender
- Race/ethnicity
- Dependents
- Employment status
- Social status
- Individual choice
- Self-inflicted conditions

Uncertain:
- Rule of rescue
- Innovation
- Inequalities
- QALY gains
In summary

1. European – and especially UK – health technology assessments increasingly incorporate clinical and cost effectiveness.

2. Assessments of cost effectiveness are becoming increasingly important in prioritising healthcare measures:
   - Treatment
   - Immunisation
   - Screening
   - Public health more widely

3. But it is still scientifically (always) and politically (sometimes) challenging!