Societal preferences in the allocation of healthcare resources

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Outline

- Economic perspectives on rationing
- Individual vs. societal preferences
- Objectivity in preferences
- Empirical ethics
- Empirical ethics review
- Intro to stated preference methods

Rationing healthcare

- 'Unlimited' capacity to benefit from healthcare vs. relative scarcity of resources
- Rationing by price mechanism limited in face of known market failures in healthcare
- Public provision faces fundamental rationing problem: "***How to decide who will benefit from scarce societal resources and who will not***"

Alternative perspectives

- Some alternative perspectives on the rationing problem:
  - Welfarist
  - Extra-welfarist
    - QALY maximization
    - Communitarianism

Welfarist principles

- Utility maximization
  - Similar to, but not Utilitarianism
- Individual sovereignty
  - Utility is unique to individual and can only be judged by the individual
- Consequentialism
  - Outcomes, not process
- Welfarism
  - 'Goodness' of any situation must be judged solely by the utility attained by individuals in that situation

Pareto decision criterion

- Under Welfarist perspective, desirability of a reallocation based on Pareto improvent criterion:

  "A reallocation is an improvement if, and only if, at least one person can be made better off and no-one is made worse off"

- Value-judgement free?
  - Disregards distributional issues (equity)

Extra-welfarist perspective

- Individual supremacy of Welfarist perspective makes it impractical for societal decisions that must balance winners and losers

- Extra-welfarist perspective moves away from individual utility and toward concept of **aggregate societal welfare**

Extra-welfarist perspective

- In theory, relaxes Welfarist conditions:
  - Expands value to include non-utility factors, e.g. personal characteristics, distribution
  - Consideration of distribution
  - Allows valuations from non-affected individuals
  - Inter-personal comparison of welfare
- What characteristics? Whose valuations?

Extra-welfarist perspective

- In practice, often more restrictive than Welfarist:
  - Value limited to health (esp. QALYs)
  - Maximization over equity
  - Preferences defined by decision maker valuations

→ **QALY maximization**

QALY maximization

- ***Individual*** value of health interention
  = Δquality x ΔLYs
  = quality-adjusted life years (QALYs)

- ***Societal*** value of health intervention
  = Δquality x ΔLYs x **N**

↑ in any component → proportional ↑ value

Implications of QALY max

- Health = QALYs = 'well-being'
  - Health as “merit good”
  - Max QALYs = max well-being
- All that matters is aggregate QALYs
  - “A QALY is a QALY is a QALY”
  - Rules out trading QALYs for other aspects of well-being
  - Justified by “Potential Pareto criterion”

Potential Pareto

- Potential Pareto criterion:

  If gainers can, *in principle*, compensate losers and still remain at least as well off, new allocation is a Potential Pareto improvement over the original

- The potential for a *hypothetical* redistribution that leaves everyone better off used to justify disregarding distributional issues (equity)
  - But difficult to redistribute health!

Communitarianism

- Alternative to decision-maker perspective of QALY maximization
- Societal well-being = satisfaction of societal preferences
  - **Societal preferences**: what individuals want for the community, not for their own health
  - Preferences determine objectives of healthcare system, and thereby allocation of resources

Communitarianism

- Communitarian 'value':

1) Individual preferences for what constitutes individual well-being (i.e. Utility weights)

2) Individual preferences for what constitutes societal well-being (i.e. Equity weights)

3) A societal value function that may or may not be a direct function of individual utilities

(Menzel, J Ethics 1999)

Escaping the 'QALY trap'

- Communitarian perspective offers escape from the “QALY trap”, where value is determined solely by individual utilities

- Under a Communitarian perspective, value is not necessarily constrained by change in individual utility
  - **ΔValue can be greater or less than Δutility**

A rational for satisfaction of preferences?

- "Self-interested individuals with perfect knowledge prefer X to Y if, and only if, X is in fact better for them."
  - Hence, well-being can be equated with how well an individual's preferences are satisfied

- But, not necessarily clear how/if "self-interest" extends to preferences for the community

Individual vs. societal prefs

Individual

How would *you* feel in state X?

Societal

How would you feel about *others* in state X?

→ Requires consideration of inter-personal trade-offs

Individual vs. Societal prefs

- Evidence that preferences elicited from an individual perspective do not match preferences from a societal perspective
  - Not necessarily willing to make same gambles or trade-offs for the community that they would for themselves
- Not necessarily selfish, but emphasis on different aspects of value

Objectivity in societal decision making

- Decisions on allocation of societal healthcare resources would seem to require **objectivity**

- **But what is objectivity?**

Objectivity and truth

- ***"Having reality independent of the individual mind"*** (Buchanan, 1998)

- An "objective truth" should be recognizable without explanation or persuasion
  - **Objective truth**: the Empire State Building is taller than I am
  - **Subjective truth**: Blue is a better colour than red

Procedural objectivity

- Decision making in healthcare has typically relied on **"procedural objectivity"**: small groups of impersonal, impartial and unbiased decision makers
  - Assumes that the result of a procedurally objective process can be accepted as **"objectively better"**, *regardless of your preferences*
  - Yet the idea that one allocation is better than another is still an intrinsically *subjective* truth

Objectivity and judgement

- Buchanan argues **judgement** must take the place of objectivity:

  ”Judgement expresses professional opinion and expertise in an area which itself reflects knowledge acquired by extensive training, by experience, and by the application of scientific methods”

- In this view, what makes advice objective is the professionalism of the source

"The view from nowhere"

- **Procedural objectivity represents "the view from nowhere, and of no-one in particular."** (Fine, Am Phil Assoc 1998)
  - By carefully excluding personal perspectives from decisions, we make it impossible to understand the very nature of subjective truths: that truth depends on your perspective!

- Fine argues that the point of objectivity is not necessarily *truth*, but ***trust***

Objectivity as trust

- **Objectivity as anything that improves trust in a decision**
  - In some cases, narrow impartiality
  - In other cases, a broader process with more personal perspectives
- Society does not necessarily care if a decision is “objectively best”, only that they can <u>trust</u> the process by which it was made

Citizenship and trust

- "Citizenship implies a willingness to stand aside for the benefit of others, but also an expectation that others will stand aside when they have greater needs" (Broqvist and Garpenby, Health Expect 2011)
  - Insufficient knowledge about why some patients were given higher priority made them less willing to stand aside for others
  - Broad public involvement in healthcare decision-making was viewed as a way to enhance understanding and trust

Preferences vs. value

Preferences

Preferences determine factors associated with value

No objectively correct set of preferences

Value

Given societal preferences, how should we allocate resources to maximize value?

This has an objectively correct answer

Empirical ethics

- Most straightforward approach to establish factors associated with value is to ask people what they prefer

- But is 'majority support' sufficient for something as fundamental as healthcare?

Empirical ethics

- Daniels argues preference surveys are based on tastes rather than reasons and lack legitimacy
  - A deliberative process is required to assure minorities that allocations are based on reasons they can accept as **legitimate**

Empirical ethics

- But the preferred distribution of scarce resources is a **value judgement**; cannot be determined by logic and deliberation alone

- *"Defensible principles must be derived in an iterative way, involving both an empirical study of population values and an ethical analysis of the results."* (Richardson & McKie, 2005)

→ **Empirical ethics**

'Laundering' preferences

- Communitarianism implicitly accepts any distribution that reflects community preferences
- Empirical ethics also requires that such a distribution be **fair**
  - If preferences are unjust or prejudicial, they should be excluded, or 'laundered'
  - Exclusions should be based on reasons internal to the preferences themselves → "consistent with some coherent and defensible ethical theory of justice" (Ubel, Richardson, Pinto-Prades, 1999)

Empirical ethics review

- What factors are important in the allocation of scarce societal healthcare resources?
- Must have evidence of broad public support and defensible ethical justification
  - Need
  - Egalitarianism
  - Utilitarianism/maximization

Theories with a specific **maximand**

Age

Empirical

- Consistent prefs for younger patients
- Hump shaped?
- No support for hard age cutoffs

Ethical

- Maximization of expected LY gains
- Max productivity
- 'Fair Innings' egalitarianism

Final health state

Empirical

- Preference for final health state rather than absolute gain
- Preferences against patients who remain in poor health state

Ethical

- Maximization
- Maximizing interpretation of 'equality of opportunity'?

Lifestyle

Empirical

- Broad support for prioritizing patients with healthy lifestyle
- Minority *strongly* opposed
- Epidemiological determinants?

Ethical

- 'Luck egalitarianism': all consequences of free choices are fair?
- 'Healthism': a moral obligation to live a healthy life?

Distribution of benefits

Empirical

- Consistent preferences for smaller gains to many over larger gains to few
- Aversion to exteme distributions

Ethical

- Gain egalitarianism
- Maintenance of hope
- Contrary to outcome egalitarianism?

Empirical ethics implications

- Evidence of support for broader perspective than QALY maximization
- Apparent willingness to sacrifice efficiency in gains for 'distributive justice'
- But, contradictory preferences
  - e.g. Most severely ill unlikely to achieve good QoL
- How to prioritize given multiple objectives?

Preference survey limitations

- Limitations to simple preference surveys
  - Simple yes/no questions not usually sufficient for policy
  - Often difficult to interpret rating scales
  - No explicit recognition of trade-offs
- In general, simple preference surveys cannot establish strength of preferences

Stated preferences

- Useful in situations where there is no observable market
- Even if respondents cannot provide a direct measure of value, they can usually indicate which scenario they prefer

Individual vs. societal prefs

Individual

- Standard gamble
- Time trade-off

Societal

- Person trade-off
- Discrete choice
- Best-worst scaling
- Constant-sum paired comparison
- Others...

Person trade-off

Program A	Attribute	Program B
15	Age	65
0.1	Initial health state	0.5
0.6	Final health state	0.9
5	Life years gained	10
100	Patients treated	?

If Program A treats 100 patients, how many patients in Program B would have to be treated in order to equivalent in value to Program A?

Discrete choice

Program A	Attributes	Program B
70 years old	Average age of patients	10 years old
1 out of 10	Quality-of-life without/before treatment	9 out of 10
10 years	Life expectancy without/before treatment	1 month
1 out of 10 [No change]	Quality-of-life with treatment	5 out of 10 [4 levels lower]
10 additional years	Change in life expectancy with treatment	1 additional year
5,000	Number of patients that could benefit	500
5,000	Total quality-adjusted life years gained with treatment	250

○ No answer ◉ I would prefer to fund Program A ○ I would prefer to fund Program B

Constant-sum paired comparison

Program A	Attributes	Program B
10 years old	Average age of patients	40 years old
1 out of 10	Quality-of-life without/before treatment	9 out of 10
5 years	Life expectancy without/before treatment	1 month
1 out of 10 [No change]	Quality-of-life with treatment	9 out of 10 [No change]
1 additional year	Change in life expectancy with treatment	10 additional years
325	Number of patients that could be treated	875
33	Total quality-adjusted life years gained with treatment	7,875

Percent of budget to Program A	*Use this slider to shift the total budget between Programs A and B*	Percent of budget to Program B
65%		35%

Questions?

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