Trends

Health Spending Projections Through 2016: Modest Changes Obscure Part D's Impact

As health care spending trends remain stable, the Medicare drug benefit changes who pays the bill.

by John A. Poisal, Christopher Truffer, Sheila Smith, Andrea Sisko, Cathy Cowan, Sean Keehan, Bridget Dickensheets, and the National Health Expenditure Accounts Projections Team

ABSTRACT: Growth in national health spending is projected to slow slightly from 6.9 percent in 2005 to 6.8 percent in 2006, marking the fourth consecutive year of a slowing trend. The health share of gross domestic product (GDP) is expected to hold steady in 2006 before resuming its historical upward trend, reaching 19.6 percent of GDP by 2016. Prescription drug spending growth is expected to accelerate to 6.5 percent in 2006. Medicare prescription drug coverage has dramatically changed the distribution of drug spending among payers, but the net effect on aggregate spending is anticipated to be small. [*Health Affairs* 26, no. 2 (2007): w242–w253 (published online 21 February 2007; 10.1377/hlthaff.26.2.w242)]

This year's national health spending projection anticipates a growth rate of 6.8 percent in 2006 and projects average annual growth of 6.9 percent from 2006 through 2016.[1] Total spending on health care is projected to be $2.1 trillion in 2006 and to reach $4.1 trillion by 2016 (Exhibits 1 and 2). These projections are the companion to the U.S. government's official estimates for historical national health care spending and are intended to inform health care debate among policymakers, researchers, and the public.[2]

This year's projection expects that the share of gross domestic product (GDP) that is devoted to health will remain flat in 2006 at 16.0 percent, as growth in national health spending is projected to be just 0.4 percentage point higher than that of GDP (Exhibit 3). Over the remainder of the projection period, health spending is expected to grow an average of 2.1 percentage points faster per year than GDP, resulting in a health share of GDP that reaches 19.6 percent by 2016.

This year's aggregate expectation of 6.9 percent average annual growth over the full projection period is 0.3 percentage point lower than last year's projection.[3] Highlighting the early period of the projection are the addition of drug coverage to Medicare (Part D), slow projected growth in Medicaid in 2006, and a

Most of the authors are with the National Health Statistics Group (NHSG), Office of the Actuary, Centers for Medicare and Medicaid Services, in Baltimore, Maryland. John Poisal (DNHS@cms.hhs.gov) is deputy director of the NHSG. Chris Truffer is an actuary in the Medicare and Medicaid Cost Estimates Group. Sheila Smith, Andrea Sisko, Cathy Cowan, Sean Keehan, and Bridget Dickensheets are economists in the NHSG. Other members of the National Health Expenditure Accounts Projections Team are listed at the end of this paper.

DOI 10.1377/hlthaff.26.2.w242 ©2007 *Project HOPE–The People-to-People Health Foundation, Inc.*

EXHIBIT 1
National Health Expenditures (NHE), Aggregate And Per Capita Amounts, And Share Of Gross Domestic Product (GDP), Selected Calendar Years 1993–2016

Spending category	1993	2004	2005	2006[a]	2007[a]	2011[a]	2016[a]
NHE (billions)	$912.6	$1,858.9	$1,987.7	$2,122.5	$2,262.3	$2,966.4	$4,136.9
Health services and supplies	853.2	1,738.9	1,860.9	1,987.7	2,188.9	2,778.1	3,869.9
Personal health care	773.6	1,551.3	1,661.4	1,769.2	1,885.3	2,472.6	3,449.4
Hospital care	317.2	566.9	611.6	651.8	697.5	922.3	1,287.8
Professional services	280.7	581.1	621.7	662.8	703.9	918.9	1,253.2
Physician and clinical services	201.2	393.7	421.2	447.0	474.2	612.9	819.9
Other prof. services	24.5	52.6	56.7	60.9	64.9	82.7	111.0
Dental services	38.9	81.5	86.6	92.8	98.6	125.5	163.4
Other PHC	16.2	53.3	57.2	62.0	66.2	97.9	159.0
Nursing home and home health	87.3	157.7	169.3	179.4	190.0	239.2	322.0
Home health care[b]	21.9	42.7	47.5	53.4	57.9	78.1	111.1
Nursing home care[b]	65.4	115.0	121.9	126.1	132.1	161.2	210.9
Retail outlet sales of medical products	88.4	245.5	258.8	275.2	293.9	392.1	586.4
Prescription drugs	51.0	189.7	200.7	213.7	229.5	317.5	497.5
Durable medical equipment	13.5	23.1	24.0	25.2	26.3	30.5	37.6
Nondurable medical products	23.9	32.8	34.1	36.3	38.0	44.1	51.3
Program admin. and net cost of private health insurance	52.8	135.2	143.0	156.8	167.4	217.9	295.7
Government public health activities	26.8	52.5	56.6	61.7	66.2	87.6	124.8
Investment	59.3	119.9	126.8	134.8	143.4	188.3	267.0
Research[c]	16.4	38.3	40.0	41.7	43.9	55.5	75.0
Structures and equipment	42.9	81.7	86.8	93.1	99.5	132.8	191.9
NHE per capita	$3,468.6	$6,321.9	$6,697.1	$7,092.0	$7,498.0	$9,525.0	$12,782.2
Population (millions)	263.1	294.0	296.8	299.3	301.7	311.4	323.6
GDP, billions of dollars	$6,657.4	$11,712.5	$12,455.8	$13,253.0	$13,955.4	$16,962.8	$21,138.7
Real NHE[d]	$1,032.4	$1,698.7	$1,763.0	$1,827.7	$1,900.7	$2,266.6	$2,807.5
Chain-weighted GDP index	0.88	1.09	1.13	1.16	1.19	1.31	1.47
PHC deflator[e]	0.81	1.16	1.20	1.24	1.29	1.50	1.84
NHE as percent of GDP	13.7%	15.9%	16.0%	16.0%	16.2%	17.5%	19.6%

SOURCES: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; and U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.

NOTES: Numbers might not add to totals because of rounding. 1993 marks the beginning of the shift to managed care.

[a] Projected.

[b] Freestanding facilities only. Additional services are provided in hospital-based facilities and counted as hospital care.

[c] Research and development expenditures of drug companies and other manufacturers and providers of medical equipment and supplies are excluded from "research expenditures" but are included in the expenditure class in which the product falls.

[d] Deflated using GDP chain-type price index (2000 = 100.0).

[e] Personal health care (PHC) chain-type index is constructed from the producer price index for hospital care, nursing home input price index for nursing home care, and consumer price indices specific to each remaining PHC component (2000 = 100.0).

projected acceleration in relative prices for health care services. From 2010 through 2016, Medicaid spending growth is projected to accelerate modestly, while private health spending is expected to slow in response to slowing projected income growth.

EXHIBIT 2
National Health Expenditures (NHE), Average Annual Percentage Growth From Prior Year Shown, Selected Calendar Years 1993–2016

Spending category	1993[a]	2004	2005	2006[b]	2007[b]	2011[b]	2016[b]	2005–2016[b]
NHE	11.5	6.7	6.9	6.8	6.6	7.0	6.9	6.9
Health services and supplies	11.7	6.7	7.0	6.8	6.6	7.0	6.9	6.9
Personal health care	11.5	6.5	7.1	6.5	6.6	7.0	6.9	6.9
Hospital care	11.2	5.4	7.9	6.6	7.0	7.2	6.9	7.0
Professional services	12.0	6.8	7.0	6.6	6.2	6.9	6.4	6.6
Physician and clinical services	12.3	6.3	7.0	6.1	6.1	6.6	6.0	6.2
Other prof. services	16.4	7.2	7.8	7.3	6.6	6.2	6.1	6.3
Dental services	9.7	7.0	6.3	7.2	6.2	6.2	5.4	5.9
Other PHC	11.8	11.5	7.3	8.5	6.8	10.3	10.2	9.7
Nursing home and home health	14.3	5.5	7.3	6.0	5.9	5.9	6.1	6.0
Home health care[c]	22.1	6.3	11.1	12.5	8.6	7.7	7.3	8.0
Nursing home care[c]	12.9	5.3	6.0	3.4	4.8	5.1	5.5	5.1
Retail outlet sales of medical products	9.7	9.7	5.4	6.4	6.8	7.5	8.4	7.7
Prescription drugs	10.2	12.7	5.8	6.5	7.4	8.4	9.4	8.6
Durable medical equipment	9.6	5.0	3.7	5.3	4.2	3.8	4.2	4.2
Nondurable medical products	9.0	2.9	4.1	6.5	4.8	3.8	3.1	3.8
Program admin. and net cost of private health insurance	13.7	8.9	5.7	9.6	6.8	6.8	6.3	6.8
Government public health activities	13.7	6.3	7.7	9.1	7.2	7.3	7.3	7.5
Investment	9.2	6.6	5.7	6.3	6.4	7.0	7.2	7.0
Research[d]	9.7	8.0	4.6	4.3	5.2	6.0	6.2	5.9
Structures and equipment	9.1	6.0	6.3	7.2	6.9	7.5	7.6	7.5
NHE per capita	10.4	5.6	5.9	5.9	5.7	6.2	6.1	6.1
Population (millions)	1.0	1.0	0.9	0.8	0.8	0.8	0.8	0.8
GDP, billions of dollars	8.4	5.3	6.3	6.4	5.3	5.0	4.5	4.9
Real NHE[e]	6.0	4.6	3.8	3.7	4.0	4.5	4.4	4.3
Chain-weighted GDP index	5.2	2.0	3.0	3.0	2.5	2.4	2.4	2.5
Personal health care deflator[f]	7.3	3.3	3.6	3.2	3.8	3.9	4.1	3.9

SOURCES: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group; and U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.

NOTES: Numbers might not add to totals because of rounding. 1993 marks the beginning of the shift to managed care. Growth rates are calculated consistent with the National Health Expenditure Accounts methodology. For example, the 2016 growth rate above is equal to the level of 2016 expenditures over the level of 2011 expenditures raised to the one-fifth power (the average growth over five years); 2016 growth rate is shorthand for 2011–2016 growth rate.

[a] Average annual growth from 1970 through 1993.

[b] Projected.

[c] Freestanding facilities only. Additional services are provided in hospital-based facilities and counted as hospital care.

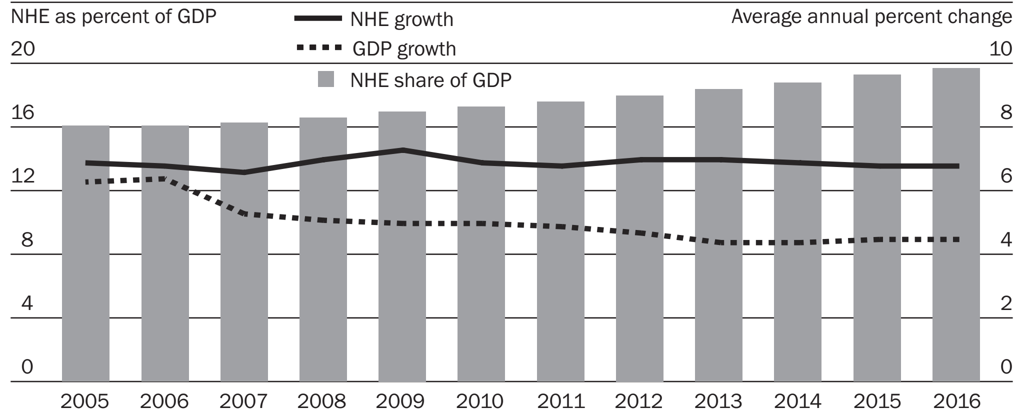
[d] Research and development expenditures of drug companies and other manufacturers and providers of medical equipment and supplies are excluded from "research expenditures" but are included in the expenditure class in which the product falls.

[e] Deflated using gross domestic product (GDP) chain-type price index (2000 = 100.0).

[f] Personal health care (PHC) chain-type index is constructed from the producer price index for hospital care, nursing home input price index for nursing home care, and consumer price indices specific to each remaining PHC component (2000 = 100.0).

National health spending growth is expected to decelerate slightly to 6.8 percent in 2006, down from 6.9 percent in 2005.[4] This is the fourth consecutive year that spending decelerated from the previous year. The 2006 hospital spending projection heavily influences our overall 2006 expectation, as hospital spending growth is expected to fall from 7.9 percent in 2005 to 6.6 percent in 2006. This expected decline is largely attributable to slowdowns in public spending growth in this sector, particularly within Medicaid. Growth

EXHIBIT 3
National Health Expenditures (NHE) As A Share Of Gross Domestic Product (GDP) And Average Annual Growth In NHE Versus Growth In GDP, 2005–2016



SOURCE: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group.
NOTES: The left axis (NHE share of GDP) relates to the gray-shaded bars. The right axis (percent change in GDP and NHE) relates to the two line graphs.

in physician and clinical services is projected to fall from 7.0 percent in 2005 to 6.1 percent in 2006, driven by a transitory yet substantial dip in price growth for physician services to 1.8 percent.[5] The 6.1 percent growth would represent the sector's slowest growth since 1999, when physician spending increased just 5.2 percent. Lastly, although drug spending is projected to accelerate from 5.8 percent in 2005 to 6.5 percent in 2006, growth in this sector is still expected to be less than the total health spending growth rate of 6.8 percent.

In 2007, growth in national health spending is projected to decelerate slightly further to 6.6 percent. Notably, this trend is principally driven by decelerating growth in Medicare—via smaller increases in payments to Medicare managed care plans (known as Medicare Advantage, or MA), as the "budget-neutrality" of risk adjustment is phased out—while spending growth among private payers and Medicaid accelerates.[6] Beginning in 2008, the aggregate trend is expected to reverse, with spending growth reaching a projection-period high of 7.3 percent by 2009, caused by gradually accelerating medical price inflation and increases in use.

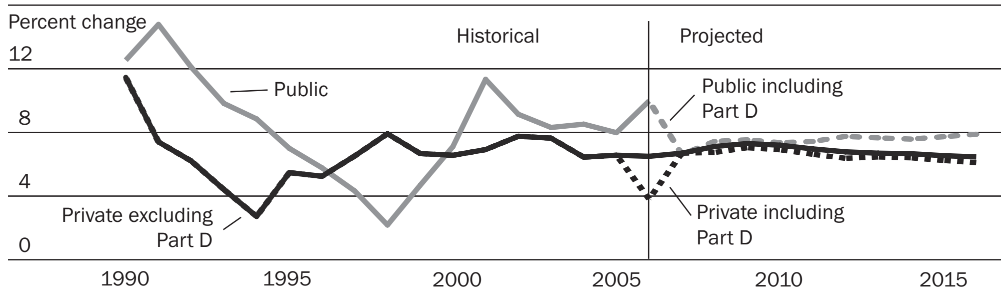
Although the change in the health spending growth rate between 2005 and 2006 is modest, it obscures the dramatic payment distribution changes in Medicare, Medicaid, and the private insurance industry as Medicare Part D is fully implemented. Primarily driven by this implementation, growth in public spending for personal health care (PHC) is projected to rise to 9.9 percent in 2006, jumping 2.0 percentage points from 2005 (Exhibit 4).[7] Correspondingly, growth in private PHC spending is expected to fall to just 3.7 percent in 2006, down 2.7 percentage points from 2005.

In 2007, growth rates in public and private PHC spending are expected to converge near 6.5 percent. From 2008 through 2016, however, private PHC spending growth is projected to average 1.1 percentage points below its public counterpart: 6.4 percent versus 7.5 percent, respectively. The difference between the two is greatest at the end of the projection period (Exhibit 4).

Factors Contributing To Growth

Growth in personal health care spending is projected to slow to a trough in 2006, continuing a decelerating trend since 2001. The slowdown in health care spending growth is partially attributable to slowing growth in the volume and intensity of services, as the pace of medical price inflation has been between 3.5

EXHIBIT 4
Private And Public Personal Health Care Spending, Excluding And Including The Impact Of Medicare Part D, 1990–2016



SOURCE: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group.

and 4.1 percent from 2001 to 2005. Growth in medical prices is expected to ease briefly to 3.2 percent in 2006, and then climb gradually to 4.1 percent by 2016. The projected expansion of high-deductible health plans (HDHPs) is likely to have a modest negative effect on growth trends for private PHC spending.

One important factor contributing to the deceleration in real per capita (volume and intensity) PHC spending is slower private spending growth.[8] Medicaid spending is also expected to grow more slowly in 2006; including the impact of Part D, the expected 0.3 percent Medicaid decline for PHC spending would represent the first annual spending decrease since Medicaid's inception, reflecting the shift in prescription drug spending for dual eligibles from Medicaid to Medicare.[9]

A reversal of decelerating growth in Medicaid and private spending is expected in 2007. For Medicaid, a return to trend is expected following the one-time, Part D–related shift in payments that occurred in 2006. For private spending, a modest increase in the overall demand for health care is expected in response to a projected rebound of real per capita income. This rebound follows a temporary dip in 2005 caused by rapid growth in tax revenues on nonlabor income.

The lagged impact of recent stronger economic growth is also projected to produce a mild acceleration in the growth of private PHC spending through 2009. Real per capita growth in private PHC spending is expected to peak in 2009, followed by a gradual slowdown through 2016. Within our model, trends in aggregate personal disposable income generally feed through the health sector with a lag of one to five years, depending on the medical care service or good being projected. Pressure from consumers of health care services feeds through a network of intermediaries including employers, governments, insurers, and providers, often requiring changes to contractual agreements along the way.

From the supply side, a modest near-term acceleration is expected in input prices for medical providers (from 3.6 percent in 2005 to 3.9 percent in 2006 and 2007). This pressure from rising costs is projected to drive a rebound in medical price inflation beginning in 2007. Over the coming decade, input price inflation is projected to dip and then rise gradually, as declines in energy prices somewhat offset increases in other areas.

Model And Assumptions

The national health spending projections are generated within a "current law" framework that incorporates actuarial, econometric, and judgmental inputs. Medicare projections are primarily based on the 2006 Medicare Trustees report, prepared by the Office of the Actuary in the Centers for Medicare and Medicaid Services (CMS); Medicaid spending projections are consistent with the report's assumptions.[10] Each year the econometric models used to project private spending are reviewed.[11] The projections for both pri-

vate and public spending used the economic and demographic assumptions from the 2006 Medicare Trustees report, updated to reflect the latest historical data.[12] For prescription drugs, the CMS's latest cost estimates, as well as the assumptions that appear in the president's fiscal year 2008 budget, are incorporated.[13] Changes resulting from the Health Care and Tax Relief Bill of 2006 are not included in these projections.

Forecasting is contingent on assumptions about macroeconomic conditions and their relationship to health care spending; thus, these projections are always subject to much uncertainty. The models are estimated based on historical trends and relationships in health spending; therefore, these projections will be consistent with this history. Any real structural break in these relationships is inherently unpredictable. The uncertainty associated with this set of projections is even greater, because there still is only limited historical experience with Medicare Part D.

Spending Outlook, By Payer

■ **Medicare.** Total Medicare spending growth is expected to spike in 2006 to 22.1 percent, with the addition of Medicare Part D, and reach $418 billion (Exhibit 5). In 2007, Medicare spending growth is projected to slow to 6.5 percent, reflecting adjustments to MA plan payments and the scheduled reduction to the physician payment update. From 2008 to 2016, Medicare growth is anticipated to average 7.6 percent per year and represent 20.9 percent of total national health expenditures by the end of the projection period.

The Medicare spending growth pattern for physician services reflects the physician payment updates required under the Sustainable Growth Rate (SGR) system.[14] Under this system, future physician payment updates are adjusted for any differences between past target physician spending levels and past actual levels. In the absence of the Deficit Reduction Act (DRA) of 2006, the SGR system would have required a −4.4 percent physician update in 2006. However, the DRA overrode the negative update scheduled for 2006 to provide an increase in physician payments per service of 0.2 percent. For 2003–2007, scheduled negative updates have been avoided through legislative changes, but the target spending levels have not been legislatively changed.[15] Under SGR, this higher actual physician spending without a correspondingly higher physician spending target leads to projected physician payment cuts over the final ten years of the projection period. Although these reductions are unlikely to occur, and legislative intervention is likely, these projections are made on a current-law basis. That is, they do not assume any legislative changes to the physician payment system; as a result, the physician spending projections are likely understated.

Medicare enrollment is projected to shift from fee-for-service toward managed care over the next decade. In 2005, 13.5 percent of eligible Medicare beneficiaries were enrolled in MA plans. These projections assume that 32 percent of eligible beneficiaries will be in an MA plan by 2016, driven in part by the increased availability of new plans. In 2007, MA plan payments are scheduled to receive a smaller increase as a result of risk adjustments, which produces a dip across most sectors including hospitals, physicians, and drugs.[16]

■ **Medicaid.** Combined state and federal Medicaid spending is projected to be $313.5 billion in 2006, nearly the same as the $313.1 billion spent in 2005 (Exhibit 5). This trend is driven heavily by the shift of drug spending for dual eligibles from Medicaid to Medicare Part D. The result is a 36 percent decrease in Medicaid drug spending between 2005 and 2006. Nondrug spending is projected to grow 5.1 percent in 2006, compared to 7.8 percent in 2005. Medicaid enrollment is expected to grow 3.3 percent in 2006, slightly lower than the rates in 2004 and 2005 (data not shown).

Spending growth for several other Medicaid services is expected to slow in 2006, notably for hospitals and physicians. Medicaid hospital spending is projected to grow just 3.5 percent in 2006, down from 9.2 percent growth in 2005, while Medicaid physician spending is projected to grow 4.3 percent in 2006, down from 7.6 percent in 2005 (data not

EXHIBIT 5
National Health Expenditures (NHE), By Source Of Funds, Amounts, And Average Annual Growth, Calendar Years 1993–2016

Source of funds	1993	2004	2005	2006[a]	2007[a]	2011[a]	2016[a]
NHE (billions)	$912.6	$1,858.9	$1,987.7	$2,122.5	$2,262.3	$2,966.4	$4,136.9
Private funds	512.5	1,020.9	1,085.0	1,129.6	1,204.6	1,566.1	2,123.3
Consumer payments	440.7	887.2	943.8	978.0	1,041.6	1,347.0	1,811.9
Out-of-pocket payments	145.2	235.8	249.4	250.6	265.8	334.6	440.8
Private health insurance	295.5	651.5	694.4	727.4	775.8	1,012.4	1,371.1
Other private funds	71.8	133.6	141.2	151.5	163.0	219.1	311.4
Public funds	400.1	838.0	902.7	992.9	1,057.8	1,400.3	2,013.6
Federal	279.2	600.6	643.7	725.4	772.4	1,027.4	1,486.5
Medicare	150.0	312.8	342.0	417.6	444.7	594.3	862.7
Medicaid[b]	76.8	172.2	178.8	178.1	190.5	257.2	381.7
Other federal[c]	52.5	115.7	122.8	129.7	137.2	175.9	242.1
State and local	120.9	237.4	259.0	267.6	285.4	372.9	527.1
Medicaid[b]	45.6	119.9	134.3	135.4	146.0	198.0	295.3
Other state and local[c]	75.2	117.5	124.7	132.1	139.4	174.9	231.8
Total Medicaid[d]	122.4	292.0	313.1	313.5	336.5	455.2	677.0

Average annual growth	1993[e]	2004	2005	2006[a]	2007[a]	2011[a]	2016[a]	2005–2016[a]
NHE	11.5%	6.7%	6.9%	6.8%	6.6%	7.0%	6.9%	6.9%
Private funds	11.0	6.5	6.3	4.1	6.6	6.8	6.3	6.3
Consumer payments	10.9	6.6	6.4	3.6	6.5	6.6	6.1	6.1
Out-of-pocket payments	8.0	4.5	5.8	0.5	6.1	5.9	5.7	5.3
Private health insurance	13.7	7.5	6.6	4.8	6.7	6.9	6.3	6.4
Other private funds	11.1	5.8	5.7	7.3	7.6	7.7	7.3	7.5
Public funds	12.2	7.0	7.7	10.0	6.5	7.3	7.5	7.6
Federal	12.7	7.2	7.2	12.7	6.5	7.4	7.7	7.9
Medicare	13.8	6.9	9.3	22.1	6.5	7.5	7.7	8.8
Medicaid[b]	15.4	7.6	3.9	−0.4	7.0	7.8	8.2	7.1
Other federal[c]	9.0	7.4	6.2	5.5	5.8	6.4	6.6	6.4
State and local	11.3	6.3	9.1	3.3	6.7	6.9	7.2	6.7
Medicaid[b]	13.6	9.2	12.0	0.8	7.8	7.9	8.3	7.4
Other state and local[c]	10.3	4.1	6.1	6.0	5.5	5.8	5.8	5.8
Total Medicaid[d]	14.6	8.2	7.2	0.1	7.3	7.8	8.3	7.3

SOURCE: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group.
NOTES: Numbers might not add to totals because of rounding. 1993 marks the beginning of the shift to managed care. Growth rates are calculated consistent with the National Health Expenditure Accounts methodology. For example, the 2016 growth rate above is equal to the level of 2016 expenditures over the level of 2011 expenditures raised to the one-fifth power (the average growth over five years); 2016 growth rate is shorthand for 2011–2016 growth rate.
[a] Projected.
[b] Includes Medicaid and State Children's Health Insurance Program (SCHIP) expansion (Title XIX).
[c] Includes Medicaid SCHIP expansion (Title XXI).
[d] Subset of public funds; includes both the federal portion and the state and local portions of Medicaid.
[e] Average annual growth from 1970 through 1993.

shown). Growth rates for these services have not been this low since the late 1990s. The slowdowns are attributable to two primary drivers: the impact of slower enrollment increases, and states' continued efforts to manage costs. Such efforts include limiting provider fee increases or freezing provider rates in 2006.[17]

Spending for two Medicaid services is expected to accelerate in 2006: home health care (from 14.0 percent in 2005 to 19.8 percent in 2006) and other personal health care (from 8.1

percent in 2005 to 10.0 percent in 2006; data not shown). This latter category includes spending from home and community-based waivers. These accelerations reflect states' continuing efforts to use home health care and home and community-based services to provide long-term care to Medicaid recipients as substitutes for traditional institutional services.

State and federal Medicaid spending growth is expected to rebound quickly to 7.3 percent in 2007 (Exhibit 5). This rebound is projected to be led by a return to trend following the implementation of Part D and a moderation in states' efforts to control Medicaid spending. From 2008 through 2016, combined state and federal Medicaid spending is projected to grow an average of 8.1 percent per year and to represent 16.4 percent of national health expenditures by 2016.

■ **Private health insurance.** Partially driven by Part D, private health insurance benefit spending is forecast to slow from a peak of 9.5 percent in 2001 to an expected low of 4.7 percent in 2006. The addition of net costs adds one-tenth of one percentage point to this growth rate (Exhibit 5).[18] A milder cycle is anticipated in this forecast, with growth rising to 7.1 percent by 2009 and then decelerating to 6.1 percent by the end of the projection horizon.

The projection for private health insurance premiums reflects three primary factors: growth in medical spending per enrollee for all private payers; changes in the share of spending paid out of pocket by consumers (described in the next section); and variation in the net costs of private health insurance. This last factor, known as the underwriting cycle, is a small share of private health insurance premiums (14.1 percent in 2005), is highly cyclical, and incorporates fluctuations in profitability.

Excluding the effects of Part D (which influence private health insurance spending for retirees), premiums per enrollee are projected to rise just 6.0 percent in 2006, down from 6.5 percent in 2005 (data not shown). The effects of the underwriting cycle on growth in implied private health insurance premiums are expected to follow a milder cycle over the coming decade than in previous periods, as insurers are able to obtain and analyze trend data more quickly and adjust premiums accordingly.[19]

■ **Out-of-pocket spending.** The rise in "consumer-driven" strategies to contain health care cost growth is a topic of much recent interest. The combination of the shift of a small but rapidly rising fraction of private enrollees into HDHPs, coupled with the strategic reworking of cost-sharing requirements within more traditional forms of coverage, is intended to encourage more-cost-conscious choices.[20]

To date, enrollment in HDHPs remains small, inclusive of people who were already enrolled in these plans prior to the passage of any tax incentives. Estimates of spending changes that result from shifting from a standard preferred provider organization (PPO)–type plan to a standard HDHP, coupled with a health savings account (HSA) or health reimbursement arrangement (HRA), are fairly modest. One study by the American Academy of Actuaries estimated a reduction in medical spending of 2–13 percent.[21] Other recent studies indicate the likelihood of small reductions in growth associated with the shift to HSA- and HRA-linked HDHPs.[22]

Employer "buy-downs" of private health insurance premiums and the impacts on copayments and deductibles are topics that have recently garnered the attention of health researchers.[23] However, although point-of-service costs have been rising, they have not grown as rapidly as private health insurance spending. Declining out-of-pocket shares are often obscured by a focus on the dollar amount of cost sharing.[24] This does not mean that rising cost sharing has not influenced recent growth: The use of cost-sharing requirements through tiering has been effective in slowing growth in drug spending.[25]

Rising medical bills may prompt some employers to develop strategies to manage the costs associated with the provision of coverage as they attempt to strike a balance between attracting and retaining talented employees and minimizing labor costs. As a consequence,

growth in out-of-pocket spending is expected to converge with growth in private health insurance spending over the coming decade. The out-of-pocket share of private PHC spending is projected to decline from 27.3 percent in 2005 to 26.4 percent in 2006 with the beginning of Part D. Thereafter, the share is expected to decline gradually to about 25 percent by 2016.

Spending Outlook, By Sector

■ **Prescription drugs.** Since 2000 there has been a steady deceleration in prescription drug spending growth; it continued in 2005 with growth of 5.8 percent (Exhibit 2). Drug spending growth is expected to rebound somewhat in 2006 to 6.5 percent, including the impacts of the implementation of Medicare Part D. This implementation results in a substantial shift in funding from private payers and Medicaid to Medicare (Exhibit 6).

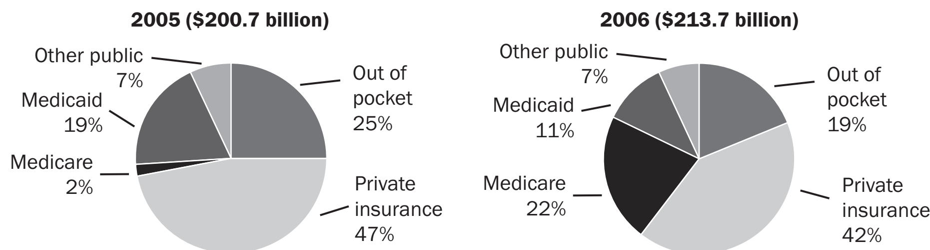
Historically, Medicare beneficiaries who lacked drug coverage filled fewer prescriptions and spent less in total than their covered counterparts.[26] Implementation of Part D is widely expected to contribute to expanded use of prescription drugs by those beneficiaries who previously had limited or no drug coverage. Moreover, based on an analysis of CMS Medicaid prescription drug rebate data and Medicare Part D bid data, the shift in drug payments from Medicaid to Medicare made on behalf of dual eligibles is anticipated to slightly increase drug spending for that population, even if use remains constant. This is attributable to the expected decrease in the amount of combined discounts and rebates under Medicare compared with Medicaid.[27]

However, the expected increase in use in 2006 as a result of Part D is anticipated to be more than offset by a deceleration in drug price growth from 3.5 percent in 2005 to an estimated 1.7 percent in 2006.[28] Excluding the effects of Part D—that is, ignoring discounts and rebates available through the program, as well as the associated induced demand—raises the expected drug spending growth rate by 0.4 percentage point in 2006. Medicare Part D is not expected to have a strong impact on the drug spending growth rate after 2006.

Another factor contributing to the short-term acceleration in 2006 is an anticipated increase in the use of drugs for a variety of therapeutic categories: specifically, cardiovascular, central nervous system, and endocrine and diabetes drugs.[29] For example, the growth in spending on antidiabetic products is expected to increase to 15.5 percent in 2006, up from 13.4 percent in 2005.[30]

Beyond 2006, drug spending growth is projected to continue to accelerate with a growth rate of 7.4 percent in 2007 (Exhibit 2) and steadily increase over time to a growth rate of 9.7 percent in 2016. The projected average annual growth rate over the forecast period is 8.6 percent. The gradually accelerating growth rate throughout the remainder of the forecast is attributable in part to the leveling off of the generic dispensing rate. Over the past several years, large increases in the percentage of generic prescriptions dispensed were a major

EXHIBIT 6
Prescription Drug Spending, By Payer, 2005 And 2006



SOURCE: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group.

contributor to the decelerating drug spending growth rates.[31]

Several other factors are expected to exert upward pressure on drug spending growth in the future, such as the expected approval of new drugs to treat cancer and other diseases.[32] Also, drugs already on the market are expected to gain approval for modified versions or for new indications. Therefore, the acceleration in the last five years of the forecast is driven by higher use (Exhibit 7).

■ **Hospitals.** Total hospital spending is projected to grow 6.6 percent in 2006, decelerating for the first time since 2003 (Exhibit 2). A combination of drivers influencing both public and private spending trends is expected to cause growth to rebound to an annual average rate of 7.2 percent from 2007 through 2010 and 6.9 percent over the remainder of the forecast.

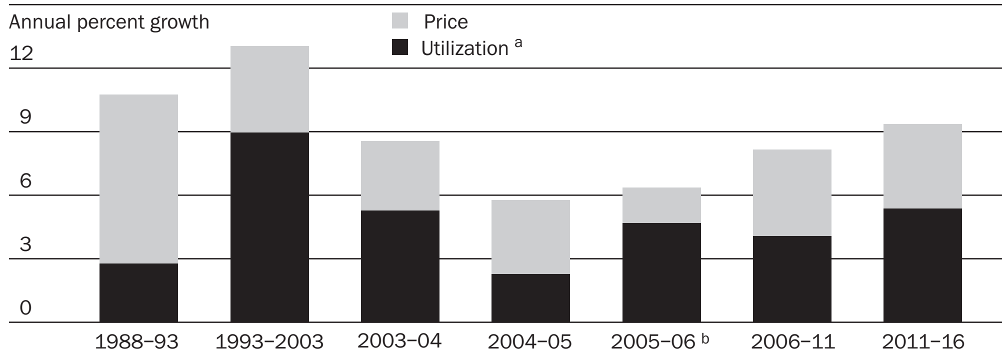
Projected slowing growth in public spending drives the overall deceleration in hospital spending growth for 2006. Growth in hospital spending by Medicaid is expected to slow 5.7 percentage points to 3.5 percent in 2006, attributable to cost containment efforts by states in 2006.[33] However, these efforts are expected to loosen, with Medicaid hospital spending growth expected to rebound to 8.0 percent by 2007 and average 7.0 percent from 2008 through 2016. Likewise, Medicare spending growth for hospital services is projected to slow to 7.3 percent in 2006, from 8.1 percent in 2005. In 2007, Medicare managed care payment adjustments will partially contribute to slowing growth (6.0 percent). During 2008–2016, Medicare spending growth for hospitals is forecast to average 7.2 percent per year. Private spending on hospitals is expected to accelerate slightly from 7.6 percent in 2005 to 7.7 percent in 2006. It is then projected to gradually accelerate to 8.4 percent in 2009, followed by a steady deceleration to a projection-period low of 6.4 percent by 2016, driven by changes in income (data not shown).

The pace of the urban hospital construction boom has not wavered. Hospitals are increasing capacity in high-end and high-volume product lines, to compete with other hospitals and freestanding outpatient facilities.[34]

■ **Physician and clinical services.** Growth in spending for physician and clinical services is projected to decelerate from 7.0 percent in 2005 to 6.1 percent in 2006 (Exhibit 2), largely driven by slow price growth. Growth in physician prices is expected to slow from 3.3 percent in 2005 to 1.8 percent in 2006, before rebounding to 3.1 percent in 2007. Price growth is then projected to average 3.6 percent from 2008 to 2013 and accelerate to 4.5 percent by 2016 (data not shown).

The Medicare physician payment and Medicaid cost containment efforts discussed earlier also affect overall growth, as private in-

EXHIBIT 7
Factors Contributing To Total Prescription Drug Spending Growth, 1988–2016



SOURCE: Centers for Medicare and Medicaid Services, Office of the Actuary, National Health Statistics Group.
[a] Also includes the effects of intensity and population growth.
[b] Without the effect of Part D, overall growth would be 6.9 percent (4.3 percent price, 2.6 percent utilization).

surers generally follow the lead from the public programs, especially Medicare. Despite low price growth, Medicare physician spending growth is expected to decelerate only 0.2 percentage point to 9.3 percent in 2006. Both private and Medicaid spending on physician services are expected to experience decelerations in 2006, reaching 5.5 percent and 4.3 percent, respectively. By 2009, growth in this sector is expected to rebound to 7.0 percent as prices are projected to continue to accelerate, before decelerating annually reaching 5.8 percent growth by 2016, as growth rates in use and income are expected to slow (data not shown).

■ **Long-term care.** Growth in spending for nursing home care is projected to decelerate from 6.0 percent in 2005 to 3.4 percent in 2006 (Exhibit 2), driven by Medicaid and Medicare. Medicaid spending growth in this area is expected to decrease from 3.9 percent in 2005 to 1.3 percent in 2006, related to provisions in the DRA and states' efforts to control costs, including restricting asset transfers before Medicaid eligibility begins.[35] Private spending is anticipated to grow 5.0 percent in 2006. Nursing home spending growth is expected to remain fairly steady from 2007 through 2010 averaging around 5.0 percent per year, before a gradual acceleration over the latter half of the projection period, partly as a result of population aging.

Home health spending growth is projected to climb 1.4 percentage points to 12.5 percent in 2006 (Exhibit 2), making it the fastest-growing service in health care. This increase is chiefly driven by faster growth in Medicaid spending on this sector, rising from 14.0 percent in 2005 to a projected growth rate of 19.8 percent in 2006 (data not shown). Medicare spending for home health is expected to increase 10.8 percent in 2006. Total growth is expected to average 7.6 percent per year from 2007 through 2016, with the strongest growth coming from Medicaid.

Concluding Comments

Despite rising costs, consumers continue to purchase costly existing and new health care technologies. At the same time, Medicare is expanding, and we are moving incrementally away from traditional sources of insurance, such as employer-based coverage, to a system comprising more federal and state government–provided health care (45.4 percent in 2005, projected to reach 48.7 percent by 2016).

The decade-long projection detailed here expects that nearly twenty cents of every dollar spent will be devoted to health by 2016. Such a projection indicates that our society will continue to address the key issues regarding the potential to sustain our current path, the possibility that we will have to make important sacrifices to pay for health care, and the constant assessment of the value we associate with our health care investment.

The authors thank the other members of the National Health Expenditure Accounts Projections Team: Randal Matsunaga, M. Kent Clemens, and Kevin Lyons. The opinions expressed here are the authors' and not necessarily those of the Centers for Medicare and Medicaid Services. The authors also thank Richard Foster, Stephen Heffler, Mark Freeland, and Jonathan Cylus.

NOTES

1. Because complete data for 2006 were not available at the time the analysis was conducted, estimates for 2006 are projections.
2. A. Catlin et al., "National Health Spending in 2005: The Slowdown Continues," *Health Affairs* 26, no. 1 (2007): 142–153.
3. C. Borger et al., "Health Spending Projections through 2015: Changes on the Horizon," *Health Affairs* 25 (2006): w61–w73 (published online 22 February 2006; 10.1377/hlthaff.25.w61).
4. Catlin et al., "National Health Spending in 2005."
5. For 2006, the authors estimated a 1.8 percent price growth in the Consumer Price Index for physician services. This estimate accounts for the effect of the DRA enacted in March 2006 that retroactively changed Medicare physician prices in January and February 2006.
6. Almost 95 percent of Medicare managed care plans are MA plans. The remaining plan types are cost, Program of All-Inclusive Care for the Elderly (PACE), and Health Care Prepayment plans.
7. Personal health care (PHC) excludes spending on research, structures and equipment, government public health, and administration.

8. Catlin et al., "National Health Spending in 2005."
9. Dual eligibles are enrolled in both Medicaid and Medicare.
10. Boards of Trustees, *2006 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds,* 1 May 2006, http://www.cms.hhs.gov/ReportsTrustFunds/downloads/tr2006.pdf (accessed 20 December 2006).
11. For a complete description of the projections model, see Centers for Medicare and Medicaid Services, "Projections of National Health Expenditures: Methodology and Model Specification," 21 February 2006, http://www.cms.hhs.gov/NationalHealthExpendData/downloads/projections-methodology-2006.pdf (accessed 20 December 2006).
12. Available historical data (as of November 2006) and updated near-term forecasts were used to transition to the 2006 Medicare Trustees report assumptions.
13. Office of Management and Budget, "Budget of the United States Government, Fiscal Year 2008," http://www.whitehouse.gov/omb/budget (accessed 24 January 2007).
14. For more information, see M.K. Clemens, "Estimated Sustainable Growth Rate and Conversion Factor, for Medicare Payments to Physicians in 2007," November 2006, http://www.cms.hhs.gov/SustainableGRatesConFact/Downloads/sgr2007f.pdf (accessed 19 January 2007).
15. Congress recently passed legislation overriding the 2007 SGR-mandated –5.0 percent payment update for physicians with a 0.0 percent update. The impacts of that legislation are not incorporated in this analysis.
16. This is a one-year adjustment that is not expected to affect future MA enrollment trends.
17. V. Smith et al., *Low Medicaid Spending Growth amid Rebounding State Revenues: Results from a Fifty-State Medicaid Budget Survey, State Fiscal Years 2006 and 2007,* 10 October 2006, http://www.kff.org/medicaid/7569.cfm (accessed 24 January 2007).
18. Net costs are defined as the difference between insurance premiums and benefits.
19. A. Rosenblatt, "The Underwriting Cycle: The Rule of Six," *Health Affairs* 23, no. 6 (2004): 103–106.
20. Some HDHPs might not provide incentives to reduce costs after the out-of-pocket threshold is met.
21. American Academy of Actuaries, *The Impact of Consumer-Driven Health Plans on Health Costs: A Closer Look at Plans with Health Reimbursement Accounts,* January 2004, http://www.actuary.org/pdf/health/cdhp_jan04.pdf (accessed 24 January 2007).
22. M.B. Buntin et al., "Consumer-Directed Health Care: Early Evidence about Effects on Cost and Quality," *Health Affairs* 25 (2006): w516–w530 (published online 24 October 2006; 10.1377/hlthaff.25.w516); and K. Baicker, W. Dow, and J. Wolfson, "Health Savings Accounts: Implications for Health Spending," *National Tax Journal* 40, no. 3 (2006): 463–475.
23. Benefit buy-downs include changes in benefit structures and increased cost sharing with consumers; see P.B. Ginsburg et al., "Tracking Health Care Costs: Continued Stability but at High Rates in 2005," *Health Affairs* 25 (2006): w486–w495 (published online 3 October 2006; 10.1377/hlthaff.25.w486).
24. Out-of-pocket spending includes payments for care at the point of purchase by the uninsured, as well as those with any combination of personal health coverage, Medicare, and Medicaid.
25. H.A. Huskamp et al., "The Effect of Incentive-Based Formularies on Prescription-Drug Utilization and Spending," *New England Journal of Medicine* 349, no. 23 (2003): 2224–2232.
26. J. Poisal et al., "Growing Differences between Medicare Beneficiaries With and Without Drug Coverage," *Health Affairs* 20, no. 2 (2001): 74–85.
27. M. Freudenheim, "A Windfall from Shifts to Medicare," *New York Times,* 18 July 2006.
28. The estimated 1.7 percent drug price growth for 2006 is not an attempt to estimate the prescription drug CPI, but rather an estimate on transaction prices that account for discounts and rebates secured by Part D plans. This is a pure price factor and does not consider changes in the mix of drugs.
29. Medco Health Solutions, *2006 Drug Trend Report: Personalizing Healthcare—The Promise, the Cost, the Solution* (Franklin Lakes, N.J.: Medco, 2006), 35.
30. Express Scripts, *Drug Trend Report 2005,* June 2006, http://express-scripts.com/ourcompany/news/industryreports/drugtrendreport/2005 (accessed 22 December 2006), 90.
31. For example, the drug trend for Express Scripts members was reduced by 2.7 percentage points in 2005 because of the brand/generic mix. Similar reductions were observed in the previous three years. Ibid., 40.
32. Medco, *2006 Drug Trend Report,* 36.
33. Smith et al., *Low Medicaid Spending Growth.*
34. G. Bazzoli, A. Gerland, and J. May, "Construction Activity in U.S. Hospitals," *Health Affairs* 25, no. 3 (2006): 783–791; and G. Taylor et al., *Fifth Annual Nonprofit Hospital Survey: The Capital Cycle Rolls On and Competition Increases* (New York: Banc of America Securities, 2006).
35. Smith et al., *Low Medicaid Spending Growth.*