VALUING LIFE

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Why Do Economists Have to Value Life?

Consider the question of whether to install traffic lights at a crossroad, one effect of which would be to reduce accidents which lead to death. If the evaluation ignored lives saved by the lights, that would be equivalent to treating the value of life as zero, and some life saving traffic systems would not be recommended. If the value of life was set as infinity, every traffic system which reduced the probability of death, no matter how small that probability, would be installed, with the result that we could barely moves given the density of traffic lights. An infinite value of life would imply that society should direct all its resources towards saving lives.

In practice any decision making process which involves an outcome which may save (or prolong) lives uses some valuation of the lives saved. All economists are doing explicitly is what others policy advisers and makers also do, usually implicitly.

An Example of Using a Valuation of Life.

A resource decision involving treating people with clinical depression by medication may have to make choose between a cheaper (less resource using) antidepressant of a tricyclic or a more expensive SSRI (selective serotine reuptake inhibitor, such as Prozac). On the basis of the available clinical evidence it would seem that the effects of the two categories of drugs are largely the same, with the major exception that it is much harder to overdose with SSRIs.[1] It can be estimated that comprehensive use of SSRIs in New Zealand would probably save about 35 lives a year, but add an extra $35m a year to the drug bill. Should clinicians prescribe SSRIs when they judge it clinically effective? For the individual clinician the answer seems to be yes. However for society as a whole the $35m might be better used (save more lives), if it were used for some other purpose such as kidney dialysis machines or traffic lights.

Studies for the evaluation of road accidents found New Zealanders are willing-to-pay about $2m for each life saved. The magnitude is not markedly different from similar estimates in other OECD countries.1 On the basis of this figure, the public appears willing to pay $70m a year (ie. 35x$2m) for the use of SSRIs for treating depressives, since this will save an average of 35 lives a year. However the cost of saving those lives by using SSRIs as the anti-depressant is only $35m a year. Thus by prescribing SSRIs the nation thinks itself as being $35m a year better off.

Technical Issues which become Ethical Issues

While it is usual to talk about a life saved, practically it is only a life prolonged. In the case of traffic accidents this distinction may not be important because the analysis assumes that it is an average life saved. In health care the assumption is less robust. A bypass operation is likely to extend the expectation of life more for a 40 year old than for a 80 year old.

Commonsense suggests that if there be only one operation available, it be applied to the 40 year old. Even so, it might have difficulty if the choice is between using the resources to prolong the lives of 40 men each for a year, and prolonging the life of one man for 40 years.

The problem arises because we are comparing people's welfare. Do we treat all people the same. Society may want to give a lower priority to drug addicts, tobacco smokers, very old persons, and so on, compared to the economist's conclusion which tends to treat all lives equally.[2] The economists' approach of one person one life is not value free, but neither is the community's. Both involve underlying ethical positions - but what are they?

Another technical problem is that increasingly health care improves the quality of life of the living, rather than merely prolong life. A proposed technical resolution has been to measure life enhancing outcomes in terms of Quality Adjusted Life Years (QALYS). The technical problems are by no means simple, but there are underlying ethical issues which get obscured. Even if we are able to agree on a measure, it is not obvious that improving one person's quality of life from 90 to 100 percent is the same as improving a second person's quality of life to 10 percent from zero (ie. death).

Are we making a valid comparison? John Stuart Mill challenged the implicit utility theory which underpin these calculations in his classic Utilitarianism. Given that the formidable Mill was been unable to resolve such questions, the ordinary health professionals may despair.

The Ethical Dilemma

At a recent international symposium at which I attended, the purpose of which was to set standards to evaluate the economic and social costs of drug abuse, it was pointed out that some cultures and religions could not contemplate putting a monetary value on life. Any standard which involved putting such a value would not be adopted internationally.

Pressed between the economic and policy logic, and cultural and religious sensitivities the symposium was unable to resolve the question of the treatment of the valuation of life. Instead it was suggested to use a deliberately clumsy term of social gains from additional (quality) life years. The term "social" is to emphasise the notion is not intended to have a religious meaning, but to simply reflect that society may wish to value any improvements in the quality of life (as a result of reduction is substance abuse in this case). In making this suggestion the proposers were aware they were putting the matter into a temporary limbo, rather than resolving the ultimate philosophical issue.

Conclusion

Because resources are involved, the economist is duty bound to consider how those resources may be used effectively. Where the objective is the most limited one of a single outcome with choice of techniques, such efficiency assessments are relatively straight forward. However the issue is rarely that of a simple well defined outcome. Often it involves comparisons -implicitly or explicitly - between treatment for different people. These involve grave issues (sometimes literally) for which economics is not well prepared. Indeed the ethical issues are not specifically economics ones, although economists must be involved in them.

If the technical issues involved in value of life calculations are acute, and far from resolved, in part this is because the underlying ethical issues are not resolved, and often are barely addressed. Increasingly they will have to be in a context of a wider philosophical debate involving many more professions than just economists.

Revised version of paper presented at the "Health Care Ethics: Opening Up The Debate" Conference 17-19 February. Brian Easton

[1] Fremantle N, Long A, Mason J, Sheldon T, Song F, Watson C, Wilson C. The treatment of depression in primary care, Effective Health Care, No 5, March 1993.

[1] The Economist, December 4, 1993, 76.

[2] Williams A. Cost-effectiveness analysis is it ethical?", Journal of Medical Ethics, 18, 1992, 7-11.

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