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Health Policy Update

Issues in Health Care: Interventional Pain Management at the Crossroads

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Emerging strategies in health care are extremely important for interventional pain physicians, as well as with the payors in various categories. While most Americans, including the US Congress and Administration, are looking for ways to provide affordable health care, the process of transformation and emerging health care strategies are troubling for physicians in general, and interventional pain physicians in particular. With the new Congress, only new issues rather than absolute solutions seem to emerge. Interventional pain physicians will continue to face the very same issues in the coming years that they have faced in previous years including increasing national health care spending, physician payment reform, ambulatory surgery center reform, and pay for performance.

The national health expenditure data continue to extend the spending pattern that has characterized the 21st century, with US health spending continuing to outpace inflation and accounting for a growing share of the national economy. Health care spending in 2005 was $2.0 trillion or $6,697 per person and represented 16% of the gross domestic product. In 2005, Medicare spending reached $342 billion, while Medicaid spending was $315 billion. Physician and clinical services occupied approximately 21% of all US health care spending in 2005, reaching $421.2 billion. Overall, health spending in the US is expected to double to $4.1 trillion by 2016, then consuming 20% of the nation's gross domestic product, up from the current 16%. It is predicted that by 2016 the government will be paying 48.7% of the nation's health care bill, up from 38% in 1970 and 40% in 1990.

The Medicare Physician Payment system based on the Sustainable Growth Rate (SGR) formula continues to be a major issue for physicians. The Congressional Budget Office has projected budget implications of change in the SGR mechanism, with consideration for allowing payment rates to increase by the amount of medical inflation, costing Medicare an estimated $218 billion from 2007 to 2016. Changes in the physician fee schedule in 2006 using the bottom-up methodology have resulted in significant cuts for interventional pain physicians performing procedures in an office setting. Medicaid physician payments and ambulatory surgery center payments for interventional techniques are proposed to be reduced substantially by Medicare and Medicaid, while hospital payments remain at stable levels with increases.

Key words: Interventional pain management, physician payment reform, national health spending, sustainable growth rate formula, ambulatory surgery center reform, pay for performance

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Emerging strategies in health care continue to be issues for physicians, state and federal lawmakers, third-party payors, and the individual consumer. Most Americans agree that affordable health care has been needed for some time. But instead of a solution to a growing problem, new issues are emerging in multiple directions from payors to individuals. Transformation and emerging strategies of health care are troublingly complex and extremely painful.

It is hard to dispute that health care is in trouble. On November 11, 2006, Americans changed the guards in the House of Representatives and the Senate. This sets a new stage in the upcoming months and years with a Republican President and a Democratic Congress. Democratic legislators, energized by their new majorities (extremely slim in the Senate) in the 110th Congress, now face the daunting challenge of enacting an ambitious policy agenda while fulfilling their pledge to restore "pay as you go" (1). However, Democrats were mostly interested in 2 issues during their first 100 hours and both issues passed the House of Representatives, namely direct negotiating ability for Medicare Part D drugs with drug companies, and enhanced stem cell research. Another issue in the cards for most Democrats and some Republicans is to seek to overturn the provision of larger payments to private plans that contract with Medicare (also known as Medicare advantage plans) rather than to providers who treat similar patients under Medicare's traditional fee-for-service component (1). It was shown that in 2005 payments to such plans exceeded average local fee-for-service costs by 12.4%, or $922 per enrollee, for a national total of about $5.2 billion (2).

In the waning hours of the last session, Congress reduced the stabilization fund which authorized expenditures of up to $10 billion over the period of 2007 to 2013, to $3.5 billion, and the savings were used to help finance the cost of repealing the scheduled cut of 5% in Medicare payments to physicians, which would have taken effect on January 1, 2007.

Another issue of interest for Democrats concerns extending health insurance to people who cannot afford coverage, i.e., 46.6 million uninsured in 2005, including 8.3 million children. However, with the "pay as you go" policy, this will be an extremely difficult venture.

With the new Congress, it seems that only new issues emerge rather than absolute solutions. Thus, interventional pain physicians will continue to face the same issues, and probably a few more, as they did in 2005 and 2006 as the new Congress has more patient-friendly legislators than it has physician-friendly legislators.

The continuing issues for interventional pain physicians include increasing national health spending, physician payment reform, ambulatory surgery center payment reform, and pay for performance.

Health Care Coverage

Health care coverage is basically 3-fold: private health insurance, mainly through sponsorship of employment-based coverage; Medicare for the elderly and disabled; and Medicaid for the poor, disabled, and low income elderly (3-6). In addition, there are federal, state, and other programs which also provide health insurance coverage.

Employment-based coverage (excluding the elderly with retiree coverage), peaked in 2000 at 164.4 million – 62% of the non-elderly population – and then fell by almost 5 million in the subsequent 4 years (3). In addition, individual purchasing of health benefits declined during the 1990s, even though it has increased slightly by 1 million since 2001. Thus, in 2004, with the United States population of 291.2 million, employment-based coverage was provided to 174.2 million persons, of which 159.5 were non-elderly. In contrast, 27 million persons purchased individual insurance, of which 17.4 million were non-elderly. Even then, the commercial insurance industry had great financial success through 2004. One of the major concerning aspects of commercial health insurance coverage is weakening employer commitment to providing coverage and strengthening interest by public programs to offer coverage through private plans.

The Medicare program is projected to spend $327 billion in federal fiscal year 2006. Medicare serves about 42 million people and has been expanded to include an outpatient prescription drug benefit, reflecting an additional spending of $1.2 trillion over the next decade. Of this, the supplemental medical insurance program, also known as Part B of Medicare, is estimated to have cost about $150 billion in 2006. The Part B program pays for physicians' services, outpatient hospital services, durable medical equipment, physical therapy, and certain other outpatient services (5,6). Approximately 38% of those expenditures are payments for services provided by physicians, which are based on a schedule of fees that specifies the amount to be paid for each type of service (4).

Medicare is financed by a combination of payroll taxes, premiums, Medicaid buy-ins for dual eligibles, income taxation of social security benefits, general revenues, and interest income (5). The portion of Medicare that is financed by the federal government is 30% of the federal government's spending on health.

Medicaid, the federal-state health care financing program, covered over 56 million people at a cost of $295 billion in fiscal year 2004, which increased in 2005 to $350 billion, with enrollment growing by 6.4 million people. Thus, Medicaid has become the nation's largest public health insurance program (7-9). As with any public health program, Medicaid enrollment fluctuates with the economy, as does the interest of policy makers in expanding or contracting the program. During recessionary periods, tax revenues decline while enrollment in Medicaid increases. The federal contribution is open-ended, with every state being entitled to federal matching payments based on a statutory formula that is tied to the state's per capita income. Consequently, states must enroll all eligible persons and there can be no waiting lists (9). Medicaid enrollment is also influenced and grows as more people lose private coverage, unless Congress reduces the expansive scope of the program. By 2005, due to expansive inclusion policies, the number of uninsured persons had increased to a record of 46.6 million, 5 million more persons than were insured in 2001, when the economy was in recession (9). Based on the 2005 estimates, overall, 60.4 million people were enrolled in Medicaid for part or all of 2005, of which 28.8 million were children, 16 million were adults younger than 65 years of age, 14.6 million were disabled and elderly beneficiaries, and 1 million persons were covered in U.S. territories (9).

Increasing National Health Spending

The national health expenditure data continues to extend the spending pattern that has characterized the 21st century, with the U.S. health spending continuing to outpace inflation and accounting for a growing share of the national economy. Thus, health care poses challenges for tax payers, consumers, businesses and government as they seek to arrange and afford health care coverage and care, and to providers who continue to face cuts in their reimbursement in the face of increasing expenses. However, the rate of growth in U.S. health care spending slowed for the third straight year in 2005, even though spending increased 6.9% to almost $2.0 trillion or $6,697 per person. The health care portion of the Gross Domestic Product (GDP) was 16%, slightly higher than the 15.9% share in 2004. This third consecutive year of slower health care spending growth was attributed to prescription drug expenditures, which were lower, whereas spending for hospitals and physicians in clinical services grew at similar rates as in 2004. Thus, health expenditures in 2005 were over $5 billion a day. National health spending as a share of the GDP increased from 5.2% in 1960 to 16% in 2005, and is projected to increase to 20% by 2016 (6). National health spending per person increased from $356 in 1970 to $6,697 in 2005.

Public-sector spending on health care increased 7.7% in 2005, compared with 7.8% in 2004, with spending of $902.7 billion in 2005. Public spending growth averaged 9.3% during 2000 to 2003, compared with 8.1% for private spending. In contrast, private spending slowed slightly from 2004 to 2005, driven by slower growth in private health insurance payments. However, growth in out-of-pocket payments increased, as "benefit buy-downs" continued to affect patient cost sharing (10).

Figure 1 illustrates contributors to health care spending of approximately $2 trillion in 2005, of which the majority was from households followed by private business, followed by the federal government, followed by state and local governments.

Growth in national health care spending is projected to slow slightly from 6.9% in 2005 to 6.8% in 2006. This is the fourth consecutive year of a slowing trend. The health care share of the GDP is expected to hold steady in 2006, before resuming its historically upward trend, reaching approximately 20% of GDP by 2016. Further, annual average growth is expected to be 6.9% from 2007 through 2016 (6). Total spending on health care is projected to be $2.1 trillion in 2006 and to reach $4.1 trillion by 2016 (Table 1).

The government's role in financing health care is widening. It is predicted that by 2016, the government will be paying 48.7% of the nation's health care bill, up from 38% in 1970 and 40% in 1990. Figure 2 shows private and public personal health care spending, excluding and including the impact of Medicare Part D.

Medicare

Medicare spending reached $342 billion in 2005, growing 9.3% after increasing 10.3% in 2004. Medicare hospital spending grew at a rate of 8.1% in 2005,

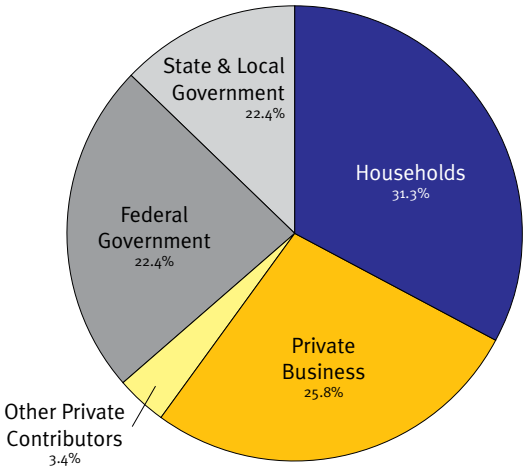


Fig. 1. *Spending distribution by contributor**

**Estimates of spending by contributor are organized according to the underlying entity (business, households, and government) financing the health care bill payer. CMS refers to these contributors as "sponsors."*

Source: Centers for Medicare and Medicaid Services (CMS). Office of the Actuary.

slightly slower than the 8.4% growth in 2004, with hospital services continuing to be robust. Medicare spending for physicians and clinical services was slower in 2005 than in 2004 due to rapid increases in the volume and intensity of services (11). However, Medicare spending for home health care marked its fifth consecutive year of double-digit growth following implementation of the prospective payment system in 2000. Even then, home health care spending growth reduced in 2005 to 10.7% from a whopping 17.9% in 2004.

While Medicare fee-for-service spending growth is slowing down with 7.8% in 2005 after growing 10.1% in 2004, with cuts for physician payments, Medicare advantage spending increased rapidly in 2005 by 19.8%, following growth of 11.7% in 2004 and -0.2% in 2003, with increasing bonuses to the plans which pay less to physicians than traditional fee-for-service Medicare. Total Medicare spending growth is expected to spike to 22.1% in 2006 with the addition of Medicare Part D, and reach $418 billion (Table 1). In 2007, Medicare spending growth is projected to slow to 6.5%, reflecting adjustments to Medicare advantage plan payments and the scheduled reduction to the physician payment update. However, from 2008

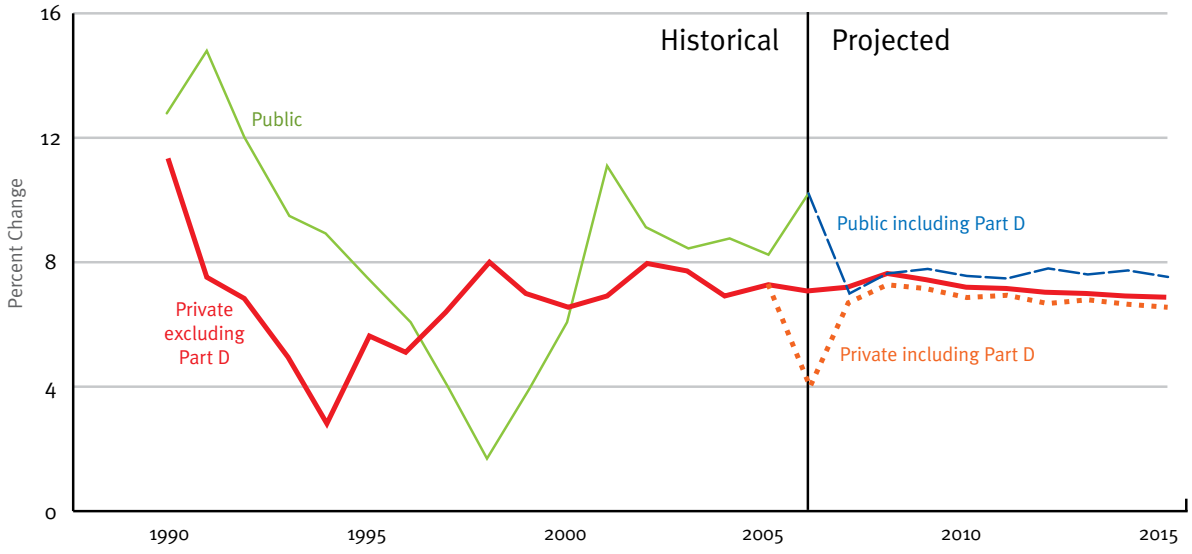


Fig. 2. *Private and public personal health care spending, excluding and including the impact of Medicare Part D, 1990-2016.*

Source: Ref (5)

Table 1. *National health expenditures (NHE), by source of funds, amounts, and average annual growth, 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	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).

Source: Ref. (5)

to 2016, it is anticipated that Medicare growth will average 7.6% per year, representing approximately 21% of total national health expenditures by the end of the projection period (5).

Medicaid

Medicaid's spending increased 7.2% in 2005 – the fourth consecutive year of decelerating growth, as states implemented cost containment initiatives between 2002 and 2005 (5-7). More than two-thirds of the funds spent on prescription drugs in 2005 came from Medicaid, with public funding accounting for 27.2% of all spending on prescription drugs. However, Medicaid drug spending growth slowed sharply in 2005, increasing just 2.8%, much lower than the 11.6% growth in 2004 and the average annual growth rate of 15.4% between 1994 and 2004.

Due to a host of reasons, Medicaid spending for physician and clinical services slowed significantly to 7.3% in 2005 from 9.6% in 2004 (5).

In contrast to the slowdown in prescription drug prices, physician and clinical services payments and hospital care, the largest share of Medicaid spending, increased to 9.2% in 2005 from 7.2% in 2004. Even then, many states have reported strain on their state budgets, resulting in shortfalls in 2005 (7,9).

To combat increasing costs, both Democrats and Republicans are pursuing greater flexibility and promoting early and periodic screening, diagnosis, and treatment with emphasis on personal responsibility. Consequently, multiple states have applied for federal waivers under the Deficit Reduction Act of 2005, and Florida has converted the acute care component of Medicaid from a "defined benefit" that entitles enrollees to a covered set of services to a "defined-contribution model," in which a beneficiary would receive a "credit" to enroll in a managed-care plan, which is considered a model policy and pursued by many other states (12).

Combined state and federal Medicaid spending is projected to be $313.5 billion in 2006, similar to 2005 (5,7). This is partly because of a shift in drug spending for dual eligibles from Medicaid to Medicare Part D, with a 36% decrease in Medicaid drug spending. However, non-drug spending is projected to grow 5.1% in 2006, compared to 7.8% in 2005. In addition, Medicaid enrollment is expected to grow at 3.3% in 2006, slightly lower than the rates in 2004 and 2005.

Medicaid hospital spending is projected to grow approximately 3.5% in 2006, which is down from 9.2% in 2005, and Medicaid physician spending is projected to grow 4.3% in 2006, which is also down from 7.6% in 2005. However, spending for home health care and other personal health care is expected to increase. State and federal Medicaid spending growth is expected to be approximately 7.3% in 2007. From 2008 through 2016, combined state and federal Medicaid spending is projected to grow an average of 8.1% per year and to represent 16.4% of national health expenditures by 2016.

Private Health Insurance

Private health insurance premium growth also slowed in 2005, increasing 6.6% to $694.4 billion, compared with 7.9% in 2004. While statistically this was the third straight year that this premium growth decelerated and the slowest rate of growth since 1997 (5), employers continue to report that health care costs remains as one of the most difficult expenses to manage, with businesses looking for innovative, long-term strategies to rein in costs while improving the overall health of their employees (13). Consequently, private health insurance benefit payments also increased 6.9% in 2005, down from 7.4% in 2004. Further, private health insurance payments for prescription drugs grew only 5.8% in 2005, well below the annual average of 16.7% during 1994 to 2004 (5). Out-of-pocket spending for health care reached $249.4 billion in 2005, with payment for prescription drugs of $50.9 billion representing the largest share of out-of-pocket spending at 20.4%, followed by physician and clinical services at 17% and dental services at 15.4%. Thus, the share of household personal income devoted to health care grew from 5.4% in 2001 to 6% in 2005.

Health insurance spending and its increases continue to be a major issue for all employers, including practices. According to the National Institutes of Health, employee benefit costs represent 37.6% of payroll, and medical benefits account for 11.6% of payroll (13). According to a report published in 2006, the fastest growing medical procedure in the United States is bariatric surgery, costing approximately $25,000 per procedure, which of course indicates that the number one health issue in America is obesity.

Figure 3 illustrates the spending distribution by category for 2005 with hospital care occupying 31%, physician and clinical services 21%, prescription drugs 10%, dental and other professional services 10%, and nursing home expenses 6%, followed by various other types of expenses including home health care and administration.

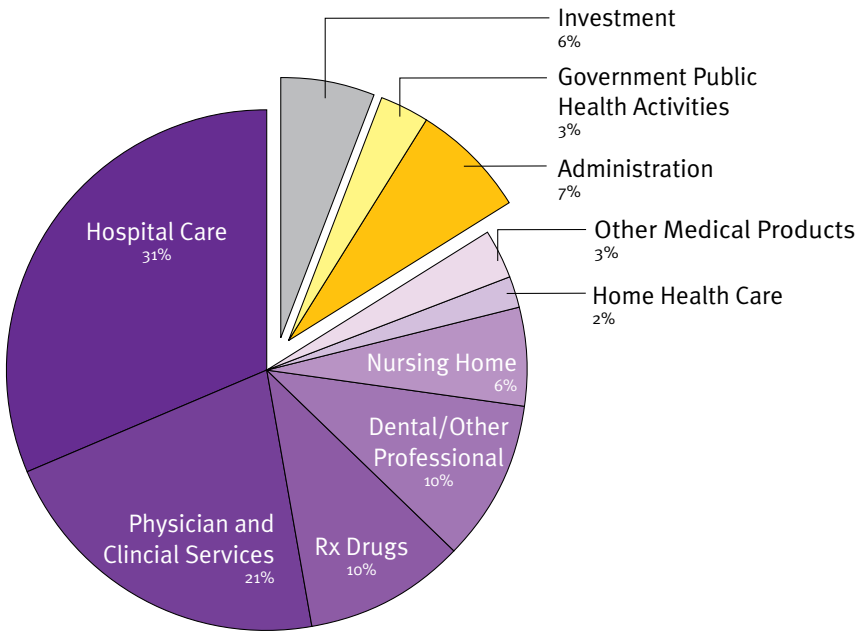


Fig. 3 *Spending distribution by category, 2005*
Source: Centers for Medicare and Medicaid Services (CMS), Office of the Actuary.
Total spending: $1.987 trillion

Private health insurance premiums are expected to rise 6% in 2006. Partially driven by Part D, private health insurance benefit spending is forecast to slow from a peak of 9.5% in 2001 to an expected low of 4.7% in 2006. In addition, growth is expected to be 7.1% by 2009 followed by a slowdown to 6% after 2010.

Out-of-Pocket Spending

Point-of-service costs have been rising, though not as rapidly as private health insurance spending and premiums. The out-of-pocket share of private health spending is projected to decline from 27.3% in 2005 to 26.4% in 2006. In addition, the share is expected to decline gradually to about 25% by 2016.

Prescription Drugs

Prescription drug spending in the United States increased 5.8% in 2005 with national spending of $200.7 billion or $6.76 per person, with a significant slowdown in 2005, which had continued over the years from a peak of 18.2% in 1999 (Fig. 3). In contrast to overall health care, private sources paid for nearly 73% of prescription drug spending in 2005 (5). Growth in drug prices, as measured by the prescription drugs and medical supplies consumer price index (CPI), increased 3.5% in 2005 which was similar to 2004 (14). With continued strong growth in mail order distribution, and a shift to generic drugs that cost, on "average, 30% to 80% less than brand name drugs (15), the "average manufacturer" price increase of 6% in 2005 was offset (16).

Drug spending growth is expected to be approximately 6.5% in 2006. The distribution of prescription drug spending by payor has changed substantially. In 2005, of the approximately $201 billion spent, private insurance contributed 47%, with Medicaid contributing 19%, and Medicare only 2% (Fig. 4). This changed in 2006, with spending of approximately $214 billion and the private insurance contribution reducing to 42%, the Medicare contribution increasing to 22% and the Medicaid contribution decreasing to 11%, with out-of-pocket distribution reducing to 19% from 25% in 2005. Beyond 2006, drug spending growth is projected to continue to accelerate with a growth rate of 7.4% in 2007 and steadily increase to a growth rate of 9.7% in 2016. Overall, the projected average annual growth rate is 8.6% (5).

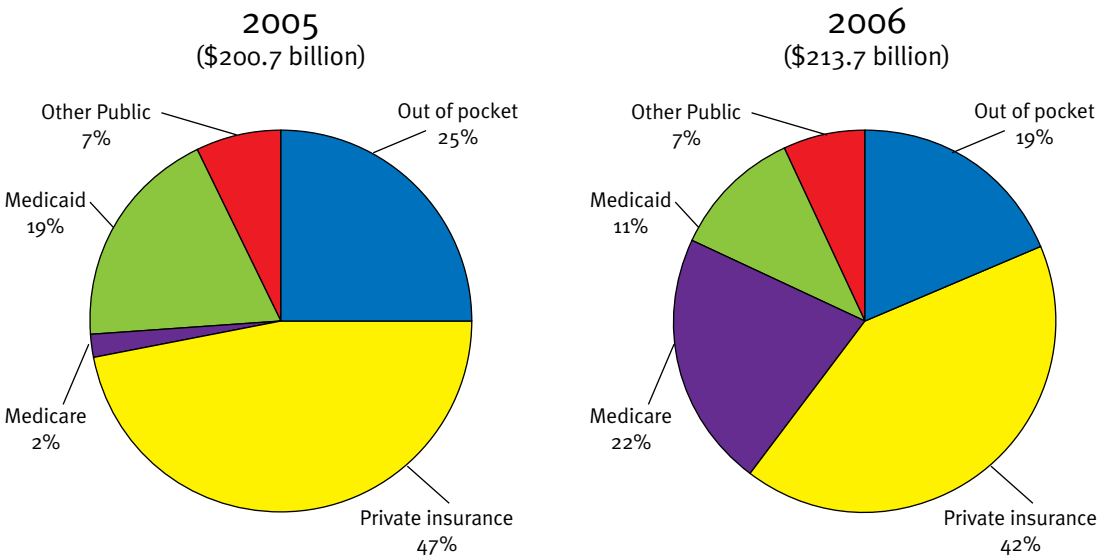


Fig. 4. *Prescription drug spending, by payor, 2005 and 2006.*
Source: Ref. (6)

Hospital Services

Hospital spending represents the largest share of overall health spending, accounting for 31% of all dollars spent on health care in 2005 (Fig. 3) (5). Yet, hospital services have seen an increase in the reimbursement rates in contrast to physician payments which stayed at a flat level or declined. Hospital spending growth remained relatively stable between 2001 and 2005, averaging 7.9% a year during this period and growing 7.9% to $611.6 billion in 2005, a much higher average annual growth compared to the period between 1993 and 2000 with a 4% growth, but below the longer term average annual growth rate of 11.2% between 1970 and 1993. Compared to this, spending on physician and clinical services slowed to 7% in 2005 with continued cuts for their services.

Hospital spending by the public sector has experienced strong growth since 2001, increasing 8.1% in 2005, slightly above the average annual growth of 7.9% between 2000 and 2004 (5). However, this rate is well above the average annual growth recorded between 1993 and 1999 of 3.8%. Private health insurance payments to hospitals also increased in 2005 by 7.6%, which continued to be the same from 1999. Private health insurance payments account for 35.5% of hospital funding (5).

Total spending on hospital services is projected to grow 6.6% in 2006, with a decrease in growth for the first time since 2003. In addition, Medicare spending growth for hospital services is also projected to slow to 7.3% in 2006, down from 8.1% in 2005. Further, from 2008 to 2016, Medicare spending growth for hospitals is forecast to average 7.2% per year (5).

Physician and Clinical Services

Only approximately 21% ($421.2 billion) of all US health spending in 2005 was used on physician and clinical services (Table 1). Even then, it was the second largest health spending category behind hospital spending. While the average growth in spending for physician and clinical services has been 7.9% per year since 2000, it was 7% in 2005. A slowdown in both public and private spending was responsible for this reduction in increased spending. However, even though this increase was less than the hospital spending increase, lawmakers have continued to focus on reducing physician and clinical services payments. Further, physician prices, as measured by the Product Price Index (PPI) and the Consumer Price Index (CPI), increased at a less rapid pace in 2005 than in 2004 (PPI and CPI growth: 1.8% and 3.3% in 2005 and 2% and 4% in 2004). It also appears that physician input price

growth, as measured by the Medicare Economic Index (MEI), also slowed in 2005 (17).

Growth in spending for physician and clinical services is projected to reduce from 7% in 2005 to 6.1% in 2006. In addition, growth in physician prices is expected to slow from 3.3% in 2005 to 1.8% in 2006, before rebounding to 3.1% in 2007. Price growth is projected to average 3.6% from 2008 to 2013 and to increase to 4.5% by 2016.

New Proposed Budget

The White House proposed its budget in February 2007 for fiscal year 2008 which pledges no new money for Medicare physician reimbursements and proposes to slash the rate of public health program growth in other areas. The White House estimated that the government will pay roughly $454 billion in fiscal year 2008 for Medicare benefits. The money is expected to be divided under the President's plan with 28.5% for hospital inpatient, 18.5% for managed care, 13.2% for drug benefits, 12.9% for physicians, 5.8% for hospital outpatients, 4.8% for nursing homes, 3.2% for home health, and 13% for various other services including hospice. This budget proposes to cut spending, and projects a savings of $75 billion over the next 5 years, with 5-year savings coming from hospital inpatient services of $38.8 billion, savings from home health agencies of $9.7 billion, savings from skilled nursing facilities of $9.2 billion, savings from Part B premiums of $7.1 billion, savings from outpatient hospital payments of $3.4 billion, and savings from Part D premiums of $3.2 billion.

In summary, the rate of the US health care spending growth in 2005 was the slowest in the health sector since 1999 and barely outpaced overall economic growth. While this is an encouraging sign for the individuals, businesses, and governments that finance health care, it is unclear whether this phenomenon is temporary or long-term and if it will have any effect on physician payments.

Physician Payment Issues

Medicare Physician Payment Reform

Since the Medicare program was created in 1965, several methods have been used to determine how much it pays physicians for each covered service. Payment systems started by compensating physicians on the basis of their charges and allowing them to balance bill beneficiaries for their full amount above what Medicare paid for each service. Ten years after the inception of the Medicare program, in 1975, Medicare payments were changed not to exceed the increase in the Medicare Economic Index or MEI (4). Since this policy was a failure in curbing the increases in the costs, from 1984 through 1991, the yearly change in fees was determined by legislation. Finally, the fee schedule replaced the payment system based on physicians' charges in 1992. The fee schedule, with multiple modifications, was decided to be a failure and was replaced by a new mechanism---the SGR---starting in 1998.

Sustainable Growth Rate Formula

The Sustainable Growth Rate Formula or SGR aims to control spending for physicians' services provided under Part B of Medicare. The SGR was instituted with 2 main goals: ensuring adequate access to physicians' services and controlling federal spending for those services in a more predictable way.

Spending per beneficiary on services paid for under the physician fee schedule grew by 65% or about 6.5% per year from 1997 through 2005, in contrast to per-beneficiary spending in the rest of Medicare which grew by about 35% over the same period. The majority of the growth of spending subject to the fee schedule was attributed mainly to increases in the fees themselves and in the volume and intensity of services being provided by physicians, with the average increase of Part B enrollment of 1% annually since 1997. The volume and intensity of services have grown at an average of about 4.5% per year from 1997 through 2005.

Mechanism of SGR

The SGR consists of 3 components, each of which is based on a statutory formula:

- Expenditure targets, which are established by applying a growth rate (calculated by formula to spending during a base period)
- The growth rate
- Annual adjustments to payment rates for physicians' services, which are designed to bring spending in line with expenditure targets over time.

Spending for Physicians' Services Under the SGR Formula

Since 2002, spending as measured by the SGR method has consistently been above the targets established by the formula. In 2005, expenditures counted under the method totaled, $94.5 billion, about $14 billion more than the $80.4 billion expenditure target for that year. At the end of 2005, total spending since

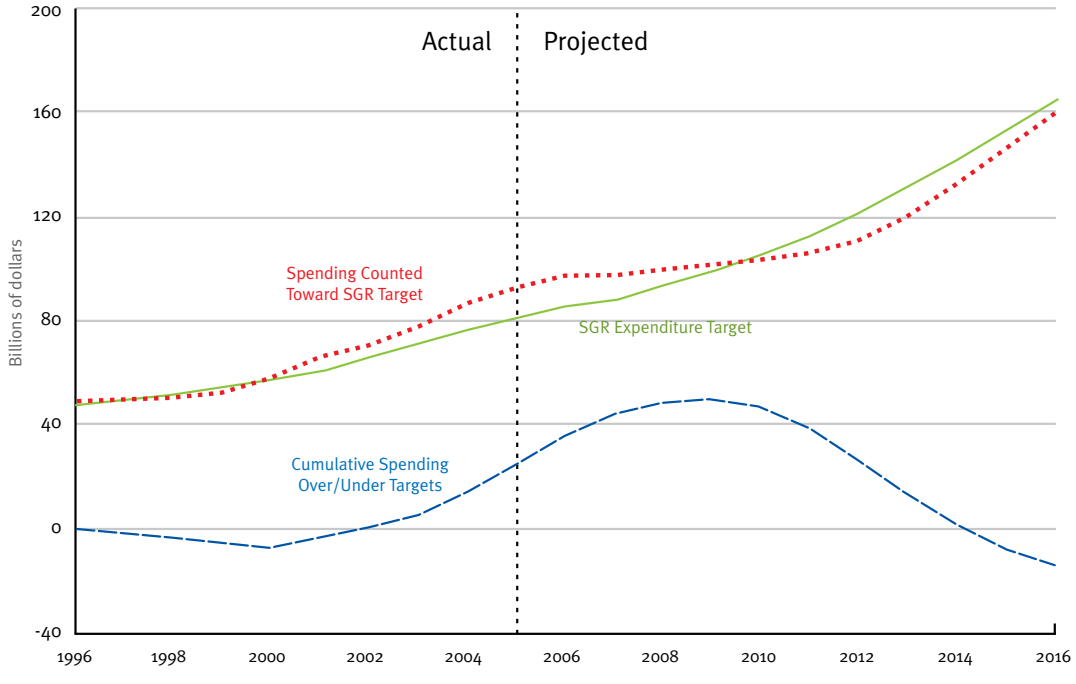


Fig. 5. *Sustainable growth rate spending compared with expenditure targets.*
Source: Refs. (7,18)

the SGR mechanism was put into place was around $30 billion above the SGR's cumulative target. Consequently, payments for physicians' services over the next several years will be substantially reduced, and could decline by a total of 25% to 35% during that period if physicians continue to provide services at the current rate.

Based on the Congressional Budget Office (CBO) projections, Medicare spending for physicians' services will grow in the coming years, but in 2012 it will be only 13% higher than it was in 2005, reflecting an average annual growth rate of less than 2%. However, the spending growth was, on average, 7.7% annually from 1997 through 2005.

Figure 5 illustrates sustainable growth rate spending compared with expenditure targets. From 1997 through 2001, cumulative spending governed by the SGR mechanism was slightly below the expenditure target set by the formula. However, starting in 2002, cumulative spending rose above the cumulative target. Consequently, projections through 2016, if the current SGR mechanism is permitted to operate, predict that the amount of spending above the cumulative target will continue to grow for several more years but will then shrink, as the annual growth in spending is slowed by the reductions in payment rates produced by the SGR mechanism (17).

The CBO estimates that spending for physician services will continue to exceed the cumulative target for the next several years (18). Unless it is modified again, the SGR method will reduce payment rates beginning in 2007 and keep updates below inflation through at least 2012, with an expected reduction in 2007 of 5.1% to 10%.

In addition, it is also important to note that under the SGR mechanism, the adjustment factor applies only to the physician fee schedule and not to payment rates for "incident-to" services, which make up about 15% of the spending counted toward the SGR targets. Thus, if spending for the "incident-to" services grows faster than the SGR targets, payment rates for physician services will be reduced to compensate for that increase (17).

Legislation Affecting the SGR Mechanism

Since 2002, the SGR mechanism has called for re-

ductions in payment rates for physician services, resulting in a cut of 4.8% in 2002, with CMS deciding on continued 4.4% cuts in 2003 and beyond. However, Congress responded by increasing payments by 1.6% for physician services in 2003. Further, as part of the Medicare Modernization Act, Congress replaced the scheduled rate reduction with an increase of 1.5% in 2004 and 2005. In 2006, the Deficit Reduction Act held 2006 payment rates at their 2005 level, overriding an impending reduction of 4.4%. In 2007, Congress again passed to hold the 2007 payments at the 2005 level, overriding an impending reduction of 5.1%.

Due to the legislative activity affecting the SGR mechanism, federal spending for Medicare Part B benefits grew more than it would have otherwise. In addition, because the legislation specified that increases in the payment rates should not be considered a change in law or regulation for purposes of determining the expenditure target, the gap between cumulative spending and the cumulative target became larger than it would have been otherwise. Under the current SGR rules, growth in spending occurring as a result of those rate increases will eventually be recouped by future adjustments to payment rates.

The Congressional Budget Office has projected budget implications of change in the SGR mechanism (Fig. 6) (17,18). The Congressional Budget Office considered 3 options, including one that would eliminate the SGR mechanism and replace its targets with annual updates based on inflation. Option 1 increases payment rates by 1% in 2007, but does not treat the update as a change in law or regulation. Option 2 increases payment rates by 1% in 2007 and treats the update as a change in law or regulation, and Option 3 allows payment rates to increase by the amount of medical inflation, essentially eliminating the SGR mechanism (4,19,20). Option 1 would increase net federal outlays by $13 billion over 2007 to 2011 and by $60 billion over the 2007 to 2016 period. Under Option 2, spending for physician services would be higher every year with increase of net federal outlays by $13 billion over 2007 to 2011 and by $31 billion over 2007 to 2016. Finally, under Option 3, spending for physician services would grow at an average annual rate of about 7.4% over the next 10 years with estimated net federal outlays rising by $58 billion over the 2007 to 2011 period and by $218 billion over the 2007 to 2016 period.

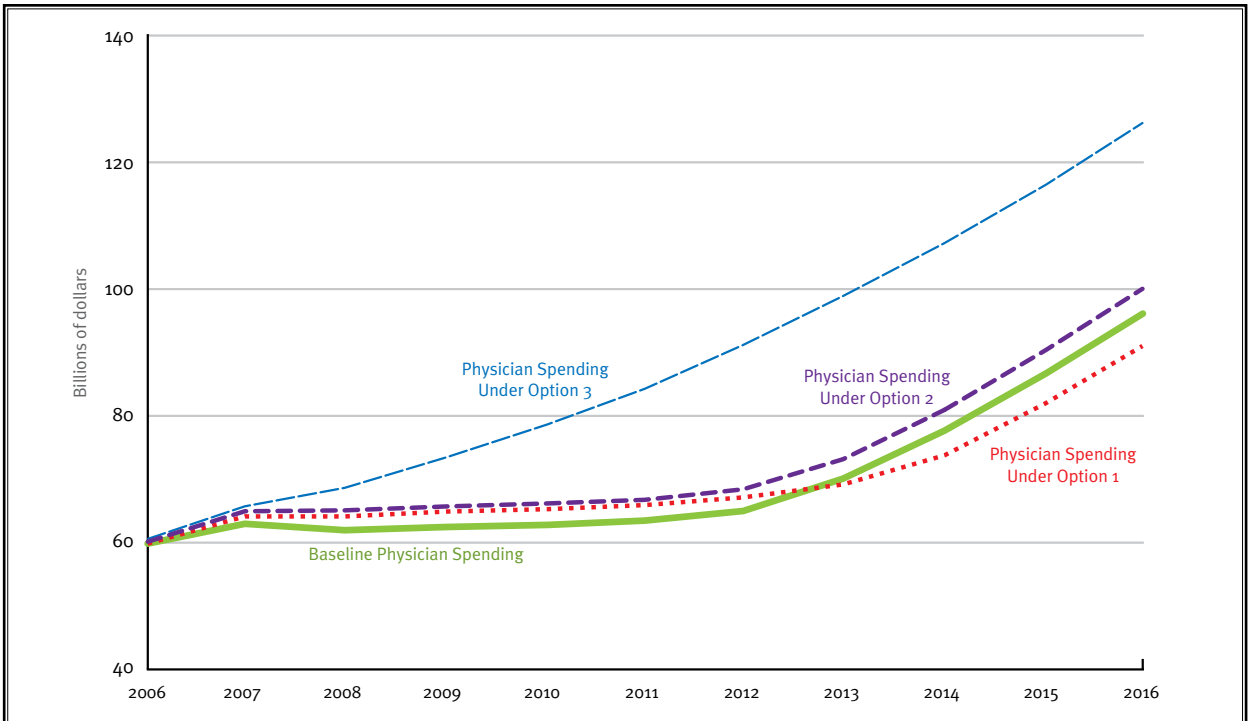


Fig. 6. *Options for changing updates to payment rates for physicians' services.*
Source: Refs. (7,18)

Calculation of the Fee Schedule

The fee schedule has 3 components: the relative value for the services; a geographic adjustment, and a national dollar conversion factor (21-26).

Relative Value

Relative Value has 3 components: physician work, practice expense, and malpractice expense. The relative value of each service is the sum of the 3 components. Each of the approximately 8,000 physician service codes is assigned its own relative value. The scale used to compare the value of one service with another is known as the resource-based relative value scale (RBRVS) (20).

On average, the work component represents 52.5% of the service's relative value, the practice expense component represents 43.6%, and the malpractice component represents 3.9% (21).

The conversion factor is a dollar figure that converts the geographically-adjusted relative value for a service into a dollar payment amount, updated each year. The Balanced Budget Act of 1999 provided for the use of a single conversion factor beginning in 1998 (20), thus replacing 3 conversion factors emerged through 1997.

2006 Changes

On December 1, 2006, CMS published a Medicare physician fee schedule that allegedly will improve the accuracy of payments to physicians for the services they furnish to Medicare beneficiaries (22). This rule changed the entire landscape of the physician payment system with increases for "evaluation and management" services, that is, time and effort that physicians spend with patients in evaluating their condition and advising and assisting them in managing their health, while at the same time reducing payments for procedural services, specifically the office component of the practice expense component of procedural services (22).

The bottom-up methodology bases the direct portion of the practice expense relative value units (PERVU) on the actual direct cost inputs, producing more accurate, intuitive, and stable PERVUs. However, many were critical of the data sources used in the calculation of resource-based PERVUs. Many requested that the proposal should be delayed until the direct cost data, aggregate specialty cost, and indirect specialty cost data derived from the aggregate specialty cost data could be verified.

CMS had concerns that, when combined with a proposed negative factor for CY 2007 and the changes to the work RVUs under the 5-year review, the shifts in the PERVUs resulting from the immediate implementation of their proposal could potentially cause some disruption for medical practices. Therefore, they proposed to transition the PE changes over a 4-year period. This would also give ample opportunity for CMS, as well as the medical specialties and the RUC, to identify any anomalies in the PE data, to make any further appropriate revisions, and to collect additional data as needed prior to the full implementation of the PE changes.

During the transition period, the PERVUs would be calculated on the basis of a blend of RVUs calculated using the methodology described with a weighted system by 25% during 2007, 50% during 2008, 75% during 2009, and 100% thereafter.

The CMS believes that the methodology will also create a system that would be significantly more stable from year to year than the current approach. Specialists should no longer experience the wide fluctuations in payment for a given service due to an aberrant direct cost scaling factor. Direct PEs should only change for a service if the service is further refined or when prices are updated, while indirect PEs should change only when there are changes in the mix of specialties furnishing the service or if any future new survey data for indirect costs are utilized.

Effective January 1, 2007, CMS implemented the Deficit Reduction Act (DRA) that will affect payment for various imaging services in the fee schedule including x-ray, ultrasound, nuclear medicine, magnetic resonance imaging, computed tomography, and fluoroscopy, but excluding diagnostic and screening mammography.

Medicaid Physician Payments

Even though Medicaid has grown to vast proportions, physician payments have been slipping for years. For 2007, 43% of the states are undertaking new Medicaid costs-containing strategies to reduce physician payments (9). Comparatively, only 27% of the states are attempting to control drug costs, 5% are attempting to reduce or restrict eligibility, and 3% of the states are attempting to increase copayments (9).

Ambulatory Surgery Center Reform

The Centers for Medicare and Medicaid Services released the proposed rule for the new ASC payment policy for 2007, 2008, and beyond on November 24, 2006 (23). A final rule implementing the revised ASC payment system is expected to be published sometime

in the spring of 2007. The changes, once finalized, will become effective January 1, 2008. However, this rule has major implications for surgery centers in general and interventional pain management in particular. In the recent past, in June 1998, CMS proposed an ASC rule which eliminated at least 60% of the interventional procedures from the ASCs and the remaining 40% faced substantial cuts. The cuts were so substantial, it would have been impossible for independent interventional pain management centers to survive and multispecialty centers would have stopped interventional techniques from being performed. Since 1998, many hearings and meetings have been held. Dialogue occurred between organizations and meetings were held with the CMS administration, and Congress. MedPAC and the GAO produced several reports, all with substantial changes (27,28). However, ambulatory surgery center payments are not subject to the SGR formula and they are included in Part B, similar to hospital outpatient department payments.

Under the proposed rule, ASCs would receive only 62% of the HOPD payment rates with an expected differential of 38% between hospital expenses and ASCs. While all sources agree that hospital expenses may be higher, they are 16% as per GAO, but not as high as 38%. (28)

CMS also provided a 2-year phase-in period. With a 2-year transition from the current ASC payment rates to the new payment rates, in 2008, rates will be a 50-50 blend with equal contributions from the ASC present payment rate and 50% from the HOPD rate. The rule will be fully implemented in 2009.

As shown in Table 2, of the top 50 procedures performed in ambulatory surgery centers in 2004, 11 are for interventional techniques, and, of these 11, 10 of them face a significant cut in 2008, 2009, and beyond.

Pay For Performance

In a recent editorial in the New England Journal of Medicine, Epstein (29) wrote that, "across the country and beyond, the number of 'pay for performance' programs has reached a tipping point." In the United States, more than half of the health maintenance organizations (HMOs) in the private sector have now initiated such programs, covering more than 80% of the country's HMO enrollees (30). Congress also has mandated the Center for Medicare and Medicaid Services to develop plans to introduce a pay for performance program into Medicare (31). Consequently, CMS has published several initiatives on this issue. On January 31, 2005, CMS issued the Medicare Pay for Performance (P4P) initiatives (32), stating that there were multiple initiatives to encourage improved quality of care in all health care settings where Medicare beneficiaries received their health care services, including physicians' offices and ambulatory care facilities, hospitals, nursing homes, home health care agencies, and dialysis facilities. To prevent confusion and to provide an effective foundation for the P4P initiative in collaboration with providers and other stakeholders, CMS provided multiple initiatives, so that providers would not be pulled in conflicting directions, and that they would have support for achieving actual improvement. In the effort, to develop and implement these initiatives, CMS is collaborating with a wide range of other public agencies and private organizations who have a common goal of improving quality and avoiding unnecessary health care costs, including the National Quality Forum (NQF); the Joint Commission of the Accreditation of Health care Organizations (JCAHO); the National Committee for Quality Assurance (NCQA); the Agency for Health care Research and Quality (AHRQ); the American Medical Association (AMA) and many other organizations. Further, CMS is providing technical assistance to a wide range of health care providers through its quality improvement organizations (QIOs). In October 2005 (33), Medicare announced the creation of Physician Voluntary Reporting Program, and provided 36 evidence-based measures to be reported in the first phase of this program. While these efforts move forward in the United States, the British actually have gone a league further, introducing their own version of pay for performance that puts 25% to 30% of the income of family practitioners at stake (34). Thus, it has become harder and harder for United States' physicians to dispute the rationale behind realignment of payment incentives in health care resulting in higher quality and more efficient care.

Even though the rationale behind pay for performance is compelling the evidence base linking such programs to a better quality of care is controversial (35-42). Still, the need to improve both the quality and safety of health care in the United States is well documented. Multiple strategies to stimulate improvement include regulation, measurement of performance and subsequent feedback, and marketplace competition (37,43). Despite limited evidence, public reporting of quality data and pay for performance have emerged as 2 of the most widely advocated strategies for ac-

Table 2. *Projected payment changes for the top 11 interventional procedures from top 50 procedures of 2004 ASC utilization data*

HCPC	Short Description	ASC 2007 Payment Rate	ASC 2008 Proposed Payment (w/ 50/50 Transition)	% change from 2007	ASC 2009 Proposed Payment (62% of 2007 HOPD final Rate)	% change from 2007	2004 Utilized Services	2004 Actual Total Payments	2008 estimated Total Payments based on 2004 Utilization	2009 estimated Total Payments based on 2004 Utilization
62311	Inject spine l/s (cd)	$333	$293.08	-12%	$242.39	-27%	230413	$70,249,466	$61,819,530 (-12%)	$51,282,110 (-27%)
64483	Inj foramen epidural l/s	$333	$293.08	-12%	$242.39	-27%	107713	$30,447,849	$26,794,107 (12%)	$22,226,930 (-27%)
64476	Inj paravertebral l/s add-on	$333	$276.51	-17%	$218.19	-34%	100563	$14,686,352	$12,189,672 (-17%)	$9,692,992 (-34%)
64475	Inj paravertebral l/s	$333	$293.08	-12%	$242.39	-27%	63126	$14,675,192	$12,914,169 (-12%)	$10,712,890 (-27%)
64484	Inj foramen epidural add-on	$333	$293.08	-12%	$242.39	-27%	47094	$7,932,487	$6,980,589 (-12%)	$5,790,716 (-27%)
62310	Inject spine c/t	$333	$293.08	-12%	$242.39	-27%	36388	$11,081,642	$9,751,845 (-12%)	$8,089,599 (-27%)
64623	Destr paravertebral nerve add-on	$333	$293.08	-12%	$242.39	-27%	34786	$5,633,154	$4,957,176 (-12%)	$4,112,202 (-27%)
64472	Inj paravertebral c/t add-on	$333	$276.51	-17%	$218.19	-34%	23379	$3,614,976	$3,000,430 (-17%)	$2,385,884 (-34%)
27096	Inj for sacroiliac joint anesth (G0260)	$333	$276.51	-17%	$218.19	-34%	19664	$4,706,290	$3,906,221 (-17%)	$3,106,151 (-34%)
64622	Destr paravertebrl nerve l/s	$333	$413.42	24%	$463.81	39%	16507	$4,313,314	$5,348,509 (+24%)	$5,995,506 (+39%)
64470	Inj paravertebral c/t	$333	$293.08	-12%	$242.39	-27%	13718	$3,389,326	$2,982,607 (-12%)	$2,474,208 (-27%)
TOTAL							693,351	$170,730,048	$150,644,854 ↓12% From 2004 Total	$125,869,189 ↓27% from 2004

celerating quality improvement (44-48). Thus, it is believed that public reporting stimulates interest in the quality on the part of physicians and hospital leaders, perhaps by appealing to their professional ethos (37,49). Despite the instinctive appeal of pay for performance and public reporting, little is known about the individual or combined benefits of such programs (37,49-51), and both are the subject of ongoing debate (52-57). Most previous studies have looked at incentives to physicians and medical groups (29). The data showing efficacy are inconsistent, and some studies have revealed unintended effects, such as improvement in documentation without much change in the underlying quality of care (58). However, one study also examined cost effectiveness (59) and showed that monetary incentives had beneficial effects on both the quality and the cost of nursing home care. In addition, the nursing homes admitted more people with severe disabilities, and the average lengths of their stays were shortened. They concluded that if implemented, this kind of incentive program would save Medicaid substantial amounts of money, but not through lowering nursing home payments. The savings would be realized due to more efficient use of nursing homes, transferring more people out of hospitals, and thereby saving unnecessary hospital reimbursement.

Lindenauer et al (37) reported the initial results of a 3-year program in which more than 200 hospitals were participating in a quality-benchmarking premier database for a Medicare demonstration in which payments would be allocated partially on the basis of quality performance. Hospitals performing in the top decile received a 2% increment in Medicare payments, whereas hospitals in the second decile received a 1% increment. Hospitals that under-performed by failing to exceed the performance of hospitals in the lowest two deciles as established during the program's first year were liable for a 1% to 2% financial penalty in the third year. As compared with the control group, the pay for performance hospitals showed greater improvement in all composite measures of quality, including measures of care for heart failure, acute myocardial infarction, pneumonia and a composite of 10 measures. After adjustments were made for differences in baseline performance and other hospital characteristics, pay for performance was associated with improvements ranging from 2.6% to 4.1% over a 2-year period. The data from Lindenauer et al (37) suggests that the causal chain may be complicated. Thus, they challenged the leading rationale for providing financial incentives (50,60). These findings leave the providers, payors, and regulators with many uncertainties concerning the level of financial incentives needed and the optimal formula for payment that might be used for attaining high levels of performance. Epstein (29) writes, "the CMS may have much to gain from recognizing that pay for performance is fundamentally a social experiment likely to have only modest incremental value."

In the waning hours of the last session, Congress not only repealed a proposed 5% cut in Medicare payments to physicians, but also made provision for a Medicare payment bonus of 1.5% for physicians who agreed to submit data to the program as part of its effort to improve quality of care. To see the impact of such a program, we need to wait and see as the data submission starts in July 2007 and payments will not be provided until early 2008.

Interventional Pain Management At The Crossroads

Growth Patterns of Utilization

Chronic pain that is not amenable to routine treatment methods is one of the most common and therapeutically challenging conditions in the U.S. population (61,62). Due to the increased prevalence of chronic pain, utilization of interventional techniques also has been increasing substantially since 1998 (19,63) and Medicare claims have been increasing substantially as well (64). Table 3 illustrates the frequency of utilization of multiple interventional techniques, (excluding continuous epidurals, intraarticular injections, trigger point and ligament injections) from 1998 to 2005. As shown in Figure 7, utilization has been increasing from 1,429,277 procedures performed in 1998 to 4,041,464 procedures in 2005, an increase of 183%. Further, while 65% of the procedures were performed in a facility setting in 1998, including hospital outpatients and ambulatory surgery centers, this proportion decreased to 53% in 2005, while procedures performed in an office setting increased. Further, performance of these procedures by physicians not specializing in interventional pain management has increased the utilization of various nerve blocks, excluding epidurals, disc injections, and facet joint blocks, in Medicare recipients from 157,446 in 1998 to 335,116 in 2005, an increase of 112%; for various types of epidural, spinal neurolysis, and adhesiolysis procedures from 148,219 in 1998 to 237,035 in 2005, an increase of 59%; for

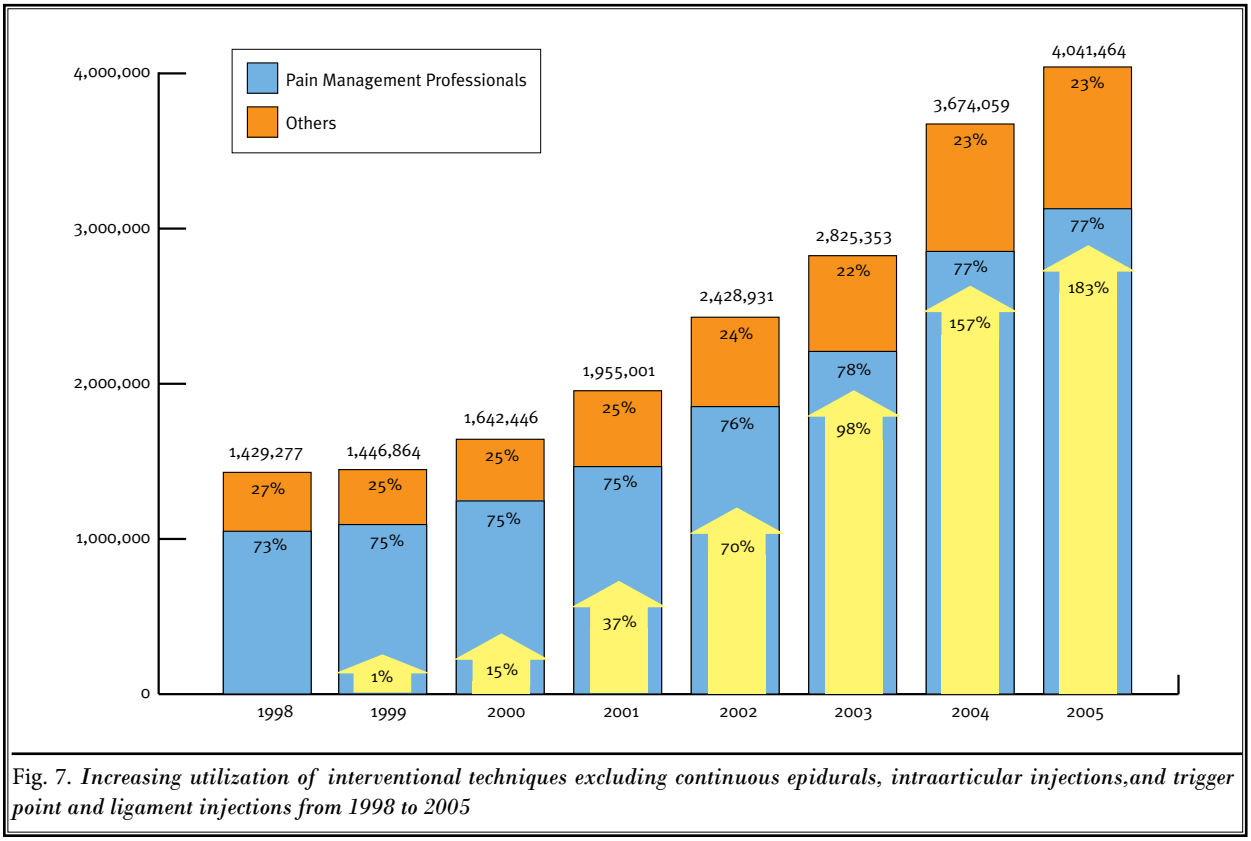


Fig. 7. *Increasing utilization of interventional techniques excluding continuous epidurals, intraarticular injections,and trigger point and ligament injections from 1998 to 2005*

Table 3. Summary of the frequency of utilizations of various categories of interventional procedures (excluding continuous epidurals, intraarticular injections, trigger point and ligament injections) in the Medicare population from 1998-2005.

	1998	1999	2000	2001	2002	2003	2004	2005
Epidural, spinal neurolysis, and adhesiolysis procedures	802,735 (76%)	803,078 (74%)	860,787 (79%)	1,013,552 (78%)	1,199,324 (74%)	1,370,862 (71%)	1,637,494 (65%)	1,776,153 (65%)
Facet joint interventions and SI joint blocks	274,130 (73%)	304,564 (72%)	424,796 (67%)	543,509 (62%)	708,186 (58%)	884,035 (53%)	1,354,242 (46%)	1,501,222 (47%)
Disc Procedures (Discography & Disc Decompression)	10,484 (84%)	13,113 (84%)	14,983 (87%)	17,229 (87%)	20,194 (81%)	24,362 (80%)	24,263 (79%)	27,950 (78%)
Vertebroplasty/ Kyphoplasty	0	0	3,825 (100)	20,593 (100)	25,060 (99%)	31,048 (99%)	42,882 (95%)	51,034 (95%)
Implantable and Stimulators	12,376 (100%)	12,694 (100%)	13,735 (100%)	16,840 (100%)	18,948 (100%)	24,709 (100%)	30,848 (96%)	37,013 (96%)
Other types of nerve blocks	329,552 (33%)	313,415 (33%)	324,320 (35%)	343,277 (35%)	457,219 (30%)	490,337 (28%)	583,970 (28%)	648,092 (28%)
Total	**1,429,277 (65%)**	**1,446,864 (64%)**	**1,642,446 (67%)**	**1,955,001 (67%)**	**2,428,931 (62%)**	**2,825,353 (58%)**	**3,674,059 (52%)**	**4,041,464 (53%)**

Source: Utilization data by Specialty from CMS

( ) shows percentage of procedures utilized in facility settings (HOPD and ASC)

facet joint interventions and sacroiliac joint blocks, from 64,858 in 1998 to 278,250 in 2005, an increase of 329%. Overall, physicians not specializing in interventional pain management performed 382,640 procedures in 1998 compared to 920,552 procedures in 2005, an increase of 140%.

Increasing utilization of facet joint interventions and sacroiliac joint blocks from 1998 to 2005 has been reported to be 448% as illustrated in Table 4 and Figure 8, whereas, increasing utilization of various types of epidural, spinal neurolysis, and adhesiolysis procedures in Medicare recipients was 121% from 1998 to 2005 as illustrated in Table 5 and Figure 9. In addition, multiple procedures which were included in this analysis showed explosive growth.

Spending Growth

The overall rate of SGR-related expenditures decreased from 11.4% in 2004 to an estimated 8.5% in 2005. However, the volume and intensity of services continued to grow at a higher rate, and that is a significant factor in the growth of SGR-related expenditures. According to MedPAC, between 1999 and 2004, the growth in the volume of imaging services for Medicare beneficiaries outstripped the growth of other services provided by physicians (Fig. 10). The statistics also show that the share of Medicare payments to radiologists for imaging services had declined to 45% by 2003, while shares received by cardiologists have increased to 25%. In 2004, the cost of imaging services reimbursed by all health insurers and paid for out-of-pocket by patients accounted for close to $100 billion, or an average of approximately $350 per person in the United States. However, "other procedures" (into which interventional procedures fall) in Figure 10 also show significant growth. In the evaluation of spending growth by type of service from 2004 to 2005, procedures rank second in contributing towards the increase. Procedures represented 26% of the actual spending, and 29% of the increase in spending for 2005. In fact, spending on procedures was higher than that for imaging (27%) and lower than evaluation and management services (31%) (11). Thus, the rise of new technology together with increases in payments sharply reduced Medicare payments for some imaging services. It is expected that the same will happen to interventional techniques such as any technology in health care in the United States. In fact, in the analysis of minor procedure codes for 2005 contributing to the total increase in SGR spending, while the largest contributors to the increases in this subcategory were physical therapy, dermatology, and podiatry, interventional pain management also made an impact with the inclusion of lumbar facet joint nerve blocks, lumbar transforaminal epidurals, and some other procedures which were included in other minor procedures (Table 6) (11). Lumbar facet joint nerve blocks (CPT 64475) contributed $77 million in charges, with a demonstrated increase of 30% from 2004 to 2005 and an increase in charges of 68.2%. Similarly, lumbar transforaminal epidural injections (CPT 64483) contributed $108 million in charges with a 26.8% increase in services from 2004 and 2005 and a 31.2% increase in charges. These 2 procedures contributed to a total increase in SGR spending of only 0.10%, with a total of 10% of SGR spending for all minor procedures.

Facility Payments

Facility payments for hospital outpatient procedures have been on the rise and continue to rise as shown in Figure 11. As shown in this figure, payments have increased significantly for interventional procedures.

Office-Based Payments

Based on the December 2006 physician payment rule, practice expenses have been recalculated based on the bottom-up methodology. This reorganization had a significant effect on payments for physicians performing interventional procedures in an office setting for the portion of the office expense. The decrease for the most commonly performed interventional procedures will be as follows:

- Physician Fee in Facility Setting (ASC or HOPD)

	Transitional for 2007	Fully implemented
• Epidurals	-0.5% to -0.7%	-2.7% to -3.0%
• Facet Blocks	-0.5%	-0.4% to -1.9%

- Physician Fee in a Non-facility Setting (Office)

• Epidurals	-6.9% to -9.1%	-26.9% to -34.8%
• Facet Blocks	-7.8% to -9.9%	-30.7% to -38.8%

ASC Payments

Payments for ASCs will substantially decrease for the most commonly performed interventional procedures. Of the top 50 procedures most commonly performed in ambulatory surgery centers, 11 procedures, or 22% of them, were interventional procedures. Of these 11 procedures, 10 face cuts of 12% to 17% with one procedure showing an increase of 24% in 2008. In 2009, these cuts will be even steeper and more dra-

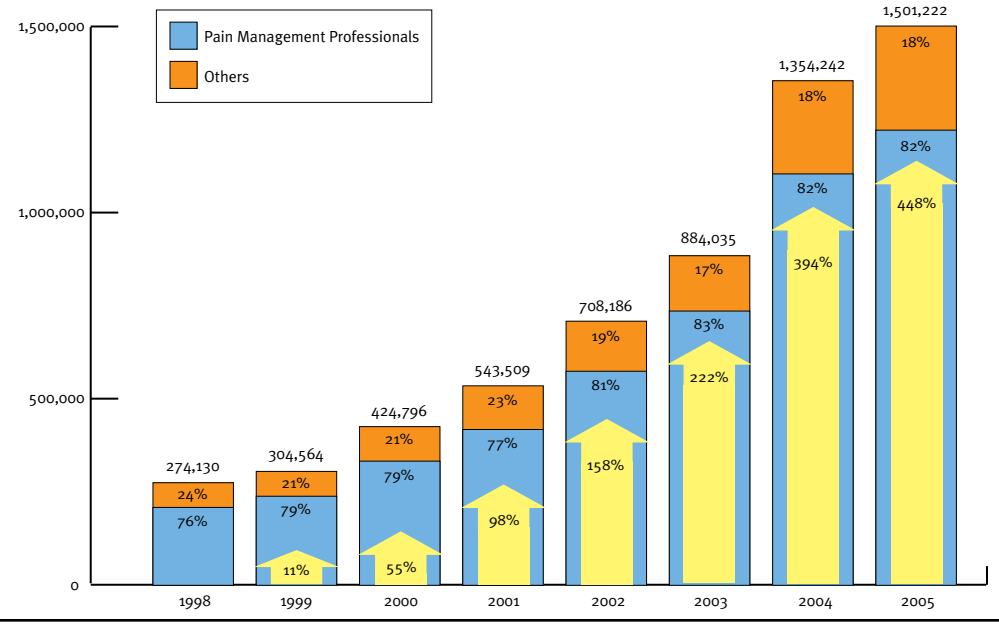


Fig. 8. *Increasing utilization of facet joint interventions and sacroiliac joint blocks from 1998 to 2005*

Table 4. *Comparison of frequency of utilization of Facet joint interventions and sacroiliac joint blocks in Medicare recipients from 1998-2005.*

CPT	Code Description	1998	1999	2000	2001	2002	2003	2004	2005
27096	Sacroiliac joint blocks	2,374 (86%)	2,281 (81%)	49,554 (59%)	85,664 (51%)	101,749 (48%)	128,864 (42%)	172,704 (41%)	188,606 (42%)
64470	C/T facet joint block – single	6,286 (65%)	6,438 (65%)	24,751 (48%)	34,500 (43%)	41,935 (44%)	49,958 (40%)	77,620 (34%)	86,541 (34%)
64472	C/T facet joint block – additional	349 (90%)	574 (82%)	33,573 (62%)	47,684 (55%)	61,981 (53%)	75,489 (49%)	126,145 (38%)	141,999 (38%)
64475	L/S facet joint block – single	84,854 (64%)	87,395 (65%)	101,539 (61%)	121,234 (59%)	155,620 (55%)	189,263 (51%)	286,394 (45%)	316,158 (45%)
64476	L/S facet joint block add.	145,267 (75%)	163,170 (73%)	153,252 (71%)	175,854 (67%)	240,243 (61%)	299,802 (55%)	467,823 (46%)	519,689 (46%)
64622	L/S facet neurolysis – single	10,371 (84%)	13,079 (80%)	15,117 (84%)	18,792 (79%)	25,744 (77%)	35,315 (70%)	57,053 (61%)	63,228 (61%)
64623	L/S facet neurolysis – additional	24,255 (88%)	31,018 (85%)	38,206 (88%)	47,632 (81%)	63,522 (76%)	83,166 (69%)	132,351 (61%)	146,688 (61%)
64626	C/T facet neurolysis – single	25 (100%)	35 (100%)	2,750 (83%)	3,815 (77%)	5,190 (76%)	6,877 (70%)	10,691 (61%)	12,015 (61%)
64627	C/T facet neurolysis – additional	349 (90%)	574 (82%)	6,054 (87%)	8,334 (77%)	12,202 (73%)	15,301 (69%)	23,461 (63%)	26,298 (63%)
Total		274,130 (73%)	304,564 (72%)	424,796 (67%)	543,509 (62%)	708,186 (58%)	884,035 (53%)	1,354,242 (46%)	1,501,222 (47%)

Source: Utilization data by Specialty from CMS
( ) shows percentage of procedures utilized in facility settings (HOPD and ASC)

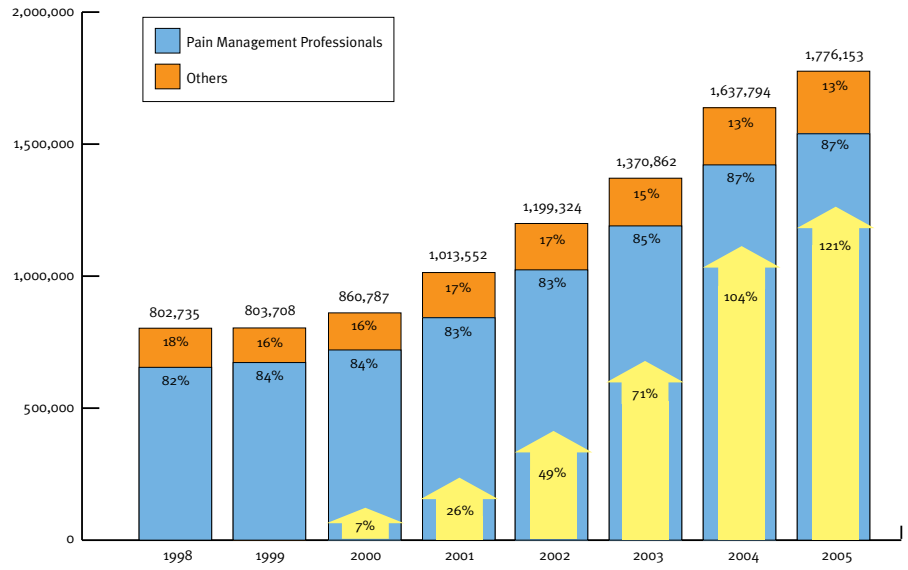
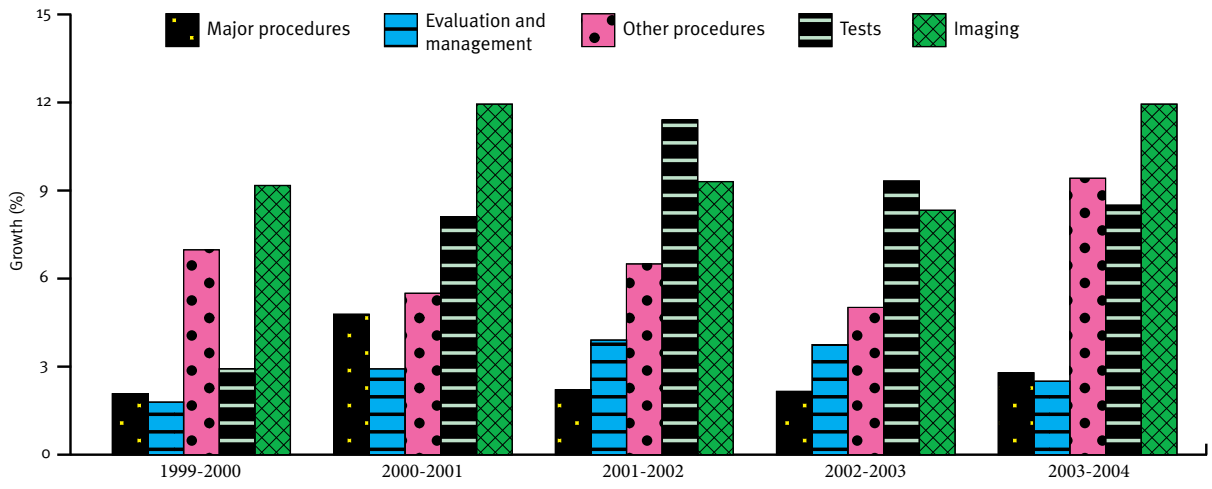


Fig. 9. *Increasing utilization of various types of epidurals, spinal neurolysis, and adhesiolysis procedures in Medicare recipients from 1998 to 2005*

Table 5. *Comparison of frequency of utilization of various types of epidural, spinal neurolysis, and adhesiolysis procedures in Medicare recipients from 1998 to 2005.*

HCPCS	Description	1998	1999	2000	2001	2002	2003	2004	2005
62263	Epidural lysis of adhesions – 2 or 3 days	1,001 (88%)	1,558 (80%)	8,778 (91%)	10,463 (88%)	14430 (83%)	7,183 (83%)	2,628 (81%)	2,972 (81%)
62264	Epidural lysis of adhesions – 1 day	N/A	N/A	N/A	N/A	724 (84%)	9,733 (79%)	14,152 (76%)	15,392 (76%)
62280	Subarachnoid neurolysis	226 (91%)	233 (68%)	197 (89%)	242 (89%)	225 (100%)	233 (78%)	175 (61%)	235 (67%)
62281	Cervical epidural neurolysis	1,719 (80%)	1,569 (72%)	1,199 (83%)	1,320 (73%)	1,305 (68%)	1,233 (59%)	848 (52%)	1,043 (51%)
62282	Lumbar epidural neurolysis	9,543 (58%)	10,883 (51%)	11,139 (48%)	11,990 (55%)	10,392 (58%)	9,651 (49%)	7,804 (42%)	8,740 (42%)
62310	Cervical/Thoracic epidural	64,563 (86%)	69,381 (81%)	75,741 (83%)	84,385 (80%)	99,117 (76%)	109,783 (73%)	130,649 (67%)	141,652 (67%)
62311	Lumbar/Sacral epidural	608,453 (85%)	619,543 (80%)	618,362 (83%)	702,713 (81%)	786,919 (77%)	838,858 (74%)	878,174 (70%)	945,350 (70%)
64479	C/T Transforaminal epidural – single	3,292 (34%)	3,213 (32%)	13,454 (52%)	14,732 (52%)	18,583 (50%)	21,882 (48%)	25,182 (48%)	27,844 (48%)
64480	C/T Transforaminal epidural – each additional	17,066 (22%)	12,931 (26%)	9,434 (60%)	8,537 (47%)	10,835 (39%)	15,769 (34%)	18,094 (36%)	20,525 (37%)
64483	L/S Transforaminal – single	45,385 (34%)	44,751 (32%)	85,006 (66%)	125,534 (72%)	177,679 (70%)	242,491 (67%)	363,744 (62%)	395,508 (62%)
64484	L/S Transforaminal – each additional	51,487 (23%)	39,016 (26%)	37,477 (63%)	53,133 (69%)	79,115 (64%)	114,046 (62%)	196,044 (54%)	216,892 (54%)
Total		802,735 (76%)	803,078 (74%)	860,787 (79%)	1,013,552 (78%)	1,199,324 (74%)	1,370,862 (71%)	1,637,494 (65%)	1,776,153 (65%)

Source: Utilization data by Specialty from CMS
( ) shows percentage of procedures utilized in facility settings (HOPD and ASC). N/A- not available



Adapted from ref. (24)

Fig. 10. *Growth in the volume of physician services per Medicare beneficiary, 1999-2004.*

Table 6. *Minor procedures that contributed to the total increase in spending.*

Code	Description	2005 Charges (in millions)	Increase In Services	Increase In Charges	Percentage of Total SGR Spending	Contribution to Total Increase in SGR Spending
97110	Therapeutic exercises	$1,001	25.7%	23.5%	1.06%	0.25%
97140	Manual therapy	$377	32.1%	32.9%	0.40%	0.13%
97112	Neuromuscular reeducation	$164	37.3%	41.6%	0.17%	0.07%
64475	Lumbar facet joint nerve block	$77	30.0%	68.2%	0.08%	0.06%
20610	Drain/inject, joint/bursa	$273	15.5%	17.9%	0.29%	0.05%
17304	1st stage Mohs, up to 5 specimens	$242	16.5%	19.7%	0.26%	0.05%
64483	Lumbar transforaminal epidural	$108	26.8%	36.2%	0.11%	0.04%
97530	Therapeutic activities	$194	15.0%	19.0%	0.21%	0.04%
11721	Debride nail, 6 or more	$268	5.9%	11.0%	0.28%	0.03%
	Other Minor Procedures	$3,644	23.0%	9.9%	3.86%	0.38%
Total	All Minor Procedures	$6,351	23.4%	15.6%	6.72%	1.05%

Source: Kuhn HB. (Letter) Department of Health and Human Services, Centers for Medicare and Medicaid Services. To Glen Hackbarth, Chair, Medicare Payment Advisory Commission. April 7, 2006. Ref. (3)

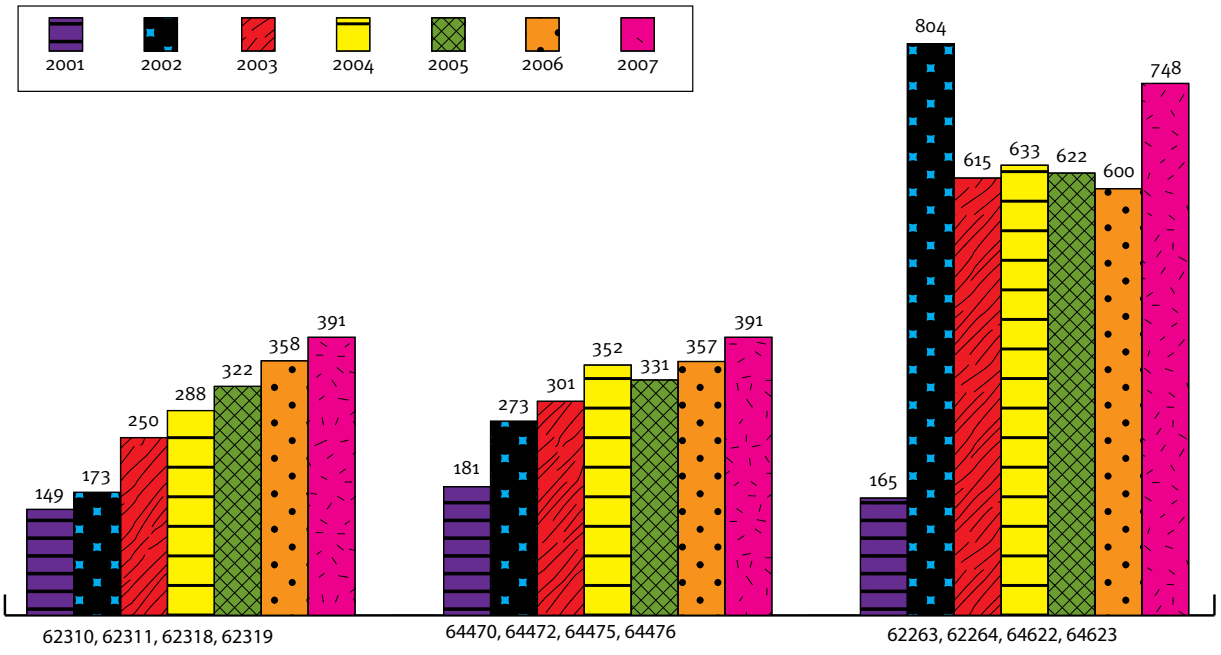


Fig. 11. *Hospital outpatient payment rates.*

matic and will continue to be so, at least for several years, unless the rule determining the way the fee is calculated is significantly changed. As it stands now, the cut will be 27% for 2009 with 135% (27% per year) over the next 5 years and 270% over a period of 10 years. Table 2 illustrates these drastic cuts.

Physician Payments

Physician payment rates for 2007 under the new schedule have the same conversion rate of 2006, but with significant fluctuations in practice expense RVUs.

Conclusion

As an emerging specialty, Interventional Pain Management continues to face problems, which are disproportionate compared to other established specialties. These problems take the form of lack of appropriate recognition of this new specialty, increased utilization, and perceived lack of evidence for interventional techniques resulting in increased levels of scrutiny, and reduced reimbursements.

Lack of recognition of a new emerging specialty is common. However, this has resulted in disproportionate cuts for office-based procedures because of inaccurate calculation of practice expenses. However, due to the efforts of various groups, including the American Society of Interventional Pain Physicians (ASIPP), changes have been made to a certain extent to ensure that the calculation of practice expenses is based upon all physician specialty expenses instead of merely anesthesiology. While this change has lessened the dramatic impact of cuts based on practice expenses, the cuts have been significant and will affect patient access and drive the provision of those procedures into a higher cost environment, specifically hospital outpatient departments. Interventional Pain Management is eagerly awaiting the completion of the separate multispecialty survey now being conducted to provide a more accurate reflection of the actual costs of interventional pain practitioners in managing their offices and should result in a more realistic and equitable practice expense measurement.

Increasing utilization is a major factor. Rapid advances in interventional pain management have enhanced the ability of physicians to diagnose and treat a variety of painful conditions. While this enhanced ability often leads to improved outcomes and improved access to patients, these improvements, combined with a rise in the entrepreneurial activity by physicians, the practice of defensive medicine in order to

avoid malpractice suits, and the power of patients who demand more tests and treatments, have led to sharp increases in the volume of interventional pain management services and consequently the expenditures for them. This will have similar effects on interventional pain management as it has on imaging services (65,66). In recent years, due to substantial growth in imaging services and their costs, many payors, both in the public and private sector, are restricting these services, a problem which is also faced by interventional pain management. Pre-certification for interventional techniques long existent for the workers' compensation system, has been extended substantially in recent years to many of the private insurers.

Much of the rapid growth in interventional techniques is attributable to expanded coverage of the procedures in many settings, including facility and non-facility, but also to the increased understanding of pain by both the professional community and the patient community who assert their right to be managed for their pain problems. Additionally, there is also the emergence of sophisticated and accurate diagnostic and therapeutic interventions. Nevertheless, there has been, and continues to be, a serious problem created by a perceived lack of evidence for interventional pain procedures. With the emergence of evidence-based medicine and the establishment of clinical guidelines based on this evidence (61,62,67) this problem is gradually being addressed and will help to ensure the legitimacy, credibility, and necessity of increased interventional pain management utilization as we approach the critical crossroads ahead.

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