CHAPTER 4

Health Care Systems and Institutions

ACOs, PPOs, HMOs, and DRGs are just a few of the many health care acronyms bandied around in the popular press. To the uninformed, they are simply the ingredients in an alphabet soup. Those familiar with them know that they stand for accountable care organizations, preferred provider organizations, health maintenance organizations, and diagnosis-related groups. They, like many other health care institutions, have evolved over the last several decades and have greatly contributed to the ongoing and wide-sweeping transformation of the U.S. health care system.

This chapter introduces and explains the structure and purpose behind various institutions and payment systems that typically compose a health care system. The knowledge gained will help you better understand how the different parts of a health care system are interrelated. In addition, the material will provide you with a greater appreciation for the remaining chapters of the book and help make you a more informed consumer or producer of health care services. Specifically, this chapter:

- constructs a general model of a health care system
- discusses the reasoning for and responsibilities of third-party payers
- introduces and explains some of the different reimbursement methods used by third-party payers
- identifies some structural features associated with the production of medical services and the role of health care provider choice
- uses the general model to describe the health care systems in Canada, Germany, Switzerland, and the United Kingdom
- provides an overview of the U.S. health care system.

Santerre and Neun. (2013). Health Economics: Theory, Insights, and Industry Studies. 6th Edition.

Elements of a Health Care System

A **health care system** consists of the organizational arrangements and processes through which a society makes choices concerning the production, consumption, and distribution of health care services. How a health care system is structured is important because it determines who actually makes the choices concerning the basic questions, such as what medical goods to produce, how medical goods and services should be produced, and who should receive medical care. At one extreme, the health care system might be structured such that choices are decided by a centralized government, or authority, through a single individual or an appointed or elected committee. At the other extreme, the health care system might be decentralized. For example, individual consumers and health care providers, through their interaction in the marketplace, may decide the answers to the basic questions.

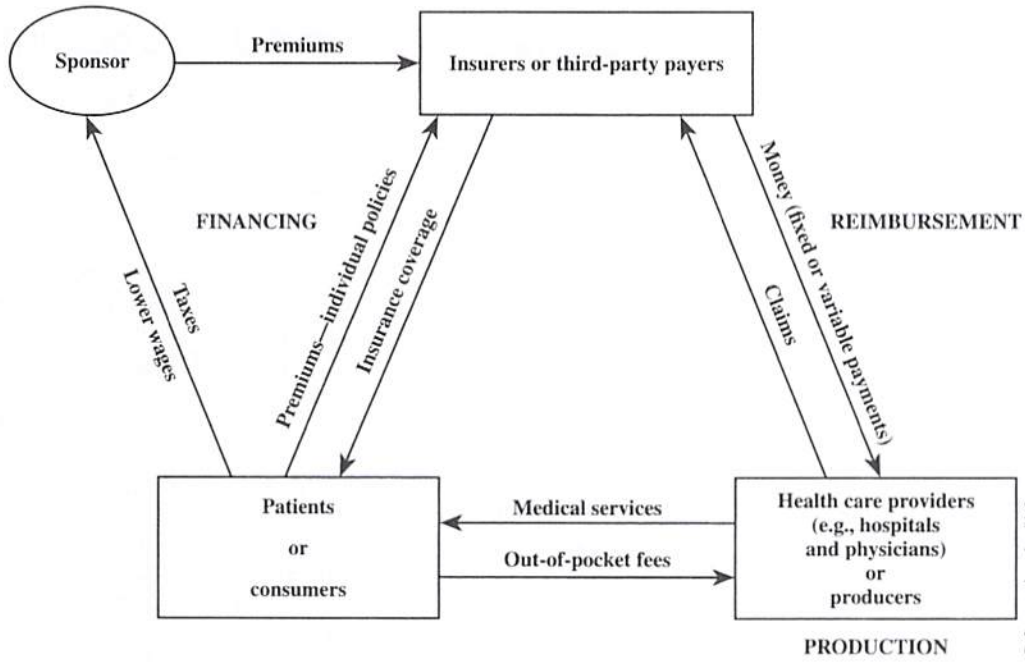
From a societal point of view, it is difficult to determine whether a centralized or decentralized health care system is superior. A normative statement of that kind entails value judgments, and trade-offs are inevitably involved. On the one hand, a centralized authority with complete and coordinated control over the entire health care system may be more capable of distributing output more uniformly and have a greater ability to exploit any large-sized economies. At the same time, a single centralized authority may lack the competitive incentive to innovate or respond to varied consumer-voter demands. A central authority may also face high costs of collecting information about consumer needs.

On the other hand, a health care system with a decentralized decision-making process, such as the marketplace (or a system of local governments), may provide more alternatives and innovation but may result in high costs in the presence of economies of size, nonuniformity, or lack of coordination. Determining the best structure for a health care system involves quantifying the value society places on a number of alternative and sometimes competing outcomes, such as choice, innovation, uniformity, and production efficiency, among other things. A study of that kind is difficult at best because it involves so many value judgments. Indeed, alternative health care systems exist throughout the world because people place different values on each of the various outcomes (Reinhardt, 1996). Reflecting the trade-offs involved, most health care systems today are neither purely centralized nor decentralized but rather take on elements of both systems of decision making. In any case, as we discuss the elements of various health care systems, it is important to keep in mind that understanding how and at what level decisions are made is critical to grasping how any health care system works.

Health care systems are huge, complex, and constantly changing as they respond to economic, technological, social, and historical forces. For example, the structure of the U.S. health care system involves a seemingly endless list of participants, some of which were foreign to us only a decade ago, such as preferred provider organizations. The list includes more than 900,000 physicians and dentists, about two million nurses, nearly 6,000 hospitals, and more than 80,000 nursing homes and mental retardation facilities, not to mention the millions of people who purchase medical care, the thousands of health insurers, and the multitude of government agencies involved in health care issues.

Because of the vastness and complexity of health care systems, many people have trouble understanding how they function. With that problem in mind, Figure 4–1 presents a general model of a health care system. Notice the diagram possesses a triangular shape, reflecting the three major players in any health care system: patients or consumers, health care providers or producers, and insurers or third-party payers. Sponsors, such as employers or the government, are also included in the general model because they act as intermediaries or brokers. As brokers, sponsors structure coverage, manage

FIGURE 4–1
A Model of a Health Care System



enrollment, contract and negotiate risk-sharing arrangements, and collect and submit the contributions of the insured (Van de Ven and Ellis, 2000). Contributions show up as forgone wage income resulting from either taxes or premium payments. The figure also illustrates the three elements common to all health care systems: financing, reimbursement, and production or delivery of medical care.

For a typical market transaction, the individual consumer and producer are the only ones involved in the exchange as shown in the bottom flow of the diagram. In that instance, the consumer's out-of-pocket price equals the full cost of the service provided. Buyer and seller are equally well informed, and the buyer pays the seller directly for the good or service. For example, the purchase of a loaf of bread at a local convenience store involves a normal market transaction. Both consumer and seller have the same information regarding the price and quality of the bread, and the transaction is anticipated and planned by the consumer. An unexpected outcome is not likely to occur, and, if it did, it could be easily rectified (e.g., stale bread can be easily returned).

In a medical market, the corresponding situation is a prespecified patient fee paid directly to a doctor or a hospital for some predetermined and expected quantity and quality of medical services. In the case of medical services, however, the transaction is often not anticipated, and the price, quantity, and quality of medical services are unknown until after the medical event occurs. The transaction is unanticipated because medical illnesses occur irregularly and unexpectedly (Arrow, 1963). The price, quality, and quantity of medical services are not known initially because much uncertainty surrounds the diagnosis and proper treatment of a medical problem. In addition, health care providers possess a greater amount of information relative to patients regarding the provision of medical services, giving rise to an asymmetry of information. Because no simple relation exists between diagnosis and treatment, and

much is left to the discretion of health care providers, possibilities for opportunistic behavior arise. That is, health care providers may produce more treatments or a higher-quality treatment than economic considerations warrant.[1]

The Role and Financing Methods of Third-Party Payers

Because the timing and amount of medical treatment costs are uncertain from an individual consumer's perspective, third-party payers, such as private health insurance companies or the government, play a major role in medical care markets. Third-party payers often serve as intermediaries between the consumer and the health care producer and monitor the behavior of health care providers as a means of controlling medical costs.

Also, third-party payers are responsible for managing the financial risk associated with the purchase of medical services. A third-party payer faces a much lower level of risk than an individual consumer because it can pool its risk among various subscribers by operating on a large scale. The law of large numbers implies that whereas single events may be random and largely unpredictable, the average outcome of many similar events across a large population can be predicted fairly accurately. For example, it is difficult for one individual to predict whether he or she will experience a heart attack. An insurance company, on the other hand, can make a prediction of the heart attack rate with reasonable accuracy by evaluating past data from a large number of individuals. Third-party payers can use indicators such as occupational and demographic averages to forecast expected medical claims for a large group of individuals. A risk-averse consumer is better off by making a certain preset payment to an insurer for coverage against an unforeseen medical event rather than facing the possibility of paying some unknown medical costs. Essentially, consumers receive a net benefit from the financial security that third-party payers supply.[2]

Third parties make the health care system much more complex because the source of third-party financing and the method of reimbursement must be worked into the model. If the third-party payer is a private health insurance company, the consumer pays a premium in exchange for some agreed-upon amount of medical insurance coverage which may include a deductible, copayment, and/or coinsurance. The deductible provision requires the consumer to pay the first $\$X$ of medical costs, after which the health insurance company is responsible for reimbursement. With a coinsurance provision, the consumer pays a fixed percentage of the cost each time he or she receives a medical service. A copayment refers to a fixed amount per service that is paid by the consumer.

When a government agency (or a public health insurance company) acts as a third-party payer, the financing of medical care insurance usually comes from taxes. Premiums and taxes differ in the way risk is treated and the voluntary nature of the payment.[3] Premiums are paid voluntarily and often depend on the risk category of the buyer of health insurance. Tax payments are mandatory and represent a single fee without reference to risk category.

Some alternative ways to finance health care can be gleaned by examining the different methods used in Canada, Germany, Switzerland, and the United Kingdom.[4] We chose these particular countries because their health care systems possess unique features and they all possess some kind of universal or near-universal health insurance

1. Supplier-induced demand theory is explained in great detail in Chapter 12.

2. Health insurance principles are developed more fully in Chapters 5 and 6.

3. See Bodenheimer and Grumbach (1992) for an in-depth comparison of taxes and premiums for financing universal health insurance.

4. See Raffel (1997) for discussion on the health care systems in various industrialized countries. For manageability, we confine the discussion to the insurance, physician, and hospital services industries. No mention is made of the existing systems in the pharmaceutical and long-term care markets, for example.

program. In addition, most proposals for health care reform in the United States are based to some extent on the health care systems of these four countries.

Canada has a compulsory **national health insurance (NHI)** program administered (somewhat differently) by each of its 10 provinces and 3 territories. The NHI program provides first-dollar coverage, and no limit is imposed on the level of medical benefits an individual can receive during his or her lifetime. **First-dollar coverage** means complete health insurance coverage; the health insurer reimburses for the first and every dollar spent on medical services (i.e., there is no deductible or copayment amount). For all practical purposes, taxes finance the NHI program in each province.[5] In addition, the Canadian government provides up to 40 percent in direct cost sharing and makes hospital construction grants available to provinces. Private insurance is available for some forms of health care in Canada, although private coverage is prohibited for services covered by the NHI plan (although in 2005, the Supreme Court overturned this provision in Quebec). Because the public sector (rather than the private sector) insures against medical costs, there are no marketing expenses, no administrative costs of estimating risk status or determining whom to cover, and no allocation for profits.

The **socialized health insurance (SI)** program in Germany is based on government-mandated financing by employers and employees. The premiums of unemployed individuals and their dependents are paid by former employers or come from various public sources (the Federal Labor Administration and public pension funds). Private not-for-profit insurance companies, called **Sickness Funds,** are responsible for collecting funds from employers and employees and reimbursing physicians and hospitals. The statutory medical benefits are comprehensive, with a small copayment share for some services. Affluent and self-employed individuals are allowed to go outside the system and purchase private health insurance coverage. The Federal Ministry of Health sets premiums for the Sickness Funds.

The federal government in Switzerland began requiring all individuals to have health insurance coverage in 1996, which is referred to as a health insurance mandate (Reinhardt, 2004). For the most part, the Swiss health care system relies upon **managed competition** to deliver health insurance coverage. Managed competition leaves the provision of health insurance and health care largely to the private sector but the government creates a regulated framework within which the various health care industries operate. In Switzerland, consumers can choose among 70 standardized insurance benefits which are administered by private nonprofit insurers and offered on a regional basis in the various cantons (similar to states). The insurance plans are not sponsored by employers. In fact, employers rarely contribute to health insurance premiums. Low-income individuals receive subsidies from the government to purchase health insurance.

Consumers have the option of enrolling in expensive policies with low out-of-pocket payments or inexpensive policies with high out-of-pocket payments. Swiss citizens typically choose the inexpensive policies and therefore incur one of the highest out-of-pocket costs among industrialized countries. Health insurance premiums are determined by competition among health insurers and are community rated but subject to the approval of the federal government. A portion of all premium revenues are redistributed among insurers by the Swiss government to compensate for selecting individuals at greater medical risk. Some consumers purchase supplemental insurance which pays for private rooms and other items not covered by the basic plan. Insurers cannot profit from the basic plan but can make a profit on the supplemental insurance plans which are experience rated.

Mechanic (1995) and others refer to the health care system in the United Kingdom as a **public contracting** model because the government contracts with various

5. These premiums are not compulsory for coverage and will be paid by the province if individuals are unable to pay. Because these premiums are not adjusted for risk, they are essentially taxes.

providers of health care services on behalf of the people. The U.K. health care system, under the auspices of the **National Health Service (NHS)**, offers universal health insurance coverage financed through taxation. The NHS provides global budgets to district health authorities (DHAs). Each DHA is responsible for assessing and prioritizing the health care needs of about 300,000 people and then purchasing the necessary health care services from public and private health care providers. Hospital services are provided by nongovernmental trusts, which compete among themselves and with private hospitals for DHA contracts. Community-based primary care givers also contract with the DHAs. In addition, general practitioner (GP) fundholders apply for budgets from the DHAs, and, with the budgets, service a minimum group of 5,000 patients by providing primary care and purchasing elective surgery, outpatient therapy, and specialty nursing services on their behalf. There is some limited competition among GP fundholders for patients.

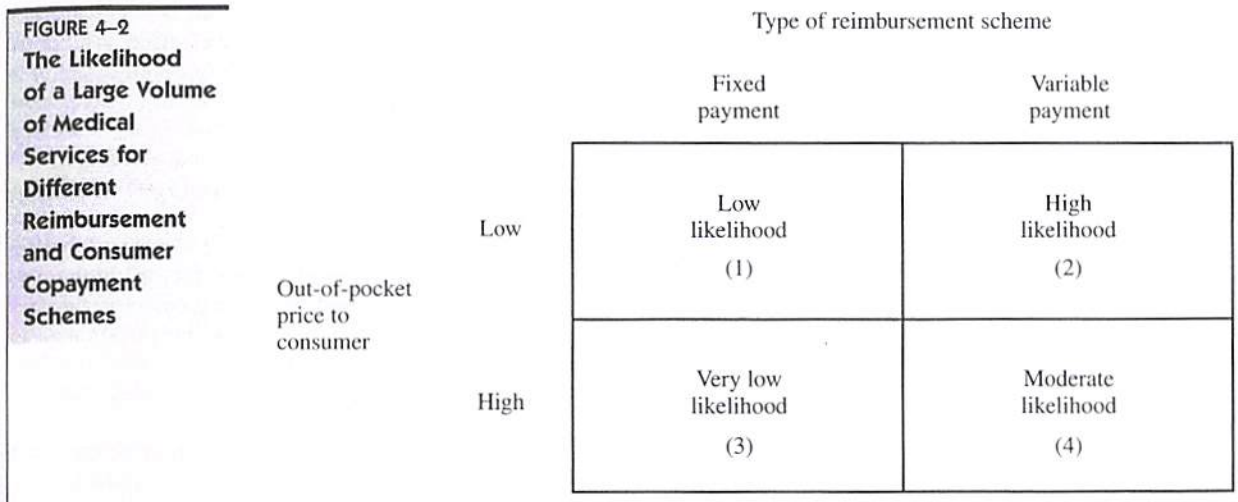
Risk Management, Reimbursement, and Consumer Cost Sharing

Another important element of a health care system concerns the manner in which health care providers are reimbursed and the share of medical costs paid by consumers. Reimbursement is important because some payment methods shift much more financial risk onto health care providers than others. As Figure 4–1 indicates, insurers may reimburse health care providers with either a fixed or variable payment, although in practice the payment methods are sometimes combined. A fixed payment is set independent of the amount or cost of medical services actually provided to patients for a given and defined treatment episode. If the actual costs of delivering services to patients are less than the level of the fixed payment, health care providers are normally allowed to keep the surplus. However, health care providers also face the possibility that actual costs are greater than the fixed payment. Thus, some financial risk is shifted to health care providers when reimbursement takes place on a fixed-payment basis. A prospectively set fixed annual budget to a hospital or nursing home, or a fixed annual salary for an employee, are examples of fixed-payment systems. Regardless of how many resources a hospital or nursing home employs, or the number of hours an employee works during a given period, the payment remains the same.

Under a variable-payment system, the reimbursement amount varies with the quantity or cost of services actually delivered to patients. Retrospective reimbursement, in which the health care provider bills for actual costs incurred, and fee-for-service, in which a price is paid for each unit of a medical service, are two common examples of a variable-payment system. A few state governments still reimburse nursing homes on a retrospective basis for caring for Medicaid patients. The price paid for each physician office visit is an example of a fee-for-service payment. When reimbursement takes place on a variable-payment basis, health care providers face much less risk from cost overruns.

Similarly, the share of medical costs paid by consumers is important because a greater amount of cost sharing puts more financial risk on them. For example, take the extreme cases. The typical consumer faces very little financial incentive, if any, to care about the costs associated with his or her medical treatment if fully insured with no out-of-pocket expenses. Even if the medical costs equal $100, $1,000, or $10,000, the consumer pays a zero out-of-pocket price if fully insured. Conversely, that same consumer faces much more financial incentive to be concerned with the cost if required to pay the entire bill (that is, 100 percent out-of-pocket price) associated with the medical treatment. No one disagrees that opportunity cost is greater when paying $200 instead of $100 for an office visit.

FIGURE 4–2
The Likelihood of a Large Volume of Medical Services for Different Reimbursement and Consumer Copayment Schemes



The matrix in Figure 4–2 helps illustrate the importance of risk sharing. The matrix shows how the two reimbursement schemes previously discussed and the consumer's out-of-pocket price interact and affect the likelihood that a large volume of medical services will be supplied and demanded. The probability of a high volume of medical services is given inside each cell of the matrix for each combination of reimbursement method and consumer out-of-pocket price.

We can identify the opportunity for a large volume of medical services per patient by considering how the different provider reimbursement schemes and consumer payment plans affect the incentives of health care providers and consumers. For example, a health care provider that is reimbursed on a fixed-payment basis is very unlikely to supply a large volume of medical services to a patient unnecessarily. The cost of additional medical services immediately subtracts from the fixed payment and puts the health care provider at risk for cost overruns. In contrast, for the variable-payment schemes, health care providers do not absorb the financial risk of the higher costs associated with additional services.

We can conduct a similar analysis for the consumer. Consumers who face a low out-of-pocket price of obtaining medical services are more likely to seek out additional medical services (this is referred to as the moral hazard problem in Chapter 5). On the other hand, consumers who face a high out-of-pocket price are less inclined to seek out medical services given the greater opportunity cost of their money.

Combining the reimbursement and out-of-pocket payment schemes, the likelihood of a large volume of medical services per patient is the greatest in cell 2, where a variable-payment scheme interacts with a low consumer out-of-pocket price. Neither party loses much financially in the exchange of dollars for medical services. Conversely, a large volume of medical services is least likely in cell 3, where a fixed-payment plan coexists with a large consumer out-of-pocket scheme. Both parties in the exchange lose financially. Cell 4 offers a moderate likelihood of a large volume of medical services because the provider is not made financially worse off by providing additional services. For this to happen, however, either the consumer's out-of-pocket price must not be too high or the consumer must be relatively insensitive to price (i.e., highly inelastic demand). Finally, in cell 1, the health care provider is made worse off while the consumer is relatively unaffected by additional medical services, so the probability of a large volume of medical services is low.

A major current concern of health care policy makers is that a variable reimbursement system, when combined with a modest consumer out-of-pocket price, results in excessive medical services that provide low marginal benefits to patients but come at a high marginal cost to society. For example, medical care providers may offer expensive diagnostic tests to low-risk patients. The tests come at a high marginal cost to society but yield only small marginal benefits to patients given their low-risk classification. Small marginal medical benefits coincide with the "flat-of-the-curve" medicine observed in several empirical studies, as discussed in Chapter 2.

As a result, many health policy analysts believe that fee-for-service or retrospective payments and small consumer out-of-pocket payments are responsible for high-cost, low-benefit medicine. Policy makers typically argue that some cost sharing is needed on the supply and/or demand side of the market to reduce the potential for excess medical services (Ellis and McGuire, 1993). That is, they believe that fixed-payment reimbursement plans and nontrivial consumer payments are required to control unnecessary medical services.

We can appreciate the importance of the reimbursement method by examining and contrasting the countrywide reimbursement schemes practiced in Canada, Germany, Switzerland, and the United Kingdom. In Canada, everyone is eligible for the same medical benefits, and there are no copayments for most medical services. Patients essentially drop out of the reimbursement picture, and reimbursement exclusively takes place between the public insurer (the government) and the health care provider. In terms of Figure 4–1, this means that the monetary exchange is virtually nonexistent between patient and health care provider. The ministry of health in each province is responsible for controlling medical costs. Cost control is attempted primarily through fixed global budgets for hospitals and predetermined fees for physicians. Specifically, the operating budgets of hospitals are approved and funded entirely by the ministry in each province, and an annual global budget is negotiated between the ministry and each individual hospital. Capital expenditures must also be approved by the ministry, which funds the bulk of the spending.

Physician fees are determined by periodic negotiations between the ministry and provincial medical associations (the Canadian version of the American Medical Association). With the passage of the Canada Health Act of 1984, the right to **extra billing** was removed in all provinces. Extra billing or balance billing refers to a situation in which the physician bills the patient some dollar amount above the predetermined fee set by the third-party payer. For the profession as a whole, negotiated fee increases are implemented in steps, conditional on the rate of increase in the volume of services. If volume per physician rises faster than a predetermined percentage, subsequent fee increases are scaled down or eliminated to cap gross billings—the product of the fee and the volume of each service—at some predetermined target. The possible scaling down of fee increases is supposed to create an incentive for a more judicious use of resources. Physicians enjoy nearly complete autonomy in treating patients (e.g., there is no mandatory second opinion for surgery) because policy makers believe there is no need for intrusive types of controls given that the hospital global budgets and physician expenditure targets tend to curb unnecessary services.

The Sickness Funds in Germany, which collect employer and employee insurance premiums, pay negotiated lump-sum funds equal to the product of a capitation (per-patient) payment and the number of insured individuals by regional associations of ambulatory care physicians. These regional associations, in turn, reimburse individual physicians for services on the basis of a fee schedule. The fee schedule is determined through negotiation between the regional associations of Sickness Funds and physicians. To determine the fee schedule, each physician service is assigned a number of points based on relative worth. The price per point is established by dividing the lump-sum total budget by the actual number of points billed within a quarter by all

physicians. The income to an individual physician equals the number of points billed times the price per point.

The Sickness Funds that operate in a given state also negotiate fixed prices for various procedures (based on the diagnosis-related group, or DRG) with local hospitals. Because hospitals can make profits or incur losses because of the fixed prices, there is an incentive for hospitals to save resources and specialize in certain procedures. For some procedures, hospital accommodations are reimbursed on a per diem basis but funds are limited by an overall budget. Hospital-based physicians are paid on a salary basis. Most of the hospital funds for capital acquisitions come from state and local governments and are reviewed and approved through a state planning process.

Medical fees are negotiated collectively between a "cartel" of insurers and representatives of health care providers, including physicians and private hospitals, in each canton of Switzerland. Providers must accept the negotiated payment and balance billing is not allowed. Health insurers are required by the government to contract with any physician and are allowed to enter into managed care arrangements. Hospitals, however, are excluded from managed care contracts. The 23 cantons in Switzerland provide half of the financing for public hospitals so the Canton governments set the prices for services delivered by public hospitals.

In the United Kingdom, the district health authorities (DHA) are allocated funds by the NHS on a weighted capitation basis, which considers age, sex, and health-risk factors as well as geographical cost differences. Independent community-based family practitioners contract with the NHS and are uniformly paid throughout the United Kingdom, primarily on a capitation basis. The DHAs prospectively reimburse individual hospital trusts based on the actual cost of providing the services. All hospital-based physicians and consultants are paid on a fixed salary basis by the trusts. Trusts are required to earn a 6 percent return on assets and the residual is returned to the DHA. Capital funding for the trusts is determined by the DHA and is based on its regional allocation.

Any funds allocated to GP fundholders are deducted from the DHA's allocation. GP fundholders annually negotiate funds to purchase elective and nonemergency services for their subscribers. About 41 percent of the population in England is served by GP fundholders. Any savings made by a fundholder may be reinvested in the practice or new services but cannot directly increase the GP's personal income. GP fundholders are not at personal financial risk as they are protected against any legitimate cost overruns by the DHAs.

In sum, these four countries have shied away from relying on an uncontrolled fee-for-service reimbursement scheme because of the concern that it creates incentives for high-cost, low-benefit medicine. The payment is on either a per diem, per-person, or negotiated fee-for-service basis. In addition, the payment for medical services is determined by a single payer—the government in Canada and the United Kingdom and representatives of the Sickness Funds in Germany and a cartel of insurers and representatives of health care providers in Switzerland. Policy makers in these countries believe that a single-payer, controlled-payment system can reduce the incentive to provide high-cost, low-benefit medicine and better contain health care costs.

The Production of Medical Services

The mode of production also differs across health care systems. Several distinguishing features of production are worth mentioning. We normally think of health care services as being produced on an inpatient care basis in hospitals or nursing homes or on an outpatient (ambulatory) care basis at physician clinics or in the outpatient department of a hospital. However, health care services are also produced in the home. Preventive care (such as exercise, dieting, and flossing) and first aid are

two prime examples of home-produced health care services. In addition, long-term or chronic care services are often produced in the home rather than in an institution, such as a nursing home. Although acute care services can also be produced in the home, the cost of producing these services is usually prohibitive for the individual consumer because of the high per-person labor and capital expenses.[6] As a result, it is almost always cheaper for the individual consumer to purchase acute care services at a hospital because such an organization can exploit various large-size economies.

Outside the home, health care providers may be organized in a number of ways. For example, a hospital may be a freestanding, independent institution or part of a multihospital chain. Similarly, a physician may operate in a solo practice or belong to a group practice. Usually the size and scope of the medical organization depend on whether any economies exist from operating on a small or large scale. In addition, some physicians, such as radiologists and anesthesiologists, may be employees of the hospital. In contrast, some physicians on the medical staff may not be employees of the hospital but instead are granted admitting privileges.

Health care services may be produced in the private or public sector by health care providers in the medical services industry. If produced in the private sector, the health care provider may offer medical services on a not-for-profit or a for-profit basis. A not-for-profit organization is required by law to use any profits exclusively for the charitable, educational, or scientific purpose for which it was formed. For example, a hospital may use profits to lower patient prices, or finance medical equipment or hospital expansion.

Institutional Differences between For-Profit and Not-For-Profit Health Care Providers

Because not-for-profit institutions are so prevalent in the health care sector, it is important that we examine the institutional differences between for-profit and not-for-profit firms. There are five basic institutional differences between these two classes of organizations.

First, when for-profit firms are established, they acquire initial capital by exchanging funds for ownership with private individuals. Ownership gives those in the private sector a claim on future profits. Not-for-profit firms must rely on donations for their initial capital because they are not privately owned. In a broad sense, they are owned by the community at large. Second, for-profit providers are capable of earning accounting profits and distributing cash dividends to their owners, whereas not-for-profit firms face a **nondistribution constraint** and are prohibited from distributing profits to employees, managers, or company directors (Hansmann, 1996). A nondistribution constraint means that not-for-profit firms cannot legally distribute any revenues in excess of costs to individuals without regard to the charitable purpose for which the organization was formed. Third, for-profit organizations can easily be sold or liquidated for compensation by their owners, whereas it is very difficult to sell a not-for-profit organization. Fourth, not-for-profit providers are exempt from certain types of taxes and are eligible to receive subsidies from the government. In fact, it has been argued that the tax exemption and subsidies give not-for-profit firms an unfair advantage over for-profit firms. Finally, not-for-profit providers are restricted by law in the types of goods and services they can provide.

6. According to the *Mosby Medical Encyclopedia* (1992), long-term care is "the provision of medical care on a repeated or continuous basis to persons with chronic physical or mental disorders" (p. 471). Acute care is "treatment for a serious illness, for an accident, or after surgery.... This kind of care is usually for only a short time" (p. 11).

Why Are Not-For-Profit Health Care Providers So Prevalent?

Now that we understand the differences between for-profit and not-for-profit providers, the next item to address is why not-for-profit providers are so prevalent in the health care sector. Weisbrod (1988) discusses the issue in general terms but his analysis can easily be applied to the health care sector. According to Weisbrod, not-for-profit firms exist primarily as a result of market failure in the private sector. The market failure results from three factors.

First, the private sector works best when all market participants are perfectly informed. However, given the complexity of medical technology and the difficulty of assessing the appropriateness of medical care, consumers typically possess imperfect information about the health care sector. As a result, many consumers believe they are in a vulnerable situation and can easily be exploited by medical providers for the sake of profits through quality reductions. For that reason, they prefer to deal with not-for-profit providers, which presumably are driven by a "softer" incentive to compromise quality because of their nondistribution constraint.

The second reason for market failure concerns equity. Society as a whole believes that each citizen has a right to some minimum level of medical care that would not be provided if health care resources were allocated by the for-profit sector. The profit motive ensures that health care is allocated based on the ability to pay and not on need. As a result, some argue that not-for-profit providers are necessary to meet the needs of those who cannot pay for medical care.

The third reason for market failure involves the presence of externalities as discussed further in Chapter 9. When externalities exist, resources are not efficiently allocated because the for-profit sector does not consider all the costs and benefits associated with production. Thus, for these three reasons, the for-profit sector may fail to address the collective need for health care.

The next question that comes to mind is why the public sector does not simply take over the allocation of health care resources in the presence of market failure. The answer, Weisbrod contends, is that consumer needs are heterogeneous. When needs are widely diverse, the government has difficulty developing an appropriate overall policy that meets the desires of all consumers in a cost-effective manner. For example, "one-size-fits-all" medicine most likely would not appeal to everyone. Hence, a multitude of not-for-profit health care providers, such as hospitals and nursing homes, are required to satisfy heterogeneous demands. Each institution can be tailored to fit the individual demands of its constituents. For example, the Shriners run not-for-profit hospitals aimed at orthopedic pediatric care, while some religious organizations operate nursing homes specifically for elderly members of their own religion.

One last question deserves some discussion. If these market failures are substantial, why is the for-profit sector allowed to operate at all in the health care field? Consumer knowledge and preferences provide the answer to this question. Although some consumers lack the information they need to make informed decisions, others are much more informed. Informed consumers may "have no institutional preferences" and "prefer to deal with any organization, regardless of ownership form, that provides the wanted outputs at the lowest price" (Weisbrod, 1988, p. 124). Thus, the for-profit sector exists in the health care market primarily to satisfy the demands of these types of consumers.

Production of Health Care in the Four Systems

The organization of production in the four health care systems we have been discussing has some slight differences. In Canada, medical services are produced in the private sector. Most hospitals in the private sector are organized on a not-for-profit basis and are owned by either charitable or religious organizations. In Germany, medical

services are produced primarily in the private sector because most physicians operate in private practices. Public hospitals control about 51 percent of all hospital beds in Germany. The remaining beds are managed by not-for-profit (35 percent) and for-profit hospitals (13 percent). In Germany, office-based physicians are normally prohibited from treating patients in hospitals, and most hospital-based physicians are not allowed to provide ambulatory care services.

The structure of production in the United Kingdom now largely takes place in the private, although mostly not-for-profit, sector. The present situation in the United Kingdom is in stark contrast to the method of production that prevailed before the passage of the National Health Service and Community Act of 1990. Up to 1990, almost all hospitals were publicly owned and operated and most doctors were employees of the NHS. Even before 1990, however, family practitioners were community-based in solo or small group practices and simply contracted with the NHS. The Swiss health care system relies upon a combination of private and public providers.

Physician Choice and Referral Practices

Important differences in the availability and utilization of medical services can also result from the degree of physician choice the health care consumer possesses and the types of referral practices used within the health care system. More choice typically provides consumers with increased satisfaction (Schmittdiel et al., 1997). However, greater choice may come at a cost if it leads to a large number of fragmented health care providers that are unable to sufficiently coordinate care or exploit any economies that come with large size (Halm et al., 1997).

In some health care systems, patients have unlimited choice of and full access to any physician or health care provider within any type of setting (such as a clinic or hospital). For example, at one time in the United States, insured individuals could directly seek out any general practitioner or specialist without financial penalty. Moreover, at one time in the United States, it was not unusual for a general practitioner to review the care of a patient referred for hospital services. We see later that conditions regarding physician choice and referral practices have changed a great deal in the United States.

Other countries have adopted different referral practices. Although the Canadian, German, and Swiss health care systems allow free choice of provider, general practitioners in the United Kingdom act as "gatekeepers" and must refer patients to a specialist or a hospital. Once the patient is referred to a hospital, the patient–general practitioner relationship is severed for any particular illness in both the United Kingdom and Germany. Unlike in Germany, however, patients are allowed to go directly to a family practitioner or a hospital for primary care in the United Kingdom, unless they are registered with a GP fundholder.

The Four National Health Care Systems Summarized

Based on our generalized model of a health care system, Table 4–1 provides a capsulized summary of the current structure of the national health care systems in the four countries we have been discussing. We take up a more formal discussion of performance differences in Chapter 16. Each national health care system is differentiated according to the degree of health insurance coverage, type of financing, reimbursement scheme, consumer out-of-pocket price, mode of production, and degree of physician choice. The essential features of the Canadian health care system are national health insurance, free choice of health care provider, private production of medical services, and regulated global budgets and fees for health care providers. The dominating features of the German health care system include socialized health insurance

TABLE 4–1
A Comparison of Health Care Systems

	Country (Type of System)				
Feature	**Canada (NHI)***	**Germany (SI)†**	**Switzerland (MC)‡**	**United Kingdom (PC)§**	**United States (Pluralistic)**
Health insurance coverage	Universal	Near universal	Near universal	Near universal	84 percent
Financing	General taxes	Payroll and general taxes	Premiums	General taxes	Voluntary premiums and general taxes
Type of payer	Single-payer system	Single-payer system§	Single-payer system‖	Single-payer system	Multi-payer system
Reimbursement to hospitals	Global budgets to hospitals	Fixed payments to hospitals	Negotiated payments	Global budgets to hospitals	Mostly fixed payments to hospitals
Reimbursement to physicians	Negotiated fee-for-service to physicians	Negotiated point-fee-for-service to physicians	Negotiated fees	Salaries and capitation payments to physicians	Mostly fee-for-service to physicians
Consumer out-of-pocket price	Negligible	Negligible	High	Negligible	Positive, but generally small
Production	Private	Private	Public and private	Private but public contract	Private
Physician choice	Unlimited	Unlimited	Unlimited	Limited	Relatively limited

*NHI = national health insurance program

†SI = socialized insurance

‡MC = managed competition

§PC = public contracting

‖Multiple third-party payers are responsible for paying representatives of the health care providers, but the universal fees are collectively negotiated by the third-party payers.

financed through Sickness Funds, negotiated payments to health care providers, free choice of provider, and private production of health care services. In the case of Great Britain, the distinguishing characteristics include restrictions on choice of provider, public contracting of medical services, global budgets for hospitals, fixed salaries for hospital-based physicians, and capitation payments to family practitioners. Finally, reliance on managed competition is a unique characteristic of the Swiss health care system.

The U.S. health care system is discussed in detail in the next section, and the last column in Table 4–1 gives a quick preview. The pluralistic U.S. health care system contains some structural elements found in most of the other four systems (such as private production) but relies more heavily on a fee-for-service reimbursement scheme. In addition, health care providers are reimbursed through multiple payers, including the government and thousands of private insurance companies, in contrast to the single-payer system in Canada (government), Germany (Sickness Funds), and the United Kingdom (government).

An Overview of the U.S. Health Care System

Some analysts argue that the multifaceted nature of the health care system accounts for the relatively high expenditures devoted to medical care in the United States. Although this may be true and is a topic of discussion throughout this book, it most certainly is true that this diversity makes it very difficult to describe the U.S. health care system in sufficient detail. This section presents a brief overview of the current system in the United States based on the generalized model of a health care system. The remainder of the book discusses the operation and performance of the U.S. health care system in much greater detail, albeit on a piecemeal basis.

Financing of Health Care in the United States

The United States has no single nationwide system of health insurance. Health insurance is purchased in the private marketplace or provided by the government to certain groups. Private health insurance can be purchased from various for-profit commercial insurance companies or from nonprofit insurers, such as Blue Cross/Blue Shield. About 84 percent of the population is covered by either public (31 percent) or private (64 percent) health insurance.[7]

Approximately 55 percent of health insurance coverage is employment related, largely due to the cost savings associated with group plans that can be purchased through an employer. Employers voluntarily sponsor the health insurance plans. Nearly all privately-insured individuals belong to some type of managed care plan. As we discuss in Chapter 6, managed care plans are designed to practice cost-effective medicine and place varying degrees of restrictions on consumer choices.

In addition to private health insurance, some portion of the U.S. population is covered by public health insurance. The two major types of public health insurance, both of which began in 1966, are **Medicare** and **Medicaid.**[8] Medicare is a uniform, national public health insurance program for aged and disabled individuals (such as those with kidney failure). Administered by the federal government, Medicare is the largest health insurer in the country, covering about 15 percent of the population, and is primarily financed through taxes. The Medicare plan consists of two parts. Part A is compulsory and provides health insurance coverage for inpatient hospital care, very limited nursing home services, and some home health services. Part B, the voluntary or supplemental plan, provides benefits for physician services, outpatient hospital services, outpatient laboratory and radiology services, and home health services.[9]

The second type of public health insurance program, Medicaid, provides coverage for certain economically disadvantaged groups. Medicaid is jointly financed by the federal and state governments and is administered by each state. The federal government provides state governments with a certain percentage of matching funds ranging from 50 to 83 percent, depending on the per capita income in the state. Individuals who are elderly, blind, disabled, or members of families with dependent children must be covered by Medicaid for states to receive federal funds. In addition, although the federal government stipulates a certain basic package of health care benefits (hospital, physician, and nursing home services), some states are more generous than others. Consequently, in some states individuals receive a more generous benefit package under Medicaid than in others. Medicaid is the only public program that finances long-term

7. DeNavas-Walt, Proctor, and Smith (2011). The figures for private and public insurance coverage do not sum to 84 percent because of double-counting. For example, some people receiving public insurance coverage also purchase private health insurance.

8. See Chapter 10 for a more detailed discussion on the Medicare and Medicaid programs. The federal government is also responsible for providing health insurance to individuals in the military and to federal employees.

9. Part D, the Medicare coverage of prescription drugs is discussed in Chapter 10. It is voluntary but subsidized and requires premiums and cost-sharing.

nursing home care. Approximately 16 percent of the population is covered by Medicaid.

In summary, the financing of health care falls into three broad categories: private health insurance, Medicare, and Medicaid. However, another category of individuals exists: those who are uninsured. Approximately 16 percent of the U.S. population is estimated to lack health insurance coverage at any point in time. This does not mean these individuals are without access to health care services. Many uninsured people receive health care services through public clinics and hospitals, state and local health programs, or private providers that finance the care through charity and by shifting costs to other payers. Nevertheless, the lack of health insurance can cause uninsured households to face considerable financial hardship and insecurity. Furthermore, the uninsured often find themselves in the emergency room of a hospital, sometimes after it is too late for proper medical treatment. We take up this discussion in later chapters.

Reimbursement for Health Care in the United States

Unlike in Canada and Europe, where a single-payer system is the norm, the United States possesses a multipayer system in which a variety of third-party payers, including the federal and state governments, commercial health insurance companies, and Blue Cross/Blue Shield, are responsible for reimbursing health care providers. Naturally, reimbursement takes on various forms in the United States, depending on the nature of the third-party payer. The most common form of reimbursement is fee-for-service, although most health care providers accept discounted fees from private health insurance plans.

Physician services under Medicare (and most state Medicaid plans) are also reimbursed on a fee-for-service basis, but the fee is set by the government based on the time and effort involved in providing the care. Since 1983, the federal government has reimbursed hospitals on a prospective basis for services provided to Medicare patients. This Medicare reimbursement scheme, called the **diagnosis-related group (DRG)** system, contains 999 different payment categories based on diagnoses, procedures, age, gender, discharge status, and the presence of complications or comorbidities. A prospective payment is established for each DRG. The prospective payment is claimed to provide hospitals with an incentive to contain costs (cells 1 and 3 of Figure 4–2).

Beginning in the early 1980s, many states, such as California, instituted **selective contracting,** in which various health care providers competitively bid for the right to treat Medicaid patients. In fact, much of the favorable experience with selective contracting in the United States led to the adoption of the public contracting model in the United Kingdom (Mechanic, 1995). Under selective contracting, recipients of Medicaid are limited in the choice of health care provider. In addition, to better contain health care costs and coordinate care, the federal government and various state governments have attempted to shift Medicare and Medicaid beneficiaries into managed care organizations (MCOs). About 71 percent of all Medicaid recipients and roughly 23 percent of all Medicare beneficiaries were enrolled in MCOs.

Production of Health Services and Provider Choice in the United States

Like the financing and reimbursement schemes, the U.S. health care system is very diversified in terms of production methods. Government, not-for-profit, and for-profit institutions all play an important role in health care markets. For the most part, primary care physicians in the United States function in the private for-profit sector and operate in group practices, although some physicians work for not-for-profit clinics or in public organizations. In the hospital industry, the not-for-profit is the dominant form

of ownership. Specifically, not-for-profit hospitals control about 70 percent of all hospital beds. The ownership structure is the reverse in the nursing home industry, however. More than 70 percent of all nursing homes are organized on a for-profit basis. One should also keep in mind that mental retardation facilities, dialysis facilities, and even insurance companies possess different ownership forms. The variety of ownership forms helps make health care a very difficult, but challenging and interesting, industry to analyze.

We previously mentioned that provider choice matters. Consumers typically receive greater satisfaction from facing more choices. We also discussed, however, that more choices may come at greater costs if small, differentiated providers are unable to fully exploit any economies associated with size. Hence, it is important to know how much choice consumers have over health care providers in the United States.

Up to the early 1980s, most insured individuals had full choice of health care providers in the United States. Consumers could choose to visit a primary caregiver or the outpatient clinic of a hospital, or see a specialist if they chose to. The introduction of restrictive health insurance plans and new government policies such as selective contracting have limited the degree to which consumers can choose their own health care provider. For example, some health care plans require that patients receive their care exclusively from a particular network; otherwise they are fully responsible for the ensuing financial burden. Furthermore, the primary caregiver acts as a gatekeeper and must refer the patient for additional care. Of course, the lower premiums of a restrictive plan compensate consumers at least to some degree for the restriction of choice. There are arguments for and against free choice of provider, and once again trade-offs are involved. This issue will be discussed throughout the text in more depth. For now let us just say that these trade-offs must be given serious thought when determining what degree of consumer choice is best from a societal point of view.

Summary

Every health care system must answer the four basic questions concerning the allocation of medical resources and the distribution of medical services. Some systems rely on centralized decision making whereas others answer the basic questions through a decentralized process. Health care systems are complex largely because third-party payers are involved. Third-party payers help reduce the financial risk associated with the irregularity and uncertainty of many medical transactions. Third-party payers also help monitor the behavior of health care providers.

The financing, reimbursement, and production methods and the degree of choice over the health care provider are important elements that make up a health care system. Medical care is financed by out-of-pocket payments, premiums, and/or taxes. Medical care providers are reimbursed on a fixed or variable basis. The production of medical care may take place in a for-profit, a not-for-profit, or a public setting, and medical care providers may operate in independent or large group practices. Choice of provider may be limited. All these features are important because they affect incentives and thereby often influence the operation and performance of a health care system. For example, many economists predict that fee-for-service insurance plans provide an incentive for medical care providers to produce a large volume of services.

The U.S. health care system is very pluralistic. For instance, considerable variation exists in the financing, reimbursement, and production of medical care. The remainder of this book provides a better understanding about how each of these elements affects the functioning of the U.S. health care system.

Review Questions and Problems

1. Answer the following questions pertaining to health care systems.
   A. Why isn't the market for health care services organized according to a typical consumer (patient) and producer (health provider) relationship?
   B. What are the basic differences between insurance premiums and taxes as sources of medical care financing?
   C. How might the reimbursement method differ among health care providers? Why might the reimbursement method make a difference?
   D. Identify the four basic kinds of health care systems discussed in this chapter.
   E. Point out some unique institutions (compared to the United States) associated with the health care systems of the various countries discussed in this chapter.
2. Suppose you had the opportunity to organize the perfect health care system. Explain how you would organize the financing method, reimbursement scheme, mode of production, and physician referral procedure.
3. Which of the following reimbursement and consumer copayment schemes would have the greatest and lowest likelihood of producing high-cost, low-benefit medicine? Explain your answers.
   A. Fee-for-service plan with 40 percent consumer copayment.
   B. Prepaid health plan with 40 percent consumer copayment.
   C. Fee-for-service plan with no consumer-cost sharing.
   D. Fixed-salary plan with no consumer-cost sharing.
   E. Prepaid health plan with no consumer-cost sharing.
   F. Fixed-salary plan with 40 percent consumer-cost sharing.
4. Answer the following questions regarding the U.S. health care system.
   A. What are the basic differences between conventional health insurance and managed care health insurance in terms of type of insurance offered and reimbursement practice?
   B. What is the difference between Medicare and Medicaid? How is Medicare financed? How is Medicaid financed?
   C. What is the DRG system? How are physicians currently reimbursed under the Medicare system?

Online Resources

To access Internet links related to the topics in this chapter, please visit our website at **www.cengage.com/economics/santerre**.

References

Arrow, Kenneth J. "Uncertainty and the Welfare Economics of Medical Care." *American Economic Review* 53 (December 1963), pp. 941–73.

Bodenheimer, Thomas, and Kevin Grumbach. "Financing Universal Health Insurance: Taxes, Premiums and the Lessons of Social Insurance." *Journal of Health Politics, Policy and Law* 17 (fall 1992), pp. 439–62.

DeNavas-Walt, Carmen, Bernadette D. Proctor, and Jessica C. Smith. "Income, Poverty, and Health Insurance Coverage in the United States: 2010." U.S. Census Bureau, *Current Population Reports*, pp. 60–239, U.S. Government Printing Office, Washington, DC, 2011.

Ellis, Randall P., and Thomas G. McGuire. "Supply-Side and Demand-Side Cost Sharing in Health Care." *Journal of Economic Perspectives* 7 (fall 1993), pp. 135–51.

Halm, Ethan A., Nancyanne Causino, and David Blumenthal. "Is Gatekeeping Better Than Traditional Care?" *Journal of the American Medical Association* 278 (November 1997), pp. 1677–81.

Hansmann, Henry A. *The Ownership of Enterprise*. Cambridge, Mass.: The Bellnap Press of Harvard University Press, 1996.

Mechanic, David. "Americanization of the British NHS." *Health Affairs* 14 (summer 1995), pp. 51–67.

Mosby Medical Encyclopedia. New York: C. V. Mosby, 1992.

Raffel, Marshall W., ed. *Health Care and Reform in Industrial Countries*. University Park: Pennsylvania State University Press, 1997.

Reinhardt, Uwe. "Economics." *Journal of the American Medical Association* 275 (June 1996), pp. 23–25.

Reinhardt, Uwe. "The Swiss Health Care System: Regulated Competition Without Managed Care." *Journal of the American Medical Association* 292 (September 2004), pp. 1227–1241.

Schmittdiel, Julie, Joe V. Selby, Kevin Grumbach, and Charles P. Quesenberry. "Choice of Personal Physician and Patient Satisfaction in a Health Maintenance Organization." *Journal of the American Medical Association* 278 (November 1997), pp. 1596–99.

Van de Ven, Wynand, P. M. M., and Randall P. Ellis. "Risk Adjustment in Competitive Health Plan Markets." In *Handbook in Health Economics*, eds. A. J. Calger and J. P. Newhouse. Amsterdam: North-Holland, 2000, chap. 14, pp. 755–845.

Weisbrod, Burton A. The *Nonprofit Economy*. Cambridge, Mass.: Harvard University Press, 1988.