

# Supply of health care – Non-profits

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# What is a non-profit?

Non-profit firms have 3 characteristics that make them different from for-profit firms:

- ▶ nondistribution: no one has a legal claim on the difference between revenues and costs
- ▶ exempt from taxes (corporate income, property, sales)
- ▶ donations are tax-exempt

## Structure of a non-profit

3 parties with decision-making authority

- ▶ trustees (instead of shareholders)
- ▶ hospital administrator/manager/CEO
- ▶ physician staff

# Revenue Sources

- ▶ donations
- ▶ issuing bonds (can't issue equity stock)
- ▶ sale of goods and services

# Statistics

The following are non-profit:

- ▶ 60% of community hospitals
- ▶ 70% of beds
- ▶ 30% of nursing home care
- ▶ 50% of inpatient specialty mental health care
- ▶ 50% of substance abuse treatment
- ▶ 5% of GDP

## Question

Is Athens Regional Medical Center a non-profit hospital?  
Is St. Marys Hospital a non-profit hospital?

## 3 theories about why non-profits exist

- ▶ Weisbrod: To fill gap that government can't in cases of **market failure**
- ▶ Hansmann: To fill gap when for-profit firm would result in **contract failure**
- ▶ Bays: Because physicians, a powerful **interest group**, have more power within them

# Market Failure Theory

## Market failures

- ▶ Externalities: uncompensated effect of the production or consumption of a good on someone other than the producers or consumers
  - ▶ Example: Overuse of antibiotics – creates antibiotic resistant strains which are bad for society
  - ▶ Problem: Underproduce (overproduce) goods with positive (negative) externalities
- ▶ Public Goods: goods that anyone can use without paying (not excludable) and are not diminished by each person's use (not depletable, nonrival)
  - ▶ Example: mosquito control – you benefit even if you won't pay for it, your benefit doesn't affect anyone else's benefit
  - ▶ Problem: No one wants to provide it if they can't get free riders to pay for it

# Market Failure Theory

Why can't govt take care of these problems?

Why do non-profits exist?

- ▶ The government may underprovide these goods in the minds of a significant minority of citizens
- ▶ These citizens perceive the external benefit to be huge
- ▶ So, they establish a nonprofit corporation to fill the gap

Evidence consistent with Weisbrod's theory

- ▶ Hospitals began as charitable institutions serving poor and relying on donations (citizens felt govt and private sector not doing enough)
- ▶ When insurance coverage grew, donations fell (public and private sector do more, citizens do less)

# Contract Failure Theory

Why do non-profits exist?

- ▶ Non-profits arise in health because can't observe quality of care easily
- ▶ Want a firm who serves donors, not shareholders

Example: nursing homes

- ▶ Older patient can't observe quality because of health
- ▶ Family isn't there so also can't observe quality
- ▶ For-profit company might have incentive to provide lower quality care to save money
- ▶ Want non-profit who serves donors

However, this theory is not so relevant to hospitals because physicians can observe quality on behalf of patient

# Interest Group Theory

Why do non-profits exist?

- ▶ Physicians have admitting privileges at hospitals
- ▶ They want to have certain services and quality
- ▶ They prefer non-profits because they have greater power (no shareholders to be held accountable to)

Implications of this theory

- ▶ Tax benefit given to non-profits may not be in public's interest

# Do non-profits provide higher quality care?

Three theories:

- ▶ Newhouse: Quality-quantity nonprofit theory  
Yes: More likely to value quality than a for-profit firm
- ▶ Pauly-Redisch: Physician's cooperative theory  
No: Physicians control hospital to maximize their incomes
- ▶ Harris: Hospital as 2 firms  
Yes: Physicians will demand quality-improving technology

# Quality-Quantity Nonprofit theory

- ▶ Non-profits care about quality and quantity
  - ▶ quantity: help more people
  - ▶ quality: provide best care, prestige
- ▶ Higher quality has 2 effects – graph
  - ▶ higher costs
  - ▶ higher demand

## Quality-Quantity Nonprofit theory

- ▶ Quality-quantity frontier traced from this; for non-profit:
  - ▶ Quantity is chosen where profit=0
  - ▶  $P - AC = 0$
  - ▶  $P = AC$
  - ▶ Demand curve = AC curve
  
- ▶ Non-profit maximizes utility, which is described by an *indifference curve*

# Indifference curves

Defn: shows bundles that give the consumer the same level of satisfaction; 4 properties:

- ▶ downward sloping if consumer likes both goods; if have to give up one, must get more of the other
- ▶ bowed inward: because people are more willing to trade away goods of which they have a lot and less willing to trade away goods of which they have little
- ▶ further from the origin is preferred to closer if consumer likes both goods
- ▶ curves do not cross: can't have 2 levels of happiness from one bundle

Slope measures **marginal rate of substitution**, the rate at which a consumer is willing to trade one good for another

# Indifference curves

# Quality-Quantity Nonprofit theory

Optimal choice for hospital:

- ▶ Want to be on highest indifference curve
- ▶ Constrained by quality-quantity frontier
- ▶ Optimal point is tangent

## Physician's cooperative theory

- ▶ Hospitals are controlled by physician staff
- ▶ Physicians want to maximize their net incomes
- ▶ Physicians choose number of physicians on staff, which affects number of patients served
- ▶ Thus, hospital behaves like it is for-profit (not any higher quality)

## Hospital as 2 firms theory

2 firms within a hospital:

- ▶ trustee-administrators – provides services for physicians to help patients
- ▶ physician staff – demands services from hospital

2 firms negotiate investments in technology, prices, quality, etc.  
So, more quality if physicians demand it.

## Evidence on quality

- ▶ Nursing homes: Gertler (1989) found higher quality in non-profit homes
- ▶ Hospitals: Sloan et al (1998) find no difference

### Other findings:

- ▶ for-profit and non-profit offer same amount of charity care
- ▶ for-profits are quicker to adjust to market demand changes
- ▶ for-profits more likely to 'upcode' patients to get higher reimbursements
- ▶ no difference in cost efficiency (theory predicts that nonprofits are more costly because care about nonpecuniary factors that may not be productive)
- ▶ non-profits have higher average nurse wage, but not because inefficient, but rather because better qualified nurses