

**Report to the Congress:
Medicare in Rural America**

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Statement of
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Committee on Ways and Means
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Chairman Johnson, Mr. Stark, Members of the Subcommittee. I am Glenn Hackbarth, chairman of the Medicare Payment Advisory Commission (MedPAC). I am pleased to be here this morning to discuss MedPAC's newly issued report on Medicare in rural America. This report responds to a set of requirements enacted in the Balanced Budget Refinement Act of 1999 directing MedPAC to assess Medicare's payment systems and policies in rural healthcare markets.

Bottom line

Medicare's most important objective is to ensure that beneficiaries have access to high-quality care. Because some rural communities face adverse economic conditions that may limit the ability of local providers to furnish a broad array of needed services, policymakers have been concerned that rural beneficiaries may not get the care they need. We were reassured to find, therefore, that Medicare beneficiaries living in rural areas are not facing widespread serious problems; with a few exceptions, data indicate that beneficiaries' access to care, use of care, and satisfaction with care are similar in rural and urban areas. This does not mean, of course, that rural beneficiaries in every county always get all of the care they need or the most appropriate and effective care; looking at averages can mask deficiencies. It does mean that where problems exist, they may reflect something other than rural residence alone.

Preserving access to high-quality care over the long run requires attention to the well-being of the delivery system. Here, there is some reason for concern: a substantial gap has opened over

the past decade in the financial performance under Medicare between rural hospitals—the locus of care in many communities—and urban hospitals. The Congress has already taken steps to shore up the rural delivery system and we see signs that some of those measures are making a difference. For example, the most isolated rural hospitals have higher Medicare margins than any other category of rural hospital and the critical access hospital (CAH) program even appears to be restoring access to some communities that had lost it. Other programs, such as the Medicare Incentive Program, which is intended to encourage physicians to practice in areas with limited numbers of primary care physicians, have been less effective.

MedPAC sees opportunities to refine Medicare’s prospective payment system (PPS) for inpatient hospital services in ways that will make it more fair to rural hospitals—especially small ones—while preserving incentives for the efficient delivery of services. In combination, these incremental steps will improve the Medicare margins of many rural hospitals.

For example, implementing a low-volume adjustment, fully removing the salaries and hours of professionals paid under Medicare Part B from the wage index, and raising the cap on disproportionate share (DSH) payments would, on average, increase rural hospitals’ inpatient payments by 1.8 percent. This increase would be on top of a 1.7 percent increase from the DSH payment changes enacted last year. In addition, although we did not quantify the impact, we can be reasonably sure that if the Health Care Financing Administration reviews the national labor share used in the wage index as we recommend, the resulting adjustment would on average modestly increase payments to rural hospitals and decrease them to urban hospitals.

Unlike some proposals currently being discussed—such as those to have a single base payment rate or to implement a wage index floor—MedPAC’s proposals are targeted to take into account factors affecting rural hospitals’ costs. Targeting payments allows the Congress to get dollars where they are needed most.

For the prospective payment systems that are being phased in for services in hospital outpatient departments (OPDs), home health care, and skilled nursing facilities (SNFs), there are many unanswered questions. We believe the OPD PPS and the PPS for home care can be made to work for rural providers, but the available data are inadequate to assess their impact properly. Steps taken by the Congress—enacting hold-harmless provisions for the OPD PPS and temporary payment increases for rural home care agencies—give policymakers time to make an assessment. In the case of skilled nursing care, MedPAC has previously noted that the new prospective payment system has troubling flaws that affect urban and rural providers alike. Until these more fundamental difficulties are addressed, we cannot assess whether there are issues that affect rural SNFs separately.

Because of differences between urban and rural health care markets, the Medicare+Choice program is unlikely to succeed in bringing coordinated care plans to rural areas. In our March report, MedPAC noted that efforts to overcome barriers to managed care, such as introducing floors under payment rates, may increase Medicare spending with no guarantee that the higher spending will yield additional benefits for Medicare beneficiaries. We recommended in that report that the Secretary examine variation in fee-for-service spending across the country to address the more fundamental problem.

The diversity of rural America means that there will undoubtedly be exceptions to every generalization we make. Without some generalization, however, policymaking becomes almost impossible. MedPAC will continue to monitor how well the Medicare program works in rural areas generally, as well as to watch for specific problems.

Overview of rural health care markets

Many rural communities face market conditions that may depress demand or supply and potentially decrease access to and use of health care services among Medicare beneficiaries and other residents. Depending on the community, these factors include:

- a small population,
- a declining and disproportionately older population,
- low household incomes, relatively high unemployment rates, and high poverty rates,
- a high proportion of the population lacking health insurance or with limited coverage,
- physical isolation, with long distances to urban centers for specialty care, and
- weak or restrictive state policies (such as in Medicaid eligibility and payment policies or certificate of need laws).

To examine where these factors operate and the extent to which they interact, MedPAC contracted with researchers at the Cecil G. Sheps Center for Health Services Research, UNC-Chapel Hill, who mapped demographic characteristics to hospital markets. Using the hospital market data, we analyzed the variation in many of these factors across market areas and

geographic regions. We also explored the relationship between market characteristics and hospitals' financial performance. Although our analysis has only begun to scratch the surface, two preliminary conclusions emerge (see Table 1). First, economic conditions vary widely among rural markets. Second, rural markets in the West have different sets of risk factors than those in the East. For example, the main risk factors affecting rural Western hospital markets are small populations, declining populations, and disproportionate numbers of residents aged 65 and older. By contrast, the main risk factors affecting rural Eastern hospital markets are low household incomes, high unemployment rates, and disproportionate numbers of racial and ethnic minorities (who are more likely to lack health insurance).

These risk factors raise three policy questions:

- Are these factors affecting access to, use of, or quality of services?
- Can prospective payment work in rural areas?
- Can Medicare+Choice work in rural areas?

Access to care, use of services, and quality of care

Rural areas of the country often have fewer providers and longer distances between beneficiaries and providers than do urban areas, potentially hindering access to care. Further, rural quality of care issues have received little attention in Medicare policymaking. Our research on access to

care, use of services, and quality of care is largely reassuring. The experience of rural Medicare beneficiaries appears generally similar to that of urban beneficiaries, suggesting that they are largely able to overcome the risk factors noted previously.

Access to care

Data from the Medicare Current Beneficiary Survey (MCBS) indicate that rural beneficiaries are generally satisfied with the availability of care, including specialty care; their satisfaction rates are generally similar to those of urban beneficiaries (see Table 2). This finding holds for rural areas in general as well as for the most remote rural areas.

The MCBS data do show differences on questions relating to the affordability of health care. A smaller percentage of rural than urban beneficiaries reported being satisfied with the costs of medical care, and in the more remote rural areas a larger fraction reported delaying care because of cost considerations. These differences may reflect rural beneficiaries' lower likelihood of having supplemental coverage for cost-sharing and services not covered by Medicare.

Accordingly, MedPAC recommends that the Secretary identify strategies to increase rural beneficiaries' participation in government programs that cover all or some of Medicare's cost-sharing requirements. These programs include Medicaid, the qualified Medicare beneficiary program, and the specified low-income beneficiary program.

Use of services

Similarities in access are reflected in rural and urban beneficiaries' use of health care services.

Although policymakers and rural health care advocates have often argued that rural residents are disadvantaged in obtaining needed care compared with urban residents, we found that urban and rural Medicare beneficiaries use similar amounts of care, on average, both nationally and within regions (see Figure 1).¹ Similar rates of service use do not imply that all beneficiaries are equally well served. At the same time, we would expect serious access problems to show up in lower use.

Although overall use was similar, the mix differed; rural beneficiaries used fewer physician and post-acute care services and more hospital inpatient and outpatient services than did their urban counterparts (see Table 3). Rural beneficiaries were about as likely as urban ones to have any physician visit, but had fewer total visits.

Quality of care

Assessing differences in quality of care between rural and urban areas is difficult, but two measures we examined—use of recommended services for patients with particular conditions and satisfaction with care as reported by beneficiaries—are reassuring.

Quality of care is often measured by the extent to which patients receive recommended services—including preventive services and services for acute and chronic illnesses—and the

¹ We measured per capita use of 11 type of services: short- and long-term hospital inpatient care, rehabilitation hospital, psychiatric hospital, skilled nursing facility, home health care, swing bed, outpatient hospital, physician, ambulatory surgical center, and rural health clinic.

outcomes of that care. To compare quality in rural and urban areas, MedPAC contracted with Direct Research LLC to analyze Medicare claims data. The researchers examined two measures: 40 indicators of necessary care (which reflect minimum standards of recommended care) and 6 indicators of avoidable outcomes (which represent potentially avoidable emergency or urgent care). The results suggest that the provision of necessary care and the occurrence of potentially avoidable outcomes is roughly comparable between rural and urban beneficiaries. After weighting each of the indicators equally and adjusting for differences in the age and sex composition of rural and urban populations, researchers found that the receipt of necessary care varied from 72 to 74 percent of rural beneficiaries, compared with 73 percent of urban beneficiaries.

These results are mirrored by the subjective assessment of Medicare beneficiaries. Among respondents to the MCBS, over 90 percent of rural beneficiaries reported agreeing or strongly agreeing that their physician checks everything and that they had great confidence in their physician. These responses are virtually identical to those of urban beneficiaries.

Nonetheless, Medicare's systems for improving and assuring quality could be strengthened to deal more effectively with issues in rural areas, and we recommend that the Secretary include rural populations and providers when carrying out Medicare's quality improvement activities. We also recommend that the Secretary address a critical problem with Medicare's system for safeguarding quality in rural areas by requiring more frequent surveying of providers to ensure the care they deliver meets minimal standards for quality and safety.

Medicare's payments for services in the traditional program

In the traditional fee-for-service program, Medicare generally relies on prospective payment systems. Two of these systems—the PPS for inpatient hospital care and the physician fee schedule—are mature (in the sense that they have been in place for over a decade). New systems are being phased in for outpatient hospital services, home health care, and SNFs.

To ensure access to care for Medicare beneficiaries without imposing undue costs on taxpayers, Medicare's payments should approximate the costs that an efficient provider would incur in furnishing care. In general, this means accounting directly in the payment system for factors that are beyond the control of providers and that have substantial and systematic cost effects. Some factors can be easily identified and addressed (at least conceptually). For example, the diagnosis related groups (DRGs) that Medicare uses to pay for inpatient hospital services distinguishes cases according to their clinical similarity and resource cost, raising payments for relatively expensive cases and reducing them for relatively less expensive cases. Similarly, Medicare's application of a wage index adjustment to a portion of operating payments—raising payments in high-wage markets and lowering them in low-wage markets—allows the program to account for systematic differences among markets in the wages providers must pay to remain competitive.

How to account for other factors is less clear. Prospective payment systems are based on averages, and some providers may be significantly different from average (and unable to do anything about it). For example, a hospital in a remote area with a small patient volume may not

be able to achieve the same economies of scale and scope that a large hospital located in an urban area can. Hospitals may also face different kinds of costs depending on their location. For example, some people argue that travel costs are not properly taken into account for home care provided in rural areas where distances are long.

These examples underlie the congressional interest in how well the current payment systems work in rural areas for inpatient hospital services and whether the new payment systems for hospital outpatient services and home care are likely to be appropriate.

Prospective payment for inpatient hospital services

Rural hospitals had lower Medicare inpatient margins than urban hospitals throughout the 1990s, and the gap has been widening. By 1999, the disparity had grown to 10 percentage points (see Table 4). The growing imbalance in financial performance under Medicare has occurred despite special payment provisions for rural hospitals whose value is almost as high as that of provisions that primarily affect urban hospitals. Although some of the difference in performance may be within hospitals' control, the size of the gap suggests that the payment system does not recognize factors that have an important effect on the costs of rural hospitals.

MedPAC identified four aspects of Medicare's inpatient payment system that may inhibit the appropriate distribution of payments and that together play a substantial role in rural hospitals' lower margins. They are:

- failure to account directly for small scale of operation,
- failure to account for longer lengths of stay,

- limitations in the measurement of input prices, and
- unequal disproportionate share (DSH) payments.

The first three issues concern systematic differences in costs; the fourth issue involves differences among hospitals in the volume of services they provide to low-income patients. In each case, Medicare's current payment system—together with a variety of special payment categories for rural referral centers, sole community hospitals, small rural Medicare-dependent hospitals and critical access hospitals—either does not address the underlying differences or appears to address them in ways that work against rural hospitals. We therefore recommend changes, discussed below, that would make payments better targeted and preserve, as much as possible, the incentives for efficiency embodied in the PPS. We recommend retaining the special categories until the proposed changes are implemented and evaluated.

Low volume Patient volume, particularly in small and isolated communities, is largely beyond hospitals' control and may cause their per-unit costs to be higher than average. The current PPS rates do not account directly for the relationship between cost and volume, potentially putting smaller providers at a financial disadvantage relative to other facilities. We found a statistically significant inverse relationship between discharge volume and Medicare costs per case (holding other factors recognized by the payment system constant). The volume and cost relationship was most pronounced for facilities with fewer than 200 discharges per year (see Figure 2).

The current special payment categories do not target low-volume hospitals well. Although 10 percent of hospitals—most of them rural—have fewer than 500 discharges, over one-third of

low-volume hospitals are not in any of the categories. MedPAC recommends that the Congress direct the Secretary to develop a graduated adjustment to base payment rates for hospitals with few discharges. So as not to encourage more care in low-volume settings than is necessary, we recommend that in defining this adjustment, the distance between facilities providing inpatient care be taken into account.

Longer length of stay Substitution of post-acute services for the latter days of inpatient stays was a key factor in reducing Medicare's acute care length of stay 33 percent since 1989 . Length of stay fell less for rural providers generally (25 percent) and much less for the most rural providers (13 percent). As a result, rural hospitals have longer lengths of stay than urban hospitals given the mix of cases they receive, in part because they are less able to transfer patients to post-acute settings. MedPAC will continue to examine this issue and possible policy responses.

Input prices Medicare's prospective payment systems for inpatient (and other facility) services include input-price adjustments that raise or lower payment rates to reflect the hourly wages of health care workers in each local market. Making accurate adjustments for differences in market wages is important for two reasons. First, problems could arise for beneficiaries and taxpayers if Medicare's payment rates differ from efficient providers' costs. Second, hospitals' reported wage rates vary substantially among labor market areas.

MedPAC and others have identified four problems with the wage index Medicare uses to adjust for input prices. First is the so-called occupational mix problem, where differences among areas in the types of workers employed is confounded with differences in their wages. Second is that market areas as defined by Medicare often encompass distinct health care labor markets. Third, the wage data that underlie the adjustment are four years old. Finally, the share of the payment to which the input price adjustment is made—about 71 percent for inpatient hospital services—may include cost components that are not locally purchased (and therefore whose price should not vary with local market wages).

Addressing the occupational mix problem directly will require data that HCFA has begun to collect only recently. In the meantime, MedPAC recommends that Secretary accelerate the planned phase-in of excluding from the hospital wage index the salaries and hours of teaching physicians, residents, and certified registered nurse anesthetists. Although the impact would not be large, the policy would improve the distribution of payments.

We also recommend that the Secretary reevaluate current assumptions about the proportions of providers' costs that reflect resources purchased in local and national markets. Some rural health care advocates have argued that the current labor share overstates the proportion of costs that rural hospitals devote to labor and other locally purchased inputs. The inputs included in the labor share were originally designated in 1983, and many of these are still largely purchased in local markets. However, other inputs may be purchased wholly or partly in national markets; applying an input price adjustment to such inputs leads to underpayment in low-wage areas and over-payment in high-wage areas.

The flaws associated with the hospital wage index have led some advocates to propose that a floor be put under the index. This would raise payments in market areas with low hospital wage rates (and, if done budget neutrally, lower them in areas with high wage rates), but it would do so in an arbitrary fashion. Moreover, if the objective is to help rural hospitals with poor financial performance, a wage index floor is a poor way to do so because it would raise payments to both low- and high-margin hospitals. Our analysis shows that there is no correlation between hospitals' Medicare inpatient margins and the wage index; hospitals with low margins are just as likely to be in areas with a high wage index as a low wage index.

Disproportionate share payments Medicare's DSH adjustment for hospital inpatient services is designed to offset the financial pressure of uncompensated care and inadequate payment from Medicaid and other indigent care programs. However, despite improvement in the DSH payment system implemented through the Benefits Improvement and Protection Act of 2000 (BIPA), the current system still provides substantially smaller payment add-ons for rural facilities.

The Commission believes that policy changes are needed to ameliorate two key problems inherent in the existing DSH payment system. First, the current measure of care provided to low-income patients excludes uncompensated care. The BBRA mandated that HCFA collect this information beginning in 2001.

Second, the current system has separate payment rates for 10 specific hospital groups, with the least favorable rates being given to most rural facilities and urban facilities with fewer than 100

beds. The BIPA improved the equity of DSH payments by applying to all hospitals the same minimum low-income share needed to qualify for an adjustment. However, the legislation capped the adjustment for rural hospitals at 5.25 percent; no such cap applies to urban hospitals. MedPAC recommends raising the cap to 10 percent to improve the equity of payments. However, we do not believe the cap should be eliminated, in part because that could lead to large increases in DSH payments now followed by reductions later if a new payment formula were enacted.

Physician fee schedule

Although 20 percent of the U.S. population lives in rural areas, only about 10 percent of physicians practice in rural communities. Because of concerns that some areas were underserved, the Medicare Incentive Payment (MIP) program was enacted in 1989 in an effort to entice more physicians to Health Professional Shortage Areas (which include urban areas). The MIP pays a 10 percent bonus for physicians' services.

The MIP program is limited in two ways. First, the bonus payments may be insufficient to attract physicians. Second, MIP payments may be inappropriately targeted. Nurse practitioners and physician assistants—who provide a significant share of primary care in rural areas—are not eligible for payments. In addition, payments may be inappropriately targeted because specialists and certain other health professionals are not counted when an area is designated as a shortage area.

Prospective payment for services in hospital outpatient departments

In August 2000, HCFA implemented a new prospective payment system for hospital outpatient services. Rural hospitals have been concerned that the new payment system will not adequately cover their costs of providing care because it is based on median costs for all hospitals.

Essentially, the question is the same as that discussed above for inpatient services: does a payment system based on averages penalize low-volume facilities? The OPD PPS may present additional risks for rural hospitals because of their greater dependence on Medicare—which accounted for 45 percent of total costs in rural hospitals, compared with 34 percent in urban hospitals—and on outpatient services.

Our analysis suggests that rural hospitals, particularly small ones, may have higher unit costs, be more vulnerable to the financial risks inherent in prospective payment, and be less able to adapt to the new payment systems. However, our assessment of the applicability of the new PPS is hampered by a lack of experience and data under the new system. Fortunately, the current policy has a hold-harmless provision for rural hospitals with 100 or fewer beds. This provision protects more than 80 percent of rural hospitals and all of the small rural hospitals that appear to be most vulnerable, and provides time to gather data and undertake analyses that can better inform future policy decisions regarding the treatment of rural hospitals under the outpatient PPS.

Prospective payment for home health services

In October 2000, HCFA implemented a new prospective payment system for home health services. Movement to prospective payment has generally been viewed positively, but some

advocates and policymakers have been concerned about access to home health services in rural areas. They are concerned about the effects of closures of home health agencies in rural areas and that the PPS may not adequately account for the costs of providing care in rural areas.

MedPAC concludes that the new PPS should work equally well in rural and urban areas and that the Congress should not exempt rural home health services from the PPS.

An appropriate payment amount should cover the costs that an efficient provider would incur in furnishing care. We identified two factors that could distinguish rural from urban areas: travel costs and volume of services. Traveling to serve sparse or remote populations may increase the costs (relative to urban settings) of providing services to rural patients. Rural providers may also be at a cost disadvantage if they have a low volume of services and cannot spread fixed costs over a large number of episodes.

Significant data limitations restrict our ability to analyze the impact of these factors fully. The first cost reports under the new payment system will not be available until September 2003, and we are concerned that the quality of the information they provide may not be good.

Accordingly, we recommend that the Secretary study a sample of home health providers to evaluate the impact of the new payment system, evaluate costs that may affect the adequacy of prospective payments, and find ways to improve all cost reports. As with outpatient services, legislative protections—in this case a 10 percent increase in payments for the next 2 years—should help to ensure access while we evaluate the system.

Will Medicare+Choice work in rural areas?

Policymakers have sought to bring to rural areas the generous benefit packages and low premiums enjoyed by some beneficiaries in urban areas who have enrolled in Medicare managed care plans. Two aspects of the Medicare+Choice program were designed to help accomplish this. First, payments in lower-paid counties, which includes most rural areas, were increased by creating a floor rate. Second, plans other than health maintenance organizations (HMOs) were allowed to participate in the program.

Even though the floor under payments has been increased substantially (to \$475 monthly), coordinated care Medicare+Choice plans offering generous benefit packages at little or no cost have not entered rural areas. We see three reasons for this. First, coordinated care plans rely on provider networks, which are difficult to establish in rural areas. This difficulty arises because rural providers who face little competition have no incentive to accept reduced payments and because there are fewer so-called intermediate entities, such as independent practice associations, willing to accept financial risk. Second, the small populations in many rural areas provide too small an enrollment base over which to spread fixed costs. Third, because relatively few rural areas consume large amounts of health care, there is less scope to achieve efficiency gains.

The floor payments have made entry attractive to private fee-for-service plans. Under Medicare+Choice, such plans take full risk for beneficiaries' health care, but need not manage

care or establish networks of providers. If Medicare+Choice payments were substantially equal to risk-adjusted spending in traditional Medicare (as MedPAC recommended in March), private fee-for-service plans could provide a desirable option to beneficiaries without presenting a financial quandary for the Medicare program. Under current law, however, Medicare spending will rise above what it would otherwise have been, and the increased spending will not necessarily yield extra benefits for beneficiaries. Instead, some of the higher spending may be used for additional profit, higher administrative costs, or higher payments to providers.

What should policymakers do? The efficiency gains and provider discounts that Medicare HMOs in urban areas use to fund additional benefits are unlikely to be achievable in rural areas. Although other alternatives to the current system should be explored—such as risk sharing through partial capitation or split capitation—rural beneficiaries are unlikely to see more generous benefits without an explicit or implicit subsidy.

Table 1. Percentage of rural hospital markets with selected characteristics, by region

Market/hospital characteristic	All markets			Markets with small population		
	All	East	West	All	East	West
Small population	25.0%	6.0%	40.0%	100.0%	100.0%	100.0%
Declining population	24.3	14.6	32.1	49.6	28.3	52.1
Declining population and disproportionately aged	10.3	1.7	17.3	32.4	8.3	35.3
Low household income	44.7	45.5	44.1	48.7	65.0	46.7
High unemployment	30.2	35.1	26.2	21.1	55.0	17.0
Isolated location	18.5	7.3	27.6	34.3	18.3	36.3
Low volume	21.7	8.1	33.2	65.6	54.5	67.0

Note: East and West regions are divided by the Mississippi river; East includes New England, Middle Atlantic, South Atlantic, East South Central, and East North Central census divisions, while West includes West South Central, West North Central, Mountain, and Pacific Divisions. Small population = fewer than 11,900 people; declining population = average annual population change from 1990 to 1999 of at least -0.1 percent; disproportionately aged = at least 20 percent of the population in the market ZIP codes is age 65 or older; low household income = median household income of the market area is <\$28,100; high unemployment = percent of workforce that is not employed is greater than 8.1 percent; isolated location = air-mile distance to nearest short-term acute care hospital is \geq 25 miles; low volume = 500 or fewer acute inpatient discharges in 1997.

Source: Analysis of Claritas Corp. estimates based on 1990 census by Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.

Table 2. Beneficiary satisfaction with and access to care, by location of county, 1999

Characteristics	Rural					
	Urban, in an MSA (UIC 1, 2)	Rural total	Adjacent to an MSA		Not adjacent to an MSA	
			Includes a town with at least 10,000 people (UIC 3, 5)	Does not include a town with at least 10,000 people (UIC 4, 6)	Includes a town with at least 10,000 people (UIC 7)	Does not include a town with at least 10,000 people (UIC 8, 9)
Very satisfied/satisfied						
Availability of medical care	93.6%	93.6%	94.3%	93.0%	94.9%	92.9%
Overall quality of care	96.0	96.0	95.4	96.3	96.4	96.2
Ease of getting to doctor	94.9	92.4	95.0	90.7**	94.6	90.3*
Costs of medical care	87.6	82.4*	83.3*	82.8**	82.7	79.6**
Specialist care	96.4	95.6	97.4	95.6	93.9	94.0
Had trouble getting care	4.0	3.3**	2.2**	4.1	2.0**	4.1
Delayed care due to cost	6.6	9.9	8.7	10.5**	11.3**	9.8**
No office visit this year ¹	18.3	20.2	16.1	20.5	12.4**	31.0**

Note: UIC (urban influence code, as defined by the U.S. Department of Agriculture), MSA (metropolitan statistical area, as defined by the U.S. Office of Management and budget).

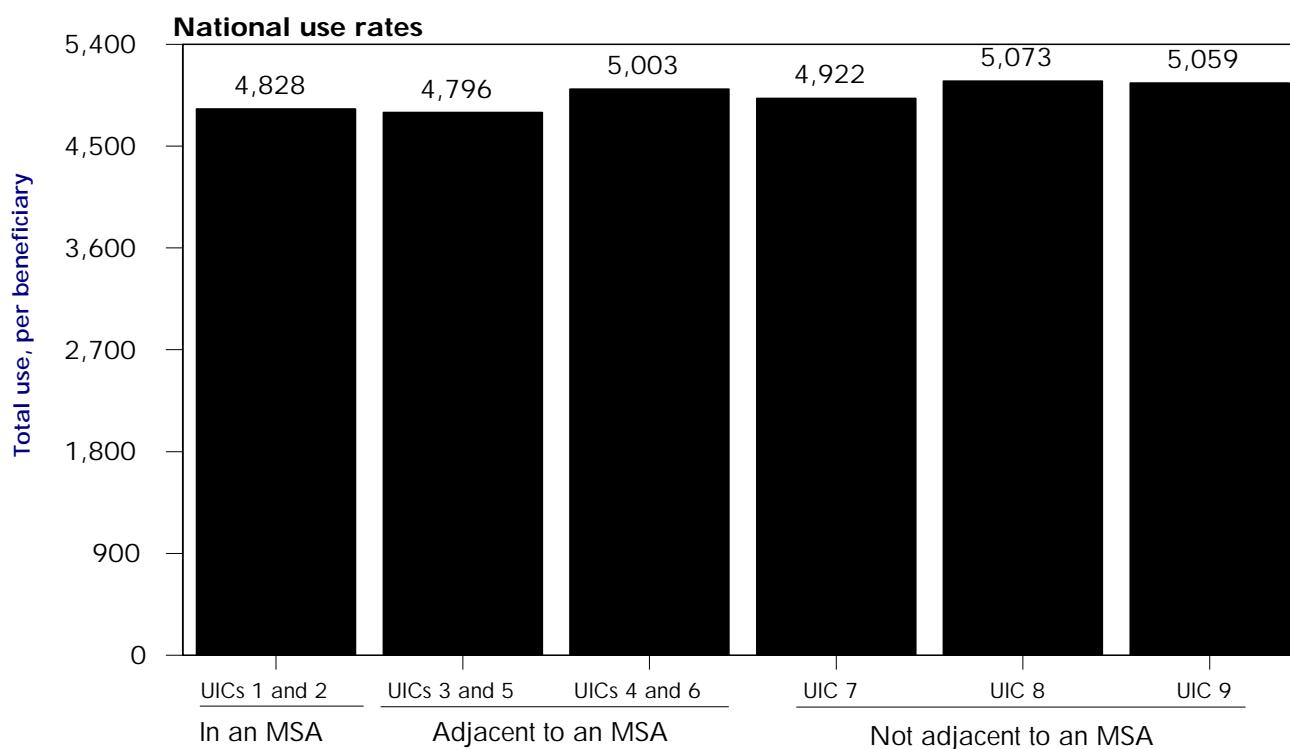
¹ Office visits only pertain to beneficiaries enrolled in traditional Medicare, and not Medicare+Choice. The Medicare Current Beneficiary Survey bases office visits on claims data, and providers do not submit claims for Medicare+Choice enrollees.

* Difference between urban and rural subgroups is statistically significant at the 0.05 level.

** Difference between urban and rural subgroups is statistically significant at the 0.01 level.

Source: MedPAC analysis of 1999 Medicare Current Beneficiary Survey Access to Care file.

Figure 1. Urban and rural beneficiaries use similar amounts of services, but use rates differ among regions



Regional use rates

Location of county (UIC)	Region				
	Nation	Northeast	South	Midwest	West
Urban, in an MSA (1, 2)	4,828	4,650	5,092	4,827	4,532
Adjacent to an MSA and includes a town with at least 10,000 people (3, 5)	4,796*	4,396*	5,111	4,718	4,527
Not adjacent to an MSA but includes a town with at least 10,000 people (7)	4,922*	4,339	5,395*	4,750	4,503
Adjacent to an MSA but does not include a town with at least 10,000 people (4, 6)	5,003*	4,541	5,213*	4,867	4,480
Not adjacent to an MSA but includes a town with between 2,500 and 10,000 people (8)	5,073*	4,601	5,469*	4,787	4,688
Not adjacent to an MSA and does not include a town with at least 2,500 people (9)	5,059*	5,504	5,372*	4,815	4,586
All beneficiaries	4,864	4,627	5,156	4,813	4,537

Note: UIC (urban influence code, as defined by the U.S. Department of Agriculture), MSA (metropolitan statistical area, as defined by the U.S. Office of Management and Budget). Use is the sum of the services from 11 service types, evaluated at nationally standardized payment rates and adjusted for individual differences in health status. These results include beneficiaries in traditional Medicare and exclude beneficiaries in Medicare+Choice, who make up 21 percent of the Medicare population in urban counties and 4 percent of the population in the five non-urban categories. Northeast includes New England and Middle Atlantic census divisions; South includes South Atlantic, East South Central, and West South Central census divisions; Midwest includes East North Central and West North Central census divisions; West includes Mountain and Pacific census divisions.

* Indicates statistically different from urban value in same region (5 percent level).

Source: MedPAC analysis of claims from 1999 for a 5 percent random sample of Medicare Beneficiaries.

Table 3. Per capita use of services by beneficiaries in traditional Medicare, by type of service and location of county, 1999

Service type	Location of county (UIC)					
	Urban, in an MSA (1, 2)	Adjacent to an MSA		Not adjacent to an MSA		
		Includes a town with at least 10,000 people (3, 5)	Does not include a town with at least 10,000 people (4, 6)	Includes a town with at least 10,000 people (7)	Includes a town with between 2,500 and 10,000 people (8)	Does not include a town with at least 2,500 people (9)
Physician	1,276	1,188*	1,186*	1,195*	1,139*	1,117*
Physician+RHC	1,280	1,214*	1,246*	1,231*	1,212*	1,230*
Hospital outpatient	541	616*	625*	642*	664*	690*
Hospital inpatient	2,185	2,250*	2,363*	2,319*	2,473*	2,452*
Post acute**	684	602*	653*	628*	623*	593*
SNF+Home health	502	461*	467*	478*	453*	426*
Swing beds	1	8*	24*	13*	30*	49*
Other	138	114	116	103	101	94
Total	4,828	4,796	5,003*	4,922*	5,073*	5,059*

Note: UIC (urban influence code, as defined by the U.S. Department of Agriculture), MSA (metropolitan statistical area, as defined by the U.S. Office of Management and budget), RHC (rural health clinic), SNF (skilled nursing facility). Hospital inpatient combines short-term and critical access hospitals. "Other" combines ambulatory surgical center and psychiatric hospital services. Use is services evaluated at nationally standardized payment rates and adjusted for individual differences in health status. These results include beneficiaries in traditional Medicare and exclude beneficiaries in Medicare+Choice, who make up 21 percent of the Medicare population urban counties and 4 percent of the population in the five non-urban categories.

* Indicates statistically different from urban value (5 percent level).

** Post acute also includes two categories (not shown) for rehabilitation and long-term hospital services.

Source: MedPAC analysis of claims from 1999 for a 5 percent random sample of Medicare Beneficiaries.

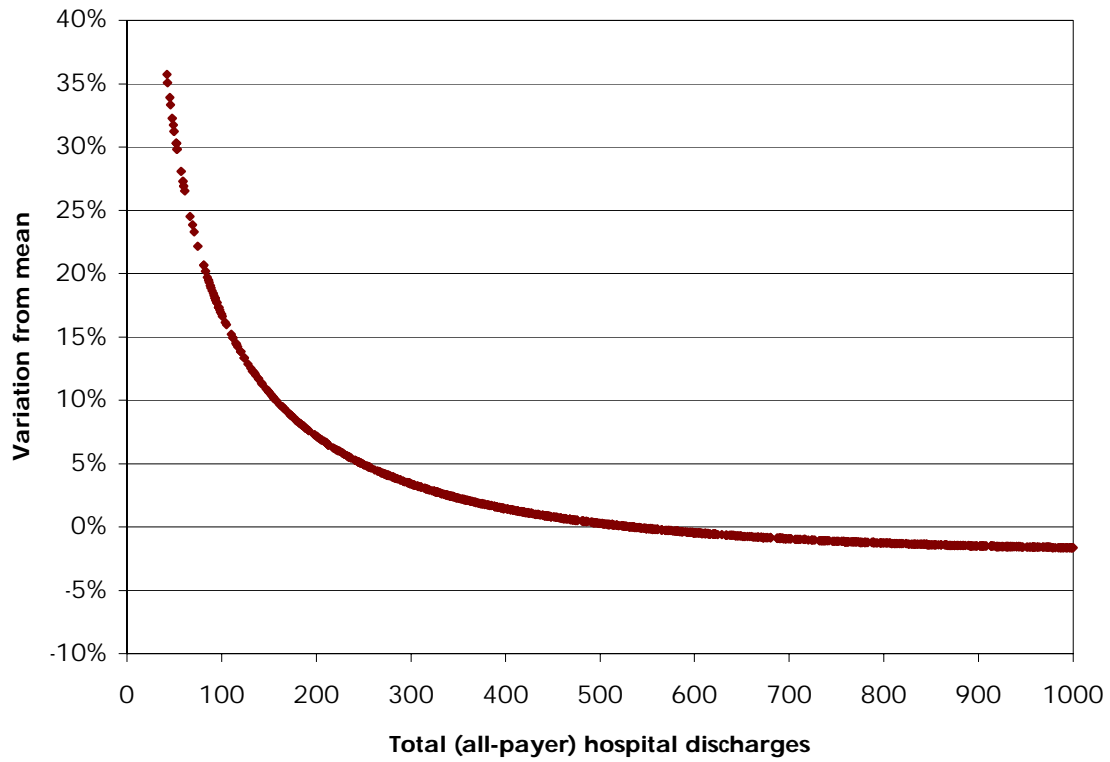
Table 4. Hospital financial performance, by urban and rural location, 1999

Hospital location (UIC)	Medicare inpatient margin	Overall Medicare margin	Total margin
Urban, in an MSA (1, 2)	13.5%	6.9%	2.9%
Rural			
Adjacent to MSA and includes a town with at least 10,000 people (3, 5)	3.1	-3.2	4.5
Adjacent to an MSA but does not include a town with at least 10,000 people (4, 6)	6.0	-2.2	3.9
Not adjacent to an MSA but includes a town with at least 2,500 people (7, 8)	4.5	-2.7	5.3
Not adjacent to an MSA and does not include a town with at least 2,500 people (9)	8.4	-0.1	-0.4

Note: UIC (urban influence code, as defined by the U.S. Department of Agriculture), MSA (metropolitan statistical area, as defined by the U.S. Office of Management and budget). Data are preliminary; the inpatient and total (all sources of revenue) margins are based on two-thirds of hospitals covered by prospective payment, while the overall Medicare margin is based on one-half of hospitals covered by prospective payment.

Source: MedPAC analysis of Medicare Cost Report data from HCFA.

Figure 2. Relationship between hospital discharge volume and costs per case, 1997



Source: MedPAC analysis of data from HCFA.