C H A P T E R   4

RECENT TRENDS IN HEALTH CARE COSTS, THEIR IMPACT ON THE ECONOMY, AND THE ROLE OF THE AFFORDABLE CARE ACT

Dramatic progress is being made in addressing one of the enduring problems of the U.S. health care system: the fact that millions of Americans lack access to quality, affordable health insurance. Since January 1, the Affordable Care Act (ACA) has extended coverage to millions of Americans, and the Congressional Budget Office (CBO) estimates that, by 2016, the ACA will reduce the number of people without health insurance by 25 million (CBO 2014). If all states elect to take up the ACA's Medicaid expansion, the ACA will reduce the number of people without health insurance even further.

But the U.S. health care system also faces another enduring challenge: decades of rapid growth in health care spending. While much of this historical increase reflects the development of new treatments that have greatly improved health and well-being (Cutler 2004), most agree that the system suffers from serious inefficiencies that hike costs and reduce the quality of care that patients receive. Another key goal of the ACA was to begin wringing these inefficiencies out of the health care system, simultaneously reducing the growth of health care spending—and its burden on families, employers, and State and Federal budgets—and increasing the quality of the care delivered.

This chapter analyzes recent trends in U.S. health care costs and documents a dramatic slowdown in recent years. According to the final data on national health expenditures, real per-capita health spending grew at an average annual rate of just 1.1 percent from 2010 to 2012. Preliminary data as well as projections by the Office of the Actuary at the Centers for Medicare and Medicaid Services (CMS) imply this slow growth continued in 2013, and

the CMS projections show real per-capita health spending growth averaging just 1.2 percent over the three years since 2010. These spending growth rates are the lowest rates on record for any two- and three-year periods, and less than one-third the long-term historical average of 4.6 percent that stretches back to 1960. Moreover, they have occurred at a time when the aging of the population would have been expected to modestly increase the growth rate of health care spending.

The historically slow growth in health costs has appeared not only in health care spending, but also in the prices paid for health care goods and services. Measured using personal consumption expenditure price indices, health care inflation is currently running at around 1 percent on a year-over-year basis, a level not seen since 1963. Health care inflation measured using the consumer price index (CPI) for medical care is at levels not seen since 1972. Health care inflation measured relative to general price inflation is also unusually low in historical terms.

An important question is what has caused these trends and whether they are likely to persist in the years ahead. Although the slowdown is not yet fully understood, the evidence available to date supports several conclusions about its causes and the role of the Affordable Care Act.

The 2007-09 recession and its aftermath have likely played some role in the recent slowdown in health costs, and this portion of the slowdown is likely to fade as the economic recovery continues. However, several pieces of evidence imply that the slowdown in health care cost growth is more than just an artifact of the 2007-09 recession: something has changed. The fact that the health cost slowdown has persisted even as the economy is recovering; the fact that it is reflected in health care prices, not just utilization; and, the fact that it has also shown up in Medicare, which is more insulated from economic trends, all imply that the current slowdown is the result of more than just the recession and its aftermath. Rather, much of the slowdown appears to reflect "structural" changes in the U.S. health care system, suggesting that at least part of this trend—although it is uncertain how much—is likely to persist. This conclusion is consistent with a substantial body of recent research that seeks to quantify the recession's contribution to the slowdown and has found that the recession alone cannot explain recent trends.

While various non-recession factors unrelated to the ACA appear to be contributing to the recent slow growth in spending—including a long-term decline in the development of new prescription drugs and a long-term increase in cost-sharing in employer sponsored plans—the ACA is also playing a meaningful role. For example, by curtailing excessive Medicare payments to private insurers and medical providers, the law has contributed

to the recent slow growth in health care prices and spending, reducing health care price inflation by an estimated 0.2 percentage points each year since 2010.

The ACA's measures to reduce costs and improve quality by improving the payment incentives faced by medical providers also appear to be beginning to bear fruit. For example, hospital readmission rates have turned sharply lower since the ACA began penalizing hospitals that readmit a larger number of patients soon after discharge. Similarly, the ACA has substantially increased health care provider participation in payment models designed to promote high-quality, integrated care. These are hopeful signs and provide reason to believe that, as the ACA's payment reforms continue to take effect over the coming years, they will make an important contribution to extending the recent slowdown.

An emerging literature also suggests that the ACA's payment reforms, which operate primarily through Medicare (and, to a lesser extent, through Medicaid), may generate "spillover" benefits throughout the health system. This literature finds that when Medicare reduces payments to medical providers, private payers tend to follow suit, and also finds that the same is true for changes to the *structure* of how Medicare pays providers. Some recent evidence also suggests that changes in payment structures by one insurer may benefit patients covered by other insurers, even if those other insurers do not adopt the new payment structures. One possibility is that changes by one insurer induce changes in providers' "practice styles" that affect all patients that providers see. This evidence suggests that the ACA's reforms to the Medicare payment system may be, in economic terms, "public goods."

The presence of spillover benefits would imply that the contribution of the ACA to the recent slowdown in health costs growth is considerably larger than previously understood. As noted above, ACA provisions that curb excessive Medicare payments to private insurers and medical providers have directly reduced health care price inflation by an estimated 0.2 percent a year since 2010. A calculation accounting for spillovers raises this estimate to 0.5 percent a year—a substantial share of the recent slowdown in health care price inflation.

This chapter concludes with a consideration of the economic benefits of a sustained slowdown in health care costs. Over the long run, slower growth in health care spending that is achieved without compromising the quality of care will raise living standards. These gains may be substantial. If even just one-third of the recent slowdown in spending can be sustained, health care spending a decade from now will be about $1,200 per person lower than if growth returned to its 2000-07 trend, the lion's share of which

will accrue to workers as higher wages and to Federal and State governments as lower costs.

Recent Congressional Budget Office estimates offer a concrete illustration of the potential for improvements in the Federal fiscal outlook. Since August 2010, CBO has reduced its projections of combined Medicare and Medicaid spending in 2020 by $168 billion and 0.5 percent of gross domestic product (GDP). The $168 billion reduction represents a 13 percent reduction in previously projected spending on these programs and primarily reflects the recent slow growth in health care spending. These revisions are, however, distinct from the deficit reduction directly attributable to the ACA, which CBO estimates will be substantial. Due in large part to the ACA's role in slowing the growth of health care spending, CBO estimates that the provisions of the ACA will directly reduce deficits by about $100 billion over the coming decade and by an average of 0.5 percent of GDP a year over the following decade.

Slower growth in long-term health spending also reduces employers' compensation costs in the short run, increasing firms' incentives to hire additional workers. This chapter surveys the available evidence on the likely effects on employment to conclude that short-run employment gains could be substantial, although the magnitude of these gains is quite uncertain.

This chapter proceeds as follows. The first section quantifies the recent slowdown in health care costs. The second section discusses possible factors behind the slowdown in costs, and also discusses the effects of the ACA on quality of care so far and in the future. The final section discusses the slowdown's potential economic benefits.

Recent Trends in Health Care Costs

To document the historically slow growth in health care costs seen in recent years, this section uses the National Health Expenditure (NHE) Accounts, which were recently updated by the Office of the Actuary at the Centers for Medicare and Medicaid Services (CMS) to incorporate data through 2012 (Martin et al. 2014). These data permit a detailed and comprehensive look at recent trends in the Nation's health care spending.

The analysis is extended through 2013 using the most recent NHE projections, which were published by CMS in September 2013 (Cuckler et al. 2013) and reflect Medicare and Medicaid spending data and macroeconomic data available through June 2013 (CMS Office of the Actuary 2013).[1]

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[1] The final health spending growth rate for 2012, as reported by CMS in January 2014, came in approximately 0.2 percentage points below what CMS had projected in September 2013. To account for this lower base in 2012, this analysis uses CMS' projections of the 2013 growth rate of health spending, not the level of health spending.

Table 4–1
Real Per–Capita NHE Annual Growth Rates by Payer and Spending Category

Category	Average annual growth from 2010 through...		Historical average annual growth		
	2012	2013	1960–2010	2000–2007	2007–2010
Total national health expenditures	1.1	1.2	4.6	4.0	1.9
Major payers (per enrollee)					
Private insurance	0.9	1.2	N/A	5.2	4.1
Medicare	−0.3	−0.4	N/A	5.5	2.4
Medicaid	−1.6	−0.1	N/A	0.4	0.3
Major categories of spending					
Hospital care	1.6	1.6	4.5	4.0	3.2
Physician and clinical services	1.7	1.6	4.6	3.2	1.7
Prescription drugs	−1.1	−1.3	4.6	6.3	0.5
Home health and skilled nursing care	0.9	1.2	6.6	3.0	2.9

Note: Inflation adjustments were made using the GDP deflator. Per-enrollee growth figures are not available for the 1960-2010 period because Medicare and Medicaid did not exist in 1960 and because CMS does not provide enrollment by insurance type for years before 1987.

Source: Centers for Medicare and Medicaid Services, National Health Expenditure Accounts and National Health Expenditure Projections; Bureau of Economic Analysis, National Income and Product Accounts; CEA calculations..

NHE "tracking" estimates constructed by the Altarum Institute using data on health spending from the Bureau of Economic Analysis imply that final estimates of NHE for 2013 will come in very close to the CMS projection (Altarum 2014).

Table 4-1 summarizes recent trends in spending growth, and Figure 4-1 depicts these trends graphically. From 2010 through 2012, the last year for which final data are available, real per capita national health expenditures grew at an annual rate of just 1.1 percent. The CMS projections show slow growth continuing through 2013, with the annual average real per-capita growth averaging just 1.2 percent. These slow growth rates since 2010 are less than one-third of the long-term historical average growth rate of 4.6 percent and substantially below the average growth rates recorded from 2000-07 and over the three years immediately prior to 2010.[2] These growth rates since 2010 are, in fact, the lowest on record; from 1960, the first year the NHE data are available, through the present, no other two- and three-year periods saw lower growth rates.

The slow growth is reflected in all three payer categories depicted in Figure 4-3, which appears on page 157. Real per enrollee spending growth

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[2] The periods 2000-07 and 2007-10 were chosen as comparison periods in order to facilitate the discussion in the next section of the role of the 2007-09 recession in driving recent trends.

Box 4-1: Two Measures of Growth in Health Care Costs: Spending and Prices

This report examines two different measures of growth in health care costs: growth in the prices of health care goods and services and growth in total spending on health care goods and services. These two types of data are useful for answering different questions.

The growth in health care prices tells us how the amount of money needed to purchase a given amount of health care—a bypass surgery, a doctor's visit, or a tablet of aspirin—is changing over time. By contrast, the growth in health care spending captures not only changes in the prices of health care good or services (like the price of a doctor's visit), but also changes in the quantity of health care goods and services consumed (like the number of doctor's visits made).

In theory, increases in health care prices (above general price growth) are unambiguously bad for consumers since they reduce the amount of health care a consumer can buy with a given number of (real) dollars. By contrast, increases in health care spending can be good or bad. If spending rises because consumers are receiving more care and that care improves health, then spending increases are a good thing. If, on the other hand, spending rises because the price of care is rising or because consumers are receiving additional care that does not improve health, then higher spending is a bad thing. Concern about the long-term growth in health care spending reflects a belief that much of that growth reflects higher prices or increased use of low-value care.

In practice, measuring changes in health care prices is more challenging than in the idealized discussion presented above. In light of the rapid technological change that has been seen in the health care sector, comparing goods and services over time can be difficult. For example, an appendectomy done in 1990 and an appendectomy done in 2010 might be treated as the "same item" in a health care price index, but it is likely that the 2010 version of the procedure reflects substantial improvements in surgical technique relative to its 1990 counterpart, improvements in quality that may be important for health outcomes and of great value to patients. As a result, simply knowing that the price of an appendectomy has risen from 1990 to 2010 is not enough to determine whether someone in need of an appendectomy was better off in 1990 or in 2010; one must somehow account for the fact that the 2010 patient is effectively purchasing a greater quantity of "improved health" than the 1990 patient.

Cutler et al. (1998) document that these measurement challenges are a substantial problem in practice. Focusing on care for heart attack patients, the authors show that mortality outcomes for these patients

have improved dramatically in ways not accounted for in major price indices. As a result, these indices dramatically overstate the extent to which rising medical prices are making people worse off over time.

As a final note, to the degree that statistical agencies have gotten better at measuring quality improvements over time, long-term comparisons of health care price inflation can be misleading. Indeed, it is possible that some of the long-term decline in health care price inflation depicted in Figure 4-2 results from methodological improvements of this kind. However, methodological improvements of this kind are unlikely to play a substantial role over short time periods, and they likely play little or no role in explaining the sharp declines in health care price inflation over the last few years.

in private insurance over the 2010-13 period is less than one-quarter its level from 2000-07 and less than one-third its level from 2007-10. The change in Medicare spending growth has been similarly dramatic, with real growth in per beneficiary Medicare costs essentially ceasing over this period. In Medicaid, the already slow growth in real per beneficiary costs seen in recent years has continued and turned slightly negative from 2010 to 2013.

The slowdown is similarly broad-based when looking across spending categories. Real per capita growth in spending on hospital care—the largest single category of spending, accounting for almost one-third of total spending—is growing at less than half the long-term historical average rate and more than 1 percentage point slower than the most recent historical period. Prescription drugs have seen particularly sharp reductions in growth, with spending actually shrinking in real per capita terms at a 1.3 percent annual rate over the last three years. Physician and clinical services and home health and skilled nursing care show similarly slow growth rates in a historical context.

Panel A of Table 4-2 documents a similar slowdown in the growth of prices paid for health care goods and services, which is also depicted in Figure 4-2. Health care inflation, whether measured using the personal consumption expenditure (PCE) price indices or the CPI for medical care, is running at half or less the rate seen historically, and below the rates seen over the last decade. Indeed, year-over-year inflation as measured using PCE data is currently running at around 1 percent, a level last seen in 1963. The recent behavior of the CPI for medical care is similar, with recent months' year-over-year inflation rates reaching low levels not seen since 1972.

It is important to note that this slow growth in prices for health care goods and services is not simply a reflection of the fact that the prices of all goods and services have grown slowly in recent years. Panel B demonstrates

Figure 4-1
Growth in Real Per Capita National Health Expenditures, 1961–2013
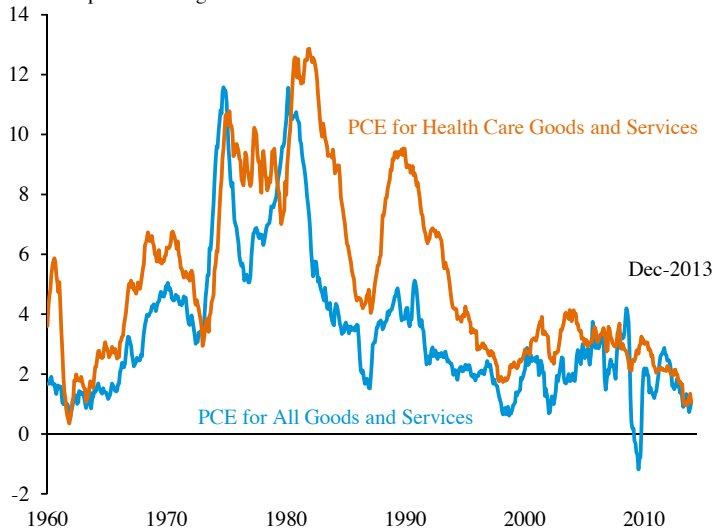
Annual percent change
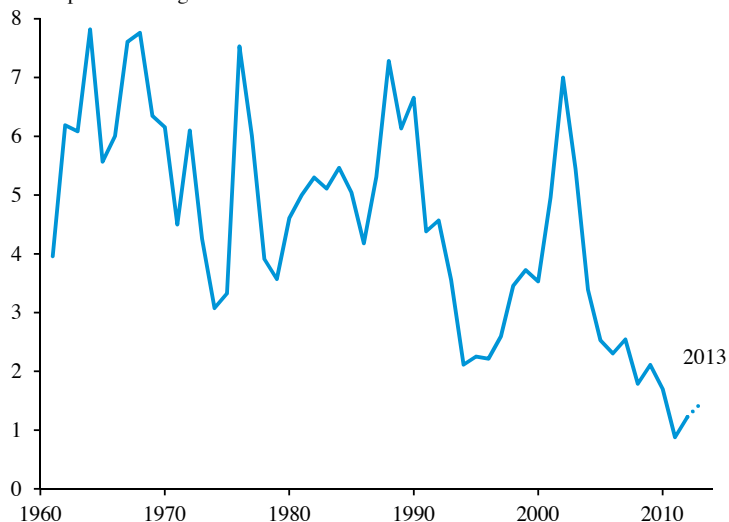
Note: Data for 2013 is a projection.
Source: Centers for Medicare and Medicaid Services, National Health Expenditure Accounts;
Bureau of Economic Analysis, National Income and Product Accounts; CEA calculations.

Figure 4-2
General and Health Care Price Inflation, 1960–2013

12-month percent change

Source: Bureau of Economic Analysis, National Income and Product Accounts; CEA calculations.

Table 4–2
Recent Trends in Several Indicators of Health Care Spending and Price Growth

Category	Fre-quency	Available through	Annual growth, ACA–present	Historical average annual growth		
				1960–ACA	2000–2007	2007–ACA
Panel A: Health care inflation						
PCE prices for health care goods & services	Monthly	Dec–13	1.7	5.4	3.3	2.8
CPI for medical care	Monthly	Dec–13	2.9	5.9	4.3	3.5
Panel B: Health care inflation relative to general price inflation						
PCE prices for health care goods & services	Monthly	Dec–13	0.1	1.7	1.0	1.2
CPI for medical care	Monthly	Dec–13	0.8	1.7	1.6	1.8
Panel C: Employer premiums for family coverage (adjusted for inflation)						
KFF/HRET survey	Annual	2013	4.1	N/A	6.8	3.0
MEPS–IC	Annual	2012	3.7	N/A	6.4	3.4
Panel D: PCE spending on health care goods & services (adjusted for inflation and population)						
PCE spending for health care goods & services	Monthly	Dec–13	2.2	4.7	3.9	1.4

Note: For monthly data, end points for periods starting or ending in a listed year are treated as occurring in July of that year. Time periods listed as starting or ending with the ACA start with March 2010 for monthly series and 2010 for annual series. PCE stands for personal consumption expenditures. PCE for health care goods and services includes the following categories of spending: health care, pharmaceutical and other medical products, therapeutic appliances and equipment, and net health insurance. Price indices for these categories are combined to construct a Fisher index for the aggregate, and it is growth in this index that is reported in Panel A and Panel B. In Panel D, the PCE spending data are adjusted for inflation using the general PCE deflator and BEA's population series. CPI stands for consumer price index. Employer premium growth is adjusted for inflation using the GDP deflator. Because MEPS-IC data are not available for 2007, the figures shown for that series reflect average growth rates for the period 2000-2006 and 2006-2010.

Source: Bureau of Economic Analysis, National Income and Product Accounts; Bureau of Labor Statistics, Consumer Price Index; Kaiser Family Foundation, Employer Health Benefits Survey; Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, Insurance Component; CEA calculations.

that health care inflation *relative* to general price inflation has also been unusually low over the last few years.

Panel C of Table 4-2 examines trends in employer premiums, as documented in two major surveys of employers. In both surveys, premium growth rates are more than 2.5 percentage points below the 2000-07 trend. Panel D tracks real per capita consumption spending for health care goods and services, based on data from the Bureau of Economic Analysis. By this measure, spending growth is running at about half the rate seen in the first portion of the last decade, and even farther below its longer-term historical average. While these series do suggest that growth may have increased slightly since 2010, they are consistent with the other available data in showing that current growth rates are very low, whether measured against short-term or long-term historical experience. In addition, premium growth

in particular may not exactly track underlying cost trends on a year-to-year basis because premiums must be set before actual costs for the year are known. Over the long-run, however, slower growth in health costs will likely be fully reflected in the premiums individuals and employers pay.

What is Happening Now, and What Will Happen Next?

A natural—and important—question becomes: What is driving the recent slow growth in health care costs? The answer to this question can shed light on whether the current slow growth will last, and what policies could help make that occur. Indeed, slowdowns can be temporary; the early- and mid-1990s also saw several years of slow growth in health care costs, but costs accelerated once again in the late 1990s and early 2000s.

While final conclusions about the causes of the recent slow growth and its persistence await additional data and analysis, some conclusions are possible with the data currently available. Most importantly, the recent slow growth does not appear to be the result of idiosyncratic factors affecting a single category of spending or a particular payer. As documented in Table 4-1, the slowdown has affected all major payers and each of the major categories of spending. The search for explanations must, therefore, look for factors affecting behavior system-wide. The first part of this section examines the role of the 2007-09 recession, the second part discusses potential non-ACA, non-recession explanations for the recent slow growth, and the third part considers the role of the Affordable Care Act, both to date and in the future.

The Role of the 2007-09 Recession

Some have identified the 2007-09 recession and its aftermath as a potential driver of system-wide changes. For example, job losses may have caused reductions in insurance coverage that curtailed access to health care, or the accompanying falls in families' disposable incomes could have forced households to prioritize other needs over medical care. Alternatively, disruptions in financial markets could have depleted providers' cash reserves or reduced their ability to borrow in order to invest in new equipment or facilities, leading to lower utilization in subsequent years.[3] If the recession

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[3] The NHE data do show a very sharp reduction in investment in equipment and structures in the health care sector over 2009 and 2010 of about 12 percent in real per capita terms. It is worth noting, however, that this contraction followed two years of very strong investment growth. Moreover, even as financial conditions have normalized, investment has remained subdued, suggesting that providers do not view themselves as having incurred a substantial investment deficit, nor suggesting an imminent investment-driven rebound in health care cost growth.

Figure 4-3
Growth in Real Per Enrollee Health Spending by Payer

Average annual percent change
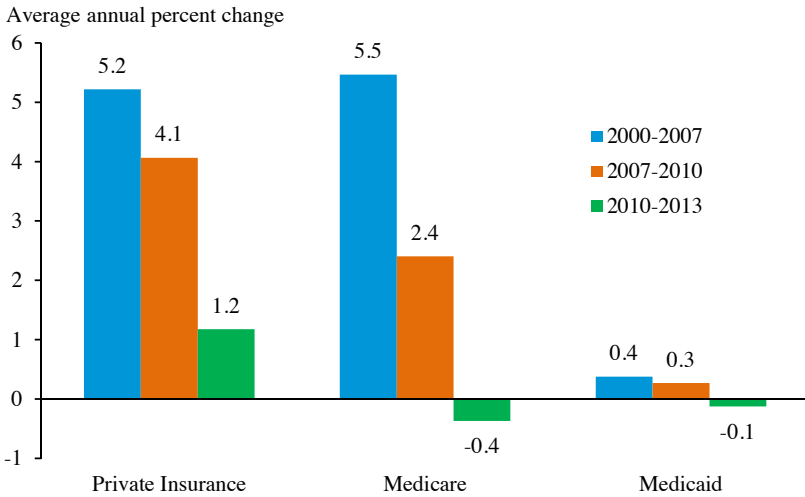
Notes: Figures for 2013 are projections.
Source: Centers for Medicare and Medicaid Services; Bureau of Economic Analysis, National Income and Product Accounts; CEA calculations.

were the primary driver of the current slow growth in health spending, then growth would likely return to its earlier rapid rate as the economic recovery continues.

Three features of the recent slow growth in health care costs are inconsistent with the theory that this slow growth results only from the recession, suggesting that a substantial portion of the recent slowdown is "structural" and likely to persist. First, and most simply, the slowdown has now persisted well beyond the end of the recession. The Great Recession began in December 2007 and concluded by June 2009. Since that time, the economy has recorded four years of steady growth. Yet, as shown in Table 4-1 and Figure 4-3, health spending growth has remained subdued relative to the years during and immediately following the recession. While the economy may affect health spending with a lag, if the recession were the primary force driving the slowdown, more substantial acceleration would likely be visible by now.

Second, as documented in Table 4-1 and Figure 4-3, the slowdown has affected Medicare in addition to the private sector, a fact highlighted in a recent analysis by CBO economists (Levine and Buntin 2013). Because seniors are generally more insulated from a weak labor market, this fact undermines the notion that the slowdown results primarily from economic disruptions attributable to the recession. In addition, Levine and Buntin

find that even those seniors who did experience relatively larger economic disruptions during the recession did not spend less on health care. Levine and Buntin also document, using State-level data, that Medicare spending growth has historically risen when unemployment rises—the opposite of the pattern required for the economic downturn to explain the slowdown in cost growth.[4]

Third, the recent behavior of health care inflation is difficult to square with the theory that the slowdown is primarily a result of the recession. As documented in Table 4-2 and Figure 4-2, health care inflation has decelerated sharply of late, even when measured *relative* to inflation in the broader economy. While there are a variety of plausible mechanisms by which the recession could reduce the quantity of health care services people demand, and thus reduce total spending, it is difficult to explain why a recession should cause a reduction in the growth rate of health care prices *relative to* price growth in other sectors of the economy.

Many recent studies have also attempted to directly quantify the role of the recession in driving recent slow growth in health care spending. These analyses, which use a variety of methods, have generally concluded that, while the recession likely has depressed health care spending growth in recent years, health spending is low in historical terms even after accounting for the recession, and a substantial fraction of the slowdown likely reflects structural changes that are likely to persist. The remainder of this section provides a review of this growing literature.

Chandra, Holmes, and Skinner (2013) provide one approach to evaluating the role of the recession. They survey the available micro-econometric estimates of the effect of income on the demand for health care. Virtually all such estimates in the existing literature are small, with the largest credible estimates of the income elasticity being the 0.7 estimate provided by Acemoglu et al. (2013). Applying this upper-bound estimate to the observed slowdown in GDP growth, they show that the slow economic growth in recent years explains less than half of the recent slow growth in health spending. Although they express some uncertainty about the future outlook for health spending, they nevertheless project that a substantial fraction of the slowdown will persist, due in part to the potential of payment reforms included in the Affordable Care Act.

Ryu et al. (2013) take another approach. They examine the role of two specific mechanisms by which the recession could have affected health

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[4] The 2013 *Economic Report of the President* undertakes a related analysis (CEA, 2013). The report analyzes changes in state-level unemployment from 2007-09 to state-level health spending growth over that period. While that analysis finds that unemployment is associated with lower health spending growth, the effect is small and cannot explain a substantial fraction of the recent downturn in health spending.

care cost growth: by reducing insurance coverage via job loss and by causing firms to offer their employees leaner health plans that require greater cost-sharing. Focusing on the period 2009-11, they find that recent reductions in spending growth are, if anything, larger among employed individuals, and that increases in cost-sharing can account for only one-fifth of the slowdown. On the basis of their results, they advise a "cautious optimism that the slowdown in health spending may persist."

Another set of studies evaluates the effect of the recession by estimating the historical relationship between economic growth and health spending growth and using this estimated relationship to simulate how health spending would have evolved had the recession not occurred. Econometric time series analyses like these have the important advantage that, by virtue of their nationwide, aggregate approach, they can capture the effects of a wide variety of potential mechanisms connecting economic growth to health spending growth. But the nationwide, aggregate nature of these analyses is also a weakness; it can be difficult to plausibly control for important confounding factors, and the paucity of data (only about 50 years of data, or about 50 total data points, are available) can make these analyses sensitive to seemingly innocuous changes in methodology, as demonstrated by Chandra, Holmes, and Skinner. The current literature does not, unfortunately, provide persuasive evidence on which econometric specifications are likely to provide the most reliable results.

Cutler and Sahni (2013) estimate a model relating current health spending growth to a five-year average of economic growth. Based on their results, they estimate that spending growth in 2011 and 2012 would have been on the low end of the historical range even accounting for the recession, and that more than half of the slowdown over the longer period 2003-12 is due to factors other than the recession. They conclude that "fundamental changes" are underway in the health sector, changes that are not attributable to the recession alone.

A contrary perspective comes from an analysis from the Kaiser Family Foundation and the Altarum Institute (KFF and Altarum 2013). They estimate a model relating current health spending growth to economic growth the current year and each of the prior five years and general price inflation in the current year and each of the prior two years. On the basis of their estimated model, the authors conclude that most of the slowdown in health care spending from the 2001-03 period to the 2008-12 period is attributable to the macroeconomic factors, although they still attribute 23 percent of the slowdown to non-macroeconomic factors.

It is important to note, however, that the authors' calculation applies to the slowdown in nominal health spending growth over this period, while

the slowdown in real (that is, inflation-adjusted) health spending growth is of greater economic interest. Because inflation was, on average, lower during the 2008-12 period than during the 2001-03 period, the authors' approach overstates the role of macroeconomic factors in explaining the slowdown in real spending growth. In addition, the authors' model, by virtue of its relative complexity, is particularly subject to the shortcomings of the time series approach described above. Indeed, the model estimated by KFF and Altarum has one particularly unusual feature: the effect of reduced economic growth on health spending actually peaks four years later. While not impossible, such lags seem implausibly long.

Non-ACA Factors Affecting Health Spending Growth

As discussed above, the recession does not provide a full, or even necessarily a major, explanation for the recent slow growth in health spending. While additional factors may be identified in the future, two non-ACA factors have received substantial attention to date—although it is important to note that at least one non-ACA factor is modestly increasing health spending growth.

The long-term trend toward increased patient cost-sharing is one factor that can plausibly explain why slow growth has affected many different categories of spending at the same time (Cutler and Sahni 2013; Ryu et al. 2013; Chandra, Holmes, and Skinner 2013). The Kaiser Family Foundation/ Health Research and Educational Trust Employer Health Benefits Survey indicates that recent increases in cost-sharing in employer plans have been substantial; the typical deductible in an employer plan has increased from $584 in 2006 to $1135 in 2013, a 70 percent increase after adjusting for inflation (Kaiser Family Foundation 2013a).

Some research suggests that the observed increase in cost-sharing is having an effect. As noted above, Ryu et al. (2013) examine the importance of increased cost-sharing in the employer context and conclude that it can account for 20 percent of the reduction in growth over the 2009-11 period. Chandra, Holmes, and Skinner (2013) evaluate the role of increased cost-sharing using estimates from the literature of how utilization responds to cost-sharing. They conclude that cost-sharing may have played a larger role, although the precision of their estimates is limited by the poor quality of the available data on recent changes in cost-sharing and the current incomplete understanding of how cost-sharing affects utilization.

While it seems possible and perhaps likely that increased cost-sharing is playing a role, it cannot be the whole story. As discussed in detail above, the slowdown in Medicare fee-for-service spending has been even more dramatic than the slowdown in the private sector, and there have been no

substantial changes to the core Medicare benefit design in recent years that parallel the changes seen in the private sector.

The striking slowdown in prescription drug spending, documented in Table 4-1, also factors into the slow growth trend. Various sources attribute this sharp drop in prescription drug spending to the expiration of patent protection for many important drugs. Due to a slowdown in the invention of new drugs that stretches back more than a decade, the drugs that have come off patent in recent years are not being replaced by more-recently patented drugs. As a result, the share of prescriptions accounted for by generic drugs—which typically cost much less—has increased sharply, substantially reducing costs (Aitken, Berdnt, and Cutler 2009; Cutler and Sahni 2013; IMS 2013). However, these changes in the prescription drug market are probably only making a modest contribution to aggregate trends in health spending since prescription drugs account for less than 10 percent of total health spending.

There is, however, at least one easily identified factor working against the recent slowdown: the aging of the U.S. population. In recent decades, population aging has made a small positive contribution to the growth of U.S. health spending; White (2007) estimates that over the period 1970-2002, population aging added about 0.3 percentage points to annual growth. The contribution of population aging to health care spending growth appears to have increased by a small amount in recent years. Using data on the age distribution from the U.S. Census Bureau, data on spending by age reported by Yamamoto (2013), and a methodology similar to that used by Yamamoto, the CEA estimates that population aging added about 0.5 percent to annual growth in health care spending over the 2000-07 and 2007-10 periods and added about 0.8 percent to growth over the 2010-13 period.[5] These demographic headwinds mean that the slowdown in the growth of

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[5] As Yamamoto notes, this methodology assumes that spending does not change discontinuously at age 65 when individuals transition to Medicare. It also does not account for differences in coverage mix by age in the under-65 population. It does not appear that accounting for these factors would meaningfully alter the results, but further research in this area would be worthwhile.

health care costs for an individual of any particular age is actually slightly larger than shown in Table 4-1.[6]

The Role of the Affordable Care Act

The evidence discussed above shows that the recession is not the sole cause of the recent slow growth in health spending, and that the other factors identified to date cannot explain the magnitude or broad scope of the slowdown. What, then, is the Affordable Care Act's role in driving changes in the Nation's health care system? To be sure, the ACA is not the sole cause of the slowdown. Health care spending growth had slowed somewhat even before the ACA was passed (as shown in Table 4-1), the recession and other changes in the health system have certainly made contributions (as discussed above), and many of the ACA's reforms have yet to take full effect.

Nevertheless, the ACA's reforms aimed at driving out waste and improving quality are contributing in a meaningful way to recent slow growth in health costs—including by building on pre-existing trends in delivery system reform and initiating new ones—and are likely to make larger contributions in the future. Recent economic research also provides support for the premise that implementing reforms in Medicare can reduce the cost and improve the quality of care system-wide. This research supports the idea that the ACA will play an important role in slowing health care

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[6] The effect of changing demographics on per beneficiary spending by particular payers may differ from the effect on the overall population. The average age of Medicare beneficiaries is currently falling as the youngest baby boomers reach age 65. Consistent with that, Levine and Buntin (2013) estimate that changes in the age mix of Medicare beneficiaries had no effect on per beneficiary growth in Medicare spending over the 2000-07 period, but subtracted 0.2 percentage points over the 2007-10 period. Calculations like those in the main text suggest that these changes in age mix *subtracted* somewhat more from growth, on the order of 0.4 percentage points, over the 2010-13 period. This represents a modest, but not trivial, share of the overall slowdown in Medicare spending growth.

In addition, changes in beneficiary mix (that are not primarily attributable to the aging of the population) appear to have had a larger effect on recent trends in per beneficiary Medicaid spending. Over the period 2000-10, Medicaid enrollment among children, parents, and pregnant women increased substantially more rapidly than did enrollment among elderly and disabled individuals (Kaiser Family Foundation, 2013b). The resulting change in enrollment mix lowered per beneficiary costs since non-elderly, non-disabled beneficiaries generally use less health care. Holahan and McMorrow (2012) estimate that this change in enrollment mix subtracted 1.5 percentage points from the annual growth of Medicaid spending per beneficiary spending over the 2000-10 period. However, enrollment data reported by the Kaiser Family Foundation suggest that, if anything, changes in enrollment mix have actually increased per beneficiary costs since 2010. Thus, adjusting for enrollment mix would make the slowdown in per beneficiary Medicaid costs over the 2010-13 period more dramatic than shown in Table 4-1.

Box 4-2: How Will the ACA's Coverage Expansion Affect Total Spending Growth?

As the Affordable Care Act's coverage expansion takes effect, total national health care spending will likely grow at an elevated rate for a few years, reflecting the cost of covering an additional 25 million people (Cuckler et al. 2013; CBO 2014). This one-time increase in costs is more than justified by the benefits of bringing quality, affordable health insurance coverage to millions of Americans who lack this protection today. So the additional cost is neither a surprise, nor a cause for concern.

These increases in total national health expenditures are also not directly relevant for most individuals and employers, for whom what matters is how much they are paying in premiums or other costs. When a previously uninsured person purchases coverage through the Marketplace or receives it through Medicaid, that does increase total national health expenditures, but it has no direct effect on costs for someone who previously had coverage through their employer or the individual market.

Moreover, one-time changes of this kind will tell us nothing about the underlying trend in health spending, and it is this underlying trend that, as discussed in Section 3, will shape Americans' living standards over the long run. In addition, the ACA's Medicare reforms are slated to continue to phase in over years beyond 2014, and the ACA's mechanisms for generating new innovative reforms aimed at reducing costs and improving quality are just beginning to generate results. As a result, the savings from these and other aspects of the ACA are likely to grow substantially in the years ahead. This is an important reason why the Congressional Budget Office estimates that the extent to which the ACA will reduce the deficit grows dramatically over time (CBO 2012b).

It is also worth noting that the projected increase in growth over the next few years is not particularly large. Even after accounting for transient effects attributable to the ACA's coverage expansion, CMS projects that annual real per capita growth in national health expenditures will never exceed 3.4 percent over the next decade. As shown in Table 4-1, these rates are below the average growth rate recorded over the 2000-07 period and far below the longer-term historical average.

cost growth over the long term, but also suggests that its provider payment reforms may be having a larger-than-anticipated impact today.

Reductions in excessive Medicare payments to providers and health plans. The ACA has already had one easily quantifiable effect on the nation's health care spending: reducing excessive payments previously identified by independent experts (for example, MedPAC (2009)). The original CBO cost

estimate for the ACA found that its reforms to Medicare would save $17 billion in fiscal year 2013, attributable primarily to reductions in payments to private insurers that provide coverage through Medicare Advantage and adjustments in annual updates to Medicare provider payment rates (CBO 2010a).[7] Estimated savings of $17 billion constitute about 0.6 percent of national health expenditures in 2013. Spread out over the three years from 2010 to 2013, this implies that the ACA alone accounts for a 0.2 percentage point reduction in the growth of national health expenditures over this period, making a meaningful contribution to explaining the slow growth in health spending observed over these three years. The analysis by Cutler and Sahni (2013) reaches similar conclusions. These reductions will continue to phase in over the years ahead and continue to reduce the growth of Medicare spending.

Deployment of new payment models. The ACA also includes many reforms intended to identify and promote payment models that encourage efficient care delivery, reduce care fragmentation, and reward physicians, hospitals, and others that invest in providing high-quality care rather than just a high quantity of care.

The ACA made direct changes in Medicare payment systems aimed at achieving these goals, including creating the readmissions reduction and shared savings programs discussed in detail below and various "value-based" purchasing initiatives that tie provider reimbursement to measures of the quality of the care received by patients. The ACA also provided additional financial assistance to states through Medicaid to establish health homes to improve care management for patients with chronic conditions.

In addition, the ACA created the Center for Medicare and Medicaid Innovation (the "Innovation Center") to experiment with diverse new payment approaches, including bundled payments, various accountable care models, and multi-payer initiatives, each of which will be touched on later in this section. To date, more than 50,000 health care providers from across every state are participating in an Innovation Center initiative. The Secretary of Health and Human Services has the authority to take successful pilots to scale.

Finally, through the Patient-Centered Outcomes Research Institute, the ACA is funding efforts to identify which treatments work—and for which patients—and to identify strategies for translating that evidence into practice. By giving providers the information they need to provide efficient,

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[7] This chapter also cites a CBO estimate of the budgetary effect of repealing the ACA from July 2012, which suggests that repeal would increase Medicare spending in FY 2013 by $4 billion, a much smaller sum than the $17 billion cited here. However, as discussed in the CBO letter, because it would have been too late to unwind some ACA provisions for FY 2013 and due to other effects, this estimate does not reflect the full effect of the ACA in that year.

high-quality care, this research initiative directly complements the ACA's efforts to change provider incentives.

The full benefits of the initiatives described above will only be realized in the years to come. However, the next two subsections discuss a pair of payment reforms—the ACA's incentives to reduce hospital readmissions and its deployment of accountable care payment models—that are already beginning to show results.

Incentives to reduce hospital readmissions. The ACA made important changes in how Medicare's hospital payment system treats hospital readmissions—cases in which a patient returns to the hospital soon after being discharged. Historically, nearly one-in-five Medicare patients were readmitted within 30 days of discharge, and it is commonly believed that many of these readmissions result from low-quality care during the initial admission or poor planning for how the patient will obtain care after discharge. Prior to the ACA reform, hospitals faced no financial incentive to invest in activities aimed at reducing readmissions, and could actually be made financially worse off by doing so since they lose payment for the avoided readmissions. This misalignment of incentives likely both increased costs and reduced quality.

The ACA aims to correct these incentives by penalizing hospitals with high readmission rates for patients with a specified set of diagnoses. Many of the rules governing these penalties were finalized in August 2011. The penalties took effect at the start of FY 2013 (October 2012), but because penalties for a given fiscal year are based on hospitals' readmission rates in prior years, hospitals' incentives to begin reducing readmissions began as soon as the rules were finalized (or earlier, to the extent that hospitals anticipated the structure of the payment rules).[8] The number of conditions included in the program and the maximum penalty amount will grow over time.

Figure 4-4 provides evidence that this readmission policy has begun changing patterns of care. After having been flat for several years, overall 30-day hospital readmission rates for Medicare patients turned sharply lower soon after the program rules were finalized, and, as of July 2013, were more than one percentage points below their average level from 2007-11. From January 2012 through August 2013, this reduction corresponded to 130,000 avoided readmissions (CMS, 2013a). The sharp change in trend—and its timing—implies that the readmissions program played an important role in causing these changes, although other efforts to reduce readmissions were underway during this period as well. Among those other activities were efforts by the Department of Health and Human Services efforts to actively

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[8] Under current program rules, a hospital's penalties in a given fiscal year are based on its readmission rate during the three-year period that ended five quarters earlier.

Figure 4-4
**Medicare 30-Day, All-Condition Hospital
Readmission Rate, 2007–2013**

Percent of patients

2007-2011 Average

Jul-2013
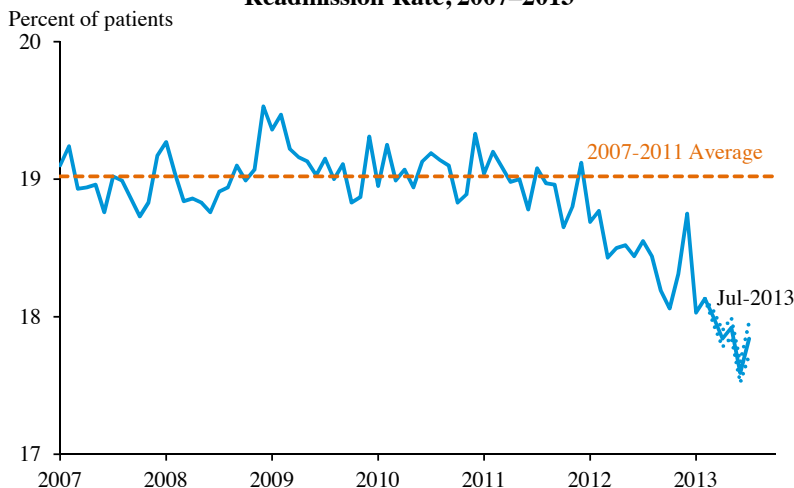
Notes: Recent months are based on preliminary data. The dotted blue lines depict the range in which
the final estimates are likely to fall.
Source: Centers for Medicare and Medicaid Services, Office of Information Products and Data
Analytics.

engage hospitals and community-based organizations in improving dis-
charge processes through the Partnership for Patients and the Community-
Based Care Transitions Program (Gerhardt et al. 2013).

Accountable care payment models. Another important ongoing
ACA reform is the creation of "accountable care" payment models through
the Medicare Shared Savings Program and the Innovation Center. These
programs seek to realign provider incentives to encourage provision of
efficient, high-quality care. Under fee-for-service payment systems, provid-
ers delivering more efficient care often end up financially worse off because
lower service volume translates into lower payments from Medicare. In
addition, since provider payments were based on service volume, the pre-
ACA payment system gave providers no direct financial incentive to deliver
high-quality care. Prevailing fee-for-service payment systems also pay each
provider separately without regard to how services furnished by that pro-
vider fit into the patient's broader plan of care, and thus create no incentive
for efficient coordination of care across providers.

Under these accountable care programs, a provider or group of pro-
viders can seek designation as an Accountable Care Organization (ACO).
ACOs are eligible to share in the savings created when they reduce the cost
of caring for patients assigned to them, which encourages providers to be
efficient in the use of additional services. In addition, because the ACOs earn

shared savings based on the total costs of a patient's care across all providers and not merely the costs for any particular visit or procedure, ACOs have incentives to invest in care coordination and avoid duplication. Perhaps most important, ACOs must achieve designated benchmarks for the quality of care received by their patients in order to be eligible for shared savings, which provides strong incentives to ensure that patients receive high-quality care.

Today, more than 360 organizations serving 5.3 million Medicare beneficiaries have adopted the ACO model, and the number of beneficiaries covered will likely grow in the years ahead. A preliminary evaluation of the Pioneer ACO program (the Innovation Center ACO program for large and advanced systems) found that costs for beneficiaries aligned with Pioneer ACOs grew more slowly from 2011 to 2012 than costs for similar beneficiaries not aligned with ACOs (L&M Policy Research, 2013). The annual cost savings for each enrollee aligned with a Pioneer ACO in 2012, the first year of the program, were estimated to be at least $150, more than 1 percent of average Medicare spending per beneficiary in that year. In addition, overall, the ACOs performed better than fee-for-service benchmarks on all quality measures for which comparable data are available (CMS 2013b). Academic research on similar private models also suggests that these payment models can achieve their intended purpose of reducing costs while improving quality (Song et al. 2012).

The Innovation Center is experimenting with related payment models through its Bundled Payment for Care Improvement Initiative, which got underway in 2013.[9] Under these models, Medicare will make a single "bundled" payment for all services provided during an "episode" of care connected to a hospital stay, rather than paying separately for each service provided during that episode. In the model using the most comprehensive bundle definition, this payment will cover the hospital stay, physician services provided during the stay, and post-hospital care. The Innovation Center is also testing models with narrower bundles covering only services provided during the hospital stay or only services provided after the hospital stay. Although the details vary across payment models, the bundled payment will then be allocated across the participating providers according to

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[9] These models build on several earlier Medicare demonstration projects, with the most similar being the Acute Care Episode (ACE) demonstration, a much smaller demonstration that concluded in 2013.

agreements among the providers themselves.[10] The models are being tested for a set of common types of hospital care episodes that account for a significant fraction of all hospital stays.

Much like the accountable care payment models, these bundled payment models encourage providers to be more efficient because providers receive no additional payment for providing additional services (if the service is included in the bundle). Similarly, because all providers involved in an episode of hospital care are jointly accountable for the total cost of the care episode, the bundled payment structure gives providers strong incentives to coordinate their activities, with attendant benefits for efficiency and quality of care. Because of this scope for increased efficiency, Medicare can (and does under the models being tested) set the bundled payment amount below the total amount it would pay under the existing fee-for-service payment systems. The efficiency gains from these sources could be substantial. CBO recently estimated that if a bundled payment model that covered services provided during and after the hospital stay and used a 5 percent savings target were phased in nationwide starting in 2017, the savings to Medicare would total $47 billion over 10 years (CBO 2013c).

Recent research on cross-payer "spillovers." In evaluating the direct effects of the ACA's Medicare and Medicaid reforms so far and considering their likely effects going forward, an important question is how these reforms will influence the rest of the health care system. Recent empirical work in economics and health policy strengthens the premise that reforms to public-sector health programs that reduce waste and improve quality will have spillover benefits for the private sector.[11]

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[10] The bundled payment is administered in different ways under the different models. In the model covering only services during the hospital stay, the bundled payment is paid "prospectively" to a single entity (e.g. the hospital), which is then responsible for paying the other providers involved in episode. In the other models, Medicare continues to pay providers according to the existing fee-for-service rules. If total fee-for-service payments are below the bundled payment amount, Medicare pays the excess to a designated provider, which distributes that excess among the other involved providers. If total fee-for-service payments are above the bundled payment amount, the reverse occurs. In principle, the two structures change provider incentives in similar ways.

[11] This growing literature is contrary to the traditional view in some health policy circles, which held that efforts to achieve savings in Medicare (or Medicaid) cause medical care providers to increase the prices they charge to private insurers in order to recover the lost revenue, and, thus, reforms in Medicare simply "shift" costs to the private sector rather than reducing them. The empirical support for this view was always inconsistent, and, as argued by Dranove (1988) and Morrissey (1994), this view has important conceptual shortcomings. In particular, for hospitals to be able to increase the prices charged to private payers after a reduction in Medicare payment rates, they must have been willingly charging a price below what the market would bear prior to the reduction in Medicare rates. For a comprehensive overview of this literature, particularly the older literature, see Frakt (2011; 2013).

In particular, various recent studies suggest that efforts by Medicare to reduce excessive payments for particular services are likely to generate corresponding savings for private insurers and their enrollees. Clemens and Gottlieb (2013) study how the prices that private insurers pay to physicians change when Medicare changes its prices, exploiting a natural experiment created by regional differences in the effect of earlier reforms to the way Medicare pays physicians. They find that when Medicare reduces the price it pays for services, private insurers are able to reduce the amount they pay for care by similar amounts.

White (2013) and White and Wu (2013) undertake a similar analysis focused on Medicare payment to hospitals that exploits natural experiments created by cross-hospital differences in the effect of earlier Medicare payment changes. White (2013) finds that when Medicare reduces its payment rates, private payers reduce their payment rates by approximately 77 percent of that amount. White and Wu (2013) find that for each dollar of Medicare savings, private insurers realize additional savings of 55 cents.

The implications of these estimates are striking. For example, the $17 billion in Medicare savings estimated to have been achieved in FY 2013 as a result of reducing excessive Medicare payments. Using the same logic applied previously, these estimated savings correspond to a 0.2 percentage point reduction in the average growth of health care prices over the period 2010-13. If just half of these price reductions spilled over to the rest of the health care system to the extent estimated by White (2013), then the implied reduction in health care inflation economy-wide due to these Medicare changes would be about 0.5 percent.[12] In this scenario, the ACA would be playing a significant role in driving the observed slow growth in health care prices—representing about half of the recent slowdown in health care inflation relative to general price inflation.[13]

Potentially even more important, the work by Clemens and Gottlieb provides evidence that the benefits of the ACA's improvements to the *structure* of public-sector payment systems may be realized system-wide, not just among enrollees of those programs. Again focusing on Medicare

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[12] The reductions in excessive payments to Medicare Advantage plans are less likely to "spill over" to general private-sector payment rates (although to the extent they lead MA-participating insurers to negotiate lower provider payment rates, such spillovers could occur under certain models of spillovers). Since the Medicare Advantage reductions account for about half of the estimated $17 billion in payment reductions in 2013, the calculation in the text assumes that only half of this reduction would spill over.

[13] Of course, effect on total spending may be smaller or larger to the extent that these price changes induce changes in volume. Indeed, the estimates of White and Wu, referenced above, as well as estimates reported by He and Mellor (2012) suggest that volume changes will generally work to offset these price spillovers. However, even under the estimates of White and Wu (2013), the savings to private insurers as a result of Medicare changes would be substantial.

payment for physician services, they show that Medicare payment changes that increase payment for some services and reduce payment for others tend to be matched by private insurers. Clemens and Gottlieb's results provide empirical support for the widely believed notion that Medicare's payment structure serves as the "starting point" in negotiations between providers and private insurers in many circumstances, in which case changes in Medicare will reasonably quickly get picked up in the private sector as well. This evidence is consistent with historical experience. Medicare introduced "prospective" payment for inpatient services in the 1980s, under which all care during an inpatient admission was covered via a single payment determined based on the patient's diagnosis; virtually all private insurers pay hospitals using this type of system today.

Some recent evidence suggests that spillover benefits from the ACA's public-sector payment reforms may occur even if private payers do not directly adopt these payment models. McWilliams et al. (2013) study the Alternative Quality Contract (AQC)—a contract similar to accountable care payment structures currently being deployed by CMS–that Blue Cross Blue Shield of Massachusetts has been experimenting with since 2009. Research cited above (Song et al. 2012) finds that the AQC reduces costs and improves quality for patients whose care is directly subject to the contract. The research by McWilliams et al. finds, however, that patients associated with AQC-participating providers whose care was *not* subject to the contract (in this case, Medicare patients) also experienced improvements. In this case, the cost savings amounted to 3.4 percent, on average, and was accompanied by improvement on some quality measures. The results may arise because providers adopt a single "practice style" for all their patients, so that when incentives from one induce a provider to change its approach in ways that improve efficiency or quality, all patients seen by that provider benefit.

Taken together, the evidence of cross-payer spillovers reviewed above suggests that not only are reforms to the structure of the public-sector payment systems helpful in reducing costs and improving quality system-wide, but that the public sector may be essential to fully realizing the potential for improvement. In economic terms, the presence of spillovers means that payment system reforms are "public goods"—investments that generate benefits for many people other than the purchaser and for which the purchaser cannot capture all the resulting benefits (Clemens and Gottlieb 2013). Because no individual investor captures the full benefits of investment in public goods, the private market generates too few of them. As with other public goods, one solution to the underinvestment is for the government to invest directly, in this case by implementing reforms through Medicare and Medicaid.

Recognizing the importance of other payers' decisions in determining providers' response to new payment arrangements, CMS has launched demonstration projects that actively engage multiple payers. Incorporating multiple payers into reform efforts at the outset may increase the possibility that the payment models that emerge can easily cross payer boundaries, once proven. These initiatives also recognize that engaging private payers in reform efforts is important for Medicare and Medicaid beneficiaries themselves, in light of the evidence described above that spillovers can run in both directions: from Medicare and Medicaid to the private sector, and vice versa.

Two multi-payer initiatives merit special mention. Through the Comprehensive Primary Care Initiative, CMS has enlisted public and private payers in eight states to join with Medicare to invest in primary care practices, with the potential for shared savings after two years. Another promising effort is the State Innovation Models Initiative, which provides grants to states that wish to make statewide, multi-payer changes to provider payment systems. With support from this program, Oregon has embarked upon an effort to move its Medicaid beneficiaries, State employees, and individuals who have purchased coverage through the state's ACA-created health insurance marketplace into ACO-like payment models. Arkansas has undertaken an initiative involving public and private payers aimed at ensuring that half of Arkansans have access to a patient-centered medical home by 2016, and expanding its existing system of episode-based payment.

Economic Benefits of Slow Health Spending Growth

Slower growth in health care costs has the potential to bring three important economic benefits: higher living standards; lower deficits, potentially generating faster economic growth; and, at least in the short run, higher employment. This section of the report considers the implications of slower growth in health care costs across these variables.

Higher Living Standards

All else equal, when the health sector consumes less of the Nation's output, more resources are available for meeting other needs. As a result, reductions in health care spending that stem from improving efficiency or eliminating low-value care have the potential to improve living standards. Because of the large share of the Nation's resources devoted to health care, even relatively modest reductions can have very large effects on economic well-being.

**Box 4-3: The Cost Slowdown and ACA Reforms are
Reducing Medicare Beneficiaries' Out-of-Pocket Costs**

As discussed in the text, reductions in Medicare spending growth have substantial benefits for the Federal budget. Lower growth also has substantial benefits for Medicare beneficiaries, both because it reduces their cost-sharing obligations and because many pay a premium to enroll in Medicare Parts B and D, and premiums are set to cover a specified fraction of the government's cost of providing that coverage. Due in large part to the broader trends discussed in this chapter, the base Medicare Part D premium is down 5 percent in inflation-adjusted terms relative to 2010 (Figure 4-5). Similarly, the standard Medicare Part B premium for 2014 is essentially unchanged in inflation-adjusted terms relative to 2009. (The standard Medicare Part B premium is down 11 percent in inflation-adjusted terms relative to 2010. However, it is more meaningful to compare to 2009; for technical reasons, many beneficiaries paid the 2009 premium in 2010 and 2011, and, for these same reasons, the standard Part B premium is anomalously high in those years (SSA 2013).)

At the same time as Medicare premiums have remained flat, features of the ACA are directly reducing out-of-pocket costs for Medicare enrollees. Under the ACA, Medicare beneficiaries receive a wide range of preventive services without cost-sharing requirements. CMS estimates that 34 million Medicare beneficiaries received at least one such service during 2012 (CMS 2013c). Through a combination of discounts on brand-name drugs and additional coverage, the ACA is also closing the "donut hole" in Medicare Part D—a range of drug spending over which beneficiaries enrolled in the "standard" Medicare Part D plans were previously required to cover the full cost of their medications. CMS estimates that 3.5 million Medicare beneficiaries who reached the coverage gap realized average savings of $706 on brand-name drugs in 2012, while 2.8 million Medicare beneficiaries realized savings of nearly $40 per person on generic drugs (CMS 2013c).

These benefits accrue to families through two primary channels. First, standard economics implies that, in the long run, reductions in the cost of providing benefits such as health insurance are passed through to workers in the form of higher wages since employers must compete for workers (Summers 1989). This theoretical prediction has received empirical support (Gruber and Krueger 1991; Gruber 1994; Baicker and Chandra 2006). Second, as discussed in detail below, lower health care costs have significant benefits for the Federal budget, which ultimately permit lower taxes or increased investment in other valued public services.

Figure 4-5
**Inflation-Adjusted Premiums for Medicare
Parts B and D, 2000–2014**
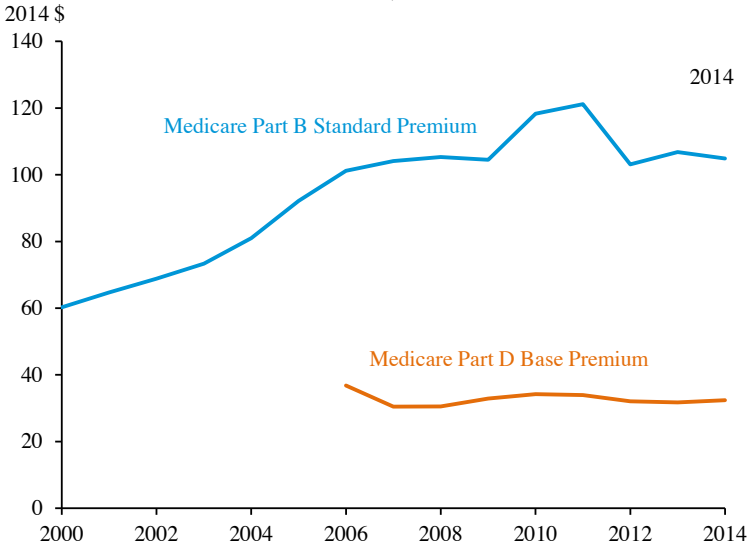
Source: Centers for Medicare and Medicaid Services; Bureau of Economic Analysis, National Income and Product Accounts; CEA calculations.

One straightforward way of illustrating the magnitude of the potential impacts is to consider the effect of continuing the slow growth of the last few years. To that end, recall from Table 4-1 that national health expenditures have grown at a 1.2 percent real per capita annual rate from 2010-13, whereas health spending grew at a 4.0 percent rate from 2000-07. Suppose that even just one-third of that slowdown continued, so that instead of returning to the recent historical rate of 4.0 percent, real per capita health care costs instead grew at a 3.1 percent rate, similar to the rate projected in the recent work by Chandra, Holmes and Skinner (2013). Under this illustrative scenario, the savings after a decade would amount to about $1,200 per person. As discussed above, these savings would materialize primarily in the form of higher wages and lower State and Federal costs.

Lower Deficits

In 2013, the Federal Government devoted 22 percent of the U.S. budget, or 4.6 percent of GDP, to Medicare and Medicaid. For this reason, the future path of health care costs has major implications for the long-term budget outlook.

Over the last three years, CBO has made a series of downward revisions to its forecast of future spending on Medicare and Medicaid (CBO

2010a; 2011; 2012c; 2013a; 2014), which are depicted in Figure 4-6. From the projections CBO published in August 2010 to its most recent set of projections in February 2014, CBO has reduced its estimate of Medicare and Medicaid spending in 2020 (the latest year covered by all of the projections examined here) by $168 billion and 0.5 percent of GDP.[14] This $168 billion represents a 13 percent reduction in spending relative to CBO's earlier projection of spending on these programs.

These reductions primarily reflect lower projections of future growth in health care costs.[15] To that point, in a recent presentation, CBO Director Douglas Elmendorf commented: "The slowdown in health care cost growth has been sufficiently broad and persistent to persuade us to make significant

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[14] In July 2013, the Bureau of Economic Analysis (BEA) released comprehensive revisions to the National Income and Product Accounts that increased BEA's estimate of GDP in recent years by more than 3 percent. CBO projections of GDP released before and after these revisions are, therefore, not directly comparable.

The figures reported in the text and displayed in Figure 4-6 account for this issue in the following manner. For May 2013, CBO released two sets of GDP projections, one before and one after the BEA revisions; the figures shown use the GDP projections released after the BEA revisions. For earlier CBO baselines, CEA adjusted CBO's projections of GDP upward by the ratio of CBO's post- and pre-revision May 2013 GDP projections. Without these adjustments, the reduction in projected Medicare and Medicaid spending as a share of GDP in 2020 from CBO's August 2010 baseline to its February 2014 baseline would be 0.6 percent, rather than the 0.5 percent reported in the text, and the decline in Medicare and Medicaid spending shown in Figure 4-6 would be larger.

[15] Several factors other than recent slow growth in health care costs have affected CBO's projections of Medicare and Medicaid spending over this period. These factors work in different directions. First, CBO has revised its general economic projections in ways that, on net, increase projected future Medicare and Medicaid spending by around $25 billion. Second, CBO estimates issued after June 2012 incorporate the Supreme Court decision in NFIB v. Sebelius. CBO materials indicate that this ruling reduced projected Medicaid spending in 2020 by roughly $30 billion as of July 2012, although this figure has likely fluctuated as CBO has changed its assumptions about how many states will adopt the Medicaid expansion. For more detailed information, see CBO's analysis of the budgetary effects of the Supreme Court decision (CBO 2012c) and CBO's March 2012 baseline (CBO 2012a). Third, projections issued in August 2011 and later incorporate the effects of sequestration under the Budget Control Act, which CBO estimated in May 2013 would reduce Medicare spending by $11 billion in 2020 (CBO 2013a).

CBO itself has cited somewhat larger figures when discussing the extent to which it has revised down its projections in response to slower health care cost growth. For example, CBO recently reported that slower growth in health costs has led it to revise down its estimate of Medicare spending in 2020 by $109 billion since March 2010 (CBO 2014), whereas the comparable figure based on the approach in the text is $87 billion. CBO's figure is larger because it excludes the changes due to updated economic projections discussed above, because it considers a slightly different time period, and because its figure appears to apply to gross, rather than net, Medicare spending. On the other hand, CBO's figure excludes the effect of sequestration, which partially offsets these differences. The estimates presented in the text were chosen over the estimates presented by CBO to simplify exposition and presentation.

**Box 4-4: Premiums on the ACA Marketplaces
are Lower than Projected**

The Congressional Budget Office recently reported that actual 2014 premiums on the ACA Marketplaces are about 15 percent below its earlier estimates (CBO 2014). This has two important benefits. First, lower premiums will mean lower costs for many families, including those with incomes too high to qualify for premium tax credits and those that wish to purchase more comprehensive coverage than that offered by the second-lowest cost silver plan. Second, lower premiums will result in lower Federal costs for premium tax credits and cost-sharing assistance. While CBO states that it has not yet decided whether to mark down its premium estimates for years beyond 2014, estimates by Spiro and Gruber (2013) suggest that such a revision would result in Federal savings of more than $100 billion over ten years.

While it is not yet fully understood why premiums on the ACA Marketplaces are lower than expected, this may be another benefit of the recent slow growth in health care spending. The Marketplaces may also have proved better than expected at encouraging insurers to compete on price (Spiro and Gruber 2013). A related possibility is that the Marketplaces attracted greater-than-expected participation by insurers; premiums appear to be substantially lower in areas with more participating insurers (ASPE 2013).

downward revisions to our projections of Federal health care spending" (Elmendorf 2013).

For comparison, in CBO's most recent long-term budget outlook, CBO projected that the current law 25-year fiscal gap—a measure of the annual fiscal adjustment required to stabilize the debt as a share of the economy over the next 25 years—is just 0.9 percent of GDP (CBO 2013b). Without these recent improvements in the outlook for Federal health spending, the Nation's medium-run fiscal problem would therefore be about half again as large.

It is important to note that the reductions in projected Medicare and Medicaid spending described above are separate from the deficit reduction that CBO estimates will occur as a direct result of the ACA. The most recent CBO estimates indicate that the ACA will reduce the deficit by about $100 billion over the decade 2013-22, and that it will reduce the deficit, on average, by about 0.5 percent of GDP in the subsequent decade (CBO 2012b). CBO notes that these deficit-reducing effects are likely to continue to grow in following decades.

Figure 4-6
Recent CBO Projections of Medicare and Medicaid Outlays

Percent of GDP
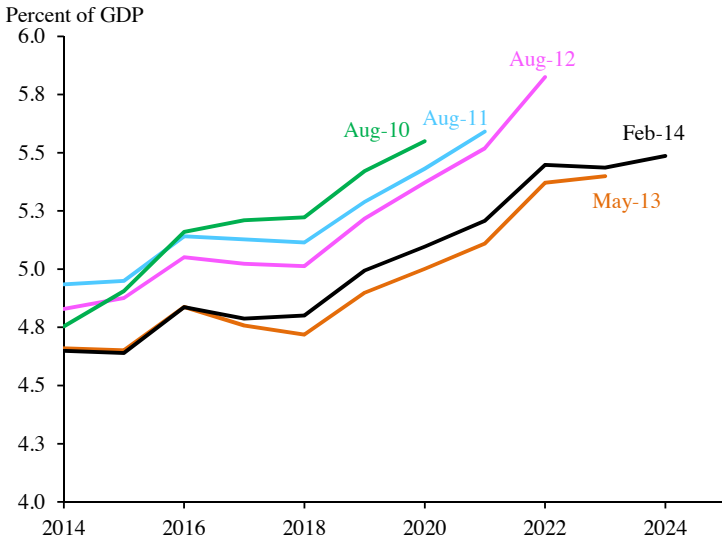
Notes: Medicare outlays reflect spending net of offsetting receipts. Medicaid spending reflects Federal spending only.
Sources: Congressional Budget Office, Budget and Economic Outlook; CEA calculations.

Higher Employment and Economic Growth

Slower growth in health care costs reduces the growth of the health insurance premiums paid by employers. As discussed above, in the long run, because employers must compete for workers, reductions in the cost of health care are likely to be passed through to workers in the form of higher wages. Thus, over the long run, changes in the growth rate of health care costs are unlikely to substantially affect employer's hiring costs and decisions.[16]

In the short run, however, the picture may differ. Wage setting is subject to various "rigidities" that mean that lower health insurance costs may not be fully passed through in the short and medium run, potentially reducing employer costs and spurring hiring (Sommers 2005). Rigidities of this kind may be particularly important in the aftermath of the 2007-09 recession, as abnormally low inflation has increased the importance of constraints on the adjustment of nominal wages (Daly et al. 2012).

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[16] Faster growth in health insurance costs could reduce employment through another mechanism. In particular, if workers do not value the additional health spending, then the combination of more expensive health insurance and lower wages could make employment less attractive over time, inducing them to reduce their labor supply. Because evidence suggests that workers' labor supply is only modestly responsive to the returns to work, these effects are likely to be modest in size.

There is relatively little empirical literature on the effect of slower growth in employer health insurance premiums on employment, and there is no consensus among economists about the likely size of these effects. There are, however, at least two empirical studies suggesting that these effects could be substantial.

Baicker and Chandra (2006) use variation in employer health insurance costs resulting from within-state changes in medical malpractice costs over time to estimate the effect of higher health insurance premiums on employment. They find that a 10 percent reduction in insurance premiums increases the share of working-age individuals who are employed by 1.2 percentage points. This estimate suggests that the recent slowdown in the growth of health insurance premiums could have had a substantial positive effect on employment.

Sood, Ghosh, and Escarce (2009) take an alternative approach to quantifying the effect of faster premium growth on employment. Specifically, they examine whether industries that provide insurance to a large share of their employees experience relatively lower employment growth during periods when health costs are growing particularly rapidly. They find that, for an industry that provides health insurance to all of its workers, increasing health insurance premiums by 1 percent reduces the industry's employment by 1.6 percent relative to an industry that insures none of its workers.

Translating the Sood, Ghosh, and Escarce estimates into effects on aggregate employment is difficult because their results could arise either because higher health insurance costs reduce employment overall or because they cause a reallocation of employment from high-coverage industries to low-coverage industries. Cutler and Sood (2010) make one set of plausible assumptions about the importance of these two types of employment changes, and given their estimates of the effect of the ACA on the path of health care costs, find that the ACA will increase job growth by 250,000 to 400,000 a year by the second half of this decade.

In the longer run, lower deficits due to the ACA and the slowdown in health costs also have the potential to improve economic growth. Reductions in long-term deficits increase national saving, which increases capital accumulation and reduces foreign borrowing, and thereby increase national income and living standards over time. As discussed in detail in a 2009 CEA report on the potential benefits of health care reform for the economy, this means that even modest sustained reductions in health care cost growth can generate substantial economic benefits (CEA 2009).

Conclusion

The evidence is clear that recent trends in health care spending and price growth reflect, at least in part, ongoing structural changes in the health care sector. The slowdown may be raising employment today and, if continued, will substantially raise living standards in the years ahead. The evidence also suggests that the Affordable Care Act is already contributing to lower spending and price growth, and that these effects will grow in the years ahead, bringing lower-cost, higher-quality care to Medicare and Medicaid beneficiaries and to the health system as a whole. But realizing these benefits will require additional action, including continuing aggressive implementation of the ACA's reforms, taking full advantage of the ACA's mechanisms for developing and deploying innovative new payment models, and pressing forward with new efforts that build on the ACA's approach to reducing health spending system-wide, such as the reform proposals in the President's recent budgets.