

Economic Evaluation: Introduction

Online Workshop On Health Economics

September 14th, 2021

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Background

- Resource scarcity
- Opportunity Cost
- Illustration:
 - Routine health system: Resource envelope under NHM
 - Hospital budgets: resource based rather than need based
 - Planning process?
 - Precedence
 - Situational analysis: epidemiological burden and effectiveness of intervention
 - Health Technology Assessment

Lecture overview

- Efficiency concept
- Health Care Evaluations & Efficiency
- Definition of economic evaluation
- Types of economic evaluation

Efficiency

Investing resources to get best value for money

Types of Efficiency

- Technical Efficiency
- Productive Efficiency
- Allocative Efficiency

How to Assess Efficiency?

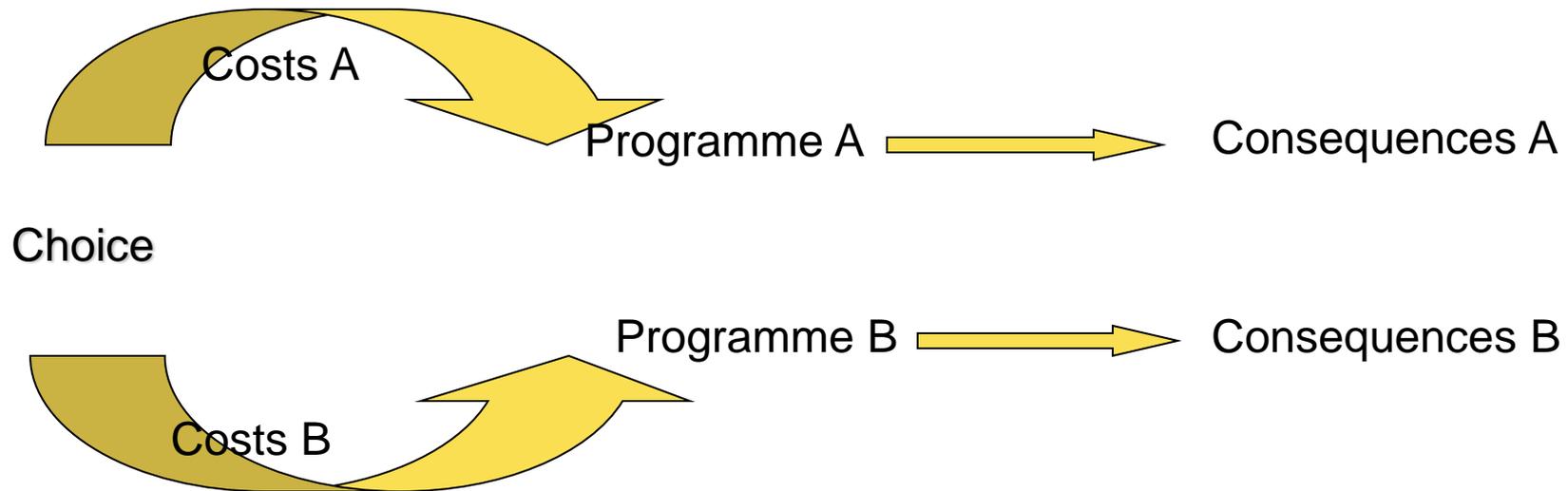
Economic Evaluation

*The comparative analysis of alternative courses of action
in terms of both their costs and consequences*

Source: Methods for the economic evaluation of health care programmes Michael F. Drummond,
2nd edition, 1997

What is economic evaluation?

Does a medical intervention (drug, device, program, surgery) when used to prevent or treat a condition or improve health outcomes in patients, justify the additional dollars spent compared to the existing medical strategy?



Health Care Evaluation

Are both the costs (inputs) and consequences (outputs) of the alternatives examined?

Is there a comparison of two or more alternatives

	No		Yes
	Examines only consequences	Examines only costs	
No	Partial Evaluation <i>Outcome Description</i>	Partial Evaluation <i>Cost Description</i>	Partial Evaluation <i>Cost Outcome description</i>
Yes	Partial Evaluation <i>Efficacy or Effectiveness Evaluation</i>	Partial Evaluation <i>Cost Analysis</i>	Full Economic Evaluation Cost Minimization Analysis Cost Effectiveness Analysis Cost Utility Analysis Cost Benefit Analysis

Outcome Assessment in Economic Evaluations

Type of economic evaluation	Outcome can be measured by
Cost effectiveness analysis	<ul style="list-style-type: none">•Clinical end points•Mortality•Years of life•Condition specific outcome measures
Cost utility analysis	<ul style="list-style-type: none">•Utility based quality of life scales
Cost benefit analysis	<ul style="list-style-type: none">•Willingness to pay

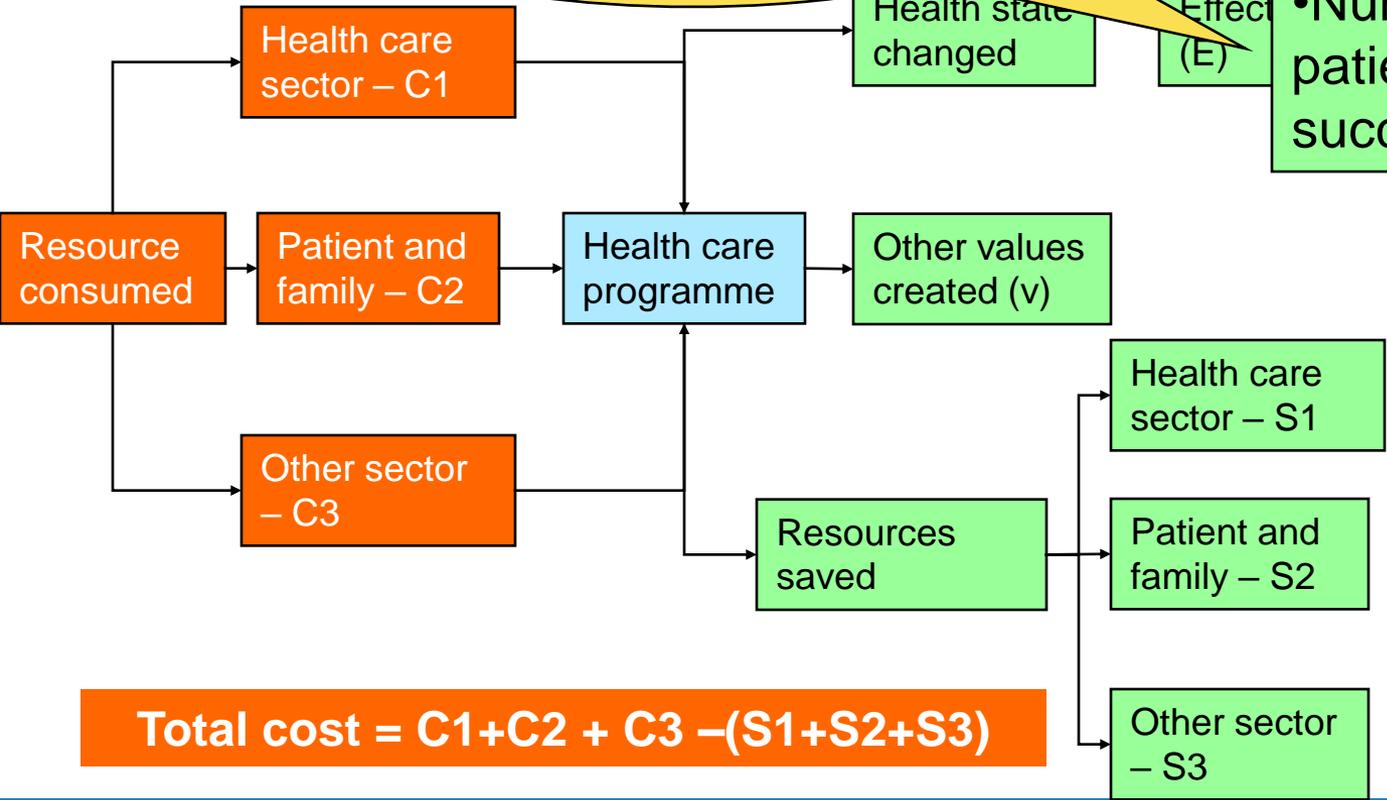
Cost Minimization analysis: Least cost with same effects

COSTS

CONSEQUENCES

Cost-effectiveness analysis
 $C1+C2 + C3 -(S1+S2+S3) / E$

- Life years saved
- Mm Hg BP reduced
- Number of patients treated successfully



Total cost = $C1+C2 + C3 -(S1+S2+S3)$

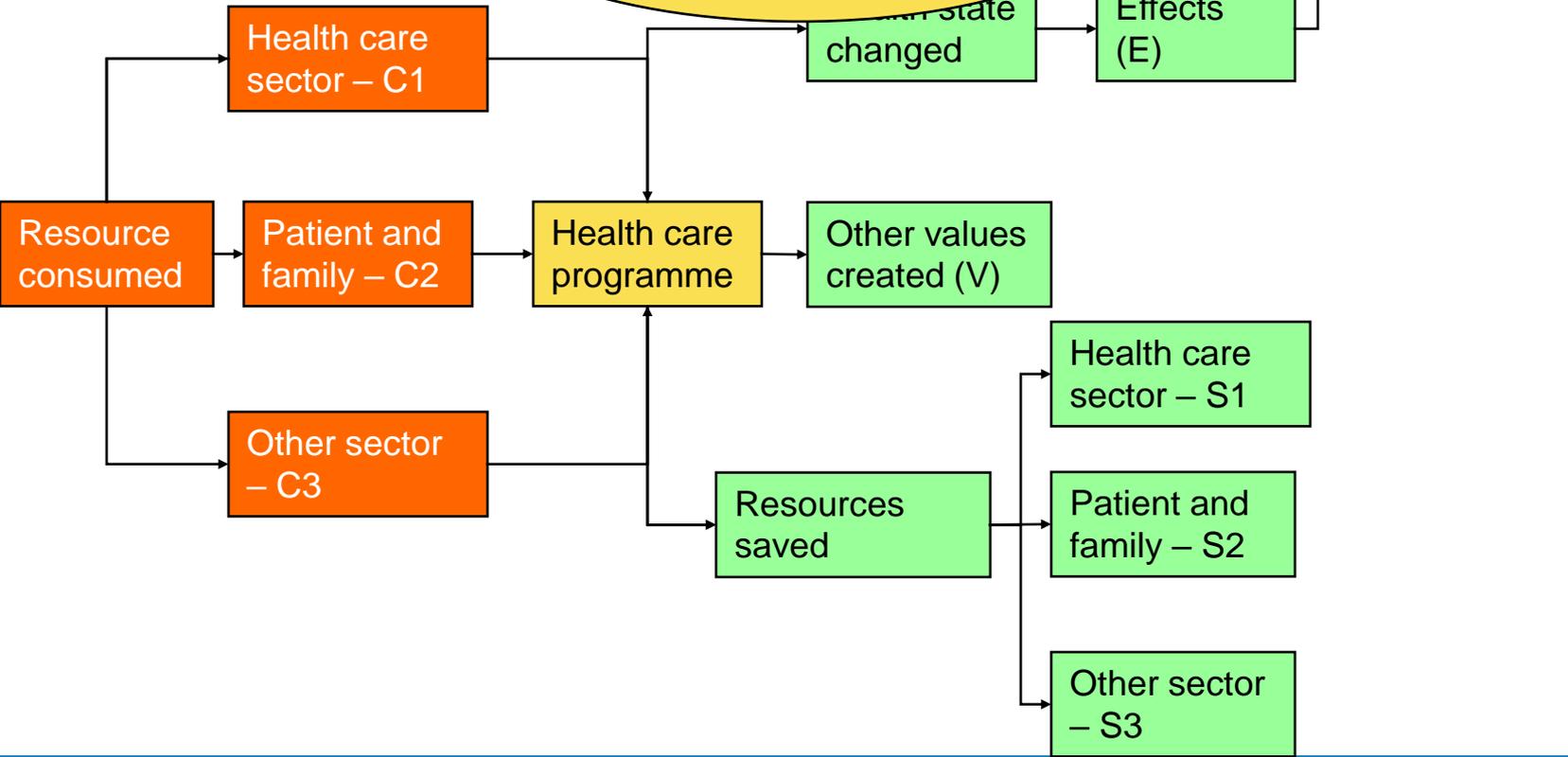


COSTS

CONSEQUENCES

Cost-utility analysis
$$\frac{C1+C2 + C3 - (S1+S2+S3)}{U}$$

•Quality adjusted life years (QALYs)

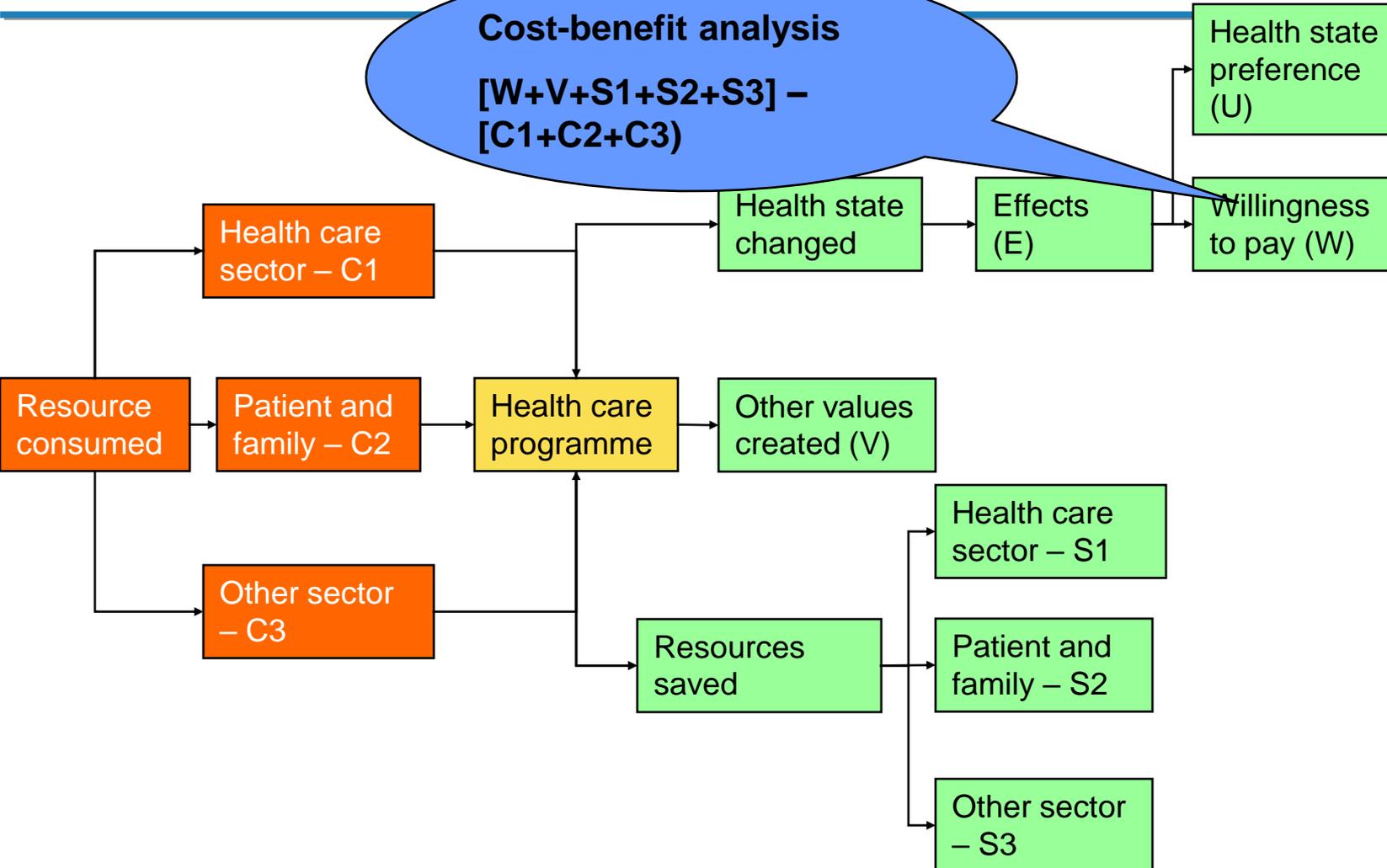


COSTS

CONSEQUENCES

Cost-benefit analysis

$$[W+V+S1+S2+S3] - [C1+C2+C3]$$



Choosing a Particular Design

- Policy question to be answered
- Type of efficiency to be evaluated
- Feasibility: Resources to undertake the study

Thanks!!!

Thanks!!!

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