



## Cost-benefit analysis (CBA)

The key to CBA is the systematic calculation of all costs and consequences accruing to society from different options and the expression of their values in monetary terms. Such an expression allows comparison of competing and different interventions from different sectors of the public economy and allows decisions to be taken on the basis of different returns from investing in different sectors of the economy.

Translating health consequences in monetary values is far from easy, and such difficulties have contributed to the relative fall from grace of CBA design. Several approaches to valuation have been used, for example contingent valuation (willingness-to-pay - WTP, and willingness-to-accept - WTA), and human capital approach.

WTP relies on the views of samples of the general public who are asked how much they would be prepared to pay to accrue a benefit or to avoid certain events, WTA, conversely, is based on the minimum amount a person or population would have to be paid to accept the loss or reduction of a good or service.

The classic WTP (the most frequently used technique) approach relies on questioning an individual's willingness to pay to diminish the probability of a health state (usually adverse) coming into being.

Contingent valuation has been used to value:

- preventive technologies (such as devices to lower the risk of injuries in traffic accidents);
- treatment and services (such as a community scheme to visit elderly residents or a reduction in pain following surgery);
- health states (such as people's WTP to be rid of symptoms such as nausea, coughing and so on).

The human capital approach to valuation is based on an individual's worth to society calculated on the basis of his or her present and future earnings. Each person represents a productive resource to society and illness diminishes that person's productive capacity, which is usually valued in this approach by his or her loss of earnings. Such an easily understandable concept has been widely used to value life and absence from work due to illness.