OHE ACADEMY

Foundational Health Economics: What is economic evaluation for healthcare interventions?

OHE

Economic Evaluation is central to health economics in practice. Since economics is the science of making choices under resource constraints, economic evaluation in healthcare supports decision-makers in making evidence-based choices about which health interventions offer the most efficient use of resources to achieve maximum health. It guides how limited healthcare budgets are allocated.

An economic evaluation compares two or more different interventions by measuring their costs and outcomes. Costs reflect the value of resources used , such as the price of medicines or the time of healthcare professionals, while outcomes represent the health gains achieved by the treatment. These gains are most commonly measured as **Quality-Adjusted Life Years (QALYs)**, which capture how many years of life in full health are gained as a result of the intervention. QALYs are typically derived from instruments such as the EQ-5D, which assess health-related quality of life across key dimensions. This measure combines quantity and quality of life gained, providing a single metric that allows comparisons of value treatments.

Types of economic evaluation

A common misconception is that economic evaluation focuses only on reducing costs and finding the cheapest option. While this is true for Cost-Minimisation Analysis (CMA), that approach is only suitable when two interventions are proven equally effective.

The main forms of economic evaluation are Cost-Effectiveness Analysis (CEA) and Cost-Utility Analysis (CUA). CEA uses condition-specific outcomes, such as life-years gained or improvements in clinical outcomes, whereas CUA measured health gains in QALYs. The term CEA is often used broadly to encompass both.

Results from a CUA are expressed as an Incremental Cost-Effective Ratio (ICER), showing how much more or less the new intervention costs per QALY gained compared with the alternative. A health intervention is considered cost-effective if its ICER falls below a pre-established threshold. In the UK, this threshold is usually between £20,000-£30,000 per QALY, though higher value may apply for end of life or highly innovative treatments. The National Institute for Health and Care Excellence (NICE) sets and applies these thresholds. Similar bodies in other countries make comparable evidence-based decisions considering efficacy, safety and cost effectiveness.

Health economics applies key economic principles to understand how limited healthcare resource can be used most efficiently and equitably. Two central approaches underpin this analysis. The first is optimization, which focuses on allocating scarce resources to maximize health benefits and minimize unnecessary costs. The second is the study of how health cares systems reach balance between supply and demand, helping economists predict how changes in policy, pricing, or service provision affect access and efficiency.

In practice, these principles are applied through specific types of evaluation studies that measure both costs and outcomes to guide healthcare decision-making.

In health economics, economic evaluation can refer to both the type of study conducted and to the analytical method used. The **four different main types of study** are:

1. Cost Minimization Study
2. Cost-Benefit Study
3. Cost-Effectiveness Study
4. Cost-Utility Study

These correspond to five main analytical methods of economic evaluation, differing in how they measure and present costs and outcomes:

1. Cost-Minimisation Analysis (CMA)
2. Cost-Effectiveness Analysis (CEA)
3. Cost-Utility Analysis (CUA)
4. Cost-Benefit Analysis (CBA)
5. Cost-Consequence Analysis (CCA)

There are also alternative techniques which include the consideration of costs and outcomes, but generally the five methods listed above are most commonly used.

More Information

For more information on vaccines and OHE's work in this area please visit our Research pages on the website: ohe.org