HEALTH ECONOMICS WORKSHOP

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Health Economics: a Field Between Clinical Research and Marketing Studies

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The Economic Evaluation

Provides ***Enlightenment*** for

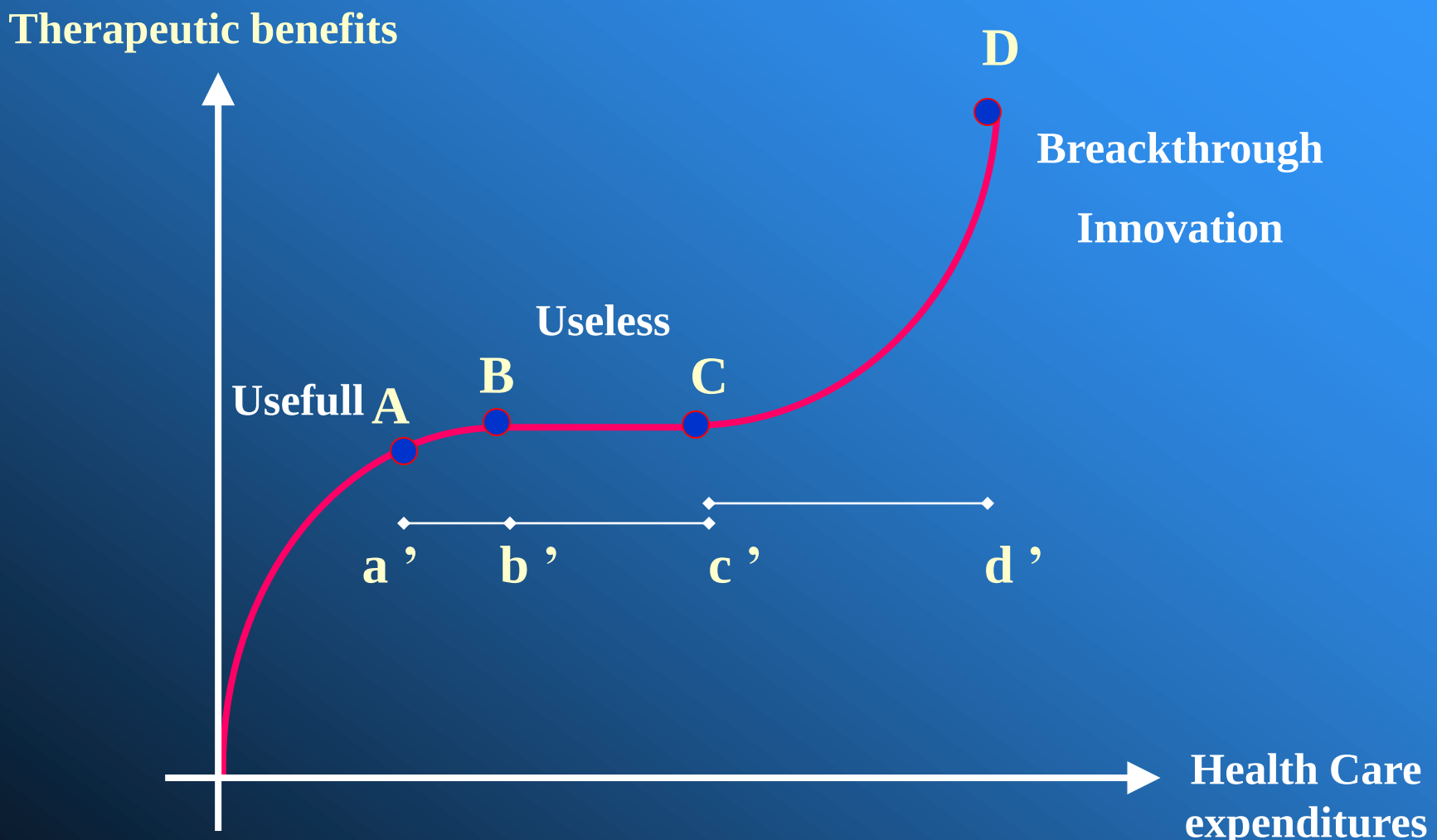
the ***clinician*** and for the ***decision-maker***

WHEN NOT EVERYTHING CAN BE REIMBURSED TO EVERYONE

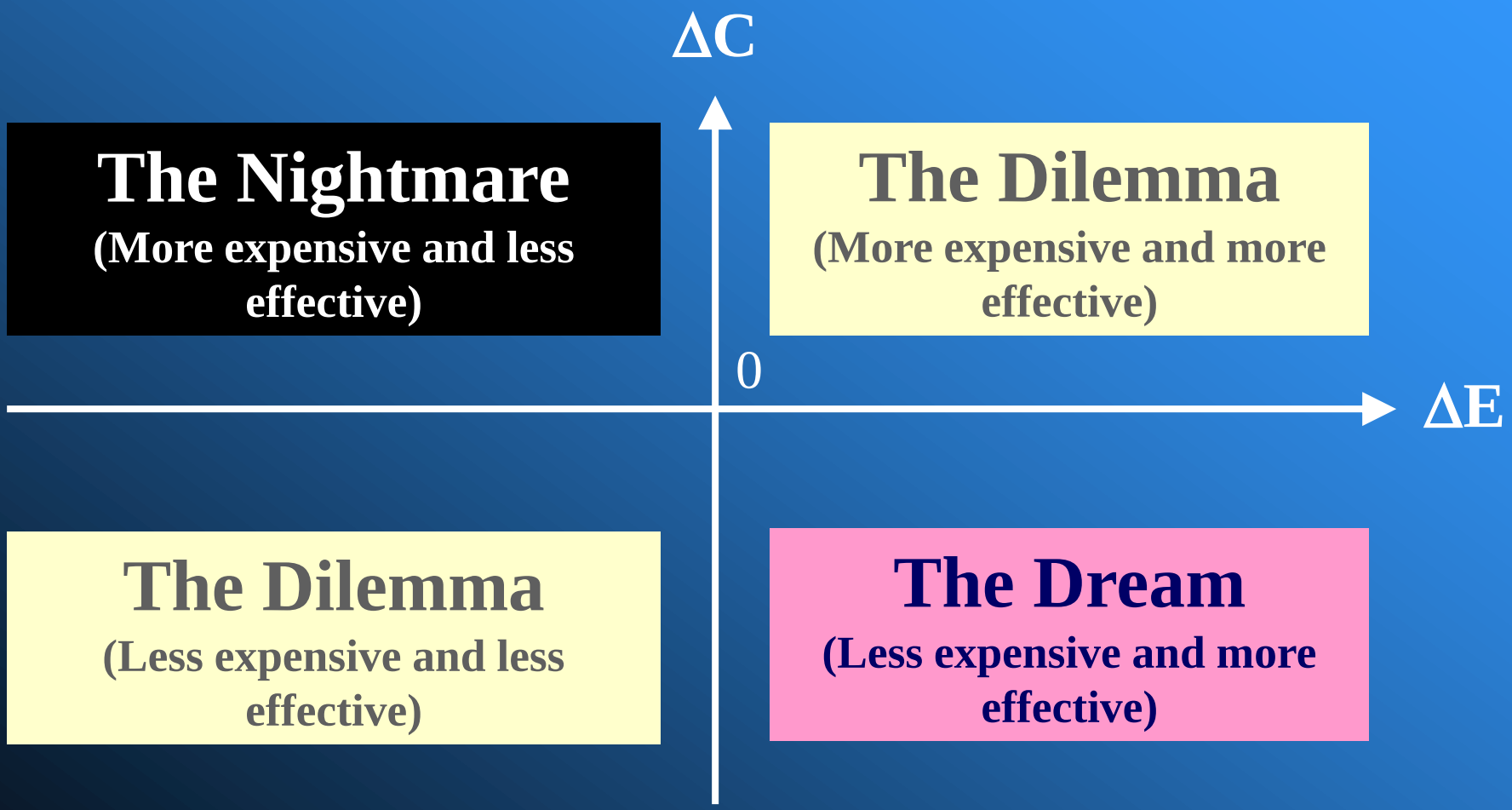
allowing them to study

the economic repercussions of their choices

Choices Have To Be Made



Ranking of Treatements Based on Their Incremental Cost-Effectiveness Ratio



The End of a Paradigm:

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Who we Should Take Care of ?

- The Patient ?
- The Disease ?
- The Insured ?

Experimental Models and Real Life

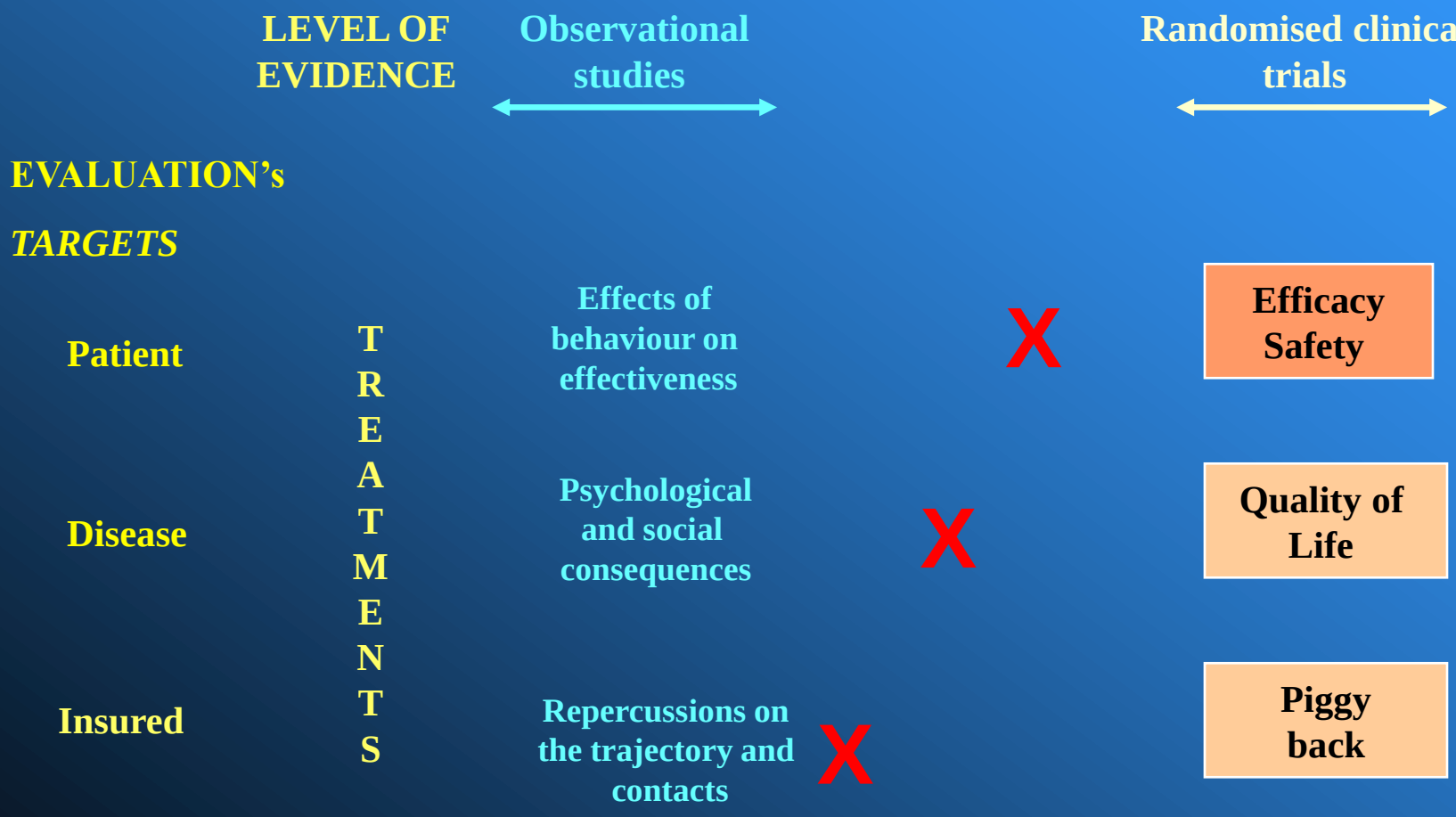
- RCT are viewed as the gold standard for making comparisons between treatments.
- The question of interest in controlled clinical trials is **efficacy** « **can the drug work** in patient to whom it is given ? »
- In clinical practice the question is **effectiveness** « does the drug work in patient to whom it is offered? »

The Results of The RCT's are Limited in their Generalizibility

RCT are conducted under strict protocol-driven conditions with:

- **Well-defined homogeneous patient populations**
- Restriction in co-morbid conditions and concomitant
- **Short follow up**
- Limited sample size

How to Bridge the Gap Beetween Experimental Models and Real Life?



Disease Management Studies

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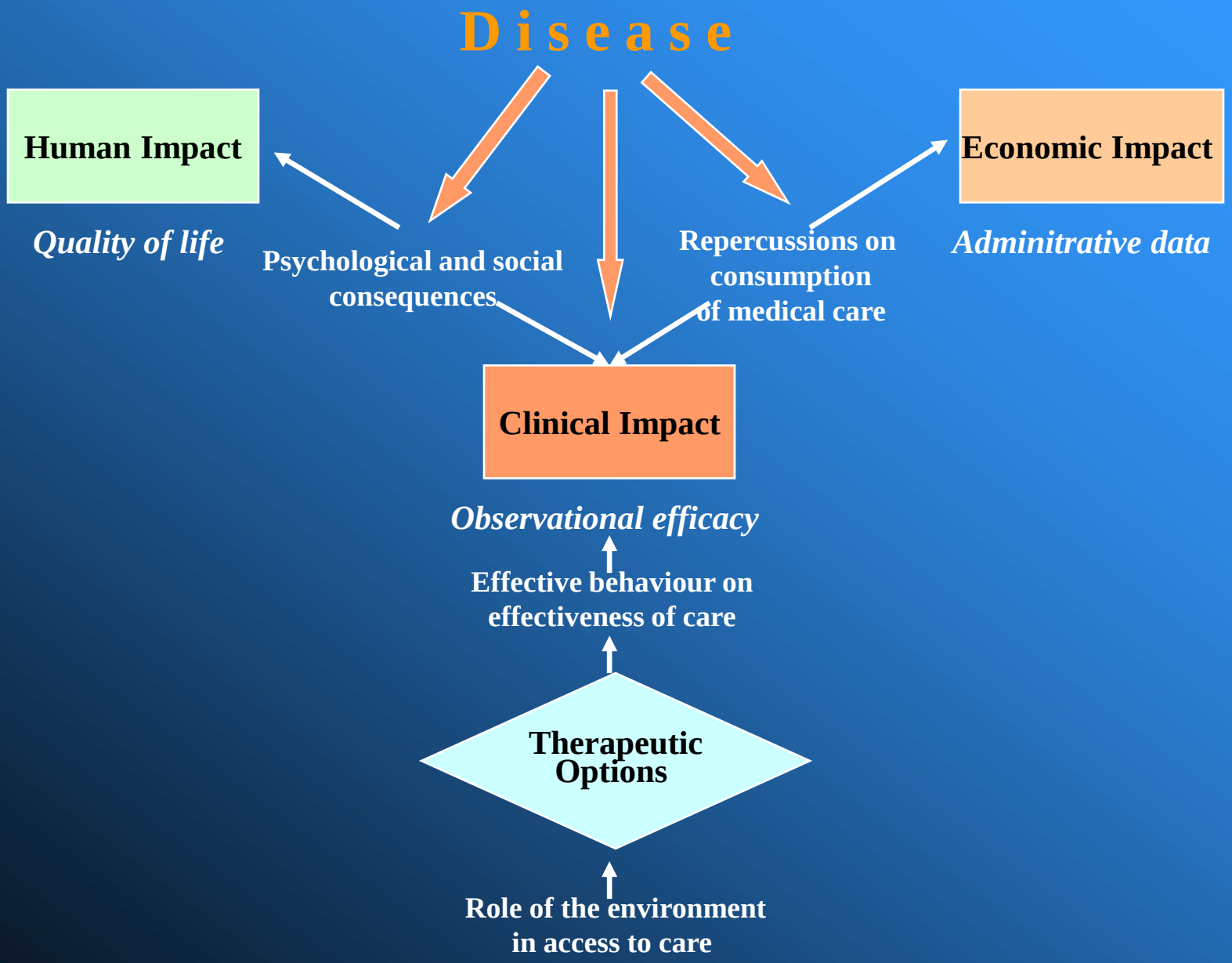
The Search for Effectiveness

The Practice of a More Holistic Medicine

Requires the development of databases recording **C**linical , **H**uman based, **E**conomic and **S**ocial Informations in **H**ealth

in the context of every day medical practice

Analysis of the process



With New Evaluation Criteria

- ***Clinical Impact: observational effectiveness***
  - Variability of practices
  - Quality of compliance
  - Control and non-control of the disease
  - Effects of education and training
- ***Human Impact: benefits obtained in life***
  - Reduction in symptoms
  - Reduction of functional disability
  - Improvement in quality of life and satisfaction
- ***Economic Impact: changes in cost***

Clinical Impact: Comparative Effectiveness Research

Measures of Clinical Outcomes

- Absolute Risk Reduction
  - The difference in risk of a disease or event between a treatment group and a control group
  - **ARR = (events in treatment group) – (events in control group)**
- Relative Risk Reduction
  - **RRR = 1-[events in treatment group / events in control group]**
- Number Needed to Treat (NNT)
  - The number of patients who would need to receive a treatment in order to prevent or avoid one clinical event A smaller NNT corresponds to higher effectiveness for a therapy
  - **NNT = 1/ARR**

Human Impact : Quality of Life Scales

Human Impact: Benefits Obtained in Life

Health Related Quality of Life: A Buzz Word ?

- ***The field is limited to the repercussions of the disease and its treatment.The concept has two fundamental components :***
- ***Subjectivity: quality of life supposes an ability to describe the hardship experienced. Only the patient can perform this task.***
- ***Multidimensionality: life cannot be evaluated in general; its various dimensions have to be investigated.***

HRQL Measures - Instruments

- General or generic instruments
  - Health Profiles
    - SF-36
    - SIP (Sickness Impact Profile)
    - NHP (Nottingham Health Profile)
  - Preference-based Measures
    - QWB (Quality of Well-being)
    - HUI (Health Utility Index)
    - EQ-5D (EuroQol)
- Specific instruments
  - Disease specific
  - Condition/problem specific

Economic Impact : Cost Effectiveness Studies

The Economic Question

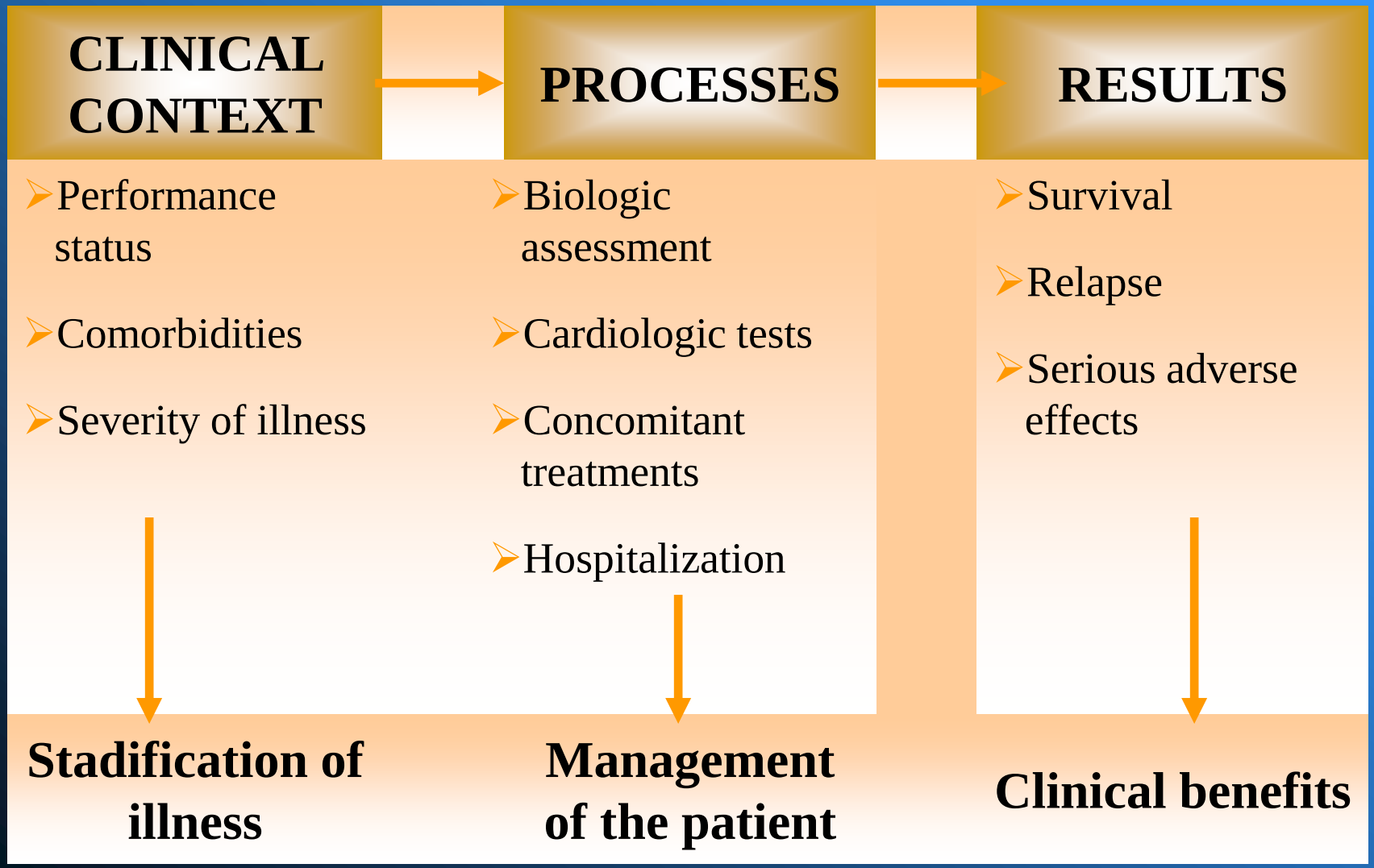
Where should we put our money to lighten the burden of illness?

Conventional treatment or innovative treatment**?**

The Answer

Choose the treatment which has the highest rate of return on the therapeutic, humanistic and financial aspects of the patient's life, per invested monetary unit.

Clinical Parameters are Individual and Uncertain Data



Comparing Clinical Research and Health Outcomes Research

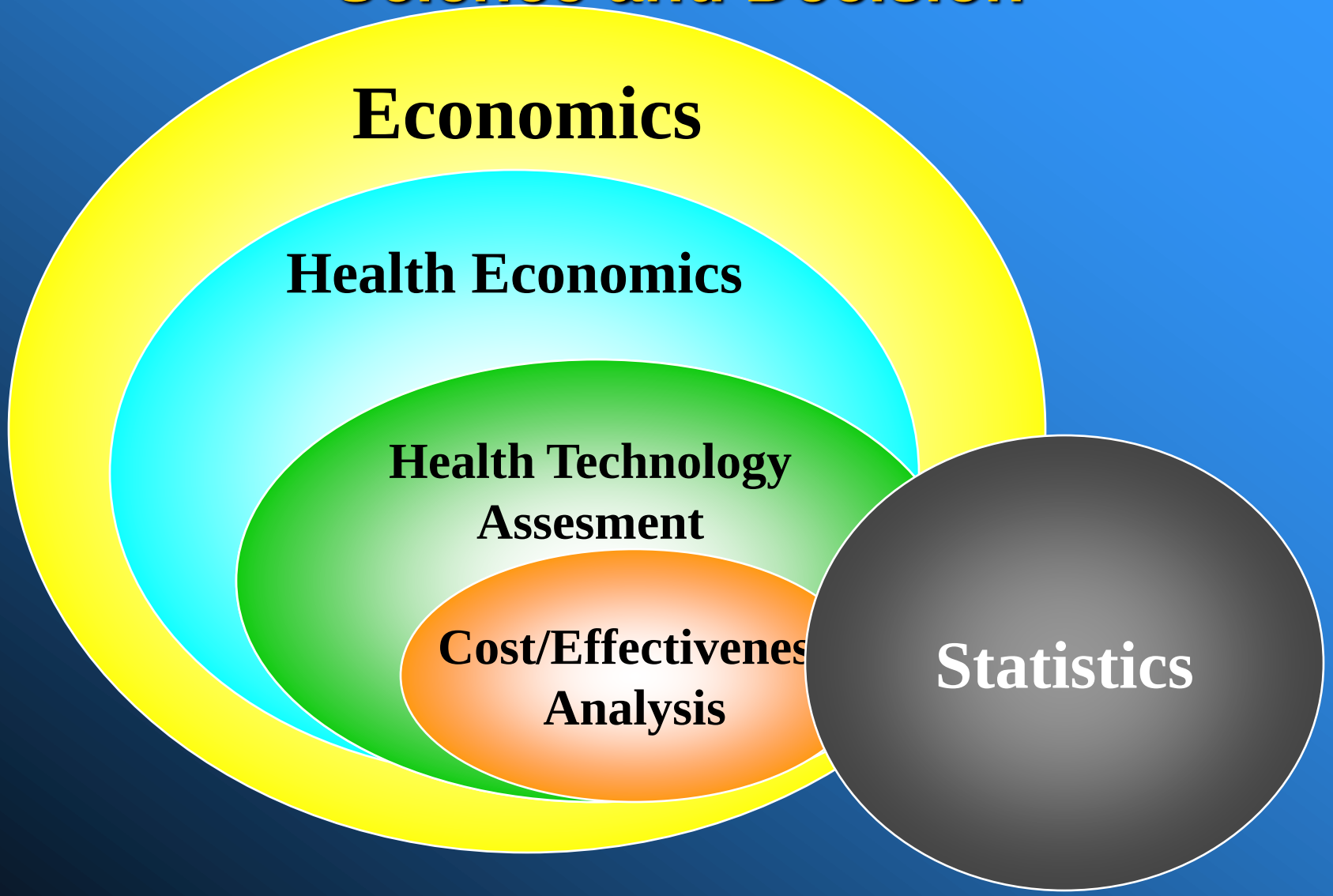
Clinical Research

- Objective
  - Evaluates *safety* and *efficacy* of an intervention
- Methods
  - RCTs with well-defined control group. Can use surrogate markers as a proxy for efficacy. Limited external validity, as entry criteria are tightly controlled, patient population is homogeneous, and strict protocols are used
- Study time frame
  - Short (several months)

Health Outcomes Research

- Objective
  - Evaluates *effectiveness* and *efficiency* of an intervention
- Methods
  - Retrospective analyses or prospective studies, including clinical trials, observational, or naturalistic studies. Broader generalizability, since patient population is heterogeneous; no strict protocol; reflects typical clinical practice
- Study time frame
  - Long (can include years of f/u)

Health Economics: The Bridge Between Science and Decision



When Can We Really Refer to An Economic Evaluation?

Formulating The Assesment

Are both costs and consequences of the alternatives studied?				
Are two or more alternatives compared?		NO		YES
		Consequences only	Costs only	Both
	NO	Partial Evaluation Outcome description	Cost description	Partial Evaluation Cost consequences
	YES	Partial Evaluation Comparative effectiveness research	Comparative Cost analysis	Full Economic Evaluation

Types of analysis

- Cost-of-Illness Analysis (COI)
- Comparative Cost analysis (CCA)
- Cost Minimization Analysis (CMA)
- Budget Impact Analysis (BIA)
- Cost Effectiveness Analysis (CEA)
- Cost Utility Analysis (CUA)
- Cost Benefit Analysis (CBA)

A Context Sensitive Plan required

Markets And Product Characteristics To Determine Market Access Strategies

Access Strategies and Marketing Process

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