United States General Accounting Office

GAO

Report to Congressional Committees

September 1990

MEDICARE

Comparison of Two Methods of Computing Home Health Care Cost Limits

GAO/HRD-90-167

GAO
United States
General Accounting Office
Washington, D.C. 20548

Human Resources Division

B-240827

September 28, 1990

The Honorable Lloyd Bentsen
Chairman, Committee on Finance
United States Senate

The Honorable John D. Dingell
Chairman, Committee on Energy and Commerce
House of Representatives

The Honorable Dan Rostenkowski
Chairman, Committee on Ways and Means
House of Representatives

This report discusses the potential effect on Medicare costs and beneficiaries of applying home health cost limits by type of service. The report also discusses the effect on the amounts of the cost limits resulting from the shift from computing the limits at the 75th percentile of home health agency costs to using 112 percent of mean costs. Our work was mandated by the Omnibus Budget Reconciliation Act of 1986.

We are sending copies of this report to the Director, Office of Management and Budget; the Secretary of Health and Human Services; Congressional Committees and Subcommittees; and other interested parties. The report was prepared under the direction of Janet Shikles, Director of Health Financing and Policy Issues. She can be reached on (202) 275-5451 if you or your staff have any questions. Other major contributors are listed in appendix I.

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Executive Summary

Purpose

In 1989, Medicare paid home health agencies about $2.8 billion for the 38.4 million visits they made to 1.5 million beneficiaries. To provide home health agencies a financial incentive to control their costs, Medicare prospectively establishes upper limits on the amount per visit it will pay. For the year beginning July 1, 1985, the Department of Health and Human Services (HHS) revised the methods used to compute and to apply the cost limits. The Congress was concerned that the revisions could adversely affect beneficiaries and, in the Omnibus Budget Reconciliation Act of 1986, required HHS to reinstate the former method of applying the limits. The act also required GAO to review the effects on beneficiaries and home health agencies of methods of computing and applying cost limits. (See p. 13.)

Background

Medicare pays for six types of home health visits to beneficiaries—skilled nursing; physical, speech, and occupational therapy; medical social services; and home health aide. Medicare reimburses home health agencies their reasonable costs for providing these visits. Beginning in 1979, Medicare established upper limits on the costs it would recognize as reasonable. Until 1985, the limit for each type of visit was computed at the 75th percentile of all home health agencies' costs. An agency was permitted, however, to offset costs exceeding the limits for one type of visit by amounts below the limits for other types of visits. This process is known as applying the limits in the aggregate. (See pp. 10-11.)

In 1985, HHS changed the way the cost limits were computed and applied. For each type of visit, limits were (1) set at a specific percentage of the mean cost of all agencies for the type of visit and (2) applied to each type of visit. Thus, agencies could not use costs below the limit for one type of visit to offset costs above the limit for another type of visit. (See p. 11.)

The Omnibus Budget Reconciliation Act of 1986 codified HHS's practice of computing limits based on a percentage of mean costs. But the act prohibited applying the limits by type of visit for cost-reporting periods begun after June 30, 1986. Therefore, the former method—applying limits in the aggregate—was reinstated. (See p. 12.)

Results in Brief

GAO estimates that Medicare costs would have been reduced by 2.5 percent, or $49 million, if cost limits had been applied by type of visit for cost-reporting periods during the year beginning July 1, 1989. Applying cost limits by type of visit would have produced payment reductions to

twice as many agencies as applying the limits in the aggregate. The reduction in payments would have been small for most agencies, however. (See pp. 17-21.)

GAO surveyed a random sample of agencies that would have faced additional reductions for cost-reporting years beginning between July 1, 1987, and June 30, 1988, if type-of-visit cost limits had been used. Over 40 percent of these agencies said that the additional reductions would have caused them to terminate participation in Medicare or curtail services. However, in most cases GAO found other agencies in the same geographic areas that were willing and able to expand services even if type-of-visit limits were used. GAO estimates that the net effect would be that 1.8 percent of home health visits to beneficiaries would potentially not be available if type-of-visit cost limits were adopted. (See pp. 21-22.)

The purpose of cost limits is to give home health agencies incentives to control cost growth. In the final analysis, the question is whether the additional savings Medicare would realize from applying cost limits by type of visit are worth the small decrease in beneficiary access that could result.

GAO also found that changing the cost-limit-computation method—from the 75th percentile of home health agencies to 112 percent of mean costs—had little effect on limit levels. Most limits were slightly higher under the revised method. The main effect was that home health aide limits were 5 percent lower in rural areas and 3 percent lower in urban areas. (See pp. 24-26.)

GAO's Analysis

Type-of-Visit Cost Limits Would Have Little Effect on Agencies or Beneficiaries

GAO compared the number of home health agencies whose Medicare payments would be reduced under cost limits when applied in the aggregate to the number affected by type-of-visit cost limits. This comparison covered the years beginning July 1, 1984 through 1987 and 1989. About twice as many agencies would be affected by applying limits by type of visit: for 1989, 48 percent versus 26 percent of urban agencies and 31 percent versus 18 percent of rural agencies. However, the amount of additional reduction most agencies would face under type-of-visit cost limits was small. For 1987, about 56 percent of agencies would have faced additional reductions of less than 1 percent of Medicare revenues.

Only 8 percent of agencies would have faced reductions of over 10 percent. (See pp. 17-21.)

GAO contacted a random sample of 288 home health agencies that would have faced additional reductions in their 1987 through 1988 cost-reporting year. About 11 percent of these agencies said they would stop participation in Medicare under type-of-visit cost limits, 30 percent said they would curtail services. However, in most cases, other providers with costs below the limits said they would expand services to pick up the slack. Overall, 1.8 percent of visits would potentially not be provided by other agencies. (See pp. 21-22.)

Most agencies would face no or only small additional reductions under type-of-visit cost limits. In most cases in which agencies said they would reduce services, other providers appear ready and willing to expand services. Because of these two factors, GAO believes beneficiary access to home health care would not be affected substantially.

Changing Cost-Limit-Computation Method Had Little Effect

GAO compared the cost limits and the number of agencies affected by them under the old 75th-percentile-of-agencies costs and the current 112-percent-of-mean cost methods. The cost limits were slightly higher under the 112-percent-of-mean cost method for most types of visit, with the major exception of home health aide visits, which would have had limits of 3 percent (urban areas) to 5 percent (rural areas) lower under the old method. (See pp. 24-26.)

Cost limits were only changed to a small degree by the shift in computation methods; therefore, that change should not have had a significant effect on either beneficiaries or home health agencies. Medicare costs were probably slightly higher during the annual period ended June 30, 1990, under the current method than they would have been under the old method.

Recommendations

GAO is making no recommendations.

Agency Comments

GAO did not obtain written comments on this report, but discussed its contents with HHS officials and included their comments where appropriate.

Contents

Abbreviations

HCFA	Health Care Financing Administration
HHA	home health agency
HHS	Department of Health and Human Services
OBRA-86	Omnibus Budget Reconciliation Act of 1986

Introduction

Medicare paid home health agencies (HHAs) about $2.8 billion during 1989, making it the largest single payer of home health services. The Medicare program covers six types of home visits—skilled nursing; physical, speech, and occupational therapy; medical social services; and home health aide services. In 1989, Medicare paid for about 38.4 million visits provided to about 1.5 million beneficiaries.

Medicare uses a reasonable cost-reimbursement system for home health services that pays HHAs their costs of furnishing services. Under authority of section 223 of the Social Security Amendments of 1972,[1] the Department of Health and Human Services (HHS) establishes upper limits on the amount of costs Medicare will recognize as reasonable for home health services. HHS changed its regulations to revise the methods used to compute and apply these cost limits effective July 1, 1985. HHS stated that most HHAs would receive lower total Medicare payments than under the old method. The Congress, concerned that lower Medicare payments would translate into reduced access to services for beneficiaries, prohibited HHS, through section 9315 of the Omnibus Budget Reconciliation Act of 1986 (OBRA-86) (P.L. 99-509), from revising the method of applying the limits. Section 9315 of the act did, however, revise the method for computing the cost limits and require us to study several issues related to setting and applying cost limits.

Medicare and Home Health Care

Title XVIII of the Social Security Act authorizes a broad health insurance program—known as Medicare—for most Americans aged 65 and over and certain people under 65 who are disabled or have chronic kidney disease. Medicare consists of two parts—hospital insurance (part A) and supplemental medical insurance (part B). Part A is primarily financed by Social Security payroll taxes from employers, employees, and the self-employed. Part B is a voluntary program financed by federal general revenues and monthly premiums collected from participating beneficiaries. Both parts cover health care services provided to eligible beneficiaries in their homes.

Most services have beneficiary deductibles and coinsurance requirements, but home health care under Medicare is available at no cost to the beneficiaries. Medicare home health care services include:

- part-time or intermittent skilled nursing care provided by or under the supervision of a registered nurse;

[1] Amended section 1861(v) of the Social Security Act.

- physical, occupational, and speech therapy;
- medical social services, which include services necessary to help patients adjust to social and emotional conditions related to health problems; and
- part-time or intermittent services from a home health aide, which include such activities as helping patients bathe, get in and out of bed, take self-administered medications ordered by a physician, and exercise.

Medicare also pays HHAs for medical supplies (other than drugs and biologicals) and equipment furnished in the beneficiary's home.

To be eligible for home health care, a beneficiary must be confined to his or her residence (homebound); be under a physician's care; and need part-time or intermittent skilled nursing care, physical therapy, or speech therapy. Services must be (1) ordered in a plan of care prepared and periodically reviewed by a physician and (2) furnished by a participating HHA (either directly or through arrangements with others).

Home Health Agencies

To participate in Medicare, an HHA must meet requirements specified in the Social Security Act and implementing regulations. The act defines an HHA as a public agency or private organization primarily engaged in providing skilled nursing and other therapeutic services. To become Medicare certified, an HHA must (1) directly provide skilled nursing care and at least one other service and (2) meet Medicare's conditions of participation. The regulations related to the conditions of participation set forth standards for such things as staff qualifications, medical record keeping, and quality assurance procedures. HHAs are periodically reviewed by state inspection agencies to assure they are in compliance with these standards.

The number of Medicare-certified HHAs increased from 2,212 in December 1972 to 5,953 in December 1986. Since that time, however, the number has decreased slightly to about 5,760. The number of participating HHAs at selected times is shown in table 1.1.

Table 1.1: Medicare-Certified HHAs at Selected Dates

Date	Number of certified HHAs
December 1972	2,212
December 1979[a]	2,858
December 1980	3,012
December 1985	5,932
December 1986	5,953
December 1988	5,688
December 1989	5,662
September 1990	5,763

[a]The first year that cost limits were in effect.

The growth primarily took place in facility-based[2] and for-profit HHAs, while the number of nonprofit HHAs—visiting nurse associations and official agencies[3] —declined.

Program Administration

HHS's Health Care Financing Administration (HCFA) administers Medicare. HCFA contracts for claims processing and payment with Blue Cross and Blue Shield plans and commercial insurance companies, such as Aetna Life and Casualty and Mutual of Omaha. Those organizations that help administer part A are known as intermediaries; those that help administer part B, carriers.

Intermediaries are responsible for processing home health claims whether covered under part A or part B. Medicare uses nine regional intermediaries to pay claims from HHAs. Intermediaries (1) make payments for services provided by HHAs, (2) act as a channel of communication between HHAs and HCFA, and (3) help in establishing and applying safeguards against the unnecessary use of program services.

Medicare Payment Process for HHAs

HHAs are paid during the year based on their estimated costs, and the intermediaries make final settlements based on the amount of actual costs found to be reasonable under Medicare's cost-reimbursement rules. HHAs' annual cost reports, which are subject to desk review and field

[2]Facility-based agencies are those affiliated with hospitals, skilled nursing facilities, and rehabilitation agencies.

[3]Visiting nurse associations are generally community-based HHAs supported by contributions and patient fees. Official (government) agencies consist mostly of county or local public health departments. Another agency type is combined official agency, which is a governmental HHA that also receives voluntary support.

audit by the intermediaries, are the basis for determining the costs of furnishing services and determining Medicare's share of those costs.

A general concern about cost-reimbursement systems is that they give providers little incentive to control cost growth. However, Medicare's reimbursement system for home health care includes some cost-control incentives, primarily through the limits on reimbursable costs, established under section 223 of the Social Security Amendments of 1972. This provision authorizes HHS to prospectively establish limits

> "on the direct or indirect overall incurred costs or incurred costs of specific items or services or groups of items or services to be recognized as reasonable based on estimates of the costs necessary in the efficient delivery of needed health services to individuals covered by [Medicare]."

Beginning in 1979, HHS established prospective maximum amounts, known as cost limits, that Medicare will pay for home health care. Accordingly, HHAs know in advance the maximum amount they can receive for providing services. Separate limits are set for rural and urban HHAs because costs tend to differ between them. A maximum is set for each type of visit—skilled nursing; physical, speech, or occupational therapy; medical social services; and home health aide. However, the limits were applied in the aggregate. The maximum amount an HHA could be paid was determined by summing the products of the number of each type of visit provided by the cost limit for that type of visit. Thus, costs exceeding the limit for one type of visit could be offset if, and to the extent that, the HHA's costs were below the limit for other type(s) of visit. In other words, an HHA would not receive less than its total costs unless that amount exceeded the aggregate maximum limit.

During the 1980s, the Congress enacted several provisions directly related to the home health cost limits. Section 2144 of the Omnibus Budget Reconciliation Act of 1981 (P.L. 97-35) directed HHS to set the limits at an amount no higher than the 75th percentile of HHAs' costs. Section 105 of the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248) directed HHS to set the limits based on the costs of free-standing HHAs only. HHS was to increase these limits for hospital-based agencies by an amount estimated to represent inpatient hospital costs apportioned to HHAs through the hospital-cost-report allocation process.

For cost-reporting periods beginning on or after July 1, 1985, HHS changed its regulations for the methods of computing and applying cost limits. Instead of using the 75th percentile, a percentage of HHA mean

cost was used as the limit. The percentage of mean cost was set at 120 percent for 1985, 115 percent for 1986, and 112 percent for 1987. Instead of applying the limits in the aggregate, they were to be applied by type of visit. Thus, costs exceeding the limit for one type of visit could no longer be offset, in applying cost limits, by amounts below the limit for other types of visits. HHS estimated that these two changes would result in 70 percent of all HHAs having Medicare payments reduced. Section 9315 of OBRA-86 (1) required HHS to revert to applying the cost limits in the aggregate for cost-reporting periods beginning on or after July 1, 1986, and (2) incorporated into law the percentage-of-mean method for setting the limits.

Table 1.2 lists by year the method used to compute the cost limits and how they were applied.

Table 1.2: HHA Cost-Limit Method by Year

Year beginning July 1[a]	Computed at	Applied
1979 and 1980	80th percentile of providers	in aggregate
1981 to 1984	75th percentile of providers	in aggregate
1985	120 percent of mean costs	by type of visit
1986	115 percent of mean costs	in aggregate
1987 onward	112 percent of mean costs	in aggregate

[a]Limits for 1981 were effective on October 1 and for 1982 on September 3.

Currently, a base cost limit is computed by HCFA using the universe of cost reports for freestanding HHAs. The reported costs are standardized to remove the effect of differences in cost-reporting periods and local wage levels. Costs that are at the extremes are eliminated, and a cost limit for each type of visit is computed. Information from cost reports for hospital-based HHAs is used to compute the add-on amount for these HHAs. The limits are then applied in the aggregate.

The base limits established for cost-reporting periods beginning on or after July 1, 1987, are shown in table 1.3.

Table 1.3: Base Payment Limits for HHAs (July 1, 1987)

	Per-visit limits for HHAs					
	Urban areas			Rural areas		
Type of service	Total	Labor portion	Nonlabor portion	Total	Labor portion	Nonlabor portion
Skilled nursing	$58.19	$45.90	$12.29	$64.07	$52.85	$11.22
Physical therapy	55.94	44.11	11.83	64.61	53.37	11.24
Speech therapy	60.14	47.39	12.75	73.87	60.79	13.08
Occupational therapy	57.46	45.12	12.34	70.92	58.28	12.64
Medical social services	87.40	68.22	19.18	112.82	92.51	20.31
Home health aide	33.40	26.37	7.03	34.22	28.20	6.02

Applying cost limits by type of visit rather than in the aggregate can affect Medicare payments to an HHA. For the two methods, the difference in effect on an urban Florida HHA in 1987 is shown in table 1.4. In this case, the HHA would receive its actual costs of $1.82 million under the aggregate method of applying the limits. This is because the excess costs for skilled nursing and physical therapy visits would be offset by amounts below the limits for other services. Under the type-of-visit method, the agency would receive $1.78 million, or about $38,500 less.

Table 1.4: Difference in Medicare Payments Between Applying Cost Limits in the Aggregate and by Type of Visit for an Urban Florida HHA

					Effect using limits	
Type of visit	No. of visits	Cost limit	Payment limit[a]	Actual cost[a]	In the aggregate	By type of visit
Skilled nursing	19,454	$51.21	$996,239	$1,023,280	$−27,041	$−27,041
Physical therapy	4,613	48.69	224,607	236,093	−11,486	−11,486
Occupational therapy	581	52.38	30,433	24,082	+6,351	0
Speech therapy	318	54.41	17,302	13,229	+4,073	0
Medical social services	45	81.34	3,660	1,874	+1,786	0
Home health aide	18,694	34.40	643,074	518,385	+124,689	0
Total					**$0**	**$−38,527**

[a]Rounded to nearest dollar.

Objectives, Scope, and Methodology

Section 9315 of OBRA-86 required us to review, (1) the appropriateness and effect on beneficiaries of applying home health cost limits by type of visit and, (2) the appropriateness of the percentage-of-mean-cost limits in the law. For both of these requirements, the appropriateness of the cost limits depends on one's perspective of how strong a cost-control

incentive the limits should give to HHAs. For this reason, and because of the Congress' concern about the potential effect of the limits on beneficiary access to home health care, we assessed the effect on beneficiaries and HHAs of (1) applying limits by type of visit and (2) setting limits at 112 percent of mean costs.

For the annual periods beginning July 1, 1984 through July 1, 1987, we obtained the HHA cost-report data base that HCFA had used to compute the cost limits. This data base contained information extracted from the cost reports of 3,491 HHAs. Of these cost reports, 364 covered less than a full year and were not used by HCFA or us in calculating cost limits. (An additional 15 were dropped for other reasons.) The remaining 3,112 cost reports were for annual periods ending between October 1, 1982, and September 30, 1983. The numbers of HHAs by type of ownership and hospital-based status are listed in table 1.5.

Table 1.5: HHAs in Data Base Used to Compute 1986 and 1987 Cost Limits by Type of Ownership and Hospital-Based Status

Ownership	Hospital-based	Others	Total
Voluntary nonprofit	2	563	565
Private nonprofit	279	425	704
Official	86	794	880
Proprietary	20	900	920
Combination official	0	28	28
Unclassified	0	15	15
Total	**387**	**2,725**	**3,112**

Hospital-based HHAs were not used to compute cost limits because the Medicare statute requires that the limits be based on the costs of free-standing HHAs. However, our computation of effect on HHAs included hospital-based HHAs. The 3,112 HHAs provided a total of about 33.8 million visits, with urban HHAs providing about 80 percent of the total.

For a random sample of 102 HHAs, we verified the accuracy of cost-related items by checking key elements of the data base against the cost reports. We found errors in the data base for 14 of the HHA cost reports. Some errors were trivial, but others were not. For example, the cost per skilled nursing visit was overstated by only 39 cents for one HHA, but the number of physical therapy visits was overstated by 5,770 for another.

We also verified the accuracy of HHA classification data for 388 randomly selected HHAs and found inaccuracies for 16. For example, rural HHAs were classified as urban ones and vice versa. In addition, while

checking to ensure the data were complete, we found 84 HHA cost reports that lacked only one easily obtainable data element. We added the data element and used these costs reports in our computations. Correction of the errors identified by verifying the two random samples and use of the additional HHA cost reports resulted in the cost limits we computed differing somewhat from those computed by HCFA.

For the annual periods beginning July 1, 1984, and July 1, 1985, we used the cost limits published by HCFA in the Federal Register. To compute cost limits for annual periods beginning on July 1 of 1986 and 1987, we used (1) the data base and (2) the same computation method that HCFA used for these years. For each HHA in the data base, we then calculated the effect of applying the limits by type of visit versus in the aggregate. For hospital-based HHAs, we used HCFA's published add-on amount for the 1984 and 1985 limits; we computed the add-on amount for 1986 and 1987 using the data base as modified by us.

We selected a random sample of 388 HHAs from the universe of HHAs that would face an additional reduction in Medicare payments if cost limits were applied by type-of-visit beyond any reduction faced if cost limits were applied in the aggregate. Of these HHAs, 78 no longer participated in Medicare, and 22 could not be used for such reasons as not responding to questions and inability to contact HHA officials. This left a sample of 288 HHAs that were contacted. We interviewed officials from each of the HHAs, asking whether the HHA would stop providing or curtail the affected types of visit in view of the additional payment reduction and, if so, how many beneficiaries would be affected. We also interviewed officials of other HHAs in the same service areas, asking whether their HHAs would expand services if other agencies eliminated or curtailed them.

We used the results of these two sets of interviews to estimate the number of visits that may not be available to beneficiaries if the cost limits were applied by type of visit. We recognize that some responses to our questions might not represent what would actually occur if the method of applying cost limits was changed. That is, some HHAs that said they would curtail services might not actually do so; some that said they would expand might not. However, we believe that, on balance, the responses provide a reasonable estimate of the possible negative effect of changing the method of applying the cost limits.

Two factors could result in our estimate being high. First, we did not contact all potential alternative providers who might be willing and able

to expand services. Second, some of the rural HHAs that said they would terminate or curtail services could probably qualify for an exception to the cost limits on the basis of being the only HHA in an area. With an exception, an HHA is reimbursed its full reasonable costs and would not need to terminate or curtail services.

To assess the effect of the percentile of mean HHA cost limits established by section 9315, we determined the level the limits would have been set at if the 75th-percentile-of-costs method had been used, the previous maximum amount allowed by law. We then compared these amounts with those computed under the section 9315 method. We also compared the number of HHAs affected by the cost limits under the two methods.

In 1989, HCFA prepared a new data base, consisting of 4,119 HHA cost reports, and computed cost limits for cost-reporting periods beginning July 1, 1989, through June 30, 1990. To determine if our findings would remain consistent with the new data, we did the same analyses using these data. We did not reinterview HHA officials, however.

We also discussed the issues and the results of our analyses with officials of HCFA, Medicare intermediaries, and HHAs in all areas of the country, and their comments are reflected in the report were appropriate. Our work was carried out between October 1987 and March 1990 in accordance with generally accepted government auditing standards.

Applying Cost Limits by Type of Visit Should Have Little Effect on Medicare Beneficiaries

If HHA cost limits had been applied by type of visit during the annual period beginning July 1, 1989, we estimate that Medicare payments would have been about $49 million lower. Because Medicare beneficiaries are not responsible for any payment for covered home health services, applying cost limits on a type of visit rather than an aggregate basis would not affect their costs for these services. The two potential effects on beneficiaries would be

- decreased access to care if home health agencies dropped certain services or stopped participation because of lower limits and
- lower quality of care if HHAs, to reduce their costs below the limits, take actions that effect quality.

Our analysis indicates that access should not be affected to any large extent because for most HHAs the amount of additional payment reduction resulting from applying cost limits by type of service would be small—about one-half of the HHAs affected would have reductions representing less than 1 percent of their Medicare revenues. HHA cost-reduction efforts should, in many cases, help to keep costs below the limits. Moreover, in most cases, other HHAs in the same area with costs below the limits would be able to pick up the slack if any HHA dropped services or stopped participation because type-of-visit cost limits were implemented.

We found no way to estimate effects on quality of care. In view of the small or no reduction in revenues for most HHAs, we would not anticipate any large effect on quality to result from type-of-visit cost limits.

Medicare Savings Would Result From Applying Cost Limits by Type of Visit

We estimate that Medicare home health costs would have been about $36.9 million lower during the July 1, 1987, through June 30, 1988, period if the cost limits had been applied by type of service rather than in the aggregate.[1] For the annual period July 1, 1989, through June 30, 1990, we estimate that Medicare costs would have been $49.3 million less under type-of-visit cost limits. These estimates of Medicare savings, as well as the percentage of HHAs affected by applying cost limits by type of visit and in the aggregate for 1984 through 1987 and 1989, are shown in table 2.1.

[1]HCFA had estimated savings of about $30 million for this period. While reviewing HCFA's HHA cost-report data base, we identified a number of errors for random samples of HHAs. We corrected the identified errors before computing the cost-limit amounts, which resulted in amounts different from those computed by HCFA and in the difference in estimated savings. The figures in this chapter reflect the revised data.

Table 2.1: Estimated Medicare Savings and Percentage of HHAs Affected Using Cost Limits by Type of Visit and in the Aggregate by Urban and Rural Location (Annual Periods Beginning July 1, 1984-87, and 1989)

Dollars in millions

	1984	
Urban	**Percent affected**	**Savings**
Skilled nursing	28.5	$39.1
Physical therapy	23.8	10.6
Occupational therapy	18.0	2.3
Speech therapy	23.0	9.9
Medical social services	22.3	5.6
Home health aide	10.0	6.0
Total if applied by type of service	**42.7**	**73.5**
Total if applied in the aggregate	**21.4**	**34.7**
Difference	**21.3**	**$38.8**
Rural		
Skilled nursing	16.0	$11.5
Physical therapy	11.2	2.0
Occupational therapy	5.3	0.3
Speech therapy	8.1	0.7
Medical social services	7.2	1.4
Home health aide	6.3	1.1
Total if applied by type of service	**23.9**	**17.0**
Total if applied in the aggregate	**13.2**	**10.1**
Difference	**10.7**	**$6.9**

1985		1986		1987		1989	
Percent affected	**Savings**	**Percent affected**	**Savings**	**Percent affected**	**Savings**	**Percent affected**	**Savings**
26.1	$36.5	20.6	$22.7	21.0	$27.2	18.8	$81.0
22.3	10.4	18.2	6.8	18.3	7.8	18.8	17.6
14.9	2.0	11.9	1.4	12.3	1.7	14.8	3.7
16.2	9.6	14.3	6.3	14.9	7.2	14.8	3.6
13.5	3.2	10.5	2.4	10.7	2.7	11.5	7.0
15.3	12.7	16.9	15.3	18.6	17.6	17.7	40.5
39.3	**74.4**	**35.8**	**54.9**	**36.8**	**64.2**	**47.9**	**153.4**
21.9	**40.1**	**15.8**	**24.8**	**17.9**	**31.7**	**25.9**	**115.0**
17.4	**$34.3**	**20.0**	**$30.1**	**18.9**	**$32.5**	**22.0**	**$38.4**
17.2	$13.8	21.0	$19.9	22.5	$23.1	9.8	$26.4
10.7	2.1	13.8	3.2	14.7	3.8	8.2	5.3
4.2	0.2	5.3	0.3	5.7	0.4	4.0	0.6
6.3	0.6	8.0	0.8	7.1	0.9	5.2	0.9
5.3	1.0	4.6	0.9	4.6	0.9	2.5	0.9
12.5	4.1	18.2	8.1	19.0	9.5	11.4	13.5
24.6	**21.8**	**28.3**	**33.2**	**28.9**	**38.6**	**30.6**	**47.6**
16.5	**16.8**	**21.8**	**28.5**	**23.0**	**34.2**	**17.8**	**36.7**
8.1	**$5.0**	**6.5**	**$4.7**	**5.9**	**$4.4**	**12.8**	**$10.9**

To assess the effect on HHAs of the additional reductions in revenues that would result from applying cost limits by type of visit, we looked at the number of agencies that would have reductions in specific dollar ranges (see table 2.2 for results). We also looked at the additional revenues lost as a percentage of Medicare revenues (see table 2.3 for results). For the 1987 limits, only about 11 percent of HHAs would have additional reductions exceeding $25,000. About 56 percent would lose additional amounts of less than 1 percent of Medicare revenues; less than 8 percent would have additional reductions of 10 percent or more.

Table 2.2: HHAs by Amount of Additional Medicare Revenue Reduction From Applying Cost Limits by Type of Visit (1987)

	HHAs			
Additional reductions	**1984**	**1985**	**1986**	**1987**
None	907	1,050	1,102	1,097
$1-5,000	805	779	779	770
$5,001-10,000	286	290	273	262
$10,001-25,000	418	369	387	385
$25,001-50,000	219	184	162	168
$50,001-100,000	116	94	66	87
Over $100,000	61	46	43	43

Table 2.3: HHAs by Additional Percentage Reduction in Medicare Revenues From Applying Cost Limits by Type of Visit (1987)

	HHAs			
Percentage of Medicare revenues lost	**1984**	**1985**	**1986**	**1987**
None	907	1,050	1,102	1,097
Less than 0.50	370	333	321	306
0.50 to 0.99	177	166	168	167
1.00 to 2.49	328	344	332	341
2.50 to 4.99	375	349	356	352
5.00 to 9.99	373	351	326	339
10 or more	282	219	207	210

The additional percentage reduction of Medicare revenues, resulting from applying cost limits by type of visit in 1987, viewed from the perspective of type of HHA ownership is shown in table 2.4. Private nonprofit and proprietary HHAs would be most affected, followed by official HHAs. Voluntary nonprofit HHAs would be affected the least, with only 8 percent of them having revenue reductions of 5 percent or more compared with 27 percent of the proprietary HHAs.

Table 2.4: Additional Percentage Reduction of Medicare Revenues by Type of HHA Ownership (1987)

		Percent of HHAs with additional reductions by percent reduction						
Type of ownership	**HHAs**	**0.0**	**0.01-0.49**	**0.50-0.99**	**1.00-2.49**	**2.50-4.99**	**5.00-9.99**	**Over 10**
Combination	27	44	15	7	4	19	4	7
Official	805	40	11	5	13	12	12	7
Voluntary nonprofit	539	53	14	6	11	8	5	3
Private nonprofit	668	33	12	6	14	12	13	9
Proprietary	763	31	8	6	14	14	16	11

Note: Percentages may not total 100 due to rounding.

Additional reductions as a percentage of Medicare revenue showed virtually the same distribution for rural and urban HHAs.

Effect on Beneficiary Access to Home Health Care Should Be Small

To assess the effect on beneficiary access to home health services that might occur if cost limits were applied by type of visit, we contacted a random sample of 288 HHAs across the country that would have had additional revenue reductions in 1987 under such cost limits.[2] The cost reports for these HHAs showed that they provided 3.3 million beneficiary visits, 2.6 million by urban HHAs, and 0.7 million by rural HHAs.

Overall, 33 of the sample HHAs (11 percent) told us they would stop participating in Medicare under type-of-visit cost limits; 86 others (30 percent) said they would curtail one or more types of service. The number of HHAs sampled that said they would terminate participation or curtail services is shown in table 2.5.

Table 2.5: HHAs in Sample That Said They Would Terminate or Curtail Services Under Type-of-Visit Cost Limits

	HHAs with additional reduction		HHAs that would			
			Terminate		Curtail services	
Type of visit	Urban	Rural	Urban	Rural	Urban	Rural
Skilled nursing	82	47	11	13	13	1
Physical therapy	76	39	7	6	32	12
Occupational therapy	58	14	7	2	12	3
Speech therapy	67	34	5	5	19	5
Medical social services	46	26	2	3	18	6
Home health aide	35	28	6	7	9	5
Total[a]	**178**	**111**	**16**	**17**	**60**	**26**

[a]Unduplicated count. Individual HHAs could curtail more than one type of visit or terminate with more than one type exceeding its cost limit.

To determine whether other providers were willing to pick up services, we contacted officials of other providers with costs below the limits located in the same zip code area as HHAs that said they would terminate or curtail services. In addition, for one-half of the Department of Health and Human Services regions, we contacted other providers that we could identify as serving the service area of the HHAs but not located in

[2]Of the original sample of 388 HHAs, 78 no longer participated in Medicare. Some of these HHAs had closed; others had been bought or had merged with another entity. We were able to contact 28 of the former owners. Fifteen of these HHAs were part of large chains that went through the process of deciding which individual HHAs were worth keeping in operation from an administrative or profitability perspective or both. Our interviews with the former HHA administrators showed that only 2 of 28 HHAs stopped operations because of Medicare reimbursement levels.

the same zip code area. On the basis of these interviews, we estimate that nationally 1.8 percent of visits that could be eliminated by termination or curtailment if type-of-visit limits were used would not be picked up by other providers who are ready and willing to expand services.[3] Thus, it appears that applying cost limits by type of visit would not significantly affect the availability of home health services to Medicare beneficiaries.

Quality of Care Should Not Be Significantly Affected

Cost-reduction efforts could, in theory, result in decreased quality of care. Under type-of-visit cost limits (1) more HHAs would face reductions in Medicare revenues than under aggregate cost limits and (2) those HHAs affected by aggregate limits would face larger reductions under type-of-visit limits. In response, HHAs can take actions to reduce costs in order to eliminate or reduce the potential for not recovering their full costs.

We did not find a way of directly assessing the effects on quality of care that would result from shifting to a type-of-visit cost-limit system because of the lack of a method to determine the kinds of cost-reduction actions HHAs would take. However, we do not believe quality of care would be significantly affected. As discussed previously (see pp. 19 and 20), most HHAs affected by a change in the method of applying cost limits would face relatively small additional reductions in Medicare revenues. Over 55 percent of the HHAs would need to reduce costs by less than 1 percent.

Observations of HHA Associations

The major associations representing HHAs have opposed applying cost limits on a type-of-visit basis. Association officials believe that the current aggregate method of applying the limits has the important advantage of allowing HHAs to offset high costs for some types of visits with lower costs for types with more controllable costs. Under type-of-visit cost limits, association officials believe that HHAs' only options are to incur financial losses or discontinue services when costs exceed limits.

Conclusions

The purpose of cost limits is to give HHAs a financial incentive to control their costs, thereby helping to assure that Medicare does not pay for costs related to inefficient and uneconomical provision of services. Changing the method of applying cost limits—from the aggregate to

[3]The confidence interval at the 95-percent confidence level is 0.9 to 2.7 percent.

type of visit—would give HHAs increased incentives to control costs for each type of visit. This is because costs above the limit for one type would no longer be able to be offset by costs below the limits for other types of service. In addition, Medicare costs for home health services would be reduced somewhat.

We held discussions with HHAs that would be affected by a change in application method and other providers that serve the same areas. The results indicate that access to home health services would not be greatly affected. Most affected HHAs would continue to provide services and in most cases other providers could be expected to pick up the slack for affected HHAs that stop participating in Medicare or curtail services.

We could not directly estimate the effect changing application methods would have on quality of care. But the fact that most HHAs would need to reduce costs by small amounts indicates that quality should not be significantly affected.

In the final analysis, the question is whether obtaining the additional savings to Medicare is worth the small decrease in access that could result from applying cost limits by type of visit.

Use of Percentage of Mean Method Generally Increased Cost Limits

OBRA-86 required us to assess the appropriateness of using the percentage-of-mean-costs method of setting HHA cost limits. The purpose of cost limits is to give financial incentives to HHAs to control growth in their costs; thus, the appropriateness of a particular method of setting limits depends on how strong the observer believes the incentives should be. We compared the effects on HHAs of using the 112-percent-of-mean-cost method with those of using the former 75th-percentile-of-HHA-costs method. The change to 112-percent-of-mean costs generally resulted in fewer HHAs facing reduced payments. Thus, HHAs received somewhat weaker cost-control incentives than they would have under the 75th-percentile-of-costs method.

Difference Between Percentile and Percentage-of-Mean Cost Methods

Section 9315 of OBRA-86 incorporated into the Social Security Act HHS's regulatory action that changed the method for setting HHA cost limits from the 75th percentile of HHA costs to a percentage of HHA mean costs. Under the percentile method, the standardized costs for each freestanding HHA in HCFA's data base were arrayed from highest-cost to lowest-cost HHA. The limit was set at the point at which 75 percent of the applicable type of visit had a cost no more than of that HHA. For example, if the data base included 10 million skilled nursing visits, the cost limit for that service would be set at the cost of the HHA that fell at the point where 7.5 million visits had lower costs (10 million visits times 0.75 = 7.5 million visits).

Under the percentage-of-mean method, the average (mean) standardized cost of all freestanding HHAs in HCFA's data base is computed. This mean cost is then multiplied by the applicable percentage, currently 112 percent, and the resulting amount becomes the cost limit. For example, if the weighted mean cost for skilled nursing visits was $65, the limit for that type of visit would be $72.80 ($65 times 1.12 = $72.80).

Changing Method of Setting Cost Limits Had Little Effect on HHAs

The cost-limit program was established by the Congress as a means of giving providers an incentive to (1) control cost growth and (2) help assure that Medicare did not pay unreasonably high costs. Because HHAs know in advance the maximum amount Medicare will pay them, they can take actions to lower costs if the limits would otherwise be exceeded. The goal is to set limits at levels so that efficient providers will recover their full costs, but less efficient ones will need to take cost-reducing steps or suffer a loss.

To assess the effect of the two methods of setting cost limits, we compared the number and extent of HHAs facing reduced payments under each. We computed what the cost limits would have been under the former 75th-percentile method for the period beginning July 1, 1989, and compared these amounts with those obtained using the 112-percent-of-mean method. The base cost limits for urban and rural areas under the two methods are shown in table 3.1.

Table 3.1: Cost Limits for Urban and Rural HHAs for July 1, 1989, Computed Using the 75th-Percentile and 112-Percent-of-Mean Cost Methods

	Urban			Rural		
Type of service	Percentage-of-mean costs	Percentile of HHAs	Difference	Percentage-of-mean costs	Percentile of HHAs	Difference
Skilled nursing	$71.18	$70.54	$0.64	$74.34	$74.17	$0.17
Physical therapy	68.43	67.97	0.46	74.40	73.54	0.86
Occupational therapy	70.33	69.30	1.03	81.25	84.29	−3.04
Speech therapy	74.19	73.76	0.43	80.16	79.36	0.80
Medical social services	101.61	101.38	0.23	114.39	117.32	−2.93
Home health aide	42.24	43.33	−1.09	38.28	40.49	−2.21

The cost limits for HHAs were higher under the 112-percent-of-mean method than under the old 75th-percentile method, except in the case of occupational therapy and medical social services visits by rural HHAs and home health aide visits by both rural and urban HHAs. This means that the change to percentage-of-mean cost limits probably resulted in somewhat higher total Medicare payments and fewer HHAs being affected by the cost limits. The amount that affected HHAs would need to reduce costs to avoid a loss was also lower than it would have been under the 75th-percentile method. Relatively few occupational therapy and medical social services visits are made, so the main effect would have been on home health aide visits. The number of HHAs affected in 1989 using the two methods is shown in table 3.2.

Table 3.2: HHAs Affected by July 1, 1989, Cost Limits Computed Using the 112-Percent-of-Mean and the 75th-Percentile-of HHA Costs Methods

Type of service	Urban			Rural		
	Percentage-of-mean costs	Percentile of HHAs	Difference	Percentage-of-mean costs	Percentile of HHAs	Difference
Skilled nursing	774	820	−46	402	416	−14
Physical therapy	776	815	−39	337	350	−13
Occupational therapy	611	654	−43	166	140	+26
Speech therapy	610	631	−21	213	217	-4
Medical social services	474	480	-6	104	98	+6
Home health aide	729	674	+55	469	398	+71

Conclusions

The cost limits computed using the percentage-of-mean costs and percentile-of-HHAs methods are similar. In 1989, the main effect of changing to the percentage-of-mean method was a decrease in the limit for home health aide visits—about 5 percent for rural HHAs and about 3 percent for urban HHAs. For the other major type of visit, skilled nursing, the cost limits are slightly higher.

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