Introduction to Health Economics

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Lecture 1: Introduction to Health Economics

This lecture should enable you to:

- Appreciate the essential characteristics, role and importance of economics
- Understand how economics is applied to the study of health and health care
- Identify how economics relates to other considerations within health and health care
Outline of Lecture

- What is economics about?
- What is economics NOT about?
- What is health economics about?
- Is health economics ethical?
- What will this module cover?
Economics is about ...

- Limited resources
- Unlimited “wants”
- Choosing between which ‘wants’ we can ‘afford’ given our resource ‘budget’
Economics is about choice
Personal choice...

- For lunch I could have a...
  - Whopper meal deal (small)
  - Tall latte and blueberry muffin (to go)
  - Tuna sandwich & cracked pepper crisps
  - Pint of Guinness & packet peanuts
Government choice...

- Government could fund one IVF course or...

- One-third of a cochlear implant

- 1 heart bypass operation

- 11 cataract removals

- 150 MMR vaccinations

- One-thousandth of a Challenger 2 tank
Economists view of the world...

- Pessimist: bottle $\frac{1}{2}$ empty
- Optimist: bottle $\frac{1}{2}$ full
- Economist: bottle $\frac{1}{2}$ wasted

inefficient!
Economics is NOT...

- Concerned with (saving) money
  - Store of value
  - Means of exchange
- The same as accountancy
  - Monitoring financial transactions
- Only practised by economists
  - Everyone has choices
  - Economists just think of these explicitly
Economics IS...

- Concerned with...
  - Costs (resource use)
  - Benefits
  - Choice
  - Efficiency

- Basically… ‘if I choose X do the benefits outweigh the costs?’
  - If ‘yes’ then doing X is ‘efficient’
  - If ‘no’ then doing X is ‘inefficient’
Application of economics

Descriptive  =  quantification

Predictive  =  identify impact of change

Evaluative  =  relative preference over situations

Positive economics

Normative economics
‘Health’ and economics…

- Economics focuses on ‘utility’: the level of ‘happiness’ resulting from consumption
- Health is thus one component of utility. This has important implications:
  - Health is not the sole objective of behaviours
  - Creates trade-offs and choices between health and other objectives – e.g. education, defence etc
- Health economics is the discipline of economics applied to the topic of health
  - In practice, health economics is predominantly (but not solely) “health care” economics: goods and services produced (by health sector) primarily to affect health status
A: Value of health

- **Quality-Adjusted Life Years (QALYs) and Disability-Adjusted Life Years (DALYs)**
  - Combine length and quality of life
Health economics ‘map’

A. What is Health? What is it’s value?

B. What influences Health? (other than health care)

C. Demand for Health Care

D. Supply of Health Care

E. Market Analysis

F. Planning, budgeting, regulation mechanisms

G. Macro-Economic Appraisal

H. Micro-Economic Appraisal
**B: Other influences on health**

- Economics of obesity – technology is fattening (Propper C, Health Economics, 2005; 14: 987-997)
  - Study examined the relationship between ‘price’ of food and food consumption/weight
  - Technological change has altered the relative prices of consuming calories and expending calories
    - Reduced the price of food (calories)
    - Reduced time costs of food (calorie) preparation
    - Changed the nature of work

![Investing in health diagram](image-url)
Health economics ‘map’

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H. Micro-Economic Appraisal
“The doctor is there to give the patient all the information that the patient needs in order that the patient can make a decision, and the doctor should then implement that decision once the patient has made it”

OR IS IT ...

“The patient is there to give the doctor all the information that the doctor needs in order that the doctor can make a decision, and the patient should then implement that decision once the doctor has made it”
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E: **Supplier-induced demand**

![Graph showing supplier-induced demand](image)
Health economics ‘map’

H. Micro-Economic Appraisal

B. What influences Health? (other than health care)

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E. Market Analysis

A. What is Health? What is its value?

D. Supply of Health Care

G. Macro-Economic Appraisal
"The typical economist believes the world has not yet invented a problem that cannot be fixed if given a free hand to design the proper incentive scheme" (Levitt and Dubner, “Freakonomics”)

An incentive is simply a means by which someone is persuaded to (not) do something

- Eg. F-F-S is to treat more patients; increase price of tobacco or soft-drinks is to reduce consumption; etc

Incentive is seen to be a means of urging people to do more of a ‘good’ thing and less of a ‘bad’ thing (a ‘perverse’ incentive is the reverse)
Health economics ‘map’

H. Micro-Economic Appraisal

B. What influences Health? (other than health care)

A. What is Health? What is its value?

C. Demand for Health Care

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F. Planning, budgeting, regulation mechanisms

G. Macro-Economic Appraisal
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Health economics ‘map’

H. Micro-Economic Appraisal

B. What influences Health? (other than health care)

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F. Planning, budgeting, regulation mechanisms

E. Market Analysis

A. What is Health? What is it’s value?

G. Macro-Economic Appraisal
### H: Economic evaluation

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Cost per QALY gained (£)</th>
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<tr>
<td>GP advice to give up smoking</td>
<td>500</td>
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<tr>
<td>Pacemaker implant</td>
<td>1,500</td>
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<tr>
<td>Hip replacement</td>
<td>2,000</td>
</tr>
<tr>
<td>Colorectal cancer screening</td>
<td>2,500</td>
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<tr>
<td>Breast cancer screening</td>
<td>3,500</td>
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<tr>
<td>Sildenafil (Viagra)</td>
<td>4,000</td>
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<td>Heart transplantation</td>
<td>10,000</td>
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<tr>
<td>Hospital haemodialysis</td>
<td>25,000</td>
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<tr>
<td>Surgery for intra-cranial tumours</td>
<td>150,000</td>
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<tr>
<td>Interferon for multiple sclerosis</td>
<td>800,000</td>
</tr>
</tbody>
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Between 5 ‘hip QALYs’ or 1 ‘heart QALY’?

Threshold
Is health economics ethical?

Health economics may appear to be unethical because it implies some individuals being denied health care. But:

- The need to ration is not simply the result of having a small budget. It is more fundamental than this.
- Health care is only one way of improving health - better sanitation, housing, education, environment, etc.
- Economics tends to focus on society rather than individuals, requiring divergent ethical constructs.

Unethical not to consider economic aspects:

- Rationing would occur by another (opaque) means.
- Will never have enough resources to exhaust all the possibilities to produce some (small) health benefit.
- There are other things of value than ‘health’ - balance.
What will this module cover?

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D. Supply of Health Care
E. Market Analysis
F. Macro Economic Appraisal
G. Planning, budgeting, regulation mechanisms
H. Micro Economic Appraisal

Lecture 2
Lecture 3
Lecture 4
Lecture 5-7
Lecture 8 & 9
Lecture 8
Not covered!
A final word...

Health economics is the application of economics to the study of health and health care.

It is important because:

- Our health is important to us
- Health is affected by our choices
- The health sector is very significant to the economy
- Decisions in health (care) often determined by economic environment

(Health) economics is not concerned with saving money, but with improving people’s lives.

Health economics is quite literally a matter of life and death!