

## Supply of health care – Hospitals 2

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- ▶ Last time, we discussed economies of scale and competition.
- ▶ Today, we discuss 2 other topics relevant to hospitals.

# Cost Shifting

Are the costs of uncompensated care passed on by hospitals to other patients?

- ▶ Let's assume that hospitals are monopolies in their town – meaning that they can choose their prices.
- ▶ We need monopoly theory to understand.

# Monopolies

## Defn: Monopoly

1. one seller – price-setter (downward sloping D)

### Marginal Revenue

- ▶ Competitive Firm:  $AR=P=MR$

When produce 1 more, I sell it for  $P =$  marginal revenue

- ▶ Monopolist:  $AR=P$  but  $MR < P$

When produce 1 more, to sell it,  $P$  falls (for this unit and all  $Q$ ) b/c demand curve is downward sloping

2. no close substitutes
3. usually entry is difficult (barriers)

# Profit Max

- ▶ Choices are both  $P$  and  $Q$ .
- ▶ If I make and sell one more, can I make more money?
- ▶ Compare  $MC$  with  $MR$
- ▶ Let's assume that marginal cost is constant.
- ▶ Profit Max in Monopoly is  $P > MR = MC$  (markup)

# Measuring Profit

$$\text{Profit} = \text{TR} - \text{TC}$$

$$\frac{\text{Profit}}{Q} = \text{TR}/Q - \text{TC}/Q$$

$$\text{Profit} = (P - \text{ATC}) * Q$$

# Can hospitals shift costs?

- ▶ Monopoly is private sector.
- ▶ Assume there is one public sector program. Reimbursement levels are given.

Scenario 1: reimbursement level  $>$  marginal cost at all times

- ▶ Government lowers reimbursement level to  $R'$
- ▶ Profit is down in public sector.
- ▶ Should hospital raise price in private sector?
- ▶ Already at profit max in private sector – can't make more profit there

# Can hospitals shift costs?

Scenario 2: reimbursement level falls below MC

- ▶ Government lowers reimbursement level to  $R''$
- ▶ Loss in public sector.
- ▶ If loss in public sector is greater than profit in private sector, this hospital will close.
- ▶ Demand will go up for next nearest hospital.
- ▶ Profit from private sector will go up for that hospital.
- ▶ Price also goes up. → Not cost shifting, but rise in price.

# Excess Demand in Nursing Homes

It is argued that the reason for poor quality in nursing homes is because of excess demand – more people need care than providers available.

Excess demand is easy to fix for 2 reasons:

1. If homes make a profit, new firms should want to enter the market, and drive down price. Why isn't this happening?

# Excess Demand in Nursing Homes

It is argued that the reason for poor quality in nursing homes is because of excess demand – more people need care than providers available.

Excess demand is easy to fix for 2 reasons:

1. If homes make a profit, new firms should want to enter the market, and drive down price. Why isn't this happening?
  - ▶ Certificate of need laws restrict new homes from opening; if excess demand, then medicaid costs are lower

# Excess Demand in Nursing Homes

2. Should shrink if reimbursement rate rises.
  - ▶ home will select private patients whose marginal revenue exceeds reimbursement rate (instead of MC)
  - ▶ then take all public patients until reach capacity (this is main difference from cost shifting graph)
  - ▶ at capacity, marginal cost goes to infinity
  - ▶ demand for public beds is fixed
  - ▶ when reimbursement rate goes up:
    - ▶ private patients fall (their demand goes down)
    - ▶ public beds goes up
    - ▶ ED goes down

# Assignment

- ▶ Read Ch. 13
- ▶ Homework 2 due in one week