# King Saud University College of Business Administration Department of Health Administration - Masters` Program

# HHA 524 Health Economics Second Semester 1442/1443

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#### Learning Objectives

- Identify the need for choices when it comes to the allocation of scarce resources;
- Relate the relevance of economics to public policy;
- Explain how economic theory predicts the supply, demand and consumption of health care;

#### Basic Economic Questions

- If there is a central economic problem that is present across all countries, without any exception, then it is the problem of scarcity.
- This problem arises because the resources of all types are limited and have alternative uses.
- If the resources were unlimited or if a resource only had one single use, then the economic problem would probably not arise.

#### Basic Economic Questions

- However, be it natural productive resources or man-made capital/consumer goods or money or time, scarcity of resources is the central problem.
- This central problem gives rise to four basic problems of an economy. Sometimes referred to as the four basic questions HOW, WHAT, WHOM, and WHEN.

Basic Economic Questions
Three of these questions are closely related and constitute the major parts of an economic performance. These are HOW, WHAT, and WHOM.

Conceptually we can divide the problem of economic efficiency into three sub-problems with the somewhat corny but easy to remember names How, What, and Whom.

Basic Economic Questions
The goal in answering these questions is both
productive and allocative efficiency.

- Efficiency is the goal of all economic decisions to solve the problem of scarcity.
- Thus, the aim of each society is to answer the above questions efficiently.
- There are two types of efficiency:
  - Productive efficiency
  - Allocative efficiency

# Basic Economic Questions Productive efficiency

- A situation in which the economy could not produce any more of one good without sacrificing production of another good.
  - Use all resources for lowest cost

# Basic Economic Questions Allocative efficiency

- A state of the economy in which production represents consumer preferences.
- **Production** that is valued by society: when supply meets demand.
- We can't have everything we want, so we have to make use of resources in the best way possible.
- This is the basic tenet (main idea; theme) of economics.

#### How to Produce?

- The production of a good is possible by various methods.
- For example, you can produce cotton cloth using handlooms, power looms or automatic looms.
- While handlooms require more labor, automatic looms need higher power and capital investment.

#### How to Produce?

- Hence, society must choose between the techniques to produce the commodity.
- Similarly, for all goods and/or services, similar decisions are necessary.
- Further, the choice depends on the availability of different factors of production and their prices.
- Usually, a society opts for a technique that optimally utilizes its available resources.

#### What to Produce?

- What does a society do when the resources are limited?
- It decides which goods/service it wants to produce.
- Further, it also determines the quantity required.
- For example, should we produce more specialists or family doctors?
- Do we opt for capital goods like machines, equipment, etc. or consumer goods like cell phones, etc.?

#### For whom to Produce?

- Think about it can a society satisfy each and every human wants? Certainly not.
- Therefore, it has to decide on who gets what share of the total output of goods and services produced.
- In other words, society decides on the distribution of the goods and services among the members of society.

#### When to Produce?

- This will depend basically on the product or the services being produced.
- For example, some goods can be produced and stored for a long time TVs, syringes, and microwaves.
- Services may not be produced and stored, a service may only be produced when needed.
- For example a C-section will only be produced when needed

#### Basic Economic Questions

- Anything we do in practice will typically affect all three.
- But we can think about them separately, and it is much easier to think about them in this order How, What, and Whom.
- Scarcity forces society as a whole to make choices about the goods we produce and consume.
- We represent the limits to what a society can produce by devices called production-possibilities frontiers.

#### **Production Possibilities**

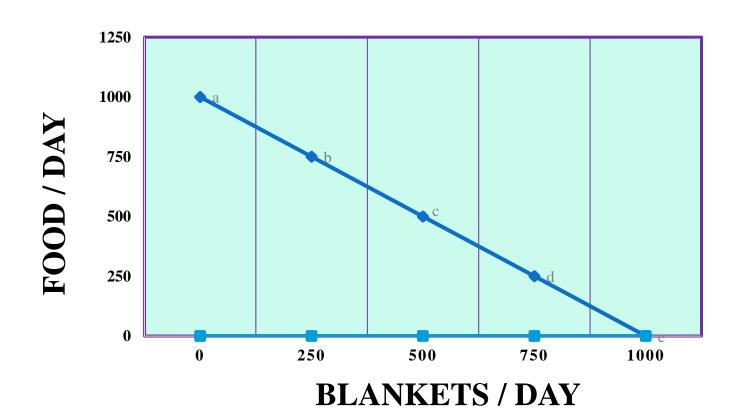
- Production-possibilities frontier (PPF) is among the simplest models of an economy.
- PPF is a curve showing the various combinations of goods that an economy could produce, assuming a fixed technology and full employment and efficient resources utilization.

- Production Possibilities
- To understand this model let suppose that society can produce only two commodities food (let say Apples) and clothes (let say Blankets), and suppose also that society uses only two types of resources land and labor with only 1000 units available of each.
- (*Table 1*) and (*Figure 1*)

#### **TABLE 1 Production-possibilities frontier**

Production Alternatives	FOOD (Apple per Day)	CLOTHING (Blankets per Day)
a	1000	0
b	750	250
c	500	500
d	250	750
e	0	1000

#### Figure 1. Production-possibilities frontier (PPF)



- Production Possibilities
- Figure 1 shows some production possibilities for this economy.
- The straight-line PPF reflects the availability of resources (1000 units of land and 1000 units of labor).
- Points a, b, c, d, and e in the figure designate five of the many possible combinations of apples and blankets that can be produced during a given period when resources are used in the same fixed proportions in both industries.

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- Production Possibilities
- We should remember that an economy operating on its PPF is producing efficiently, given the technology available.
- As factors of productions are shifted from apples to blankets food output falls and clothes output rises.
- When all resources are used to produce apples, no blankets are produced and vice versa.

- Production Possibilities
- Thus, if we move from point c in Figure 1 to production possibility d, we gain 250 blankets but lose 250 boxes of apples per period; the cost for each extra blanket is one box of apples.
- The boxes of apples that must be sacrificed for extra blankets are the opportunity costs (in apples) of producing and consuming more blankets and vice versa.

#### Diminishing Returns and Increasing Opportunity Costs

- law of diminishing returns: as any activity is extended, it eventually becomes increasingly difficult to pursue the activity further.
- Within economics this concept has wide and varied applications.
- Expanding a given production eventually becomes ever more difficult and eventually will entails increasing opportunity costs.

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- This means that repeatedly increasing production by some set proportion ultimately requires more than proportional increases in resources and costs.
- Let see how this concept applies to the PPF.
- Suppose we discover that, relative to blankets, efficient apples production requires more land and less labor, while the production of blankets should use labor relatively more intensively.

#### Diminishing Returns and Increasing Opportunity Costs

- This new knowledge is a technological breakthrough! After experimenting with different mixes of resources until we discover the appropriate technology.
- We find that increasing costs are encountered as production of either good is expanded. This yields production-possibilities curves that are concave (bowed away) from the origin. In this example, blankets are labor intensive (uses more labor relative to land), and apples are land intensive.

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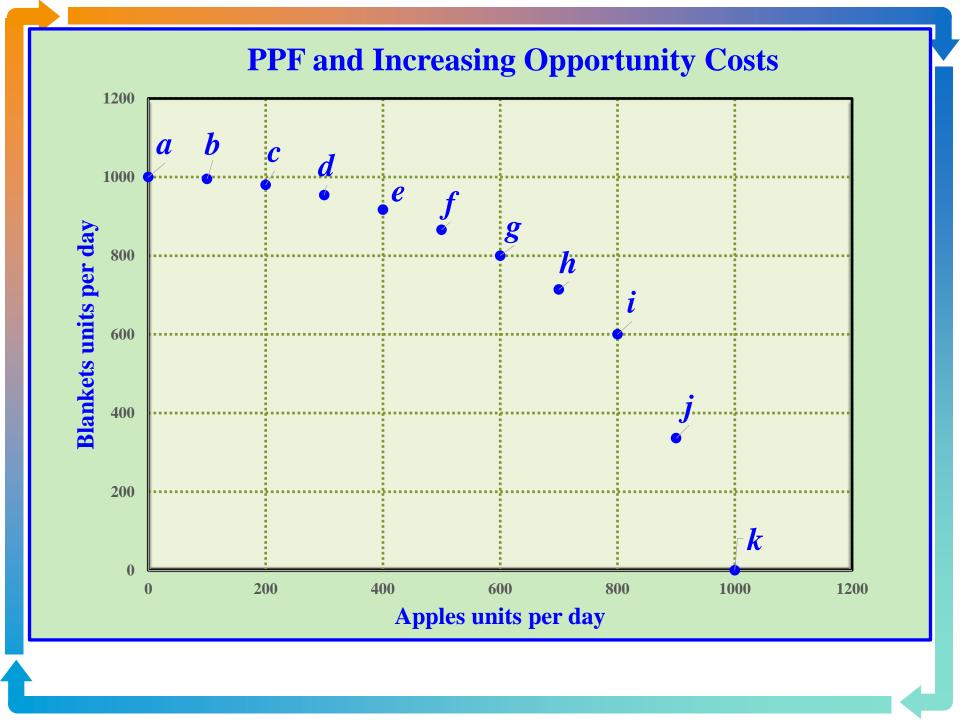
- The differences in the appropriate mixes of land and labor causes society to encounter diminishing returns (increasing costs) as more and more boxes of apples (or blankets) are produced.
- When apples production is raised from zero to 100 boxes daily, blankets output falls only from 1,000 units to 995 daily (from point a to point b in Figure 2).
- Why do the first 100 boxes of apples cost only 5 blankets?
- Because the resources first shifted into food production will be those relatively best suited for apples and less suited for blankets.

#### Diminishing Returns and Increasing Opportunity Costs

- Far more land than labor will be transferred to apples production. But as apples output continually increased, the resources shifted are decreasingly suited for apples production relative to the production of blankets.
- Thus, moving from point f to point g results in an extra 100 boxes of apples per day, but costs 66 blankets, while moving from point I to point j also yields 100 extra boxes of apples, but the cost is higher: 164 blankets.

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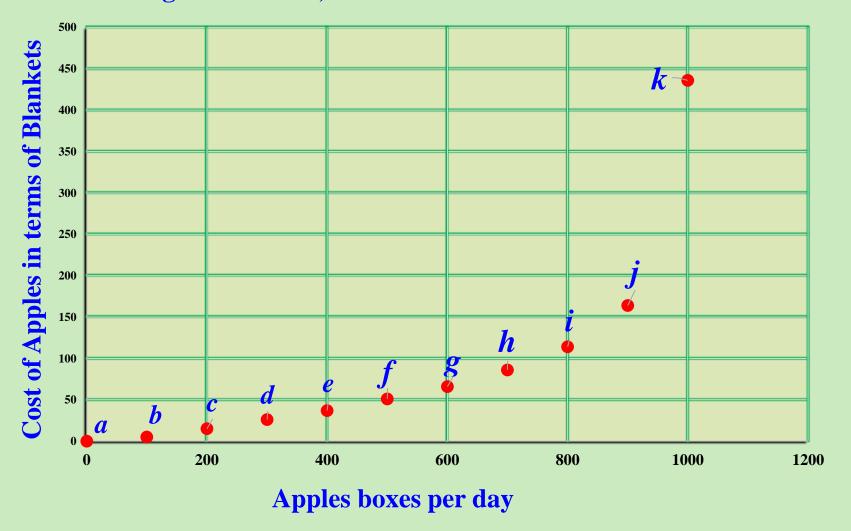
TABLE 2 Production Possibilities and Increasing Costs			
(1)	<b>(2</b> )	(3)	(4)
Average Daily Production		duction	Average Opportunity Costs
Point	Blankets	Apples	(Average Blankets Sacrificed per Extra Boxes of Apples)
a	1000	0	
b	995	100	0.05
c	980	200	0.15
d	954	300	0.26
e	917	400	0.37
f	866	500	0.51
g	800	600	0.66
h	714	700	0.86
I	600	800	1.14
j	336	900	1.64
k	0	1000	4.36



- When apples output is finally expanded from 900 boxes to 1000 boxes daily (point j to point k), the last resources shifted from blankets production are very productive for blankets but ill-suited for producing apples.
- Thus, 436 blankets are sacrificed for the last 100 boxes of apples. Less and less land is available for shifting, more and more labor moves into agriculture.

- The ever-increasing cost of extra apples in terms of forgone blankets, as shown in Column 4 in Table 2, is depicted in Figure 3.
- You will learn in the next chapter that Figure 3 illustrates the typical shape of a society's long-run supply curve for apples.

Figure 3. The ever-increasing cost of extra apples in terms of forgone blankets, as shown in Column 4 in Table 2



- To summarize, note that three important concepts are illustrated in the production possibilities model: scarcity, opportunity costs, and choice.
- Our desire for "more" are boundless, but resources are scarce, so only limited quantities of goods can be produced.
- Scarcity forces every society to choose among competing goods.
- And finally, the most valued alternative sacrificed to obtain another unit of a given good is its opportunity cost.

- Opportunity costs eventually rise (law of diminishing returns) if the production of any good is repeatedly expanded.
- Law of diminishing returns, the concept that as inputs to production are used in higher quantities, their effect on the output decreases.

#### Economic Growth

- Using resources efficiently is one way that economic growth occurs, but growth in an efficient economy requires either that more resources become available or that technology advances.
- Economic growth can be shown as an outward shift of the production possibilities curve; more of all goods can be produced.

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#### **Economic Growth**

- Investment in new capital is one source of economic growth.
- Opening up new land is another possibility. Expanding the labor force is yet another way to stimulate economic growth.
- Labor resources can grow in two ways: increases in the number of workers, or improvements in their quality and productivity.

#### Economic Growth

- Economic growth also occurs if more people become entrepreneurs willing to risk implementing new technologies.
- Technological advances occur when given quantities of resources become capable of greater production.

#### Choices Between the Present and Future

- The choices that society makes between consumption and investment goods affect its future production possibilities curve.
- Lower saving and investment restrict economic growth and PPF expansion.
- More rapid growth in an efficient economy is stimulated by higher investment which requires more saving (less consumption).

#### Allocative Mechanisms

- One way to gain insights into problems posed by scarcity and the need to choose is to examine various mechanisms used to resolve the competition among people for scarce goods.
- Some of the Allocative mechanisms used to deal with scarcity yield less satisfactory solutions than others.

#### Traditional Economic System

- The traditional economic system is the most traditional and ancient types of economies in the world.
- Vast portions of the world still function under a traditional economic system.
- These areas tend to be rural, second- or third-world, and closely tied to the land, usually through farming.

#### Traditional Economic System

- In general, in this type of economic system, a surplus would be rare, therefore the members of this economy would not have the ability to trade their excess for another person's excess.
- As a result, less will be enjoyed by each member than could be, and in economics, there quality of life would not be very high.

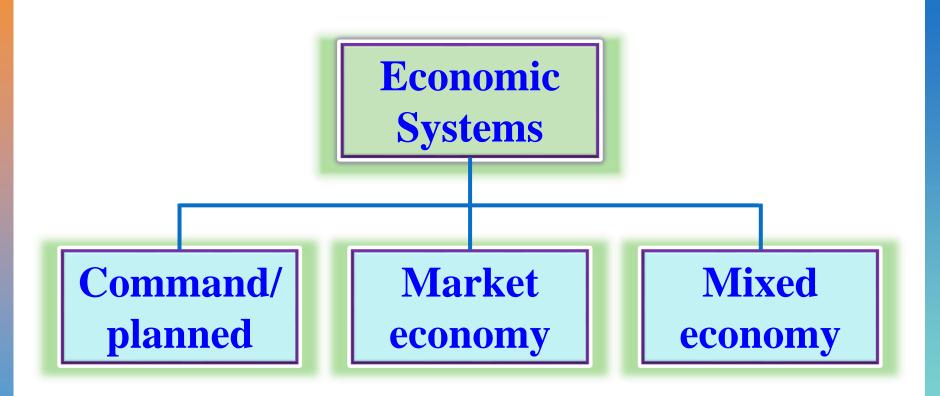
#### Traditional Economic System

- Each member of a traditional economy has a more specific and pronounced role, and therefore the basic economic questions are answered according to the designations of the society, usually tradition and custom.
- These societies tend to be very close-knit and socially satisfied.
- However, they do lack access to technology and advanced medicine.

#### Economic Systems

- Many different economic systems are used in attempts to resolve the problem of scarcity.
- They can be classified by who makes the decisions (Decentralized Decision Making or Centralized Decision Making) and who owns the resources (Public or Private).
- There are 3 main types of economic system Command/planned economy, Market economy, and Mixed economy (Figure 4).

#### Figure 4. They are 3 main types of economic system



#### Command/planned Economy

• Socialism is the major challenger of capitalism, which holds that productive resources should not be privately owned, but instead should be owned jointly by all people in society, and that government should have a major role in terms of central planning for production and distribution decisions.

## Command/planned Economy Advantages

- Government decides what should be produced, how much and for whom
- Decreases inequalities between the rich & poor.
- Both public & merit goods are adequately provided
- Enhances balanced regional development.

## Command/planned Economy Disadvantages

- Its expensive to run a government structure
- Centralized decision making may conflict the market forces.
- Government systems may have excess red tape.
- Govt controls may reduce innovations & inventions.

#### Market economy

- The market economy also known as free market economy, free enterprise economy or capitalism.
- It was advocated by Adam smith(1776) & can be represented by the USA.
- The system is an ideal case not present in today's modern economies.

#### Market economy

- Profit maximization is the main goal of buyers & sellers.
- All resources are privately owned by the firms and the households. (Private sector) who make decisions on how to allocate resources.
- Prices are determined by the market forces of demand and supply. (i.e., invisible hands of the market/market mechanism)
- Consumer sovereignty- freedom of what to consume

#### Market economy

- Capitalism is an economic system based on private property rights and emphasizing private, as opposed to governmental or collective, decision making.
- The hallmarks of "pure" capitalism are the institution of private property and laissez-faire policies by government.

#### Private Property Rights

- Legal rights that people possess over property, which means that you have certain rights to use these things in certain ways; the broadest of property rights are fee-simple property rights that allow individuals to:
- Use goods in any manner so long as other people's property rights are not violated
- exchange these property rights for others; and
- \* deny the use of their goods to others.

### Laissez-faire

- Roughly means "leave us alone" the role of government is minimal that includes national defense, police protection, and enforcement of contracts.
- Other decisions are decentralized and rely on individual choices in a market place.

## Market economy

Advantages of a Free Market Economy

- Consumers pay the highest price they want to, and businesses only produce profitable goods and services.
- There is a lot of incentive for entrepreneurship. This leads to the most efficient use of the factors of production since businesses are very competitive.
- Businesses invest heavily in research and development. There is an incentive for constant innovation as companies compete to provide better products for consumers.

## Market economy Disadvantages of a Free Market Economy

- Due to the fiercely competitive nature of a free market, businesses will not care for the disadvantaged like the elderly, disabled, and those who lack skills. This leads to higher income inequality.
- Since the market is driven solely by self-interest, economic needs have a priority over social and human needs like providing healthcare for the poor.
- Consumers can also be exploited by monopolies.

#### How a command economy compares to a free market economy

	Free Market Economy	Command Economy
Ownership	Firms owned by private sector	Industry owned and managed by government
Incentives	Profit motive acts as incentive for owners and managers	Government gives little incentive to be efficient and profitable
Prices	Prices determined by supply and demand	Price controls
Efficiency	Incentives for firms o be efficient and cut costs	Government owned firms have less incentives to be efficient
Equality	Free market likely to lead to income and wealth inequality	Government may provide more equitable distribution of resources
Examples	Singapore have limited government intervention	Soviet Union, China, Cuba
Problems	Inequality, market failure, monopoly	Inefficiency, bureaucratic, shortages, Surpluses, less choices, less freedom

#### Mixed Economic System or a Mixed Market Economy

- A mixed economy is a combination of different types of economic systems.
- This economic system is a cross between a market economy and command economy.
- In the most common types of mixed economies, the market is more or less free of government ownership except for a few key areas like transportation or sensitive industries like defense and railroad.

## Mixed Economic System or a Mixed Market Economy

- Therefore, consumers and producers answer the basic economic questions through supply and demand, while the government may also answer them.
- However, the government is usually involved in the regulation of private businesses.

- Mixed Economic System or a Mixed Market Economy
- The idea behind a mixed economy was to use the best of both worlds incorporate policies that are socialist and capitalist.
- To a certain extent, most countries are mixed economic system.
- For example, the United States, India, France, and Saudi Arabia are mixed economies.

#### Advantages of Mixed Economies

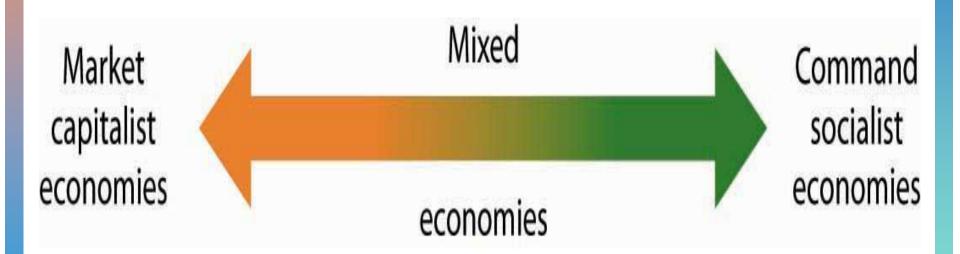
- There is less government intervention than a command economy.
- The government can intervene to correct market failures. For example, most governments will come in and break up large companies if they abuse monopoly power.
- Governments can create safety net programs like healthcare or social security.
- In a mixed economy, governments can use taxation policies to redistribute income and reduce inequality, as well as provide for public goods like roads, community centers, and schools.

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#### Disadvantages of Mixed Economies

- There are criticisms from both sides arguing that sometimes there is too much government intervention and sometimes there isn't enough.
- A common problem is that the state run industries are often subsidized by the government and run into large debts because they are uncompetitive.

Figure 4. suggests the spectrum of economic systems. Market capitalist economies lie toward the left end of this spectrum; command socialist economies appear toward the right. Mixed economies lie in between.



# THANK YOU