



## **Panel Session 2**

# **Making the cost per QALY approach more consistent with societal aims**

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## Outline

- Key challenges in the 21<sup>st</sup> century
- Limitations with current cost per QALY approach
- Incorporating wider concerns
- MCDA vs. cost per QALY

## Some challenges in 21<sup>st</sup> century HTA

Aim: to help policy makers be consistent with societal aims

- Improving the health and well-being of the population
- Cross-sector perspectives – health care is not alone!
- Equity concerns and taking account of productivity effects
- Multiple levels of decision making
- Consistency between decisions

## What's wrong with the cost per QALY threshold approach?

- Primary measure of benefit too narrow – specifically use of 'health related QoL'
- Does not reflect multiple criteria – e.g. equity and productivity
- Combines high rigour with some criteria and leaves others to 'taking into account'
- Arguably not relevant to many decision problems (e.g. local commissioning)
- Narrow perspective can skew decisions

## **Primary measure of 'health related QoL' too narrow**

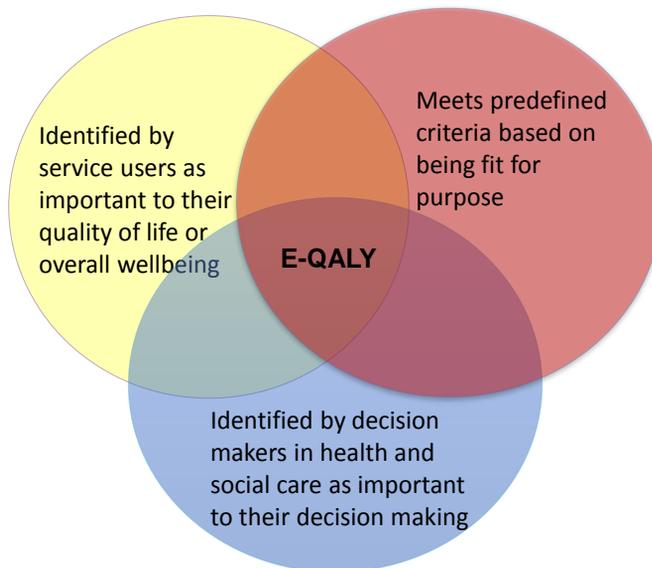
- Existing generic utility measures (e.g. EQ-5D) miss important benefits of interventions
  - Impact on emotional health & subjective wellbeing
  - non-health impact on carers
- Challenge arising from:
  - aging population & rising prevalence of long term conditions
  - integration of health and social care
- Proliferation of condition specific preference based measures in health care, and different measures in social care (e.g. ASCOT) and public health (e.g. ICECAP and WEMWBS) making it difficult to compare across conditions and sectors

## **Solution: a broader measure of quality of life**

1. A classification system (like EQ-5D) that reflects the impact of clinical, public health and social care interventions on
  - physical and mental health
  - and broader quality of life domains as judged to be important by service users (and those who are impacted such as carers)
2. Amenable to valuation (e.g. using techniques like time trade-off) on the best imaginable state = 1, dead = 0 scale to calculate (extended) QALYs

Examples: AQoL and current E-QALY project

Extending the QALY (EQALY) project – funded by UK MRC, EuroQoL group, local NHS  
Collaborators: Sheffield, Kent, OHE, NICE and colleagues in Australia, Canada, Singapore,  
Germany, Argentina, Brazil



## Reflect multiple criteria – equity

“QALY weighting” is where QALYs are assigned different values depending on agreed criteria

- All QALYs are not equal
- Benefits for treatments would receive different values depending on patients/diseases
- A year in full health is no longer a constant value
  - Note this will be higher for some, lower for others
- Criteria may be based on social value

Equity criteria examples: initial severity of disease (e.g. Nord), burden of illness, fair innings, age, responsibility, end of life, rarity

## Equity Weights for Burden of Illness (def. loss of QALYs from condition)

- DCE survey with member of the public
- $MRS_{(1)}$  of 1 more unit of BOI is -0.06 QALYs
- This assumes value of a QALY is constant

Rowen et al, 2016

See also papers by Nord

Q: what should be the role of 'empirical ethics'?

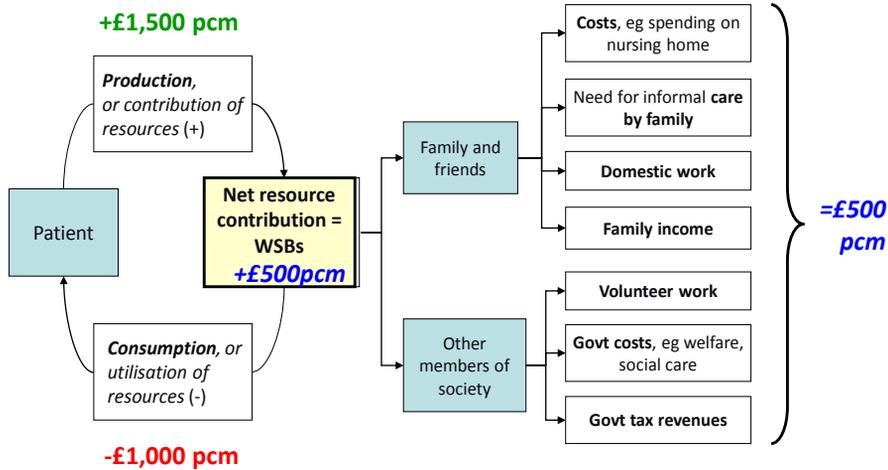
QALY gain	$MRS_{(2)}$
0.05	- 0.063
0.1	- 0.063
0.5	- 0.063
1	- 0.064
2	- 0.066
5	- 0.073
10	- 0.087
20	- 0.141

## Reflect multiple criteria – productivity costs

- Days off work (or some percentage reduction in productivity) – relate to health (UK VBP) or measure in trials and real world studies
- Valuing productivity costs:
  - Double counting: already taken into account in health state valuation? Answer: it is but only partially (Tilling et al, 2010; 2012)
  - Human capital approach i.e. multiplied by full employers costs
  - Friction costing: allowing for market adjustment time
- Ethical concerns with taking income into account – ability to pay through the back door?

## Wider Societal Benefits (from Roberts, 2015)

Net contribution of resources = impact on others



*Any excess production (consumption) by patient means a benefit (cost) to someone else*

## Where is the UK Value Based Pricing initiative now?

It died a horrible death, why:

- Seen rightly as zero sum game
- Added layers of complexity and costs to HTA
- Political acceptability of some criteria
- Technical criticisms – but then it was developed with minimal resources...much more could have been done

Would MCDA be the answer.....?

# Multi-criteria Decision Analysis

MCDAs: Stakeholders decide on attributes, assess performance on attributes and weight to derive a score to compare options

- Decisions made on score, cost per score or more qualitative trade-off exploration.....(TBC)
- Achieving agreement between diverse decision makers is challenging
- Sometimes use unhelpful attributes (e.g. cost-effectiveness and uncertainty)
- Difficult to achieving consistency between decisions
- Challenge of allowing for opportunity cost
- Can't measure all things – so always degree of 'taking into account'
- Few examples in practice...but Task Force (Thokala et al)

So why abandon an extended cost per QALY approach?

## No single 'right method'...

- Jurisdictions vary on what matters in the decision making process
- National policy making tends to give greater weight to rigour and consistency vs.
- Local commissioners who may value relevance to their decision problem –
  - with local costs, local benefits (though still require international evidence)
  - local 'buy-in' (though not clear MCDAs is better)
  - But they have very limited resources for analysis and will rely on national evidence

# Conclusion



- HTA is here to stay
- Cost per QALY is currently limited, but can extend scope in many different ways - long live VBP?
- MCDA may have a role in local decision making, but still likely to use cost and QALYs
- Jurisdictions will vary on what they value in decision making attributes

# References

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**'Extending the QALY project': <https://scharr.dept.shef.ac.uk/e-qaly/>**