

Session 4: How to choose which health economic analysis to do?

Presenter: Carol Levin

Types of economic evaluations

Method of analysis	Cost Measurement	Outcome measurement
Cost-Effectiveness (CEA)	\$	Natural units (life-year gained, case averted, blood pressure); single outcome
Cost-Utility (CUA)	\$	Life years adjusted for quality of life, captures mortality and morbidity; multiple outcomes
Cost-Benefit (CBA)	\$	\$. Multiple outcomes combined into one value

Choosing the appropriate economic evaluation method

- What is the research question?
- Who is your audience?
- How will you use the information?
- When do you need it?
- How much money do you have?



What is the objective of the economic evaluation?

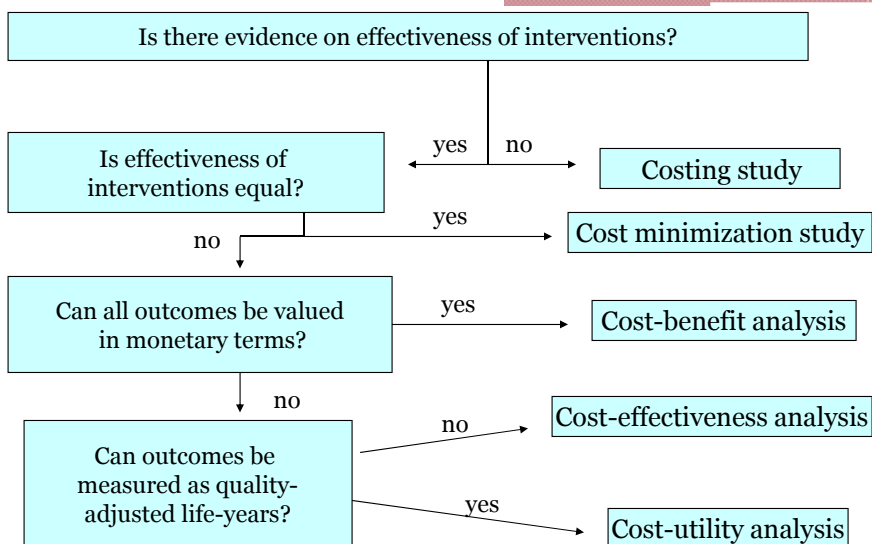
- Comparing costs and effects of alternative interventions using CEA or CEU?
- Costs of a new health intervention or technology?
- Costs of a demonstration project?
- Costs associated with project impact?
- Costs associated with scaling up?
 - What it would cost a national program to achieve a planned impact? (i.e. 70% coverage of ART therapy for HIV positive individuals).
- One or more of the above?

Basic types of health care evaluations

Are both Costs and Outputs measured?

	NO		YES
	Examines Consequences Only	Examines Costs Only	Describe Costs and Outcomes
NO	Describe Outcomes	Describe Costs	
Compare two alternatives?	YES	Efficacy or Effectiveness Evaluation	<ul style="list-style-type: none"> • Cost Analysis • Cost-Effectiveness Analysis • Cost-Benefit Analysis

Source: Drummond et al.



Source: Gray, A. Economic Evaluation in Dawes, et al. Ed. Evidence Based Practice: A primer for health care professionals. 2001.

Planning your cost analysis

Is your cost a stand alone study or part of a clinical trial or demonstration project?

- Think about the components of your costs study
- Map out the effectiveness/impact and cost analysis components
- **Tool: Defining Your Economic Evaluation study**

Defining the economic evaluation

<i>Describe</i>	<i>Questions to consider</i>
Study objective(s)	What is the specific research objective for the economic evaluation?
Study design	How will costs and effects be evaluated as part of the overall monitoring and evaluation strategy?
What is being evaluated?	<ul style="list-style-type: none"> • Health outcomes • Health outputs (coverage, utilization) • Other performance or operational indicators • Costs
Health outcomes	Which health outcomes will be evaluated? <ol style="list-style-type: none"> 1. Cases averted 2. Deaths averted 3. Disability averted
Health outputs	What additional intermediate output indicators will be evaluated? <ul style="list-style-type: none"> • Number of target group reached by intervention • Number of target group tested • Number of target group diagnosed (number positive, number negative) • Number of individuals treated

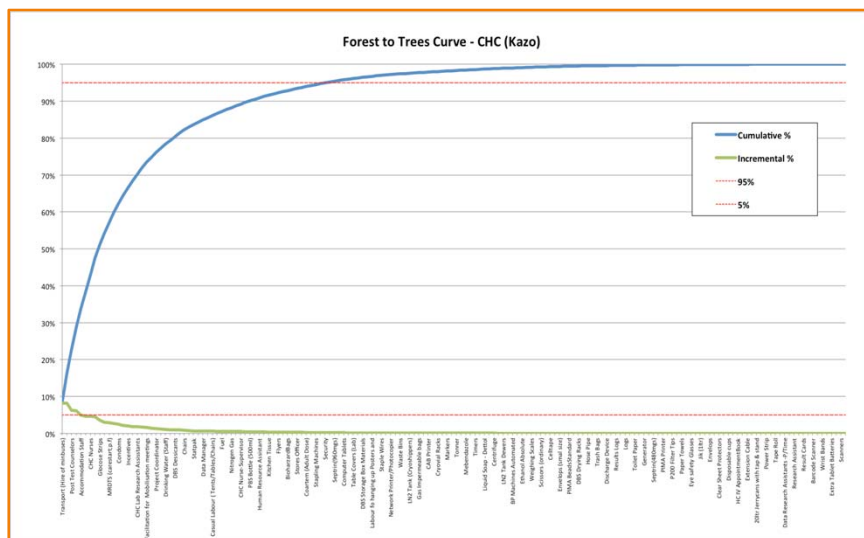
Defining the economic evaluation

<i>Describe</i>	<i>Questions to consider</i>
Performance or operation indicators	What operational indicators will be evaluated? 1. Quality or other performance indicators 2. Number of tests correctly identifying individuals for treatment. 3. Number of target group correctly treated. 4. Loss to follow up
Costs	Which costs will be included in the analysis? 1. Intervention costs 2. Medical treatment costs averted 3. Client costs incurred or averted
What will this data reveal?	<ul style="list-style-type: none"> • Cost per case or death averted • Cost per individual (in target group) reached • Cost per person screened • Cost per person treated • Cost breakdown (cost profiles) for intervention components (inputs/activities) • Information for program planners on the costs and benefits of proposed intervention.
How will the data be used?	<ul style="list-style-type: none"> • Used in cost-effectiveness analysis to compare new intervention to status quo • To consider introduction or scaling up existing prevention or treatment activities in the country • To evaluate financial sustainability or affordability to the government

Strategic approach to collecting costs

- ❖ Integrate the cost analysis along side planned or on-going evaluations of interventions
- ❖ Use a rapid, inexpensive approach
- ❖ Use rough cost estimates to look at cost profiles or break down of costs; focus on key cost drivers
- ❖ Work closely with local counterparts to collect basic data and cost information

Be parsimonious in data collection



Thank you.

Contact: clevin@uw.edu



DEPARTMENT OF GLOBAL HEALTH
UNIVERSITY of WASHINGTON