

CHAPTER

# 9

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**Reducing beneficiary coinsurance  
under the hospital outpatient  
prospective payment system**

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# R E C O M M E N D A T I O N

Congress should continue the reduction in outpatient coinsurance to achieve a 20 percent coinsurance rate by 2010.

**\*YES: 13 • NO: 0 • NOT VOTING: 0 • ABSENT: 3**

**\*COMMISSIONERS' VOTING RESULTS**

# Reducing beneficiary coinsurance under the hospital outpatient prospective payment system

## In this chapter

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- Assessing beneficiary coinsurance
  - Reducing beneficiary coinsurance
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**O**n August 1, 2000, the Health Care Financing Administration implemented prospective payment for hospital outpatient services. Under the new payment system, beneficiaries' share of total payments, which had reached 50 percent, will slowly decline. Beneficiaries' coinsurance liability is variable, with a few beneficiaries facing high levels of coinsurance, including those receiving repeat services (such as chemotherapy) and individuals in poorer health. MedPAC has estimated that achieving a 20 percent coinsurance rate under the August 2000 policy would take decades. Given concern over the higher level of coinsurance for outpatient services compared with other Medicare services and the potential for coinsurance to pose a financial barrier to access, MedPAC has previously recommended that the Congress accelerate the rate at which beneficiary coinsurance is reduced. The Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 modified Medicare policy to phase in a reduction of coinsurance to 40 percent by 2006. The Commission recommends continuing the reduction to achieve a rate of 20 percent coinsurance in 2010. We estimate that in 2010, the incremental cost of our recommendation would be about 15 percent of total payments for hospital outpatient services, before accounting for offsetting increases in Part B premiums.

Before the outpatient prospective payment system (PPS) was implemented, beneficiary coinsurance for outpatient services was based on 20 percent of the hospital's charges, while the Medicare program based its own payments on the lower of the hospital's costs and charges or a blend of the lower of costs and charges with the applicable fee schedule, depending on the service provided. Over time, hospitals' charges grew more quickly than costs, so that the share of total payments paid by beneficiaries grew to about 50 percent. In this context, coinsurance is the portion of the bill for which the beneficiary is responsible. Beneficiaries may have supplemental insurance to cover these costs, or they may pay them out of pocket.

To address the growing share of outpatient payments paid by beneficiaries, the Balanced Budget Act of 1997 (BBA) directed the Health Care Financing Administration (HCFA) to implement a gradual decrease in beneficiaries' share of total payments for outpatient services through the PPS. The outpatient PPS classifies services into ambulatory payment classification (APC) groups for purposes of payment. In the new payment system, coinsurance is set at 20 percent of historical national median charges for all services in the group. For all APC groups with coinsurance rates greater than 20 percent of total payment, the existing coinsurance amounts are frozen. Thus, as payment rates are updated each year, the percentage that is coinsurance declines. As soon as coinsurance represents 20 percent of the total payment, coinsurance will increase together with Medicare's payment amounts according to the annual update. This so-called buy-down process will be achieved at a different time for each APC group, depending on the initial coinsurance percentage. MedPAC has estimated that achieving a 20 percent coinsurance rate will take 30 to 40 years, on average, with the process taking even longer for certain services (MedPAC 2000a). The Balanced Budget Refinement Act of 1999 (BBRA) also limited

coinsurance somewhat by placing a dollar cap on coinsurance for a given service equal to the inpatient deductible (\$792 in 2001). This provision affects about 20 APC groups.<sup>1</sup>

MedPAC has previously recommended that the Congress accelerate the rate of beneficiary coinsurance buy-down and that the Congress specify a date certain for achieving a 20 percent rate of coinsurance. The Commission has not suggested a date by which to achieve 20 percent coinsurance due to lack of information about the impact of such a policy on beneficiaries and on program costs.

This chapter presents evidence of the distribution of beneficiaries' existing outpatient coinsurance liability and evaluates a policy to accelerate the buy-down of coinsurance similar to that included in the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA), which phases in a reduction of beneficiary coinsurance to 40 percent in 2006. We also analyze a continuation of that policy until a rate of 20 percent coinsurance is achieved. In light of these analyses, we recommend that:

#### RECOMMENDATION

**Congress should continue the reduction in outpatient coinsurance to achieve a 20 percent coinsurance rate by 2010.**

The Commission's concern is motivated by a number of factors. First, the high rates of coinsurance pose a disproportionate financial liability on beneficiaries using outpatient services. The 50 percent rate of coinsurance is out of line with the 20 percent or less charged for other Part B services. It is also distinct from the cost-sharing for inpatient hospital services, where a deductible is charged for all admissions occurring during a spell of illness. In 1999, beneficiaries paid only about 8 percent of total allowable Medicare inpatient costs.<sup>2</sup>

Finally, coinsurance is charged for every covered outpatient service received, with no limits on the amount of coinsurance that a beneficiary can be charged per visit or per year. This lack of a cap on out-of-pocket costs is characteristic of the Medicare program, but distinct from most private insurance policies.

The disproportionate coinsurance liability for outpatient services interacts with two trends: increased use of outpatient services and the use of more expensive technologies on an outpatient basis. The migration of services from inpatient to outpatient settings may result in savings in the cost of providing care, while increasing the coinsurance liability for beneficiaries. As the proportion of Medicare beneficiaries without supplemental insurance increases, this could lead to significant financial burdens on beneficiaries and potential barriers to accessing care. Even for those with supplemental insurance, the increase in premiums caused by the disproportionately high outpatient coinsurance adds appreciably to their total out-of-pocket costs.

## Assessing beneficiary coinsurance

This section investigates the determinants of coinsurance liability, the distribution of coinsurance across beneficiaries, and the distribution of coinsurance by demographic characteristics (sex, age, race), supplemental insurance status, income, and health status.

### Determinants of coinsurance liability

Two factors influence beneficiaries' coinsurance liability: the volume of services received and the coinsurance amount for each service. Policies to reduce coinsurance address only the coinsurance amount, or price; they influence volume only indirectly. To increase our understanding of the

1 MedPAC analysis of the November 13, 2000 outpatient PPS interim final rule (HCFA 2000a).

2 MedPAC analysis of 1999 Medicare cost reports.

## Analytic methods

**M**edPAC's analysis of outpatient coinsurance for Medicare beneficiaries is based on data from three sources: the outpatient prospective payment system (PPS) fee schedule, outpatient claims, and the Medicare Current Beneficiary Survey (MCBS).

### Analysis of outpatient claims

We combined coinsurance and payment rates under the outpatient PPS for calendar year 2001 with the 5 percent standard analytical file of outpatient claims for 1999 based on reported HCFA Common Procedure Coding System (HCPCS) codes.<sup>3</sup> We attempted to account for changes to HCPCS codes between 1999 and 2001. The 1999 claims were also edited for outliers.<sup>4</sup> The sample size was 790,410 beneficiaries.

The results reported in this chapter should be considered indicative rather than predictive, as they are based on 1999 claims and the associated volume and service mix. Previous analyses (HCFA 2000b, Mohr et al. 1999) have noted that outpatient claims submitted before implementation of the outpatient PPS are subject to missing, and perhaps inaccurate, codes. Historically,

payments were based on charges and did not require accurate coding at the level of individual services, although the codes were required by law.<sup>5</sup> Given the historical undercoding of claims, it is likely that this analysis underestimates beneficiary coinsurance.

In addition, we would expect volume and service mix to change in the future, both in reaction to the new PPS and as technology changes. For example, hospitals may improve their coding for outpatient services as payment is tied more closely to correct coding. As coinsurance rates change, beneficiaries may react by increasing use. Also, trends toward more sophisticated outpatient procedures may result in higher-intensity case mix in coming years. Modeling those changes is beyond the scope of this analysis. Finally, the analysis captures only those beneficiaries with at least one outpatient visit, limiting our ability to measure differences in use and non-use of outpatient services.

### Analysis of Medicare Current Beneficiary Survey

The analysis of coinsurance by income, health status, and supplemental

insurance status merges the 2001 outpatient PPS fee schedule and the 1997 MCBS cost and use file, the latest available. This analysis allows us to look at the proportion of beneficiaries receiving any outpatient services, as well as the coinsurance liability for those having at least one outpatient visit. The sample excludes beneficiaries enrolled in Medicare managed care. We attempted to account for changes to HCPCS codes between 1997 and 2001. Results were weighted to account for the MCBS sampling frame. The analysis is based on a sample of 10,675 beneficiaries, including 5,045 with outpatient claims that map to the 2001 outpatient PPS fee schedule.

Despite the caveats regarding the accuracy of the claims data and our volume and service mix assumptions noted above, this analysis provides a snapshot of the services covered by the outpatient PPS, the level of beneficiary coinsurance liability, and the distribution of coinsurance liability across sub-groups. It also provides an estimate of the impact of the policy to reduce beneficiary coinsurance on beneficiaries and the program. ■

3 The analysis does not include devices approved for pass-through payments, as the pass-through payments are not subject to coinsurance. It also excludes partial hospitalization services.

4 Both the unit and total annual coinsurance variables are characterized by a highly skewed distribution with extreme upper values. We limited the analysis to line items with units of 30 or less to remove outliers.

5 Some types of services, such as those paid under blended payment systems, had greater accuracy than others.

interplay of volume and price in determining coinsurance liability, this section briefly examines the most common services provided under the outpatient PPS. We also look at which services account for the greatest coinsurance liability.

Although there are over 1,000 APC groups (including pass-through items), volume is concentrated in relatively few. Based on 1999 claims, 27 APC groups account for 75 percent of the volume of outpatient services (Table 9-1). The three most frequently performed services—simple x-rays, low-level clinic visits, and electrocardiograms—make up 30 percent

of total volume. As might be expected, many of these common procedures are relatively low-tech and fairly inexpensive. They account for only 9 percent of total payments (program payments plus coinsurance). Overall, the services accounting for 75 percent of volume make up 51 percent of total payments.

**TABLE  
9-1**

**Ambulatory payment classification groups accounting for 75 percent of total volume**

APC group	Title	Percent of total volume	Payment rate	Percent of total payment
260	Level I plain film except teeth	13.4%	\$39	4.3%
600	Low-level clinic visits	11.2	49	4.4
99	Electrocardiograms	5.1	19	0.8
343	Level II pathology	4.0	22	0.7
283	Level II computerized axial tomography	3.8	243	7.5
601	Mid-level clinic visits	3.2	50	1.3
610	Low-level emergency visits	3.1	66	1.7
611	Mid-level emergency visits	2.6	105	2.2
602	High-level clinic visits	2.5	82	1.7
325	Group psychotherapy	2.4	77	1.5
95	Cardiac rehabilitation	2.2	32	0.6
301	Level II radiation therapy	2.1	110	1.9
269	Echocardiogram except transesophageal	1.9	218	3.5
120	Infusion therapy except chemotherapy	1.8	82	1.0
612	High-level emergency visits	1.6	158	2.0
300	Level I radiation therapy	1.4	98	1.1
367	Level I pulmonary test	1.4	41	0.5
77	Level I pulmonary treatment	1.4	21	0.2
266	Level II diagnostic ultrasound except vascular	1.3	89	1.0
346	Transfusion laboratory procedures level II	1.3	25	0.3
267	Vascular ultrasound	1.2	135	1.4
261	Level II plain film except teeth, including bone density	1.1	68	0.6
100	Stress tests and continuous electrocardiograms	1.1	84	0.7
286	Myocardial scans	1.1	361	3.1
143	Lower gastrointestinal endoscopy	1.0	396	3.3
271	Mammography	1.0	35	0.3
284	Magnetic resonance imaging	0.9	398	3.0
	Total:	75.1		50.6

Note: APC (ambulatory payment classification).

Source: MedPAC analysis of 1999 Medicare claims and the 2001 outpatient fee schedule.

The distribution of APC groups by total coinsurance liability is also fairly concentrated—35 groups account for 75 percent of the total coinsurance (Table 9-2). Many of the services that contribute the most to beneficiaries' coinsurance are relatively expensive technologies and procedures, such as computerized axial tomography (CAT), which accounts for 12 percent of total coinsurance; cataract removal (8 percent of coinsurance); and magnetic resonance imaging (MRI, 4 percent of coinsurance). Both cataract procedures and MRI represent less than 1

percent of the volume of services. However, a few low-cost but high-volume procedures also account for a large share of the coinsurance liability. For example, the highest-volume service, simple x-ray, accounts for 5 percent of total coinsurance, even though the coinsurance amount for this service is only \$22. X-rays have a coinsurance rate of 49 percent. Similarly, low-level clinic visits, which have a \$10 coinsurance amount and a 20 percent coinsurance rate, account for 2 percent of total coinsurance liability.

There is considerable overlap between high-volume services and the services that contribute the most to coinsurance liability. Of the 27 APC groups that make up 75 percent of total volume, 22 also appear on the list of APC groups that make up 75 percent of coinsurance liability. These 22 groups account for 67 percent of total volume and 51 percent of total coinsurance. These comparisons show that neither volume nor price is the primary driver of coinsurance liability. However, high coinsurance amounts lead some services, such as CAT scans, to comprise a large share of total coinsurance liability.

**Profile of beneficiary coinsurance liability**

To determine the impact of outpatient coinsurance on beneficiaries, we developed a profile of annual coinsurance liability at the beneficiary level. This analysis uses calendar year 1999 claims and the 2001 outpatient PPS fee schedule to tell us what the outpatient coinsurance liability would be in 2001 if the volume and service mix were the same as in 1999. Because undercoding has historically occurred in the outpatient claims files, the coinsurance liability reported here is likely to be underestimated (see text box, p. 143). The results presented below reflect coinsurance liability, not out-of-pocket costs.

The shift to a fee schedule with set coinsurance amounts changed the coinsurance charged by individual hospitals. To understand how coinsurance changed upon implementation of the outpatient PPS, see the text box, p. 146.

**Average coinsurance liability**

Based on 1999 volume and service mix, the average Medicare beneficiary who used the outpatient department would pay \$409 in coinsurance for outpatient services in 2001. Coinsurance would account for, on average, 48.2 percent of total payment for services.<sup>6</sup> On average,

6 This estimate of beneficiary share is based on the coinsurance charged for individual services. It does not factor in outlier payments, pass-through payments for medical devices, or transitional corridor payments. The aggregate beneficiary share including those payment adjustments would be lower.

**TABLE  
9-2**

**Ambulatory payment classification groups accounting for 75 percent of total coinsurance**

APC group	Title	Coinsurance amount	Coinsurance rate	Percent of total coinsurance
283	Level II computerized axial tomography	\$179	74.0%	11.5%
246	Cataract procedures with intraocular lens insert	624	47.4	8.5
260	Level I plain film except teeth	22	56.2	5.0
284	Magnetic resonance imaging	257	64.7	4.1
80	Diagnostic cardiac catheterization	792	50.6	3.8
269	Echocardiogram except transesophageal	114	52.2	3.8
286	Myocardial scans	200	55.4	3.6
143	Lower gastrointestinal endoscopy	199	50.3	3.4
141	Upper gastrointestinal procedures	185	52.1	2.1
280	Level II angiography and venography except extremity	380	51.2	2.0
301	Level II radiation therapy	53	47.9	1.8
600	Low-level clinic visits	10	20.0	1.8
267	Vascular ultrasound	80	59.3	1.7
611	Mid-level emergency visits	36	34.8	1.6
292	Level II diagnostic nuclear medicine excluding myocardial scans	127	58.6	1.6
612	High-level emergency visits	54	34.2	1.4
100	Stress tests and continuous electrocardiograms	72	84.9	1.3
266	Level II diagnostic ultrasound except vascular	57	64.6	1.3
99	Electrocardiograms	15	77.9	1.3
154	Hernia/hydrocele procedures	557	50.1	1.2
300	Level I radiation therapy	48	48.6	1.1
120	Infusion therapy except chemotherapy	43	51.8	1.1
610	Low-level emergency visits	21	31.1	1.1
41	Arthroscopy	592	48.6	1.0
88	Thrombectomy	679	51.7	0.9
131	Level II laparoscopy	792	38.2	0.9
343	Level II pathology	12	54.5	0.8
325	Group psychotherapy	20	26.0	0.8
261	Level II plain film except teeth, including bone density	39	56.6	0.7
237	Level III posterior segment eye procedures	792	47.0	0.7
602	High-level clinic visits	16	20.0	0.7
28	Level I incision/excision breast	304	49.5	0.7
95	Cardiac rehabilitation	17	53.5	0.6
81	Non-coronary angioplasty or atherectomy	711	49.8	0.6
162	Level III cystourethroscopy/other genitourinary procedures	427	49.3	0.6
	Total:			75.2

Note: APC (ambulatory payment classification).

Source: MedPAC analysis of 1999 Medicare claims and the 2001 outpatient fee schedule.

beneficiaries would have 3.1 encounters with the outpatient department, receiving a total of 6.9 services (Table 9-3).<sup>7</sup>

These average values mask considerable variation across beneficiaries. The distribution of outpatient use and coinsurance liability is highly skewed; a

few beneficiaries receive a large number of services and face high levels of coinsurance liability. Although the mean annual coinsurance burden is \$409, the 95<sup>th</sup> percentile value is \$1,435. Thus, the 5 percent of beneficiaries with the highest coinsurance liability are responsible for more than three times the average liability

for outpatient services (Table 9-3). Protecting those with the highest costs is an important goal of insurance; thus, beneficiaries at the upper end of the distribution should be of special concern. High outpatient coinsurance liability could lead to access problems.

<sup>7</sup> An encounter is defined as all services occurring on the same day. Due to missing data regarding the date of service, this variable was calculated on a smaller set of services than the other variables.

## Changes in coinsurance liability upon implementation of the outpatient payment system

**B**efore implementation of the outpatient PPS, beneficiaries were liable for 20 percent of hospital charges for outpatient services. The coinsurance amounts in the new fee schedule are also based on charges, but set at a specific rate based on 20 percent of historical national median charges. Therefore, beginning August 1, 2000, coinsurance amounts were changed from a local calculation to a national average. For some services in some hospitals, coinsurance amounts increased; for other services, either in the same hospitals or elsewhere, coinsurance amounts decreased.

The difference between the old and new coinsurance amounts depends on the level of a hospital's charges relative to the national median for a given service. The shift in direction is not necessarily the same for all services provided. In general, however, where a hospital has higher charges than the median, coinsurance rates decreased. Where a hospital has lower charges than the median, coinsurance rates increased. No current data are available to systematically assess which services and which beneficiaries saw their coinsurance rates rise or fall. However, the Health Care Financing

Administration's state-by-state analysis of projected changes in coinsurance suggests that in the aggregate, coinsurance will go up in some states and down in others, with substantial rural and urban differences, even within states (American Academy of Actuaries 2000). Our analysis of Medicare cost reports indicates that rural hospitals and public hospitals tend to have lower charges, which would lead to increased coinsurance liability for beneficiaries using these facilities. In addition to the impact on beneficiaries, increased coinsurance liability that is not paid will increase hospitals' bad debt.

The differential changes in coinsurance are a transitional phenomenon due to movement from hospital-specific charges to national median charges as the basis for setting coinsurance amounts. Over time, coinsurance liability will decrease for all beneficiaries. In addition, increased coinsurance burdens may be softened if hospitals choose to lower coinsurance amounts voluntarily, as allowed by the Balanced Budget Refinement Act of 1999, although few hospitals have elected to do so to date. ■

rehabilitation services engender lower coinsurance burdens, with a mean value of \$939 and a 95<sup>th</sup> percentile value of \$2,454. These three groups of beneficiaries receive a high volume of services, each of which incurs coinsurance.<sup>8</sup>

### Coinsurance liability for vulnerable groups

The Commission and its predecessors have historically been concerned with the Medicare program's impact on vulnerable groups, including women, the oldest old, and racial minorities. MedPAC reports on access have shown that these groups face more barriers to access and have lower levels of supplemental insurance (MedPAC 2000a). A recent study (Pourat et al. 2000) also shows less supplemental insurance coverage for these groups. To evaluate whether the outpatient PPS would impose disproportionate financial liability on vulnerable beneficiaries, we analyzed outpatient use and coinsurance liability by sex, age and race.

Differences in coinsurance liability among groups of beneficiaries reflect differences in their average service use and case mix. Some small differences by sub-group do emerge. On average, men had levels of coinsurance liability 18 percent higher (\$449 per year) than women (\$382 per year), resulting in part from higher use. Men had an average of 7.5 services per year, while women had an average of 6.6 services per year—a difference of 14 percent (Table 9-3).

Looking at the distribution by age group shows no clear pattern. Those under age 65 are liable for, on average, \$413 of coinsurance for outpatient services, while those between ages 65 and 74 have the highest coinsurance liability (\$427). However, those under age 65 consume, on average, a higher volume of services (8.5 per year) than those age 65 to 74 (6.8 per year). This suggests that those under 65—and therefore eligible for Medicare due to a disability—use a different mix of outpatient services, with lower average

### Coinsurance liability for repeat services

An analysis of coinsurance liability for beneficiaries receiving services that require repeated visits illustrates how the lack of per visit or per year limits on coinsurance can lead to high levels of coinsurance. Table 9-4 shows the coinsurance liability and use for beneficiaries who received radiation

therapy, chemotherapy, and cardiac rehabilitation. Summing all outpatient services and coinsurance amounts for the year (including services other than the repeat service), beneficiaries undergoing radiation therapy are responsible for an average of \$2,876 in coinsurance, with the 95<sup>th</sup> percentile reaching \$5,598. For those receiving chemotherapy, the average annual coinsurance burden is \$2,664, with a 95<sup>th</sup> percentile value of \$6,588. Cardiac

8 The mean values presented here likely underestimate the coinsurance liability associated with these treatments due to the use of one year of data. Those whose first service occurred in the beginning or end of the year will not have their full coinsurance liability for the course of treatment reflected because coinsurance liability for services in the preceding or following year is not counted (censoring). Analysis of coinsurance by the quarter in which the first repeat service appears shows lower mean values for the group whose first service occurred in the first quarter for all three categories. Fourth quarter censoring is also apparent for radiation therapy.



coinsurance amounts, than do older beneficiaries. The oldest old—those aged 85 and over—have the lowest coinsurance liability and the lowest utilization of any group. Their average annual liability of \$312 is 24 percent lower than the average for all beneficiaries, and they receive, on average, 19 percent fewer services. This finding may reflect the increased frailty of older beneficiaries, who may therefore receive fewer services on an outpatient basis.

Disaggregation by racial category shows that non-white beneficiaries receive slightly more services than their white counterparts, but have a lower coinsurance liability. While the mean coinsurance liability for whites was \$414, it was \$390 for blacks and \$373 for other racial groups. Blacks and other minorities received more outpatient services than whites, although they had lower coinsurance burdens. On average, whites received 6.8 outpatient services during the year, while blacks had 7.5, and other minorities had 7.0. These findings suggest that blacks and other minorities receive a different, lower-intensity mix of services than do white beneficiaries. This may reflect greater use of outpatient departments for primary care by these groups (Forrest and Whelan 2000).

While there are some notable differences in use and coinsurance liability by beneficiary group, no large-scale variation appears. The lack of major differences between beneficiaries is reassuring. Unfortunately, it is not possible now to do more than speculate on the reasons for the observed differences among groups of beneficiaries. We do not know the extent to which differences in health status, income, supplemental insurance coverage, and other factors may account for the observed variations. In addition, we cannot tell if the differences in use reflect access problems, or if they have consequences for health status or quality of care. Finally, the analysis is limited to beneficiaries who had at least one outpatient visit in 1999. Thus, if limited access for a vulnerable group translates

**TABLE 9-3**

**Outpatient coinsurance liability and service use, overall and by sub-group**

Beneficiary	Percent of sample	Mean coinsurance	95 <sup>th</sup> percentile	Services per person	Encounters per person*
All beneficiaries:	100%	\$409	\$1,435	6.9	3.1
Sex:					
Male	40	449	1,578	7.5	3.2
Female	60	382	1,340	6.6	3.1
Age:					
Under 65	14	413	1,509	8.5	4.1
65–74	40	427	1,511	6.8	3.1
75–84	34	423	1,441	6.8	3.1
85+	12	312	1,098	5.9	2.6
Race:					
White	86	414	1,441	6.8	3.1
Black	9	390	1,418	7.5	3.7
Other	5	373	1,347	7.0	3.7

Note: \*An encounter is defined as all services occurring on the same day. Due to missing data regarding the date of service, this variable was calculated on a smaller set of services than the other variables. Total sample was 790,410 beneficiaries.

Source: MedPAC analysis of 1999 Medicare claims and the 2001 outpatient fee schedule.

**TABLE 9-4**

**Outpatient coinsurance liability and service use for beneficiaries with repeat services**

Type of service	Sample size	Mean coinsurance	95 <sup>th</sup> percentile	Services per person	Encounters per person*
Radiation therapy	9,293	\$2,876	\$5,598	55.5	14.5
Chemotherapy	3,858	2,664	6,588	69.6	15.6
Cardiac rehabilitation	6,183	939	2,454	27.5	11.4

Note: \* An encounter is defined as all services occurring on the same day. Due to missing data regarding the date of service, this variable was calculated on a smaller set of services than the other variables. Statistics are for all outpatient services received in the calendar year, not just the repeat service. Volume can include multiple units of a single item, including multiple doses of a drug. The following ambulatory payment classification groups were used as markers for the repeat services: radiation therapy (0300, 0301, 0302); chemotherapy (0116, 0117, 0118); cardiac rehabilitation (0095).

Source: MedPAC analysis of 1999 Medicare claims and the 2001 outpatient fee schedule.

into no use of outpatient services at all, the impact is not reflected here. The next section presents results using Medicare Current Beneficiary Survey (MCBS) data to show differences in the probability of using any outpatient services, suggesting that this is indeed an important indicator of access.

### Role of supplemental insurance, income, and health status

The previous analyses used outpatient claims to look at coinsurance liability. This approach does not allow consideration of important factors likely to affect outpatient use, such as

**TABLE  
9-5**

**Outpatient coinsurance liability and service use,  
Medicare Current Beneficiary Survey analysis**

Among those with any use:

Beneficiary group	Percent with any outpatient use*	Mean coinsurance	95 <sup>th</sup> percentile	Services per person	Encounters per person**
All beneficiaries:	61.2%	\$365	\$1,288	7.0	2.7
Supplemental insurance status:					
Medicare only	44.8	324	1,065	6.5	2.6
Employer-sponsored or individual supplemental insurance	60.9	383	1,434	6.6	2.5
Medicaid	71.7	321	1,171	8.4	3.5
Income:					
\$10,000 or less	64.5	306	1,106	7.2	3.0
\$10,001–25,000	62.0	392	1,324	7.1	2.7
\$25,001–40,000	59.0	364	1,324	6.5	2.3
\$40,000 or more	55.3	421	1,550	7.0	2.4
Health status:					
Excellent/very good	53.0	296	1,190	5.3	2.1
Good	60.6	385	1,332	7.1	2.6
Fair/poor	68.5	428	1,426	8.3	3.3

Note: \*This variable includes use of clinical lab and other services not paid under the outpatient prospective payment system.  
\*\*An encounter is defined as all services occurring on the same day. Due to missing data regarding the date of service, this variable was calculated on a smaller set of services than the other variables.

Source: MedPAC analysis of the 1997 Medicare Current Beneficiary Survey Cost and Use File and 2001 outpatient fee schedule.

supplemental insurance status, income, and health status. To consider these variables, we matched the 1997 Medicare Current Beneficiary Survey Cost and Use File with the 2001 outpatient PPS fee schedule (see text box, p. 143). As with the outpatient claims analysis, the MCBS analysis discusses coinsurance liability, not out-of-pocket costs, and is limited to beneficiaries in traditional Medicare. The MCBS results show slightly lower coinsurance liability than the 1999 claims do, suggesting a different mix of services in 1997. The differences may also be due to editing done to construct the two data sets.

**Supplemental insurance**

Supplemental insurance coverage (for example, Medigap, Medicaid, or employer-sponsored insurance) will pay

the outpatient coinsurance for most beneficiaries; however, such coverage is not universal. In 1998, 14.4 percent of beneficiaries in the traditional Medicare program had no supplemental coverage and would, therefore, be responsible for the full coinsurance liability discussed in this chapter (MedPAC 2000b). Further, the percent of beneficiaries without supplemental insurance has been increasing annually and is expected to continue to grow. For those with supplemental insurance, the cost of outpatient coinsurance is reflected in increasing premiums. A recent report estimates that one-fourth of recent increases in Medigap premiums are due to the costs of outpatient coinsurance (American Academy of Actuaries 2000).

MedPAC analysis of the MCBS has shown that out-of-pocket expenditures that include the costs of supplemental insurance premiums are, on average, higher for those with supplemental insurance than those without such coverage, primarily due to the premium costs (MedPAC 2000a).

Supplemental coverage correlates strongly with any use of outpatient services (Table 9-5). Among enrollees in traditional Medicare with no supplemental insurance, 44.8 percent received at least one outpatient service in 1997. Among those with individual or employer-sponsored health insurance, 60.9 percent had outpatient use. Those with Medicaid coverage had the highest use. Thus, those with private supplemental coverage are 36 percent more likely to use outpatient services than those with Medicare only, and those with Medicaid coverage are 60 percent more likely than those with only Medicare coverage to receive outpatient services. The high rate of use by those with Medicaid may reflect poorer average health status and greater use of hospitals as a primary care provider, as well as the impact of supplemental insurance.

Among beneficiaries who do use outpatient services, the use of those with only Medicare coverage is similar to that of those with private insurance, but lower than for those with Medicaid. The mix of services varies, however, as shown by the higher average coinsurance liability for those with private supplemental insurance (\$383) compared with those with only Medicare (\$324) or Medicare and Medicaid (\$321).

These findings suggest that supplemental insurance coverage is associated with increased use of outpatient services. However, drawing conclusions based on this finding is difficult because we do not know the optimal rate of service use. Those without supplemental coverage may be receiving too few services, or those with supplemental coverage may be receiving too many. Given the strong correlation between supplemental

insurance status and measures of access to care such as having a regular source of care, having a physician visit, and delaying care due to cost (MedPAC 2000b), some beneficiaries without supplemental insurance may not be receiving outpatient services that might be beneficial.

### **Income**

Lower-income beneficiaries are more likely than those with higher incomes to use outpatient services, perhaps reflecting greater use of outpatient departments as sources of primary care among the low-income population (Forrest and Whelan 2000). Among those who do use the outpatient department, no pattern emerges relating income to the volume of services or coinsurance liability.

### **Health status**

Beneficiaries in poor health are more likely to use the outpatient department than those in better health. Both volume of services and coinsurance liability increase as self-reported health status declines. Those in fair or poor health are 30 percent more likely to receive outpatient services than those in excellent or very good health (with 68.5 and 53.0 percent of beneficiaries receiving services, respectively). Among beneficiaries who use the outpatient department, those in fair or poor health use 57 percent more services than those in excellent or very good health (8.3 and 5.3 services, respectively). Consequently, their coinsurance burden is 45 percent higher (\$428 and \$296, respectively).

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## **Reducing beneficiary coinsurance**

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This section describes the beneficiary coinsurance reduction policy included in the BIPA and presents MedPAC projections of the impact of a similar, but extended, coinsurance reduction policy on beneficiaries and the program.

## **Coinsurance reduction under the Benefits Improvement and Protection Act**

In the BIPA, Congress reduced beneficiary coinsurance liability under the outpatient PPS by phasing in a cap on the percent coinsurance for each service provided. Starting on April 1, 2001, coinsurance for a single service cannot exceed 57 percent of the total payment amount for the service. The cap will be 55 percent in 2002 and 2003, and will be reduced by 5 percentage points each year over the 2004-2006 period until coinsurance is limited to 40 percent of the total payment for each service. As the proportion of payment paid by the beneficiary decreases, program spending increases. Total payments to hospitals are not affected by the policy, except to the extent that bad debt is reduced. This policy moves toward the Commission's recommendation of reducing coinsurance to 20 percent, but does not achieve it fully.

The underlying process for decreasing coinsurance will continue during the time of this policy. For services not subject to the coinsurance cap, coinsurance rates will continue to be frozen at 20 percent of historical median charges while total payment rates increase over time by the annual update amount. This allows coinsurance as a share of total payment to decrease gradually each year. In addition, the dollar amount cap equal to the inpatient deductible (introduced in the BBRA) continues to apply.

Although this policy begins to reduce coinsurance, it does not achieve a 20 percent coinsurance rate in a reasonable time period. Assuming a 3 percent annual update, getting to 20 percent coinsurance would take 23 years beyond 2006 for services at the 40 percent coinsurance rate. The Commission's goal of 20 percent coinsurance for all services would not be achieved until 2029. According to our analysis of Medicare claims, in 2006, 261 APC groups, making up 77 percent of volume, would still have coinsurance rates above 20 percent.

## **Continuing the coinsurance buy-down**

MedPAC modeled a policy similar to that contained in the BIPA, but allowed the annual changes to continue until a coinsurance rate of 20 percent was achieved. The policy modeled limits coinsurance to 60 percent of total payment in 2002, and decreases the cap by 5 percentage points every year through 2010, when coinsurance would be limited to 20 percent. As with the BIPA policy, the cap is 40 percent in 2006, but the annual 5 percentage point reduction is extended for an additional four years. To model the impact of this policy, we combined the coinsurance and payment rates under the outpatient PPS with outpatient claims for 1999. We assumed a 3 percent annual update to total payment rates for the outpatient PPS. Therefore, we are modeling the incremental impact of this policy beyond the underlying process which leads to a lower coinsurance rate as the payment rate is increased through annual updates. The analysis is based on volume and service mix in 1999.

The policy enacted by the Congress and the similar modeled policy both significantly impact coinsurance. The first step, limiting coinsurance to 60 percent of the total payment in 2002, will affect 15 APC groups that account for 14.4 percent of the volume of outpatient services and decrease total coinsurance liability for outpatient services paid under the outpatient PPS by 3.0 percent (Table 9-6). The savings to beneficiaries represent 1.4 percent of total payments under the outpatient PPS in 2002 (Table 9-7).<sup>9</sup> Under the policy, total payments to hospitals remain the same, with program spending increased to cover the savings to beneficiaries.

By 2006, when the 40 percent limit is phased in (according to current law), the policy will affect 161 APC groups that account for 64.3 percent of the services provided. Total coinsurance liability in 2006 will be 13.9 percent lower than it

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<sup>9</sup> The estimates of the cost of the policy to the program presented here cannot be compared to cost estimates provided by the Congressional Budget Office or other actuarial agencies. They do not, for example, consider baseline estimates, project changes in volume and service mix, or calculate premium offsets.

**TABLE  
9-6**

**Impact of modeled coinsurance reduction policy, 2002-2010**

Year	Percent cap	Number of APC groups affected	Percent of volume affected	Percent reduction in coinsurance
2002	60%	15	14.4%	3.0%
2003	55	22	19.1	4.1
2004	50	48	38.8	5.7
2005	45	92	51.9	8.7
2006	40	161	64.3	13.9
2007	35	202	65.7	21.0
2008	30	227	66.6	28.8
2009	25	247	71.3	37.4
2010	20	258	74.7	47.1

Note: APC (ambulatory payment classification).

Source: MedPAC projections based on 1999 Medicare claims, the 2001 outpatient fee schedule, and the Benefits Improvement and Protection Act of 2000.

**TABLE  
9-7**

**Modeled coinsurance reduction as percent of total payment, 2002-2010**

Year	Percent cap	Reduction as percent of total payment	
		Compared with BBA policy	Compared with BIPA policy
2002	60%	1.4%	NA
2003	55	1.9	NA
2004	50	2.6	NA
2005	45	3.8	NA
2006	40	5.9	NA
2007	35	8.7	3.7%
2008	30	11.6	7.5
2009	25	14.7	11.3
2010	20	18.0	15.2

Note: BBA (Balanced Budget Act of 1997), BIPA (Benefits Improvement and Protection Act of 2000), NA (not applicable). These estimates do not reflect offsetting increases in Part B premiums.

Source: MedPAC projections based on 1999 Medicare claims, the 2001 outpatient fee schedule, and the BIPA.

would have been prior to passage of the BIPA. These savings to beneficiaries represent 5.9 percent of total payments to hospitals. The greatest impact on beneficiary coinsurance comes in 2005 and 2006, when the policy affects a large number of services with coinsurance rates of 40 to 50 percent.

Continuing the decline in coinsurance beyond 2006 would yield even greater reductions in coinsurance. When a coinsurance rate of 20 percent is achieved in 2010, coinsurance amounts would be lower for 258 services that account for 74.7 percent of outpatient volume, reducing beneficiaries' liability by 47.1 percent.

We also examined the reduction in coinsurance for beneficiaries by their level of coinsurance burden in 2001 (data not shown). All groups benefit from the policy. Those with the lowest coinsurance liability—\$0-250 in 2001—receive the smallest percent reduction in coinsurance in each year (13.1 percent in 2006, rising to 39.9 percent in 2010). The highest percent reduction in coinsurance occurs for those with moderate coinsurance—\$251-\$500 in 2001 (18.1 percent in 2006, rising to 50.3 percent in 2010). Those with the highest levels of liability—\$1,251 or higher in 2001—receive average percent reductions over time (12.7 percent in 2006, rising to 48.2 percent in 2010).

As coinsurance decreases, program spending must increase so that total payments to hospitals remain the same. The 47.1 percent reduction in coinsurance in 2010 represents 18.0 percent of estimated total payments for outpatient services in that year (Table 9-7).<sup>10</sup> This is the amount by which program costs must increase. This cost estimate compares 20 percent coinsurance with the BBA policy of a gradual decrease in coinsurance as payment rates are updated. It does not factor in the BBA percent coinsurance cap. The incremental cost of decreasing coinsurance beyond the BIPA limit of 40 percent is 15.2 percent of total payments in 2010, before accounting for offsetting increases in Part B premiums. HCFA actuaries project total outpatient PPS payments of \$41.5 billion in 2010, including payment adjustments. ■

<sup>10</sup> The total payments referred to here are the payments for individual services. They do not include payment adjustments such as outlier payments and pass-through payments. Including these adjustments in the total payments would result in a lower estimate of cost as a percent of total payments.

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