

Chapter 12

Cost, Access, and Quality

Learning Objectives

- To understand the meaning of health care costs and review recent trends
- To examine the factors that have led to cost escalations in the past
- To become familiar with both regulatory and market-oriented approaches to contain costs
- To understand why some regulatory cost-containment approaches were unsuccessful
- To appreciate the framework and various dimensions of access to care
- To learn about access indicators and measurement
- To understand the nature, scope, and dimensions of quality
- To understand the difference between quality assurance and quality assessment
- To discuss the implications of the Affordable Care Act on cost, access, and quality



The health care sector of the economy is like a monster with a voracious appetite that needs to be controlled.

Introduction

Cost, access, and quality are three major cornerstones of health care delivery. For many years, employers and third-party payers in the United States have been preoccupied with controlling the growth of health care expenditures. Cost and access go hand in hand, meaning expansion of access will increase health care expenditures. This is one main reason that attempts to implement universal coverage in the United States have failed in the past and why it remains difficult even in the post-ACA era. Although cost and access have remained the primary concerns within the US health care delivery system, quality of health care has taken center stage in recent years. Cost, access, and quality are interrelated.

From a macro perspective, costs of health care are commonly viewed in terms of national health expenditures (NHE). As pointed out in Chapter 6, a widely used measure of NHE is the proportion of the gross domestic product (GDP) a country spends on the delivery of health care services. From a micro perspective, health care expenditures refer to costs incurred by employers to purchase health insurance and out-of-pocket costs incurred by individuals when they receive health care services. Improving access to health care and equal access to quality health care are contingent on expenditures at both the macro and micro levels.

High-quality care is also the most cost-effective care. Hence, cost is an important factor in the evaluation of quality. On the other hand, quality is achieved by having up-to-date capabilities, using evidence-based processes, and measuring *outcomes*. Quality goals are accomplished when the system capabilities and practices employed in the

delivery of health care achieve desirable outcomes for individuals and populations.

This chapter discusses the major reasons for the dramatic rise in health care expenditures. Costs are compared with those in other countries, and the impact of cost-containment measures is examined. Dimensions of access are presented. Finally, quality of care and its measurement are discussed.

Cost of Health Care

The term “cost” can carry different meanings in the delivery of health care, depending on whose perspective is considered. (1) When consumers and financiers speak of the “cost” of health care, they usually mean the “price” of health care. This could refer to the physician’s bill, the price of a prescription, or the cost of health insurance premiums. (2) From a national perspective, health care costs refer to how much a nation spends on health care, that is, NHE or health care spending. Since expenditures (E) equal price (P) times quantity (Q), growth in health care spending can be accounted for by growth in prices charged by the providers of health services and by increases in the utilization of services. (3) A third perspective is that of the providers, for whom the notion of cost refers to the cost of producing health care services. Such things as staff salaries, capital costs for buildings and equipment, rental of space, and purchase of supplies are included in the cost of production.

Trends in National Health Expenditures

Chapter 6 gave an overview of national and personal health expenditures, their composition, and the proportional share between

care achieve desirable duals and populations. discusses the major re- atic rise in health care ts are compared with ntries, and the impact nt measures is exam- of access are presented. are and its measurement

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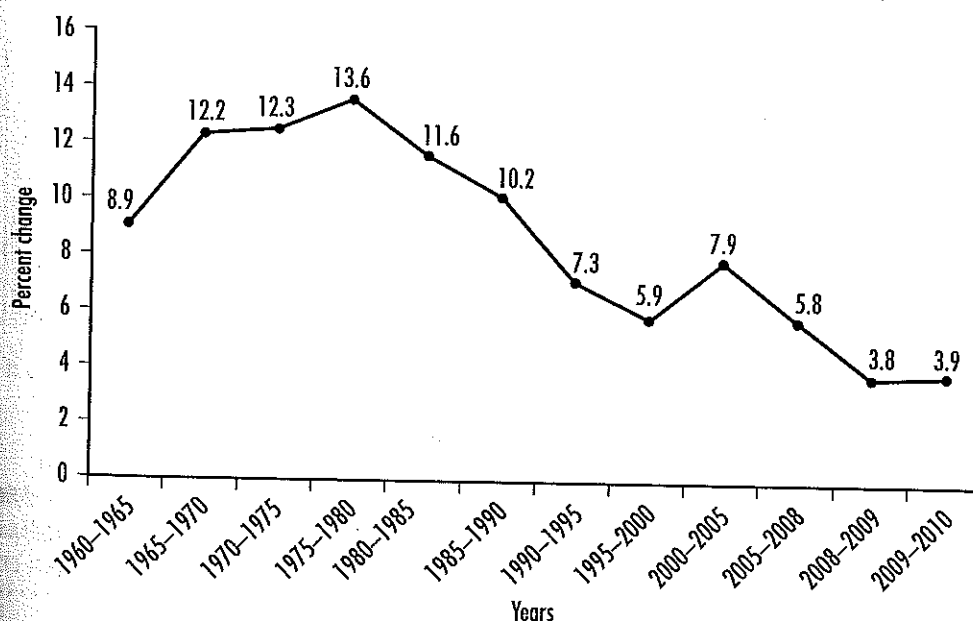
Health Expenditures

overview of national and expenditures, their compo- portional share between

the private and public sectors. Health care spending spiraled upward at double-digit rates during the 1970s, right after the Medicare and Medicaid programs created a massive growth in access in 1965. By 1970, government expenditures for health care services and supplies had grown by 140%, from \$7.9 to \$18.9 billion (DHHS 1996). During much of the 1980s, average annual growth in national health spending continued in the double digits, but the rate of increase slowed considerably (Figure 12-1). In the 1990s, medical inflation was finally brought under control, down to a single-digit rate of growth, mainly due to control over payment and utilization through managed care. The rate of growth has again started to accelerate, but at a relatively slow pace (Table 12-1).

Trends in NHE are commonly evaluated in three ways. One is to compare medical inflation to general inflation in the economy, which is measured by annual changes in the consumer price index (CPI). Except for a brief period between 1978 and 1981, when the US economy was experiencing hyperinflation, the rates of change in medical inflation have remained consistently above the rates of change in the CPI (Figure 12-2). The second method compares changes in NHE to those in the GDP. With only isolated exceptions, health care spending growth rates have consistently surpassed growth rates in the general economy (Figure 12-3). When spending on health care grows at a faster rate than GDP, it means that health care consumes a larger share of the total economic output. Put another way, a growing share of

Figure 12-1 Average Annual Percentage Growth in US National Health Care Spending During 5-Year Periods, 1960-2010.



Source: Data from *Health, United States, 1995*, p. 244; *Health, United States, 2002*, p. 291; *Health, United States, 2009*, p. 396; *Health, United States, 2012*, p. 323; Department of Health and Human Services.

Table 12-1 Average Annual Percentage Increase in US National Health Care Spending, 1975-2010

Periods	% Increase	Periods	% Increase
1975-1980	13.6	1995-2000	5.9
1975-1976	14.7	1995-1996	4.6
1976-1977	13.7	1996-1997	4.7
1977-1978	11.9	1997-1998	5.4
1978-1979	12.9	1998-1999	5.7
1979-1980	14.8	1999-2000	6.9
1980-1985	11.6	2000-2005	7.9
1980-1981	16.1	2000-2001	8.7
1981-1982	12.5	2001-2002	9.3
1982-1983	10.0	2002-2003	8.2
1983-1984	9.7	2003-2004	5.9
1984-1985	9.9	2004-2005	6.5
1985-1990	10.2	2005-2010	
1985-1986	7.6	2005-2006	6.7
1986-1987	8.5	2006-2007	6.1
1987-1988	11.9	2007-2008	4.7
1988-1989	11.2	2008-2009	3.8
1989-1990	12.1	2009-2010	3.9
1990-1995	7.3		
1990-1991	9.2		
1991-1992	9.5		
1992-1993	6.9		
1993-1994	5.1		
1994-1995	4.9		

Source: Data from *Health, United States, 1995*, p. 243; *Health, United States, 1996-97*, p. 249; *Health, United States, 1999*, p. 284; *Health, United States, 2000*, p. 322; *Health, United States, 2002*, p. 288; *Health, United States, 2005*, p. 363; *Health, United States, 2006*, p. 377; *Health, United States, 2008*, p. 415; *Health, United States, 2009*, p. 396; *Health, United States, 2011*, p. 374; *Health, United States, 2012*, p. 323; K. Levit et al. Trends in US health care spending, 2003. *Health Affairs* Vol. 22, no. 1: 154-164.

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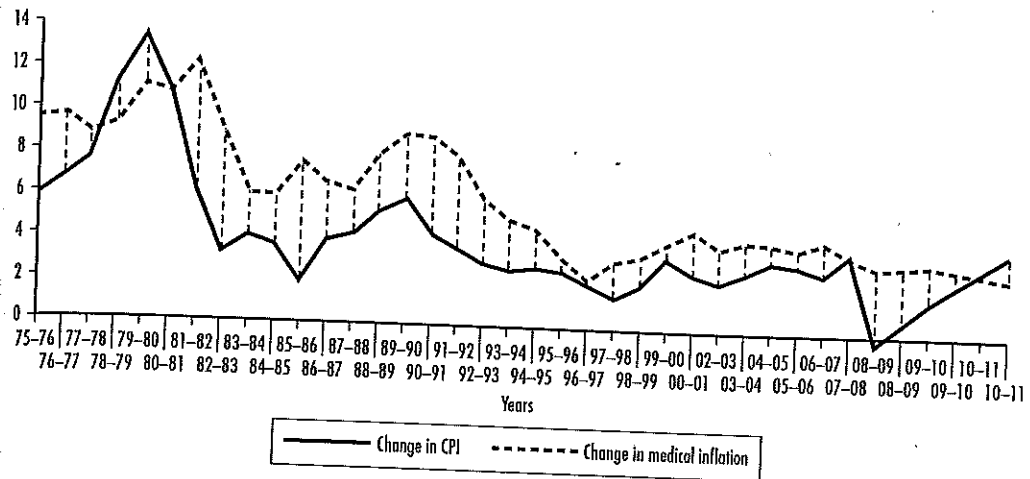
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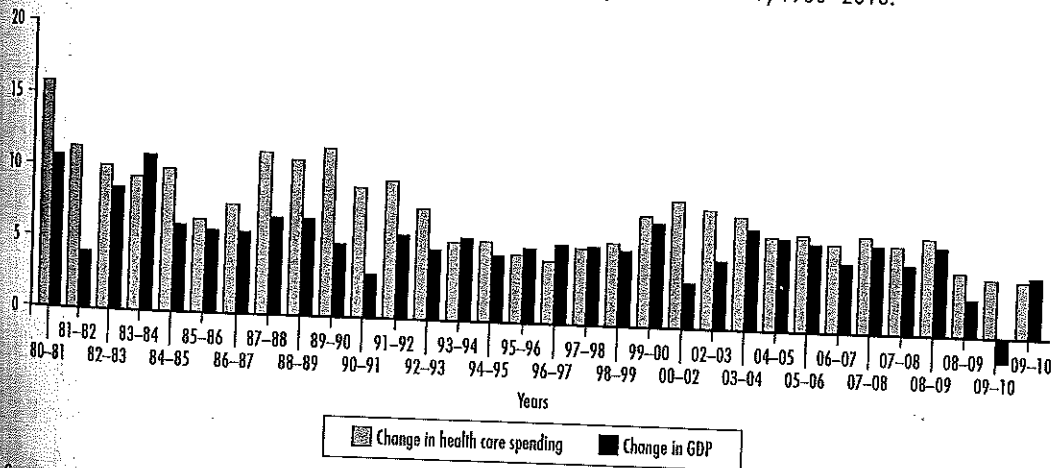
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Figure 12-2 Annual Percentage Change in CPI and Medical Inflation, 1975-2011.



Source: Data from *Health, United States, 1995*, p. 241; *Health, United States, 1996-97*, p. 251; *Health, United States, 2002*, p. 289; *Health, United States, 2006*, p. 375; *Health, United States, 2008*, p. 413; *Health, United States, 2009*, p. 394; *Health, United States, 2010*, p. 367; *Health, United States, 2011*, p. 371; *Health, United States, 2012*, p. 321.

Figure 12-3 Annual Percentage Change in US National Health Care Expenditures and GDP, 1980-2010.



Source: Data from *Health, United States, 1996-97*, p. 249; *Health, United States, 2002*, p. 288; *Health, United States, 2006*, p. 374; *Health, United States, 2008*, p. 412; *Health, United States, 2009*, p. 393; *Health, United States, 2010*, p. 366; *Health, United States, 2011*, p. 370; *Health, United States, 2012*, p. 320.

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; *Health, United States, 2006*,
p. 374; *Health, United States*,
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Table 12-2 Total US Health Care Expenditures as a Proportion of GDP and Per Capita Health Care Expenditures (Selected Years, Selected OECD Countries; Per Capita Expenditures in US Dollars)

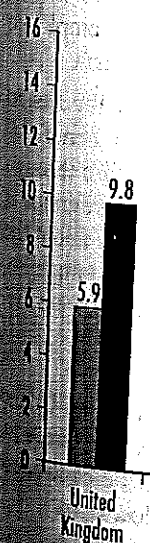
	1990	1995	2000	2005	2009
Australia	7.8 \$1,307	8.2 \$1,745	9.0 \$2,220	8.8 \$2,999	— —
Austria	7.0 \$1,338	8.0 \$1,870	7.6 \$2,184	10.3 \$3,507	11.0 \$4,289
Belgium	7.4 \$1,345	8.4 \$1,820	8.7 \$2,279	10.6 \$3,385	10.9 \$3,946
Canada	9.0 \$1,737	9.2 \$2,051	8.9 \$2,503	9.9 \$3,460	11.4 \$4,363
Denmark	8.5 \$1,567	8.2 \$1,848	8.4 \$2,382	9.5 \$3,179	11.5 \$4,348
Finland	7.8 \$1,422	7.5 \$1,433	6.7 \$1,718	8.3 \$2,523	9.2 \$3,226
France	8.6 \$1,568	9.5 \$2,033	9.3 \$2,456	11.1 \$3,306	11.8 \$3,978
Germany	8.5 \$1,748	10.6 \$2,276	10.6 \$2,761	10.7 \$3,251	11.6 \$4,218
Italy	7.9 \$1,391	7.3 \$1,535	8.1 \$2,049	8.9 \$2,496	9.5 \$3,137
Japan	5.9 \$1,115	6.8 \$1,538	7.6 \$1,971	8.2 \$2,474	— —
Netherlands	8.0 \$1,438	8.4 \$1,826	8.3 \$2,259	9.5* \$3,156*	12.0 \$4,914
Sweden	8.4 \$1,579	8.1 \$1,738	8.4 \$2,273	9.2 \$3,012	10.0 \$3,722
United Kingdom	6.0 \$986	7.0 \$1,374	7.3 \$1,833	8.2 \$2,580	9.8 \$3,487
United States	11.9 \$2,738	13.3 \$3,654	13.1 \$4,539	15.2 \$6,347	17.4 \$7,960

*Data from 2004

Source: Data from *Health, United States, 2009*, p. 392; *Health, United States, 2011*, p. 369.

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Figure 12-4 US



*Data for 2005.

Source: Data from *Health, United States, 2011*, p. 369.

Health Care Expenditures

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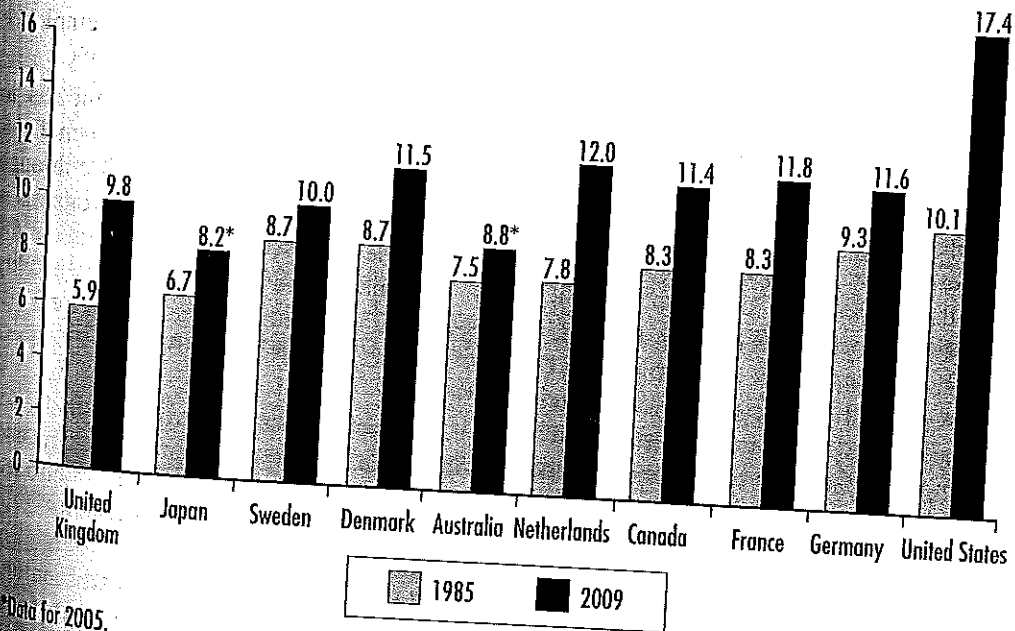
total economic resources is devoted to the delivery of health care.

International comparison is the third method. Compared to other nations, the United States uses a larger share of its economic resources for health care (Table 12-2). In addition, the United States has outpaced the growth in health care spending in other countries (Figure 12-4). Numerous reasons have been given for the growth of health care expenditures, and several initiatives have been employed over the years to prevent out-of-control spending. These topics are subsequently discussed in this chapter.

The rate of growth in health spending came down to its lowest level in 4 decades (5.7% average annual growth) between 1993

and 2000 as managed care proliferated, but the good news ended as the year 2002 recorded the fastest annual growth (9.3%) since 1992. However, the rate of growth has been slowing down each year (see Table 12-1). In 2010, the rate of growth slowed down to 3.9% over 2009. This decrease is largely attributed to the most severe recession the nation has experienced since 1933. As a result, personal health care expenditures that are paid mostly by private sources increased just 2.8%, the lowest rate since the 1990s, when managed care implemented tight cost control measures (Hartman et al. 2011). The ACA will be a major factor in determining future growth of health care expenditures. Higher utilization of health

Figure 12-4 US Health Care Spending as a Percentage of GDP for Selected OECD Countries, 1985 and 2009.



*Data for 2005.

Source: Data from Health, United States, 2002, p. 287; Health, United States, 2011, p. 368.

care services will no doubt lead to medical care cost inflation unless measures are employed to slow down the rise in P and Q.

In 2010, health care spending in the United States was \$2.59 trillion, or 17.9% of GDP (DHHS 2013). According to the Congressional Budget Office, if present trends continue, health care spending will amount to 25% of GDP by 2025, 37% by 2050, and 49% by 2082 (CBO 2007). These forecasts portend that the health care sector will remain one of the fastest growing components of the US economy.

Should Health Care Costs Be Contained?

Americans view growth in expenditures in other sectors of the economy, such as manufacturing, much more favorably than expenditures on medical care. Increased medical expenditures create new health care jobs, do not pollute the air, save rather than destroy lives, and alleviate pain and suffering. Why shouldn't society be pleased that more resources are flowing into a sector that cares for the aged and the sick? It would seem to be a more appropriate use of a society's resources than spending those same funds on faster cars, fancy clothes, or other consumable items. Yet, increased expenditures for these other consumable items do not cause the concern that arises when medical expenditures increase (Feldstein 1994).

Unlike other goods and services in the economy, health care is not delivered under free market conditions (see Chapter 1). For the consumption of various other goods and services, the free market determines how much people and the nation should spend, depending on their economic capabilities. In the United States, the private sector and the government share roughly equally in the financing of health care. In a quasi-market, such as

health care in the United States, it would be almost impossible to determine how much the nation should spend. Hence, in the United States, we depend on three main sources to assess whether we spend too much:

1. The first source is international comparisons (Table 12-2), which is actually not an unbiased tool because, in these other nations, the government decides how much should be spent on health care and various rationing measures—such as supply-side controls, comparatively little spending on developing new technology, and price controls (for pharmaceuticals, for example)—are used to maintain certain levels of predetermined spending.
2. The second source is the rise in health insurance premiums in the private sector. This is what triggered private employers to abandon traditional fee-for-service insurance plans, sometime in the 1980s, and to seek employee coverage through HMO plans.
3. How much the government has to spend on health care for beneficiaries who receive health care through various public insurance programs is the third source. Concerns about the short- and long-term sustainability of the Medicare trust funds were discussed in Chapter 6.

Experts generally agree that the United States spends too much on health care, and therefore, expenditures must be controlled. The main reasons are as follows:

1. Rising health care costs consume greater portions of the total economic output. Because economic resources

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are limited, rising health care costs mean that Americans have to forgo other goods and services when more is spent on health care.

2. Limited economic resources should be directed to their highest valued uses. In a free market, consumers make purchasing decisions based on their perception of value, knowing that an expenditure on one good means forgoing other goods and services (Feldstein 1994). In health care delivery, comprehensive health insurance creates moral hazard and provider-induced demand (discussed in Chapter 1), both of which fuel inefficiencies in the consumption of resources.
3. American businesses argue that rising insurance premium costs have to be passed on to consumers in the form of higher prices, which may interfere with the ability of businesses to stay globally competitive. For example, health insurance premiums have consistently increased faster than inflation in the general economy or workers' wages in recent years. Between 1999 and 2008, the cumulative growth in health insurance premiums was 119%, whereas cumulative inflation was 29% and cumulative wage growth was 34% (Kaiser Family Foundation 2009).
4. Rising premium costs limit the ability of many employers, especially small businesses, to offer health benefits, and, when those benefits are offered, they limit the ability of some employees to contribute toward the purchase of employer-sponsored

insurance coverage (Kaiser Family Foundation 2010).

5. Rising health care costs take a toll on average- and low-income Americans. The 2010 Commonwealth Fund International Health Policy Survey pointed out that affordability of health care was one of the biggest economic problems for many Americans (Health Council of Canada 2010). Only 25% of Americans were very confident in their ability to afford care in case of serious illness. Twenty-two percent of Americans (compared to an average of 8% in other countries) had a medical problem but did not visit a doctor because of cost.
6. The government has only limited ability to raise people's taxes, given that most American tax payers believe that they already pay more than their fair share of taxes. Paradoxically, as has been widely reported, half of Americans, many of whom use tax-financed health care, pay no federal income taxes (*USA Today* 2010).

Reasons for Cost Escalation

Numerous factors have been attributed to rising health care expenditures. They interact in complex ways. Hence, one cannot just point to one or two main causes. General inflation in the economy is a more visible cause of health care spending because it affects the cost of producing health care services through such things as higher wages and cost of supplies. Some of the other factors mentioned subsequently were also discussed in earlier chapters. They are

included here, along with additional pertinent details, to provide a comprehensive picture of the reasons behind medical cost inflation:

- Third-party payment
- Imperfect market
- Growth of technology
- Increase in elderly population
- Medical model of health care delivery
- Multipayer system and administrative costs
- Defensive medicine
- Waste and abuse
- Practice variations

Third-Party Payment

Health care is among the few services for which a third party, not the consumer, pays for most services used. Whether payment is made by the government or by a private insurance company, individual out-of-pocket expenses are far lower than the actual cost of the service (Altman and Wallack 1996). Hence, patients are generally insensitive to the cost of care. Introduction of prospective payment methods and capitation has, to a large extent, minimized provider-induced demand. However, the backlash against managed care (see Chapter 9) from consumers and providers alike has, in a sense, kept the door open to the overuse of high-cost technologies and other services. Also, fee-for-service reimbursement and its discounted fee variation are still widely used in the outpatient sector of health care delivery. Hence, provider-induced demand has not been expunged from the system.

Imperfect Market

Prices charged by providers for health care services are likely to be much closer to the cost of producing the services in a highly regulated or highly competitive market (Altman and Wallack 1996). Because the US health care delivery system follows neither the highly regulated single-payer model nor a free market model, utilization remains largely unchecked; prices charged for health care services remain higher than the true economic costs of production (Altman and Wallack 1996). A quasi-market results in increased health care expenditures because both Q and P remain unchecked.

Growth of Technology

The United States has been characterized as following an early-start-fast-growth pattern in the adoption and diffusion of intensive procedures (TECH Research Network 2001). Factors that drive technology innovation, diffusion, and utilization and their impact on cost escalation were discussed in Chapter 5. The use of advanced imaging scanning during visits to physician offices and outpatient departments more than tripled from 1996 to 2007 (NCHS 2010a). Medicare Part B spending for imaging services under the physician fee schedule more than doubled between 2000 and 2006, from \$6.9 billion to \$14.1 billion (US GAO 2008).

New technology is expensive to develop, and costs incurred in research and development (R&D) are included in total health care expenditures. One reason Canada and European nations, compared to the United States, have incurred lower costs is that they have proportionally invested far less in R&D.

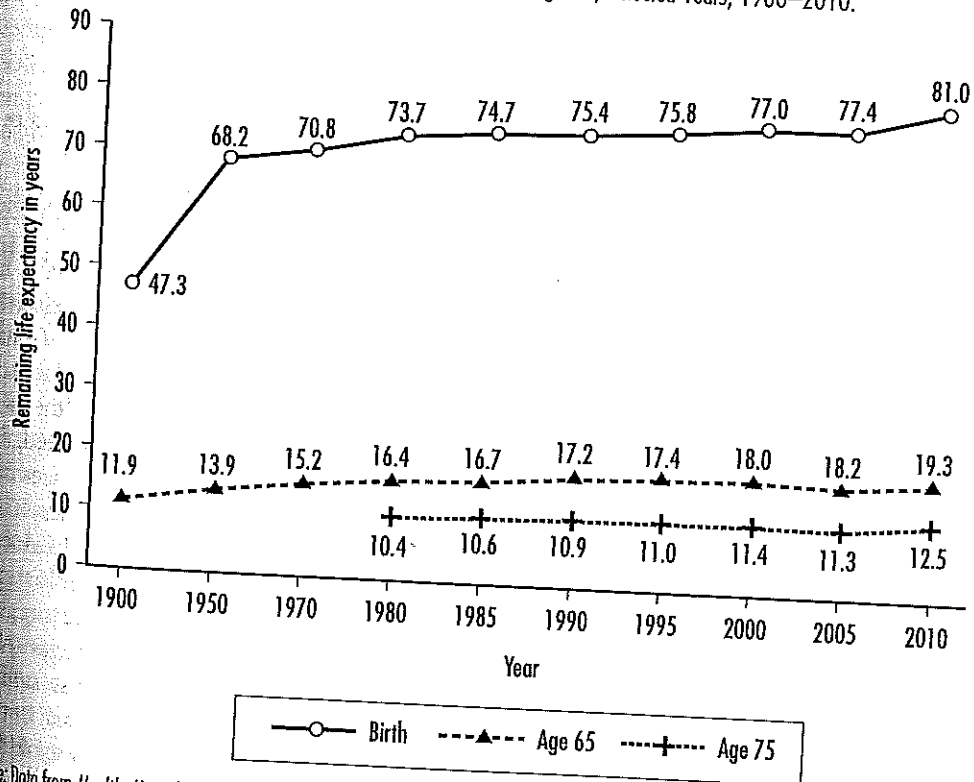
Increase in Elderly Population

Since the early part of the 20th century, life expectancy in the United States has consistently risen (see Figure 12-5). Life expectancy at birth increased by over 30 years, from 47.3 years in 1900 to 81.0 years in 2010 (DHHS 2013). Consequently, the United States—and other industrialized nations as well—is experiencing an aging boom. Growth in the US elderly population has outpaced growth in the nonelderly population since 1900. Figure 12-6 shows changes in the makeup of the US population from 1970 to 2011. Most remarkable is the growth in the 85-and-older group, whereas

the youngest age group is shrinking. Growth of the elderly population is projected to continue through the middle of the 21st century. Between 2000 and 2030, the proportion of the US population 65 years of age and older is expected to rise from 12.4% to 20%, that is, 1 in 5 Americans will be elderly in 2030. The number in the 85-and-older category is projected to more than double.

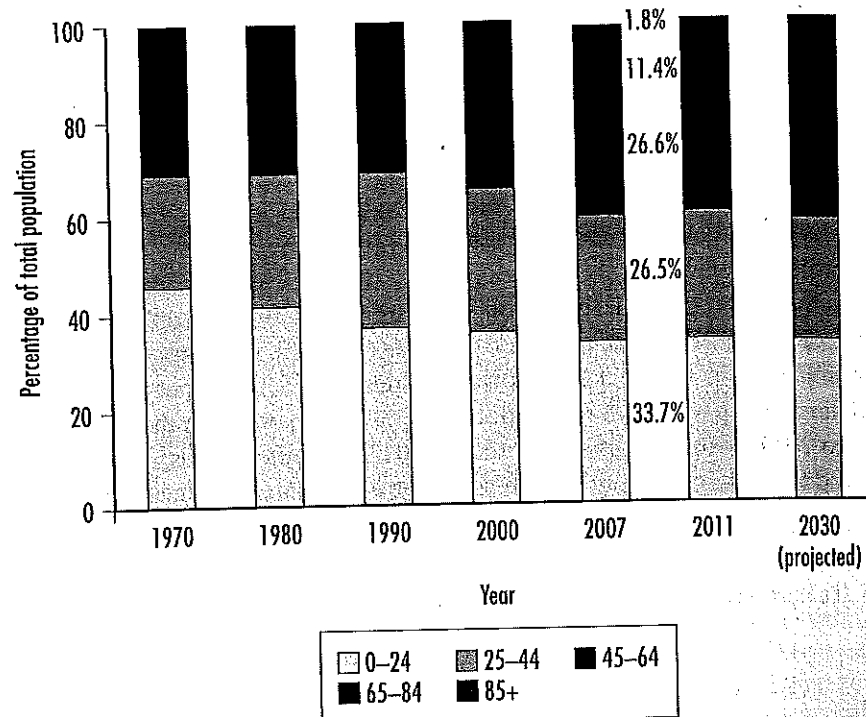
Elderly people consume more health care than younger people. In 2009, the average medical expenses for people 65 and older were \$10,082 per person, compared to \$3,931 per person for those under 65 (DHHS 2013). In other words, health care costs for the elderly are 2.6 times more than those for

Figure 12-5 Life Expectancy of Americans at Birth, Age 65, and Age 75, Selected Years, 1900–2010.



Source: Data from *Health, United States, 2002*, p. 116; *Health, United States, 2009*, p. 187; *Health, United States, 2012*, p. 76.

Figure 12-6 Change in US Population Mix Between 1970 and 2011, and Projections for 2030.



Source: Data from *Health, United States, 2012*, p. 45; National Center for Health Statistics; *Census 2000*, US Census Bureau; *Projections of the Total Resident Population by 5-Year Age Groups, and Sex with Special Age Categories: Middle Series, 2025 to 2045*, US Census Bureau.

the nonelderly. Hence, health care expenditures are sure to rise unless drastic steps are taken to curtail spending. Total Medicare expenditures are projected to increase from 2.7% of GDP in 2005 to 9% of GDP in 2050 (Van de Water and Lavery 2006).

Medical Model of Health Care Delivery

As discussed in Chapter 2, the medical model emphasizes medical interventions after a person has become sick. It does not put equal emphasis on prevention and lifestyle behavior changes to promote health. Although health promotion and disease prevention are not the answer to every

health problem, these principles have not been accorded their rightful place in the US health care delivery system. Consequently, more costly health care resources must be deployed to treat health problems that could have been prevented. For example, smoking-related illnesses are estimated to cost the United States \$75.5 billion annually for direct medical care and an additional \$167 billion in lost productivity (CDC 2005). Evidence suggests that smoking cessation programs have the potential for significant cost savings without imposing an undue cost burden on insurers and employers (Levy 2006). Although the prevalence of cigarette smoking

has been slowly declining, in 2007, 22.3% of American adult males and 17.4% of women still smoked (NCHS 2010b).

Overweight conditions and obesity have reached alarming rates in the United States and in many other developed nations. It is estimated that 68.5% of Americans age 20 and over are overweight, of which 35.3% are obese (DHHS 2013). Overweight and obesity substantially elevate the risk of heart disease, diabetes, some types of cancers, musculoskeletal disorders, and gallbladder problems. Estimates suggest that, of the total medical spending in the United States, 10% (\$147 billion) could be attributed to overweight and obesity, rivaling that attributed to smoking (Finkelstein et al. 2009). Both Medicare and Medicaid spend a disproportionate share to treat overweight- and obesity-related health problems. On average, obese Medicare beneficiaries incur \$600 per beneficiary per year in extra costs, compared to beneficiaries with normal weight (Finkelstein et al. 2009).

Multipayer System and Administrative Costs

Administrative costs are associated with the management of the financing, insurance, delivery, and payment functions. They include management of the enrollment process, setting up contracts with providers, claims processing, utilization monitoring, denials and appeals, and marketing and promotional expenses. The enrollment process in private, employer-financed health plans and in publicly financed Medicaid and Medicare programs includes determination of eligibility, enrollment, and disenrollment. Each activity has associated costs. Private insurers also incur marketing costs to promote and sell their plans. Providers have to deal with

numerous plans in which the extent of benefits and reimbursement is not standardized. It is difficult and costly to remain current with the numerous and changing rules and regulations. Denials of payment result in rebilling and follow-up. Denials of services result in appeals and incur costs for the insurer to review the appeals and for the provider to furnish justifications for the delivery of services. Utilization review and authorization of care incur additional costs for both payers and providers. According to the Centers for Medicare and Medicaid Services (CMS), the administrative costs, taxes, profits, and other nonbenefit expenses of private health plans have averaged about 12% of premiums (Lemieux 2005). The ACA requires health plans to standardize electronic data exchange to reduce administrative costs, although there are no specific guidelines as to how information must be transferred (Blanchfield et al. 2010). The ACA, however, addresses a minute portion of the total administrative costs; hence, its likely effects will be negligible.

Defensive Medicine

The US health care delivery system is characterized by litigation risks for providers (see Chapter 1). Fear of legal liability is one of the main reasons for carrying out unnecessary cesarean sections, for example, because it makes it easier to defend a potential birth injury case. Unrestrained malpractice awards by the courts and increased malpractice insurance premiums for physicians add significantly to the cost of health care.

Fraud and Abuse

Fraud and (system) abuse are another type of waste in health care, which were introduced in Chapter 6. *Fraud* involves

a knowing disregard of the truth. It has been identified as a major problem in the Medicare and Medicaid programs. Fraud occurs when billing claims or cost reports are intentionally falsified. Fraud may also occur when more services are provided than are medically necessary or when services not provided are billed. *Upcoding* is another fraudulent practice in which a higher priced service is billed when a lower priced service is actually delivered. These practices are illegal under the False Claims Act.

Under the Anti-Kickback statute (Medicare and Medicaid Patient Protection Act of 1987), it is illegal to provide any remuneration to any individual or entity in exchange for a referral for services to be paid by the Medicare or Medicaid program. Knowingly providing such financial inducements amounts to a federal crime punishable by imprisonment. Stark Laws prohibit physician self-referral for laboratory or other designated health services (see Chapter 5).

Practice Variations

The work of John Wennberg and others brought to the fore a disturbing aspect of physician behavior, accounting for wide variations in treatment patterns for similar patients. Numerous studies in the United States and abroad have documented notable differences in utilization rates for hospital admissions and surgical procedures among different communities, as well as for the same specialties (Feldstein 1993). These practice variations are referred to as *small area variations* (SAV) because the differences in practice patterns have only been associated with geographic areas of the country. For example, in earlier studies,

variations in the rate of tonsillectomies in New England counties could not be explained by differences in the demographics or other characteristics of the populations studied (Wennberg and Gittelsohn 1973); the overall inpatient hospital utilization by an aged population in East Boston was higher than that by an equivalent population in New Haven (Wennberg et al. 1987). More recent investigations on regional differences in Medicare spending demonstrated that higher rates of inpatient-based care and specialist services were associated with higher costs but not with improved quality of care, health outcomes, access to services, or satisfaction with care (Fisher et al. 2003a, 2003b). This variation, which can be as great as two-fold, cannot be explained by age, gender, race, pricing variations, or health status (Baucus and Fowler 2002). Geographic variations, as discussed here, signal gross inefficiencies in the US health care delivery system because they increase costs without yielding appreciably better outcomes. This variation is also unfair because workers and Medicare beneficiaries in low-cost, more efficient regions subsidize the care of those in high-cost regions (Wennberg 2002). SAVs cannot be explained by demand inducement. For example, no incentives exist for physicians to induce demand in Canada or Britain, yet variations similar to those in the United States also exist in those countries. SAVs indicate that patients in some parts of the country are receiving too much treatment, whereas others may be receiving too little. Medical opinions often differ on the appropriateness of clinical interventions because physicians use different criteria for hospital admissions and surgical interventions (Gittelsohn and Powe 1995).

Cost Containment—Regulatory Approaches

Many attempts to control health care spending have been undertaken in the United States; however, most of these attempts have met with only limited success, mainly because system-wide cost controls are almost impossible to implement in a quasi-market system. Cost-containment measures in the United States have been piecemeal, affecting only certain targeted sectors of the health care delivery system at a time. So, for instance, when prices have been regulated, utilization has been left untouched; or, when capital expenditures have required preapprovals, operating costs of production have been exempted.

Single-payer systems in other industrialized nations have created national regulatory mechanisms to keep their health care spending in line with their GDPs. Many of these countries follow what is referred to as *top-down control* over total expenditures. They establish budgets for entire sectors of the health care delivery system. Funds are distributed to providers in accordance with these global budgets. Thus, total spending remains within established budget limits. The downside to this approach is that, under fixed budgets, providers are not as responsive to patient needs and the system provides little incentive to be efficient in the delivery of services. Once budget allocations are used up, providers are forced to cut back services, particularly for illnesses that are not life threatening or do not represent an emergency. This top-down approach is in sharp contrast to the "bottom-up" approach used in the United States, where each provider and MCO establishes its own

fees or premiums (Altman and Wallack 1996). Competition, created by employers shopping for the best premium rates and by MCOs contracting with providers who agree to favorable fee arrangements, determines what the total expenditures will be. To some extent, the United States also uses regulatory cost control, although it is not as comprehensive as it is in countries with national health care programs.

Cost-control efforts in the United States are characterized by a combination of government regulation and market-based competition. A fragmented approach to cost control allows providers to shift costs (see Cost Shifting in Chapter 6), mainly from low payers to higher payers or from one delivery sector to another. For example, when regulatory controls are employed to squeeze costs out of the inpatient sector, providers experience reduced revenues from inpatient services. To make up for the lost revenues, they increase utilization of outpatient services if that sector is free of controls. In another scenario, when the government implements cost-control measures, providers may start charging higher prices to private payers. This practice is very common in the nursing home industry, in which reimbursement is restricted under Medicaid rate-setting criteria. In this case, nursing home administrators make a conscious attempt to make up for lost revenues by admitting more private-pay residents and by establishing higher private-pay charges.

Regulatory approaches to cost containment, in the United States and elsewhere, typically control health care supply, prices, and utilization (Exhibit 12-1). Supply-side controls (health planning) enable policy makers to limit the number of hospital

Exhibit 12-1 Regulation-Based and Competition-Based Cost-Containment Strategies

Regulation-Based Cost-Containment Strategies	
Supply-side controls	Restrictions on capital expenditures (new construction, renovations, and technology diffusion) Example: Certificate of need Restrictions on supply of physicians Example: Entry barriers for foreign medical graduates
Price controls	Artificially determined prices Examples: Reimbursement formulas Prospective payment systems Diagnosis-related groups Resource utilization groups Global budgets
Utilization controls	Peer review organizations
Competition-Based Cost-Containment Strategies	
Demand-side incentives	Cost sharing Sharing of premium costs Deductibles and copayments
Supply-side regulation	Antitrust regulation
Payer-driven competition	Competition among insurers Competition among providers
Utilization controls	Managed care

beds and diffusion of costly technology, but regulatory limits on the health care system's capacity inevitably create monopolies on the supply side. To make sure that these artificially created monopolies do not exploit their economic power, health planning is always coupled with stiff price and budgetary controls (Reinhardt 1994).

Health Planning

Health planning refers to a government undertaking to align and distribute health care resources so that, at least in the eyes of the government, the system will achieve desired health outcomes for all people. The planning function becomes critical in a centrally controlled national health care

program so that the basic health care needs of the population are met and expenditures are maintained at predetermined levels.

The central planning function does not fit well in a system in which more than one-half of health care financing is in private hands and there is no central administrative agency to monitor the system. Instead, the types of health care services, their geographic distribution, access to these services, and the prices charged by providers develop independently of any preformulated plans. Levels of expenditures cannot be predetermined, and such a system is not conducive to achieving broad social objectives. Nevertheless, the United States has tried some forms of health planning on voluntary or mandated bases, but these efforts have met limited success.

Health Planning Experiments in the United States

Some of the early efforts to control health care costs in the United States took the form of voluntary health planning, with the goal of minimizing duplication of services. In the 1930s and 1940s, communitywide voluntary organizations, called hospital councils, were established by hospitals in some of the largest cities. Hospitals agreed to share or consolidate services, or they traded the closing of a service in one hospital for the expansion of another service (Williams 1995). Voluntary planning worked only on a limited basis and only in instances where participating hospitals could gain an advantage through cooperative planning. Consequently, voluntary planning contributed little to overall efficiency (Gottlieb 1974).

The federal government got involved in health planning after the passage of Medicare and Medicaid in the 1960s. Soon thereafter, recognizing the increasing dollars the

federal government was putting into health care, Congress concluded that it had the right to control escalating costs (Williams 1995). The comprehensive health planning legislation of the mid-1960s mandated the establishment of local and state health planning agencies. These agencies assessed local health care needs and advocated better coordination and distribution of resources. However, the agencies had little or no actual regulatory power and were largely ineffective (Williams 1995). When these agencies were evaluated, planned and unplanned areas were found to have the same amount of duplication of facilities and services and the rate of increase in hospital costs were the same (May 1974).

Certificate-of-Need Statutes

As discussed in Chapter 5, *certificate-of-need* (CON) statutes were state-enacted legislation whose primary purpose was to control capital expenditures by health facilities. The CON process required prior approval from a state government agency for the construction of new facilities, expansion of existing facilities, or acquisition of expensive new technology. Approvals were based on the demonstration of a community need for additional services. Although the reasons given for the CON legislation were better planning of resources and control of increasing expenditures, the adoption of CON was easier in states having greater competition among hospitals (Wendling and Werner 1980), indicating that hospitals supported CON legislation when it was to their own benefit. These hospitals did not want additional capital spending on new construction and equipment by their competitors.

CON laws did not seem to lower hospital expenditures on a per patient-day basis.

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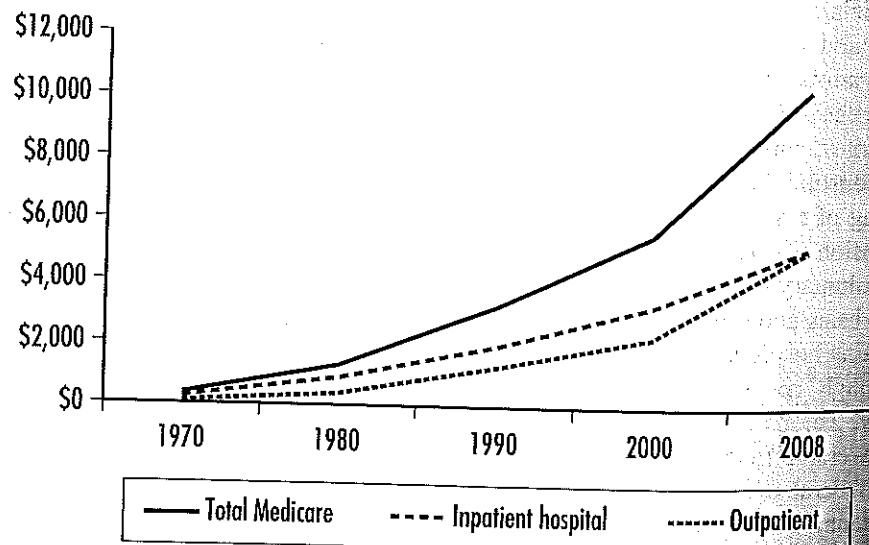
CON also represented a conservative approach to containing the rise in hospital costs because it did not address reimbursement and provided no incentives to change utilization behavior in patients or physicians (Feldstein 1993). In the case of nursing homes, however, CON regulations have been used to contain Medicaid costs. In the face of a growing demand for nursing home beds, CON regulations have restricted the supply of nursing home beds that otherwise would have been utilized. More recently, the Home and Community Based Services (HCBS) waiver program—also referred to as 1915(c) waivers (see Chapter 10)—has been used to curtail nursing home utilization and costs.

Price Controls

Perhaps the most important effort to control prices of inpatient hospital care was

the conversion of hospital Medicare reimbursement from cost-plus to a prospective payment system (PPS) based on diagnosis-related groups (DRGs) authorized under the Social Security Amendments of 1983 (see Chapter 6). The DRG-based reimbursement significantly reduced growth in inpatient hospital spending but had little effect on total per capita Medicare cost inflation because costs were shifted from the inpatient to the outpatient sector (Figure 12-7). As explained in Chapter 6, Medicare has implemented other price-control measures that apply to physicians, home health care, and various inpatient service providers. These programs seem to have been successful. For example, before the implementation of the resource-based relative value scale (RBRVS) for physician payments, the per capita Medicare spending for physician

Figure 12-7 Increase in US Per Capita Medicare Spending, Selected Years, 1970–2008.



Source: Data from *Health, United States, 2010*, p. 402; National Center for Health Statistics.

Medicare reimbursement a prospective on diagnosis-coded under the of 1983 (see d reimbursement growth in inpatient little effect cost inflation from the inpatient Figure 12-7). Medicare has control measures present methods in health care, ce providers. ive been suc- he implemen- relative value payments, the ; for physician

services had increased at an average annual rate of 11.7% between 1980 and 1990. After RBRVS, per capita Medicare spending for physician services increased by only 5% annually between 1995 and 2005, based on data from the CMS. States have employed price-control measures to control their Medicaid expenditures by employing complex formulas that produce arbitrary reimbursement rates and payment ceilings.

Recent proposals are aimed to align Medicare payments with quality of care. In 2003, as part of the Medicare Prescription Drug, Improvement, and Modernization Act, the US Congress asked the Institute of Medicine (IOM) to assess the potential for implementing pay-for-performance (P4P) methods in the Medicare program (IOM 2004). The IOM found mixed evidence regarding the effectiveness of P4P payments, and it noted that unintended adverse consequences of P4P could include decreased access to care, increased disparities in care, and impediments to innovation. However, the IOM concluded that careful monitoring of P4P could minimize these adverse consequences. On the other hand, the IOM argued that, if Medicare payment structures were left unchanged, they would pose a barrier to improved quality of care.

Research to date does not show that P4P would significantly improve outcomes or control costs (Kruse et al. 2012; Ryan 2009). In longer term, improvements gained in the first few years of implementation tend to fade (Jha et al. 2012; Werner et al. 2011). Also, there is little evidence that hospitals would respond to P4P incentives (Nicholas et al. 2011). To the contrary, if P4P were to result in revenue loss for providers or cost increases for payers, there would be negative repercussions (Kruse et al. 2012). Despite the controversies, the ACA has directed the

CMS to establish a Value-Based Purchasing Program (VBP) for Medicare payments to hospitals. The law also directs the CMS to expand VBP to other areas of health care delivery, such as home health agencies and skilled nursing facilities.

The Medicare program is not alone in considering P4P strategies. As of July 2006, more than half of the states have instituted P4P in their Medicaid programs (Kuhmerker and Hartman 2007). While these programs are in the early stages of development, CMS is offering technical assistance to states for implementing and evaluating P4P. One of the largest is the MassHealth P4P program, implemented in 2008 by the Massachusetts Medicaid Program. Similar to P4P in Medicare, evaluation of this program has so far found only a limited effect on quality improvement (Ryan 2009).

There are more than 40 P4P programs in the private sector (James 2012). The California Integrated Healthcare Association's (IHA's) statewide P4P program, operated since 2003, is so far the largest and longest running private-sector P4P experiment in the United States (James 2012). However, despite the investment by health care organizations, especially for information technology (IT) adoption and data collection, no "breakthrough quality improvements" have been achieved and no evidence of "any savings or moderation in cost trends" has been found (Damberg et al. 2009).

Peer Review

The term *peer review* refers to the general process of medical review of utilization and quality when it is carried out directly by or under the supervision of physicians (Wilson and Neuhauser 1985). Based on this concept, the Social Security Amendments

of 1972 required the establishment of professional standards review organizations (PSROs). These associations of physicians reviewed professional and institutional services provided under Medicare and Medicaid. The stated purpose was monitoring and control of both cost and quality. When Congress evaluated the performance of PSROs for their cost-control effectiveness, the program had not produced any net savings. Because of their questionable effectiveness, the PSROs were replaced in 1984 by a new system of peer review organizations (PROs), now called quality improvement organizations (QIOs). QIOs are private organizations composed of practicing physicians and other health care professionals in each state who are paid by the CMS under contract to review the care provided to Medicare beneficiaries. To control utilization, QIOs determine whether care is reasonable, necessary, and provided in the most appropriate setting.

Cost Containment—Competitive Approaches

Competition refers to rivalry among sellers for customers (Dranove 1993). In health care delivery, it means that providers of health care services will try to attract patients who can choose among several different providers. Although competition more commonly refers to price competition, it may also be based on technical quality, amenities, access, or other factors (Dranove 1993). Because competition is an essential element for the operation of free markets, competitive approaches are also referred to as market-oriented approaches. Competitive strategies fall into four broad categories: demand-side incentives, supply-side

regulation, payer-driven price competition, and utilization controls (Exhibit 12-1).

Demand-Side Incentives

The underlying notion of cost sharing is that, if consumers pay out of pocket a larger share of the cost of health care services they use, they will consume services more judiciously. In essence, cost sharing encourages consumers to ration their own health care. For example, cost sharing leads people to forgo professional services for minor ailments, but not for serious problems (Wong et al. 2001).

et al. 2001).

Cost sharing (now a common feature of almost all health plans) became popular after the Rand Health Insurance Experiment empirically demonstrated the effects of cost sharing. The most comprehensive study of its type, the experiment ran from 1974 through 1981. It enrolled more than 7,000 people into 1 of 14 different health plans. They included a free plan carrying no deductible or copayments. The other plans involved varying degrees of cost sharing. It was found that cost sharing resulted in lower costs, compared to the free plan. Coinsurance rates of 25% resulted in a 19% decline in expenditures because out-of-pocket costs reduced health care utilization. Increased coinsurance rates resulted in further declines in utilization and expenditures. Another important finding of the Rand Experiment was that lower utilization due to cost sharing did not affect most measures of health status. People enrolled in the free plan did better in three areas: vision, blood pressure, and dental health, but the average appraised mortality risk for people on the free plan was close to the risk for those with cost sharing (Feldstein 1993).

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Supply-Side Regulation

As pointed out in Chapter 9, US antitrust laws prohibit business practices that stifle competition among providers. These practices include price fixing, price discrimination, exclusive contracting arrangements, and mergers the Department of Justice deems anticompetitive. The purpose of antitrust policy is to ensure the competitiveness and, thus, the efficiency of economic markets. In a competitive environment, MCOs, hospitals, and other health care organizations have to be cost efficient to survive.

Payer-Driven Price Competition

Generally speaking, consumers drive competition. However, health care markets are imperfect, and thus patients are not typical consumers in the marketplace because insured patients lack the incentive to be good shoppers and because patients face information barriers that prevent them from being efficient shoppers. Despite the information boom, it is extremely difficult for individual patients or their surrogates to obtain needed information on cost and quality. Payer-driven competition in the form of managed care has overcome the drawbacks of patient-driven competition (Dranove 1993). Payer-driven competition occurs at two different points. First, employers shop for the best value, in terms of the cost of premiums and the benefits package (competition among insurers). Second, MCOs shop for the best value from providers of health services (competition among providers).

Utilization Controls

Managed care also helps overcome some of the other inefficiencies of an imperfect

health care market. The utilization controls in managed care (discussed in Chapter 9) have cut through some of the unnecessary or inappropriate services provided to consumers. Managed care is designed to intervene in the decisions made by care providers to ensure that they give only appropriate and necessary services and that they provide the services efficiently. MCOs base this intervention on information that is not generally available to consumers. MCOs thus act on the consumer's behalf (Dranove 1993).

The Affordable Care Act and Cost Containment

To keep the cost increase spiral from rising unsustainably, some cost-control measures are essential. The main cost-control measures under the ACA pertain to Medicare payment cuts to providers. Also, it is believed that competition among health plans through the exchanges would control the cost of health insurance premiums. Yet, various mandates imposed on health plans will increase premium costs, which will be borne mostly by employers who offer health insurance and their employees, because they will not get government subsidies. It is not clear whether expansion of the prescription drug benefit under Medicare Part D, by phasing out the coverage gap, is cost neutral. Another major impact on costs will come from the various new taxes imposed under the ACA. For example, excise taxes imposed on insurance companies based on their health insurance premium revenues, the 2.3% excise tax on medical devices, and taxes on pharmaceutical companies will all be passed

on to consumers eventually. To assess the ACA's future impact on health care costs, it is currently unclear how the government will report health care expenditures. For example, will the government subsidies that will be paid to millions of Americans to purchase health insurance be fully captured as health care costs? What about the costs associated with the expansion of the Internal Revenue Service that are associated with the collection of the various taxes and penalties called for specifically by the ACA? On the other hand, some advocates assert that the ACA will be able to control health care costs (Kaiseredu.org 2013; Zuckerman and Holahan 2012). For now, let us hope that these advocates are right.

Access to Care

Access refers to the ability of a person to obtain health care services when needed. More broadly, access to care is the ability to obtain needed, affordable, convenient, acceptable, and effective personal health services in a timely manner. It may also refer to whether an individual has a usual source of care (such as a primary care physician), indicate the ability to use health care services (based on availability, convenience, referral, etc.), or reflect the acceptability of particular services (according to an individual's preferences and values). Access has several key implications for health and health care delivery:

- Access to medical care is one of the key determinants of health, along with environment, lifestyle, and heredity factors (see Chapter 2).
- Access is a significant benchmark in assessing the effectiveness of the

medical care delivery system. For example, access can be used to evaluate national trends against specific goals, such as those proposed in *Healthy People 2010* and *2020* (see Chapter 2).

- Measures of access reflect whether or not the delivery of health care is equitable.
- Access is also linked to quality of care and the efficient use of needed services.

Framework of Access

The conceptualization of access to care can be traced to Andersen (1968) and was later refined by Aday and Andersen (1975) and Aday and colleagues (1980). Andersen (1968) believed that, in addition to need, predisposing and enabling conditions also prompt some people to use more medical services than others. Predisposing conditions include an individual's sociodemographic characteristics, such as age, sex, education, marital status, family size, race and ethnicity, and religious preference. These factors indicate a person's propensity to use medical care. For example, holding everything else constant, elderly people are more likely to use medical care than young people. The enabling conditions are income, socioeconomic status, price of medical services, financing of medical services, and occupation. They focus on the individual's means, enabling that person to use medical care. For example, holding everything else constant, those with high incomes are more likely to use medical care than those with low incomes, particularly in countries that do not provide national health insurance.

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assess the equity of a health care system (Aday et al. 1993). To the extent that significant differences in medical care utilization can be explained by need and certain predisposing characteristics (e.g., age, gender), the delivery of medical care is considered equitable. When enabling characteristics create significant differences in medical care utilization, the delivery of medical care is considered inequitable.

This access to care model has been expanded to include characteristics of health policy and the health care delivery system (Aday et al. 1980). Examples of health policy include major health care financing initiatives (Medicare, Medicaid, and CHIP) and organization of health services delivery (Medicaid managed care, community health centers). Characteristics of the health care delivery system include availability (volume and distribution of services) and organization (mechanisms of entry into and movement within the system). Both health policy and the health care delivery system are aggregate components in contrast to the individual components of predisposing, enabling, and need characteristics. The expanded model recognizes the importance of systemic and structural barriers to access and is useful in comparing access to care among countries with different health policies and health care delivery systems.

Because of managed care's dominance in US health care delivery, the access framework was updated by Docteur and colleagues (see Figure 12-8). According to this framework, access to care is a two-stage process in a managed care environment. In the first stage, individuals select among the health plans available to them, constrained by structural, financial, and personal characteristics. In the second stage, individuals seek medical care, constrained

by both plan-specific and nonplan factors. The framework accounts for people enrolling and staying with the plan or disenrolling. It also links actual utilization with clinical and policy outcomes. Although comprehensive models are useful in conceptualizing access to care, they are difficult to test because of the range of variables and the differing levels of analysis they require.

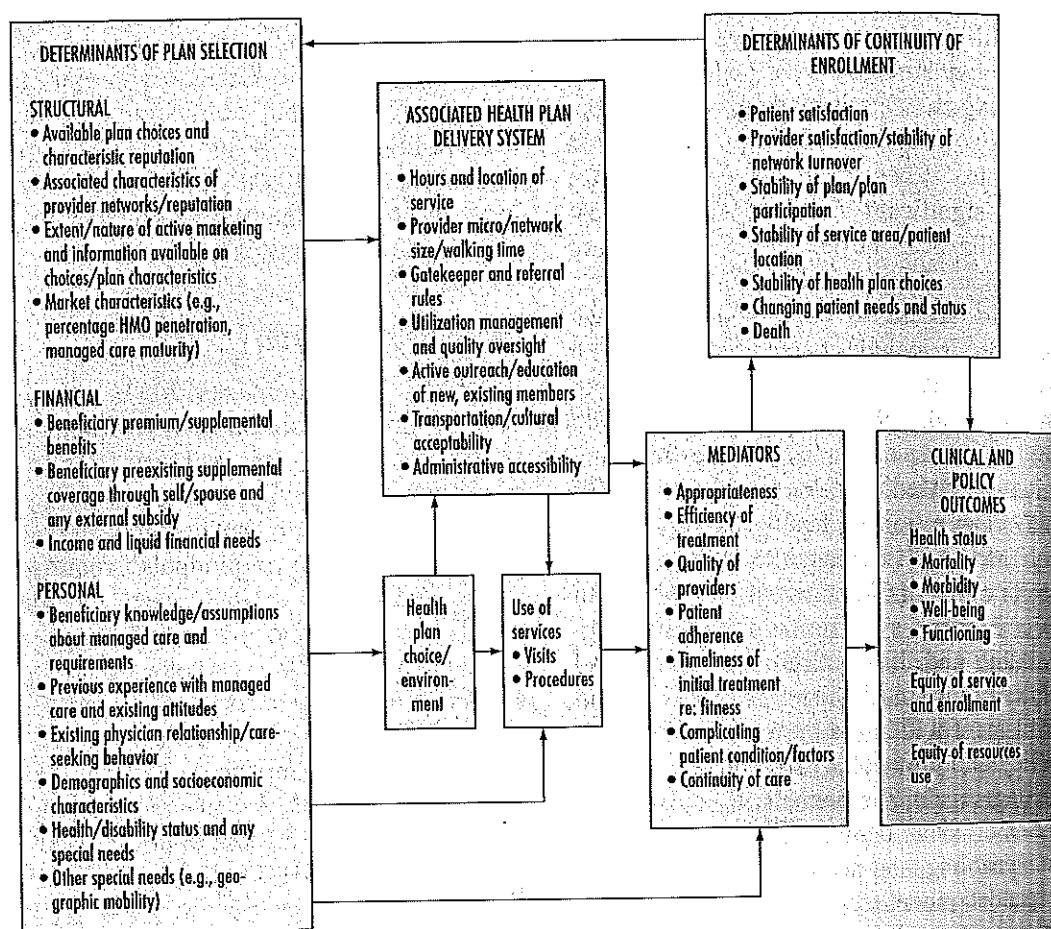
Dimensions of Access

Penchansky and Thomas (1981) described access to care as consisting of five dimensions: availability, accessibility, accommodation, affordability, and acceptability. Availability refers to the fit between service capacity and individuals' requirements. Availability-related issues include whether primary and preventive services are available to patients; whether enabling services, such as transportation, language, and social services, are made available by the provider; whether the health plan has sufficient specialists to care for patients' needs; and whether access to primary care services is provided 24 hours a day, 7 days a week.

Accessibility refers to the fit between the locations of providers and patients. It is likely that individuals with different enabling conditions (e.g., transportation) may have different perceptions of accessibility. Accessibility-related issues include convenience (Can the provider be reached by public or private transportation?), design (Is the provider site designed for convenient use by disabled or elderly patients?), and payment options (Will the provider accept patients regardless of payment source [e.g., Medicare, Medicaid]?).

Affordability refers to individuals' ability to pay. Even individuals with insurance often have to consider deductibles and copayments

Figure 12-8 Framework for Access in the Managed Care Context.



Source: Reprinted from E.R. Docteur, D.C. Colby, and M. Gold, "Shifting the Paradigm," *Health Care Financing Review* 17, no. 4 (1996): p. 12.

prior to utilization. Affordability-related questions include: Are insurance premiums too high? Are deductibles and copayments reasonable for the services covered under the plan? Is the cost of prescription drugs affordable?

Accommodation refers to the fit between how resources are organized to provide services and the individual's ability to use the arrangement. Accommodation-related

questions include: Can a patient schedule an appointment? Are scheduled office hours compatible with most patients' work and way of life? Can most of the urgent cases be seen within 1 hour? Can most patients with acute, but nonurgent, problems be seen within 1 day? Can most appropriate requests for routine appointments, such as preventive exams, be met within 1 week? Does the plan permit walk-in services?

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Acceptability is based on the attitudes of patients and providers and refers to the compatibility between patients' attitudes about providers' personal and practice characteristics and providers' attitudes toward their clients' personal characteristics and values. Acceptability issues include waiting time for scheduled appointments; whether patients are encouraged to ask questions and review their records; and whether patients and providers are accepted regardless of race, religion, or ethnic origin.

Types of Access

Andersen (1997) described four main types of access: potential access, realized access, equitable or inequitable access, and effective and efficient access. Potential access refers to both health care system characteristics and enabling characteristics. Examples of health care system characteristics include capacity (e.g., physician-population ratio), organization (e.g., managed care penetration), and financing mechanisms (e.g., health insurance coverage). Enabling characteristics include personal (e.g., income) and community resources (e.g., public transportation).

Realized access refers to the type, site, and purpose of health services (Aday 1993). The type of utilization refers to the category of services rendered: physician, dentist, or other practitioners; hospital or long-term care admission; prescriptions; medical equipment; and so on. The site of utilization refers to the place where services are received (e.g., inpatient setting, such as short-stay hospital, mental institution, or nursing home; or ambulatory setting, such as hospital outpatient department, emergency department, physician's office, staff-model HMO, public health clinic, community health center, freestanding

emergency center, or patient's home). The purpose of utilization refers to the reason medical care was sought: for health maintenance in the absence of symptoms (primary prevention), for the diagnosis or treatment of illness to return to well-being (secondary prevention or illness related), or for rehabilitation or maintenance in the case of a chronic health problem (tertiary prevention or custodial care).

Equitable access refers to the distribution of health care services according to the patient's self-perceived need (e.g., symptoms, pain, physical and functional status) or evaluated need as determined by a health professional (e.g., medical history, test results). Inequitable access refers to services distributed according to enabling characteristics (e.g., income, insurance status).

Effective and efficient care links realized access to health outcomes (Institute of Medicine 1993). For example, does adequate prenatal care lead to successful birth outcomes as measured by birth weight? Is immunization related to reduction of vaccine-preventable childhood diseases, such as diphtheria, measles, mumps, pertussis, polio, rubella, and tetanus? Are preventive services related to the early detection and diagnosis of treatable diseases? The concepts of effectiveness and efficiency link access to quality of care.

Measurement of Access

Using the conceptual models, access can be measured at three different levels: individual, health plan, and the delivery system. Access indicators at the individual level include (1) measures of medical services utilization relative to enabling and predisposing factors, while controlling for need for care (Aday and Andersen 1975) and

(2) the patient's assessment of the interaction with the provider. Examples include differences in physician visits by race/ethnicity, gender, age, income, and insurance. Patients' perceived level of access is closely related to patient satisfaction with care and is part of the access framework (Aday et al. 1984).

At the health plan level, indicators include (1) plan characteristics that affect enrollment, such as cost of premium, deductibles, copayments, coverage for preventive care, authorization of new and expensive procedures, physician referral incentives, and out-of-plan use; (2) plan practices that affect access, such as travel time to a usual source of care and waiting time to see a physician (accessibility), whether an appointment is necessary, hours of operation, language and other enabling services (accommodation), the content of provider-patient encounters, including tests ordered and done, and referral to specialists (contact); and (3) plan quality as measured by HEDIS (see Chapter 9) and patient satisfaction surveys.

Indicators of access at the level of the health care delivery system comprise ecological measures that affect populations rather than individuals. System indicators help study access in an environmental context, that is, how context affects the access of persons and groups. Examples of system access indicators include health policies or programs related to access, physician-population ratio, hospital beds per 1,000 population, percentage of population with insurance coverage, median household income, state per capita spending on welfare and preventive care, and percentage of population without access to primary care physicians.

Population-based surveys supported by federal statistical agencies are the major sources of data for conducting access-to-care analyses. Large national surveys, such as the National Health Interview Survey, the Medical Expenditure Panel Survey (MEPS), and the Community Tracking Survey are the leading data sources used to monitor access trends and other issues of interest. Other well known national surveys include the Current Population Survey, the National Hospital Discharge Survey, the Ambulatory Medical Care Survey, the National Nursing Home Survey, and the National Home and Hospice Care Survey. In addition, the federal government may periodically collect data on special topics, such as HIV/AIDS; mental health; health care utilization by veterans, military staff, and their dependents; patient satisfaction; and community health centers.

In addition to the federal government, states, professional associations, and research institutions also regularly collect data on topics of interest to them. Examples of state-based initiatives include state health services utilization data (all-payer hospital discharge data systems), state managed care data (managed care encounter data), and state Medicaid enrollee satisfaction data (Medicaid enrollee satisfaction surveys). Examples of association-based initiatives include data on physicians (American Medical Association's Physician Masterfile and the Periodic Survey of Physicians 1969 to present) and hospitals (American Hospital Association's Annual Survey of Hospitals 1946 to present). Examples of research institution-based initiatives include collecting data on the health care delivery system (Center for Evaluative Clinical Sciences; Dartmouth Atlas of Health Care in the United States).

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Source: Data fro

women's health (Kaiser Family Foundation: Women's Health Survey), minority health (Commonwealth Fund: Minority Health Survey), family health (Urban Institute National Survey of America's Families), health insurance (Commonwealth Fund Biennial Health Insurance Survey), and access to care (Robert Wood Johnson Foundation National Access Surveys).

Current Status of Access

In the United States, barriers to access still exist at both the individual and the system levels. Many of these barriers are experienced by vulnerable population groups (discussed in Chapter 11). Access is best predicted by race, income, and occupation. These three factors are interrelated. People belonging to minority groups tend to be poor, not well educated, and more likely to work in jobs that pose greater health risks. Tables 12-3 and 12-4 summarize

physician contacts by categories of age, sex, race, income, and geographic location. Table 12-5 summarizes dental visits. These results are not adjusted for health need, however, and, therefore, are not true indicators of access. Rather, they provide utilization measures as a proxy for access.

The Affordable Care Act and Access to Care

While the ACA promises to increase access to affordable insurance coverage and supports improvements in primary care and wellness, some issues remain unaddressed. For example, more than 24 million people in the United States have limited English proficiency (Teitelbaum et al. 2012) which limits access to health care. The ACA does little to improve access for the growing number of Medicaid patients.

Table 12-3 Visits to Office-Based Physicians, 2008

Characteristic	Number of Visits (million)	Percentage Distribution	Visits per 100 Persons/Year
All visits	956.0	100.0	320.1
Age			
Under 15 years old	147.2	15.4	241.0
15-44 years old	268.5	28.1	417.2
45-64 years old	284.1	29.7	366.5
65-74 years old	127.1	13.3	639.5
75 years old and over	129.0	13.5	743.5

Source: Data from US Census Bureau. *Statistical Abstracts of the United States*, 2012, Washington, DC, p. 117.

Table 12-4 Number of Health Care Visits According to Selected Patient Characteristics, 2011

Characteristic	None	1-3 Visits	4-9 Visits	10+ Visits
Total	15.5%	46.8%	24.7%	13.0%
Sex				
Male	20.0%	47.8%	21.9%	10.3%
Female	11.0%	45.9%	27.6%	15.5%
Race and age				
White	15.2%	46.4%	25.1%	13.2%
Black	15.0%	47.6%	24.3%	13.1%
% poverty level				
Below 100%	18.9%	39.5%	24.7%	16.9%
100-200%	21.1%	42.7%	22.7%	13.5%
200% +	26.2%	99.1%	50.6%	24.1%
Geographic region				
Northeast	13.0%	47.0%	26.2%	13.8%
Midwest	13.6%	49.2%	24.2%	13.0%
South	15.4%	45.5%	25.7%	13.4%
West	19.3%	46.5%	22.7%	11.5%
Location of residence				
Within MSA	15.4%	47.4%	24.5%	12.7%
Outside MSA	15.7%	43.6%	26.2%	14.5%

Source: Data from *Health, United States, 2012*, pp. 244-246, National Center for Health Statistics, Division of Health Interview Statistics, 2013.

Models developed by six states propose increasing the availability of specialty care through telehealth, bringing specialists to primary care sites, and using physician assistants (PAs) to deliver specialty services; expanding the role of primary care providers to handle more specialized health issues through training and electronic consultations; and enhancing communication and coordination among patients, primary

care providers, and specialists through broad medical home models (Felland et al. 2013).

Quality of Care

One reason the pursuit of quality in health care has trailed behind the emphasis on cost and access is the difficulty of defining and measuring quality. Since the

Table 12-5 Dental Visits in the Past Year Among Persons 18-64 Years of Age, 2011

Characteristic	Percentage of Persons
All persons	61.6
Percent of poverty level	
Below 100%	41.3
100%-199%	43.0
200%-399%	60.4
400% or more	78.9
Race and Hispanic origin	
White, non-Hispanic	62.6
Black, non-Hispanic	55.5
Hispanic	46.5
Sex	
Male	57.5
Female	65.5

Source: Data from *Health, United States, 2012*, p. 280, National Center for Health Statistics.

system and, thus, differing evaluations of its quality (McGlynn 1997).

The IOM has defined *quality* as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge" (McGlynn 1997). This definition has several implications: (1) Quality performance occurs on a continuum, theoretically ranging from unacceptable to excellent. (2) The focus is on services provided by the health care delivery system as opposed to individual behaviors. (3) Quality may be evaluated from the perspective of individuals and populations or communities. (4) The emphasis is on desired health outcomes, and scientific research must identify the services that improve health outcomes. (5) In the absence of scientific evidence regarding two comparative measures that are widely used as proxies for medical quality, such national comparisons are debatable as to whether the US medical system should be faulted for the disparities. For example, Blum's model of health and wellness (presented in Chapter 2) clearly points to a more significant role that numerous factors other than medical care play in determining health and well-being of individuals and populations. Nevertheless, more health care expenditures do not produce better health, and high quality care must also be cost effective. The delivery of most medical care at the flat of the curve (see Chapter 5) clearly points to a greater need to incorporate cost of care into the assessment of quality.

Dimensions of Quality

Quality needs to be viewed from both micro and macro perspectives. The micro view

1990s, when cost containment became a major priority, emphasis on quality has taken center stage because of intuitive concerns that cost control may negatively impact quality. In spite of the progress made, there is still a long road ahead to specify what constitutes good quality in medical care, how to ensure it for patients, and how to reward providers and health plans whose outcomes indicate successes in quality improvement. One challenge in achieving such a goal is that patients, providers, and payers each define quality differently, which translates into different expectations of the health care delivery

2011

10+ Visits

13.0%

10.3%

15.5%

13.2%

13.1%

16.9%

13.5%

24.1%

13.8%

13.0%

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11.5%

12.7%

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Health Interview Statistics, 2013

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focuses on services at the point of delivery and their subsequent effects. It is associated with the performance of individual caregivers and health care organizations. The macro view looks at quality from the standpoint of populations. It reflects the performance of the entire health care delivery system by evaluating indicators such as life expectancy, mortality rates, incidence and prevalence of certain health conditions, and so on.

The Micro View

The micro dimension of health care quality encompasses the clinical aspects of care delivery, the interpersonal aspects of care delivery, and quality of life.

Clinical Aspects

Clinical aspects of care deal with technical quality, such as the facilities where care is delivered, the qualifications and skills of caregivers, the processes and interventions used, cost efficiency of care, and the results or effects on patients' health.

One example of lack of clinical quality is medical errors. The IOM reported that 44,000 to 98,000 patients die in American hospitals each year because of medical errors, making "adverse events" the eighth leading cause of death in the United States (IOM 2000). The Agency for Healthcare Research and Quality (AHRQ) identifies four types of medical errors. Medication errors, or adverse drug events (ADEs), are errors in prescribing and administering medicines to patients. Surgical errors are errors in performing surgical operations. Diagnostic inaccuracies may lead to incorrect treatment or unnecessary testing. Systemic factors, such as organization of health care delivery and distribution of resources,

may also contribute to preventable adverse events (AHRQ 2000).

Interpersonal Aspects

When quality is viewed from the patient's perspective, interpersonal aspects of care become essential. Patients lack technical expertise and often judge the quality of technical care indirectly by their perceptions of the practitioner's interest, concern, and demeanor during clinical encounters (Donabedian 1985). Interpersonal relations and satisfaction become even more important when placed within the holistic context of health care delivery. Positive interactions between patients and practitioners are major contributors to treatment success through greater patient compliance and return for care (Svarstad 1986). Expressions of love, hope, and compassion can enhance the healing effects of medical treatments.

Interpersonal aspects of quality are also important from the standpoint of organizational management. Consumers—that is, patients and their surrogates—gain lasting impressions of organizational quality from the way they are treated by an organization's employees. Such employee–customer interactions include not just the direct caregivers but a variety of other employees associated with the health care organization, such as receptionists, cafeteria workers, housekeeping employees, and billing clerks.

To measure interpersonal aspects of quality, patient satisfaction surveys have been widely used by various types of health care organizations. Ratings by consumers provide the most appropriate method for evaluating interpersonal quality (McGlynn and Brook 1996). Satisfaction surveys have been used to give

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service quality.

Quality of Life

The concept of quality of life has gained attention in recent years because patients with chronic and/or debilitating diseases are living longer but in a declining state of health. Chronic problems often impose serious limitations on patients' functional status (physical, social, and mental functioning), access to community resources and opportunities, and sense of well-being (Lehman 1995). In a composite sense, during or subsequent to disease, a person's own perception of health, ability to function, role limitations stemming from physical or emotional problems, and personal happiness are referred to as health-related quality of life (*HRQL*).

General HRQL refers to the essential or common components of overall well-being that are more broadly applicable to almost everyone. Disease-specific HRQL focuses entirely on impairments that are caused by a specific disorder and the effects and side effects of treatments for that disorder. For example, arthritis quality of life is concerned with joint pain and mobility and the side effects of anti-inflammatory agents; depression quality of life deals with the symptoms of depression, such as suicidal thoughts, and such medication side effects as blurred vision, dry mouth, constipation, and impotence (Bergner 1989); and cancer-specific HRQL may include anxiety about cancer recurrence (Ganz and Litwin 1996) and pain management.

Institution-related quality of life is also an important attribute of quality in addition

to the clinical and interpersonal aspects. It refers to a patient's quality of life while confined in an institution as an inpatient. Factors contributing to institutional quality of life can be classified into three main groups: environmental comfort, self-governance, and human factors. Cleanliness, safety, noise levels, odors, lighting, air circulation, environmental temperature, and furnishings are some of the key comfort factors that are particularly relevant to the physical aspects of institutional living. Self-governance means autonomy to make decisions, freedom to air grievances without fear of reprisal, and reasonable accommodation of personal likes and dislikes. Human factors are associated with caregiver attitudes and practices. Human factors include privacy and confidentiality, treatment from staff in a manner that maintains respect and dignity, and freedom from physical and/or emotional abuse.

Quality Assessment and Assurance

The terms "quality assessment" and "quality assurance" are often encountered in literature on health care quality. Yet, these terms are not always well defined or differentiated. *Quality assessment* refers to the measurement of quality against an established standard. It includes the process of defining how quality is to be determined, identification of specific variables or indicators to be measured, collection of appropriate data to make the measurement possible, statistical analysis, and interpretation of the results of the assessment (Williams and Brook 1978). *Quality assurance* is synonymous with quality improvement. It is the process of institutionalizing quality

through ongoing assessment and using the results of assessment for continuous quality improvement (CQI; Williams and Torrens 1993). Quality assurance, then, is a step beyond quality assessment. It is a system-wide or organization-wide commitment to engage in the improvement of quality on an ongoing basis. Although the two activities—quality assessment and quality assurance—are related, quality assurance cannot occur without quality assessment. Quality assessment becomes an integral part of the process of quality assurance. Conversely, it is possible to conduct quality assessment without engaging in quality assurance.

In the past, quality assurance focused on observing deviations from established standards by means of inspection techniques and was used in conjunction with punitive actions for noncompliance. The nursing home industry presents a typical case. Standards of patient care in nursing homes and the system for evaluating performance were developed mainly in conjunction with the certification of facilities for Medicare and Medicaid. Federal regulations developed by CMS are viewed as minimum standards or baseline criteria for defining quality of resident care in certified facilities. Compliance with the standards is monitored through periodic inspections of the facilities, and serious noncompliance is punishable by monetary fines and threats of expulsion from Medicare and Medicaid.

Quality assurance is based on the principles of total quality management (TQM), also referred to as CQI. The philosophy of TQM was developed and used in other industries before it was adapted for health care delivery. The adoption of TQM by many hospitals and health systems has streamlined administration, reduced lengths of stay, improved clinical outcomes, and produced

higher levels of patient satisfaction (HCIA Inc. and Deloitte & Touche 1997).

The Donabedian Model

In his well known model to help define and measure quality in health care organizations, Donabedian proposed three domains in which health care quality could be examined: structure, process, and outcomes.

Structure, process, and outcomes are closely linked (Figure 12-9). The three domains are also hierarchical. Structure is the foundation of the quality of health care. Good processes require a good structure. In other words, deficiencies in structure have a negative effect on the processes of health care delivery. Structure and processes together influence quality outcomes. Structure primarily influences process and has only a secondary direct influence on outcome. For improvement of quality, outcomes must be measured and compared against pre-established benchmarks. When desired outcomes are not achieved, one must examine the processes and structures to identify and correct deficiencies.

Quality of structures and processes determines quality of outcomes. Some significant initiatives toward process improvement have been undertaken, including clinical practice guidelines, cost efficiency, critical pathways, and risk management.

Processes That Improve Quality

Clinical Practice Guidelines

Clinical practice guidelines (also called medical practice guidelines) are explicit descriptions representing preferred clinical processes for specified conditions. Hence,

Figure

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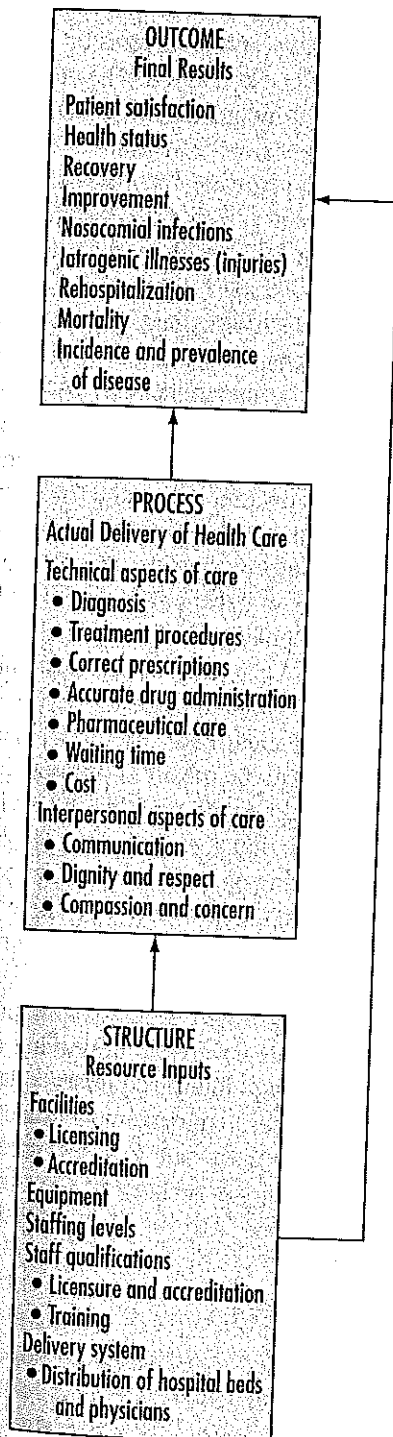
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Quality

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lines (also called lines) are explicit preferred clinical conditions. Hence,

Figure 12-9 The Donabedian Model.



clinical practice guidelines are scientifically based protocols to guide clinical decisions. The goal is to assist practitioners in adopting a "best practice" approach in delivering care for a given health condition (Ramsey 2002). Such evidence-based guidelines provide a mechanism for standardizing the practice of medicine and improving the quality of care. Proponents believe that these guidelines simultaneously promote lower costs and better outcomes. Critics view guidelines as an administrative mechanism to reduce utilization.

One of the primary mandates of AHRQ is to build the scientific base of which health care practices work and which do not work. AHRQ has established a National Guideline Clearinghouse (NGC) in partnership with the American Medical Association (AMA) and America's Health Insurance Plans. The NGC is a comprehensive database of evidence-based clinical practice guidelines and related documents. It facilitates access to information produced by different organizations by making it all available at one site. The NGC is an Internet-based resource that enables health care professionals to compare clinical recommendations. Guidelines have been catalogued in the areas of diseases; chemicals and drugs; analytical, diagnostic, and therapeutic techniques and equipment; and behavioral disciplines and activities.

Cost Efficiency

Also referred to as cost effectiveness, *cost efficiency* is an important concept in quality assessment. A service is cost efficient when the benefit received is greater than the cost incurred to provide the service. Medical care delivered at the flat of the curve is not cost effective (see Chapter 5).

Overutilization (overuse) occurs when the costs or risks of treatment outweigh its benefits, and yet additional care is delivered. When health care is overused, its value is diluted because resources are wasted. Hence, inefficiency can also be regarded as unethical because it deprives someone else of the potential benefits of health care. **Underutilization** (underuse) occurs when the benefits of an intervention outweigh its risks or costs, and yet it is not used (Chassin 1991). Potential adverse health outcomes related to underutilization include hospitalizations that could be avoided by providing better medical access and timely care, low birth weight due to lack of prenatal care, infant mortality due to lack of early pediatric care, and low cancer survival rates due to lack of early detection and treatment.

The principles of cost efficiency indicate that health care costs can be reduced without lowering quality of care. Conversely, quality can be improved without increasing costs. A trade-off does not have to occur between cost and quality. Introduction of PPS by Medicare is an example. The resulting discharge of patients "quicker and sicker" triggered by PPS initially raised some alarm concerning decreased quality, but it was found that processes of care in hospitals actually improved and mortality rates were unchanged or lower (Rogers et al. 1990). Other potential negative health outcomes that can be avoided by curtailing overuse include life-threatening drug interactions, nosocomial infections, and iatrogenic illnesses.

Critical Pathways

Critical pathways are outcome-based and patient-centered case management tools that are interdisciplinary, facilitating coordination of care among multiple clinical departments and caregivers. A critical pathway is

a timeline that identifies planned medical interventions, along with expected patient outcomes, for a specific diagnosis or class of cases, often defined by a DRG. The outcomes and interventions included in the critical pathway are broadly defined. In addition to technical outcomes, pathways may measure such factors as patient satisfaction, self-reported health status, mental health, and activities of daily living (ADLs). Interventions include treatments, medications, diagnostic tests, diet, activity regimens, consultations, discharge planning, and patient education. A critical pathway serves as a plan of action for all disciplines caring for a patient and incorporates a system for documenting and evaluating variances from the critical path plan. Critical pathways are unique to the institutions that develop them because they are based on the particular practices of that facility and its caregivers. A pathway also is customized to the patient population being served and the available patient care resources. Finally, critical pathways are meant to promote interdisciplinary collaboration within the environment of the hospital and its market. The latter occurs by making patients and families active participants in the process. For these reasons, critical pathways are difficult to replicate from one organization to another. Use of critical pathways reduces costs and improves quality by reducing errors, improving coordination among interdisciplinary players, streamlining case management functions, providing systematic data to assess care, and reducing variation in practice patterns (Giffin and Giffin 1994).

Risk Management

Risk management consists of proactive efforts to prevent adverse events related to clinical care and facilities operations and is especially focused on avoiding medical

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planned medical expected patient diagnosis or class of ICD-9-CM. The outcomes in the critical pathway in addition to technical measure such as patient self-reported health status, and activities of interventions include diagnostic tests, diet, exercise, and discharge planning. A critical pathway is a plan of action for all diseases and incorporates diagnosis and evaluating the critical pathway. Critical pathways are based on the best practice and also is customized to the patient being served and resources. Finally, it is to promote interaction within the environment and market. The latter and families active in the process. For these reasons, it is difficult to replicate one to another. Use of costs and improves care, improving coordination of interdisciplinary players, management functions, to assess care, and practice patterns (Giffin et al. 2003).

Consists of proactive events related to clinical operations and avoiding medical

malpractice (Orlikoff 1988). In response to the threat of lawsuits, initiatives undertaken by a health care organization to review clinical processes and establish protocols for the specific purpose of reducing malpractice litigation can actually enhance quality. Because malpractice concerns also result in *defensive medicine*, risk management approaches should employ the principles of cost efficiency along with standardized practice guidelines and critical pathways.

Threat of malpractice litigation also has a downside. Fear of litigation actually leads to a reluctance by hospitals and physicians to disclose preventable harm and actual medical errors. In this respect, it is believed that fear of litigation may actually conceal problems that may compromise patient safety (Lamb et al. 2003).

Public Reporting of Quality

Public reporting on macro levels of quality expanded in the early 2000s. This section summarizes the major public reporting initiatives.

CMS Programs on Quality

CMS started launching Quality Initiatives in 2001 (CMS 2013a). The quality programs specific to Medicare include the Home Health Quality Initiative, Hospital Value-Based Purchasing Program, Hospice Quality Reporting Program, Inpatient Rehabilitation Facilities Quality Reporting, Long-Term Care Hospitals Quality Reporting, Measures Management System, Nursing Home Quality Initiative, Outcome and Assessment Information Set (OASIS), Physician Compare Initiative, ESRD Quality Incentive Program, and Post-Acute Care Quality Initiatives (<http://www.cms.gov/>

[Medicare/Medicare.html](http://www.cms.gov/Medicare/Medicare.html)). CMS also has initiatives to improve the quality of care provided to Medicaid and CHIP enrollees related to EPSDT (early periodic screening, diagnosis, and treatment program), dental care, obesity, maternal and infant health, home and community-based services, vaccines, prevention, health disparities, performance measurement, patient safety, external quality review, state quality strategies, and improving care transitions (<http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care.html>). The following are examples of CMS's efforts to enhance quality:

- CMS began developing a large public reporting program known as Hospital Compare, which initially measured and reported process-based measures of high-quality care for acute myocardial infarction, heart failure, pneumonia, and general surgery (Ross et al. 2010). Hospital Compare has expanded beyond only 10 process measures at the beginning to include data on hospital outpatient facilities; hospital 30-day risk standardized mortality and readmission rates for acute myocardial infarction, heart failure, and pneumonia; patient satisfaction and medical imaging usage (Ross et al. 2010); and data on the new Hospital Value-Based Purchasing program under the ACA (CMS 2013b).
- CMS and AHRQ, together, developed the Hospital Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey, which collects uniform measures of patient perspectives on various aspects of their inpatient care (CMS 2005). Results are publicly reported on the CMS Hospital Compare website. Results are used by health care

organizations, public and private purchasers, consumers, and researchers to inform their purchasing or contracting decisions and to improve the quality of health care services (AHRQ 2010b).

- The Physician Quality Reporting System allows physicians and other eligible professions to participate by reporting quality measures to CMS about specific services provided to their Medicare patients with specific conditions. Physicians can earn incentives by reporting. (See <http://www.cms.gov/PQRS>.)
- Quality improvement organizations (QIOs) are contracted by CMS for each state to review medical care and help beneficiaries with concerns about quality of care. QIO contracts are 3 years in length. The core functions of the QIO program are to improve quality of care for beneficiaries, protect the integrity of the Medicare Trust Fund, and protect beneficiaries by addressing individual complaints (CMS 2013a).
- Ambulatory Surgical Center Quality Reporting is a pay-for-reporting, quality data program, where ambulatory care centers report quality of care for standardized measures to receive the full annual update to their annual payment rate, beginning with 2014 payments (CMS 2013b).
- The Electronic Prescribing (eRx) Incentive Program is a reporting program that uses incentive payments and payment adjustments to encourage electronic prescribing. Professionals and group practices that are not successful electronic prescribers will be subject to a 2.0% payment adjustment on Part B services provided beginning in 2014. This payment adjustment was 1.5% for 2013, while the incentive was 0.05% (CMS 2013c).

AHRQ Quality Indicators

Since 2003, AHRQ has published the National Healthcare Quality Report and National Healthcare Disparities Report annually (AHRQ 2012, 2013a). In identifying key measures for these reports, The Federal Interagency Workgroup focused on priority areas established in *Healthy People 2010* (AHRQ 2005). AHRQ has a set of quality indicators (QIs) that measure quality of process of care in an outpatient or an inpatient setting (Farquhar 2008). Prevention QIs identify hospital admissions that could have been avoided. Inpatient QIs and patient safety indicators both reflect quality of care inside hospitals, with the former focusing on inpatient mortality and the latter on potentially avoidable complications and iatrogenic events. Pediatric quality indicators reflect quality of care received by children inside hospitals and identify potentially avoidable hospitalizations. Current AHRQ QI modules include Prevention Quality Indicators, Inpatient Quality Indicators, Patient Safety Indicators, and Pediatric Quality Indicators. These measures expand upon Healthcare Cost and Utilization Project (HCUP) QIs and several are endorsed by the National Quality Forum. Specific information on individual quality indicators within each module can be found at <http://www.qualityindicators.ahrq.gov/>. Select indicators are also used by CMS's hospital compare website (<http://www.hospitalcompare.hhs.gov>; AHRQ 2013b; NQF 2013). Examples of ongoing AHRQ quality initiatives include the following:

- AHRQ's Patient Safety Network (PSNet) is a web-based resource that features news and resources on patient safety. The site offers updates on literature, news, tools, and meetings, and provides

s published the Quality Report and Disparities Report (2013a). In identifying these reports, The group focused on the Healthy People 2020. HRQ has a set of patient measure quality outpatient or an (2008). Preventing admissions that Inpatient QIs and both reflect quality, with the former mortality and the latter complications. Pediatric quality of care received ratings and identify vitalizations. Curricula include Prevention of Quality Indicators, and Pediatric measures expand Utilization Project endorsed by the specific information indicators within at <http://www.ahrq.gov>. Select indicators hospital comparison (2013). Examining quality initiatives

Network (PSNet) resource that features information on patient safety issues on literature, and provides

browsing capability and site customization (<http://psnet.ahrq.gov>).

- ACTION II is a model of field-based research designed to promote innovation in health care delivery by accelerating the research-to-practice path. It is a 5-year task order contract model (2011–2015), and its 17 awardees and their partnerships include over 350 collaborating organization (<http://www.ahrq.gov/research/findings/factsheets/translating/action2/index.html>).
- Primary Care Practice-Based Research Networks (PBRNs) initiative brings together groups of primary care clinicians and practices to answer community-based health care questions and translate research findings into practice (<http://www.ahrq.gov/cpi/initiatives/pbrn/index.html>).

State Public Reporting of Hospital Quality

Many states also provide data on hospital outcomes of care with focus on acquired infection, readmission rates, and mortality rates following hospitalization for the same clinical conditions reported by CMS (acute myocardial infarction, heart failure, and pneumonia). One of the advantages of state public reporting programs is that their reporting is not limited to Medicare fee-for-service beneficiaries but also includes younger adults and older adults insured through private plans and Medicaid-affiliated HMOs.

The Affordable Care Act and Quality of Care

The ACA includes some provisions for improving quality of care, through programs

that link payment to quality outcomes in Medicare, strengthening of the quality infrastructure, and encouraging the development of new patient care models, such as patient-centered medical homes (see Chapter 7) and accountable care organizations (see Chapter 9).

The ACA establishes the National Quality Strategy (NQS) to set national goals to improve the quality of health care. Thus far, three objectives have been established: (1) to make health care more accessible, safe and patient-centered; (2) to address environmental, social, and behavioral influences on health and health care; and (3) to make care more affordable (RWJ 2013). One challenge that has come up thus far is the widespread use of varied measures that are not comparable, by different agencies. NQS is aiming to discontinue the use of measures that may be duplicative (AHRQ 2012). There are also challenges related to the consistency of measures, as well as a lack of robust measures (McClellan 2013). Additional challenges facing quality include issues regarding data transfer and merging across systems, and the protection of sensitive patient data.

Summary

Increasing costs, lack of access, and concerns about quality pose the greatest challenges to health care delivery in the United States. To some extent, the three issues are interrelated. Increasing costs limit the system's ability to expand access. A lack of universal coverage negatively affects the health status of uninsured groups. Despite spending the most resources on health care, the United States continues to rank in the bottom quartile among developed countries on outcome indicators such as life expectancy and infant mortality.

Nations that have national health insurance can control systemwide costs through top-down controls, mainly in the form of global budgets. This approach is not possible in the United States because it has a multipayer system. In the United States, regulatory approaches have been used to try to constrain the supply side, but the major emphasis has been on constricting reimbursement to providers. Several competitive approaches have been used, mainly through the expansion of managed care. A move toward prospective payments and the growth of managed care can be largely credited with the brakes put on rising health care spending during the 1990s.

Access to medical care is one of the key determinants of health status, along with environment, lifestyle, and hereditary factors. Access is also regarded as a significant benchmark in assessing the effectiveness of the medical care delivery system. Access is explained in terms of enabling and predisposing factors, as well as factors related to health policy and health care delivery. Access has five dimensions: availability, accessibility, accommodation, affordability,

and acceptability. Measures of access can relate to individuals, health care plans, and the health care delivery system.

Quality in health care has been difficult to define and measure, although it has received increasing emphasis. At the micro level, health care quality encompasses the clinical aspects of care delivery, the interpersonal aspects of care delivery, and quality of life. Indicators of quality at the macro level are commonly associated with life expectancy, mortality, and morbidity. Quality assessment is the measurement of quality against an established standard. Quality assurance emphasizes improvement of quality using the principles of continual quality improvement. Donabedian proposed that quality should be assessed along three dimensions: structure, process, and outcomes. These three dimensions are complementary and should be used collectively to monitor quality of care. Reliability and validity are important concepts in the measurement of quality. Since 2000, several federal and state initiatives have been implemented to report on certain macro levels of quality.

ACA Takeaway

- Cost-control measures include competition among health plans to drive down insurance costs, value-based purchasing, and reduction in Medicare payments to providers. Insurance mandates and taxes, however, will increase costs for the consumers.
- Accounting for all future health care expenditures directly tied to the ACA is currently unclear.
- While the ACA promises to increase access to affordable insurance coverage and supports improvements in primary care and wellness, some issues remain unaddressed.
- The ACA includes some provisions for improving quality of care through programs that link payment to quality outcomes in Medicare, strengthening of the quality infrastructure, and encouraging the development of new patient care models.

Terminology

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certificati
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Terminology

access
 administrative costs
 certificate-of-need
 clinical practice guidelines
 competition
 cost efficiency
 critical pathways
 defensive medicine
 fraud

health planning
 HRQL
 institution-related quality
 of life
 outcomes
 overutilization
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 QIO
 quality

Test Your Understanding

quality assessment
 quality assurance
 risk management
 small area variations
 top-down control
 TQM
 underutilization
 upcoding

Review Questions

1. What is meant by the term "health care costs"? Describe the three meanings of the term "cost."
2. Why should the United States control the rising costs of health care?
3. How do findings of the Rand Health Insurance Experiment reinforce the relationship between growth in third-party reimbursement and increase in health care costs? Explain.
4. Explain how, under imperfect market conditions, both prices and quantity of health care are higher than they would be in a highly competitive market.
5. What are some of the reasons for increased health care costs that are attributed to the providers of medical care?
6. What are some of the main differences between broad cost-containment approaches used in the United States and those used in countries with national health insurance?
7. Discuss the effectiveness of certificate-of-need (CON) regulation in controlling health care expenditures.
8. Discuss price controls and their effectiveness in controlling health care expenditures.
9. Discuss the role of quality improvement organizations (QIOs) in cost containment.
10. What are the four competition-based cost-containment strategies?
11. What are the implications of access for health and health care delivery?
12. What is the role of enabling and predisposing factors in access to care?
13. Briefly describe the five dimensions of access.
14. What are the four main types of access described by Andersen?
15. Describe the measurement of access at the individual, health plan, and delivery system levels.

16. What are some of the implications of the definition of quality proposed by the Institute of Medicine (IOM)? In what way is the definition incomplete?
17. Discuss the dimensions of quality from the micro and macro perspectives.
18. Discuss the two types of health-related quality of life (HRQL).
19. Distinguish between quality assessment and quality assurance.
20. What are the basic principles of total quality management (TQM; or continual quality improvement [CQI])?
21. Give a brief description of the Donabedian model of quality.
22. Discuss the main developments in process improvement that have occurred in recent years.
23. Discuss the implications of the ACA on health care access, cost, and quality.

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