



# Preparing and planning for an economic evaluation

How to choose which health economic analysis to do?

Carol Levin, PhD
WHO EMRO Economic Evaluation Workshop
Tuesday 16 December 2014



## 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?





# Generating or refining your topic or idea

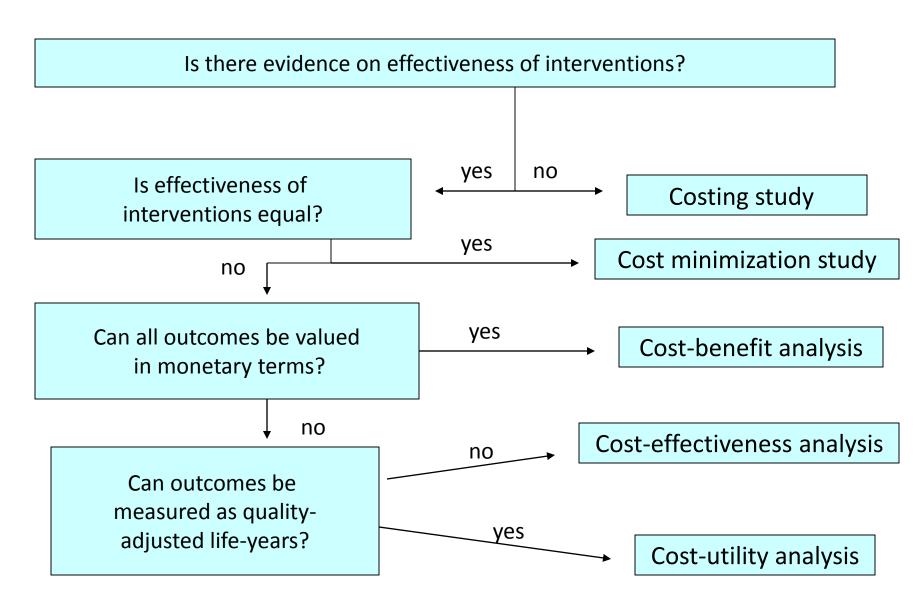
- What is the problem or need?
  - Is there burden of disease evidence? Is it a health systems challenge?
- What is the hypothesis or problem statement?
- What are the specific research questions?
- Why is the problem important and interesting?
- What is the ultimate purpose of your research/applied research?

12/17/2014



### 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. coverage of salt reduction legislation or cancer screening program).
- One or more of the above?



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

#### Basic types of health care evaluations

Are both Costs and Outputs measured?

¿8;	NO	NO		YES	
Compare two alternatives?		Examines Consequences Only Describe Outcomes	Examines Costs Only Describe Costs	Describe Costs and Outcomes	
	YES	Efficacy or Effectiveness Evaluation	• Cost Analysis	<ul><li>Cost-Effectiveness Analysis</li><li>Cost-Benefit Analysis</li></ul>	

Source: Drummond et al.

#### Defining the economic evaluation

Describe	Questions to consider	
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> <li>Health outcomes</li> <li>Health outputs (coverage, utilization)</li> <li>Other performance or operational indicators</li> <li>Costs</li> </ul>	
Health outcomes	Which health outcomes will be evaluated?  1. Cases averted 2. Deaths averted 3. Disability averted	
Health outputs	What additional intermediate output indicators will be evaluated?  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

Describe	Questions to consider		
Performance or operation indicators	<ol> <li>What operational indicators will be evaluated?</li> <li>Quality or other performance indicators</li> <li>Number of tests correctly identifying individuals for treatment.</li> <li>Number of target group correctly treated.</li> <li>Loss to follow up</li> </ol>		
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> <li>Cost per case or death averted</li> <li>Cost per individual (in target group) reached</li> <li>Cost per person screened</li> <li>Cost per person treated</li> <li>Cost breakdown (cost profiles) for intervention components (inputs/activities)</li> <li>Information for program planners on the costs and benefits of proposed intervention.</li> </ul>		
How will the data be used?	<ul> <li>Used in cost-effectiveness analysis to compare new intervention to status quo</li> <li>To consider introduction or scaling up existing prevention or treatment activities in the country</li> <li>To evaluate financial sustainability or affordability to the government</li> </ul>		



## Start thinking about sources of information

- Desk study? Published literature?
- Empirical study
  - Expenditure data
  - MOH financial data
  - Facility level resource use data?



# Example of types of data, sources and collection methods

economic evaluation for health

Data Type	Source	Collection Methods				
Contact Costs						
Salary grade/time of health personnel	Facility level data	Interviews with facility staff				
Salary grade/time of lay personnel	Ministry of Health	Government documents				
Salary grade/time of supervisors	Ministry of Finance					
Salary cost information						
Drugs and Supplies	Facility level data	Interviews with facility staff				
Screening	•	Budget expense reports				
Diagnosis		Price lists				
Treatment						
	Facility level data	Interviews with facility staff				
Equipment		Budget expense reports				
Clinical equipment						
Laboratory equipment						
Hospital equipment (surgical)						
Capital Costs	Ministry of Health	Budget expense reports				
Building costs	Facility level data	Interviews with facility staff				
Maintenance and operation	<b>T</b>					
Hospital cost per bed per day	Facility level data	Interview with				
Or	WHO-Choice	administrative staff				
Indirect/overhead costs attributable to		WHO website				
cervical cancer treatment						
Client	Engility lavel data	Interviews with woman				
Transport costs	Facility level data and individuals	Interviews with women				
Lost wages Child care costs	and murviduals	using reproductive health services;				
		·				
Out-of-pocket expenses for drugs		facility staff				

12/17/2014



#### **Concept Note**

- Background
- Research Question
- Objectives
- Methodology
- Expected outcomes
- Work plan and timeline

12/17/2014





#### Questions? Thank you

**Contact: Carol Levin** 

clevin@uw.edu