

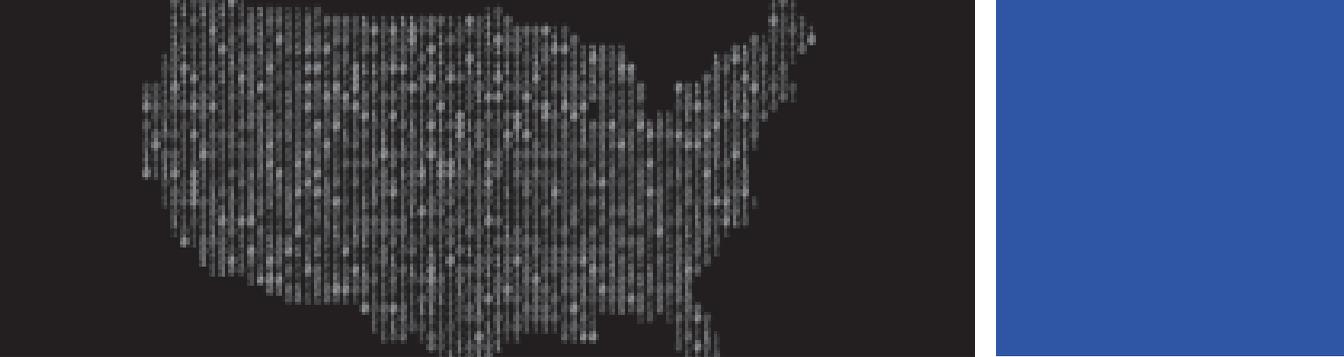
**Jonas & Kovner's**

# Health Care Delivery in the United States

12th Edition

**eChapter: A VISUAL OVERVIEW OF HEALTH CARE DELIVERY  
IN THE UNITED STATES**

**James R. Knickman**  
**Brian Elbel**  
Editors



# A Visual Overview of Health Care Delivery in the United States

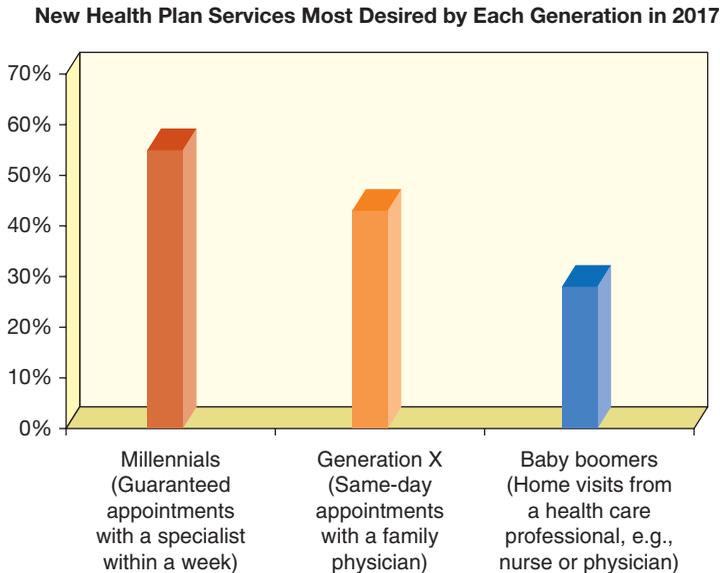
Catherine K. Dangremond

## THE U.S. HEALTH CARE SYSTEM: A PERIOD OF CHANGE

The U.S. health care system is in a period of significant and ongoing change. The Affordable Care Act (ACA) went into effect in 2012. Health insurance exchanges began accepting applications in the fall of 2013. In 2014, provisions including prohibition of coverage denial based on preexisting conditions and elimination of annual coverage limits took effect. Before implementation, there were more than 48 million Americans without any form of insurance coverage. By the end of 2017, 19.3 million previously uninsured Americans gained health insurance coverage, while 29.3 million remained uninsured (CDC, National Center for Health Statistics, 2018). For those who gained coverage, 11.6 million of them sought coverage through either the federal Health Insurance Marketplace or state-based exchanges (CDC, National Center for Health Statistics, 2018). Most of the others gained coverage either due to the expansion of Medicaid in a given state or due to the opportunity to stay covered under a parent's plan if they were between the ages of 18 and 26.

Despite these positive results, congressional leaders from the right continue to threaten the progress made on coverage. Their efforts spanned from removing the individual mandate to threatening to remove the requirement for insurers to cover preexisting conditions without denials. Prior to the mid-term elections in 2018, polls of U.S. citizens conducted by the Kaiser Family Foundation (2018) show that Americans think that health care is the top issue for voters, including protecting coverage of preexisting conditions.

As depicted in Figure 1, this same poll discovered that consumers differ in what they value most about health care. Perhaps not surprising, when asked what they consider most important if offered new health care services, the responses differed significantly by generation and what they perceive impacts their daily lives. While baby boomers said they would most want the coverage for home visits by a health professional, Generation

**FIGURE 1 WILLINGNESS TO PAY FOR NEW HEALTH CARE SERVICES**

Source: Data from New Research: 2017 Consumer Survey of U.S. Healthcare, for Oliver Wyman Health. (Glick, S., & Rudoy, J., June 2017).

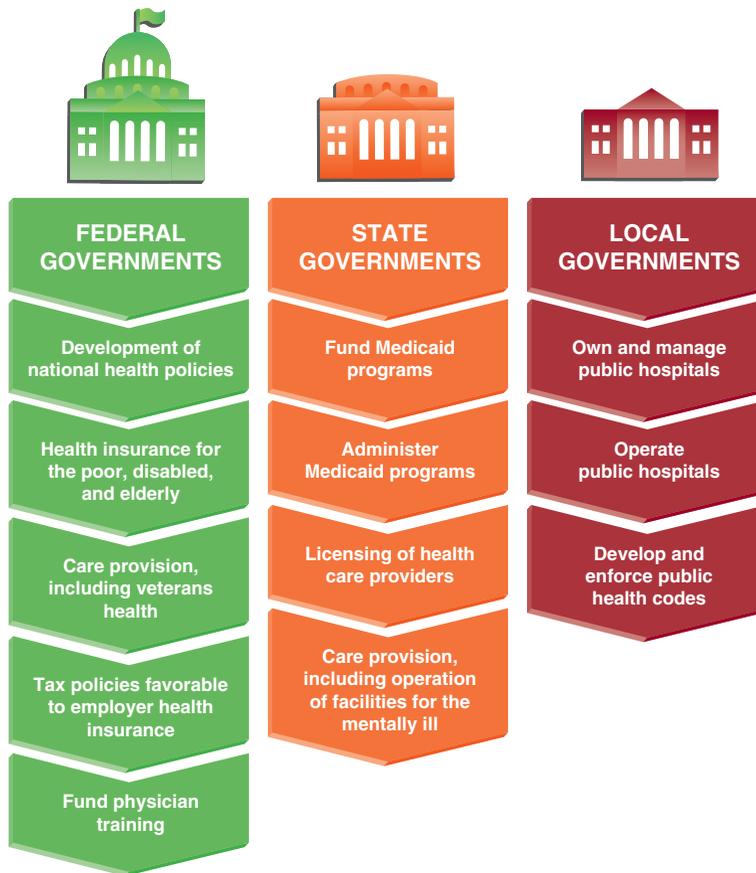
Xers wanted same-day appointments with a family health provider, and millennials wanted guaranteed appointments with a specialist within a week.

Citizens in Idaho and Nebraska where legislators refused to expand Medicaid have successfully petitioned to place expansion on the ballot, allowing voters to decide, while in Maine this tactic has already led voters to support expansion. Several other states have made decisions to move forward on expansion based upon applications for waivers of certain language, waivers yet to be approved (Kaiser Family Foundation, Sept. 11, 2018).

## THE SHARED RESPONSIBILITY FOR HEALTH CARE

The development of health care policy and provision of health care services are a complex process, with responsibilities shared across all levels of government within the United States (Figure 2). The World Health Organization (1948) defines *health* as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” This makes it quite clear that, within each level of government, the work of many agencies is required in pursuit of the health of the population. For example, within the federal government, responsibilities for health spread far beyond the Department of Health and Human Services (HHS) to agencies that include the Social Security Administration, the Department of Labor, the Department of Veterans Affairs, and the Department of Agriculture, among others.

The current state of health care delivery in the United States has evolved over time and has been significantly shaped by several key federal policy initiatives

**FIGURE 2 THE ROLE OF GOVERNMENT IN HEALTH CARE**

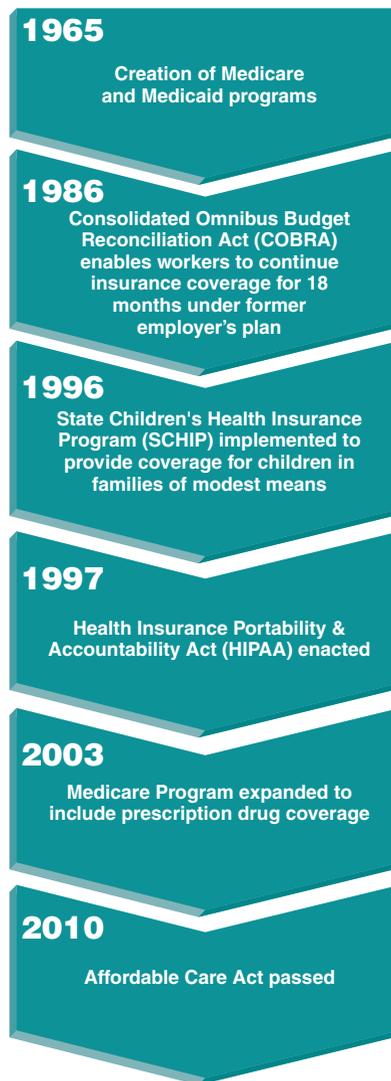
Source: U.S. Department of Health and Human Services.

implemented since 1965 (Figure 3). These initiatives have focused on improving access to care, ensuring affordability of care, protecting patient confidentiality, and controlling the growing cost of health care.

## WHERE THE MONEY COMES FROM, AND HOW IT IS USED

In 2012, total health care spending in the United States reached \$2.8 trillion. In 2016, that figure was \$3.3 trillion (CMS, 2018). Although the rate of growth in health care spending has slowed somewhat in the past few years, as of 2016, figures released by the

Although the rate of growth in health care spending has slowed somewhat in the past few years, such spending continues to account for nearly 18% of the U.S. gross domestic product.

**FIGURE 3** SIGNIFICANT HEALTH POLICY MILESTONES, 1965 TO PRESENT

Source: U.S. Department of Health and Human Services.

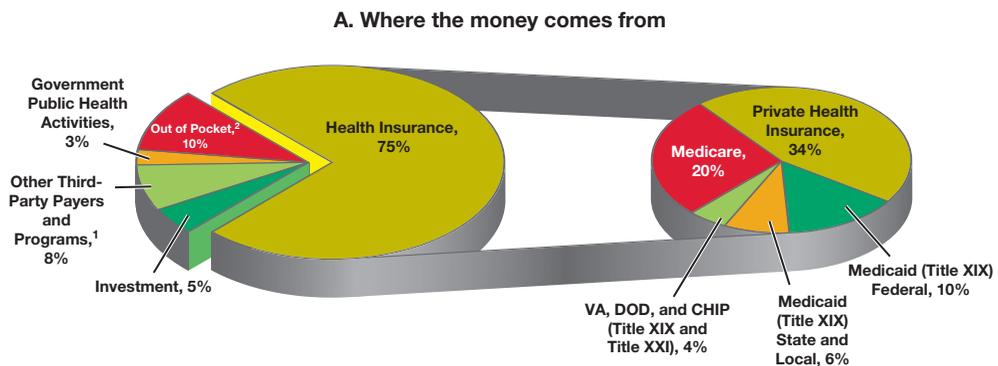
Centers for Medicare and Medicaid Services (CMS, 2018) show that such spending accounts for 17.9% of the U.S. gross domestic product (GDP).

The sources of funding for U.S. health care expenditures have changed substantially over time. Most notably, since 1970 the total out-of-pocket spending for health care has decreased from 33% to 10% of funds, while spending in public insurance programs (Medicare, Medicaid, and other governmental health insurance) has increased from 38% to 49% (CMS, 2018). As of 2017, private payers contributed 34% and another 7%-8% came from other private funding sources (Statista, 2018). However, out-of-pocket costs have again started to trend upward

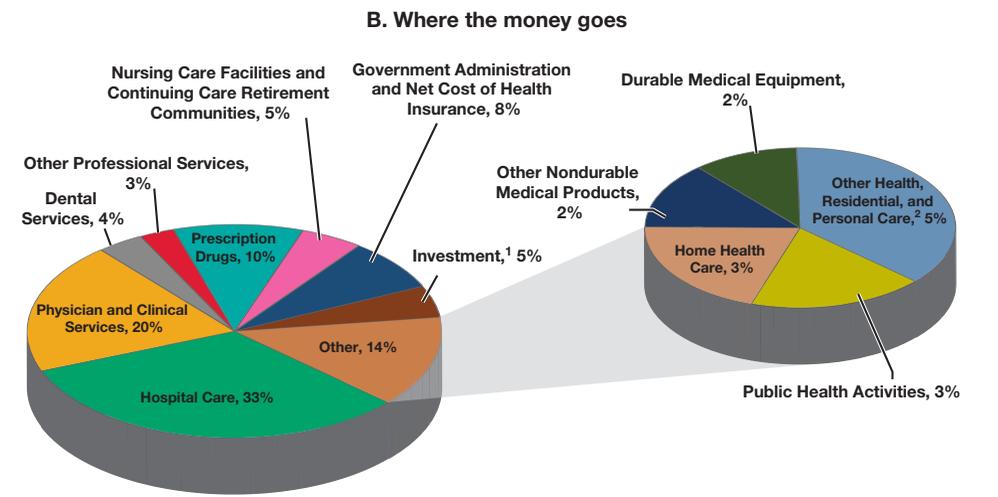
as cost sharing in insurance plans has increased and consumer-directed health plans have become more common. More individuals are electing high deductible health plans (HDHPs). Enrolment in HDHPs has increased by more than 14% since 2010 among those with private insurance coverage. The percentage of individuals who were enrolled in an HDHP increased from 25.3% in 2010 to 39.4% in 2016 (Cohen, Zammitti, & Martinez, 2017).

In contrast to changes in the sources of health care funding, the use of funds has remained heavily weighted toward hospital services with 32% of all health care dollars spent on hospital care (CMS, 2015; Figure 4B).

**FIGURE 4 HEALTH EXPENDITURES IN THE UNITED STATES: CALENDAR YEAR 2017**



<sup>1</sup> Includes worksite health care; other private revenues; Indian Health Service; workers' compensation; general assistance; maternal and child health; vocational rehabilitation; Substance Abuse and Mental Health Services Administration; school health; and other federal, state, and local programs.  
<sup>2</sup> Includes co-payments, deductibles, and any amounts not covered by health insurance.



<sup>1</sup> Includes noncommercial research and structures and equipment.  
<sup>2</sup> Includes expenditures for residential care facilities, ambulance providers, medical care delivered in nontraditional settings (such as community centers, senior citizens centers, schools, and military field stations), and expenditures for Home and Community Waiver programs under Medicaid.

Note: Sum of pieces may not equal 100% due to rounding.

Source: Adapted from the Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group.

## A COMPARATIVE PERSPECTIVE

In 2011, the per capita health care spending in the United States was approximately \$8,500. By comparison, in 2016 this figure rose to \$10,348 per person (CMS, 2018). This may not seem particularly troubling until it is compared with its Organisation for Economic Co-operation and Development (OECD) peers, among whom health care spending averaged approximately \$3,300 per capita in 2011 (OECD, 2018). In fact, no other country spent close to the same amount as the United States. Norway and Switzerland ranked a distant second in spending among OECD countries, at approximately \$5,600 per capita in 2011. By comparison, OECD figures show that Switzerland, a country that reflects a somewhat similar approach to health care financing, had in 2017 spent \$8,009 (OECD, 2018).

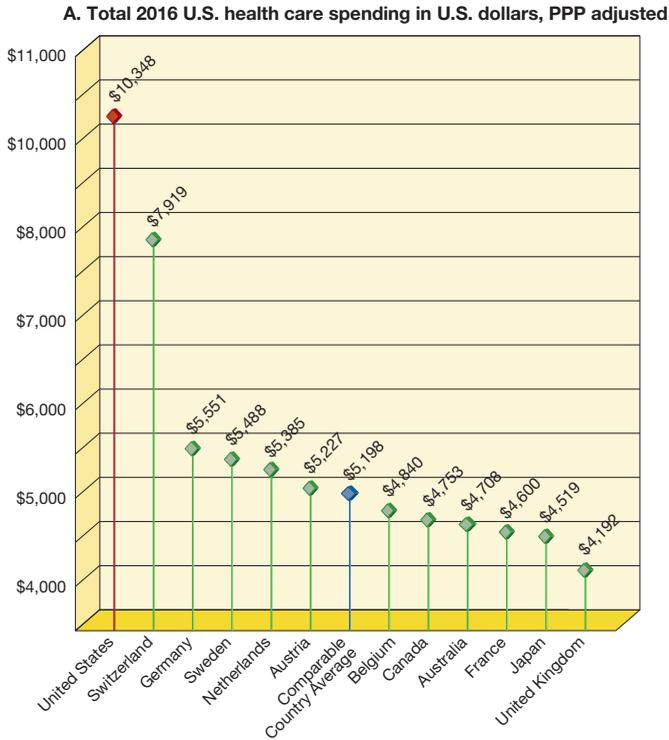
We often perceive that the United States has the best health care system in the world. If this were the case, we could conclude that there is no reason for concern about higher spending rates, assuming such spending results in optimal care and better outcomes. Unfortunately, evidence is not available to sustain this argument and, even as the United States leads the world in spending, it lags behind its peers in health outcomes. The life expectancy in Japan, the highest of any developed country, is 87.1 years, while in the United States women average 6 years less, at 81.1 years (OECD, 2018). As illustrated in Figure 5, part A, the United States is an outlier in health care spending. Unfortunately, higher levels of spending are not necessarily associated with improved health outcomes (Figure 5, part B).

## POPULATION HEALTH: BEYOND HEALTH CARE

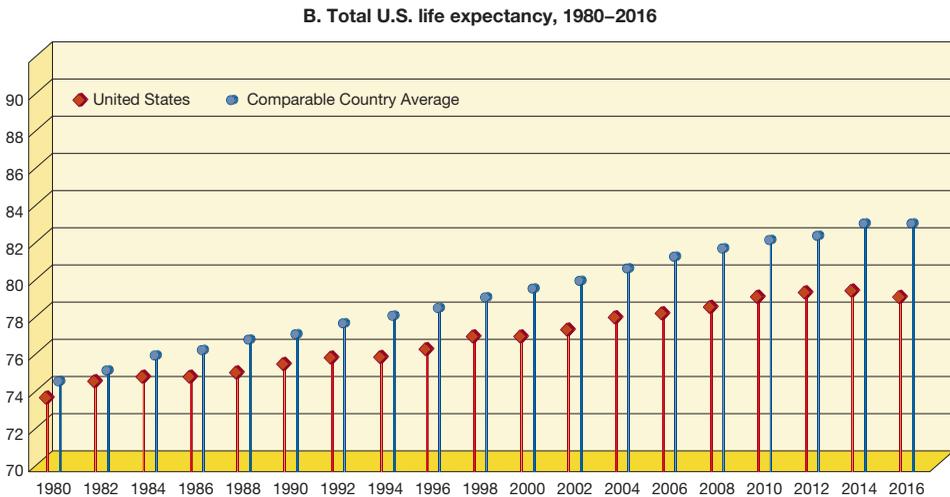
Health is about much more than health *care*—the services provided within the framework of health care institutions. A true assessment of health, an individual's ability to live a long and healthy life, depends on many social and environmental factors beyond health care services, including education, income, racial or ethnic group, genetics, physical environment, and health-related behaviors.

The Population Health Model brings an integrative approach to identifying the influence of the many factors that play a role in the health of the population and to developing strategies for change. This approach takes a broad view, focusing not only on the need for improvement in health *care* delivery, but also on the many determinants of health. For example, the increase in obesity rates worldwide is a significant population health concern (Figure 6). A population health approach not only considers medical care interventions to support better prevention and management of obesity by clinicians, but also examines other factors, including health-related behaviors such as diet and exercise and physical environment limitations that may prevent sufficient exercise.

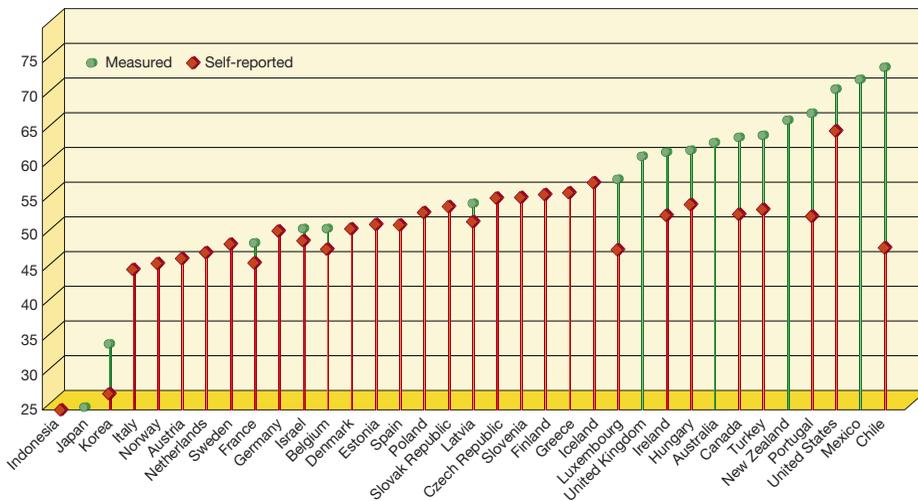
**FIGURE 5 U.S. HEALTH CARE SPENDING AND LIFE EXPECTANCY, 2016**



Source: U.S. data are from the 2016 National Health Expenditures Account. Comparable country data are from OECD (2017), “OECD Health Data: Health expenditure and financing: Health expenditure indicators,” OECD Health Statistics (database). doi: 10.1787/health-data-en (accessed on March 19, 2017).



Source: Data from Kaiser Family Foundation analysis of data from OECD Health Statistics and the AHRQ Medical Expenditure Panel Survey. <https://www.healthsystemtracker.org/chart-collection/how-do-health-care-prices-and-use-in-the-u-s-compare-to-other-countries> (accessed on January 31, 2018).

**FIGURE 6** OVERWEIGHT OR OBESE POPULATION IN SELECT COUNTRIES, MEASURED AND SELF-REPORTED: PERCENTAGE OF POPULATION, AGE 15+ (2017)

Source: Adapted from Organisation for Economic Co-operation and Development (OECD).

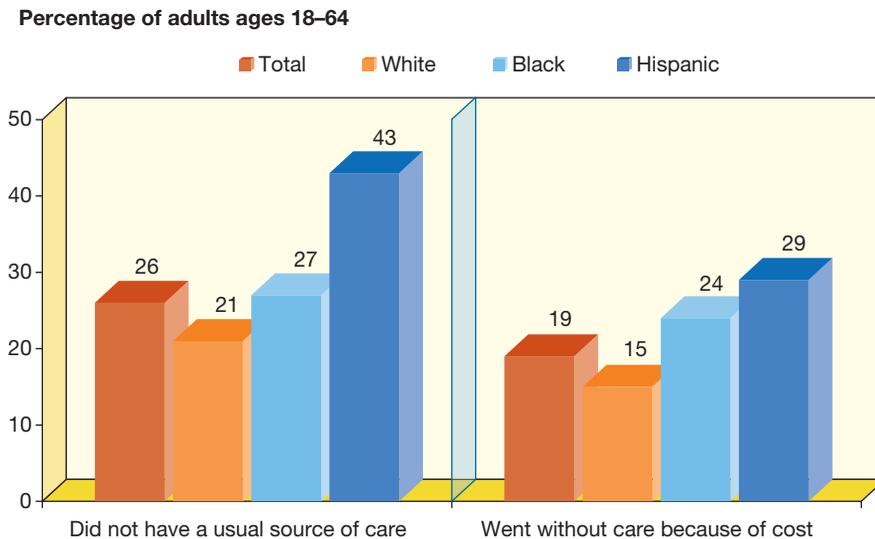
## ACCESS TO CARE AND VARIATION IN HEALTH OUTCOMES

In 2014, millions of previously uninsured Americans obtained health insurance coverage through the health insurance marketplaces established in accordance with the ACA. However, 29 million Americans remain uninsured. Economic barriers to care are still present in the forms of

**Wide variation in health status and outcomes exists within the United States by income level, by race and ethnicity, and by education level.**

uninsurance and underinsurance, whereby an individual may have insurance coverage but co-payments and deductibles make care unaffordable, thus discouraging the patient from seeking necessary care. At lower income levels, individuals are less likely to have a usual source of care (Figure 7).

It is also important to recognize that many factors beyond health insurance coverage and income level affect access to care and, ultimately, health outcomes. Well-documented, significant differences in health care utilization and outcomes exist among racial and ethnic groups. Although less well documented, it also has been observed that cultural and language barriers affect health care utilization, potentially for reasons that include the language barrier, differing views on illness and treatment, and distrust of Western medicine. In total, this range of economic and noneconomic barriers to health care access has a significant effect on health outcomes. Wide variation in health status and outcomes exists within the United States by income level, by race and ethnicity, and by education level.

**FIGURE 7 HEALTH CARE UTILIZATION DISPARITIES AMONG RACIAL AND ETHNIC GROUPS IN THE UNITED STATES**

Source: U.S. Department of Health and Human Services Health Measures.

A recent analysis by Hayes, Riley, Radley, and McCarthy (2015) indicated that while health insurance may not resolve all disparities, it does help reduce inequity (Figure 8). From 2013 through 2015, even though Black and Hispanic working-age adults faced greater barriers to gaining access to and affording health care than their White counterparts, when adjusted for income, age, sex, and health status, the differences were smaller among those with insurance coverage.

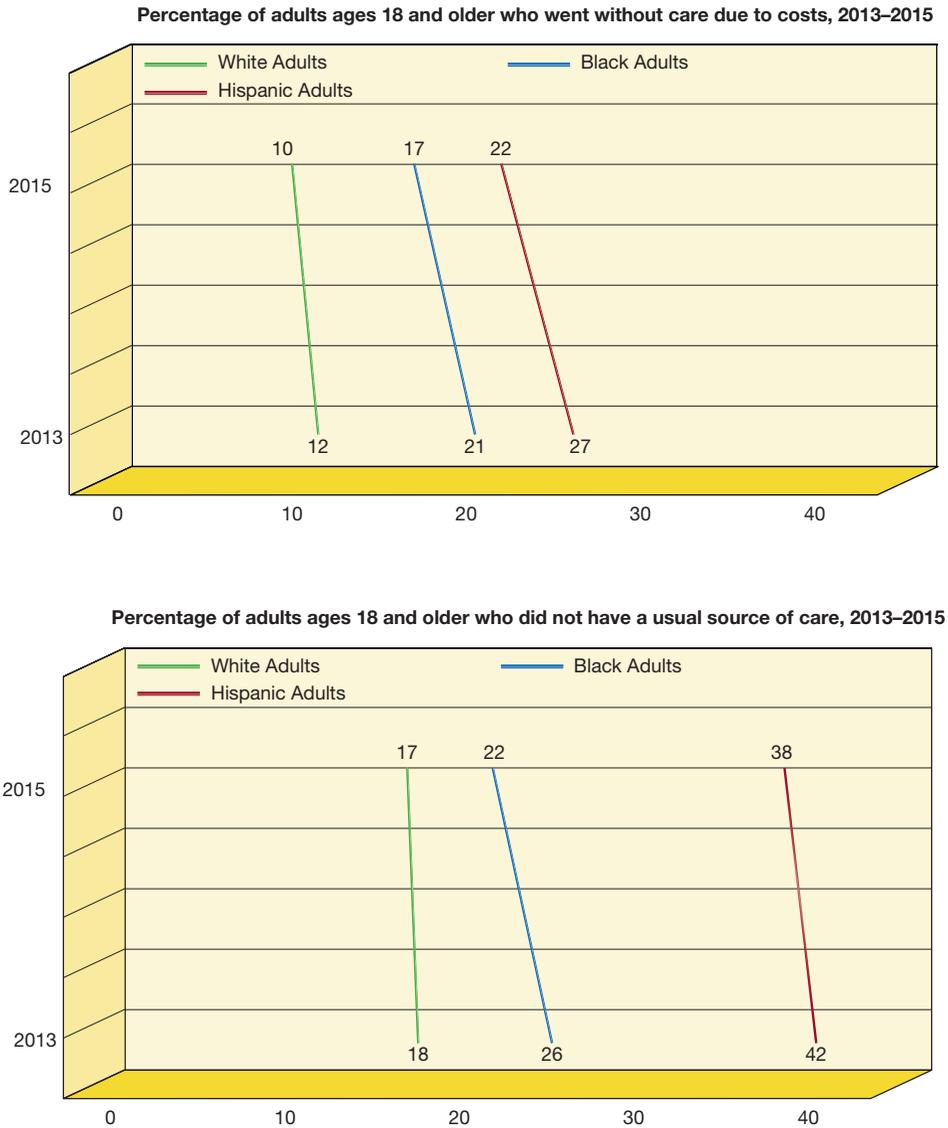
## HEALTH AND BEHAVIOR

Many factors combine in determining an individual's health outcomes. Beyond medical care, social and economic factors, and environmental factors, the University of Wisconsin Population Health Institute (UWPHI) Model of Health Improvement indicates that personal health behaviors

**Behavioral risk factors, including tobacco use, alcohol abuse, unhealthy diets, and sedentary lifestyles, play a fundamental role in poor health.**

account for approximately 30% of ultimate health outcomes (Figure 9). Behavioral risk factors, including tobacco use, alcohol abuse, unhealthy diets, and sedentary lifestyles, play a fundamental role in poor health. According to the U.S. Preventive Services Task Force, sedentary lifestyles and lack of exercise are associated with type 2 diabetes, stroke, hypertension, osteoarthritis, colon cancer, depression, and obesity. In the period from 2015 to 2016, the Centers

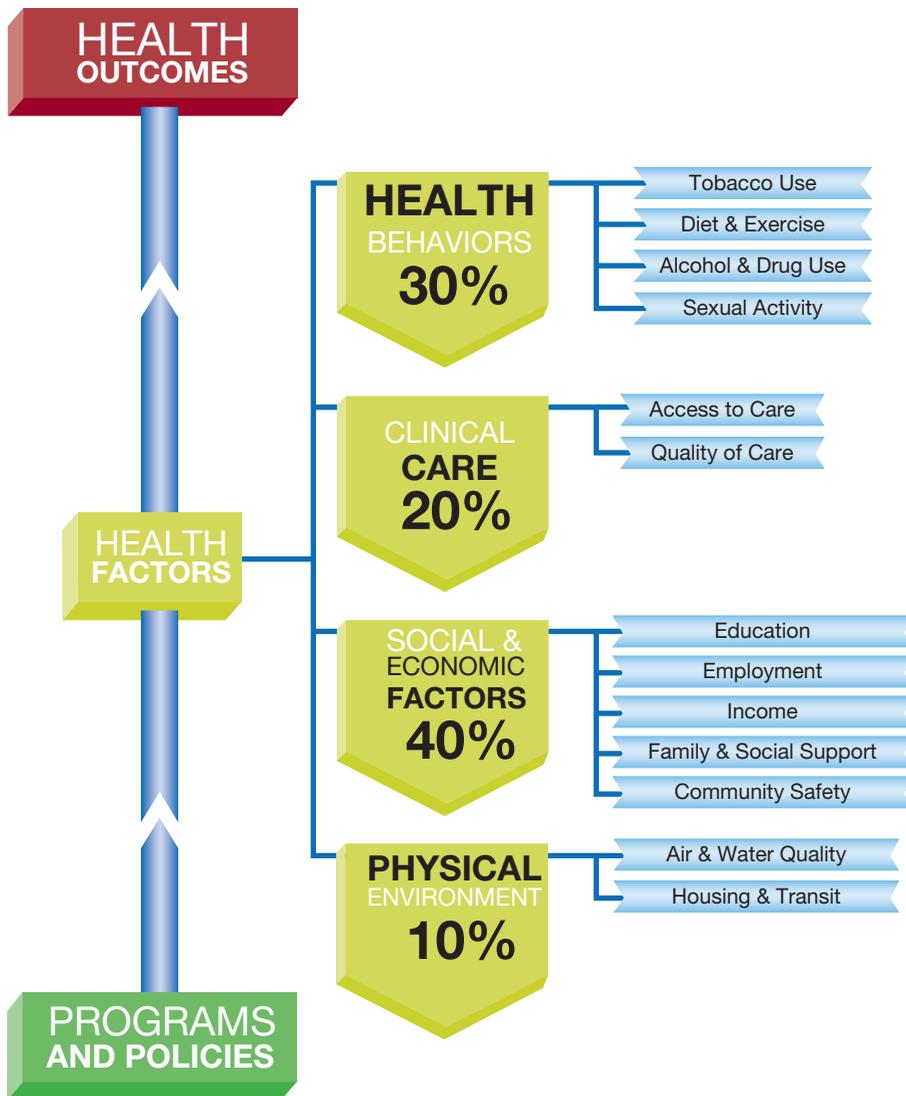
**FIGURE 8 ACCESS TO HEALTH CARE INSURANCE REDUCES HEALTH INEQUITIES SUCH AS HEALTH CARE UTILIZATION AMONG RACIAL AND ETHNIC GROUPS IN THE UNITED STATES**



Source: Data from S. L. Hayes, P. Riley, D. C. Radley, & D. McCarthy. (August 2017). Reducing racial and ethnic disparities in access to care: Has the Affordable Care Act Made a difference? The Commonwealth Fund. Data: Authors' analysis of 2013 and 2015 Behavioral Risk Factor Surveillance System (BRFSS).

for Disease Control and Prevention (CDC) reported that more than one third (39.8%) of Americans are obese, a significant health risk factor highly associated with behavioral choices. The prevalence among adults aged 40–59 (42.8%) was

**FIGURE 9** POPULATION HEALTH: HOW HEALTH OUTCOMES ARE DETERMINED BY MUCH MORE THAN ACCESS TO EFFECTIVE CLINICAL CARE



Source: Adapted from UWPHI County Health Rankings Model. (County Health Rankings and Roadmap. 2018).

higher than among adults aged 20–39 (35.7%) (Hales, Carroll, Fryar, & Ogden, 2017). Yet we must recognize that behavior is often difficult to change. Unhealthy behavioral choices may not have a visible health effect for many years. Many approaches to behavioral change exist, but a change in health behavior attitudes among Americans will likely require a continued, concerted effort using

a combination of population-based interventions, individual behavioral change approaches, and greater involvement of health care providers and organizations in healthy lifestyle interventions.

## THE HEALTH CARE WORKFORCE

More than 13% of the total U.S. workforce is employed in a health care–related job. From clinical roles, such as nurses, physical therapists, and doctors, to employees fulfilling administrative and support functions, such as environmental services, billing and finance, and operations management, the health care workforce is both sizable and incredibly diverse. Also, health care workers are employed by many different types of organizations, including hospitals, offices of health care practitioners, nursing homes, and home health agencies, among others (Table 1).

The U.S. Bureau of Labor Statistics estimates that the health care workforce could expand by more than 30%, adding an additional 4 million jobs, by 2020. However, significant challenges exist. The ACA and health care reform efforts emphasize increased focus on primary care and coordination of care. It is unclear whether there is an adequate supply of primary care physicians, particularly in certain geographic areas of the United States, to support an increased demand in primary care services. It is clear, however, that change must occur in how health care professionals are educated and incentivized. A move toward more coordinated models of care will undoubtedly require increased focus on communication skills and teamwork. To achieve success, payment and incentive models must move away from siloed, fee-for-service structures and toward payments focused on incentivizing care coordination and health outcomes.

**TABLE 1 THE DIVERSE U.S. HEALTH CARE WORKFORCE**

	INPATIENT CARE	AMBULATORY CARE	LONG-TERM CARE
<b>Delivery</b>	Hospitals	Doctors' offices, hospitals, clinics	Nursing homes, home health, care, assisted living
<b>Focus of Services</b>	Acute care	Preventive care, acute care, chronic care	Chronic care
<b>Workforce</b>	Registered nurses (38%) Nursing aides (14%) Technicians (13%) Physicians and surgeons (7%) Licensed practical nurses (6%) Health care services managers (5%) Therapists (5%)	Physicians (17%) Other practitioners (12%) Technicians (12%) Registered nurses, nurse practitioners (11%) Medical assistants (11%) Therapists (5%) Health care services managers (4%)	Nursing and personal care aides (60%) Registered nurses (15%) Licensed practical nurses (11%) Health care services managers (3%) Social workers (3%) Therapists (2%) Technicians (1%)

Source: Adapted from The Partnership for Quality Care.

## VARIATIONS IN HEALTH CARE DELIVERY

It is easy to presume that the quality of health care services and the outcomes achieved should be similar regardless of whether you live in Los Angeles, Dallas, or Boston, and regardless of which hospital or doctor's office in your city you use for services. Research has shown, however, that this is not the case. The Dartmouth Atlas of Health Care (The Trustees of Dartmouth College, 2018), among others, has shown that where you live and at which facility you receive care influence both access to care and the quality of care you receive. Tremendous variations exist among geographic areas, among cities within the same state, and among health care facilities within the same city. The 2012 Commonwealth Fund's *Local Scorecard* documented alarming variations among communities. The 2016 *Local Scorecard* (Radley, McCarthy, & Hayes, 2016) has continued to track these variations. For instance:

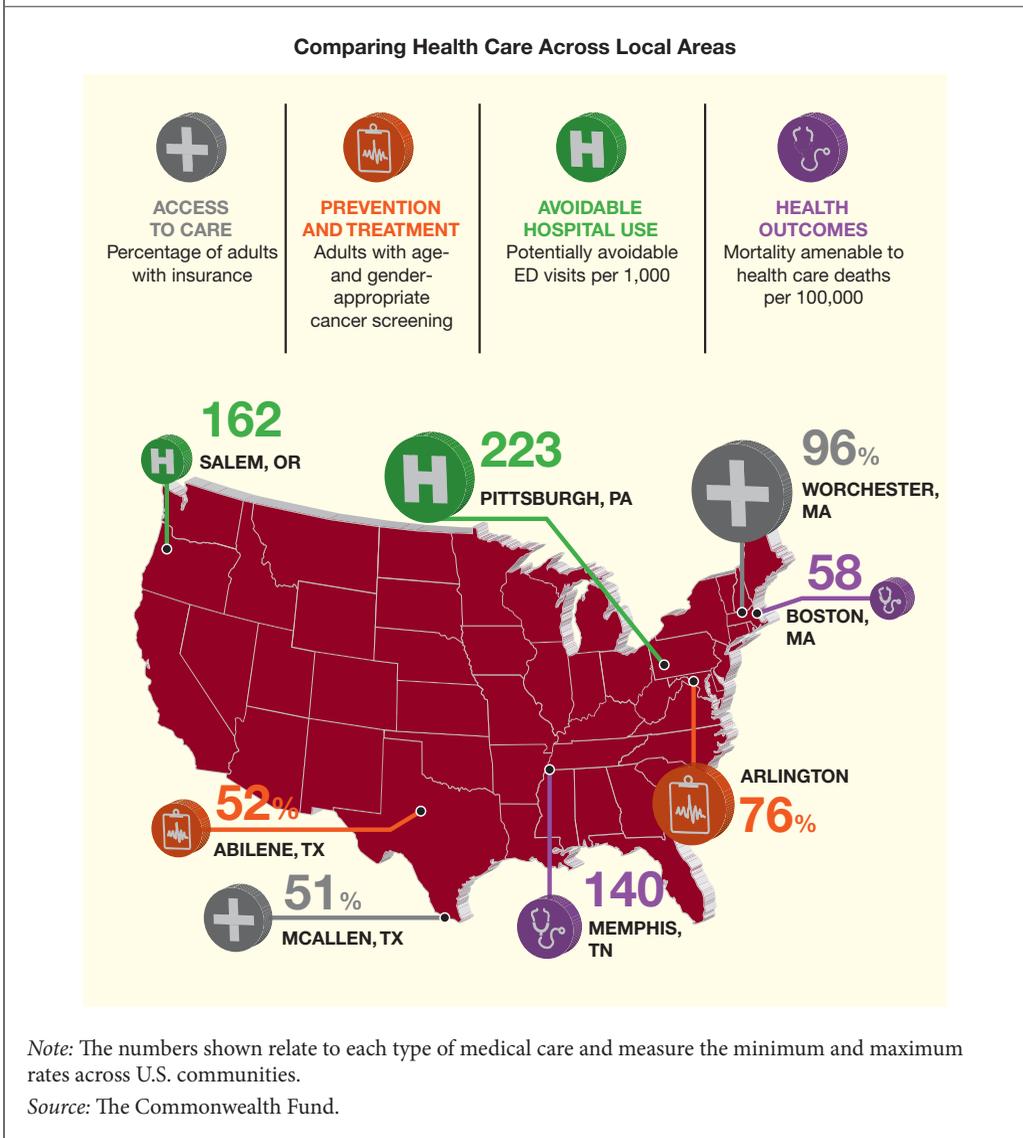
On the 2012 Scorecard, the rate of potentially preventable deaths before age 75 from health care amenable causes was more than three times as high in the geographic area with the worst (highest) rate than in the area with the best (lowest) rate (169.0 vs. 51.5 deaths per 100,000 population). The latest scorecard from 2016 reports that rates of premature death from treatable medical conditions remain mostly unchanged in the years measured between 2010–11 and 2012–13.

The incidence of unsafe medication prescribing among Medicare beneficiaries on the 2012 Scorecard was four times higher in Alexandria, Louisiana, than in the Bronx and White Plains, New York (44% vs. 11%, respectively). The 2016 Scorecard reports that compared to residents of higher-income areas, those living in lower-income areas are still more likely to receive a high-risk prescription medication (20% vs. 13% among Medicare beneficiaries).

Figure 10 provides additional insight regarding some of the types and extent of variation documented by *Local Scorecard*. It is evident that significant variation exists in access to care, delivery of care, and health outcomes. The challenge for policy makers and the U.S. health care delivery system is to identify strategies to close these gaps. The good news is that, because this score card was initiated in 2012, nearly all local areas (302 out of 306), health care improved more than it worsened. Remembering that many aspects of the ACA were implemented in 2012, one might be able to attribute some of the improvements to increased insurability and access to care. For instance, the scorecard demonstrates widespread reductions in uninsured rates, 30-day mortality following a hospital stay, and improvements in quality of care for nursing home residents. The share of home health patients whose mobility improved between 2012 and 2014 went up in more communities (255 of 306) than any other measure.

**Where you live and at which facility you opt to receive care influence both access to care and the quality of care you receive.**

**FIGURE 10 THE COMMONWEALTH FUND'S SCORECARD ON LOCAL HEALTH SYSTEM PERFORMANCE**



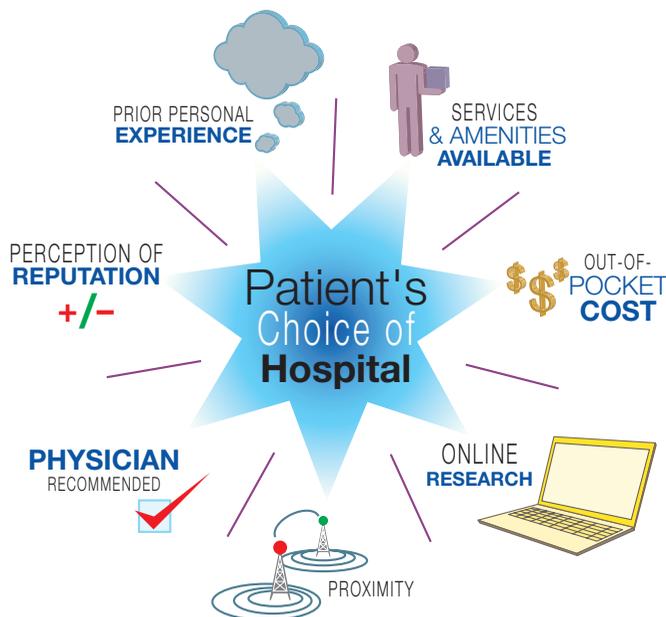
## HEALTH CARE QUALITY

The U.S. health care system is known for being among the most advanced in the world in terms of scientific discovery, equipment, facilities, and training to address complex illness and injuries. However, landmark studies, such as the National Academy of Medicine's *To Err Is Human* (1999) and *Crossing the Quality Chasm* (2001), have brought to light the fact that even the most advanced equipment and techniques cannot overcome the system design and team coordination issues that often lead to poor-quality health care outcomes. The National

Academy of Medicine's research indicates that at least 44,000 Americans die, and hundreds of thousands more are injured, in U.S. hospitals each year due to medical errors. These errors cause unnecessary costs to the U.S. health care system of between \$17 and \$29 billion annually. The National Academy of Medicine developed a roadmap to achieve better quality, calling for focus on care that is safe, effective, patient-centered, timely, efficient, and equitable.

In the years since these studies, many tools, techniques, and measures have been implemented to evaluate and improve quality in the U.S. health care system. Payment systems have also begun to integrate quality measures. Each year since 2003, the Agency for Healthcare Research and Quality (AHRQ) has reported on progress toward improved health care quality and opportunities for ongoing improvement. Although annual improvements have been recognized, the reports also indicate that health care quality and access continue to be suboptimal. Efforts also are underway to ensure that quality health care information is more readily accessible for patients as they make health care-related decisions. The HHS has developed mandatory quality reporting metrics, made publicly available through <https://www.medicare.gov/hospitalcompare/> and <https://www.medicare.gov/nursinghomecompare/>. Numerous other public and private sources have begun to provide ratings and information about patient experiences and outcomes. However, many factors other than quality data currently influence decision-making when patients select health care providers (Figure 11).

**FIGURE 11** FACTORS THAT INFLUENCE A PATIENT'S CHOICE OF HOSPITAL



Source: Compiled from multiple articles regarding patient selection of hospitals, including Jung, Feldman, and Scanlon (2011).

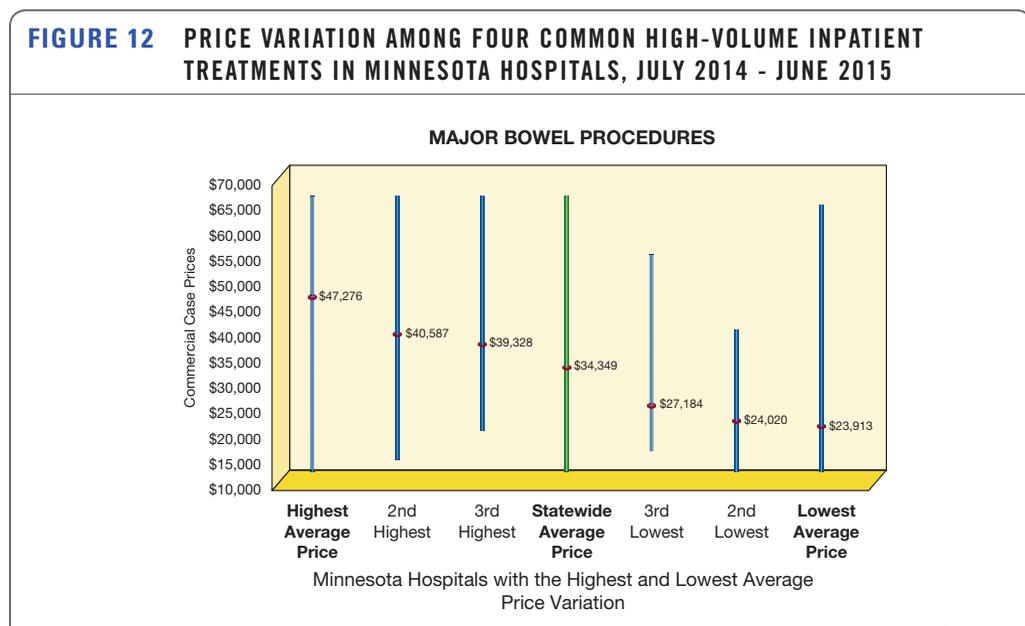
## HEALTH CARE COST AND VALUE

Just as patients often do not consider quality data in making choices about health care providers, costs typically are not part of the decision-making process. This happens for a number of reasons. For insured patients, focus may be on the required co-pay amount, as opposed to the total cost of care. In general, the health care system is not designed to allow patients to consider costs and value obtained, as they might when making other purchasing decisions. Yet patients who do attempt to obtain cost information often find that accessing this information is difficult to obtain and to compare. Costs for the same procedure may vary even within a particular hospital, depending on the complexity level and peripheral services. A patient's costs also differ depending on a patient's insurance carrier and the rates that have been negotiated by the insurer. Recent research has shown significant variation in cost of four common medical procedures in Minnesota hospitals with the highest and lowest price variations and statewide averages (Figure 12). It is clear that a significant variation in commercial case price (hospital fees and physicians services combined) exists within and among different hospitals but an important question remains unanswered: What is the value of care received at these prices?

Recent research has shown significant variation in cost for the same service between hospitals, even within the same geographic area.

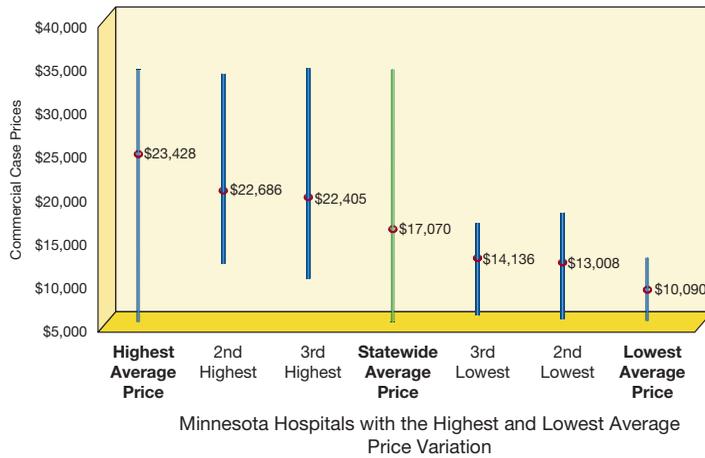
As health care expenditures have continued to grow—and today reach nearly 18% of the U.S. GDP—there has been increasing pressure for greater transparency regarding health care costs, with the presumption that greater transparency will foster greater accountability. In support of this effort, beginning in 2013,

**FIGURE 12** PRICE VARIATION AMONG FOUR COMMON HIGH-VOLUME INPATIENT TREATMENTS IN MINNESOTA HOSPITALS, JULY 2014 - JUNE 2015

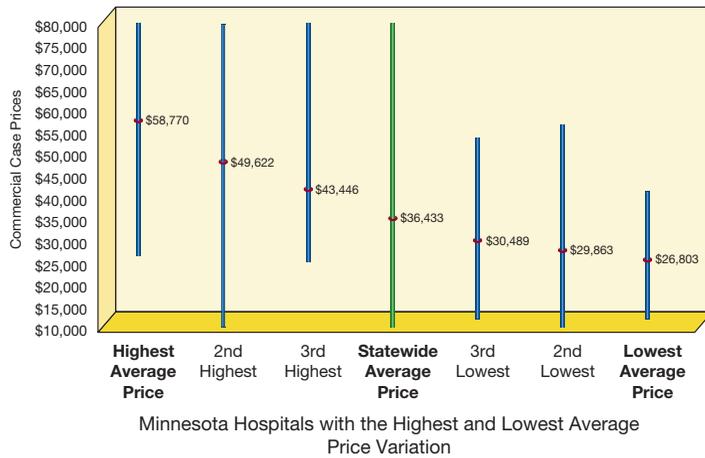


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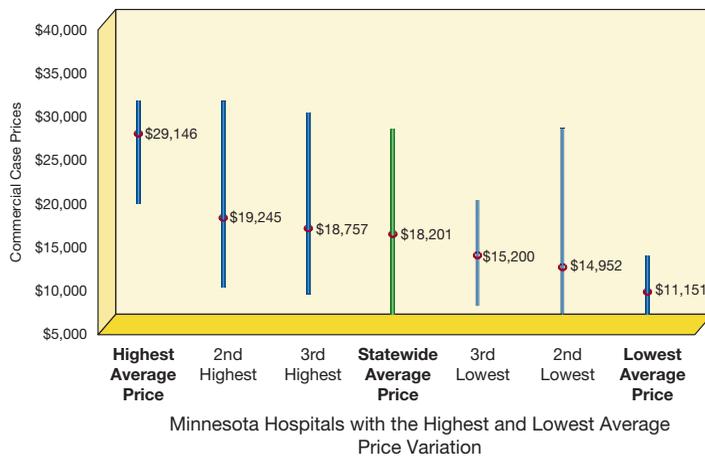
**APPENDECTOMY**



**SPINAL FUSION SURGERY**



**REMOVAL OF UTERINE FIBROIDS**



Source: Data from Cooper, Z., Craig, S. V., Gaynor, M., & Van Reenen, J. (2015). The price ain't right? Hospital prices and health spending on the privately insured (No. w21815). National Bureau of Economic Research.

the Centers for Medicare and Medicaid Services (CMS) began to release certain Medicare provider charge data for public viewing. Although this may be a step toward transparency, given the complexity of the data and the design of health care charge systems, it remains to be seen whether this information will be helpful to patients in decision-making or will have any influence on the decisions patients make. With the implementation of the ACA, other efforts have focused on pay for value or performance, penalties have been imposed upon health care institutions for hospital-acquired conditions (HACs) such as infections, new methods of reimbursement have been instituted and tracked, and hospitals and providers have been encouraged to identify alternate payment models by which their services might be supported. Accountable care organizations have grown in number and in scope in order to better control the transitions of care among settings and providers, thereby reducing duplication and cost.

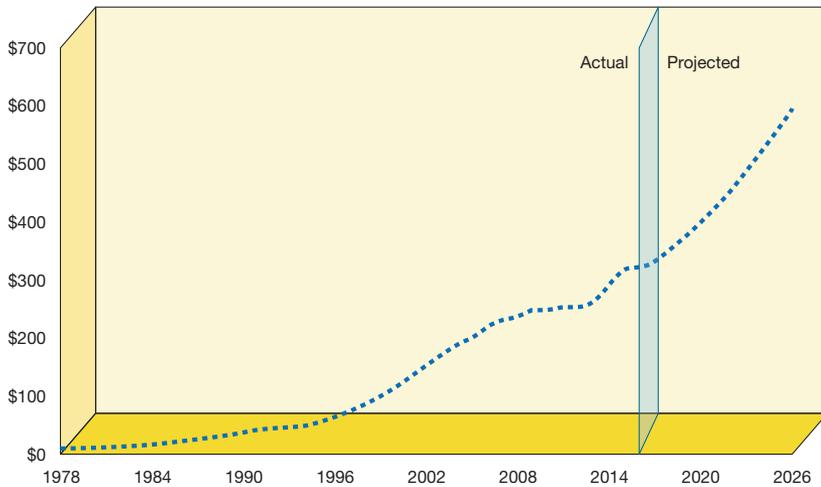
## THE FUTURE OF HEALTH CARE DELIVERY

Forecasting the future involves both learning from the past and utilizing current evidence and circumstances to develop a reasonable view of what is likely to happen going forward. Past trends and current evidence make it likely that quality and costs will become an even more central part of the health care delivery dialogue. Providers, whether physicians or others, are being held more accountable for delivering quality and for managing costs. Health systems are seeking lower cost providers for certain services, including nurse practitioners, nurse anesthetists, and nurse midwives. There is increasing pressure on consumers to be fully engaged in their own health care decisions and choices. Efforts are underway to improve transparency so that consumers are aware of costs before embarking on elective procedures. Some pressure is being exerted on pharmaceutical makers to make prescription drug charges transparent to consumers to support their health care decision-making.

Data demonstrate that prescription drug prices had risen astronomically from 1960 to 2018. Figure 13 displays the dramatic increases that can be correlated with the rising population of the United States, and changes in public policy that include the initiation of health care coverage for seniors through Medicare and for low-income poor through Medicaid, the subsequent expansion of health insurance coverage by employers for working adults and their families over this time period, and changes in insurance models such as managed care and the use of pharmacy co-pays. A more reasonable comparison of prescription drug costs might be to consider the last two decades where fewer dramatic changes in public policy have occurred. Even from the year 2000 to the present, prescription drug prices have increased from \$121 billion to \$338 billion. While most years during that time the yearly increase in spending averaged 4.4%, the growth in pharmaceutical spending increased by over 12% from 2013 to 2014. Fortunately, this dramatic rise has not been sustained, but it is evidence of the burden that both public and private insurers and the consumers bear. There have been significant shifts in the responsibility for pharmaceutical spending during this time,

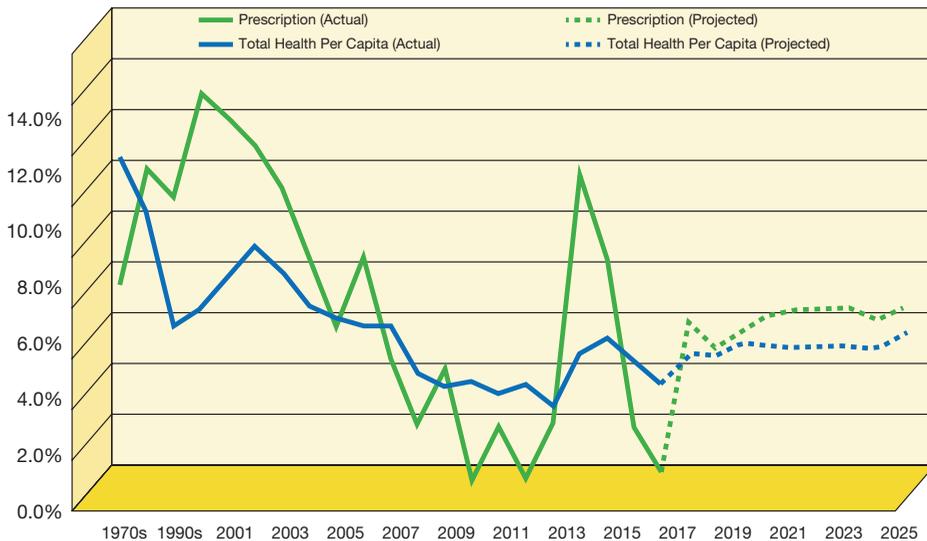
with Medicare Part D driving up the proportion that is covered through federal spending to nearly 30%, while the consumer portion has decreased from 25% to 15% of the total spending (CDC, 2016; Health, United States Spotlight, Winter 2016). Figure 14 projects this trend in spending into the future (Kaiser).

**FIGURE 13 U.S. PRESCRIPTION DRUG COSTS, BILLIONS OF DOLLARS**



Source: Data from Centers for Medicare & Medicaid, *National Health Expenditures*, February 2018. Compiled by Peter G. Peterson Foundation.

**FIGURE 14 CHANGES IN U.S. PRESCRIPTION SPENDING**



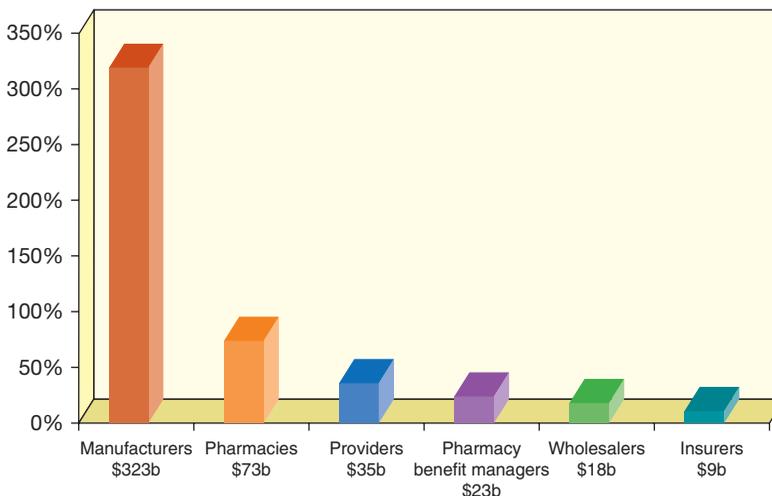
Source: Adapted from Centers for Medicare & Medicaid, *National Health Expenditures*, February 2018. Compiled by Peter G. Peterson Foundation.

How does the cost of prescription drugs compare with other countries? A study by Morgan, Leopold, and Wagner (2017) (2018) examined six therapeutic categories of primary care medicines and their costs among the United States and other comparable countries. They reported that the total per capita expenditures for these categories of medications were \$217.1 in the United States, and \$71.6 among the combined comparison countries. In total, expenditures per capita were 203% higher in the United States than the other countries.

Given the cost of pharmaceuticals, one has to question the relative value of those drugs, compared to expenditures in comparable countries. Based upon the study by Morgan et al. (2018), differences in the volume of therapy purchased in United States and comparable countries did not explain the differences in expenditures per capita. In total, per capita use of the primary care therapies studied was 12% lower in the United States than in the other countries (223.2 days of therapy compared to 253.8). So how can this be explained? The average cost per day of primary care prescription drug therapy in the United States was 245% higher than in the other countries. While in part because of the selection of higher cost therapeutic options, which increased costs per capita in the United States by approximately 44% relatively, the biggest driver was the higher average prices paid for the products selected. This was primarily due to higher prices of products in these therapeutic categories rather than differences in generic substitution rates for multisource drugs.

One can also analyze the costs of pharmaceuticals another way; demonstrated in Figure 15, a Health Affairs blog provided by Yu, Atteberry, and Bach (2018) explains that nearly three quarters of the pharmaceutical revenue generated in

**FIGURE 15** 2016 U.S. PHARMACEUTICAL REVENUE RETAINED BY MANUFACTURERS, BILLIONS OF DOLLARS



Source: Nancy L. Yu, Preston Attebery, and Peter B. Bach. Health Affairs, Health Affairs Blog. July 31, 2018. <https://www.healthaffairs.org/doi/10.1377/hblog20180726.670593/full/>

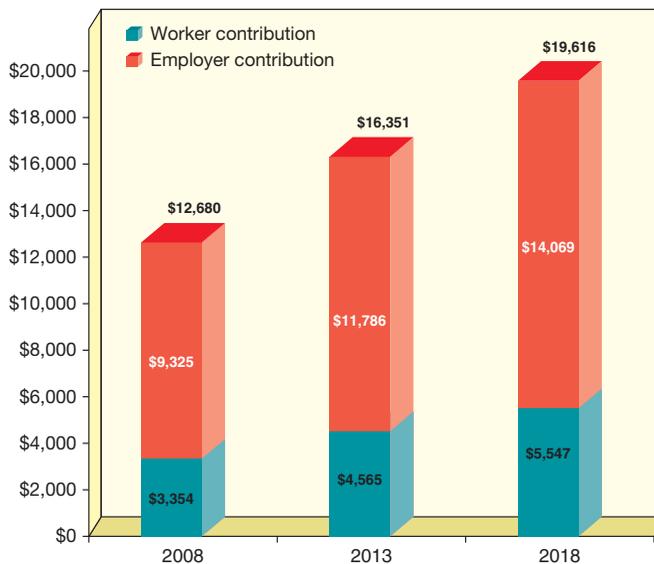
the United States is retained by the manufacturers themselves rather than by any other stakeholder group.

Transparency in the pricing of medications for consumers and their health care providers is considered to be a factor in driving decisions about utilization and thus lower expenditures. However, there are many examples where drug cost control seems impervious to these strategies. Many are familiar with the more recent examples in the news of the increased costs of epi-pens and insulin, which have fewer substitutes and yet are critical to sustaining health. The 116th Congress has indicated some willingness to embrace the cost of pharmaceuticals in the United States, with a number of proposals being considered. Whether these efforts will result in reducing the cost of medications overall, to consumers or to insurers, or actually drive down the revenues to pharmaceutical manufacturers is yet to be determined.

More conversations among policy makers have taken place in consideration of single payer plans and Medicare for All despite opposition from partisan legislators. Consumers are being forced to consider HDHPs as insurance options along with higher co-pays and other deductibles.

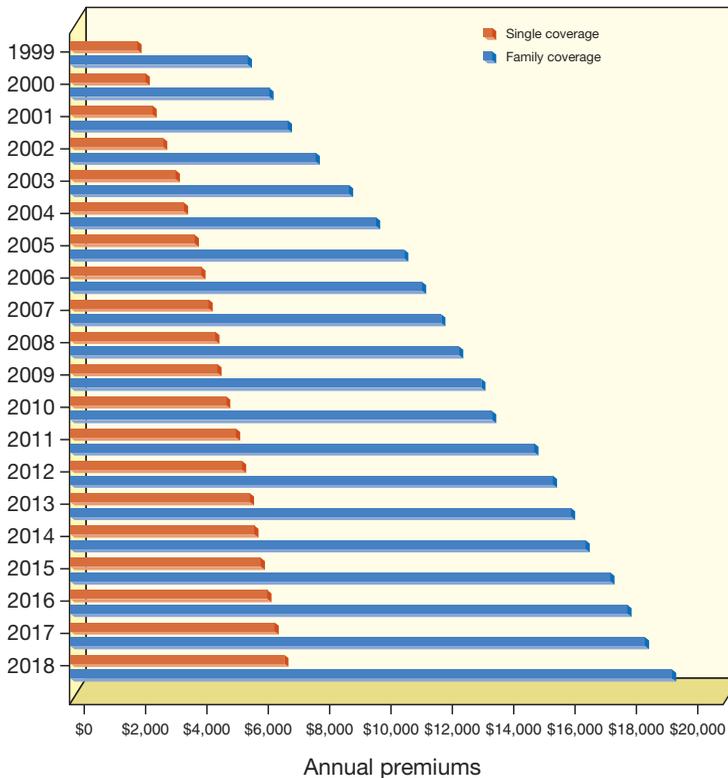
Figure 16, based upon Kaiser Family Foundation's 2018 Health Benefits Survey Report survey of 4,070 randomly selected non-federal public and private firms with three or more employees, shows the escalating average annual employee and employer contributions to health insurance premiums over the most recent

**FIGURE 16 ANNUAL AND TOTAL INSURANCE PREMIUMS FOR FAMILY COVERAGE BY WORKERS AND EMPLOYERS: 2008, 2013, AND 2018**



*Note:* Since 2008, the average family premium has increased 55% and the average worker contribution toward the premium has increased 65%.

*Source:* Kaiser Family Foundation Employer Health Benefits Survey, 2018; Kaiser/HRET Survey of Employer-Sponsored Health Benefits, 2008 and 2013; <http://files.kff.org/attachment/Summary-of-Findings-Employer-Health-Benefits-2018>

**FIGURE 17** PREMIUMS FOR SINGLE AND FAMILY COVERAGE, ANNUAL AVERAGES FOR 1999–2018

Source: Claxton, G., Rae, M., Long, M., et al. Health Affairs, Health benefits in 2018: Modest growth in premiums, higher worker contributions at firms, with more low-wage workers. November 2018. <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2018.1001>

10-year period, with premiums rising 55% over that time. A 2018 Project HOPE—The People-to-People Health Foundation, Inc. analysis in Figure 17 demonstrates the trend of higher increases in premiums for family health insurance coverage beyond that of individual employee coverage, with employers continuing to pick up smaller and smaller percentages of that burden. But the burden of spiraling health care coverage does not end there. The same Kaiser Family Foundation survey shows that a quarter (26%) of covered workers are now in a plan with a deductible of \$2,000 or more, up from 22% from the previous and up from 15% five years ago. Among covered workers at small firms with fewer than 200 employees, 42% of covered workers face a yearly deductible of \$2,000 or more.

What is the value of this health care coverage? Overlaid against the ACA, which was designed to ensure a minimum of preventive and other covered services, including mental and behavioral health, free contraceptive services, etc., one might argue that there is added value. And one feature of the ACA, the health care system as a whole has continued to shift efforts to drive up overall quality of care through changes in the reimbursement and payments structure—less pay for

poor quality based upon quality outcome measurement. However, as the battle over the longevity of the ACA continues in a partisan manner, threatening certain coverage guarantees, it becomes more difficult to defend the case for added value.

What is the future of health care costs? What seems certain is that not only transparency but also combined efforts of providers, consumers, health systems, and policy makers will be needed to achieve significant health care cost containment.

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