

Chapter 2: The Role of Government in Health and Medical Care

MULTIPLE CHOICE

1. Which of the following statements is *true* about the medical care market?
 - a. Both patients and providers have perfect knowledge of prices in the market.
 - b. Both patients and providers have an incentive to minimize costs.
 - c. Medical resources are very mobile.
 - d. None of the above

ANS: D

The medical care market has anticompetitive components because patients and providers are not fully informed of the different types of treatments, providers, or prices available. Patients and providers are not cost-minimizers because the presence of health insurance insulates patients (and providers) from the full cost of treatment. Medical resources are also limited either through regulation or other forms of “barriers to entry.”

PTS: 1

2. A “natural monopoly” is the result of
 - a. Government regulation
 - b. Constant average cost
 - c. Increasing average cost
 - d. Decreasing average cost

ANS: D

When a firm has decreasing average cost, it can decrease its price by simply expanding production and keeping other firms out of the market.

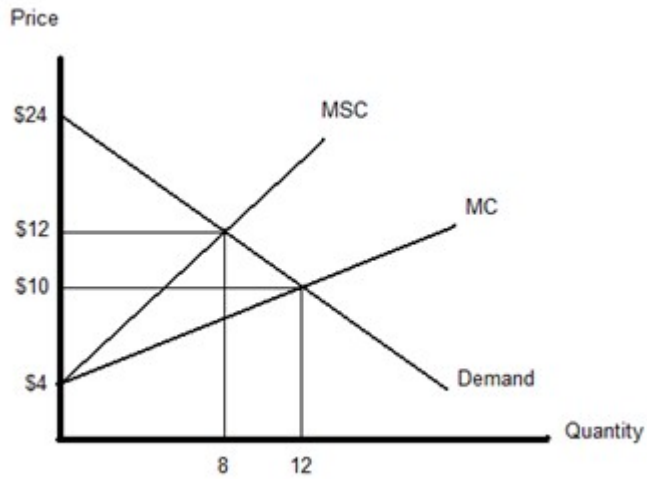
PTS: 1

3. Which of the following is an example of an externality in the cigarette market?
 - a. firsthand smoke
 - b. secondhand smoke
 - c. Increase in the price of tobacco
 - d. Increase in the price of a competitors' cigarettes

ANS: B

In the case of firsthand smoke, the original smoker is part of the market. When they make the conscious choice to smoke, they are internalizing both the private benefit and the private harm it imposes on them. On the other hand, secondhand smoke causes harm to individuals who are not part of the market for cigarettes. The other options cause changes within the market, but not externally.

PTS: 1



4.

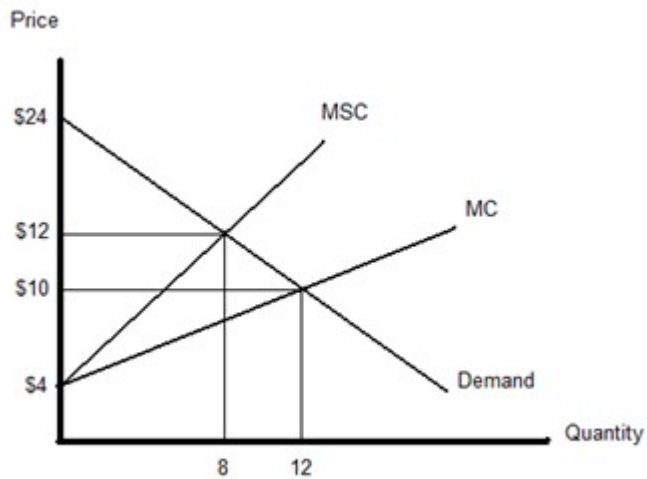
In the graph above, the socially optimal price is

- a. \$24
- b. \$12
- c. \$10
- d. \$4

ANS: B

The socially optimal equilibrium occurs where MSC is equal to demand. In this case, the two curves intersect at a price of \$12 and a quantity of 8.

PTS: 1



5.

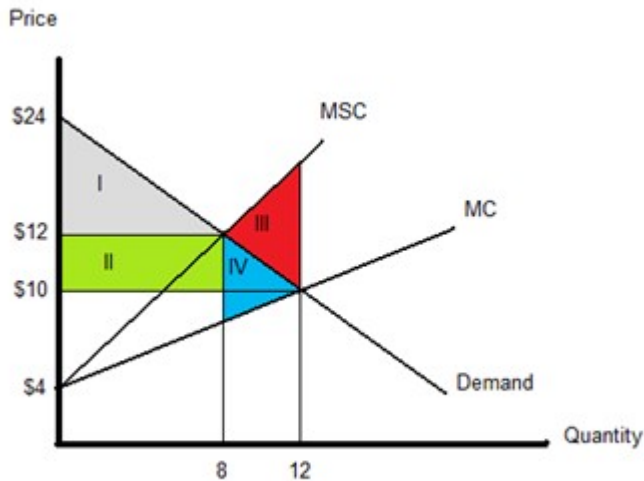
In the graph above, the private market price is

- a. \$24
- b. \$12
- c. \$10
- d. \$4

ANS: C

The socially optimal equilibrium occurs where MSC is equal to demand. In this case, the two curves intersect at a price of \$10 and a quantity of 12.

PTS: 1



6.

In the graph above, which area represents the size of the externality?

- | | |
|-------|--------|
| a. I | c. III |
| b. II | d. IV |

ANS: C

Since the private equilibrium occurs at \$10 and 12 units, the socially optimal equilibrium occurs when there is a deadweight loss associated with the externality that occurs between quantities 8 and 12. The size of the externality is determined by the difference in marginal benefits (represented by the demand) and the marginal social costs (MSC).

PTS: 1

7. Which of the following is *not* an “in kind” transfer?

- | | |
|----------------------------------|---------------------|
| a. \$10 itunes gift card | c. \$100 in cash |
| b. \$100 medical care tax credit | d. All of the above |

ANS: C

An “in kind” transfer limits the use of the funds to a specific activity. Only cash does not hold this property.

PTS: 1

8. Which of the following transfers is most efficient?

- | | |
|----------------------------------|-----------------------------------|
| a. \$10 itunes gift card | c. \$100 in cash |
| b. \$100 medical care tax credit | d. \$100 health insurance subsidy |

ANS: C

Cash is the most efficient form of transfer as it can be used for any of the patients' needs. The other options limit the agent on how they can spend the funds.

PTS: 1

9. Which of the following are reasons for the government to intervene in the medical market?
- a. Provide consumer protection
 - b. Internalize externalities
 - c. Correct market failure (i.e., barriers to entry)
 - d. All of the above

ANS: D

Although the government may be the source of some forms of market failure, their intention is to provide protection for consumers by requiring providers to be certified, internalizing externalities with the medical care market, and providing subsidies to correct for market failures they have caused.

PTS: 1

10. Externalities occurred due to
- a. A lack of property rights
 - b. A lack of government oversight
 - c. Poor choices made by firms
 - d. Poor choices made by consumers

ANS: A

Externalities occur due to a lack of property rights. As stated on page 11 of Chapters 17, when such external costs and benefits are not incorporated into the private decision-making process, the resultant output level is not optimal.

PTS: 1

11. The demand curve for flu shots is $P = 100 - 2Q$, and the supply curve for flu shots is $P = 19 + Q$ where Q is a million shots per year and P is the dollars per shot. Assume that the flu shots generate an additional benefit in that it reduces the likelihood of others getting sick. This benefit is valued at \$6 per shot per year. The private market equilibrium quantity of shots produced is _____, but the socially optimal amount of shots is _____.
- a. 27 million shots; 25 million shots.
 - b. 27 million shots; 24 million shots.
 - c. 27 million shots; 29 million shots.
 - d. 25 million shots; 29 million shots.

ANS: C

First, let's solve for the private equilibrium by setting the price equal to the demand and supply curve.
 $100 - 2Q = 19 + Q$
 $100 - 19 = 3Q$
 $81 = 3Q$ or $Q = 27$
Next, we want to solve for the socially optimal amount of shots. Since each shot provides an additional \$6 of benefit, we can take the private benefit + the marginal external benefit = $100 - 2Q + 6 = 106 - 2Q$. Again, we set the price equal and find:
 $106 - 2Q = 19 + Q$
 $106 - 19 = 3Q$
 $87 = 3Q$ or $Q = 29$.

PTS: 1

12. The private market cannot eliminate externalities when
- a. Marginal cost is high
 - b. Marginal cost is low
 - c. Transaction costs are high
 - d. Transaction costs are low

ANS: C

One method to internalize an externality is to simply charge (compensate) anyone who benefits (is harmed) by the externality. When these individuals are easy to monitor and are too easy to collect or distribute funds to, these individuals' transaction costs are low, and the externality can be internalized. On the other hand, when collection or monitoring is costly, then it is better for society to allow the externality to exist.

PTS: 1

13. Which of the following is not an example of a demand subsidy?
- a. Medicare
 - b. Medicaid
 - c. SCHIP
 - d. Veterans Administration medical system

ANS: D

The Veterans Administration (VA) medical system is an example of a direct supply subsidy where the federal government supplies funds to hospitals, nursing homes, and physicians for the sole purpose of serving military veterans.

PTS: 1

14. The arguments against price competition in the medical care market is
- a. Lack of responsiveness to patient demand
 - b. Lack of medical innovation
 - c. Lack of sufficient consumer protection
 - d. Lack of efficiency

ANS: C

As stated in the text, opponents of competition believe that when suppliers compete, patients are likely to be harmed; their preference is to substitute regulation and monopolization for competition.

PTS: 1

15. When MPC is less than MSC
- a. The firm will tend to produce more than is socially optimal.
 - b. The price for the product will tend to be higher than the competitive price.
 - c. The firm must be a monopolist.

- d. The firm will tend to produce less than is socially optimal.

ANS: A

Firms will produce until $MR = MPC$. If the marginal private cost is less than the marginal social cost, then the amount of production will be greater at the market outcome than at the social optimum.

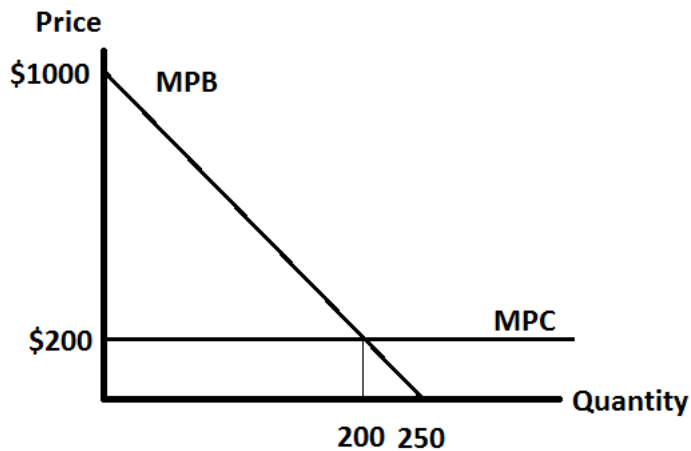
PTS: 1

SHORT ANSWER

Use the following information to answer the questions below. You are an advisor to a teaching hospital. The marginal private benefit to consumers of an inpatient day at this hospital is $MPB = 1000 - 4Q$ and the marginal private cost is equal to \$200.

1. Graph the Marginal Private Cost (MPC) and the Marginal Private Benefit.

ANS:



PTS: 1

2. Find the equilibrium price and quantity in the private market.

ANS:

We solve for the equilibrium price and quantity by finding where the MPC line intersects the MPB line.

$$MPB = MPC$$

$$1000 - 4Q = 200$$

$$800 = 4Q$$

$$Q = 200$$

$$P = MPB = 1000 - 4(200) = 1000 - 800 = 200$$

PTS: 1

3. Each inpatient day at the teaching hospital helps train medical residents to become better physicians. This has a social external benefit MEB to society of \$200 per inpatient day. Graph the MEB curve and find the socially optimal price and quantity.

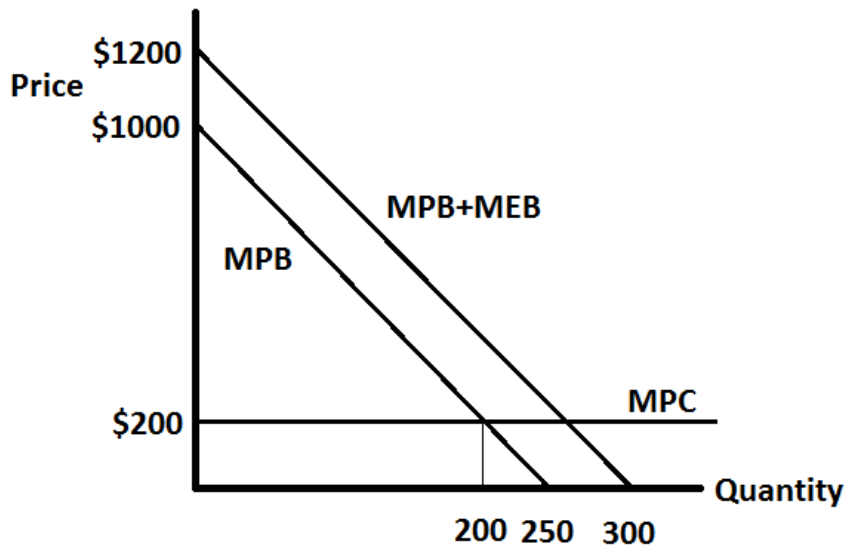
ANS:

In this case, the socially optimum quantity is found where the $MPC = MPB + MEB$.

$$200 = 1200 - 4Q$$

$$4Q = 1000$$

$$Q = 250$$



PTS: 1

4. An unpleasant byproduct of hospital production is medical waste. Medical waste has an external marginal cost (MEC) of \$100 per inpatient day. Graph the marginal social cost curve (MSC) and find the socially optimal price and quantity.

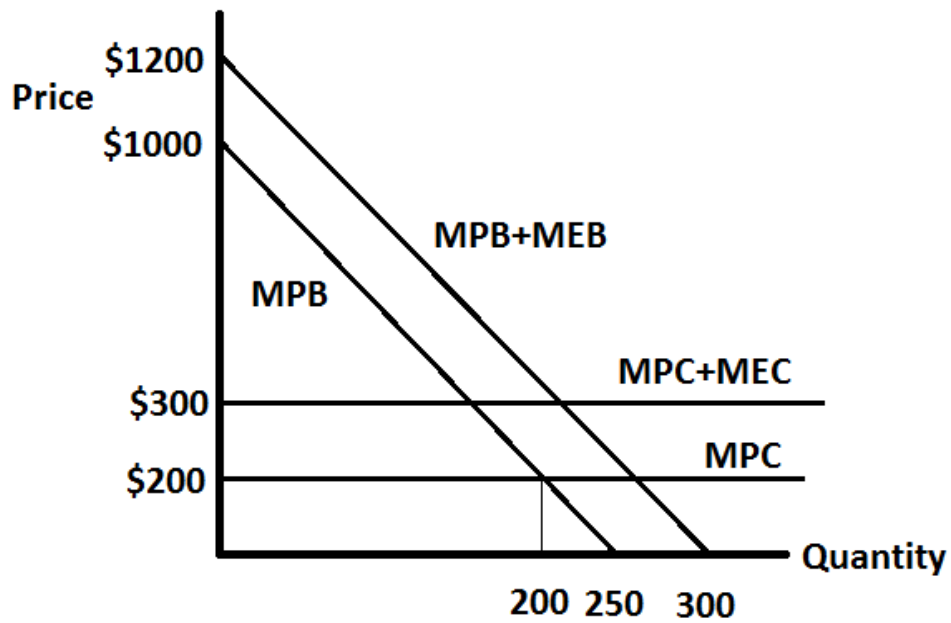
ANS:

$$MSC = MEC + MPC = MPB + MEB$$

$$300 = 1200 - 4Q$$

$$4Q = 900$$

$$Q = 225$$



PTS: 1

5. Given both the marginal external benefit and the marginal external cost, what is the net effect on society of producing at the private optimum?

ANS:

The private outcome is $Q = 200$. The social outcome is $Q = 225$. Society is under-producing the optimal number of inpatient days once we take into account all the social cost and benefits.

PTS: 1