



**SLOWING THE GROWTH OF U.S. HEALTH CARE
EXPENDITURES: WHAT ARE THE OPTIONS?**

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ABSTRACT: Health care expenditures are expected to continue to rise rapidly over the next decade, outpacing income and imposing stress on families, businesses, and public budgets. Evidence indicates that the U.S. should be able to achieve savings and better value for this investment by creating more efficient and effective health care and insurance systems. This report reviews factors contributing to high expenditures and examines strategies that have the potential to achieve savings, slow spending growth, and improve health system performance. These strategies cluster into six areas: 1) increasing the effectiveness of markets with better information and greater competition; 2) reducing high insurance administrative overhead and achieving more competitive prices; 3) providing incentives to promote efficient and effective care; 4) promoting patient-centered primary care; 5) investing in infrastructure such as health information technology; and 6) investing strategically to improve access, affordability, and equity.

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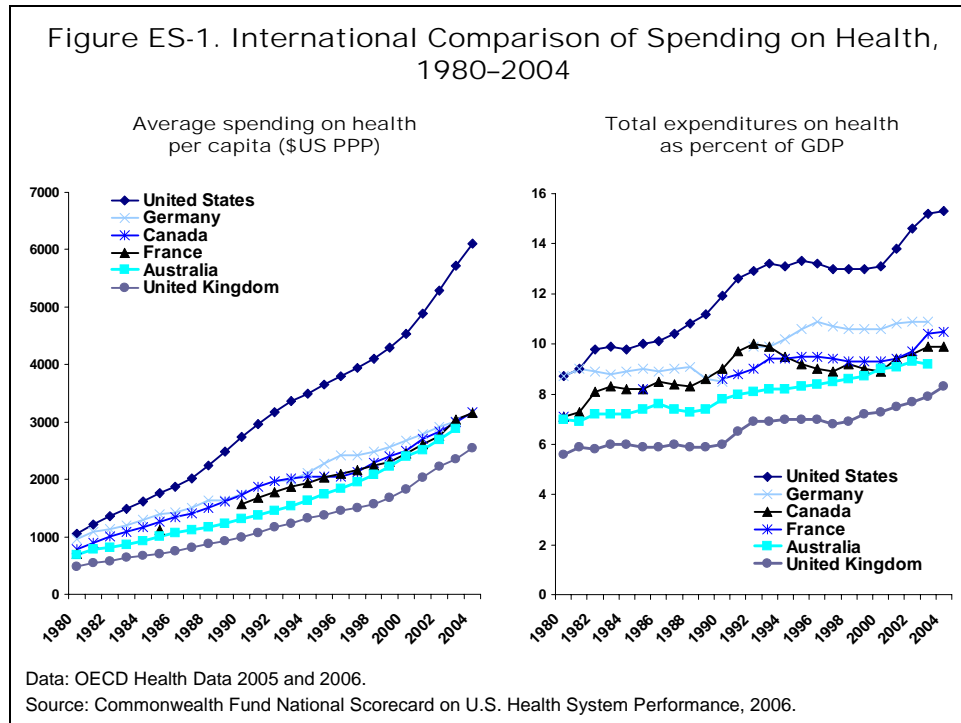
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EXECUTIVE SUMMARY

U.S. health care expenditures have risen rapidly in the last six years, imposing increasing stress on families, businesses, and public budgets. Health spending is rising faster than the economy as a whole and faster than workers' earnings. In recent years, insurance administrative overhead has been rising faster than other components of health spending, while pharmaceutical spending has increased more rapidly than spending on other health care services.

The U.S. spends 16 percent of gross domestic product (GDP) on health care, compared with 8 to 10 percent in most major industrialized nations (Figure ES-1). The Centers for Medicare and Medicaid Services (CMS) projects that growth in health spending will continue to outpace GDP over the next 10 years. Wide variations in cost and quality across the U.S. underlie these national trends, indicating opportunities to increase efficiency.

This report reviews trends in U.S. health care expenditures in the last 25 years, examines variations in costs, and considers explanations for high costs and fast growth in spending. It then examines strategies that could achieve savings and slow spending growth and discusses their potential for improving overall health system performance.



From a public perspective, the most desirable strategies to address high and rising health care costs would involve: 1) eliminating duplicative or unnecessary care and reducing administrative overhead; 2) preventing illnesses or complications and detecting conditions at an early stage; 3) avoiding unneeded hospitalizations; and 4) enhancing productivity and efficiency in the provision of care. Although there may come a time when the nation is compelled to make a tradeoff between spending on health care and other high priorities, there is currently ample evidence that we can achieve savings and efficient payment, insurance, and care delivery systems and still improve health outcomes, quality of care, and access to care.

Health care costs vary substantially across the United States. For example, the *Dartmouth Atlas of Health Care* shows that Medicare outlays per beneficiary adjusted for area wage costs ranged from \$4,530 in Hawaii to \$8,080 in New Jersey in 2003. Yet studies find no systematic relationship between spending more and achieving longer lives or higher quality of care for Medicare beneficiaries. Evidence of extensive variations in costs and quality and studies documenting provision of duplicative, inappropriate, and unnecessary care have led the Institute of Medicine (IOM) and other experts to conclude that the U.S. health care system could improve quality, access, and cost performance. The IOM defines efficiency as achieving the highest level of quality for a given level of resources. Whether comparing U.S. performance to international benchmarks of high value or to benchmarks set within the U.S., it is clear there are opportunities to improve the yield we reap given the resources we invest in health care.

One-time savings are likely to derive from approaches that address factors that contribute to current high levels of U.S. expenditures, inefficiency, and waste. These factors include:

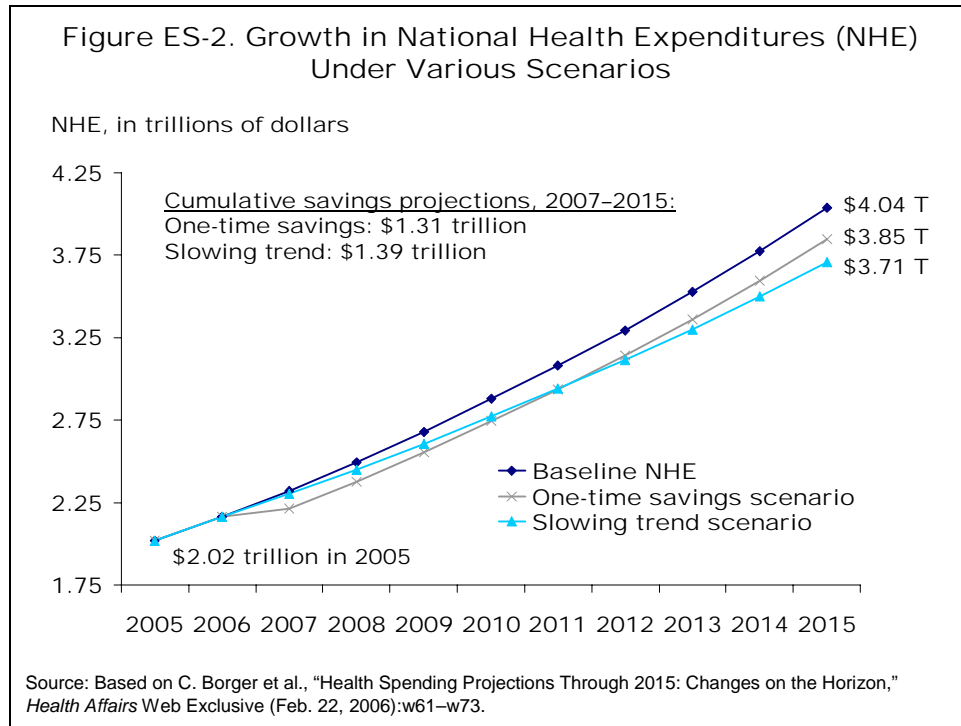
- overuse, inappropriate, or ineffective use of care;
- payment incentives that reward the delivery of more services, without consideration to clinical value or cost-effectiveness;
- market power of insurers, providers, and the health industry, including pharmaceutical companies, device manufacturers, and other suppliers to set prices above competitive market levels;
- a low ratio of primary to specialty care physicians and services;
- access barriers to preventive and primary care that contribute to avoidable hospital admissions, emergency department use, and complications of chronic and acute disease;

- a lack of well-coordinated care that leads to unsafe, duplicative, or conflicting care;
- inadequate information systems and information exchange; and
- high administrative costs, including the high proportion of insurance premiums used to cover overhead costs, the complexity of insurance benefit design and duplicative and uncoordinated requirements, and administrative costs for providers.

The principal factors that contribute to long-term trends in rising expenditures that might be amenable to policy change are somewhat different. They include:

- introduction of new technologies/innovations without comparative information on clinical outcomes or cost-effectiveness to guide decisions on adoption and use;
- wages and prices of other hospital-purchased goods and services;
- growing market power and consolidation of insurers, providers, and the health industry including pharmaceutical companies, device manufacturers, and other suppliers contributing to less choice and higher prices; and
- the increasing prevalence of chronic diseases.

Both strategies that achieve one-time savings as well as those that address cost trends could yield substantial cumulative gains over time. A policy option that has the effect of achieving a one-time reduction in the level of health care spending by 5 percent in 2007 would achieve cumulative savings over the eight-year period from 2007 to 2015 of \$1.31 trillion. A policy option that has the effect of lowering the average rate of increase in health care outlays by one percentage point a year would yield cumulative savings of \$1.39 trillion over the same period. In combination, one-time changes in spending levels plus even small changes in projected rates of increase interact to produce even more substantial long-term yields (Figure ES-2).



To achieve long-term gains in efficiency, new policies will need to counteract factors contributing to high levels of spending, poor quality, and inefficient care, as well as factors contributing to upward pressures on expenditures over time. Potential strategies to move the U.S. to a higher value, more efficient health care system cluster into six main areas:

- increasing the effectiveness of markets by improving access to information on the quality and costs of care, promoting greater competition, and developing better information on the cost-effectiveness of health care technology and procedures;
- reducing high insurance administrative overhead and achieving more competitive prices;
- providing payment incentives to promote efficient and effective care;
- changing the health care system to promote patient-centered primary care;
- investing in infrastructure such as health information technology and information exchange systems; and
- investing strategically to improve access, affordability, and equity.

Effective policy options should focus on changing total national expenditures rather than simply shifting costs from one payer source to another. Some policies may

have a greater effect on federal budget outlays, while others may affect outlays by state government, employers, or households. Achieving improved value for the national investment in health care requires policies that achieve net gains for the whole country. At the national level, the policies should:

- be amenable to federal policy action;
- improve health outcomes, quality, access, efficiency, or equity;
- have a high likelihood of significant reduction in expenditure levels and/or trends compared with current projections, or achieve a net improvement in value;
- be evidence-based and feasible to implement; and
- be reasonable first steps toward longer-term reforms.

At the federal level, there are a range of legislative proposals that seek to improve efficiency and contain health expenditures. Legislative proposals that have been introduced in Congress address four major areas: simplifying, standardizing, and introducing negotiated pricing into Medicare Part D; enhancing the utilization of health information technology and building a national interoperable technology system; integrating value-based purchasing into Medicare payments; and improving public access to information on the quality and price of medical services.

There is a compelling need for a coherent public and private sector strategy, with all parties working in concert toward agreed-upon health system aims. Such a strategy should place high priority on policies and practices that have the potential to move our nation toward benchmark levels of performance on access, quality, and efficiency, so that the U.S. health system could achieve commensurate value for the significant resources it commands.

SLOWING THE GROWTH OF U.S. HEALTH CARE EXPENDITURES: WHAT ARE THE OPTIONS?

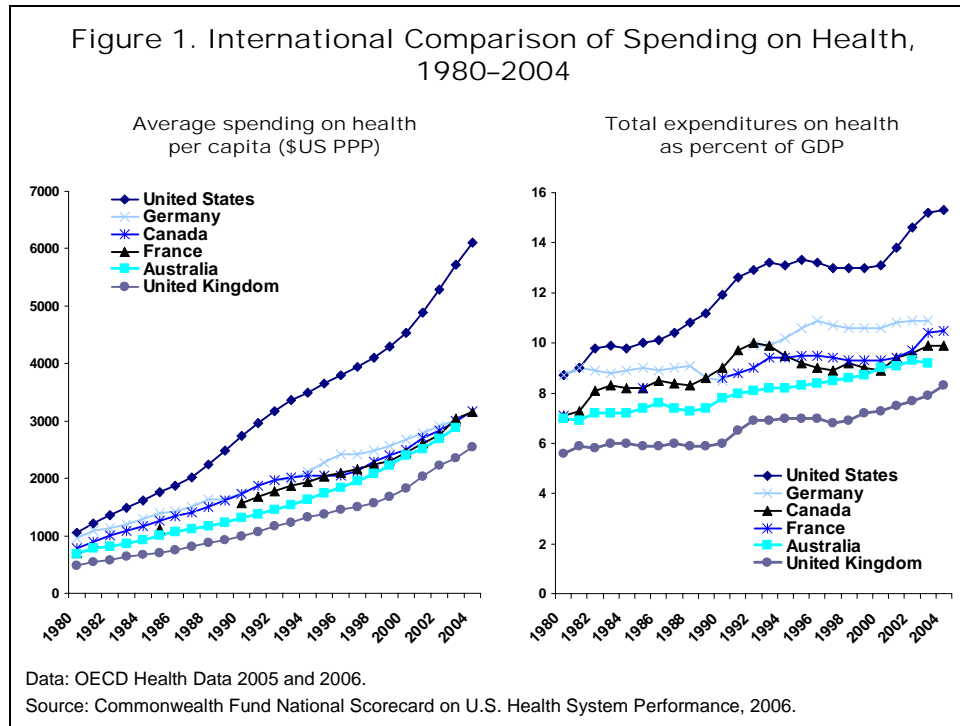
INTRODUCTION

Health care expenditures have risen rapidly in the last six years, imposing increasing stress on families, businesses, and public budgets. Since 2000, the average family health insurance premium for employer-based insurance has grown 81 percent, while median family income has increased by only 11 percent—straining the finances of employers and households alike.¹ In fact, high premiums and out-of-pocket health care costs are the American public's number-one health care concern.² With further growth in public coverage, private insurance, and personal health care expenditures expected, government, employers, and individuals will be forced to make difficult budget choices.

Higher spending on new health care technology has yielded substantial gains in life expectancy and quality of life.³ Longer and healthier lives are valued highly, and estimates suggest that the economic gains from improved health outcomes exceed the requisite increased spending on health care.⁴ But there is also evidence of substantial waste and inefficiency throughout the health care system, as well as evidence that regions of the country that spend more on care do not necessarily have better health outcomes.⁵

From a public perspective, the most desirable strategies to address high and rising health care costs would involve: 1) eliminating duplicative or unnecessary care and reducing administrative overhead; 2) preventing illnesses or complications and detecting conditions at an early stage; 3) avoiding unneeded hospitalizations; and 4) enhancing productivity and efficiency in the provision of care. Although there may come a time when the nation is compelled to make a tradeoff between spending on health care and other high priorities, there is ample evidence that we can achieve savings and efficient payment, insurance, and care delivery systems and still improve health outcomes, quality of care, and access to care.

The recent experience of many other nations demonstrates that it is indeed possible to achieve substantially lower per capita health care costs than those in the U.S., as well as slower health spending growth (Figure 1). The U.S. spends 16 percent of gross domestic product (GDP) on health care compared with 8 to 10 percent in most major industrialized nations. The U.S. spent \$6,280 per capita on health care in 2004—more than double the amount spent in other major countries.

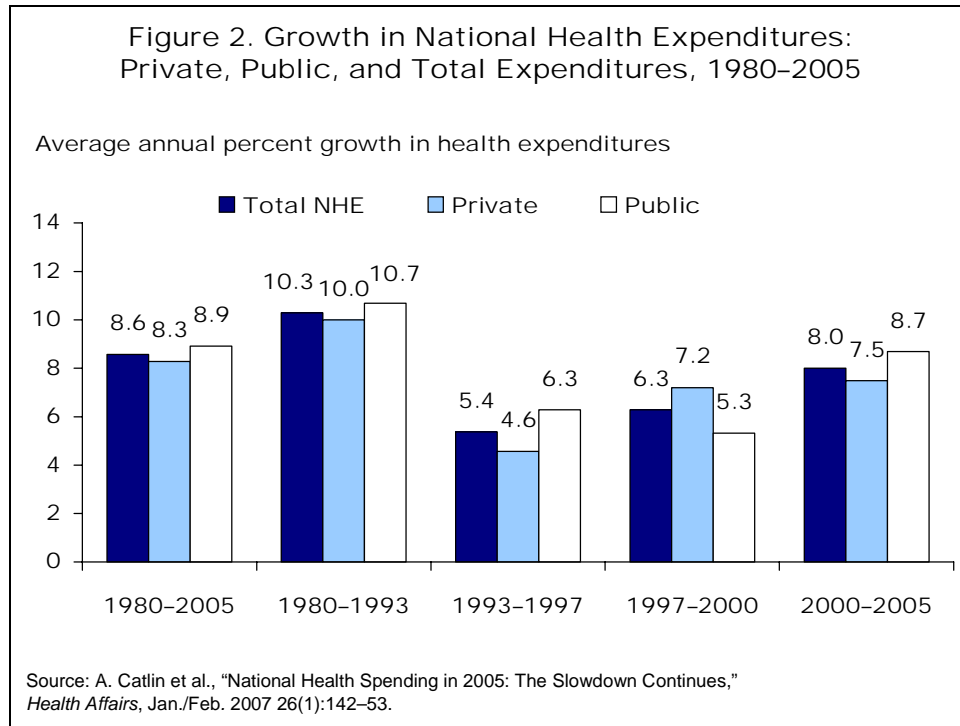


This report reviews trends in U.S. health care expenditures in the last 25 years, examines variations in costs, and considers explanations for high costs and rapid growth in spending. It then examines strategies that could achieve savings and slow spending growth and discusses their potential for improving overall health system performance.

TRENDS IN HEALTH EXPENDITURES AND VARIATIONS IN COSTS

Health Expenditures

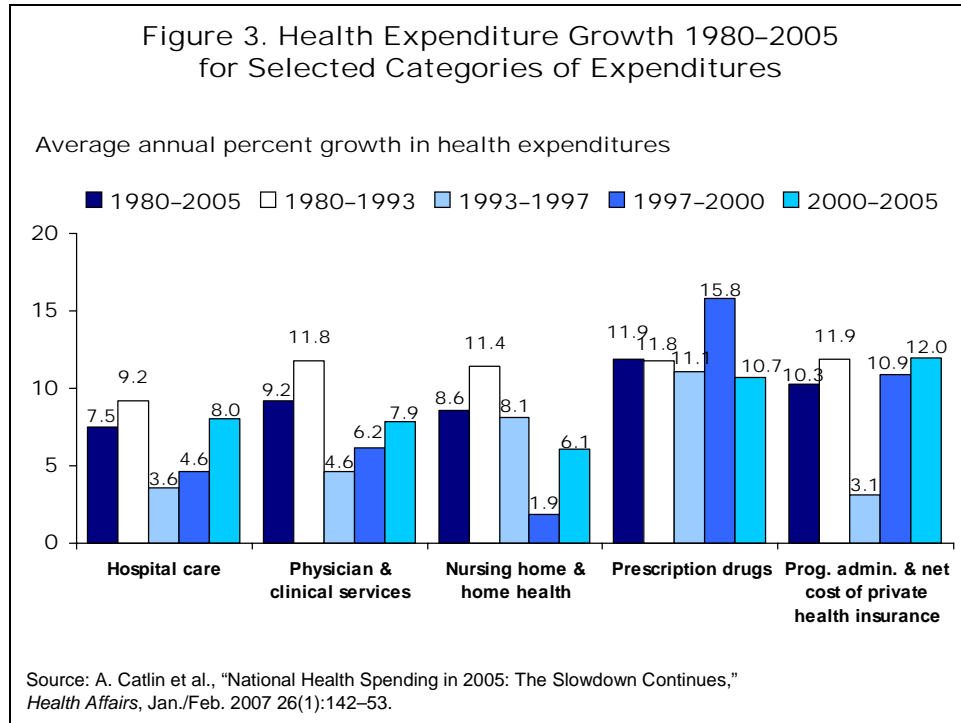
In 2004 and 2005, health expenditures rose by 7.2 and 6.9 percent, respectively, slower than the 8.0 percent average annual increases between 2000 and 2005 (Figure 2).⁶ While this slowdown has brought the rate of growth below the average for 1980–2005, health spending continues to rise faster than the economy as a whole and faster than workers’ earnings. Annual rates of increase since 2000 are also well above rates achieved from 1993 to 2000.



Increases in the 2000–2005 period were fueled by higher administrative overhead costs in the private health insurance market and higher pharmaceutical prices, as well as resistance from hospitals and physicians to the payment rate policies of managed care plans and public programs. Health care providers have sought and obtained legislative relief from sharp Medicare payment reductions in the 1997 Balanced Budget Act (BBA), and many have declined to participate in managed care contracts featuring sharply restricted payment rates. Physicians have also expanded the volume of services they deliver in order to offset the reduced fees offered by managed care plans and Medicare.⁷

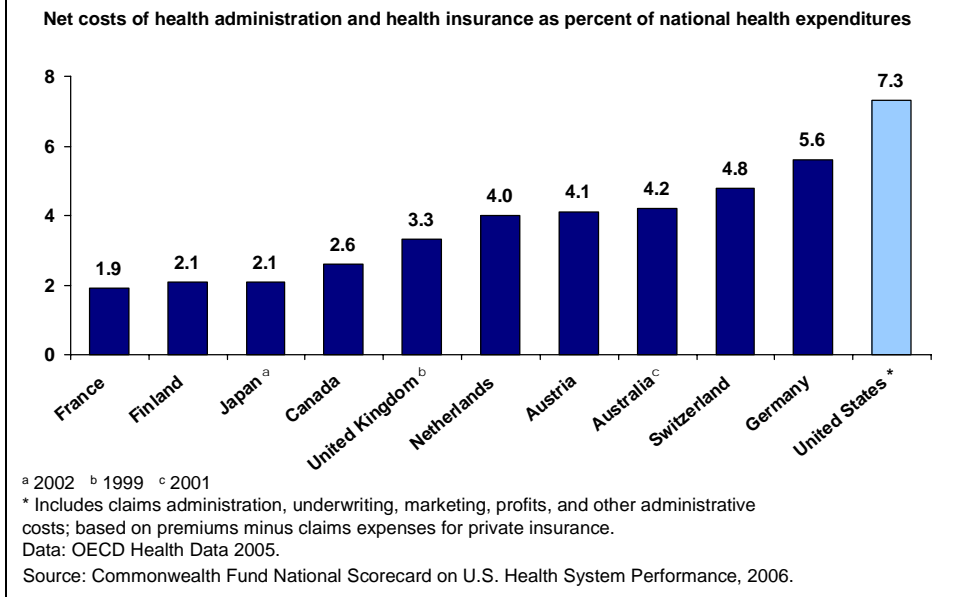
Over the past 25 years, private spending has risen at an annual rate of 8.6 percent compared with 8.9 percent for public programs. This disparity reflects two factors: growing enrollment in Medicare as the U.S. population has aged and growing enrollment in Medicaid and the State Children’s Health Insurance Program as private employers have cut back on health benefits for low-wage workers. However, after adjusting for the number of people covered and the mix of benefits, Medicaid costs per person have generally risen less rapidly than private health expenditures per person.⁸ Similarly, when comparing the per capita costs for a similar package of benefits, Medicare’s costs have risen at a somewhat slower rate than private insurance costs over the long term.⁹ However, in the future, especially with the addition of a prescription drug benefit to Medicare, public spending may rise faster than the overall cost trend.

The fastest-rising component of health spending in recent years has been insurance administrative overhead (Figure 3). Between 2000 and 2005, the net insurance administrative overhead—including both administrative expenses and insurance industry profits—increased by 12.0 percent per year, 3.4 percentage points faster than the average health expenditure growth of 8.6 percent. Because of their close link to labor costs, insurance administrative expenses might have been expected to increase at a rate closer to wage rates, instead of exceeding the rise in health care outlays.



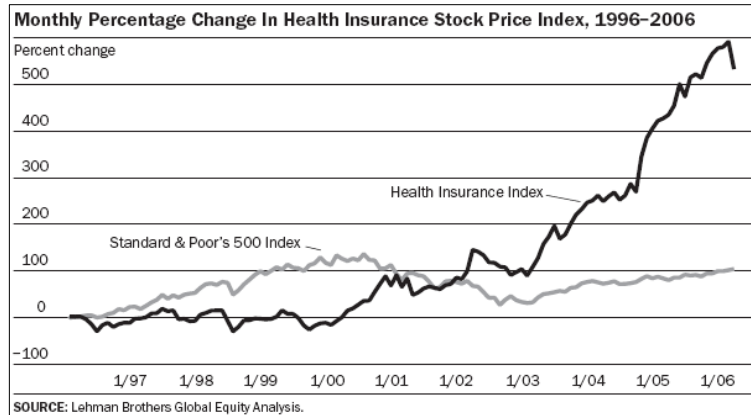
Compared with other countries, the U.S. is an outlier with respect to insurance administrative expenses (Figure 4). In 2004, if the U.S. had been able to lower the share of health care spending devoted to insurance overhead to the same level found in the three countries with the lowest rates, it would have saved \$97 billion a year. If the U.S. had spent what countries with mixed public–private insurance systems, such as Germany and Switzerland, spend on their insurance systems’ administrative costs, it could have saved \$32 to \$46 billion a year.

Figure 4. Percentage of National Health Expenditures Spent on Health Administration and Insurance, 2003



Employers and their workers are directly affected by the sharp rise in health insurance premiums. For some time, the difference between growth in premiums and actual medical expense outlays was attributed to the insurance industry’s regular underwriting cycle and to the efforts of managed care plans to “catch up” from the mid-1990s. During this period, plans attempted to capture market share by holding down premium increases and, in some cases, drawing down on their financial reserves. More recently, there has been extensive consolidation and concentration of market power in the insurance industry, major increases in the market share of the largest companies, and higher profit margins, accompanied by soaring stock prices for publicly traded insurance companies (Figure 5).¹⁰

Figure 5. Monthly Percentage Change in Health Insurance Stock Price Index, 1996–2006



Source: J.C. Robinson, "The Commercial Health Insurance Industry in an Era of Eroding Employer Coverage," *Health Affairs*, Nov.–Dec. 2006 25(6):1475–86.

U.S. pharmaceutical outlays have also increased faster than other health care services. In the late 1990s, pharmaceutical spending increased at an annual rate of 15.8 percent (Figure 3). Even with slower annual growth in the 2000–2005 period (10.7%), pharmaceutical spending is growing at a faster rate than spending on hospital services (8.0%), physician services (7.9%), and nursing home and home health care (6.1%).

The Centers for Medicare and Medicaid Services (CMS) projects that health expenditures will continue to outstrip increases in GDP over the next 10 years. By 2015, CMS estimates that total health spending will double—passing the \$4 trillion mark, or 20 percent of GDP (Figure 6). Wide variations in cost and quality across the U.S. underlie these national trends, indicating opportunities to improve efficiency.

Figure 6. Health Expenditures for Selected Type of Services, 2000–2015

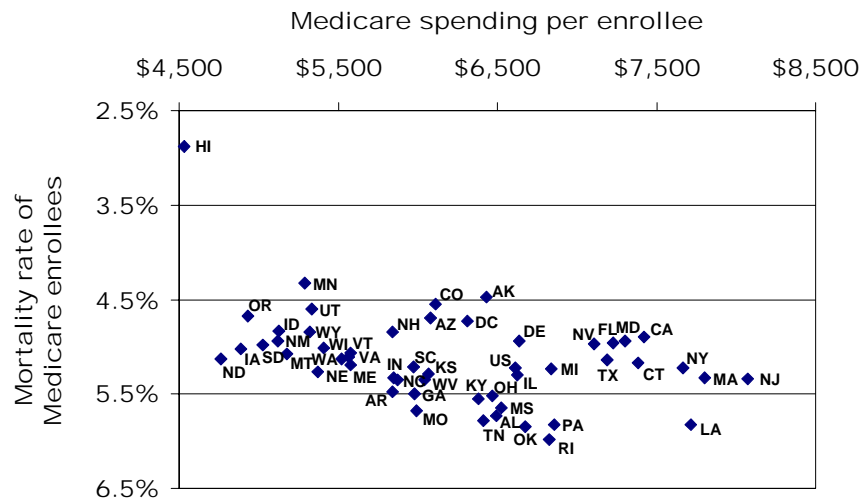
TOTAL	2000	2005	Projected	
			2010	2015
Billions	\$1,353.3	\$1,987.7	\$2,879.4	\$4,031.7
Percent GDP	13.8%	16.0%	18.0%	20.0%
BY TYPE OF SERVICE				
Hospital care	\$417.0	\$611.6	\$882.4	\$1,230.9
Physician & clinical services	288.6	421.2	610.7	849.8
Other professional services (dental, etc.)	138.2	200.5	292.6	411.5
Nursing home care	95.3	121.9	160.5	216.8
Home health care	30.5	47.5	72.3	103.7
Prescription drugs	120.8	200.7	299.2	446.2
Other medical products	49.5	58.1	69.1	83.1
Program admin. & net cost of private health insurance	81.2	143.0	210.6	289.8
Investment	88.8	126.8	191.3	268.9

Source: A. Catlin et al., "National Health Spending in 2005: The Slowdown Continues," *Health Affairs*, Jan./Feb. 2007 26(1):142–53; C. Borger et al., "Health Spending Projections Through 2015: Changes on the Horizon," *Health Affairs* Web Exclusive (Feb. 22, 2006):w61–w73.

Variations in Cost and Quality

Health care costs vary substantially across the U.S. The *Dartmouth Atlas of Health Care* shows that Medicare outlays per beneficiary ranged from \$4,530 in Hawaii to \$8,080 in New Jersey in 2003 (Figure 7).¹¹ Yet studies find no systematic relationship between higher spending and longer lives or higher quality of care for Medicare beneficiaries. Some analysts have even found that spending more is associated with slightly lower quality.¹²

Figure 7. States with Higher Medicare Spending per Enrollee Do Not Have Lower Rates of Mortality, 2003



Source: Data from *The Dartmouth Atlas of Health Care*, www.dartmouthatlas.org.

The recent National Scorecard on U.S. Health System Performance, developed by The Commonwealth Fund Commission on a High Performance Health System, documented several instances where higher spending has not yielded concomitant gains in patient health.¹³ These include wide variations in Medicare annual outlays for care of patients with acute conditions such as acute myocardial infarction, colon cancer, and hip fractures, and with chronic conditions such as diabetes, chronic obstructive pulmonary disease, and congestive heart failure (Figure 8). The Commission’s Scorecard also found wide variation across the country in Medicare hospitalizations that were potentially preventable with better primary care, prevention, and care coordination. Variations in medical practice, medical errors and complication rates, and misaligned financial incentives also contribute to substantial geographic variations in 30-day hospital readmission rates and hospitalization rates for nursing home residents.¹⁴

Figure 8. Costs of Care for Medicare Beneficiaries with Multiple Chronic Conditions, by Hospital Referral Regions, 2001

	<i>Average annual reimbursement</i>					<i>Ratio of percentile groups</i>	
	<i>Average</i>	<i>10th percentile</i>	<i>25th percentile</i>	<i>75th percentile</i>	<i>90th percentile</i>	<i>90th to 10th</i>	<i>75th to 25th</i>
All 3 conditions (Diabetes + CHF + COPD)	\$31,792	\$20,960	\$23,973	\$37,879	\$43,973	2.10	1.58
Diabetes + CHF	\$18,461	\$12,747	\$14,355	\$20,592	\$27,310	2.14	1.43
Diabetes + COPD	\$13,188	\$8,872	\$10,304	\$15,246	\$18,024	2.03	1.48
CHF + COPD	\$22,415	\$15,355	\$17,312	\$25,023	\$32,732	2.13	1.45

CHF = Congestive heart failure; COPD = Chronic obstructive pulmonary disease.
 Data: G. Anderson and R. Herbert, Johns Hopkins University analysis of 2001 Medicare Standard Analytical Files (SAF) 5% Inpatient Data.
 Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2006.

Evidence of extensive variations in costs and quality and studies documenting provision of duplicative, inappropriate, and unnecessary care have led the Institute of Medicine (IOM) and other experts to conclude that the U.S. health care system could improve quality, access, and cost performance.¹⁵ The IOM defines efficiency as achieving the highest level of quality for a given level of resources.¹⁶ Whether comparing U.S. performance to international benchmarks of high value or to benchmarks set within the United States, it is clear there are opportunities to improve the functioning of the health care system, given the resources we invest in health care.

Policies to achieve long-term gains in efficiency need to focus on factors that contribute to current high levels of spending and suboptimal quality or inefficient care, as well as factors that contribute to upward pressures on expenditures over time.

ADDRESSING FACTORS CONTRIBUTING TO HIGH SPENDING LEVELS AND RISING TRENDS

There are two principal ways to achieve savings and efficiency. One is to develop approaches that will yield a “one-time savings” or improvement in value for current levels of investment in care. The other is to develop approaches that will slow the rate of increase in health care costs and ensure that additional investments yield net gains in value. Both approaches are important and affect one another.

One-time savings are likely to derive from approaches that address factors that contribute to current high levels of U.S. expenditures, inefficiency, and waste. These factors include:

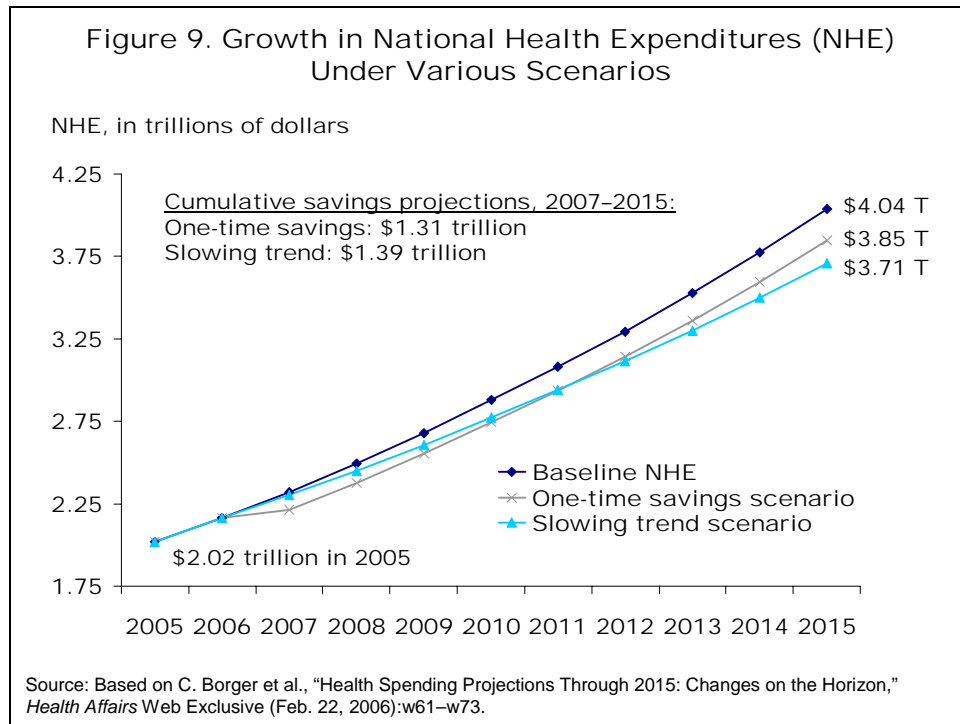
- overuse, inappropriate, or ineffective use of care;
- payment incentives that reward the delivery of more services, without consideration to clinical value or cost-effectiveness;
- market power of insurers, providers, and the health industry, including pharmaceutical companies, device manufacturers, and other suppliers to set prices above competitive market levels;
- a low ratio of primary to specialty care physicians and services;
- access barriers to preventive and primary care that contribute to avoidable hospital admissions, emergency department use, and complications of chronic and acute disease;
- a lack of well-coordinated care that leads to unsafe, duplicative, or conflicting care;
- inadequate information systems and information exchange; and
- high administrative costs, including the high proportion of insurance premiums used to cover overhead costs, the complexity of insurance benefit design and duplicative and uncoordinated requirements, and administrative costs for providers.

The principal factors that contribute to long-term trends in rising expenditures that might be amenable to policy change are somewhat different. They include:

- introduction of new technologies/innovations without comparative information on clinical outcomes or cost-effectiveness to guide decisions on adoption and use;
- wages and prices of other hospital-purchased goods and services;
- growing market power and consolidation of insurers, providers, and the health industry including pharmaceutical companies, device manufacturers, and other suppliers contributing to less choice and higher prices; and
- the increasing prevalence of chronic diseases.

It is critical to consider ways to achieve one-time savings as well as address cost trends, because both strategies could yield substantial cumulative gains over time. Consider a policy option that has the effect of achieving a one-time reduction in the level of health

care spending by 5 percent in 2007. The rate of annual increases in health spending would continue as projected under the current baseline, though it would start from a lower base (Figure 9). Under this scenario, health spending, which is projected to be \$4.04 trillion in 2015, would be “only” \$3.85 trillion. Since savings would occur in each year, the cumulative savings over the eight-year period would be \$1.31 trillion.



For comparison, consider a policy option that has the effect of lowering the average rate of increase in health care outlays by one percentage point a year. In that case, health spending in 2015 would be \$3.71 trillion and cumulative savings over the 2007–2015 period would be \$1.39 trillion—only slightly more than the “one-time” savings achieved in the scenario described above.

In combination, one-time changes in spending levels plus even small changes in projected rates of increase interact to produce even more substantial long-term yields. In other words, both strategies matter, and neither should be dismissed out-of-hand as unimportant or too difficult. In many industries, increasing expenses from rising wages or prices are partially offset by ongoing improvement efforts that achieve enhanced productivity and efficiency year after year. “Lean” production techniques of constantly looking for ways to eliminate waste—including wasted patient time as well as wasted personnel time and inventory—are only beginning to be adopted by the health sector.

STRATEGIES FOR ACHIEVING SAVINGS AND IMPROVING HEALTH SYSTEM PERFORMANCE

Potential strategies to move the U.S. to a higher value, more efficient health care system cluster into six main areas:

- increasing the effectiveness of markets by improving access to information on the quality and costs of care, promoting greater competition, and developing better information on the cost-effectiveness of health care technology and procedures;
- reducing high insurance administrative overhead and achieving more competitive prices;
- providing payment incentives to promote efficient and effective care;
- changing the health care system to promote patient-centered primary care;
- investing in infrastructure such as health information technology and information exchange systems; and
- investing strategically to improve access, affordability, and equity.

Effective policy options should focus on changing total national expenditures rather than simply shifting costs from one payer source to another. Some policies may have a greater effect on federal budget outlays, while others may affect outlays by state government, employers, or households. Achieving improved value for the national investment in health care requires policies that achieve net gains for the whole country. At the national level, the policies should:

- be amenable to federal policy action;
- improve health outcomes, quality, access, efficiency, or equity;
- have a high likelihood of significant reduction in expenditure levels and/or trends compared with current projections, or achieve a net improvement in value;
- be evidence-based and feasible to implement; and
- be reasonable first steps toward longer-term reforms.

Increasing the Effectiveness of Markets: Incentives for Value-Driven Health Plans and Improved Competition

Across the U.S., there are various private and public initiatives to improve quality by holding physicians and hospitals accountable for delivering care according to clinical guidelines through performance reporting and pay-for-performance incentives. Sometimes

called “value-based purchasing,” these efforts focus particularly on underuse of preventive and essential, effective care, especially for patients with acute conditions (e.g., heart attacks) or chronic diseases (e.g., diabetes or asthma) and seek to encourage efficient care practices for patients with complex or serious illness. In sharp contrast, recent insurance market trends have moved in the opposite direction, with ever-higher deductibles creating incentives for patients to forgo preventive care or chronic disease management.

Again and again, studies have found that high cost-sharing, including deductibles, leads patients—particularly those with low or modest incomes—to forgo both essential and more discretionary care. This can have negative consequences, particularly for those with chronic disease and lower incomes.¹⁷ Recent studies of prescription drug benefit designs indicate that failure to cover or to impose high copayments on essential medications for patients with chronic conditions can result in avoidable complications, leading to higher total costs of care from increased use of emergency rooms and hospitals.¹⁸ Yet, current federal tax policy favors insurance plans with high front-end patient cost-sharing across the board. The current trend in insurance benefit design and current tax policy, combined with purchaser efforts to hold providers more accountable, creates “a marked conflict of incentives in the healthcare marketplace.”¹⁹

“Value-driven” health benefit designs and tax policies that support such designs (or are at least neutral) could better align patient and provider incentives.²⁰ They could, for example, encourage patients to seek primary, preventive, and essential medical care and medications by providing either full coverage or nominal copayments for such services, while targeting higher cost-sharing on supply-sensitive specialized services that are subject to overuse. A starting point would be to amend the current rules for federal health savings accounts—exempting essential, primary, and preventive care from deductibles required under such plans and applying lower cost-sharing for use of “high-value” provider networks. Federal policy could encourage employer groups to experiment with health plan designs that cover asthma, diabetes, and other disease management programs that waive cost-sharing for patients who participate in disease management programs or obtain care from physician groups that take on coordinating roles.

Providing incentives for more effective and efficient care will require better information. Currently, U.S. health care markets provide little by way of comparative information about the quality of care (adherence to guidelines, outcomes of care, or safety) or the costs, whether for a specific service or total costs for an episode of care. Expanded collection and public reporting of data on quality and long-term comparative costs would enable benchmarking and inform efforts to improve. Studies indicate that public reporting can spur innovation and improvement efforts by hospitals and physician groups by

appealing to their professionalism and pointing to areas for improvement as well as achievable levels of higher performance.²¹ To the extent that patients face choices of alternative sources of care, information on outcomes could also encourage patients to seek care in networks of excellence. Strategies to support public reporting will require collaborative approaches that cut across public and private payers to enable collection and dissemination of broad, community-based information. Policy strategies to promote transparency and enhance value in the Medicare program are discussed in other reports in this series.²²

Policies could also encourage shared decision-making between patients and providers. Studies indicate that engaging patients for such interventions as management of back pain or chronic disease can lead to better patient outcomes, in addition to being cost-effective. Yet, patients often are left out of end-of-life care decisions, lack information about the benefits and risks of alternative treatment choices, or receive little instruction or support to manage their care at home.²³ Federal initiatives that support the development of shared decision-making tools, or demonstration programs using Medicare or Medicaid payment incentives to encourage and support physician practices that take such patient-centered care approaches, could encourage patient engagement.

All of the above policies—taking a value-based approach to insurance design, aligning patient and physician incentives, and engaging patients—require information about the clinical and cost effectiveness of alternative treatment options. This will be especially true as medical science progresses, since “new” is not always better. Decision makers often have little information to inform their coverage or payment choices. Such information is critical for ensuring that care decisions and expenditures yield value.

Generating Information on Clinical and Cost-Effectiveness to Enhance Coverage Policy and Medical Decision-Making

A major factor in the current high level of and anticipated future growth in health spending is technological change, including innovations in equipment, medications, treatments, and procedures.²⁴ Unlike in other markets, technology in the health care market tends to raise costs in two ways: 1) technological advances can increase the per-unit cost of care, by providing more complex and expensive modes of “standard” treatment; and 2) new technologies can provide opportunities to treat patients with characteristics or conditions that older technologies were unable to treat safely or effectively.²⁵

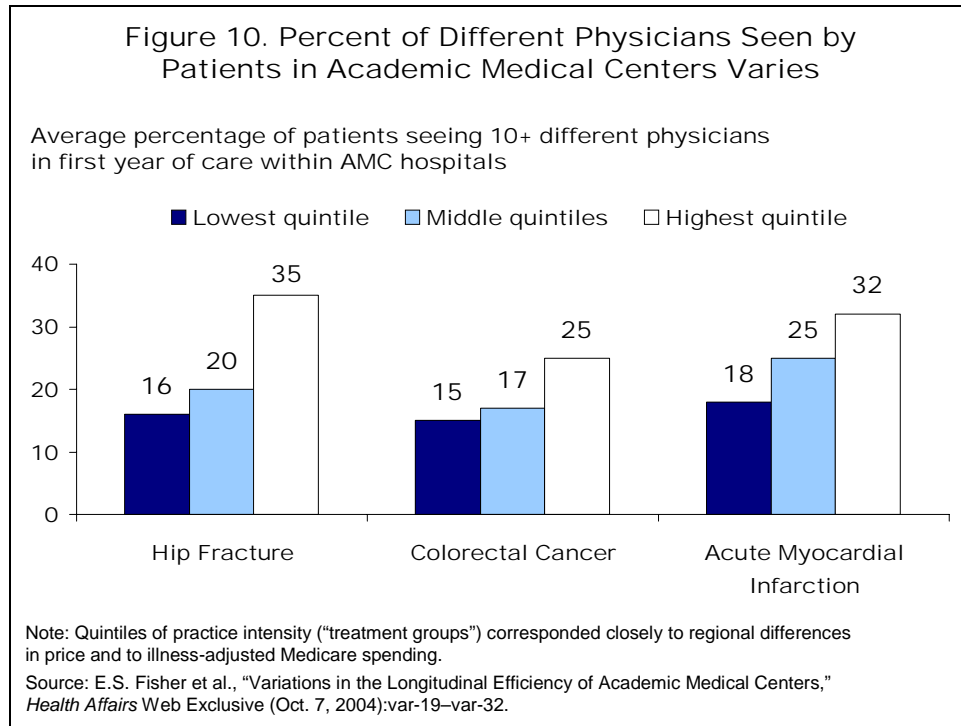
Better medical decision-making is crucial for improving the performance of the health care system. To improve medical decision-making, more and better information

about the benefits, risks, and costs of new medical treatments, procedures, and technologies is needed. Substantial increases in funding of basic sciences, clinical research, and translational research are having the desired result of expanding the number of potentially valuable new medical tools in the pipeline. Yet, there has not been a comparable focus on building the evidence base to support informed adoption and use of these tools. As a result, health care decision makers are routinely faced with difficult clinical and financial decisions without having reliable information on the comparative clinical value or cost-effectiveness of alternative treatments.

In addition to informing coverage and payment decisions, high-quality evidence regarding the risks, benefits, and costs of health care interventions is also necessary for sound clinical decision-making. Moreover, this information can facilitate the development of reliable measures of quality, which in turn will support the alignment of financing and other incentives to encourage higher quality and increased health system efficiency.

Health care purchasers are generally not influential participants in the clinical research enterprise. To remedy this, we need research design mechanisms that permit payers to play a major role in developing the evidence needed to support their purchasing decisions. Evidence-based decision-making has been widely identified as a critical component of efforts to obtain better value for health care. This activity cannot succeed without targeted efforts to identify, produce, and disseminate the evidence required to inform payer and coverage decisions.

Analyses of Medicare data repeatedly reveal wide variations in cost and quality performance across the country between states and hospital referral regions. These analyses identify geographic areas and care systems that are among the top performers in terms of quality of care (i.e., care outcomes and clinical indicators) and are also able to deliver care at lower costs, compared with national averages. The high-performing areas typically have fewer physicians involved in the care of patients, fewer hospital readmissions or transitions across sites of care, and greater reliance on primary care. The link between more intensive use of specialists and multiple physicians and higher costs without gains in quality remains, even when analysis is restricted to academic health care centers. Patients cared for in centers with costs in the top quintile were about twice as likely to see 10 or more different physicians over the course of the year after hospitalization for a hip fracture or a heart attack as were patients seen in the lowest-cost quintile (Figure 10).²⁶ The geographic area comparisons as well as comparisons among specific care systems indicate that it should be possible to achieve net gains in value if the nation developed payment and delivery system policies that encourage and support more effective and efficient care.



A growing number of initiatives sponsored by public and private organizations around the country are focused on the problem of developing better evidence for decision makers. The Agency for Healthcare Research and Quality (AHRQ) has recently launched the Effective Health Care program in response to congressional authorization to support comparative effectiveness research (section 1013 of the Medicare Modernization Act of 2003). The IOM recently convened a Roundtable on Evidence-Based Medicine to explore how the growing demand for high-quality evidence might best be satisfied. CMS has made some progress in supporting pragmatic clinical research by linking coverage to prospective data collection through their Coverage with Evidence Development policy.

In addition, Merck, Johnson & Johnson, Pfizer, Medtronic, and a number of other major product developers are significantly increasing their attention to evidence-based medicine, comparative effectiveness, and real-world effectiveness research. Trade associations, think tanks, health plans, foundations, and others have convened working groups and public meetings to better understand how the efforts relate to one another, and how they will affect the environment in which they function.

While there are now a number of potentially valuable initiatives under way, there has been relatively limited thoughtful discussion among experts and stakeholders about precisely what the needs are, what tools are necessary to meet those needs, how the work can best be conducted, and how it can be effectively coordinated and integrated.

Improving Insurance Efficiency: Private Markets, Medicare, and Medicaid

In the U.S., insurance-related administrative costs per person and as a percent of national health expenditures are the highest in the world and rising rapidly. The difference between premiums and claims payments—that is, net insurance administrative costs and profits—has increased 75 percent over the past five years. Despite the move toward electronic billing, overhead costs have been increasing at annual rates well in excess of total spending on physicians or hospitals. Currently, net private insurance overhead and administrative costs account for 14 percent of total private insurance expenditures. Fragmentation of insurance plans and risk pools across individual and small group markets contributes to the high overhead costs, as do marketing, underwriting, multiple complex benefit designs, provider price negotiations and network management, and high rates of churning in enrollment.

The private insurance market is also highly concentrated. In all but three states, the dominant carrier accounts for 50 percent or more of total private insurance enrollment, and the top three carriers control 65 percent to 100 percent of the market in all but 14 states.²⁷ Commercial insurance profit margins are at record levels: the five leading commercial insurance carriers each paid out only 80 percent of premium revenues in medical claims as of 2003. Operating profit margins ranged from 7.7 percent to 10.2 percent. Insurance carriers' profit margins have fueled a surge in stock prices in recent years.

Recent consolidation of health plans participating in Medicaid programs, including multi-state carriers, has enabled plans to enter and exit state markets depending on target rates of return. The consolidation puts upward pressure on Medicaid payment rates to plans in order to maintain participation.²⁸ As a recent *Wall Street Journal* front-page article noted, Medicaid has become a big and lucrative market for private managed care plans.²⁹ The article also noted arrangements such as limited oncology care networks that increase margins for plans but make it difficult for Medicaid beneficiaries to receive appropriate and timely care.

The complexity of current insurance arrangements and the lack of streamlined, coordinated efforts on reporting, credentialing, quality standards, price negotiations, and other billing-related administrative costs also increase insurance-related costs to physicians and hospitals. One study in California estimated that billing and insurance-related administrative costs account for about 20 percent of total private health care expenditures in the state, not counting administration costs related to quality review or care management.³⁰

Some employers are eliminating the insurance “middleman” in employee health benefits. Techniques include: directly contracting with physicians and hospitals; self-insuring but contracting with insurers to administer the health benefit; replacing pharmaceutical benefit managers with organizations paid an administrative fee or requiring transparency of pharmaceutical benefit managers and “fee-only” contracts.³¹

Pooling individual and small group markets through insurance “connectors,” such as that under development in Massachusetts, has the potential to lower insurance administrative costs by pooling risk, creating more efficient group health plans, and reducing payments to insurance brokers who advise employers on selection of plans.³² The federal government could encourage such group arrangements through tax policy or support of start-up costs or reinsurance arrangements that would be contingent on participation in the insurance connector. Eligibility for federal tax deductibility could also be linked to efforts to streamline and simplify processes to lower insurance administrative costs for providers, as could requirements for public transparency in insurance pricing and administrative costs.

Within Medicare, changes to the way the program pays for private plans have also led to higher rates. Currently, Medicare Advantage plans are paid 12.4 percent more per enrollee, compared with enrollee costs in fee-for-service Medicare.³³ On an aggregate basis, this amounts to \$5 billion in added costs per year. Although on average Medicare Advantage plans provide richer benefits than fee-for-service coverage, the impact of benefit designs on individual enrollees can vary substantially from plan to plan.³⁴

Medicare could also reduce administrative costs by offering a comprehensive benefit option, “Medicare Extra,” that would combine current Medicare benefits, Medigap benefits, and prescription drug coverage in one unified plan.³⁵ Savings from reduced administrative layers would help finance enhanced benefits, with total premium costs at or below current private supplemental options. Offering a comparable benefits package under traditional Medicare and “leveling the playing field” would encourage competition with private plans based on quality and performance.³⁶

Medicaid program administrative costs are related to high rates of churning in and out of coverage. Complex paperwork, enrollment, and recertification processes result in higher than necessary administrative costs and barriers to maintaining stable coverage. Typically, a high percentage of children and adults loses coverage during any one month and returns later in the year. This churning makes it difficult to maintain continuity of care or hold plans accountable for the quality and efficiency of care provided over time.

Federal minimum standards could reduce barriers to coverage by simplifying the enrollment and recertification processes and easing the asset tests. This could improve access to preventive and primary care and lower overhead costs, thus enhancing the effectiveness and efficiency of Medicaid coverage.

Achieving Competitive Pharmaceutical Prices

Anderson and Reinhardt argue that a major reason health care costs in the U.S. are higher than in other countries is that we pay higher prices. There is a general reluctance to use the nation's purchasing power to negotiate reasonable rates.³⁷ In one study, the average price in 2003 for 30 leading prescription drugs in the U.S. was 52 percent lower in Canada than in the U.S., 59 percent lower in France, and 47 percent lower in the United Kingdom.³⁸ A recent newspaper article noted: "As Europe and Japan take a hard line on pharmaceutical prices, drug makers are getting an ever-higher percentage of sales and profits from the United States."³⁹ One drug company reported that its prices in the United States rose 11 percent in the third quarter of 2006, while falling 3 percent in Europe and 5 percent in Japan. Another report noted that the combined profits of seven major drug companies hit 18 percent in 2004, or \$34.3 billion.⁴⁰

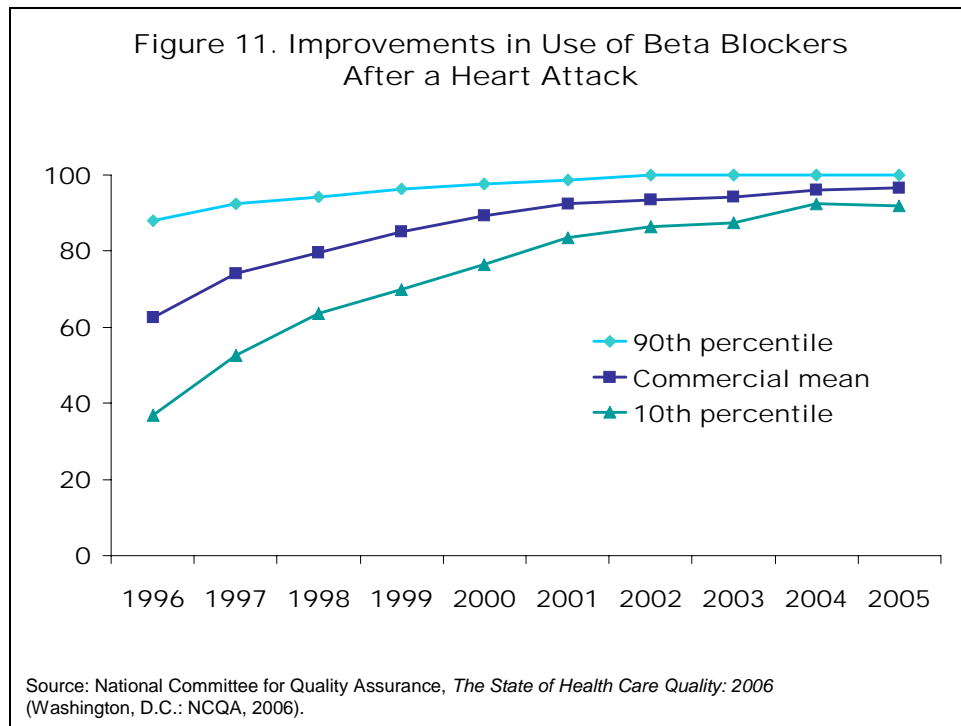
These numbers indicate that there may be substantial opportunity for the market power of large drug purchasers such as Medicare to reduce prices and achieve savings. For example, the Veterans Administration (VA) obtained a 24 percent discount off the manufacturer's favored commercial price for patented products.⁴¹ The VA's success may or may not apply to Medicare. The VA was able to take advantage of its ability to buy at the margin—that is, use its large purchasing power to negotiate more favorable prices without distorting the market for the drugs that it buys. Medicare, with its 43 million beneficiaries, may not be able to do so, but the program could wield substantially greater market power because of its size and thus might be able to extract reasonable price concessions. Moreover, Medicare could partner with other payers to put pressure on drug companies to reduce excessive prices.

Another way that Medicare could use its role as a major purchaser would be to extend the "coverage with evidence development" approach, which it has applied in a few cases. This approach links Medicare coverage of specific promising technologies (including drugs) to a requirement that patients participate in a registry or clinical trial.⁴² This would provide access to promising drugs while encouraging post-marketing surveillance and the development of better evidence to determine whether and how new drugs would be effective. This approach could be productively adopted by private payers as well.

Rewarding Quality and Efficiency

Private and public payers, purchasers, and providers have over the past several years been developing strategies to change the payment system to reward quality and better outcomes, rather than quantity with no regard to outcomes. The Leapfrog Group's Incentive and Reward Compendium lists almost 100 programs around the country aimed at providing financial incentives to improve quality.⁴³ Several of these initiatives are already beginning to produce results, indicating that this approach holds some promise.⁴⁴

For example, the CMS Premier Hospital Quality Incentive Demonstration suggests that pay-for-performance rewards can improve quality and reduce costs for several common causes of hospitalization.⁴⁵ Data from the National Committee for Quality Assurance show that use of beta blockers following a heart attack in managed care plans that publicly report data on this indicator of clinical quality has improved markedly over time, and variation in use has diminished greatly over the last decade (Figure 11). This has in turn led to a reduced risk of subsequent heart attacks, hospitalizations, and heart disease mortality.

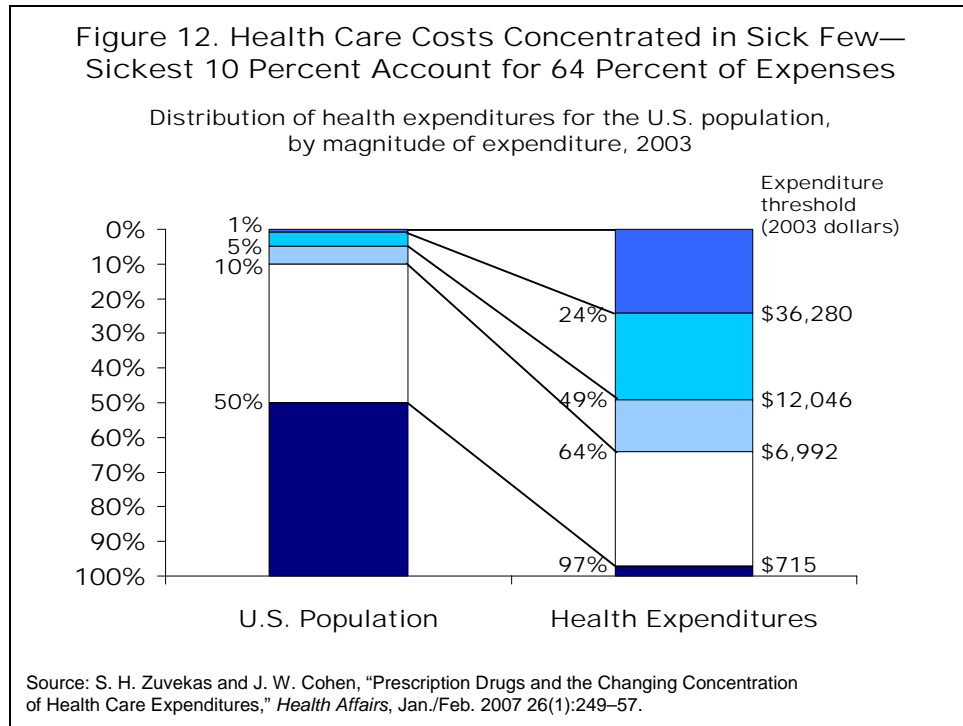


Most public reporting or pay-for-performance initiatives have focused primarily on quality improvement for individual providers or practices. Improving performance at this level certainly would be an improvement over the current system. But the ultimate objective is to encourage efficiency as well as quality and coordination of care across

providers. This would ensure that efficient, high-quality care is provided to the growing number of people with chronic illnesses—those who have the greatest health care needs and account for the majority of health care costs.

Health system efficiency is especially important, given the high level of spending in the U.S. compared with other countries and the absence of correspondingly better outcomes. In fact, even within the country, spending and outcomes are generally not related. Median spending per Medicare beneficiary with all three of the following conditions—diabetes, chronic obstructive pulmonary disease, and congestive heart failure—across 306 hospital referral regions is almost \$30,000, but spending across regions ranged from less than \$15,000 to almost \$80,000.⁴⁶ No obvious correlation between cost and quality of care for the three conditions was found, but there were some areas with high quality and low costs. Providers in other areas could be challenged to follow the example of those in the high-efficiency areas by being given incentives to improve. Medicare payment might also be structured to reward more efficient areas. For example, physician fee updates might only be permitted in more efficient areas and sustainable growth rate limits applied in high-cost/low-quality areas.

Given the concentration of health expenditures among the sickest patients, finding more effective and efficient ways to manage care for those with chronic or serious illness could potentially reduce expenditures per person and yield long-term gains in health outcomes. Ten percent of the sickest patients account for 70 percent of health care outlays (Figure 12). Such a concentrated distribution of health spending puts a premium on policies that address the appropriateness, safety, coordination, and efficiency of care provided to patients with the highest health risk.



Coordination is an increasingly important dimension of health care delivery, with a rising proportion of the population—especially seniors—having multiple chronic conditions and being treated by multiple doctors. The more than 20 percent of Medicare beneficiaries with five or more chronic conditions are treated by an average of almost 14 different doctors in a given year.⁴⁷ In our current payment system, there is little to encourage physicians to communicate with each other about patients. Measures that assess coordination among providers and payment policies that encourage them to consider the continuum of care are essential. This could be accomplished by basing payment on longer episodes of care related to a patient's acute or chronic conditions, rather than individual hospital stays or ambulatory encounters.

Strengthening Primary Care

There is ample evidence that the supply of primary care physicians is inversely related to total costs of health services, while health outcomes are generally better in areas with a strong foundation of primary care physicians.⁴⁸ Costs vary significantly for similar population groups across geographic areas or care systems because of differences in the style of medical practice, ratios of primary to more specialized physicians, and the extent to which primary care physicians play a central, coordinating role. Areas with relatively higher supplies of specialists and more extensive use of multiple specialists use more specialized, expensive resources and treatments. Fisher and colleagues at Dartmouth Medical School find that the key determinant of geographic variations in the total cost of

caring for patients with certain conditions is the supply of specialists and ratio of specialist to primary care physicians. After accounting for health risks, they found that patients in areas with more specialist physicians visit such physicians more frequently and receive more specialized procedures.⁴⁹

Unfortunately, there has been a persistent trend of declining interest in primary care medical specialties among graduating medical students.⁵⁰ Three strategies could capitalize on the potential for primary care to improve efficiency in the United States: increasing the primary care workforce; expanding the use of primary care teams, including nurses; and strengthening financial incentives and support of enhanced capacity in primary care practices to provide accessible, effective, and efficient care.

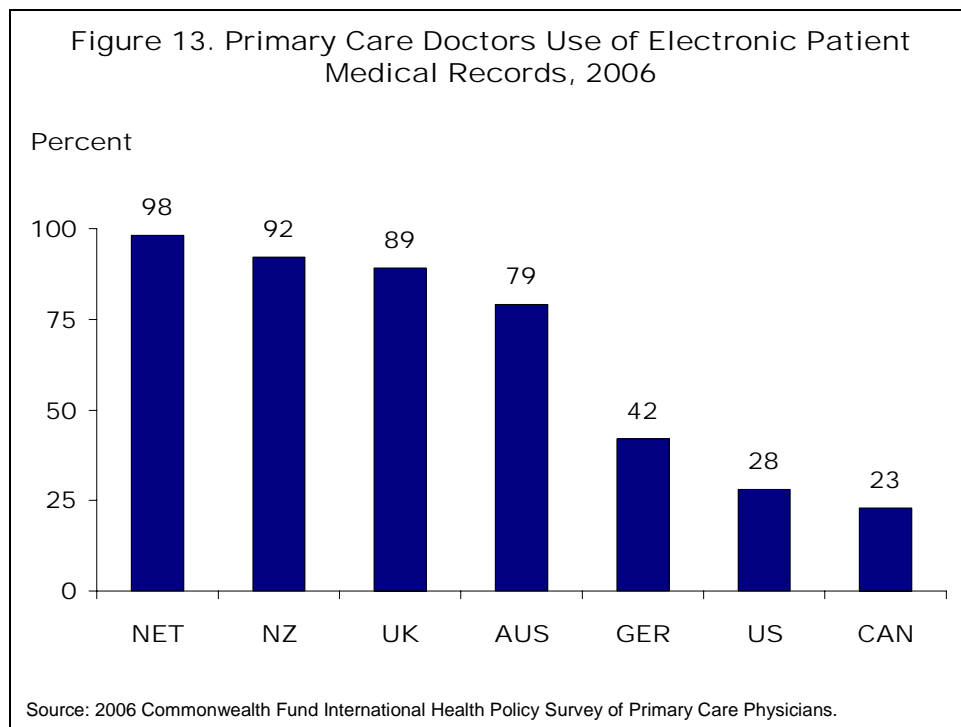
Strategies for increasing the workforce include financial incentives for providers (e.g., higher relative pay for primary care practice and loan forgiveness programs) and training institutions (e.g., higher federal support for graduate medical education in primary care). Incentives could also be used to expand the non-physician primary care workforce, including advanced practice nurses. Case management or capitation payments could make practicing primary care more attractive by increasing practice support systems (including the use of care teams) and establishing off-hours care programs that ensure reasonable and predictable working hours. Such direct support of primary care practices strengthens their capacity to care for patients and enhances their appeal to medical students.

The three major primary care specialty organizations, the American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), and the American Academy of Pediatrics (AAP), have all advocated for “medical homes.” The ACP defines the advanced medical home as “a physician practice that provides comprehensive, preventive, and coordinated care centered on their patient’s needs, using health information technology and other process innovations to assure high quality, accessible, and efficient care.”⁵¹ In order for these types of practices to succeed, changes in workforce and training policies, as well as payment reforms are needed. For example, instead of fee-for-service payments, a payment structure based on a monthly fee for every patient enrolled in the medical home could support teams and new practice arrangements and provide incentives for desired behaviors such as care coordination, preventive services, and investment in advanced information systems.⁵² Such reform could increase the primary care workforce and improve primary care practice. One new promising piece of Medicare legislation might help to alleviate reimbursement concerns for primary care practices. The Tax Relief and Health Care Act of 2006 calls for a Medicare Medical Home Demonstration Project that will offer management fees to clinicians who serve as personal physicians and incentive payments to physicians in practices that provide medical home services.

Experiments among state Medicaid programs using primary care case management payment and incentive systems have found evidence of their efficacy in terms of care outcomes and costs.⁵³ Broader demonstration programs are needed to assess the potential of restructured primary care practices and medical homes to achieve better outcomes at lower resource levels.

Information Systems and Information Exchange

Currently, less than 30 percent of U.S. physicians use electronic health records, compared with 90 percent or more in several countries including the Netherlands, New Zealand, and the United Kingdom (Figure 13).⁵⁴ Furthermore, it is believed that fewer than 10 percent of U.S. hospitals use a robust health information system that includes records and physician order-entry capabilities.⁵⁵ There is an uneven distribution of health information technology: larger medical groups are more likely to use electronic records, but most Americans get their care from smaller physician practices. A study by Robert Miller, a health economist at the University of California, San Francisco, has shown that most small physician practices can achieve a substantial return on investment by adopting electronic medical records just from an improved ability to bill insurers more accurately for services rendered, decreased office expenses relating to maintaining paper records, and improved productivity.⁵⁶



There is no consensus about whether health information technology would actually reduce overall medical care expenditures for the U.S. health care system. However, there seems little question that it would improve health system performance and could potentially lower overall costs, depending upon how well it is managed. Just a few of the advantages of health information technology include legibility, which is particularly important in terms of improving communication and reducing medical errors when care is shared among multiple providers; the ability to provide decision-support, including reminders and prompts to help clinicians make the most appropriate diagnoses, choose tests efficiently, and prescribe and apply appropriate treatments; and the ability to aggregate information about a patient and reduce duplication of testing.

In order to achieve these benefits, there is a need for initial investment and centralized functions, including setting technology standards and managing information exchanges that enable patient data from multiple sources (e.g., physicians, hospitals, pharmacies, laboratories, nursing homes, and home health nurses) to be aggregated, shared, and analyzed, with appropriate privacy protections. The investment required to achieve this type of interoperability in the health care system has been estimated to be \$150 billion initially, with an annual maintenance cost of \$50 billion—a large sum, but a small fraction of our total health care expenditures.⁵⁷ These costs do not include the acquisition and maintenance of technologies at the level of the provider.

Denmark has invested in a central information exchange, and now has a high level of connectedness at an annual cost of \$2 million for its 5.3 million population, or 40 cents per resident.⁵⁸ The nonprofit organization that sets standards and serves as a portal for all health information has continuous up-to-date electronic information on filled medications, lab and imaging orders and results, hospital discharge letters, and specialist consult letters on every Danish resident. This information is accessible with patient permission to physicians, home health nurses, and other health personnel, in addition to being directly accessible to patients. Over 98 percent of primary care physicians have purchased their own electronic health record systems, which conform to nationally set standards. Physicians report that the systems are beneficial for themselves and their patients, and a study has found that their use has led to “higher quality and throughput by individual general practitioners.”⁵⁹ The investment in technology has been associated with a 20 percent increase in the number of general practitioner patient visits per day, reduced cost of medications, improved preventive care adherence, and a lower cervical cancer mortality rate resulting from preventive care reminders.

Strategic Investments to Improve Access, Affordability, and Equity

U.S. costs are also high as a result of poor access to primary and preventive care. High and rising rates of the uninsured and underinsured in the under-65 population contribute to excess reliance on hospital emergency rooms and admission to the hospital for potentially preventable complications of chronic and acute conditions. Recent studies indicate that uninsured people and those with unstable coverage are more likely to experience duplicate tests, delays, and errors in the receipt of diagnostic test results. Insurance gaps and benefit designs that discourage essential or preventive care contribute to higher longer-term costs of care and undermine quality by erecting barriers to timely access to effective care.⁶⁰ Fragmented and unstable coverage, moreover, thwarts efforts to share information that are essential for the success of pay-for-performance and other programs that support higher-quality, more efficient care.

Investments in insurance reforms to extend coverage to the full population, pool health risks, and enable coordinated public and private information systems and payment policies are essential to provide a foundation for a more efficient, high-value health system.

CURRENT FEDERAL LEGISLATIVE PROPOSALS

At the federal level, there is a range of legislative proposals that seek to improve efficiency and contain health expenditures. Proposals in the 109th Congress address four major areas: simplifying, standardizing, and introducing negotiated pricing into Medicare Part D; enhancing the utilization of health information technology and building a national interoperable technology system; integrating value-based purchasing into Medicare payments; and improving public access to information on quality and price.

Medicare Part D:

- Facilitate negotiations with pharmaceutical manufacturers to reduce the purchase cost of pharmaceuticals covered by Part D plans; require participating manufacturers to make products available at negotiated prices to all qualified federal health care providers.
- Allow Part D beneficiaries to import covered products from Canada.
- Simplify Medicare Part D by establishing standardized benefits packages.

Health Information Technology:

- Establish a national public–private collaborative to recommend uniform policies and standards in an effort to develop a nationwide interoperable health information infrastructure.
- Provide grants and/or loans to facilitate purchase and utilization of technology systems. Various proposals target providers in general, small practices, as well as regional health information organizations.
- Fund demonstration products to determine best practice in various areas related to health information technology, including information requirements of rural and frontier physicians and methods to integrate technology systems into clinical education.
- Provide incentives to physicians for writing electronic prescriptions.
- Require all associated carriers to establish standardized electronic health records for individuals covered by the Federal Employees Health Benefits Program.
- Establish independent health record banks to store individual lifetime electronic health records.

Value-Based Purchasing in Medicare:

- Develop a measurement system within the Medicare program to provide value-based payments to hospitals, physicians and practitioners, health plans, and end-stage renal disease facilities.
- Various proposals call for the development of quality measurements that would allow value-based purchasing to be utilized in determining payments to Medicare Advantage and Part D plans, chronic kidney disease facilities, home health agencies, skilled nursing facilities, and providers of physical and occupational therapy.

Public Information on Quality and Price:

- Ensure that average and individual payment rates for inpatient and outpatient procedures and physician services are available to the public on the Medicare Web site.
- Require all hospitals to report data on the price and utilization frequency of designated services and pharmaceuticals.
- Require the Secretary of Veterans Affairs to publish report cards on quality.
- Encourage state Medicaid plans to make information about hospital charges and estimates of out-of-pocket expenses available to the public.

SUMMARY

The U.S. is an outlier in the level of health care spending, with far higher spending on health care per capita than other countries. There is ample evidence that the U.S. does not obtain value for money spent, and that there are wide variations in health care spending across the U.S. that do not contribute to better health outcomes.

Substantial net gains in quality at lower costs are potentially achievable from realigning payment incentives to reward efficient and high-quality care, reshaping market incentives to reward value-driven health care, improving administrative efficiency, and redesigning care delivery systems to enhance primary care. Such reforms would be founded on enhanced information about the quality and cost-effectiveness of care and appropriate deployment of modern information technology. Fragmented policies that focus on one aspect of care or shift expenditures from one payer source to another, or from one sector to another, will not result in transformation of the health care system to yield high performance.

There is a compelling need for a coherent public and private sector strategy, with all parties working in concert toward agreed-upon health system aims. Such a strategy should place high priority on policies and practices that have the potential to move our nation toward benchmark levels of performance on access, quality, and efficiency, so that the U.S. health system could achieve commensurate value for the significant resources it commands.

NOTES

¹ Calculated from the Henry J. Kaiser Family Foundation/Health Research and Educational Trust Annual Employer Health Benefits Surveys and U.S. Census Bureau data.

² C. Schoen, S. K. H. How, I. Weinbaum, J. E. Craig, Jr., and K. Davis, *Public Views on Shaping the Future of the U.S. Health System* (New York: The Commonwealth Fund, Aug. 2006).

³ D. M. Cutler, “Making Sense of Medical Technology,” *Health Affairs* Web Exclusive (Feb. 7, 2006):w48–w50.

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