

BASIC CONCEPTS OF PHARMACOECONOMICS

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Perspectives of
Pharmacoeconomics
Evaluations

LEARNING OUTCOMES

By the end of this lecture you will be able to:

- Understand different perspectives in PE
- Understand how perspectives might influence the costs considered in PE evaluation

REFERENCES

- Appropriate Perspectives for Health Care Decisions. Centre for Health Economics, University of York, UK. 2010
- Drummond MF, Sculpher MJ, Torrance GW. Methods for the economic evaluation of health care programs: Oxford university press, 2005.

PERSPECTIVES IN PE STUDIES

- **Perspectives** are the point of view from which an economic analysis is performed
 - i.e. viewpoint we choose to take
- Why perspective are important in PE?
- A health intervention that looks unattractive from one perspectives might look attractive from different point view

Why perspective are important in PE?

e.g. Class substitution of simvastatin with atorvastatin

- **Patient perspective:** can be taken any time on the day, less frequent to forget and might be more expensive
- **Health insurance company:** not first line and more expensive

Why perspective are important in PE?

- The perspective of PE describes and determines the categories of costs to be identified, measured, and valued
 - E.g. New outpatient procedure
 - From **governmental (Societal) perspective**: costs related to direct medical costs and indirect only
 - From **patient perspective**: cost related to direct non-medical

PERSPECTIVES IN PE STUDIES

- An economic evaluation can be conducted from a single perspective, or multiple perspectives
- Types of perspectives :
 - Societal perspective
 - Payer perspective (e.g. Ministry of health, health insurance company)
 - Provider perspective (e.g. hospital)
 - Patient perspective

PERSPECTIVES IN PE STUDIES

- Societal perspective: the broadest of all viewpoints
 - Considers all the benefits/costs to the society as a whole
 - All direct, indirect and intangible costs are included
 - Irrespective of whose responsibility it is to pay for the costs
 - In the US, societal perspective is recommended
 - Societal perspective is the ideal perspective to adopt. However, due to the impracticality in measuring intangible and indirect costs, majority of the economic studies adopt the payer perspective

PERSPECTIVES IN PE STUDIES

- Payer perspective: charges for health care products and services allowed, or reimbursed, by the payer.
 - Payer may be insurance companies, or employers
 - In the Ministry of Health (MOH) perspective
 - e.g. Cost of hospital care, medication, pharmacist and doctor time, nurse visit

PERSPECTIVES IN PE STUDIES

- Provider perspective: True (actual) expense of providing a product or service
 - Regardless of how much they charge for that product or service
 - E.g. hospitals, dispensaries (polyclinics) or private practice physicians
 - Note: Payer and provider could be same.

PERSPECTIVES IN PE STUDIES

- Patient perspective: what patients (i.e. the ultimate consumers of health care services) pay for a product or service
 - The portion not covered by insurance (co-payment or deductibles)
 - Out of patient pocket expenses
 - Indirect costs (lose of wages or reduced productivity)

DEFINITION

◎ Copayment vs deductible

- Deductibles: the amount of money an individual pays for health service within a regular time before his insurance plan starts to pay. For example, an individual pay a yearly 500 JD to be covered by the insurance company for his health care service. If patient treated with 2000 JD within this year, the insurance company will cover the rest (other than the copayment)
- Copayment: A fixed amount (20 JD or a percentages, for example) an individual pays for a covered health care service after he paid his deductible. E.g. The cost of a doctor's office visit is 30 JD. Your copayment for a doctor visit is 2 JD paid at the time of doctor visits. Another example, the cost of medications is 100 JD. The copayment is 20% of the total cost

HEALTH CARE SYSTEM IN JORDAN

- ◉ The government allocate a specific budget for health, which are distributed to the public health sectors, including Ministry of Health (MOH) (e.g. Bashir and Prince Hamza hospital), Royal medical service and Universities' public hospitals (e.g. University of Jordan hospital (UJH)).
- ◉ These three sectors considered the payer and provider as the same time and concerned with the charge only since the patients will pay a portion of their insurance (copayment or/both deductible).
- ◉ However, if for example MOH transfers some of their patients to get treated in the UJH, the MOH would be considered the payer whereas UJH would be considered as the provider . In this case, UJH would be concerned with the actual cost and will ask the payer for reimbursement for the actual cost spent on these patients (including cost paid by the patients and the payer).

HEALTH CARE SYSTEM IN JORDAN

- In case of private sector, including private hospitals (such as Jordan hospital). Payer will be the insurance company and the hospital will be the provider.
- Patients pay the portion not covered by the insurance company

CHECK YOUR UNDERSTANDING

- Patient A (have an insurance in the MOH and he cover 20% of his insurance) has been transferred from MOH to JUH to get a medical treatment. The actual costs of the medical service provided by the JUH were 100 JD.
- What the cost considered from the payer perspective? 80 JD
- What the cost considered from the provider perspective? 100JD

CHECK YOUR UNDERSTANDING

Which of these costs will be considered from payer and provider perspective (e.g. MOH) (assuming 100% health coverage)?

- *Prescriber salary*
- *Time in hospital for patient*
- *Drugs*
- *Time off work (For patients)*
- *Time off work (For MOH's employee)*
- *Out of pocket transport expenses*
- *Salary of dispense the medicines*

- *Answer: All except time off work and time in hospital for patients and out of pocket expenses*

CHECK YOUR UNDERSTANDING

The total costs associated with Drug A as compared to non ,
on average

- Drug costs =10,000 JDs over 10 years
- Prevent 5 doctor visits/ over 10 years = 500 JDs
- Prevent 1 hospitalisation/ over 10 years = 2000 JDs
- Saves 10 working days for patients/ over 10 years = 2000 JDs

What would be the cost from:

- Payer perspective (e.g. health insurance company)?
- Societal perspective ?

Answers

- Payer perspective (e.g. health insurance company with 100% health coverage)? £7,500
- Societal perspective ? £5,500

EXAMPLE FROM LITERATURE (1)

Cull R et al., Economic costs of migraine Br J Med Econ 1992;5:103-115

A study of migraine which took the health service perspective only might suggest that sumatriptan in migraine (an expensive drug in an area which previously cost the health service very little) was highly undesirable, but a study taking a societal perspective might come to the opposite conclusion.

EXAMPLE FROM LITERATURE (2)

Example: Comparing laparoscopic cholecystectomy versus open cholecystectomy

- Different methods to remove the gallbladder
- Laparoscopic cholecystectomy was a new technique
- Health outcomes for the two techniques were considered equivalent
- Hospital and societal perspectives reported??

Berggen et al. 1996

	Laparoscopic surgery	Open strategy	Difference
Total direct costs	20,515	18,511	2,004
Indirect costs	5,363	9,768	-4,405
Total costs	25,878	28,279	-2,401

Taken from Table 3 in Berggen et al. 1996

Societal viewpoint

- Laparoscopic surgery was cheaper
- Hospital viewpoint
 - Excluding effects on production
 - Laparoscopic surgery was more expensive



THINK HOW PERSPECTIVE MIGHT INFLUENCE COSTS TO INCLUDE

Type of cost	Perspective			
	Societal	Provider	Payer	Patient
Direct medical cost	√	√	√	√

Remember: The first is the societal perspective meaning all of society as a whole regardless who pays the costs. The second column shows an provider perspective. The third column shows the perspective of an employer, and the fourth column represents the perspective of the client or patient.

THINK HOW PERSPECTIVE MIGHT INFLUENCE COSTS TO INCLUDE

- What about “**non-medical costs**” such as transportation or child care expenses incurred because of an illness or disability?

Which perspective will consider it and which would not?

Because a health insurance company or an employer would not pay for such costs, they would not be counted as costs in a study that took those perspectives.

Type of cost	Perspective			
	Societal	Provider	Payer	Patient
Direct medical cost	√	√	√	√
Direct non-medical	√	×	×	√

- ⦿ What about indirect cost “ time lost from work”
- ⦿ Think about health insurer perspective vs. employer perspective?
- ⦿ Such costs would not be included in a study from the perspective of the insurer. An employee’s lost time from work would, however, be counted as a cost to the employer whose workforce is impacted, the patient who misses work, and again, to society in terms of the productivity of that employee that is lost.

Type of cost	Perspective			
	Societal	Provider	Payer	Patient
Direct medical cost	√	√	√	√
Direct non-medical	√	×	×	√
Indirect cost	√	?	?	√

- What about **intangible costs**?
- they represent a cost to the patient and a cost to society, often in terms of quality of life.

Type of cost	Perspective			
	Societal	Provider	Payer	Patient
Intangible costs (pain and suffering)	√	?	?	√

KEY POINTS ON PE PERSPECTIVES

- The important point to understand, the perspective taken in an economic analysis can have an important influence in how an intervention is assessed and the results obtained and interpreted.
- So it influences the study results and thus it is important for any study to clearly state and justify the perspective

COST MIGHT BE SHIFTED RATHER THAN SAVED

- An insurer may be looking to reduce its expenditures for direct medical costs and in the process may simply shift costs from itself to someone else. For example, outpatient surgery may reduce the medical expenses for a procedure by reducing in-hospital care. However, the costs of patient care do not disappear—they are simply shifted from the insurer to the patient, for example when a patient's family member must take time off from work or leisure activities to provide home care.

KEY POINTS ON PE PERSPECTIVES

- a societal perspective is the recommended option for public health economic analyses,