Values in Health Policy and HTA processes – the case for health max and good processes of economic evaluation

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A simple-minded economist's approach

Let's suppose I run an integrated health insurance and care public programme

Let's suppose I want to:

- maximise population health
- promise all subscribers that when they get sick they will get *only treatments that work*
- they will get their care without co-pays or deductibles
- the system will be funded out of general taxation
- each will have the same opportunity for care and to participate in system design and operation
- new benefits will be introduced in a fair way for all concerned (patients, manufacturers, providers)

(I'm setting aside for now the preventive and public health aspects of my programme)

I am going to need (concepts, facts and procedures):

- evidence about what works (is effective)
- to find out what works better (is *relatively* effective)
- to find out what is efficient (cost-effective)
- to rank interventions so as to include only those that out-perform others
  - an outcome measure of 'effectiveness' that enables me to make the needed comparisons (eg QALY or DALY)
  - resource costs (including their scope)
  - an inclusion/exclusion criterion for technologies (threshold)
  - some ways of handling technical and clinical disagreements and the absence of evidence or presence of poor evidence (deliberation)
  - some ways of addressing issues of fairness and justice
  - some ways of addressing acceptable levels of risk and uncertainty
- plus lots more that I set aside for the moment (and today!)

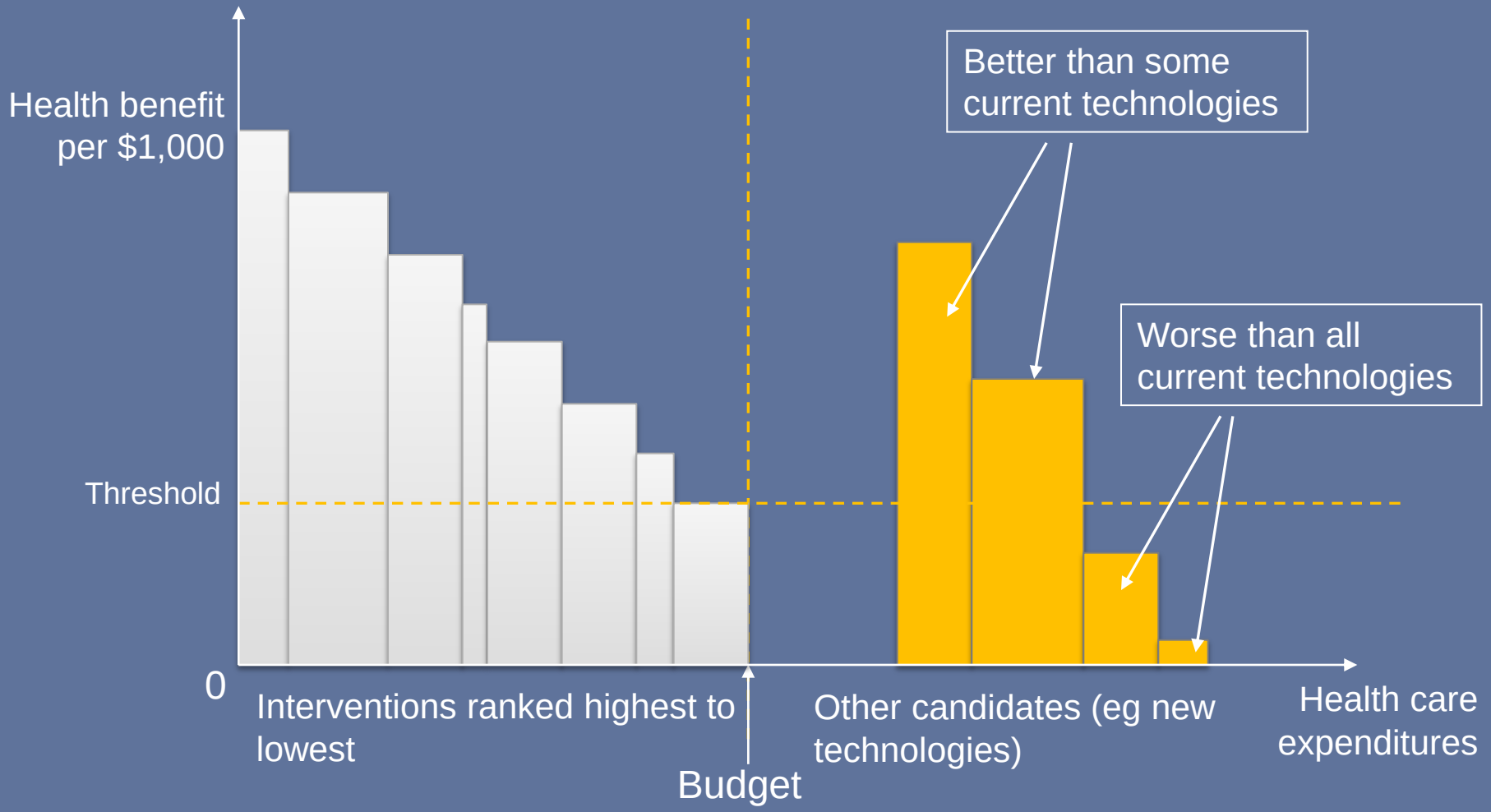
All of this I call *economic evaluation*

Two basic questions

- Q1: How are health max, budgets, thresholds and opportunity costs (displacements) related to one another in such a system?
- Q2: What arrangements seem best for decisions about the *procedures* included in the publicly insured bundle?

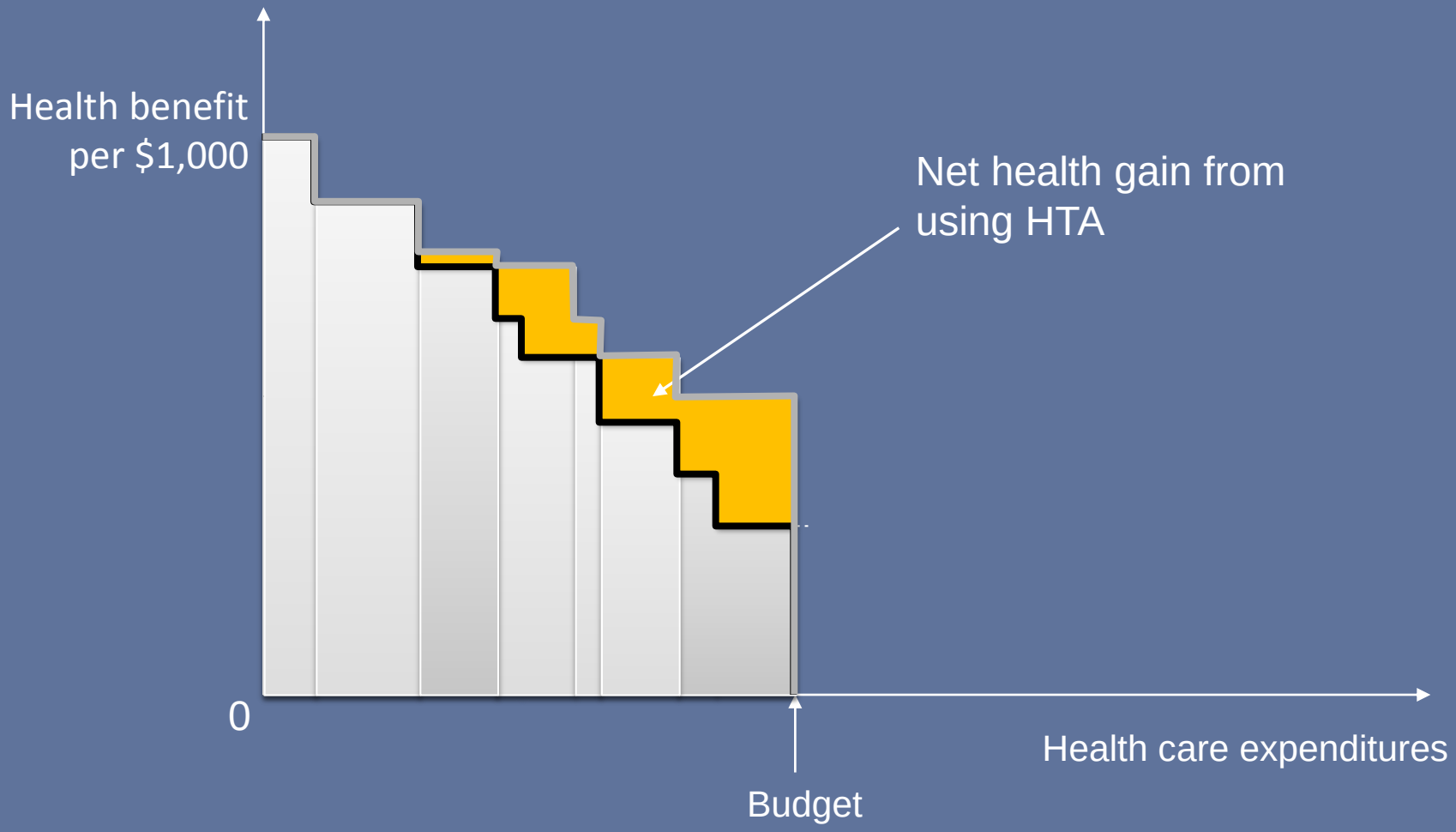
Interventions that are in – and out

thanks to Chris McCabe and Richard Edlin for some animation of Culyer et al. (2007)

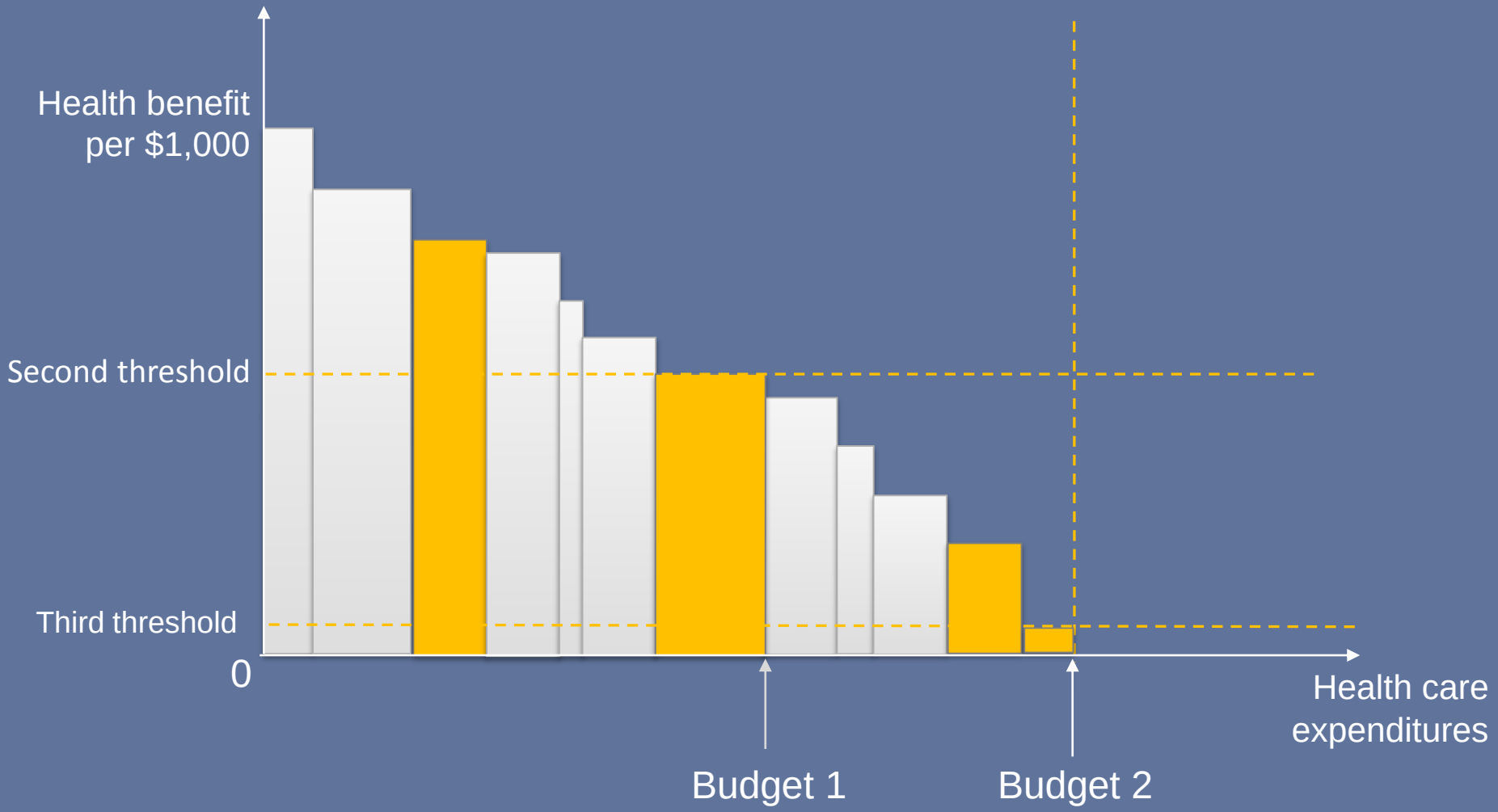


Interventions that are in – and out

How innovations increase health even with constant budgets

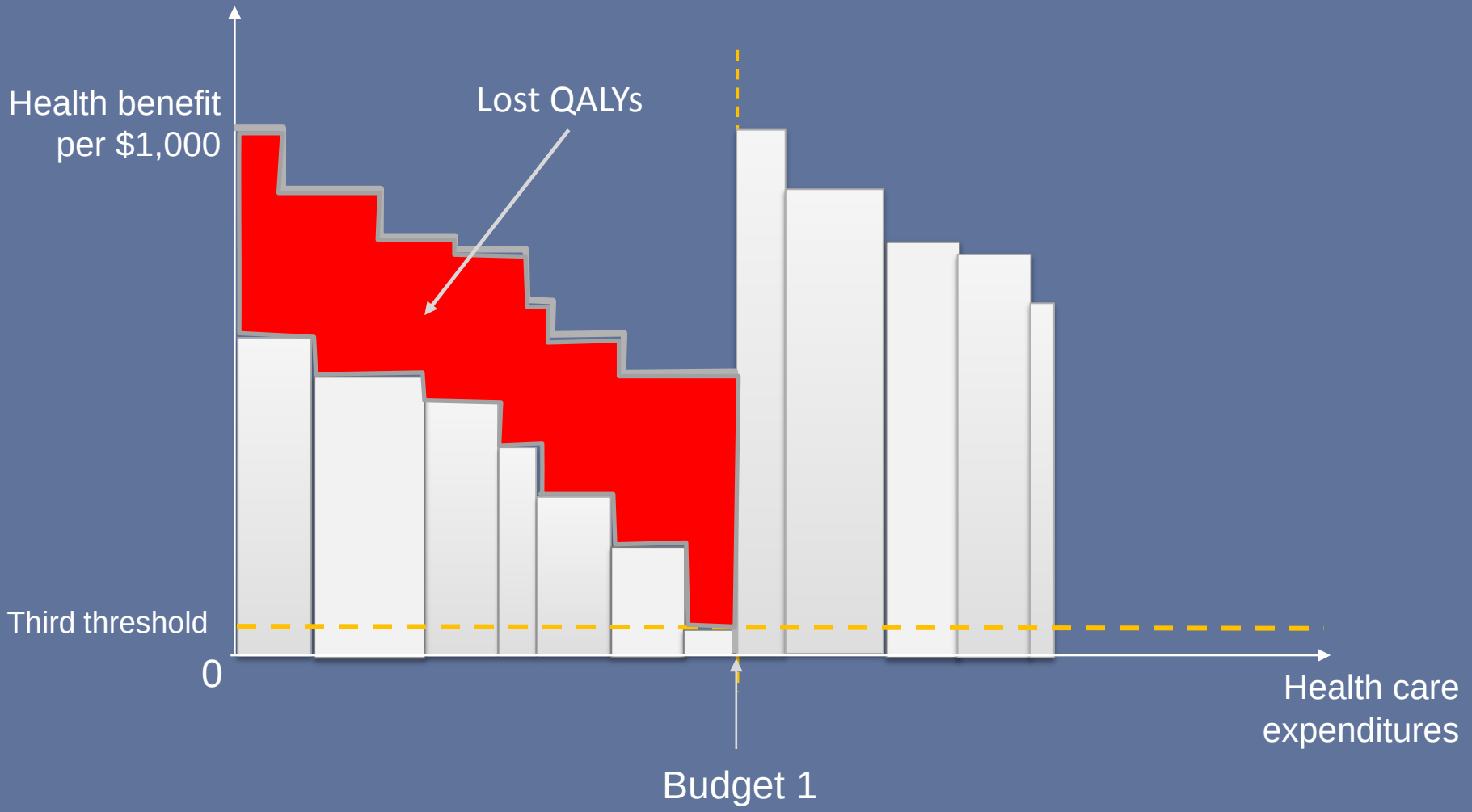


Set the budget so as to include all technologies that are ‘effective’



Getting it completely wrong

(threshold so low that everything effective gets in and lots are unaffordable)



Things to note

- "Health gain per $1000" = reciprocal of ICER
- Being efficient increases population health compared with being inefficient
- As interventions that beat the threshold are added, the threshold rises (budget constant)
- As HGper$ threshold rises the ICER threshold falls (budget constant)
- You can include less productive technologies but must increase the budget or else you will reduce population health
- If budget rises, ICER threshold rises (health gain per $1000 falls)
- You can set the threshold or set the budget *but not both independently* (if you are a health maximiser)
- Setting the threshold ICER arbitrarily high (à la WHO) is irresponsible
- Innovation welcome – but with fixed budget, other less productive interventions must go (disinvestment)
- Innovation welcome if it has a favourable ratio of health gain to cost (this signal must go out to manufacturers selecting product developments)
- Overall health increases with the right kind of innovation
- Innovation can increase overall health with no increase in health expenditures at all!
- Some will lose – those benefitting from the lost treatments, those manufacturing them, those who get an income from prescribing/delivering services
- If you want to treat some groups (eg those 'end of life', children) more favourably, remember (unlike NICE) also to weight those with that characteristic who are amongst the losers (Paulden et al. 2014)
- With a fixed budget, the opportunity cost of each investment is the health lost through displacement.

Treating everyone fairly

- Two great principles of DISTRIBUTIVE FAIRNESS:
  - People with equal claim get equal treatment (horizontal fairness)
  - People with greater claim get greater treatment (vertical fairness)
- Examples:
  - QALY=QALY=QALY (horizontally fair) except when
  - (vertically fair)
    - History of very poor health
    - End of life
    - Children
  - Best way always to weight the benefit differentially (not distort discount rate nor fiddle with cost side) but *do it for everyone* (horizontal justice)
  - If you are vertically fair on the benefit side you must be horizontally fair on the disinvestment side too (the losers here may also be very sick, near death or children)

- Remember that to include *cost-ineffective* procedures is to reduce someone else's health, increase the probability of their dying needlessly (usually anonymous people)

Being fair…

So,

- If we can agree the weights
- And if we apply them equally to losers as well as to gainers

Then I would assess the outcome as fair as well as efficient.

But we also need to make sure that our *procedures* are themselves fair.

Fair procedures

Principles of procedural fairness (Culyer & Lomas 2006):

- Transparent (to all)
- Consultative (for stakeholders)
- Accountable (to payers, owners, politicians)
- Participatory at decision time for deciding inclusion or exclusion (for key representative groups)
- Ability to resolve disputes about evidence and methods
- Appealable (on grounds of failure to observe the above or unreasonableness of decision)
- Ability to commission research to inform future decisions better

(Alas! Sometimes these conflict with one another and compromise is required!)

Who are my stakeholders?

- Patients
- Patients' families and informal care givers
- The general public (including taxpayers)
- Researchers (clinical, economic, epidemiological, biostatistical, ethical, plus ad hoc groups)
- Manufacturers (of interventions assessed and their comparators)
- Clinicians
- Politicians and regulators

If not my way…?

So, there *is* a way that is efficient at producing outcomes, that distributes them fairly, and by procedures that are themselves efficient and fair.

We need always to ask:

Is this efficient (and at what?)?

Is it fair (and by what principles?)?

I DID IT MY WAY!

But if you don't like my way – what's yours (and is it efficient and fair?)?

References

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