



# Basic concepts of pharmacoeconomics

Introduction to  
Health/Pharmacoeconomic

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# Learning outcomes

- By the end of this lecture you will be able to:
  - To have an overview on the concept of health/ of pharmacoeconomics
  - To understand the rationale to seek pharmacoeconomic knowledge to enable health related decision
  - To understand the ongoing challenges facing health funders and decision makers

# Background Reading

## • **Health economics introductions:**

- Fleurence R. An introduction to health economics. Pharm J 2003; 271: 679-681, 716-718 (useful section on NICE)
- Or: National Prescribing Centre. An introduction to health economics (parts 1 and 2). MeReC Briefing. Available at: [www.npc.co.uk](http://www.npc.co.uk)  
[http://www.npc.nhs.uk/local\\_decision\\_making/resources/Health\\_Economics.pdf](http://www.npc.nhs.uk/local_decision_making/resources/Health_Economics.pdf)
- Or: Elliott RA, Payne K. Essentials of economic evaluation for health care. Pharmaceutical Press, London. 2005 (relevant chapters)

# Health care concept

- Economics is about how we, individuals, society and governments, choose to use fixed resources. Fixed resources can be, for example, time, effort, money, machinery or buildings.
- Health economics is the application of economic principles to the production and consumption of health in the population
- Health care economics examines the economics of health care provision
- Pharmacoeconomics applies economics to the provision of pharmaceutical services

# Pharmacoeconomics - the importance for pharmacists

- Pharmacoeconomics is a relatively new branch of health economics. Some countries insist on pharmacoeconomic evaluations as part of the licensing process.
- Hospital use pharmacoeconomics to assist decisions involving formularies and how medicines can be used in a more cost-effective or cost-beneficial manner.

# Rationale

- Health systems can not afford all interventions
- Health economic can aid decision making
  - Which medicines on the formulary to purchase?
  - Which benefits are worth the value invested?
    - E.g. Aspirin vs. clopidogrel (post stroke treatment)
    - E.g. knee surgery vs. long term pain killers

# Rationale

- New drugs
  - For existing or new conditions
- New operations
  - More advanced equipment
- Increasing population
- Increasing age of population

- All economic problems arise from scarcity
  - i.e. Health care funders (governments, social security funds, insurance companies) are struggling to meet their rising costs.
- Health economics is the science of assessing cost and benefits, not to make decisions about resource use, but to inform those decisions.



# Main Aim of Health economics

- To identify what is most efficient, so that the greatest amount of benefit can be bought for a given amount of money or resources.
- *Efficiency* is a key concept in economics, i.e. how to buy the greatest amount of benefit for a given resource use.



# What and WHY pharmacoeconomics?

- **Health economics** is a branch of health economics that particularly considers drug therapy.
  - It is of particular interest to pharmaceutical companies who in developing a new drug
  - **Beside proving of efficacy, safety and tolerability must now prove cost effectiveness.**

<http://www.ft.com/cms/s/0/a93c33b2-08cc-11e5-b38c-00144feabdc0.html#axzz3nCtsEJZw>

# What and WHY Health Economics

- It should also be of interest to clinical pharmacologists, either in their roles assessing new drugs or in the conduct of clinical trials

<http://www.forbes.com/sites/johnlamattina/2015/07/16/broader-statin-use-shown-to-be-cost-effective-and-save-lives-will-this-convince-pharma-skeptics/>

# What and WHY pharmacoeconomics



- It is also of important to governmental decision makers; Pharmacoeconomics studies have become an accepted part of evaluations for reimbursement and health intervention commission
- <http://www.theguardian.com/healthcare-network/views-from-the-nhs-frontline/2014/nov/03/doctors-well-paid-but-not-enough>



## In summary

- Health economics/Pharmacoeconomics is about making choices between options, when there is scarcity of resources.
- It is fundamentally **comparative**, weighing the costs and benefits of option 1 with those of option 2
  - Drug 1 vs. Drug 2 (a new drug and the previous best therapy - traditional medical