7.1 The Improving Health of People in the United States (pages 206–209)

Discuss trends in U.S. health over time. Health care refers to goods and services, such as prescription drugs and consultations with a doctor, that are intended to maintain or improve health. Over time, the health of people in most countries has improved. In the United States, as a result of improving health, life expectancy has increased, death rates have decreased, infant mortality has decreased, and the average person has become taller.

7.2 Health Care around the World (pages 209–213)

Compare the health care systems and health care outcomes in the United States and other countries. Health insurance is a contract under which a buyer agrees to make payments, or premiums, in exchange for the provider’s agreeing to pay some or all of the buyer’s medical bills. A majority of people in the United States have private health insurance, which they typically obtain through their employer. Other people have health insurance through the government’s Medicare and Medicaid programs. In 2009, about 17 percent of people in the United States lacked health insurance. Many health insurance plans operate on a fee-for-service basis under which doctors and hospitals receive a payment for each service they provide. Most countries outside of the United States have greater government involvement in their health care systems. Canada has a single-payer health care system, in which the government provides national health insurance to all Canadian residents. In the United Kingdom, the government owns most hospitals and employs most doctors, and the health care system is referred to as socialized medicine. The United States spends more per person on health care than do other high-income countries. The United States has lower life expectancy, higher infant mortality, and a greater incidence of obesity than do other high-income countries. The United States has more medical technology per person and has lower mortality rates for people diagnosed with cancer than do other high-income countries. Various problems make it difficult to compare health care outcomes across countries.

7.3 Information Problems and Externalities in the Market for Health Care (pages 213–219)

Discuss how information problems and externalities affect the market for health care. The market for health care is affected by the problem of asymmetric information, which occurs when one party to an economic transaction has less information than the other party. Adverse selection, the situation in which one party to a transaction takes advantage of knowing more than the other party to the transaction, is a problem for firms selling health insurance policies because it results in less healthy people being more likely to buy insurance than are healthier people. Moral hazard, actions people take after they have entered into a transaction that make the other party to the transaction worse off, is also a problem for insurance companies because once people have health insurance, they are likely to make more visits to their doctors and in other ways increase their use of medical services. Moral hazard can also involve a principal–agent problem in which doctors may order more lab tests, MRI scans, and other procedures than they would if their patients lacked health insurance. Insurance companies use deductibles, copayments, and restrictions on coverage of patients with preexisting conditions to reduce the problems of adverse selection and moral hazard. There may be externalities involved with medicine and health care because, for example, people who are vaccinated against influenza or other diseases may not receive all of the benefits from having been vaccinated and people who become obese may not bear all of the costs from their obesity.
7.4 The Debate over Health Care Policy in the United States (pages 220–228)

Explain the major issues involved in the debate over health care policy in the United States. In March 2010, Congress passed the Patient Protection and Affordable Care Act (PPACA), which significantly reorganized the U.S. health care system. Spending on health care in the United States has been growing rapidly as a percentage of GDP, and spending per person on health care has been growing more rapidly than in other high-income countries. Third-party payers, such as employer-provided health insurance and the Medicare and Medicaid programs, have financed an increasing fraction of health care spending, while out-of-pocket payments have sharply declined as a fraction of total health care spending. Several explanations have been offered for the rapid increase in health care spending in the United States: Slow rates of growth of labor productivity in health care may be driving up costs, the U.S. population is becoming older, medical technology and new prescription drugs have higher costs, and the tax system and the reliance on third-party payers have distorted the economic incentives of consumers and suppliers of health care. The PPACA has several important provisions: (1) an individual mandate that requires every resident of the United States to obtain health insurance or be fined; (2) the establishment of health exchanges that will be run by the state governments and provide a means for individuals and small businesses to purchase health insurance; (3) an employer mandate that requires every firm with more than 200 employees to offer health insurance to them; (4) increased regulation of health insurance companies; (5) expansion of eligibility for Medicare and the establishment of the Independent Payment Advisory Board, which has the power to reduce Medicare payments for prescription drugs and for the use of diagnostic equipment and other technology if Medicare spending exceeds certain levels; and (6) increased taxes on workers with incomes above $200,000. Some critics of the PPACA argue that it does not go far enough in increasing government involvement in the health care system, while other critics argue that health care reform should rely more heavily on market-based reforms, which involve changing the market for health care so that it becomes more like the markets for other goods and services.

Chapter Review

Chapter Opener: Small Businesses Feel the Pinch of Escalating Health Care Costs (page 205)

Like many small business owners, Elizabeth Crowell and her husband, Robert Wilson, were facing a rising cost of health insurance by more than 20 percent a year. In the United States, health care spending increased from 5.2 percent of GDP in 1960 to 17.3 percent in 2011. In 2010, President Obama and Congress enacted the Patient Protection and Affordable Care Act that made major changes to the U.S. health care system, including a provision for each state to set up health insurance exchanges that aim at making health insurance for small businesses and individuals less expensive.

7.1 The Improving Health of People in the United States (pages 206–209)

Learning Objective: Discuss trends in the U.S. health over time.

Health care refers to goods and services, such as prescription drugs and consultations with a doctor, that are intended to maintain or improve health. Health care is provided through markets, just as other goods and services such as hamburgers and haircuts. In the United States, the doctors and hospitals that supply most health care are primarily private firms. The government provides some health care services directly through the Veterans Health Administration, and indirectly through the Medicare and Medicaid programs.

Over time, the health of people in most countries has improved. In the United States, as a result of improving health, life expectancy has increased, death rates have decreased, infant mortality has
decreased, and the average person has become taller. Health improvement is seen in the decline of deaths from cancers and cardiovascular disease, such as heart attacks, strokes, and liver diseases. During the late nineteenth and early twentieth centuries, improvements in sanitation and in the distribution of food lead to better health, which in turn made it possible for people to work harder. In effect, the long-run improvement in health shifts out a country’s production possibilities frontier. Higher incomes also allow the country to devote more resources to medical research.

Study Hint
Because health care is provided through markets, we can understand health care related issues by applying the tools of economic analysis we learned in previous chapters, particular the supply and demand model in Chapter 3. For instance, long-term trends of rising health care spending and health improvement in the United States can be a result of increases in income over time. Health care is a normal good. As we learned in Chapter 3, demand for normal goods increases as household income increases. In addition to the quantity of health care goods and services, higher income makes it possible for people to afford better quality and thus more expensive health care.

Extra Solved Problem 7.1
Obesity of Immigrants to the United States
Supports Learning Objective 7.1: Discuss trends in U.S. health over time.

Italian migration to the United States occurred in two large waves. The first wave occurred between 1880 and 1920, when Italy experienced increased poverty and major socio-economic and political changes. The second wave occurred between 1946 and 1970, when Italy experienced high unemployment after World War II. The immigrants from Italy were mostly young males between the ages of 20 and 39. They were largely motivated by a desire to improve their living conditions. Economists Maria Danubio, Elisa Amicone, and Rita Vargiu examined how both height and weight changed among those Italian immigrants to the United States. Height and weight are indicators of individual living standards and economic development in society. The economists found no major change in the average height of Italian immigrants by the end of the 1990s, but they found that the Body Mass Index (BMI) of those immigrants were within the range of overweight. Obesity was more prevalent among Italian immigrants than among native-born Americans or people in several European countries.

a. What do the results of the study about Italian immigrants’ health data indicate about changes in the living conditions of those immigrants?

b. Given the observations on changes in the physical conditions of Italian immigrants, what would you expect about the physical conditions of the children of immigrants as compared to their parents?

Solving the Problem
Step 1: Review the chapter material.
This problem is about trends in U.S. health over time, so you may want to review the section “The Improving Health of People in the United States,” which begins on page 206 in the textbook.

Step 2: Answer question (a) by explaining the relationship between the Italian immigrants’ health data and changes in their living conditions.
The study shows that the average BMI of Italian immigrants was higher than the native-born Americans or people in several European countries. The finding of a higher obesity rate among
Italian immigrants may reflect a change in the lifestyle and an improvement in the biological standard of living for those immigrants in the United States.

**Step 3:** Answer question (b) by discussing how the physical conditions of the children of Italy immigrants would change.

The quality of life for immigrants’ children will likely be higher than that for their parents. Better nutrition, health care and living conditions will likely result in an increase in height and an improvement in other health indicators for second-generation Americans.


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### 7.2 Health Care around the World (pages 209–213)

**Learning Objective:** Compare the health care systems and health care outcomes in the United States and other countries.

One important difference among health care systems in different countries is how people pay for the health care they receive. Most people in the United States have health insurance that helps them to pay for their medical bills. Health insurance is a contract under which a buyer agrees to make payments, or premiums, in exchange for the provider agreeing to pay some or all of the buyer’s medical bills. A majority of people in the United States have private health insurance, which they typically obtain through their employer. Other people have health insurance through the government’s Medicare and Medicaid programs. In 2009, about 17 percent of people in the United States lacked health insurance. Many health insurance plans operate on a fee-for-service basis under which doctors and hospitals receive a payment for each service they provide.

Most countries outside of the United States have greater government involvement in their health care systems. Canada has a single-payer health care system, in which the government provides national health insurance to all Canadian residents. Japan has a system of universal health insurance under which every resident is required to either enroll in one of the many nonprofit health insurance societies that are organized by industry or profession, or enroll in the government’s health insurance program. In the United Kingdom, the government owns most hospitals and employs most doctors, and the health care system is referred to as socialized medicine.

The United States spends more per person on health care than do other high-income countries. The United States has lower life expectancy, higher infant mortality, and a greater incidence of obesity than do other high-income countries. The United States has more medical technology per person and has lower mortality rates for people diagnosed with cancer than do other high-income countries. Various problems make it difficult to compare health care outcomes across countries. Those problems include data consistency, problems with measuring health care delivery, problems with distinguishing health care effectiveness from lifestyle choices, and problems with determining consumer preferences.

**Study Hint**

The United States appears to be facing a health care crisis, prompting some commentators and policymakers to propose the adoption of a health care system like that in Canada. It is important to understand that every health care system in the world has its strengths and weaknesses. For example, under the national health insurance system of Canada, individuals pay nothing for doctor’s visits or hospital stays, but they have pay for medical care indirectly through taxes. Unlike the United States, doctors and hospitals in Canada are required to accept the fees that are set by the government. Rather than allowing the fees to reflect the balance between supply and demand, this restriction reduces the incentive to provide the sufficient amount of health care, leading to long waiting lists.
Extra Solved Problem 7.2
Physicians for a Single-Payer Health Care System

Supports Learning Objective 7.2: Compare the health care systems and health care outcomes in the United States and other countries.

The Physicians for a National Health Program (PNHP) is an organization of over 18,000 physicians and health professionals who support single-payer national health insurance. This organization argues that private health insurance companies are responsible for rising health care costs. It also claims that health insurance companies’ administration and paperwork have little to do with health care, but together they account for 31 percent of health care costs. The organization argues that a single-payer financing system would reduce this waste. By eliminating private health insurance companies, a single payer like the U.S. government would save more than $400 billion a year. Under this system, delivery of health would remain largely private as before and physicians would still be paid on a negotiable fee-for-service basis.

a. To what extent is the single-payer national health insurance program that the PHNP proposes similar to the national health care system in Canada? To what extent are they different?

b. Why would you suppose that physicians have little incentive to propose a single-payer system organized by the government?

Solving the Problem

Step 1: Review the chapter material.
This problem is about comparing the health care systems in the United States and other countries, so you may want to review the section “Health Care around the World,” which begins on page 209 in the textbook.

Step 2: Answer question (a) by explaining the major similarity and difference between the proposed single-payer national health insurance program and the Canadian health care system.

The single-payer national health insurance program that PNHP calls for is similar to the Canadian health care system in that health care will be financed through the government’s health insurance program. The physicians and hospitals will still be private businesses. However, the fees for physicians’ services are negotiable in the proposed single-payer health care program, whereas physicians in Canada are required to accept the fees that are set by the government.

Step 3: Answer question (b) by explaining why physicians have little incentive to propose a single-payer system organized by the government.

The organization emphasizes the drawback of dealing with multiple private health insurance companies. However, a single national health insurance agency that replaces the existing private health insurance companies is likely to have more power in reducing payments to physicians for their services, even though excessive paperwork and other overhead costs will likely reduce. In Canada, physicians and hospitals are required to accept the fees set by the government.

Source: http://www.pnhp.org
The market for health care is affected by the problem of asymmetric information, which occurs when one party to an economic transaction has less information than the other party.

Adverse selection is the situation in which one party to a transaction takes advantage of knowing more than the other party to the transaction. In the market for health insurance, policyholders always know more about the state of their health than do the insurance companies. This situation creates a problem for firms selling health insurance policies because it results in less healthy people being more likely to buy insurance than are healthier people. One controversial way to deal with this problem is impose the individual mandate, which became law in the United States through the passage through the Patient Protection and Affordable Care Act in 2010.

Moral hazard refers to actions people take after they have entered into a transaction that makes the other party to the transaction worse off. Moral hazard is also a problem for insurance companies because once people have health insurance, they are likely to make more visits to their doctors and in other ways increase their use of medical services. The third-party payer system, in which the insurance company is the third party to the purchase of medical services, also leads consumers to buy more health care than they otherwise would. Moral hazard can also involve a principal-agent problem in which doctors may order more lab tests, MRI scans, and other procedures than they would if their patients lacked health insurance. Insurance companies use deductibles, copayments, and restrictions on coverage of patients with preexisting conditions to reduce the problems of adverse selection and moral hazard.

There may be externalities involved with medicine and health care because, for example, people who are vaccinated against influenza or other diseases may not receive all of the benefits from having been vaccinated and people who become obese may not bear all of the costs from their obesity.

Study Hint

The problems of asymmetric information apply to many industries other than insurance, including banking and other financial services. Read Solved Problem 7.3 in the textbook to strengthen your understanding of the adverse selection problem. This Solved Problem explains how the adverse selection problem is easily extended to a firm outside health insurance and how the firm can deal with this problem. Read the Don’t Let This Happen to You feature in this section of the textbook to understand the difference between adverse selection and moral hazard.

Making the Connection “Should the Government Run the Health Care System?” provides a thorough discussion on the role of the federal government in health care. Government intervention is justified in the case of a public good, which is both nonrival and nonexcludable. A good is nonrival if one person’s consumption does not interfere with another person’s consuming it. A good is nonexcludable if one can consume it without paying for it. Because health care is neither nonrival nor nonexcludable, it does not qualify as a public good under the usual definition. However, the asymmetric information problems and externalities of health care do provide justifications for government intervention.
Spending on health care in the United States has been growing rapidly as a percentage of GDP, and spending per person on health care has been growing more rapidly than in other high-income countries. Third-party payers, such as employer-provided health insurance and the Medicare and Medicaid programs, have financed an increasing fraction of health care spending, while out-of-pocket payments have sharply declined as a fraction of total health care spending. Several explanations have been offered for the rapid increase in health care spending in the United States: Slow rates of growth of labor productivity in health care may be driving up costs, the U.S. population is becoming older, medical technology and new prescription drugs have higher costs, and the tax system and the reliance on third-party payers have distorted the economic incentives of consumers and suppliers of health care.

In March 2010, Congress passed the Patient Protection and Affordable Care Act (PPACA), which significantly reorganized the U.S. health care system. The PPACA has several important provisions: (1) an individual mandate that requires every resident of the United States to obtain health insurance or be fined; (2) the establishment of health exchanges that will be run by the state governments and provide a means for individuals and small businesses to purchase health insurance; (3) an employer mandate that requires every firm with more than 200 employees to offer health insurance to them; (4) increased regulation of health insurance companies; (5) expansion of eligibility for Medicare and the establishment of the Independent Payment Advisory Board, which has the power to reduce Medicare payments for prescription drugs and for the use of diagnostic equipment and other technology if Medicare spending exceeds certain levels; and (6) increased taxes on workers with incomes above $200,000. Some critics of the PPACA argue that it does not go far enough in increasing government involvement in the health care system, while other critics argue that health care reform should rely more heavily on market-based reforms, which involve changing the market for health care so that it becomes more like the markets for other goods and services.

Study Hint
It is important to understand that whether spending on health care has risen faster in the United States than in other countries is an outcome of changing consumers’ preferences for health care (changes in market demand) or an outcome of the rising cost of providing health care services (changes in market supply). Figure 7.6 shows that out-of-pocket spending on health care as a percentage of all spending on health care has steadily declined from 45 percent in 1965 to only 11 percent today. This observation means that consumers of health care have been directly paying for a smaller portion of the true cost of health care services, while the remainder has been picked up by third-party payers, such as health insurance providers and the government-provided Medicare or Medicaid program. As a result of the third-party payment system, consumers demand a larger quantity of health care services than they would if they had to pay the full price. Doctors and other health care providers also have a reduced incentive to control costs because insurance companies will pick up most of the bill.
Extra Solved Problem 7.4

Health Savings Accounts

Supports Learning Objective 7.4: Explain the major issues involved in the debate over health care policy in the United States.

In 2003, Congress authorized health savings accounts that allow individuals to put aside funds that can be used for medical care. Individuals with a relatively high health insurance deductible of $1,000 or more can open a deposit account at a financial institution that issues those accounts and use the deposited funds to cover any out-of-pocket health care bills. Individuals 55 years old or younger can make annual deposits up to $2,600, and families can deposit up to $5,150 a year. The funds are tax exempt. If they become unemployed, they can draw on the accounts to pay for health insurance premiums. There is a 10 percent penalty for withdrawals used for nonmedical purposes before retirement. Any unused amount of the deposit becomes a type of retirement account.

a. The health savings accounts were created to reduce the moral hazard problem of health care. How?

b. What would be the drawbacks for this health savings account program?

Solving the Problem

Step 1: Review the chapter material.

This problem is about U.S. health care policy, so you may want to review the section “The Debate over Health Care Policy in the United States,” which begins on page 220 in the textbook.

Step 2: Answer question (a) by explaining how the health savings account can reduce the moral hazard problem of health care.

The health savings accounts do not affect the existing relationship between physicians and patients and health insurance companies and the government is not involved in paying medical expenses. Because patients can keep any funds saved in their accounts, they will have no incentive to allow physicians to order expensive tests or drugs.

Step 3: Answer question (b) by explaining the drawbacks for this health savings account program.

Because participants can keep whatever they do not spend from their health savings accounts, they may forgo necessary doctor visits and develop more serious medical problem later. Some critics also argue that this program will sabotage managed care programs, in which deductibles are low or eliminated but physician choice is limited. On the contrary, the health savings accounts allow for high deductibles but unrestricted physician choice.

Key Terms

Adverse selection The situation in which one party to a transaction takes advantage of knowing more than the other party to the transaction.

Asymmetric information A situation in which one party to an economic transaction has less information than the other party.

Fee-for-service A system under which doctors and hospitals receive a separate payment for each service they provide.

Health care The goods and services, such as prescription drugs and consultations with a doctor, that are intended to maintain or improve a person’s health.
Health insurance A contract under which a buyer agrees to make payments, or premiums, in exchange for the provider’s agreeing to pay some or all of the buyer’s medical bills.

Market-based reforms Changes in the market for health care that would make it more like the markets for other goods and services.

Moral hazard The actions people take after they have entered into a transaction that make the other party to the transaction worse off.

Patient Protection and Affordable Care Act (PPACA) Health care reform legislation passed by Congress and signed by President Barack Obama in 2010.

Principal–agent problem A problem caused by agents pursuing their own interests rather than the interests of the principals who hired them.

Single-payer health care system A system, such as the one in Canada, in which the government provides health insurance to all of the country’s residents.

Socialized medicine A health care system under which the government owns most of the hospitals and employs most of the doctors.

Self-Test

(Answers are provided at the end of the Self-Test.)

Multiple-Choice Questions

1. Which of the following statements is true about the health of people in the United States during the past 150 years?
   a. Life expectancy has more than doubled.
   b. Infant mortality has decreased.
   c. The average person has become taller.
   d. All of the above are true.

2. Which of the following is true about the mortality rate, or the death rate, of the United States over the period between 1981 and 2009?
   a. The overall mortality rate increased.
   b. The mortality rate for people suffering from cancer increased.
   c. The mortality rate for people suffering from diabetes increased.
   d. The mortality rate for people suffering from heart attacks and strokes increased.

3. Which of the following is one of the major reasons for the improvement in U.S. health in the last two centuries?
   a. improvements in the distribution of food
   b. better sanitation
   c. advances in medical equipment and prescription drugs
   d. all of the above
4. What is the term for the payment that a buyer agrees to make in a health insurance contract in exchange for the provider agreeing to pay some or all of the buyer’s medical bills?
   a. commission
   b. premium
   c. down payment
   d. load

5. Which of the following is the largest source of finance for health insurance in the United States?
   a. employer-provided insurance plans
   b. Medicare
   c. Medicaid
   d. individual insurance plans

6. When a health insurance plan reimburses doctors and hospitals on a fee-for-service basis, how do health care providers receive their payments?
   a. They receive a flat fee per patient they serve.
   b. They receive a payment for each good or service they provide.
   c. They receive payments for only services but not goods that they provide.
   d. They receive payments only when the patients do not pay them directly.

7. Which of the following countries operates under a single-payer health insurance system?
   a. United States
   b. Japan
   c. Canada
   d. United Kingdom

8. Which of the following best describes the system of socialized medicine?
   a. A health care system under which the prices of medical services are determined by free markets.
   b. A health care system under which hospitals and physicians operate as private businesses.
   c. A health care system under which the government owns most of the hospitals and employs most of the physicians.
   d. A health care system under which unions provide all medical services to union members and nonmembers.

9. Which is the country in which the government delivers most health care services to its residents through a single agency?
   a. Japan
   b. United Kingdom
   c. United States
   d. Canada

10. According to the textbook, the data on the relationship between health care spending per person and income per person shows that health care is a
    a. normal good.
    b. inferior good.
    c. substitute to wealth.
    d. complement to education.
11. Fill in the blanks. According to Table 7.2 of the textbook, the death rate among people diagnosed with cancer is ________ for the United States than for the OECD average, and the number of MRI units and CT scanners per person is ________ for the United States than for the OECD average.
   a. lower; lower  
   b. higher; higher  
   c. higher; lower  
   d. lower; higher

12. Which of the following countries has the highest male life expectancy at age 65?
   a. Japan  
   b. United States  
   c. Canada  
   d. United Kingdom

13. Which of the following is one of the difficulties in making cross-country comparisons in health care outcomes?
   a. Countries do not always collect health care related data in the same way.  
   b. Countries do not deliver health care services in the same way.  
   c. Countries may have different lifestyle choices that affect health care outcomes beyond the effectiveness of the countries’ health care system.  
   d. All of the above

14. In the market for health care, the price that consumers with health care insurance is
   a. the same as the cost of providing the health care service.  
   b. higher than the full cost of providing the health care service.  
   c. lower than the full cost of providing the health care service.  
   d. none because health care insurance companies cover all health care expenses.

15. What will happen to the quantity of health care services demanded if the co-payment for the patients of health insurance increases?
   a. The quantity demanded will increase.  
   b. The quantity demanded will decrease.  
   c. The quantity demanded will not change.  
   d. None of the above: The quantity demanded will increase or decrease, depending on consumer preferences.

16. Which country currently has the highest health care spending per person?
   a. United States  
   b. Austria  
   c. Norway  
   d. Canada

17. Which of the following refers to the situation in which one party to an economic transaction has more information than the other party?
   a. symmetric information  
   b. asymmetric information  
   c. positive selection  
   d. adverse selection
18. Which of the following refers to the situation in which one party to an economic transaction takes advantage of knowing more than the other party to the transaction?
   a. immoral hazard
   b. moral hazard
   c. positive selection
   d. adverse selection

19. Which of the following refers to the actions people take after they have entered into a transaction that make the other party to the transaction worse off?
   a. immoral hazard
   b. moral hazard
   c. positive selection
   d. adverse selection

20. Which of the following refers to the problem in which one person with no deductible on her health insurance policy tends to engage in a less healthy lifestyle than another person with a high insurance deductible?
   a. immoral hazard
   b. adverse selection
   c. moral hazard
   d. biased selection

21. In the market for used cars, which of the following is true of information about the true condition of a car?
   a. The potential buyer and seller have the same information about the true condition of the car.
   b. The potential buyer knows more about the true condition of the car than does the seller.
   c. The seller knows more about the true condition of the car than does the potential buyer.
   d. Neither the potential buyer nor the seller knows the true condition of the car.

22. Which of the following is referred to as a “third party” in the health care market?
   a. health insurance company
   b. physician
   c. hospital
   d. patient

23. Which of the following is an outcome of the moral hazard problem in the market for health insurance?
   a. Consumers of health care have to worry about the expense of all medical services.
   b. Consumers of health care will buy more health care services than they otherwise would without health insurance.
   c. Physicians and hospitals have an incentive to keep the costs of health care down.
   d. Only sick people, but not healthy people, will buy health care services.

24. Which of the following refers to the “individual mandate” in the Patient Protection and Affordable Care Act (PPACA) passed in 2010?
   a. All hospitals must admit every patient, including illegal immigrants.
   b. All physicians must treat any patient without charging a fee.
   c. All U.S. residents are required to carry insurance or pay a fine.
   d. All of the above are true.
25. Which of the following is an example of the third-party financing of health care services?
   a. a patient paying for her visit to the doctor’s office
   b. a patient looking for a second or third opinion from another doctor
   c. a patient not going to see a doctor in order to save money
   d. a patient paying her medical bill through Medicare

26. Fill in the blanks. In the health care market, _________ are principals and _________ are agents.
   a. doctors; patients
   b. patients; doctors
   c. doctors; health insurance companies
   d. health insurance companies; doctors

27. Which of the following refers to the principal-agent problem in the market for health care?
   a. doctors pursuing the interests of health insurance providers rather than the interests of the patients
   b. doctors pursuing their own interests rather than the interests of the patients
   c. a conflict of interests between doctors and health insurance companies
   d. doctors pursuing only the interests of the patients rather than the interest of society

28. How does the fee-for-service aspect of third-party payer health insurance affect the extent of the principal-agent problem in the health care market?
   a. an increase in the number of medical procedures performed by doctors
   b. an improvement in the effectiveness of diagnosing illness and treatments
   c. an increase in the number of malpractice lawsuits
   d. all of the above

29. Which of the following is an example of how health insurance companies deal with the problem of adverse selection?
   a. requiring a deductible
   b. eliminating coinsurance
   c. limiting insurance coverage on pre-existing conditions
   d. reducing reimbursements to doctors and hospitals

30. What is the main reason for health insurance companies to require deductibles and coinsurance?
   a. to subsidize doctors and hospitals
   b. to deal with the moral hazard problem
   c. to deal with the adverse selection problem
   d. to deal with the two-party payment problem

31. Which of the following refers to the effect of a vaccination that a person takes against a disease on reducing the chances that other people will contract that disease?
   a. negative internality
   b. positive internality
   c. negative externality
   d. positive externality

32. When no more than one person can be simultaneously treated in the same surgical operation, the consumption of surgical operation is
   a. rivalrous.
   b. nonrivalrous.
   c. symmetric.
   d. asymmetric.
33. Which of the following statements is consistent with the belief of economists who propose market-based solutions to the health care system?
   a. Government bureaucracy is the main cause for the rising cost of health care.
   b. The price that consumers pay for health care is far below the true cost of providing the service.
   c. Moral hazard does not exist in the health care market.
   d. Adverse selection does not exist in the health care market.

34. Which of the following is true of the health care spending in the United States?
   a. Spending on health care as a percentage of GDP reduced by half between 1965 and 2011.
   b. Spending on health care as a percentage of GDP more than doubled between 1965 and 2011.
   c. Spending on health care as a percentage of GDP was roughly constant between 1965 and 2011.
   d. None of the above is true.

35. Which of the following is one of the major reasons for rapid increases in health care spending in the United States?
   a. high rates of labor productivity growth in health care
   b. an increase in the number of malpractices among doctors
   c. reductions in Medicare, Medicaid and other government programs that help defray health care costs
   d. advances in medical technology and new prescription drugs that have higher costs.

36. According to William Baumol, what is the main reason for the rising cost of health care?
   a. the aging population
   b. moral hazard in health care
   c. slow growth in labor productivity in the health care sector
   d. the third-party health insurance payment system

37. Which of the following is the health care reform legislation passed by Congressed and signed by President Obama in March 2010?
   a. The Social Security Act
   b. The Health Savings Accounts Act
   c. The Patient Protection and Affordable Care Act
   d. The National Health Insurance Act

38. Which of the following will become effective in 2014?
   a. Medicare and Medicaid will be eliminated.
   b. The health insurance industry will be deregulated.
   c. Every firm with more than 200 employees is required to offer health insurance to its employees.
   d. No U.S. resident will need health insurance.

39. The U.S. health care reforms beginning in 2009 would help lead to
   a. greater government involvement in the health care system.
   b. market-based solutions to the rising health care spending.
   c. increased economic efficiency in delivering health care services.
   d. a socialized medicine system like that in the United Kingdom.
40. Why would supporters of market-based reforms to health care propose to make the tax treatment of employer-provided health insurance the same as the tax treatment of individually purchased health insurance?
   a. This would result in a reduction in health insurance premiums.
   b. This would result in a reduction in employers’ spending on health insurance policies for employees.
   c. This would result in an increase in employees’ out-of-pocket spending on health care.
   d. All of the above are true.

Short Answer Questions

1. According to the textbook, people in high-income countries tend to have a higher standard of living than people in low-income countries and so they are healthier because they are more able to pay for health care. Nobel Laureate Robert Fogel, however, argued instead that the relationship between health and income is a vicious cycle, meaning that they affect each other. What is his rationale?

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2. Why is it difficult to determine whether differences in health care spending across countries are the outcomes of different consumer preferences?

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3. Based on the convention wisdom, buyers in a used car market will most likely end up with a “lemon.” What is the reason behind this problem?

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___________________________________________________________________________
___________________________________________________________________________
4. “It is difficult to determine the effects of health care over time by looking at data on health care spending and costs.” Do you agree or disagree? Briefly explain.

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___________________________________________________________________________
___________________________________________________________________________
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5. The insurance industry as a whole has managed to deal with asymmetric information problems using such solutions as deductibles and coinsurance. How different is health insurance from other types of insurance, leading to rising health care costs over time?

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True/False Questions

T F 1. The decline in the average height of adult males in the United States from 1830 to 1890 was a result of falling income.

T F 2. The overall mortality rate of the United States decreased by more than 25 percent between 1981 and 2009.

T F 3. In the United States, most physicians and hospitals operate as private businesses.

T F 4. In 2010, about 99 percent of firms employing more than 200 workers offered health insurance to their employees as a fringe benefit.

T F 5. Health maintenance organizations (HMOs) typically reimburse health care providers on a fee-for-service basis.

T F 6. In 2009, more than 15 percent of U.S. population does not have health insurance coverage.

T F 7. The largest government-run health care provider in the world is the National Health Service.

T F 8. The U.S. population has higher rates of obesity and diabetes hospital admissions than the OECD averages.

T F 9. In the market for health insurance, adverse selection occurs when healthy people are more likely to purchase healthy insurance than are sick people.

T F 10. Adverse selection refers to the potential problem that occurs before the buyer and seller in a market enter into a transaction, whereas moral hazard refers to the potential problem that occurs after the buyer and seller enter into the transaction.

T F 11. As a result of a negative externality in consumption, the market produces less than the efficient quantity.

T F 12. Health care is a public good because it is both nonrival and nonexcludable.
CHAPTER 7 | The Economics of Health Care

T F 13. Consumers in the United States have chosen to purchase less health care since 1965 because their total out-of-pocket spending has decreased.


T F 15. According to the U.S. government, increases in the cost of providing health care will have a larger effect on future government spending on the Medicare and Medicaid programs than will the effect of the aging population.

Answers to the Self-Test

Multiple-Choice Questions

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>d</td>
<td>Health in the United States has generally improved with higher life expectancy, lower death rates, lower infant mortality and a higher average height for adult males.</td>
</tr>
<tr>
<td>2.</td>
<td>c</td>
<td>The overall mortality rate decreased over the period. The increased mortality rate for people suffering diabetes was largely due to the effects of increasing obesity. See page 208 in the textbook.</td>
</tr>
<tr>
<td>3.</td>
<td>d</td>
<td>Improvements in sanitation and in the distribution of food led to better health during the late nineteenth and early twentieth centuries, and advances in medical equipment and new prescription drug resulted in the overall decline in death rates since the 1980s. See page 208 in the textbook.</td>
</tr>
<tr>
<td>4.</td>
<td>b</td>
<td>A health insurance premium is a payment a buyer makes in a health insurance policy contract.</td>
</tr>
<tr>
<td>5.</td>
<td>a</td>
<td>As shown in textbook Figure 7.3, about half of people in the United States pay for health care through employer-provided insurance plans.</td>
</tr>
<tr>
<td>6.</td>
<td>b</td>
<td>A fee-for-service system is one under which consumers of health care pay separately for each good or service they receive from physicians and hospitals.</td>
</tr>
<tr>
<td>7.</td>
<td>c</td>
<td>In Canada, the government provides health insurance to all of the country’s residents.</td>
</tr>
<tr>
<td>8.</td>
<td>c</td>
<td>See page 211 in the textbook for the definition of socialized medicine.</td>
</tr>
<tr>
<td>9.</td>
<td>b</td>
<td>In the United Kingdom, the government delivers most health care services to its residents through.</td>
</tr>
<tr>
<td>10.</td>
<td>a</td>
<td>For a normal good, health care spending per person increases as income per person increases, as indicated by textbook Figure 7.4.</td>
</tr>
<tr>
<td>11.</td>
<td>d</td>
<td>The death ratio for cancer is 39.5 percent for the United States, as compared to the OECD average of 48.1 percent. The United States has 60.2 MRI units and CT scanners per 1,000,000 population, as compared to the OECD average of 27.2 units.</td>
</tr>
<tr>
<td>12.</td>
<td>a</td>
<td>Japan has the highest life expectancy of 18.2 years for males at age 65.</td>
</tr>
<tr>
<td>13.</td>
<td>d</td>
<td>The difficulties in making cross-country comparisons in health care outcomes include data problems, problems with measuring health care delivery, problems with distinguishing health care effectiveness from lifestyle choices, and problems with determining consumer preferences.</td>
</tr>
<tr>
<td>Question</td>
<td>Answer</td>
<td>Comment</td>
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</tr>
<tr>
<td>14.</td>
<td>c</td>
<td>The price that consumers with health care insurance pay for health care is the co-payment, which is less than the full cost of providing the health care service.</td>
</tr>
<tr>
<td>15.</td>
<td>b</td>
<td>The co-payment for the patients of health insurance is the price for patients receiving health care services, so that a higher co-payment reduces the quantity of health care services demanded.</td>
</tr>
<tr>
<td>16.</td>
<td>a</td>
<td>According to Figure 7.4, the United States has the highest health care spending per person.</td>
</tr>
<tr>
<td>17.</td>
<td>b</td>
<td>See page 213 in the textbook for the definition of asymmetric information.</td>
</tr>
<tr>
<td>18.</td>
<td>d</td>
<td>See page 214 in the textbook for the definition of adverse selection.</td>
</tr>
<tr>
<td>19.</td>
<td>b</td>
<td>See page 215 in the textbook for the definition of moral hazard.</td>
</tr>
<tr>
<td>20.</td>
<td>c</td>
<td>The problem of moral hazard occurs when a person engages in less healthy activities after purchasing a health insurance policy.</td>
</tr>
<tr>
<td>21.</td>
<td>c</td>
<td>In the market for used cars, the seller has more information about the true condition of a car.</td>
</tr>
<tr>
<td>22.</td>
<td>a</td>
<td>A health insurance company is a “third party” to the health care market because the insurance company, not the patient, pays for some or all of the health care service.</td>
</tr>
<tr>
<td>23.</td>
<td>b</td>
<td>With health insurance companies as the third-party payers, consumers of health care do not pay prices that reflect the full costs of providing the services, leading consumers to buy more health care than they otherwise would.</td>
</tr>
<tr>
<td>24.</td>
<td>c</td>
<td>The “individual mandate” in the Patient Protection and Affordable Care Act (PPACA) requires that all residents of the United States carry health insurance by 2014 or pay a fee.</td>
</tr>
<tr>
<td>25.</td>
<td>d</td>
<td>Paying medical bills through Medicare or other health insurance plans is an example of third-party financing.</td>
</tr>
<tr>
<td>26.</td>
<td>b</td>
<td>Patients are principals and doctors are agents. See page 215 in the textbook.</td>
</tr>
<tr>
<td>27.</td>
<td>b</td>
<td>The principal-agent problem occurs when doctors as agents pursue their own interests rather than the interests of patients as the principals.</td>
</tr>
<tr>
<td>28.</td>
<td>a</td>
<td>When doctors are paid for each service they perform, they have an incentive to perform more medical procedures.</td>
</tr>
<tr>
<td>29.</td>
<td>c</td>
<td>Health insurance companies deal with the problem of adverse selection by limiting coverage on pre-existing conditions.</td>
</tr>
<tr>
<td>30.</td>
<td>b</td>
<td>Insurance companies use deductibles and coinsurance to deal with the moral hazard problem.</td>
</tr>
<tr>
<td>31.</td>
<td>d</td>
<td>A positive externality occurs when the person getting vaccinated also reduces the chances that people who have not been vaccinated will contract the disease.</td>
</tr>
<tr>
<td>32.</td>
<td>a</td>
<td>The consumption of surgical operation is rivalrous because no two patients can consume it at the same time.</td>
</tr>
<tr>
<td>33.</td>
<td>b</td>
<td>Those economists believe that health care markets are delivering inaccurate signals to consumers because consumers pay a price far below the true cost of providing the service.</td>
</tr>
<tr>
<td>34.</td>
<td>b</td>
<td>Spending on health care as a percentage of GDP increased from less than 6 percent to about 17.5 percent between 1965 and 2011. See textbook Figure 7.5.</td>
</tr>
</tbody>
</table>
### Question 35
- **Answer**: d
  - **Comment**: The high costs of medical technology and new prescription help explain increases in health care spending.

### Question 36
- **Answer**: c
  - **Comment**: William Baumol argues that service industries such as health care suffer from slow productivity growth, which helps explain the rising cost of health care.

### Question 37
- **Answer**: c
  - **Comment**: The Patient Protection and Affordable Care Act was passed by Congress in 2010.

### Question 38
- **Answer**: c
  - **Comment**: See pages 224–225 in the textbook for the provisions of the PPACA.

### Question 39
- **Answer**: a
  - **Comment**: The PPACA would lead to greater government involvement in the health care system, but it stopped short of the degree of government involvement that exists in Canada, Japan, or the United Kingdom.

### Question 40
- **Answer**: b
  - **Comment**: Employers’ spending on health insurance would be reduced if their health insurance policies for employees are taxed.

### Short Answer Responses

1. Robert Fogel and his co-authors explained that better health makes it possible for people to work harder, raising a country’s labor productivity and total income, which in turn make it possible for the country to afford better sanitation, more food, and better distribution of food. Higher incomes also allow the country to devote more resources to medical research.

2. In most markets, the quantities and prices observed reflect the interactions between the preferences of consumers and the costs to suppliers. This is not the case for the health care market. If the government plays the dominant role in supplying the service, as in many countries other than the United States, then the costs are not fully reflected in its price. If consumers pay through health insurance, as for the United States, then the price they pay for the service is typically smaller than the full cost of the service.

3. In a used car market, the seller of a used car typically knows more about the true condition of the car than do potential buyers. Because the buyers cannot tell reliable cars from lemons, they will generally offer a price somewhere between the price they would be willing to pay for a good car and the price they would be willing to pay for a lemon. However, the seller of a good car will be reluctant to sell the car whose true value is thought to be higher than the offering price. But the seller of a lemon will be happy to sell the car whose true value is thought to be lower than the offering price. In the end, most used cars offered for sale will be lemons.

4. Agree. First, health care spending is not the same as its cost. A system like the United Kingdom has less health care spending per person than the United States, but that system does not necessarily have a lower cost because patients spend more time waiting for services. Spending on health care in the past might be lower than now partly because people suffered and died from illnesses that can now be treated and cured. In addition, improvements in health care services allow people to live longer and health care spending increases as a result.

5. The basic idea of insurance is that the risk of an unpredictable event, such as a house fire or a car accident, is pooled among the consumers who buy insurance. Health insurance, however, also typically covers many planned expenses, such as routine checkups and vaccinations. Health insurance encourages the overuse of these routine expenses when the true cost of such expenses can be easily disguised.
### True/False Answers

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>F</td>
<td>The decline in the average height of adult males in the United States can be explained by deterioration in the conditions of sanitation in cities and food distribution.</td>
</tr>
<tr>
<td>2.</td>
<td>T</td>
<td>See page 208 of the textbook for the reduction in the overall mortality rate since 1980.</td>
</tr>
<tr>
<td>3.</td>
<td>T</td>
<td>See page 209 in the textbook.</td>
</tr>
<tr>
<td>4.</td>
<td>T</td>
<td>See page 209 in the textbook.</td>
</tr>
<tr>
<td>5.</td>
<td>F</td>
<td>Health maintenance organizations (HMOs) typically reimburse health care providers by paying a flat fee per patient, instead of paying each service provided.</td>
</tr>
<tr>
<td>6.</td>
<td>T</td>
<td>In 2009, 17 percent of U.S. population does not have health insurance coverage because people either cannot afford to buy health insurance or choose not to buy it.</td>
</tr>
<tr>
<td>7.</td>
<td>T</td>
<td>The National Health Service (NHS) of the United Kingdom employs 1.7 million employees, and it is the largest government-run health care system in the world.</td>
</tr>
<tr>
<td>8.</td>
<td>T</td>
<td>The obesity rate is 27.7 percent for the United States and 15.5 percent for the OECD countries. There are fifty-seven diabetes hospital admissions per 100,000 persons in the United States, as compared to twenty-one for the OECD countries.</td>
</tr>
<tr>
<td>9.</td>
<td>F</td>
<td>The adverse selection occurs in the health insurance market when sick people are more likely to purchase healthy insurance than are healthy people.</td>
</tr>
<tr>
<td>10.</td>
<td>T</td>
<td>Adverse selection occurs before entering a transaction and moral hazard occurs after entering a transaction. See the Don’t Let This Happen to You feature on page 216 in the textbook.</td>
</tr>
<tr>
<td>11.</td>
<td>F</td>
<td>As a result of a negative externality in consumption, the market produces more than the efficient quantity.</td>
</tr>
<tr>
<td>12.</td>
<td>F</td>
<td>A public good is both nonrival and nonexcludable, but health care is neither nonrival nor nonexcludable. See the Making the Connection feature beginning on page 218 in the textbook.</td>
</tr>
<tr>
<td>13.</td>
<td>T</td>
<td>According to textbook Figure 7.6, out-of-pocket spending on health care as a percentage of all health care spending decreased from 45 percent in 1965 to 11 percent in 2011. This change means that consumers now choose to devote relatively less of their incomes to spending on health care.</td>
</tr>
<tr>
<td>14.</td>
<td>T</td>
<td>Textbook Figure 7.5 shows that health care spending per person in the United States grew at the fastest rate between 1970 and 2008.</td>
</tr>
<tr>
<td>15.</td>
<td>T</td>
<td>See textbook Figure 7.7 for a comparison between the effects of aging and the health care cost on future federal spending on Medicare and Medicaid.</td>
</tr>
</tbody>
</table>