

## The importance of health economics in a world of proportionally increasing scarce resources

*Divisão de Reumatologia da Universidade Federal de São Paulo*

In all countries of the world, increasing pressures on scarce resources have meant that all investments, inside and outside the health sector, have come under closer scrutiny. This in turn has led to an increased interest in analytical approaches to the evaluation of alternative strategies from an economic prospective.

Traditionally, 3 issues have been addressed in the evaluation of health care or pharmaceutical agents:

1. The first deals with safety; is it harmful to people? Toxicology, clinical and post-marketing surveillance studies are used to address this question.

2. The second deals with efficacy: can a particular therapeutical intervention work? For an example, under ideal conditions when a patient is given the correct dose, at the correct time, over an appropriate period, does a therapeutic intervention have the desired effect?

3. The third set deals with effectiveness: does the intervention (drug) work in the real world when patients use it on a day-to-day basis according to their own perception of instructions given to them by their physicians?

To these traditional analyses economists and health economists have recently added a new area of evaluation, the question of efficiency. The essence of this new perspective is expressed in the question "Are we getting the best outcome for the money we are spending?"

Economic assessment is about choosing between alternative uses of resources. In doing so, both of the costs and the outcomes of investments are considered. As the basic assumption of any analysis is that there are not, and never will be, enough resources to satisfy all needs completely trade offs have to be made - where to invest and where not to.

Economic analysis can be conceived in 3 dimensions. Each dimension describes an important aspect of the analysis:

1. The design of the analysis may be of 4 types: cost-minimization, cost-benefit, cost-effectiveness or cost-utility; if all consequences are essentially identical between the drug and relevant comparators, a cost-minimization analysis is adequate; In other instances one of the other three economic analysis is required. In cost-utility analysis the quantity of life improvement (mortality) and the health related quality of life improvement are combined into a single metric (QALYs). This combination has the advantage of permitting broad comparisons between the performed

analysis and other interventions the health care sector. In cost-benefit analysis the health improvement is translated into an equivalent monetary value. Two approaches can be used to value the health improvement: a. Human capital, and; b. Contingent valuation using willingness to pay.

2. Different points of view may be taken in the analysis, those of society, the payer, the provider, or the patient; All studies should report from a comprehensive societal perspective. Also, the perspective should be broken down into those of other relevant viewpoints, including that of the primary decision maker.

3. Different types of costs and benefits may be included: direct, indirect and intangible. Resources used in each intervention being compared should be described first in natural (non-monetary) units. When possible standard cost values should be used in costing out resource utilization. Whenever possible, indirect costs should be documented and reported. Costs items are included or excluded from the analysis depending on the viewpoint adopted.

Finally, with the growing international literature in economic evaluation and the rapid international spread of health technology, there is a need to undertake, or at least, interpret economic evaluations on the international level. Health care decision makers, especially in those countries having limited resources for health technology assessment (the case in most, if not all developing countries) may wish to reinterpret in their own setting the results of an economic evaluation that was done elsewhere.

However, a number of factors limit the generalizability of economic data and extrapolation of results is an issue not only between but also within countries. Among the factors that are likely to differ from place to place, it can be cited: 1. Demography and Epidemiology of Disease. 2. Health Care Resources Distribution and Availability. 3. Variation in Clinical Practice. 4. Incentives to professionals and institutions. 5. Relative Price Levels.

The few cross-national economic studies undertaken to date indicate that differences in these factors do impact the economic evaluation of health technologies. As a result, whenever possible, both economic and clinical data should be gathered in each country.

In conclusion, the ultimate aim of economic evaluation is to assist decision making and not to replace decision making.