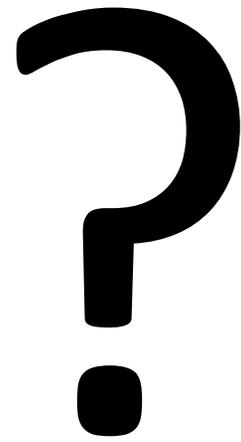


Introduction to Health Economics

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Health

- “ ... a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”
(Preamble to the Constitution of the WHO)

Economic Concepts

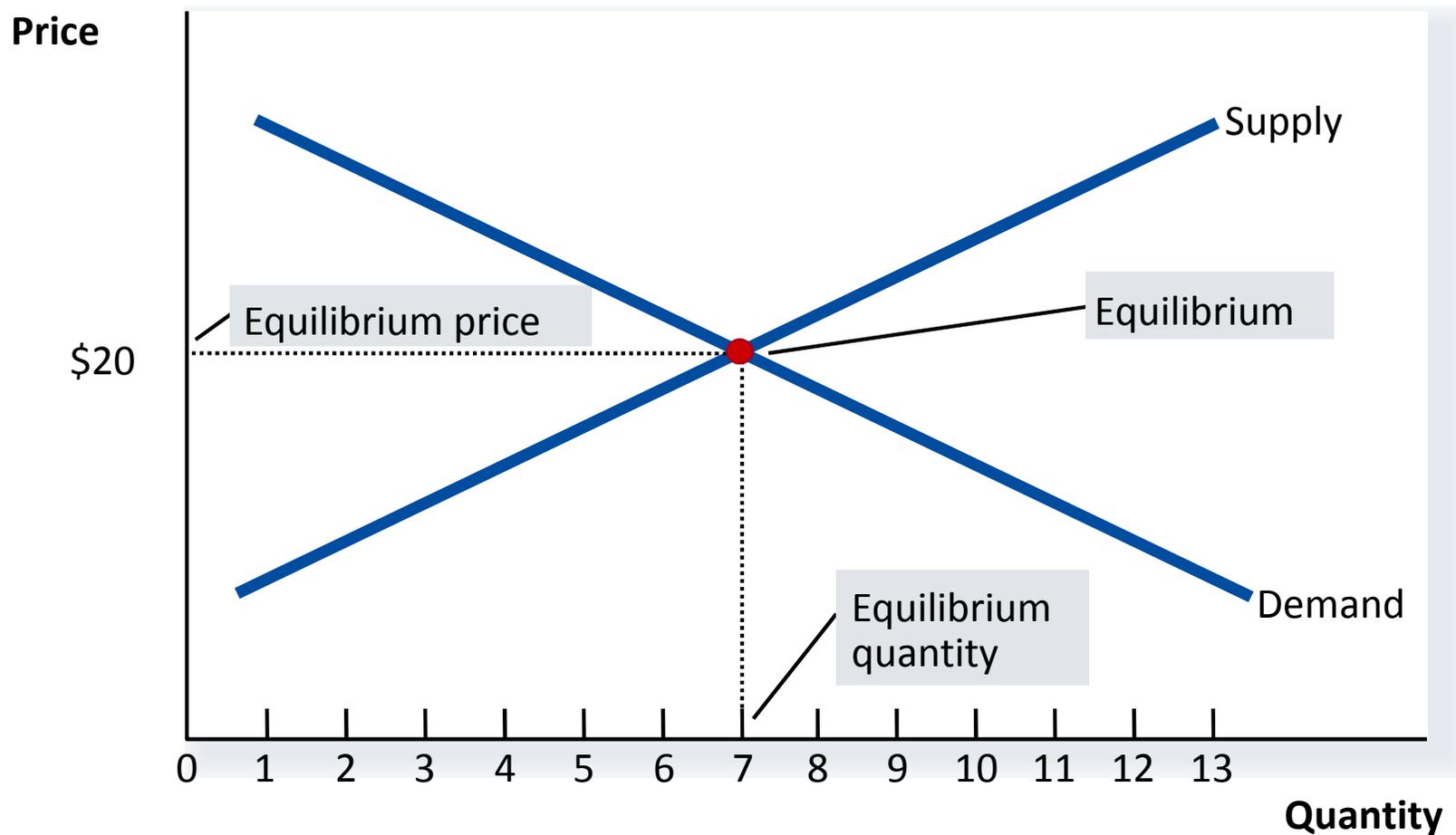
- Scarcity
 - Limited Resources
 - Backbone of economic thinking
- Market
 - A body of persons carrying on extensive transactions in a specified commodity
- Self Interest and Informed Decisions
 - One's own interest
 - Well informed possible courses of action

Economic Concepts

- Utility
 - Capacity of a good/service to satisfy one's want
- Law of Supply
 - Price increases, quantity offered by suppliers increases
- Law of Demand
 - Price increases, demand decreases
- Market Equilibrium
 - Price
 - Sought by buyers = production by sellers

Supply and Demand Curves

Market Price



Economic Concepts

- Efficiency
 - Set of resource is maximized
- Equity
 - Distribution of benefits fairly (disadvantaged get greater share)
- Competition
 - Compete to gain customers
- Principle of Opportunity Cost
 - Cost of alternative forgone to pursue a certain action
- Marginal Principle
 - Marginal benefit (utility) = marginal cost
 - $B > C$, activity increases
 - $B < C$, activity decreases

Opportunity cost

<i>Inpatients treated ('000s)</i>	<i>Outpatients treated ('000s)</i>	<i>Opportunity cost of treating inpatient in terms of outpatients ('000s) forgone</i>
0	50	0
1	45	5
2	42	8
3	20	30
4	15	35
5	0	50

Marginal Cost: Screening for colon cancer

<i>Number of tests</i>	<i>Total number of cases detected</i>	<i>Additional cases detected</i>	<i>Total cost (\$)</i>	<i>Average cost per case (\$)</i>	<i>Marginal cost per case</i>
1	65.946	65.95	77511	1175	1175
2	71.442	5.4956	107690	1507	5492
3	71.9	0.458	130199	1810	49146
4	71.938	0.038	148116	2059	471500
5	71.94172	0.00372	163141	2268	4038978
6	71.942	0.00028	176311	2451	47107143

Economic Concepts

- Principle of Diminishing Returns
 - Point at which the level of profits or benefits gained is less than the amount of money or energy invested
- Spillover Principle
 - A side effect arising from or as if from an unpredicted source
- Microeconomics
 - Transactions among households' decisions based on scarcity
- Macroeconomics
 - Performance, structure and behaviour of economics as a whole (GDP, Inflation, international trade, budget deficit)

Health Economics Definitions

- Study of supply and demand of health care resources and impact of health care resources on a population
- A tool to evaluate options when choosing between alternative uses of health care resources
- The application of economic theory, models and empirical techniques to the analysis of decision-making of individuals, health care providers and governments with respect to health and health care (Devlin Parkin and Spencer, 2012)

Health care resources

- Medical Supplies
 - Bandages, medications, patient gowns
- Personnel
 - Doctors, nurses, dentists, receptionists, technicians, administrators
- Capital inputs
 - Hospitals, hostels, diagnostic and therapeutic equipments (MRIs, dialysis machines)

Reimbursement

- Fee-For-Service (FFS)
 - Set fee for each service
- Capitation
 - Set fee for a fixed time period (insurance companies)
- Salary
 - Government salaries
- Pay For Performance (P4P)
 - Performance, satisfaction, outcome

Problems in health sector

- How should doctors be paid?
- Which treatment is more cost effective?
- What goods are produced in what quantities?
- How to produce?
- How goods are distributed?
- How efficient is society's production and distribution?

Current and Future Challenges

- How egalitarian a system does society want?
- How to find the right balance between administrative control and the market?
- How to determine an appropriate number and mix of health care personnel?
- How to finance health care expenditures?
- How to reimburse hospitals and physicians?
- How to deal with advances in medical technology?

Economics applied to health

Why demand exceeds supply?

- Aging population
- New health technologies
- Increased expectations

“The organization of medicine is not a thing apart which can be subjected to study in isolation. It is an aspect of culture whose arrangements are inseparable from the general organization of society.”

Walton H. Hamilton

Thank you ALL !!!