

Geographic variation in
Medicare expenditures

April 14, 2003

Statement of
Ms. Nancy-Ann DeParle
Senior Advisor, JPMorgan Partners, LLC, and
Adjunct Professor of Health Care Systems,
The Wharton School of the University of Pennsylvania

Before the Senate Finance Committee

Field Hearing, Des Moines Iowa

Chairman Grassley, Senator Baucus, distinguished Committee members. I am Nancy Ann DeParle, Senior Advisor, JP Morgan Partners and Adjunct Professor of Health Care Systems, The Wharton School of the University of Pennsylvania. I served as Administrator of the Health Care Financing Administration (now the Centers for Medicare & Medicaid services) from 1997-2000, and I am currently a member of the Medicare Payment Advisory Commission (MedPAC). I am pleased to be here today to discuss geographic variation in Medicare expenditures. MedPAC is very interested in understanding the factors underlying geographic variation in Medicare expenditures and is studying that issue, but I want to emphasize that the views I express today are my own.

Medicare payment how does it work?

To understand geographic variation in Medicare expenditures it is necessary to first understand how Medicare payment systems work. Most services covered by Medicare are now paid for under a prospective payment system (PPS). A PPS pays a set amount for a health care service, such as an office visit. That amount is set prospectively, that is before the office visit occurs and before payment is made. The base payment amount is the same wherever the service is delivered. Adjustments to the payment are made for local conditions including the level of prices in the local area—for example, the prices for labor and rent. Payments may also be adjusted depending on the circumstances of the provider. For example, some hospitals may get different payments according to their teaching status or the proportion of low-income patients they treat.

Medicare has moved toward prospective payment systems because of the incentives that cost-based payment systems create. In a cost-based system there is no incentive to increase efficiency or hold down cost increases, rather the opposite incentives pertain. Prospective payment systems encourage efficiency in the provision of a service because the payment is set in advance. Although, PPSs might encourage efficiency in the way a service is provided, they may not create incentives to limit the volume of services provided.

What does geographic variation in Medicare look like?

To understand what geographic variation looks like in the Medicare program it is essential to start with a reasonable measure.

A misleading measure. Unfortunately, one measure of Medicare expenditures that has been frequently cited is actually very misleading. It shows Iowa to be 50th among states in Medicare payments per beneficiary. The measure has two serious shortcomings:

- The measure does not account for beneficiaries going across state borders to receive care. Thus it can be particularly misleading in states that experience significant migration either in or out. For example, providers in Washington, D.C. treat significant numbers of beneficiaries from nearby states. As a result, this measure of Medicare payments to Washington, D.C. providers per resident beneficiary exceeds \$10,000, nearly double the national average, reflecting the high concentration of providers in a city with relatively few beneficiaries. Conversely, in some states, such as Iowa, there is significant net out-

migration for health care. Simply totaling the Medicare payments to providers in those states and dividing by the number of Medicare beneficiaries, will always underestimate health care actually received by beneficiaries residing in them.

- The measure accounts for the payments providers **receive** in a year rather than the payments that result from services **provided** in a year. This can be a problem when new payment systems are introduced, because there are usually delays in claims and payments resulting in an uneven flow of payments over the year. Also, Medicare managed care plans sometimes receive more than 12 cash payments in a year, and other times receive fewer than 12. This may cause payments received by providers in a state to vary considerably from year to year.

For these reasons, CMS has concluded that “the average payment per beneficiary is not meaningful and will no longer be provided.” CMS no longer publishes this measure but rather reports simply total annual state-wide payments to providers.

A better measure. In its efforts to try to understand geographic variation in Medicare payments, MedPAC starts with the amount Medicare spends for beneficiaries in the traditional fee-for-service (FFS) program. It does not consider the amount spent on beneficiaries who instead are in some form of Medicare managed care or in the Medicare+Choice private FFS program. These Medicare private plan alternatives to the traditional FFS program are interesting and important subjects in their own right, but their payment methods reflect many objectives and tend to obscure the underlying causes of variation in per beneficiary expenditures.

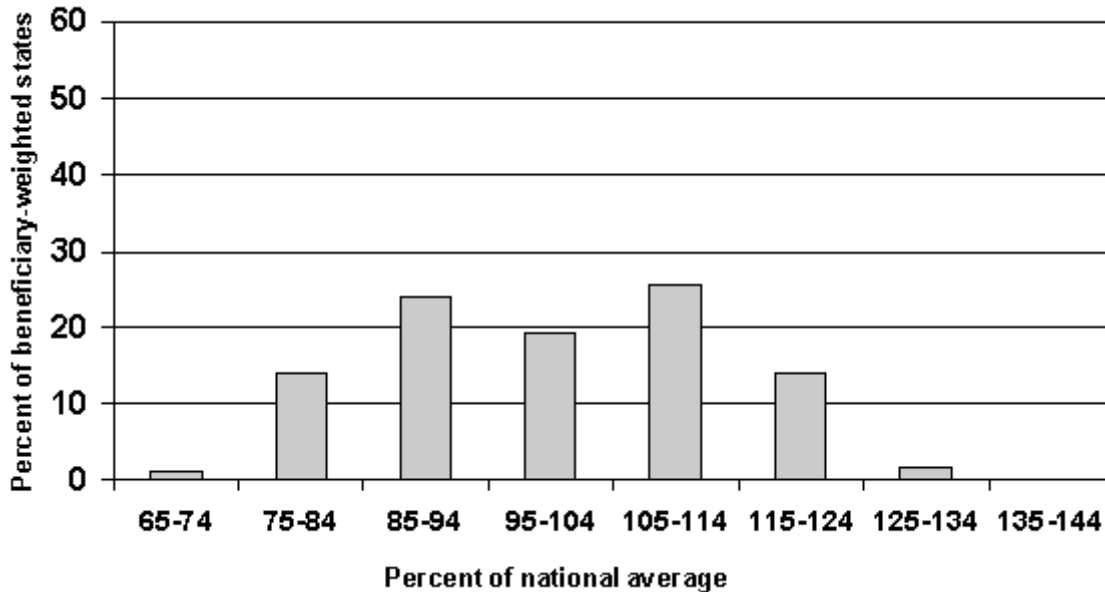
This measure has two major advantages over the misleading measure discussed above. First, it captures all expenditures on behalf of beneficiaries who reside in the county regardless of where the beneficiary goes for health care. That is, if beneficiaries tend to go to a nearby state for health care, those expenditures are still accounted for and attributed to the beneficiaries and their counties of residence. Second, it accurately captures expenditures for services provided during a year.

The distribution of Medicare expenditures. This better measure results in the distribution shown in Figure 1. The figure shows the distribution of beneficiary weighted states according to their relation to the national average expenditure per beneficiary of \$5,360. To effectively evaluate variation, the unit of observation should be the beneficiary because providing benefits to beneficiaries is the reason the Medicare program exists. Consequently, MedPAC’s analysis illustrates variation among states by weighting each state by its Medicare population. The result is beneficiaries, not states, being weighted equally. Without weighting, beneficiaries in less populous states would count more than those in more populous states.

Figure 1 shows that weighting each state’s per beneficiary fee-for-service expenditures by its number of beneficiaries produces a nearly bell-shaped curve that is fairly symmetric around the national average per beneficiary expenditure. However, it reveals a large variation in per

beneficiary expenditures among states and only 19 percent of the distribution is within 5 percent of the national average.

Figure 1. Beneficiary-weighted state-level per beneficiary Medicare expenditures as percent of national average (\$5,360), 2000



Source: MedPAC analysis of CMS data

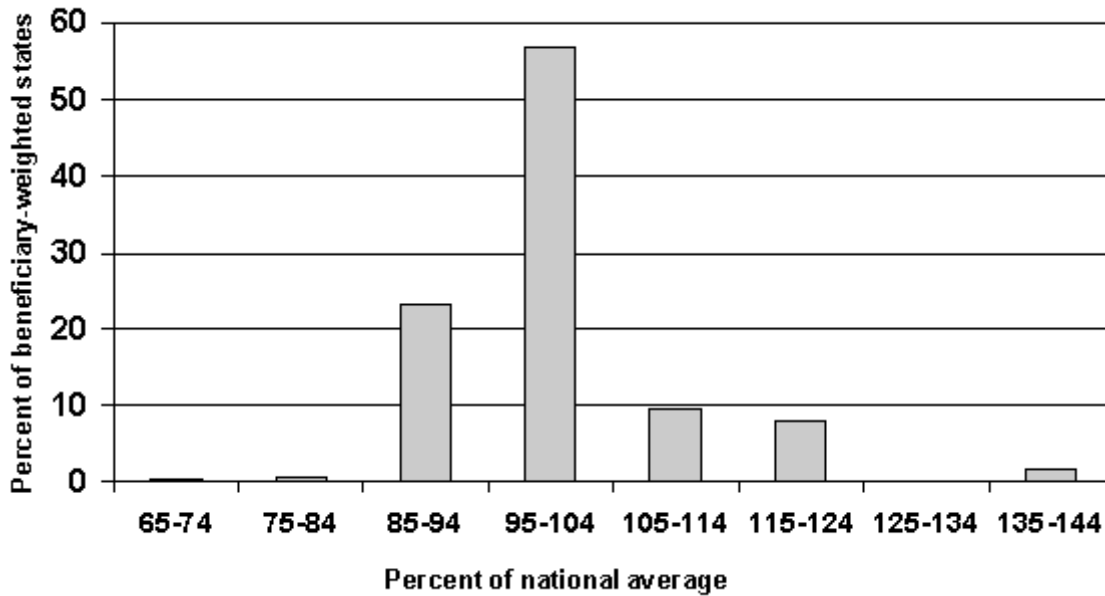
Using this measure Iowa is at 78 percent of the national average expenditures per beneficiary, or alternatively, the eighth lowest state in expenditures per beneficiary.

Much of the variation is due to two factors: adjustments for input prices and differences in beneficiaries’ health status. Adjustments for input prices are intended to make payments more closely reflect differences in the costs of providing care and generally track with other measures of cost of living. Differences in beneficiaries’ health status are important because sicker beneficiaries usually use more health services than healthier beneficiaries. I believe this variation is appropriate, because it makes sense that payments should reflect differences arising from those two factors. Some of the variation is due to special payments to hospitals (e.g., Graduate Medical Education payments to teaching hospitals) and some to other causes. After adjusting for input prices, health status, special hospital payments and differing participation rates in Part A and B by state, we arrive at the distribution shown in Figure 2.

The variation in Figure 2 is much less than in the previous figure. What this means is that the variation among states in use of Medicare covered services (which figure 2 can be thought of as representing) is much less than the apparent variation in Medicare expenditures shown in figure 1. About 57 percent of the population is within 5 percent of the national average in the adjusted

measure while only about 19 percent is within 5 percent looking at expenditures per beneficiary. These adjustments bring per beneficiary adjusted service use in Iowa to about 90% of the national average. Removing the effects of varying input prices, health status, and special payments to hospitals reveals that the rate of service use by state varies much less than would appear from looking at unadjusted Medicare expenditures.

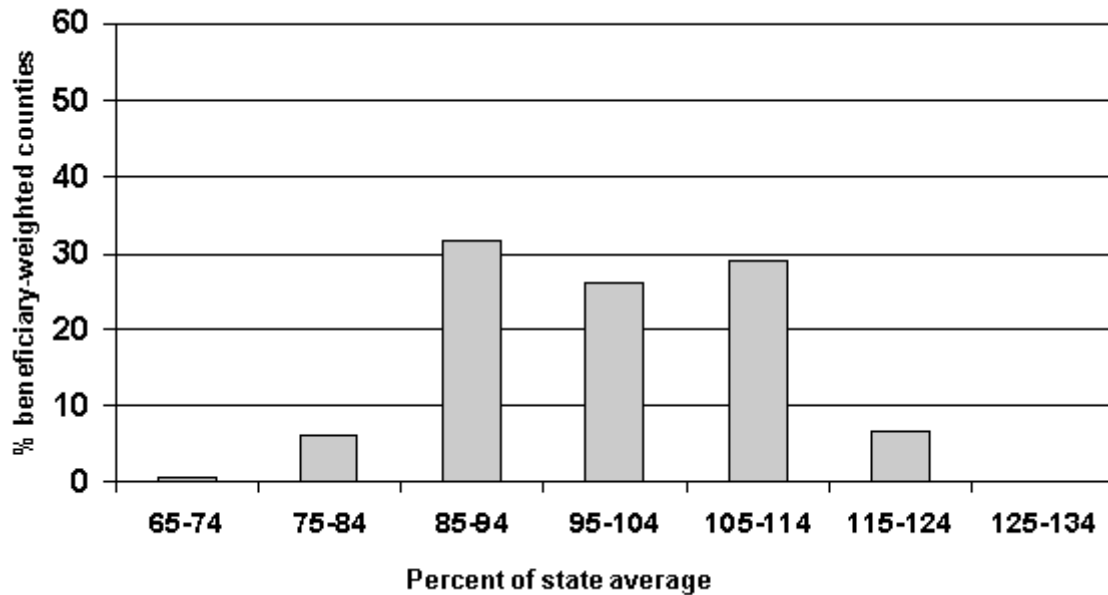
Figure 2. Beneficiary-weighted state-level per beneficiary Medicare expenditures, adjusted for input prices, health status, part A&B participation, and special hospital payments as a percentage of national average (\$5,360), 2000



Source: MedPAC analysis of CMS data

Variation at other levels. Contriving a system that eliminated variation among states would not eliminate variation in Medicare expenditures (in addition to being very difficult to accomplish). Variation is a fact of life and exists at all levels. For example there is wide variation in county level expenditures even after adjusting, as we discussed above, for known causes of variation. Figure 3 shows adjusted service use for Iowa counties relative to the state average. At the extremes, per beneficiary adjusted service use ranges from about 30 percent below the state average to about 25 percent above the state average. A similar result is found among counties in New York, which although quite different from Iowa, is similar in that it has large differences in adjusted service use among its counties. The standard deviation (a measure of how spread out the counties' per beneficiary service use is), is similar in the two states, \$434 in Iowa and \$516 in New York.

Figure 3. Variation in county per beneficiary service use (Iowa, 2000)



Source: MedPAC analysis of CMS data

The causes of the remaining variation in adjusted service use are probably found at the local level where health care is delivered. Differences in provider practice patterns and beneficiary propensity to seek services are local phenomena. That is one reason why seeking to eliminate variation at the state level will not necessarily provide beneficiaries the right amount of services, be more equitable to providers, or even be feasible to accomplish.

What are beneficiaries in Iowa getting?

Although all these measures of variation are interesting, the question that should concern beneficiaries is: Are they getting appropriate health care from the Medicare program? Iowa beneficiaries, as we have shown, are getting a reasonable quantity of services—about 90 percent of the national average. In addition, according to a measure of Medicare quality published in the January 15, 2003 *Journal of the American Medical Association*, Iowa beneficiaries get high quality health care relative to other states, ranking eighth in the nation. (An interesting finding from MedPAC’s analysis of variation shows that this quality measure varies inversely with service use. In other words, higher use is often associated with low quality and lower use with high quality—a finding that should give pause to those who wish to increase service use in low-use states.)

Even more compelling, Medicare beneficiaries in Iowa have one of the lowest levels of beneficiary cost sharing in the nation. This not only lowers out-of-pocket costs but carries over

to Medigap and other supplemental premiums. About 97% of Iowa Medicare beneficiaries have some form of supplemental insurance, one of the highest rates in the nation. Those who have Medigap pay less for the coverage than the national average. (For example, for plan F they pay about \$1,300 versus the national average of almost \$1,500.)

Provider perspective

Of course, even if from the beneficiaries’ perspective Medicare payment seems adequate, I understand that if providers are not compensated sufficiently to care for Medicare beneficiaries they could eventually withdraw from the program or the area creating an access problem. To investigate that thesis let us look at physicians and hospitals.

Physician payments. Medicare physician payment rates are found in the Medicare physician fee schedule. The fee schedule sets the number of relative value units for the categories of physician work, practice expenses, and professional liability insurance for each physician service or procedure (e.g. an initial office visit, an appendectomy) adjusts for local rates in each category and then multiplies by a national conversion rate. In the physician work category, the adjustment for local variation is limited—75 percent of the payment is not adjusted at all, the other 25 percent is adjusted to prevailing professional wage rates. This means that 75 percent of physician work is paid at the same national rate throughout the country, benefitting low cost areas. The example in Table 1, shows how the resulting Medicare physician payments in Iowa compare to those in neighboring states.

Table 1 shows the physician payment rate for an initial office visit in selected locations. The payment rate in Iowa is very similar to those in surrounding states, slightly higher than Nebraska and South Dakota, slightly lower than in Minnesota and most of Missouri. Rates in Iowa are lower than in some high cost areas of the country for example, San Francisco as shown in the table. This should not be surprising, because, for example, office rents in rural Iowa are probably much less than in San Francisco one of the highest cost areas in the country. However in rural California, rates are not all that dissimilar from Iowa. The payment rate for an initial office visit there is only about 11 dollars higher.

Table 1. Medicare physician payment rate for an initial office visit.

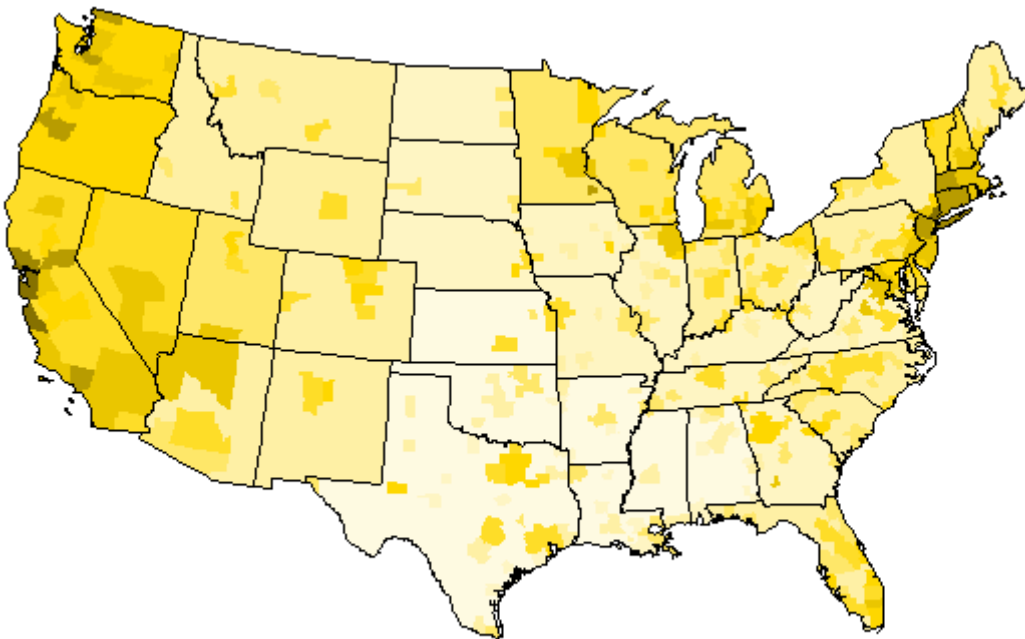
locality	payment
Iowa	\$92.82
Nebraska	\$89.32
South Dakota	\$88.30
Minnesota	\$95.69
rest of Missouri	\$93.69
San Francisco, CA	\$123.35
rest of CA	\$104.31

Source: Federal register Vol. 67, No 251/ Tuesday, December 31, 2002/ p 80171

It is interesting to note that according to the November 22, 2002 issue of Medical Economics, physicians in the Midwest in group practices have higher incomes (measuring revenue minus expenses) than doctors in the East or West. Only doctors in the South have higher incomes.

Hospital payments. Medicare hospital payments are also adjusted for local wage levels. The hospital prospective payment systems use the hospital wage index to adjust for local wage and price levels. For the most part, the hospital wage index accords well with other measures of input prices such as the cost of living index. Looking at the hospital wage index in Iowa and neighboring states does not reveal major disparities. Figure 4 shows a map of the hospital wage index across states and although the wage index in Iowa is less than in some states such as Connecticut, it is higher than that in others such as Alabama, and much like the wage index in the other states in its neighborhood, such as Nebraska and Missouri.

Figure 4. Hospital wage index values



Index ranges from lowest 0.73 (lightest) to highest 1.53 (darkest).
Source: 2002 Wage index from federal register

Nevertheless, because many of the hospitals in Iowa are small and rural there may be some aspects of the payment system that could disadvantage them. In recognition of some of those factors, MedPAC has made several recommendations that taken together would help such hospitals. The recommendations include:

- raising the inpatient base rate for hospitals in rural and other urban areas to the level of the rate for those in large urban areas,
- enacting a low-volume adjustment to the rates used in the inpatient PPS,
- reevaluating the labor share used in the wage index system, and
- raising the cap on the disproportionate share add on.

These recommendations are discussed in MedPAC's March 2003 report to the Congress. That report is also the source for some of the analysis included in this testimony, the other major source is work supporting the forthcoming June 2003 report to the Congress.

Conclusion

After adjusting for differences in their health status, Medicare beneficiaries in Iowa appear to be using about the same amount of services as the national average, getting higher quality, and paying lower levels of cost sharing to get it. Providers appear to have payment rates in the Medicare system similar to that of providers in nearby states. However, variation in Medicare expenditures, equity in the Medicare program, and how to preserve access where there is no economic base for providers are complicated issues. I hope to contribute to the debate on those issues through my position at MedPAC and in other forums, and to work with those in Iowa and the Congress seeking to ensure that Medicare pays fairly for services Medicare beneficiaries receive. That fairness is essential for the Medicare program to continue to enjoy wide support while protecting taxpayers and Medicare beneficiaries from unnecessary burdens.