How to Allocate Health Care Resources: QALYs or the Virtues?

Summary. This paper concerns the problem of how health care resources should be distributed in a given society. The general nature of this problem, and its context within the UK, is analysed in section 1. In section 2, a particular answer to the question is explained: the idea that 'quality-adjusted-life-years' should be maximized. Some possible difficulties with the philosophical assumptions about human well-being that lie behind the theory are discussed. Section 3 shows how the QALY theory allows for the costing of particular treatments according to their outcomes and their cost, and how QALYs are actually being used to make life-and-death decisions today in the UK. Section 4 demonstrates how the QALY theory is a descendant of the philosophical theory known as 'utilitarianism', according to which we are required to bring about the most good. The next section suggests that the QALY theory may be ignoring the signficance of the virtue of justice, even if it allows for the virtue of benevolence. Some analysis of justice is offered. The final section of the paper concludes that, because the considerations at stake in these decisions are plural, then one central virtue required to make them is practical wisdom.

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1. The Nature of the Problem

(i) The general question here is how we should distribute certain goods. The classic case of distribution is the cake. If we have a cake and two people, how should we distribute the pieces? An obvious answer is that one person should cut, and the other should choose. But what if you have a cake and *three* people? Now you are likely to need a more complex principle.

(ii) This problem can be understood *globally* or *locally*. The global problem is: What is the principle for distributing *all* goods, in *every* sphere of human life? A local problem is: What is the principle for distributing *all health care resources*? An even more local problem is: What is the principle for distributing *those health care resources not already allocated*? My paper will limit itself to the two local questions, but it should be remembered that there seems no obvious principled reason for restricting theories of distribution in these local areas to those areas.

(iii) It is inevitable in any modern society that the question of how to allocate health care resources will arise. These resources are not a 'bottomless pit'. Rather, they are 'scarce' – that is, not everyone can get what they need. The spending on health care in the UK National Health Service is just below 10% of Gross Domestic Product. We could spend more, of course, by taxing more heavily, or by taking money from other areas. But about 10% is what seems to be politically feasible in the UK at present.

(iv) What is the National Health Service? It was founded in 1948 on the basis of three principles: universality; comprehensiveness; and free access. It has always been the case that everyone is entitled to NHS treatment. But the second and the third principles have not, and never could have been, adhered to. At present, the NHS will nearly always cover emergency care; but it will not always pay for, say, cosmetic surgery such as the removal of tattoos. Decisions as to funding are made at the following levels: The Treasury (how much on health?); Health Authorities (how much on various kinds of care?); within hospital departments, at doctors' practices, etc. (how much on what, and for whom?). Much decision-making depends on what has happened in the past, or on 'common sense'.

> ***Case 1: Depression.*** You are responsible for the spending of a certain amount of a budget allocated to health care in a primary care practice. A new drug has come onto the market which will be of great benefit to certain patients with severe and previously untreatable depression. You could pay for this drug for five patients by (a) not repainting the waiting room, which is dirty and untidy; or (b) not prescribing mild pain-killers for children. Would you adopt either (a) or (b), or just not purchase the drug?

2. What is a Quality-Adjusted-Life-Year (QALY)?

(i) [W]e need a simple, versatile, measure of success which incorporates both life expectancy and quality of life, and which reflects the values and ethics of the community served. The … QALY … measure fulfils such a role.

The essence of a QALY is that it takes a year of healthy life expectancy to be worth 1, but regards a year of unhealthy life expectancy as worth less than 1. Its precise value is lower the worse the quality of life of the unhealthy person (which is what the 'quality adjusted' bit is all about). If being dead is worth zero, it is, in principle, possible for a QALY to be negative, i.e. for the quality of someone's life to be judged as worse than being dead.

The general idea is that a beneficial health care activity is one that generates a positive amount of QALYs, and efficient health care activity is one where the cost-per-QALY is as low as it can be. (Alan Williams, Professor of Health Economics, University of York)

(ii) The source of the data for QALY analyses are surveys of preferences concerning in particular trade-offs between duration of life and quality of life. The main components of quality of life in this context are physical mobility and freedom from pain. The Rosser and Kind 'disability and distress' profiles are often used:

I: no disability
II: slight social disability
III: severe social disability or slight impairment of performance at work, or both; able to do all housework except heavy tasks;
IV: choice of work or performance at work severely limited; housewives and old people able to do only light housework but able to go out shopping
V: unable to undertake any paid employment; unable to continue any education; old people confined to home except for escorted outings and short walks and unable to shop; housewives able to perform only a few simple tasks
VI: confined to chair or wheelchair or able to move only with support
VII: confined to bed
VIII: unconscious

Distress: A) None; B) Mild; C) Moderate; D) Severe.

Case 2: Length of life vs. Quality. Imagine that have a condition that is causing you disability at level IV. Your life expectancy is 15 years. Would you accept a 5 year decrease in life expectancy to be at level II? (What considerations are guiding your decision?)

(iii) The QALY theory assumes that well-being consists in the satisfaction of preferences. Consider two alternatives:

Hedonism: Well-being consists in the greatest balance of pleasure over pain.

Objective List Theories: Well-being consists in certain goods, such as accomplishment, knowledge, friendship.

(iv) How reliable are preferences? There is evidence that human beings are far more *adaptive* to changes in their circumstances than one might think. Two examples are lottery winners and quadriplegics.

3. How Does the QALY Theory Work?

(i) QALYs have become popular in the UK because they allow for the costing of treatments 'per QALY' – that is, on the basis of how many QALYs they produce per pound sterling. And they are 'democratic', in that they allow for everyone's preferences to be taken into account, rather than relying on the judgements of 'experts', whether medical or political.

(ii) Here are the costs-per-QALY for three strategies open to General Practitioners for the prevention of coronary heart disease:

Strategy	**Approximate cost-per-QALY**
Advice to stop smoking	c. £180
Action to control severe hypertension	c. £1700
Action to control total serum cholesterol levels	c. £1700

Compare:

Continuous ambulatory peritoneal dialysis	c. £13450
Shoulder joint replacement	c. £590

(ii) How are QALYs used in the NHS at present? The National Institute for Clinical Excellence (NICE) is part of the NHS. It is the independent organisation responsible for providing national guidance on treatments and care for people using the NHS in England and Wales. Its guidance is intended for healthcare professionals, patients and their carers to help them make decisions about treatment and healthcare. NICE guidance is developed using the expertise of the NHS and wider healthcare community including NHS staff, healthcare professionals, patients and carers, industry and the academic community.

Example: Guidance on the use of Capecitabine for the treatment of locally advanced metastatic breast cancer. (www.nice.org.uk/pdf/62Capecitbreastfullguidance.pdf) In this example, QALY data is used to argue in favour of using a particular drug.

4. Historical Ancedent: Utilitarianism

(i) The QALY theory is a descendant of utilitarianism, the moral view according to which we are morally required to do the most good or bring about the best overall outcome. Utilitarianism assumes that well-being is the only value relevant to judging the goodness of outcomes. Here are some examples of utilitarianism, the first two historical, the last modern:

> Nature has placed mankind under the governance of two sovereign masters, *pain* and *pleasure*. It is for them alone to point out what we ought to do… (Jeremy Bentham, opening of the *Introduction to the Principles of Morals and Legislation*, 1789)
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> The creed which accepts as the foundation of morals, Utility, or the Greatest Happiness Principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure, and the absence of pain; by unhappiness, pain, and the privation of pleasure. (John Stuart Mill, *Utilitarianism*, chapter 2, paragraph 2, 1861)
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> Morality requires that you perform … that act which can be reasonably expected to lead to the best consequences overall. (Shelly Kagan, opening of *The Limits of Morality*, 1989)

(ii) The main attraction of the QALY theory is in fact the main attraction of utilitarianism. It seems irrational to many people to bring about less than the best outcome. One important question, then, is whether utilitarianism and the QALY theory are right about what makes an outcome good or the best.

> ***Case 3: Heart Disease.*** You are in control of the budget of a large group of doctors engaged in primary care. It is recognized that something has to be done about the level of heart disease in the local population. In the light of the QALY data above (see section 3), you must decide whether to allow doctors time to advise all patients not to smoke, or whether to spend the money on drugs controlling the high blood pressure of certain patients known to be at risk. What would you do? Does it make a difference that the drugs are for *identifiable* patients?

5. Virtue I: Benevolence and Justice

(i) According to the thesis of the 'separateness of persons' (John Rawls), the fact that each of us is a different individual with his or her own life to live is morally highly signficant.. A serious objection to utilitarianism is that it assumes that a principle that might make a lot of sense for *intra-personal* decisions is extended to the *inter-personal* level. This raises the question of *justice* – a foundational principle of the NHS.

> ***Case 4: Cataracts vs. Psychiatric Care.*** Cataract extractions cost less than £1000 each, but the NHS performs over 150,000 per year. Some of these patients could see to some degree without their operations. Imagine that you are a member of NICE, charged with deciding whether to fund these operations, or to spend some of the money instead on psychiatric care for late adolescents with a severe psychosis. The latter will produce fewer QALYs, but will help each individual much more. Is there anything to be said for funding the psychiatric care?

(ii) Different interpretations of justice:

● Rawls's 'maximin' principle: Make the position of the worst off as good as possible. The problem is that this takes the separateness of persons to an extreme. Do we really want to benefit the worst off in a tiny way even at *huge* costs to the better off?

● The 'priority principle': Give priority to the worse off. But do we think it matters to give priority to the very well off over the very, very well off?

● The principle of 'sufficiency': Give priority to the badly off.

6. Virtue II: Practical Wisdom

(i) The ideal of the QALY theory (and of NICE) is that health care resources can be distributed without those involved having to use their judgement. But the QALY theory *itself* depends on certain judgements about what is right and wrong. When there are several values at stake (or 'conflicting virtues') in particular cases, we need the Aristotelian virtue of practical wisdom:

> Though the young become proficient in geometry and mathematics and wise in matters like these, they do not seem to become practically wise. The reason is that practical wisdom is concerned with particular facts as well as universals, and particulars come to be known from experience; and a young man is not experienced, since experience is produced over a long period. (Aristotle, *Nicomachean Ethics*, book 6, chapter 8, c. 330 BCE)

(ii**) *Conclusion:*** All health care resources should be distributed in accordance with the virtues of beneficence and justice, and decisions taken – in light of as much available information, including perhaps QALY information – through the exercise of practical wisdom.