

Department of Health and Human Services

**OFFICE OF
INSPECTOR GENERAL**

**GEOGRAPHICAL VARIATION IN VISITS
PROVIDED BY HOME HEALTH AGENCIES**



JUNE GIBBS BROWN
Inspector General

SEPTEMBER 1995
OEI-04-93-00262

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EXECUTIVE SUMMARY

PURPOSE

To assess geographical variation in average number of Medicare visits provided by home health agencies.

BACKGROUND

In a prior 1995 inspection report, we described significant variation among home health agencies (HHAs) in average reimbursement per beneficiary. The highest-reimbursement group of HHAs received, on average, five times more Medicare reimbursement per beneficiary than did the lowest-reimbursement group. The variation in reimbursement among HHAs was largely caused by variation in the average number of visits per beneficiary.

This report identifies geographic locations of high-visit HHAs. The Health Care Financing Administration (HCFA), State survey agencies, Regional Home Health Intermediaries (RHHIs), Offices of Investigations and Audit Services in the Office of Inspector General, and law enforcement agencies will find the report useful in targeting resources for detection and prevention of fraud and abuse.

We analyzed HCFA data on Medicare reimbursement for home health services in calendar year 1993. The HCFA data represented services provided by 6,803 HHAs to over 3 million beneficiaries.

FINDINGS

Nineteen States Had A Larger Concentration Of High-Visit HHAs Than Other States

Home health agencies in 19 States exceeded the national average of 50.4 visits per beneficiary. HHAs in those States averaged 67.2 visits per beneficiary while HHAs in the remaining 34 States averaged 36.

Home Health Agencies In The Southeastern Region Averaged The Most Visits Per Beneficiary

HHAs in Region IV (Southeastern Region) averaged 70 visits per Medicare beneficiary. Seven of the eight States in Region IV were among the 19 high-visit States.

Home Health Agencies In Four Southeastern States Averaged Twice As Many Visits Per Medicare Beneficiary As HHAs In All Other States

HHAs in Tennessee, Alabama, Mississippi, and Georgia combined averaged 92.7 visits per beneficiary. All other States averaged 45.7 visits.

About 86 percent of the HHAs located in these four Southeastern States exceeded the national average number of visits per Medicare beneficiary compared to 34 percent for the rest of the nation.

About 35 percent of the HHAs located in these States averaged 100 or more visits per Medicare beneficiary compared to 7 percent of the HHAs in the rest of the nation.

Regardless Of Their Location, HHAs Serviced By Regional Home Health Intermediaries Located In The Southeast Had The Highest Number Of Visits Per Medicare Beneficiary

Home health agencies serviced by Aetna Life Insurance in Clearwater, Florida and Blue Cross & Blue Shield in Columbia, South Carolina averaged 72.2 and 65.1 visits per Medicare beneficiary, respectively. This is about twice the average of HHAs serviced by Independence Blue Cross in Philadelphia, Pennsylvania and Blue Cross in Woodland Hills, California, which had the lowest average number of visits among the nine RHHIs. Some of the HHAs the two Southeastern RHHIs service are located outside of the Southeast, suggesting that both the location of the HHA and the identity of the servicing intermediary are strongly associated with variation in visits.

FUTURE OIG STUDIES

In a previous report, "*Variation Among Home Health Agencies in Medicare Payments For Home Health Services*," OEI-04-93-00260, we recommended that HCFA take action to eliminate inappropriate variation in Medicare reimbursement among HHAs. Specifically, we suggested that HCFA target high-visit HHAs for further review. We believe the information in this report will assist HCFA in implementing that recommendation.

We also believe that the variation in average number of visits by State and regions raises questions about the uniformity of oversight among State survey agencies, HCFA regional offices, and Regional Home Health Intermediaries. We plan to continue our analysis of these and related questions under Operation Restore Trust.

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INTRODUCTION

PURPOSE

To assess geographical variation in average number of Medicare visits provided by home health agencies.

BACKGROUND

In a prior 1995 inspection report¹, we described significant variation among home health agencies (HHAs) in average reimbursement per beneficiary. The variation in reimbursement among HHAs was largely caused by variation among HHAs in the average number of visits per beneficiary. The highest-reimbursement group of HHAs received, on average, five times more Medicare reimbursement per beneficiary than did the lowest-reimbursement group. Other possible causes of the variation, such as differences in cost per visit, beneficiary characteristics (age, sex, and illness), quality of services, and types of services appeared to explain little or none of the variation.

This report identifies geographic locations of HHAs that average a high number of visits per Medicare beneficiary. The Health Care Financing Administration (HCFA), State survey agencies, Regional Home Health Intermediaries (RHHIs), Offices of Investigations and Audit Services in the Office of Inspector General, and law enforcement agencies will find the report useful in targeting resources for detection and prevention of fraud and abuse.

METHODOLOGY

Because the extreme variation in reimbursement to HHAs was strongly linked to the number of visits made, we used average visits per beneficiary as a proxy for average reimbursement and focussed this inspection on visits.

To determine the average number of visits per beneficiary per HHA, we first identified all HHAs in the United States that were certified to participate in the Medicare program. We used HCFA's On-line Survey and Certification Reporting System (OSCAR) for 1993 and identified 6,803 HHAs.

We then identified all episodes of care claimed for reimbursement by the 6,803 HHAs for Medicare beneficiaries. We used HCFA's National Claims History data file and identified 3,263,100 episodes of home health care in 1993. We considered each episode of home health care to be equivalent to one beneficiary served. An episode is a period of care with no breaks between visits greater than 60 days.

¹*Variation Among Home Health Agencies In Medicare Payments For Home Health Services - OEI-04-93-00260*

We then calculated the average number of visits per beneficiary for each of the 6,803 HHAs. That is, we divided the total number of home health visits that an HHA made by the number of Medicare beneficiaries served.

Finally, we arrayed all 6,803 HHAs by average number of visits per beneficiary. Next, we determined the geographic location of each of the 6,803 HHAs and classified them by (1) State, (2) the 10 standard Federal Regions, and (3) the 9 servicing Regional Home Health Intermediaries (RHHIs). RHHIs are responsible for processing Medicare claims from HHAs. For the purpose of our analyses, we considered Puerto Rico, Virgin Islands, and District of Columbia as States.

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We conducted our inspection in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

FINDINGS

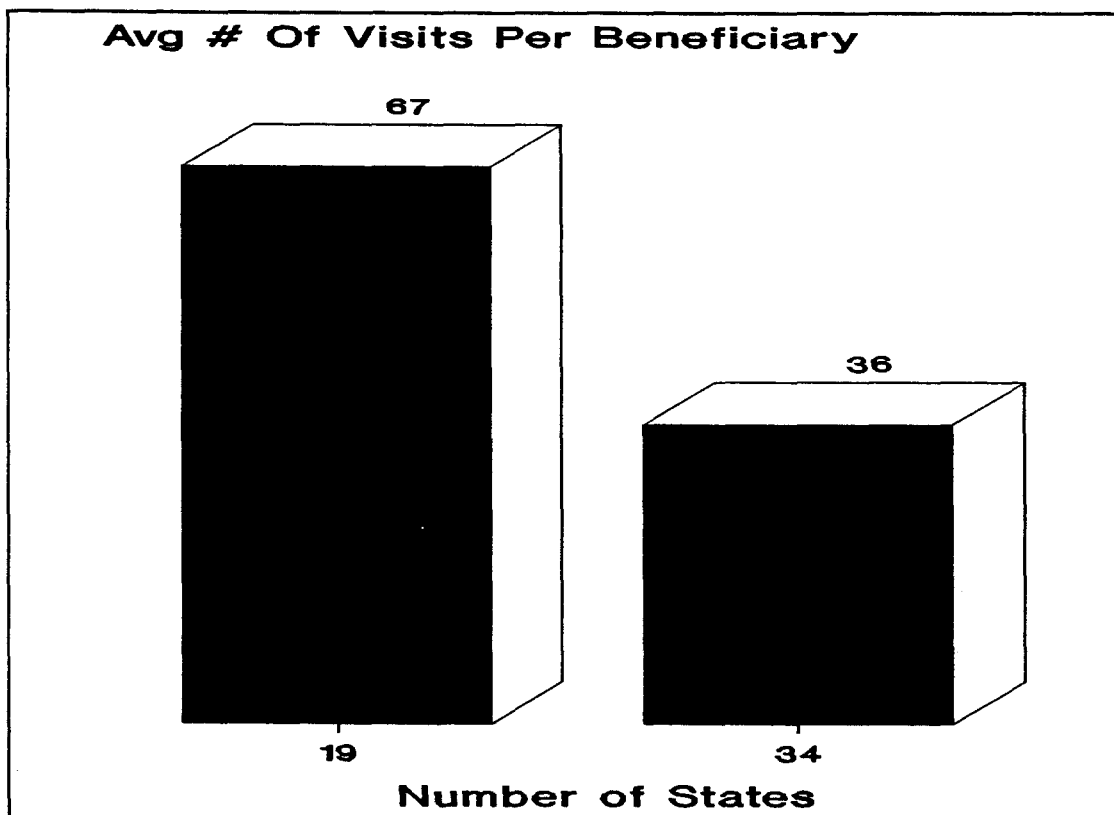
NINETEEN STATES HAD A LARGER CONCENTRATION OF HIGH-VISIT HHAs THAN OTHER STATES

On average, home health agencies in 19 States exceeded the national average of 50.4 visits per beneficiary. Figure 1 shows that HHAs in the 19 States averaged 67.2 visits per beneficiary while HHAs in the remaining 34 States averaged 36.

Nationally, the average number of home health care visits per Medicare beneficiary in the 53 States ranged from a low of 20.5 to a high of 94.9. The number of visits per beneficiary by HHAs in the 19 high States ranged from 50.8 to 94.9.

Appendix A shows how HHAs in each State compared to the national average of 50.4 visits per beneficiary.

**FIGURE 1
AVERAGE VISITS PER BENEFICIARY BY HHAs IN 19 HIGH-VISIT STATES
COMPARED TO VISITS BY HHAs IN ALL OTHER STATES**



HOME HEALTH AGENCIES IN THE SOUTHEASTERN REGION AVERAGED THE MOST VISITS PER BENEFICIARY

HHAs in Region IV (Southeastern Region) averaged 70 visits per Medicare beneficiary. Table 1 shows that three of the ten Federal regions exceeded the national average of 50.4 visits per Medicare beneficiary by HHAs. The three regions were Region IV, VI, and I. HHAs in these three regions averaged 66.9 visits per Medicare beneficiary while HHAs in the remaining seven regions averaged 37.8 visits.

TABLE 1

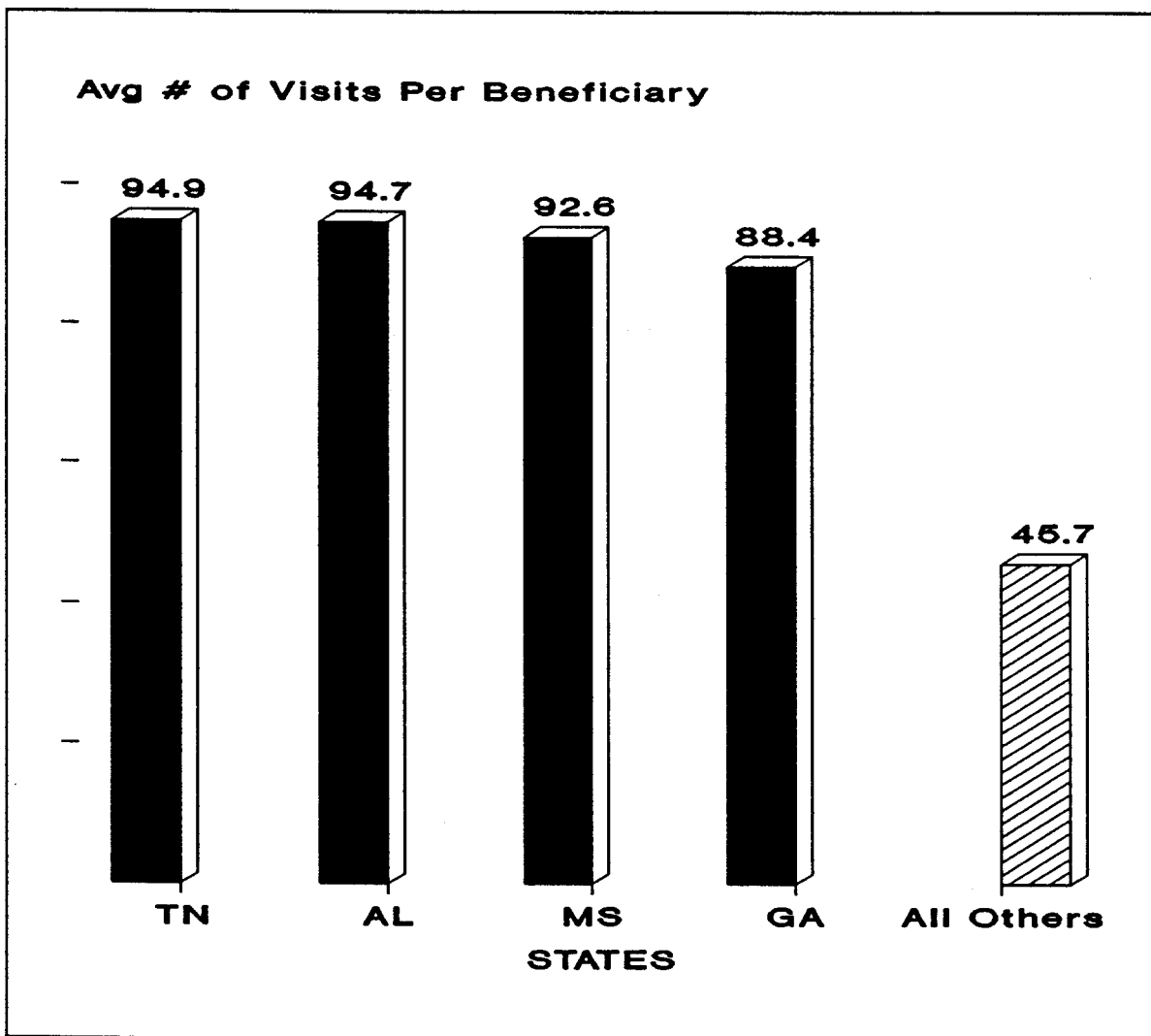
COMPARISON OF AVERAGE NUMBER OF HOME HEALTH VISITS PER MEDICARE BENEFICIARY BY REGION		
REGION	STATES IN REGION	AVG # OF VISITS*
IV-Atlanta	Alabama, Florida, Georgia, Kentucky, Mississippi, N Carolina, S Carolina, Tennessee	70.0
VI-Dallas	Arkansas, Louisiana, New Mexico, Oklahoma, Texas	66.1
I-Boston	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	60.1
VIII-Denver	Colorado, Montana, N Dakota, S Dakota, Utah, Wyoming	45.1
V-Chicago	Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin	38.7
IX-San Francisco	Arizona, California, Hawaii, Nevada	37.5
II-New York	New York, New Jersey, Puerto Rico, Virgin Islands	37.5
VII-Kansas City	Iowa, Kansas, Missouri, Nebraska	36.6
III-Philadelphia	Delaware, Maryland, Pennsylvania, Virginia, West Virginia, District of Columbia	34.6
X-Seattle	Alaska, Idaho, Oregon, Washington	34.1
*Average number of visits based on location of providers rather than beneficiaries		

Seven of the eight States in Region IV were among the 19 high-visit States for home health services. Home health agencies in the seven States averaged 72.3 visits per Medicare beneficiary in 1993. This was about 1.4 times the national average of 50.4 home health visits per beneficiary.

HOME HEALTH AGENCIES IN FOUR SOUTHEASTERN STATES AVERAGED TWICE AS MANY VISITS PER MEDICARE BENEFICIARY AS HHAs IN ALL OTHER STATES

The four States were Tennessee, Alabama, Mississippi, and Georgia. Combined, HHAs in the four Southeastern States averaged 92.7 visits per beneficiary. All other States averaged 45.7 (See Figure 2.) The average number of home health visits by HHAs in the four Southeastern States ranged from 88.4 to 94.9 during 1993. Appendix A shows the average number of visits per beneficiary in each State.

**FIGURE 2
AVERAGE VISITS PER BENEFICIARY BY HHAs IN FOUR HIGHEST-VISIT STATES COMPARED TO VISITS BY HHAs IN ALL OTHER STATES**



Most Of The HHAs Located In The Four Southeastern States Exceeded The National Average Number Of Visits Per Medicare Beneficiary.

Of the 541 HHAs located in the four high-visit Southeastern States, 86 percent (465) averaged more than 50.4 visits per beneficiary in 1993. Conversely, about 34 percent (2,110) of the 6,262 HHAs located in the rest of the nation exceeded 50.4 visits per beneficiary.

Table 2 shows the percentage of HHAs in each of the four States that exceeded the national average number of visits per beneficiary. On average, between 81 and 93 percent of the 541 HHAs exceeded the national average. Appendix A contains a complete list of States showing the percentage of HHAs within those States that averaged above and below the national average of 50.4 visits per Medicare beneficiary.

TABLE 2

PERCENTAGE OF HHAs ABOVE NATIONAL AVERAGE OF 50 HOME HEALTH VISITS PER MEDICARE BENEFICIARY	
Mississippi	93.2%
Georgia	86.6%
Tennessee	86.4%
Alabama	81.6%
Rest of Nation	33.7%

About 35 Percent Of The HHAs Located In The Four Southeastern States Averaged 100 Or More Visits Per Medicare Beneficiary.

Of the 541 HHAs located in the four highest-visit States, 188 (about 35 percent) averaged 100 or more visits per Medicare beneficiary. Only 7.1 percent (442 of 6,262) of HHAs in the rest of the nation averaged 100 or more visits (See Table 3).

TABLE 3

PERCENTAGE OF HHAs AVERAGING 100 OR MORE HOME HEALTH VISITS PER MEDICARE BENEFICIARY	
Tennessee	42.5%
Georgia	31.7%
Mississippi	30.1%
Alabama	27.2%
Rest of Nation	7.1%

REGARDLESS OF WHERE THE HHA IS LOCATED, HHAs SERVICED BY REGIONAL HOME HEALTH INTERMEDIARIES LOCATED IN THE SOUTHEAST HAD THE HIGHEST NUMBER OF VISITS

Home health agencies serviced by Aetna Life Insurance in Clearwater, Florida and Blue Cross & Blue Shield in Columbia, South Carolina (See Table 4) averaged about twice as many visits per beneficiary as HHAs serviced by Independence Blue Cross in Philadelphia, Pennsylvania and Blue Cross in Woodland Hills, California, even though some of the HHAs they service are located outside of the Southeast. This suggests that both the location of the HHA and the identity of the servicing intermediary are strongly associated with variation in visits.

TABLE 4

AVERAGE NUMBER OF VISITS BY HHAs SERVICED BY EACH RHHI	
RHHI	AVERAGE # OF HOME HEALTH VISITS PER MEDICARE BENEFICIARY
Aetna Life Insurance Co. Clearwater, FL	72.2
Blue Cross & Blue Shield of South Carolina Columbia, SC	65.1
New Mexico Blue Cross and Blue Shield, Inc. Albuquerque, NM	61.8
Assoc Hospital Service of Maine South Portland, ME	59.9
IASD Health Services Corp. Des Moines, IA	49.9
Health Care Service Corp. Chicago, IL	42.9
Blue Cross and Blue Shield United of Wisconsin Milwaukee, WI	36.9
Blue Cross of California Woodland Hills, CA	34.2
Independence Blue Cross Philadelphia, PA	32.5

The vast majority of HHAs serviced by Aetna in Clearwater, Florida and Blue Cross/Blue Shield of South Carolina are located in the Southeastern Region. About 91 percent of HHAs serviced by Aetna Clearwater are in Region IV, and the remaining 9 percent are in other geographic regions. About 89 percent of HHAs serviced by South Carolina Blue Cross/Blue Shield are in Region IV, and about 11 percent are located in other geographic regions.

The average number of visits per beneficiary by HHAs serviced by Aetna Clearwater and Blue Cross/Blue Shield of South Carolina averaged more than that for most other RHHIs -- regardless of HHA location. To illustrate, the HHAs located in the Southeast and serviced by Aetna Clearwater averaged 72.1 visits per beneficiary. Comparably, the HHAs located outside the Southeastern Region and serviced by Aetna Clearwater averaged 74.6 visits per beneficiary.

Likewise, the HHAs in the Southeastern Region that were serviced by South Carolina Blue Cross/Blue Shield averaged 66.8 visits per beneficiary. The HHAs located outside the Southeast and serviced by South Carolina Blue Cross/Blue Shield average 53.2 visits per beneficiary. While the average of 53.2 visits per beneficiary is less than that for HHAs serviced by South Carolina Blue Cross/Blue Shield in the Southeast, it is higher than that for five of the nine RHHIs nationally (See Table 4).

FUTURE OIG STUDIES

In a previous report, "*Variation Among Home Health Agencies in Medicare Payments For Home Health Services*," OEI-04-93-00260, we recommended that HCFA take action to eliminate inappropriate variation in Medicare reimbursement among HHAs. Specifically, we suggested that HCFA target high-visit HHAs for further review. We believe the information in this report will assist HCFA in implementing that recommendation.

We also believe that the variation in average number of visits by State and regions raises questions about the uniformity of oversight among State survey agencies, HCFA regional offices, and Regional Home Health Intermediaries. We plan to continue our analysis of these and related questions under Operation Restore Trust.

APPENDIX A

NUMBER OF VISITS AMONG 6,803 HHAs IN 53 STATES				
States are listed in ascending order based on average number of home health visits per Medicare beneficiary				
STATE	# OF HHAs	AVG # OF VISITS PER BENE	% OF HHAs ABOVE THE NATIONAL AVERAGE OF 50 VISITS PER BENE	% OF HHAs AVERAGING 100 OR MORE VISITS PER BENE
Virgin Islands	2	20.5	0%	0%
Minnesota	196	26.2	13.8%	3.1%
Wisconsin	165	27.9	21.8%	3.0%
South Dakota	29	28.0	6.9%	0%
Puerto Rico	44	28.8	2.3%	2.3%
Iowa	162	29.1	17.9%	5.6%
Dist of Columbia	12	29.6	0%	0%
Alaska	12	30.7	16.7%	8.3%
Maryland	71	31.3	8.5%	0%
New Jersey	53	32.6	3.8%	0%
Oregon	71	33.0	14.1%	0%
Washington	55	33.0	14.5%	1.8%
Nebraska	52	33.1	15.4%	3.8%
Hawaii	20	33.3	30.0%	5.0%
Pennsylvania	276	33.7	17.0%	1.4%
Michigan	157	33.8	12.7%	1.9%
New Mexico	63	35.5	23.8%	4.8%
California	460	35.9	15.9%	2.4%
Colorado	120	36.1	32.5%	9.2%
Montana	43	37.3	16.3%	0%
North Dakota	31	37.3	25.8%	6.5%

NUMBER OF VISITS AMONG 6,803 HHAs IN 53 STATES (continued)

States are listed in ascending order based on average number of home health visits per Medicare beneficiary

STATE	# OF HHAs	AVG # OF VISITS PER BENE	% OF HHAs ABOVE THE NATIONAL AVERAGE OF 50 VISITS PER BENE	% OF HHAs AVERAGING 100 OR MORE VISITS PER BENE
Virginia	180	38.3	22.2%	2.8%
Missouri	192	39.0	18.2%	2.6%
Delaware	18	39.3	33.3%	0%
Illinois	276	39.9	26.8%	2.2%
West Virginia	63	40.1	20.6%	1.6%
Ohio	285	41.1	26.3%	5.3%
New York	201	41.6	11.9%	1.0%
Idaho	45	42.0	22.2%	0%
Kansas	139	42.5	21.6%	3.6%
Arizona	73	44.1	27.4%	4.1%
North Carolina	141	49.8	24.1%	0.7%
New Hampshire	36	50.0	44.4%	5.6%
Vermont	13	50.2	46.1%	0%
National Average		50.4	37.9%	9.3%
Rhode Island	18	50.8	38.9%	0%
Maine	23	50.9	39.1%	0%
Wyoming	46	52.2	32.6%	10.9%
South Carolina	62	52.8	40.3%	3.2%
Kentucky	102	54.2	46.1%	2.9%
Arkansas	194	55.5	49.0%	3.6%
Connecticut	110	56.3	49.1%	5.2%
Florida	287	56.5	53.0%	6.6%

NUMBER OF VISITS AMONG 6,803 HHAs IN 53 STATES (continued)

States are listed in ascending order based on average number of home health visits per Medicare beneficiary

STATE	# OF HHAs	AVG # OF VISITS PER BENE	% OF HHAs ABOVE THE NATIONAL AVERAGE OF 50 VISITS PER BENE	% OF HHAs AVERAGING 100 OR MORE VISITS PER BENE
Indiana	170	58.0	47.6%	10.0%
Nevada	23	58.9	56.5%	4.3%
Texas	709	63.1	52.8%	13.0%
Massachusetts	143	67.2	72.7%	16.8%
Oklahoma	172	71.0	52.3%	20.3%
Utah	49	77.3	71.4%	16.3%
Louisiana	398	80.9	70.4%	28.6%
Georgia	82	88.4	86.6%	31.7%
Mississippi	73	92.6	93.2%	30.1%
Alabama	158	94.7	81.6%	27.2%
Tennessee	228	94.9	86.4%	42.5%