



An Economic Evaluation Framework to Assess Potential Legal and Regulatory Changes

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Economic Evaluation Techniques

- *“It is best to think about [economic evaluation] as a way of organizing thought rather than as a substitute for it.”*
 - Michael Drummond
- Cost analysis
- Cost offset analysis
- Cost effectiveness analysis (CEA)
- Cost-utility analysis (CUA)
- Benefit-cost analysis (BCA)

Cost Analysis

- Should be based on economic (i.e., opportunity) costs
- Document all resources used for a program or intervention and estimate opportunity costs
- Don't forget hidden costs such as patient travel time, program volunteers, overhead resources, etc.
- Don't include avoided or incurred costs that result from the program or intervention
- Total, average, and marginal costs can be calculated
- Rarely used for resource allocation or policy decisions alone because program outcomes are not considered
- Drug Abuse Treatment Cost Analysis Program (DATCAP.com)

Cost-Offset Analysis

- Program or intervention costs are compared to the future medical care savings
 - Can also extend to societal cost savings
- If medical care savings exceed program costs, then a “cost-offset” is present
- Useful analysis for hospitals, insurance companies, public health initiatives, health promotion programs, etc.
- May be suitable for harm reduction programs
 - Needle exchanges
 - Safe drug-use zones
 - Brief interventions

Cost-Effectiveness Analysis (CEA)

- Two or more programs have differential cost and differential outcome of the same type
 - Ex: Full abstinence or number of drug-using days
- Incremental program cost is directly compared to incremental program outcome in the form of ratios
 - Direct costs, indirect costs, costs avoided
- Cost-effectiveness ratios measure the additional cost necessary to achieve a unit change in a clinical or social outcome
 - Ex: Cost per drug-free week
- Only one type of outcome can be examined at a time; two programs with different outcomes cannot be compared
- Best for single-outcome programs or ones with a primary/dominant outcome
- But, what is the WTP threshold per unit of a clinical outcome?

Cost-Utility Analysis (CUA)

- Similar to cost-effectiveness analysis except effectiveness is measured in health utility units
- Utility refers to the preferences of individuals and/or society
- Most common health utility units are quality-adjusted life-years (QALYs)
- QALYs reflect the fact that medical care interventions affect both duration and quality of life
- More convenient than multi-outcome cost-effectiveness analysis because only one outcome is considered
- Especially useful for interventions that are concerned primarily with morbidity (e.g., suicide prevention) or that have side effects (e.g., methadone and other addiction medications)
 - Some policy makers and stakeholders are opposed to CUA for SUD programs

Benefit-Cost Analysis (BCA)

- Useful when programs have different outcome measures or common, but multiple, outcomes
- All program or intervention outcomes are valued in a common metric, usually dollars
- Program costs can be directly compared to program benefits in the form of benefit-cost ratios or net benefits
- Most desirable form of economic evaluation because multiple outcomes can be considered, comparisons are straightforward, all outcomes are measured in the same units, and nothing is more convincing than dollars generated, or costs avoided
- The conceptual appeal is softened by the empirical complexities
- Very few rigorous benefit-cost studies in the SUD treatment literature

Summary and Recommendations

- Develop a concise research question or hypothesis
- Define every alternative program or intervention, including TAU
- Clearly define the perspective of the analysis (e.g., treatment facility, patient, detox clinic, insurance company, taxpayers, society, etc.)
- Use methodologically sound and consistent valuation techniques
- Include all relevant costs and outcomes including externalities, pain and suffering, shared resources, and “hidden” costs
- Discount future costs and benefits (at what rate?)
- Conduct sensitivity analyses to deal with necessary assumptions and uncertainty
- Assess the generalizability of the study findings
- Base decisions on marginal rather than average analysis (i.e., MC and MB instead of AC and AB)