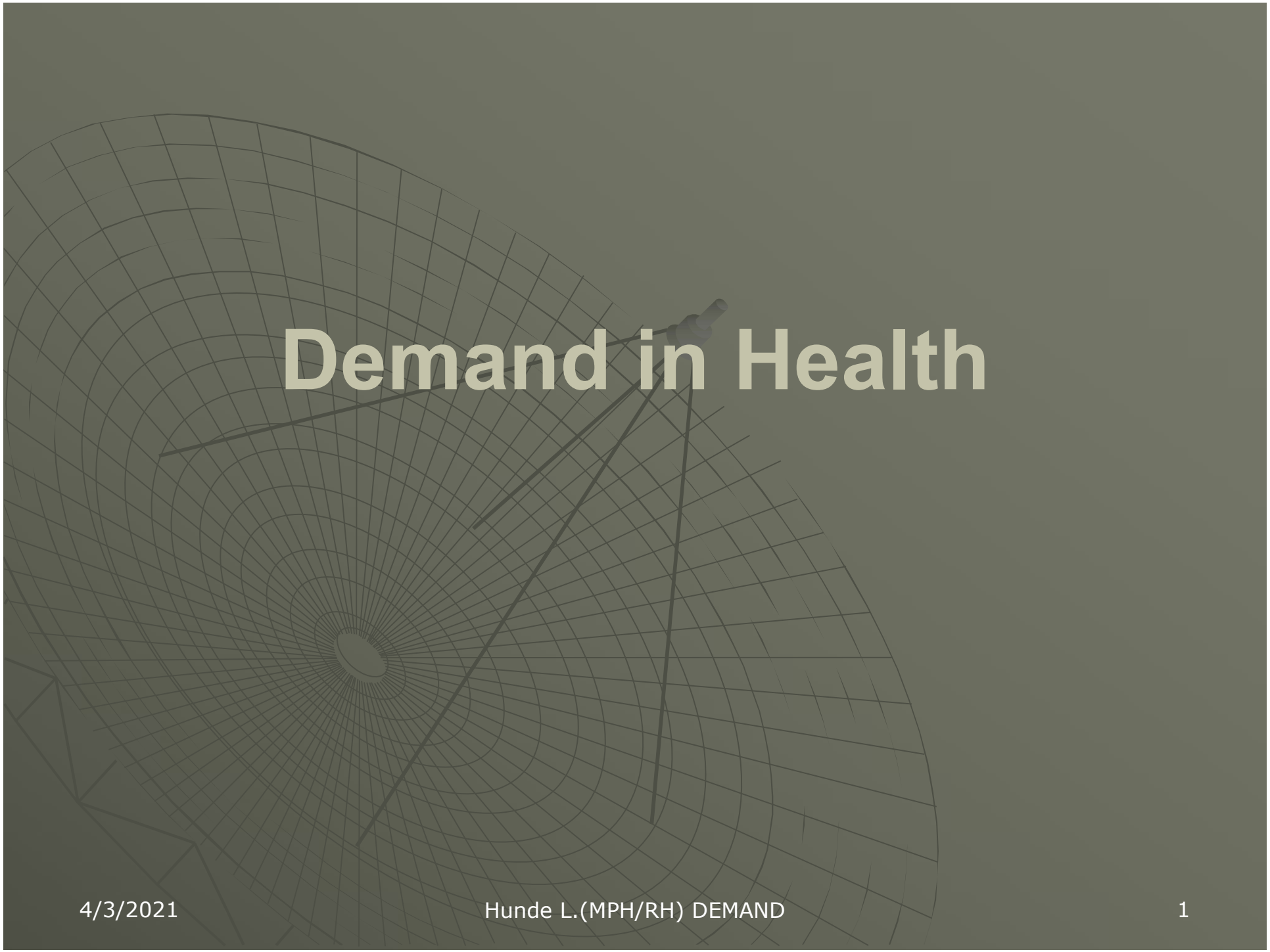


Demand in Health

Learning Objective

After working through this chapter, you will be able to:

- ***Define the term 'quantity demanded'***
- ***Show graphically how changes in demand factors influence the demand curve***
- ***List the factors which influence the demand for health care***
- ***Describe how demand theory can be used in health service planning***
- ***Analyze distinctive characteristics of Health care***

Demand

- Demand describes the behavior of consumers.
  - It does not mean the desire to obtain.
- In economics the hungry man who can not pay for food has no demand for it.
  - He has simply want for food

Demand Con't …

To demand something, you must:

- Want it
- Be able to afford it
- Have a definite plan to buy it

✓ *Demand reflects our plans about which wants to satisfy*

Factors influencing consumer demand

- The price of the good
- The price of substitutes
- The price of the compliments of the good
- Change in income of consumer
- Change in taste of consumer

Factors influencing consumer demand

- Consumer expectation about future price change
- Population

Shifts in Demand

Substitutes

- Two goods are substitutes when a change in the price of one causes a shift in demand for the other in the same direction as the price change.

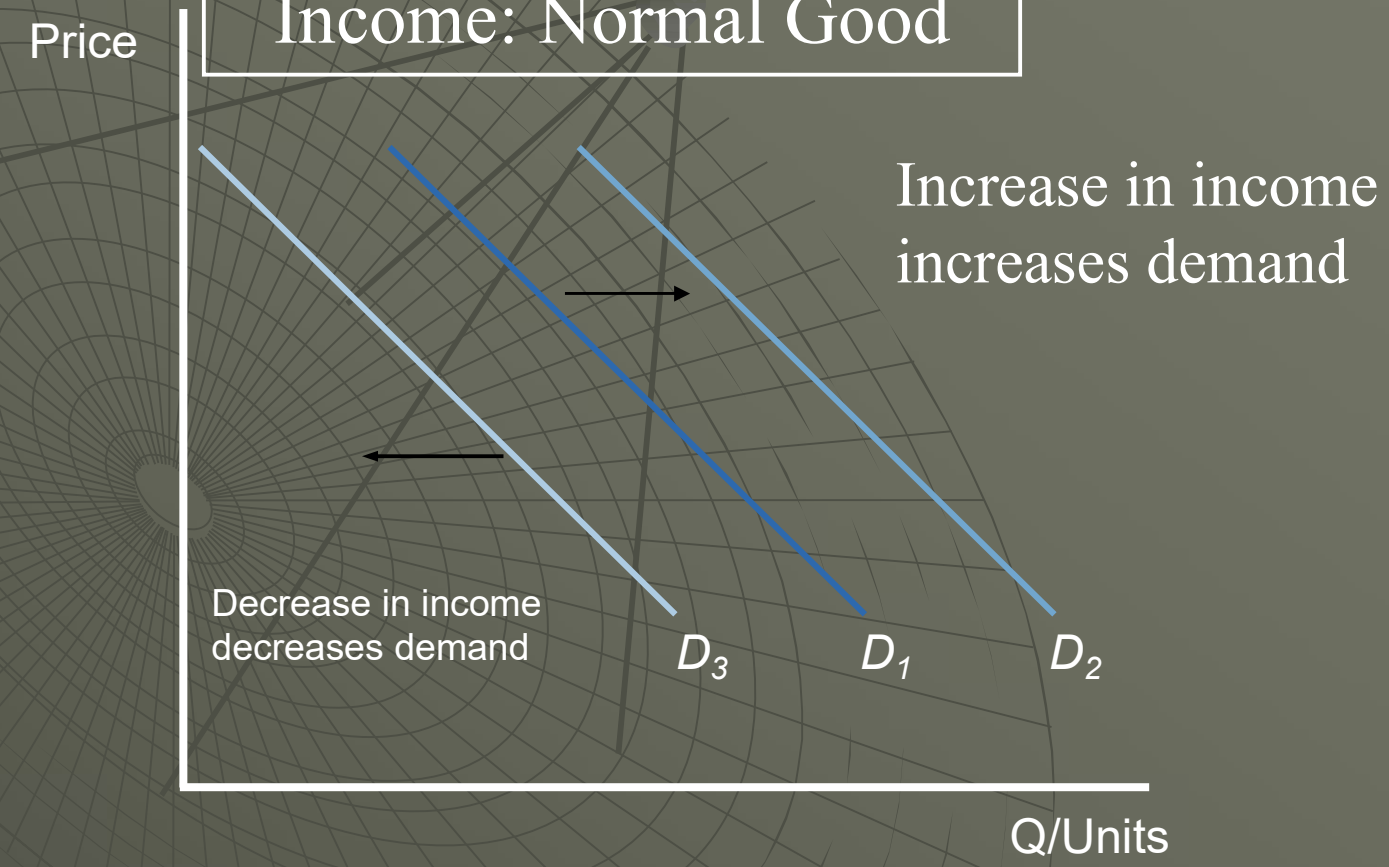
Shifts in Demand

Complements

- Two goods are **complements** when a change in the price of one causes an opposite shift in the demand curve for the other.

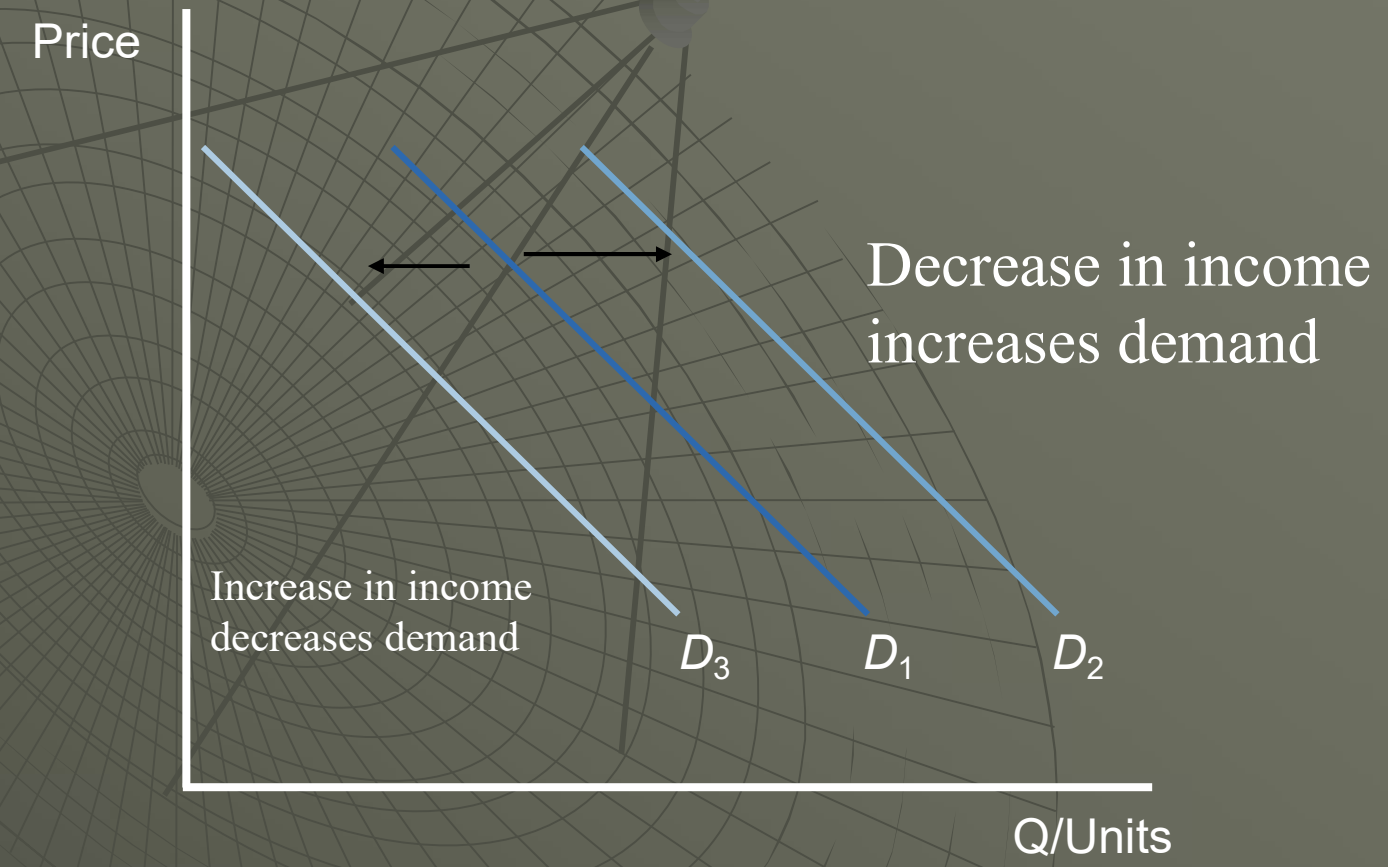
Shifts in Demand

The Determinants of Demand
Income: Normal Good



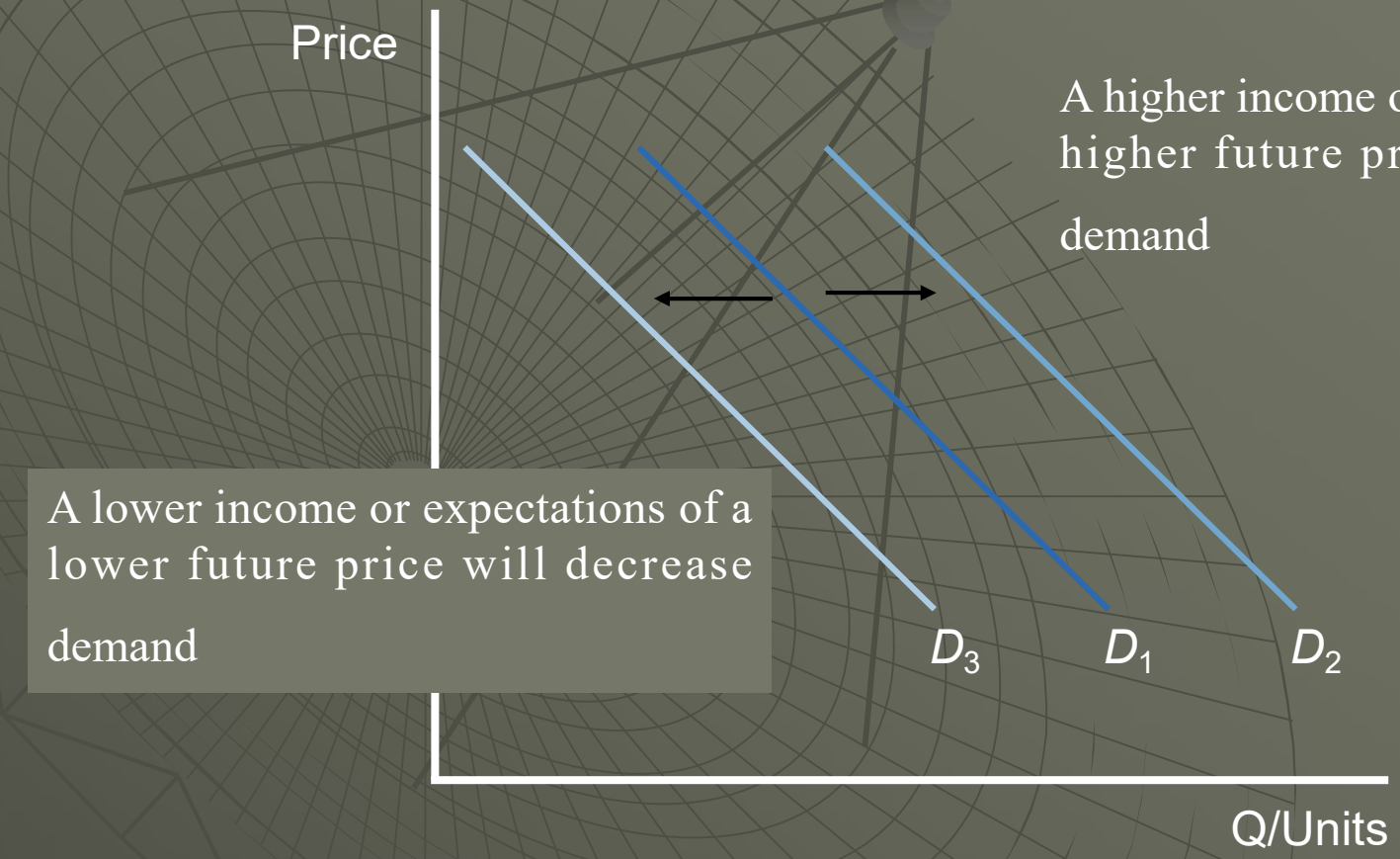
Shifts in Demand

The Determinants of Demand
Income: Inferior Good



Shifts in Demand

The Determinants of Demand
Expectations: Income, Future Prices

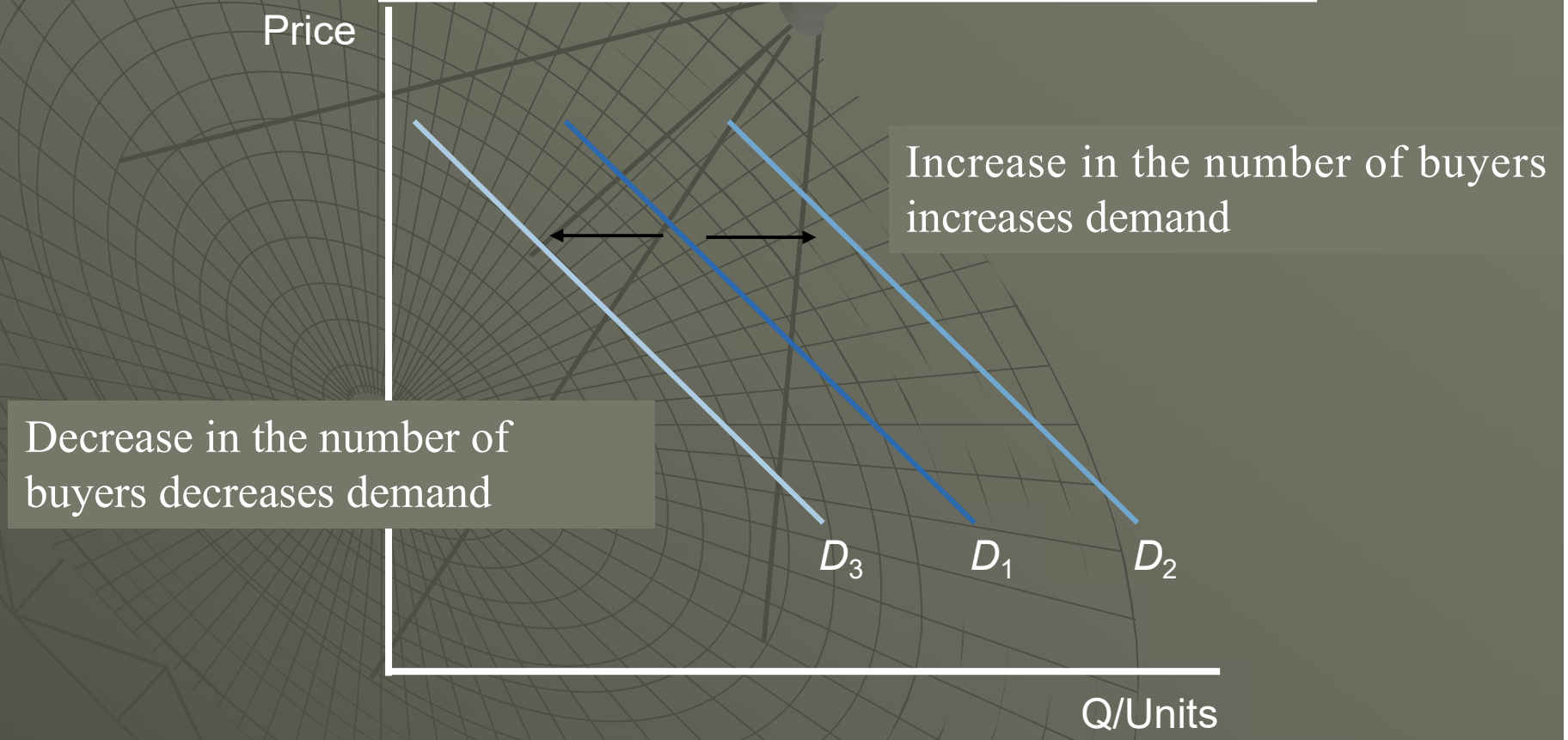


A higher income or expectations of a higher future price will increase demand

A lower income or expectations of a lower future price will decrease demand

Shifts in Demand

The Determinants of Demand
Market Size (Number of Buyers)



Law of demand

- "Lower the price, greater the quantity demanded, keeping the other factors constant".

- This inverse relationship between price and quantity demanded is known as law of demand

Law of demand

- At lower prices people are able and willing to purchase more of a commodity than at higher prices.

Demand schedule

- ☑ **The relationship between price and quantity bought is called *demand schedule.***
- ☑ **Graphical representation of this demand schedule is *demand curve*.**

Con't ...

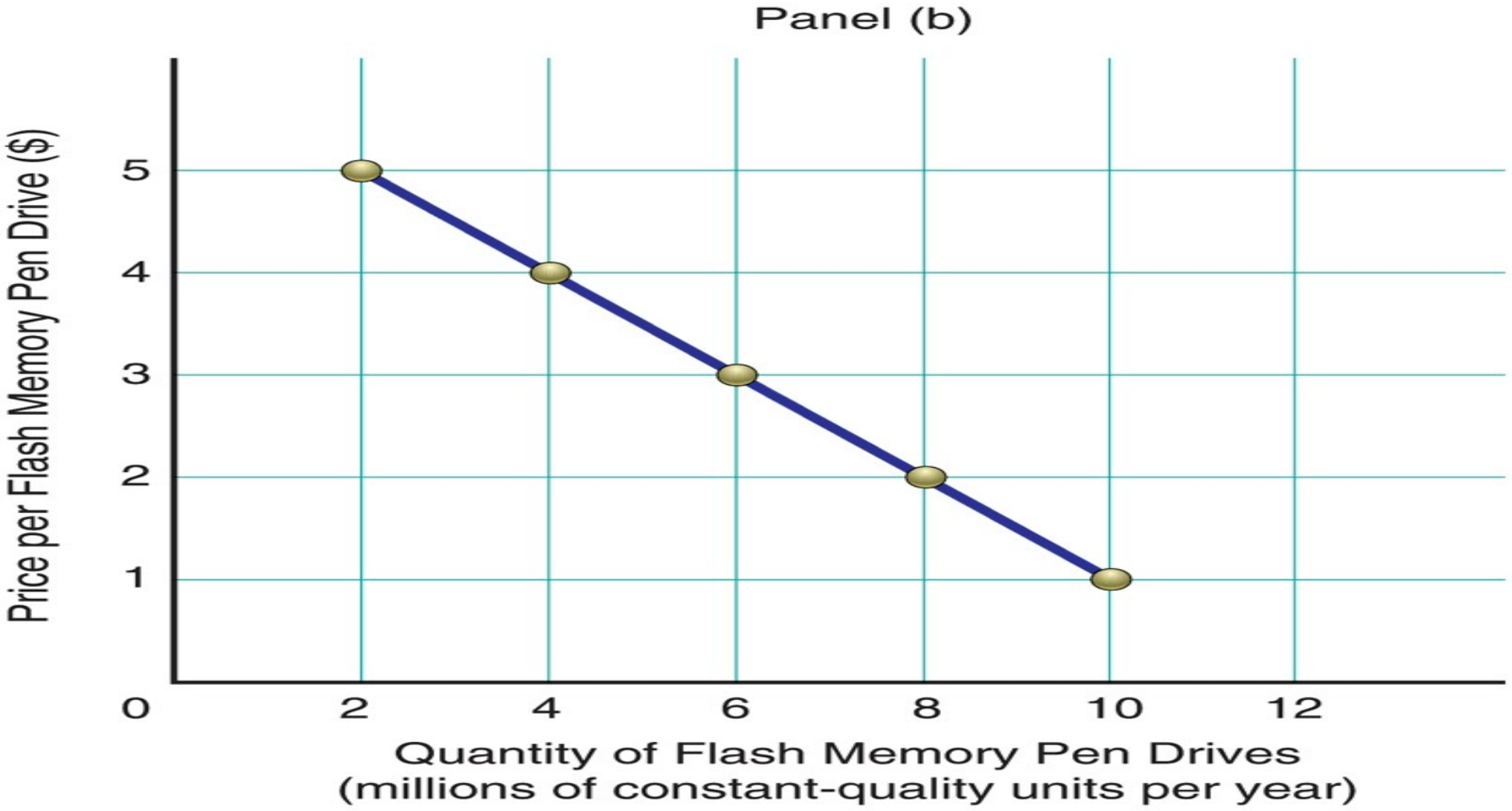
- Price on the vertical axis and quantity demanded on horizontal axis.
- The curve slopes downward from left to right.

The Market Demand Schedule for Flash Memory Pen Drives

Panel (a)

Price per Constant-Quality Flash Memory Pen Drive	Total Quantity Demanded of Constant-Quality Flash Memory Pen Drives per Year (millions)
$5	2
4	4
3	6
2	8
1	10

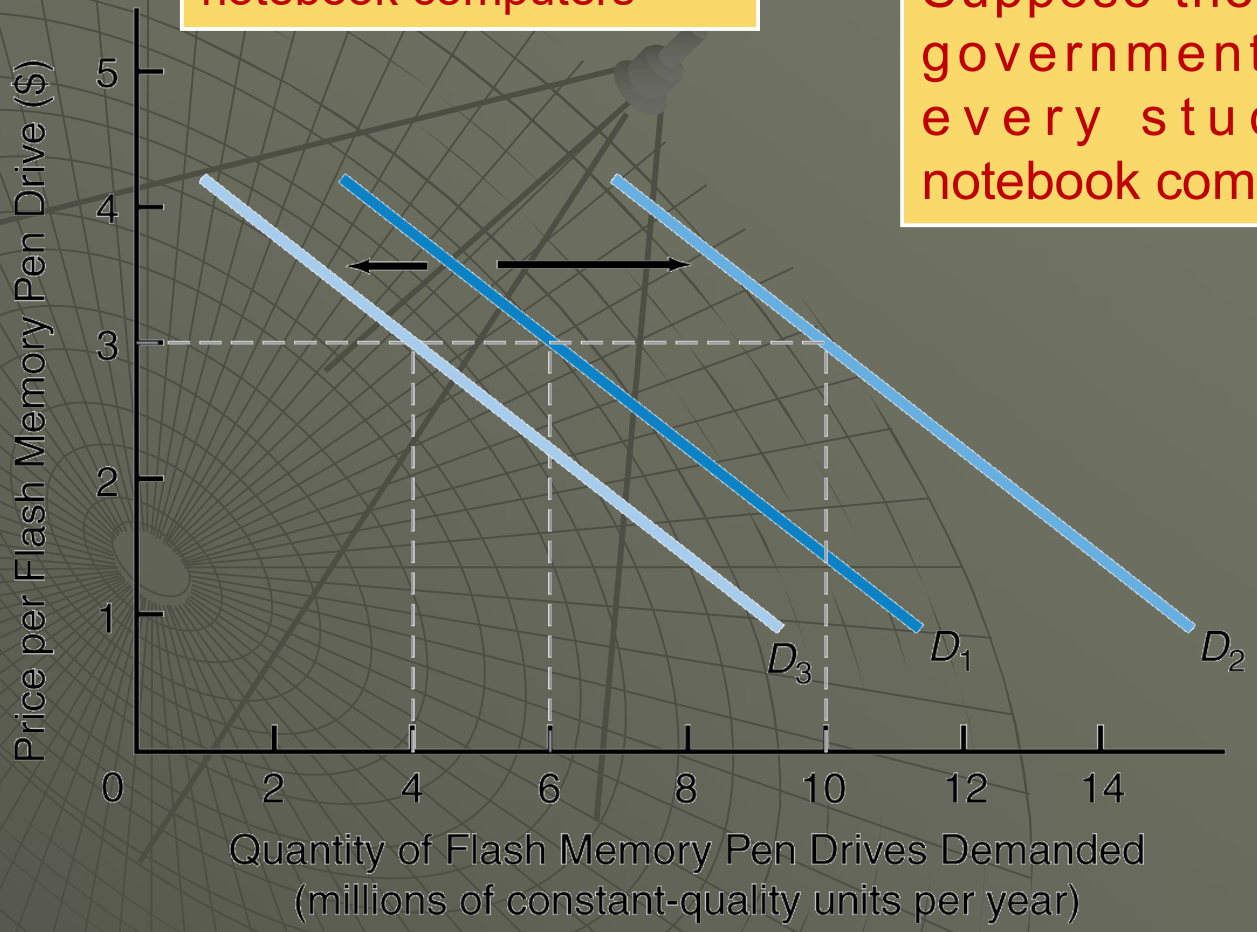
The Market Demand Schedule for Flash Memory Pen Drives



A Shift in the Demand Curve

Suppose universities prohibit the use of notebook computers

Suppose the federal government gives every student a notebook computer



Shift in demand

- If some factor other than price changes, we can show its effect by moving the entire demand curve, shifting the curve left or right.

Normal and Inferior Goods

Normal Goods

- Demand rises as income rises, most goods are normal goods
  - ✓ E.g. Gold, Health care, Petroleum product

Normal and Inferior Goods

Inferior Goods

- Goods for which demand falls as income rises
  - ✓ E.g. Cabbage, Low seems food

Demand for health care

- Demand analysis for medical care is used,
  - ☑ To identify factors which on the average, most affect a persons utilization of medical services.
- Determining how much care people are willing to purchase.

Demand for health care

- Based on the individual and community expectations.
- He/she needs a service, but expert opinion may say that this is not a reasonable demand.

E.g. patient may ask the physician for an antibiotic to treat viral infection, which would not help in cure and may cause harm.

Need, demand and utilization of health services

Need in medical care

- Amount of medical care that medical experts believe a person should have to remain or become as healthy as possible

Need, demand and utilization …

- Exists when an individual has,
  - Symptoms
  - Illness or
  - Disability
- For which there may be an effective or acceptable treatment or
- Cure from which the patient can benefit

Need, demand and utilization …

- Exists when an individual considers that he has,
  - A need and
  - Willing to spend resources of
    - ☑ Money
    - ☑ Time
    - ☑ Energy
    - ☑ Loss of work

Need, demand and utilization …

- ☑ Travel and
- ☑ Inconvenience to receive care.

- ❑ **Utilization** occurs when the individual actually acts on this demand or need and receives health services.

Types of need

1. Normative need

- Services determined by experts to be essential for a specific need or
  - ✓ For a specific population group.

Examples,

- ✓ pre natal care
- ✓ Immunization
- ✓ Management of hypertension, DM ...

Types of need cont'd

2. Felt need

- **Subjective** view of the patient or community.
- May or may not be based on actual physiologic needs. E.g.
  - Public knowledge is vital to acceptance of immunization programs, treatment for chronic diseases etc

Types of need cont'd

- Felt need also affect health planning.

E.g. A community or donor feel that a community needs a new hospital but the same resources might better to spent on developing primary care or health education purpose that have a great impact on health of population.

Types of need cont'd

3. Expressed need

- A felt need that is acted on, such as visiting a clinic or general practitioner.
- Felt need may not be acted on because of economic, geographic, social or psychological barrier from seeking or receiving a care.

Types of need cont'd

E.g. A service is free, but not readily accessible due to obstacles such as,

- ✓ Distance
- ✓ Language
- ✓ Cultural (Religious) barriers or
- ✓ It may due to difficulty in arranging an appointment,
- ✓ Long waiting period ,cost of travel etc

Types of need cont'd

4. Comparative need

- Relates needs of similar population groups, as in two adjacent regions with same age/sex/ethnic mix and socio-economic status
  - E.g. One region practices fluoridation of water supply—while the comparison community does not.
- The population of the second community in need of that service

A model of demand for medical care

- Consumer purchase goods and services for the utility.
- Demand for medical care is derived from the more basic demand for health
- ” Consumers have a demand for health for two reasons “. **(Michel Grossman)**

A model of demand for medical care cont'd

a) Health is a consumption commodity

- ✓ It makes the consumer feel better

b) Health is an investment commodity

- ✓ A state of health will determine the amount of time available to the consumer

A model of demand for medical care cont'd

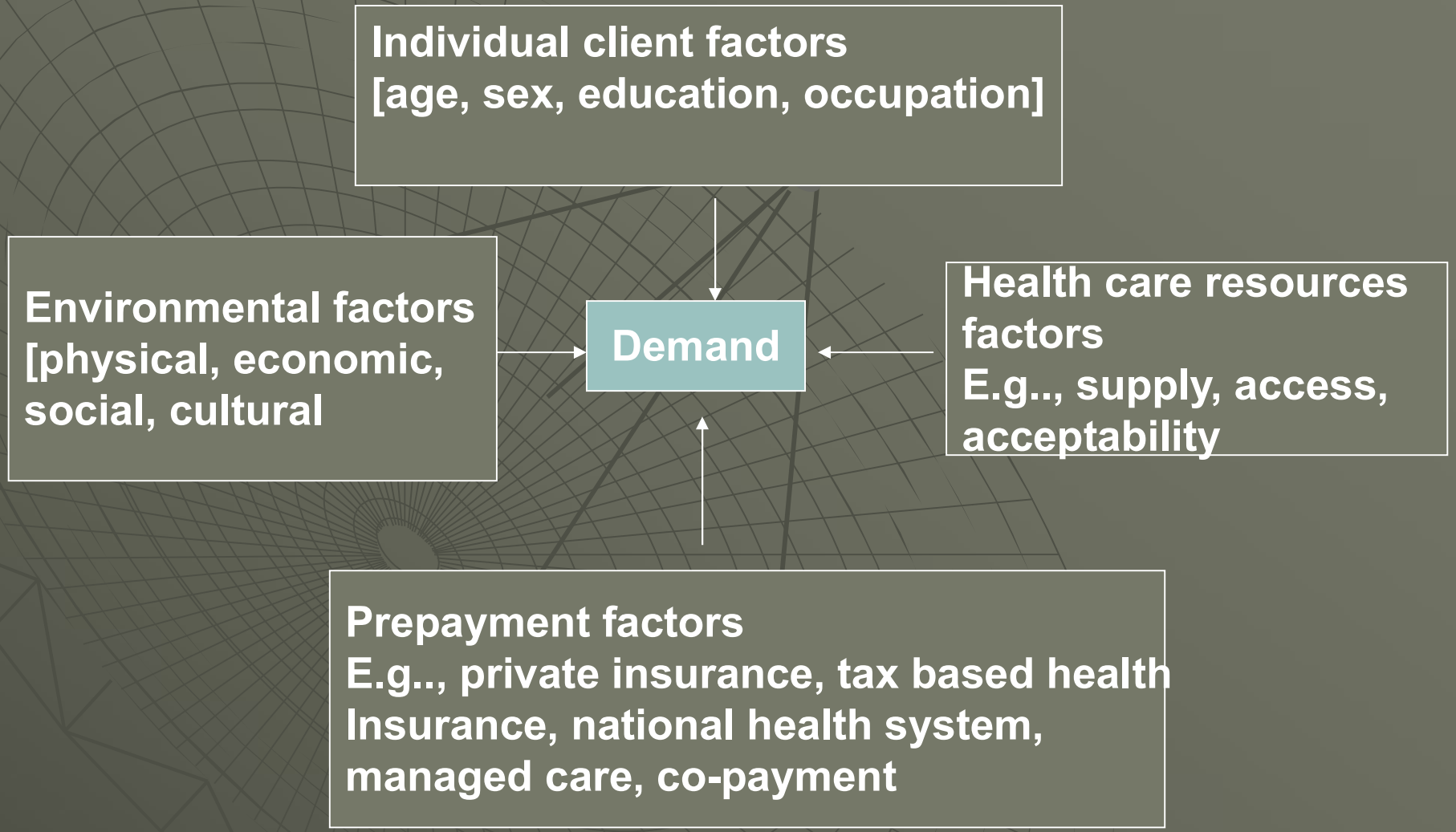
- Health is a consumption good means that health related activity will;-
  - ✓ Improve the quality of life
  - ✓ Prevent discomfort or illness

E.g. Cosmetic surgery, Speech therapy, Physiotherapy etc.

A model of demand for medical care cont'd

- Health is an investment means, being unhealthy brings;-
  - ✓ Discomfort
  - ✓ Loss of in- come from reduced work hours
  - ✓ Increase the number of sick days
  - ✓ Absence from schools etc.

MICHEL GROSSMAN'S DEMAND MODEL



MICHEL GROSSMAN'S DEMAND MODEL

- Looks at health within the frame work of a production function.
- Health status [output] is a result of health care activities [input] by the environment, the individual, and the health service system
- According to this model every one inherits a stock of health when born.

MICHEL GROSSMAN'S DEMAND MODEL

- Health **depreciated** overtime!
- However an investment is required to sustain health.
- As peoples' age advances there is an **increase** in rate of illness and in the **utilization** of health services.

Medical care demand

- A view of medical care demand being derived from the demand for health implies the following:
  - ✓ First, increase in age result in an increase in the rate at which the person's stock of health depreciates.

Medical care demand Con't …

- ✓ Second, the demand for medical care will increase with increases in person's wages.
- ✓ Third, education has a negative? effect on the demand for health care.

Medical care demand Con't …

- ✓ Because more highly educated people are presumed to be more efficient in **producing health.**

Distinctive characteristics of health sector

- Has a number of **special features** that make an exception from other industrial firms.

They are:

- Consumer **ignorance**
- **Non-profit** motive
- Large components of **personal** services

Distinctive characteristics of health sector cont'd

- **Restrictions** on competition
- The uneven and unpredictable **incidence** of illness
- External effects
- **Mixture** of consumption and investment elements.

Consumer ignorance

- Most of the consumer decisions are **dependent** upon the producer information.
- But in health sector the **professional judgments** are important and
- Independent of any **financial or cost** considerations.

Consumer ignorance Con't...

- One reason for consumer ignorance is the large element of **uncertainty** concerning the effect of health on individual.
- Since medical services are purchased infrequently, the consumer does not have the experience to make a rational judgment

Consumer ignorance Con't…

© **Medical profession often does little to inform** the consumer concerning the results of alternative courses of treatment

Non profit motive

- Most of the health care institutions are not operated for profit making basis.
- Majority of health care institutions are run by **trustees** or **government**.
- In some cases profit making hospitals are socially disapproved.

Non profit motive Con't …

- There is a **vague belief** that it is wrong to make profit from sickness
- **Huge investment** is also needed for hospitals, and is not motivating profit seekers

Large component of personal service

- Approximately **2/3** of the value of medical care services is associated with **labor inputs**.
- Medical care embodies large element of personal services.

Large component of personal service Con't …

- This fact has important implication for an economy,
  - ✓ **Wage increase** are usually associated with productivity gains ,and professional skill

Restriction on competition

- In case of health care some restrictions on entry through **medical schools and licensing authorities**.
- Medical **ethics** also plays some role on competition.

Uneven and unpredictable incidence of illness

- Illness is not predictable in most occasions.
- This implies the pooling of payments to meet the contingency illness.
- Pooling has taken the form of **prepayment** health services can not repossessed by the provider.

Uneven and unpredictable Con't .

- **Some** health service expenditures occurs **regularly** and others are associated with illness.

External effects

© Involves **positive and negative results for others that are the consequences of ones own actions**.

E.g. communicable disease such as Polio, provision of a **vaccination** yields a benefit greater than prevention of the disease in one individual.

Mixture of consumption and investment elements

- Some expenditures on health services are provided merely to;
  - **Reduce anxiety,**
  - **Pain or**
  - **Suffering**.
- These are considered as consumption expenditures.

Mixture of consumption and investment elements

- Health services especially when provided to members of the labor force, may contribute towards the increase of productivity.
- The benefits in increased output represent a return on investment.

Mixture of consumption and investment elements

- This expenditure is considered as an

investment in human capital.


THANK YOU!