

Demand

People benefit from health in four ways:

1. They feel better when well
2. They lose less time to illness & can work more
3. They are more productive & earn more/hour of work
4. They may live longer

Demand for health care services – e.g., physician care, hospitals, drugs, therapies – **is derived from the demand for health itself**

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Demand for Health Care

- Demand for health care is **derived** from a desire for health - people want health; they demand medical care inputs to produce it
- Better health = higher wealth/greater time for leisure
- We have a "stock" of health that depreciates over time – health care helps to replace stock
- Higher income = higher value on health = higher expenditure for health
- Higher education is arguably inversely related to demand for health services – if better educated, you can produce your own – *emphasis: arguably*

(Grossman, 1972)

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Determinants of Demand

- Patient demands care based on illness/injury
- Physician uses judgment to determine services needed and either provide or direct what is purchased for the patient
- Physician acts as an agent for the patient – determines need for resources and directs their purchase
- Demand is not necessarily predictable for the individual (Arrow, 1963)
- Demand can be reasonably predicted for a population

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Factors Influencing Demand

- Patient preferences for health
- Perception that services will improve health condition
- Age – older = higher demand for services
- Gender – women use more up to about age 45 then similar
- Marital status – single persons use more care than married
- Education – while efficient in producing one's health, also correlates w/seeking care sooner
- Culture – some cultures seek less care

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Factors Influencing Demand

- **Income** – Greater income tends to predict higher use of health care services.
 - However this effect is confounded by insurance and employer payment for insurance
- **Prices** – depends on acuity of situation
 - Emergency care tends to be price inelastic
 - Preventive care tends to be price elastic
 - Also confounded by insurance which lowers the actual price paid for health services – *thus our discussion tends toward price as the out of pocket payment after insurance*
- **Time** – time costs may represent a large portion of the cost of accessing health care – travel time, wait, time from leisure/work all are significant – has a rationing effect (e.g. Canada)

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Arrow

- Kenneth Arrow universally deemed the “Father of Health Economics”
- He posited that the unpredictability of need for health care made this industry different than others in the U.S. economy
- Consumers also unclear on their health status and so their need for health services
- Unpredictability in outcome also an influence on demand – increases demand

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Grossman

- Health inputs demanded are derived from a demand for a stock of healthy days that can be used to earn income, enjoy leisure
- Inputs include physician care, personal health habits, and medicines
- Many criticisms of this model:
 - Planning time frame – most people do not think long term
 - Health status negatively related to demand for services
 - Unclear relationship between the utility gained per unit of input
- The model has a tough time with running out of health inventory!

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Rice

- The landmark work in quantifying SID
- Based on hypothesis that greater competition normally reduces price and perhaps volume
- Not So. Providers have a targeted income that can be achieved with additional services
- Greater competition = greater inducement
- Lower fees = greater inducement
- Effect pronounced in surgical specialties but not hospital based ones
- Greater intensity of services

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Time Cost

- Usually a copayment for a physician office visit is lower than going to an urgent care or ER
- However the ER is still a primary caregiver of choice for many insured patients – why?

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The Physician

- Patients are usually not able to diagnose their condition
 - Legally they usually cannot order or receive the tests needed to diagnose
- Patients cannot treat themselves
 - Legally they usually cannot prescribe/order services
 - Usually they do not know how to treat
- The physician therefore acts as the patient's agent (*agency theory*) to decide and obtain what the patient needs

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The Physician

- The physician acts as the patient's agent (*agency theory*) to decide and obtain what the patient needs
- The patient also pays the physician to provide services

Are there other similar situations elsewhere in the U.S. economy?

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Create Demand?

- As insurance expanded, there was little concern about financial constraint (> 1980's)
 - No consideration of cost-benefit, just provide all the best care possible
 - Research showed that increased competition among providers did not yield decreases in costs, instead incomes for health care providers increased
 - Led to theory that providers can influence demand
- There is an inherent limit to the amount of inducement
 - Time trade-off of work versus leisure
 - Only so many hours in a day

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