

Profile of Active Hospice and Palliative Medicine Physicians, 2016

Prepared by

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Introduction

This report provides a picture of the hospice and palliative medicine (HPM) workforce in the United States in 2016, including supply, demographics, educational background, general practice characteristics, and geographic distribution of physicians who are board-certified in or self-identified as practicing HPM. This information can help in understanding the current HPM workforce and lays the foundation for future study of the HPM physician workforce, including identification of trends and changes.

Executive Summary

- As of January 2016 there were nearly 6,400 active HPM physicians as reported by the American Medical Association (AMA), of which the vast majority (93.5%) was focused on patient care. Among physicians who have achieved subspecialty certification in HPM from 2008 through 2015, 4,200 were certified by the American Board of Internal Medicine (ABIM), 1,723 were certified by the American Board of Family Medicine (ABFM), and 234 were certified by the American Board of Pediatrics (ABP).
- On average across the United States, there were 15.7 HPM physicians per 100,000 people aged 65 years and older.
- Overall, HPM physicians are younger than the general physician workforce. Thirty-six percent were 55 years or older in 2014 compared with 43% for all active physicians. Physicians entering training in HPM generally are older than for other specialties (36.2 years vs 30.2 years, respectively), so this likely reflects the relatively recent recognition of the specialty by the American Board of Medical Specialties (ABMS) and American Osteopathic Association (AOA).
- Representation of women in HPM is rapidly increasing. Overall, 53% of active HPM physicians are men, but 61.7% of HPM fellows are women. Men are the majority for age groups 50 years and older, and women are the majority for age groups younger than 50 years.
- Although the race and ethnicity composition of practicing HPM physicians is not readily available, black/African American physicians are 4.5% of HPM fellows compared with 5.3% of all physicians from 2010 through 2012. Hispanics/Latinos are 7.7% of HPM fellows compared with 6% of all physicians from 2010 through 2012.
- US allopathic medical school graduates (MDs) represent 67.9% of all active HPM physicians and 62.8% of fellows. International medical school graduates (IMGs) represent 26.4% of practicing HPMs and 21.9% of fellows. The representation of DOs in HPM is rapidly increasing. Only 5.8% of active HPMs are DOs compared with 15.3% of HPM fellows.
- The supply of HPM physicians is not distributed evenly across the country, and wide variation by region can be seen in the ratio of number of HPM physicians per 100,000 people 65 years and older. Analyzing the distribution by the Dartmouth Hospital Referral Regions (HRRs), in 2016 the bottom quartile of HRRs had between 0 and 8.5 HPM physicians per 100,000 people aged 65 years and older, and the top quartile of HRRs had between 17.3 and 55 HPM physicians per 100,000 people who were 65 years and older.
- The supply of HPM physicians likely will increase significantly in coming years. Although it is difficult to predict, in part because the number of HPM fellowship positions has more than doubled in the past 8 years, continued growth is likely. At the current number of physicians trained in HPM fellowship programs—about 300 new fellows per year—about 1,500 new HPM physicians would enter the workforce per 5-year cohort, compared with 900 or fewer practicing HPM physicians in the 55 to 59 years and 60 to 64 years age cohorts who may retire.

Active Hospice and Palliative Medicine Physicians in the United States

The Overall Supply

There are several alternative data sources and definitions that can be used to count and describe the supply of HPM physicians. For this analysis, our primary source was the AMA Masterfile,¹ which is generally viewed as the most comprehensive source of data on physicians in the United States. Using the Masterfile, we present counts of active patient care physicians who list HPM as their first or second specialty or are board certified in HPM by ABMS. *Active physicians* are defined as those reported by the AMA to be working 20 hours or more each week. According to the Masterfile, there were 6,391 active HPM physicians as of January 2016. Of these, 5,973 (93.5%) were reported to be providing direct patient care as their primary activity (**Exhibit 1**).

Activity	Number of Physicians
Direct patient care	5,973
Medical teaching	178
Administration	171
Medical research	69
Total	6,391

Exhibit 1. Number of HPM Physicians by Primary Activity

Source: AMA Masterfile, January 2016

These numbers are similar to the number of ABMS physicians who have achieved subspecialty certification in HPM (6,748 as of December 31, 2015). According to ABIM, ABFM, and ABP, there were 4,200 internists, 1,723 family physicians, and 234 pediatricians who have achieved HPM certification as of December 31, 2015. This may reflect that many of the currently certified HPM physicians were practicing medicine (and acquired their NPI) prior to the recognition of the specialty by ABMS and AOA, combined with the absence of any billing codes unique to HPM that might have motivated physicians to update their NPI. **Appendix 1** reviews the data sources and methodology in greater detail.

The Age and Gender of Active HPM Physicians

The distribution of HPM physicians by 5-year age cohort is shown in **Exhibit 2.** There sometimes are delays in entering new physicians and removing inactive physicians to the AMA Masterfile.2 Thus, the AMA data may underestimate the number of younger physicians and overestimate the number of older physicians. Exhibit 2 shows a large number of physicians aged 40 years and older. Most of these physicians did not complete a formal HPM fellowship program because the first Accreditation Council of Graduate Medical Education (ACGME) programs were not accredited until the 2008-2009 academic year. With the recognition of the specialty in 2006 by ACGME, many physicians who were already practicing in the field were able to become board certified. Appendix 1 includes data on ABMS certifications by year of certification, documenting the large numbers that became certified during the 6-year grandfathering period after the specialty was recognized. This makes it difficult to interpret the age distribution as an indicator of growth or decline in the specialty.

¹ AMA Masterfile, January 2016

² http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2791886/



Exhibit 2. Age Distribution of Active HPM Physicians

Source: AMA Masterfile, January 2016

New HPM physicians are older than new physicians in most other specialties at the time they enter training. The average age for HPM fellows is 36.2 years, compared with 30.2 for all residents and fellows³; this reflects the fact that about 40% of recent HPM fellows had some experience in medical practice before entering the specialty. Despite the higher age at entry and the influx of many experienced HPM physicians soon after recognition of the specialty, HPM physicians still are relatively young compared with physicians at large: 36.3% of active HPM physicians are 55 years or older compared with 43.2% for all specialties.⁴

Overall, 53% of active HPM physicians are men; however, as indicated in **Exhibit 3**, the percent by age cohort varies greatly, with men representing the vast majority of older HPM physicians and comprising a minority of physicians younger than 50 years. According to ACGME, 61.7% of HPM fellows in the 2015-2016 class⁵ were women, indicating that the shift toward greater representation by women is continuing.



Exhibit 3. Distribution by Age and Gender

Source: AMA Masterfile, January 2016

- 3 ACGME Annual Data Resource Book 2015-16
- 4 AAMC 2016 Physician Specialty Data Book
- 5 ACGME Annual Data Resource Book 2015-16

As illustrated in **Exhibit 4**, women represent the majority of fellows training in HPM, and the proportion of women has been in the 60% to 70% range for the past several years. Exhibit 4 also shows that HPM draws a higher share of women than general internal medicine.



Exhibit 4. Percent of Female HPM Fellows Over Time

Source: ACGME Annual Data Resource Books

The increasing representation of women in HPM has several possible implications. Analysis of physician work hours using US Census data (which does not include physician specialty) shows that female physicians work fewer hours on average than their male counterparts. It is also important to note that work hours for male physicians have declined significantly on average over the past three decades, further decreasing average full-time (FTE) contributions over time,⁶ perhaps as part of a trend in which the younger generation of physicians may not work as many hours as their counterparts from earlier generations. Collecting data on HPM work hours by age group over time could provide important insight into changes in FTEs for the HPM workforce. The National Center for Health Workforce Analysis (NCHWA) has recommended that health professions collect this type of data and provides guidance to support these efforts.⁷ AAHPM may consider collecting basic data on activities, including work hours, as part of membership renewal efforts.

Race and Ethnicity of the HPM Physician Workforce

The AMA Masterfile does not make data available on race or ethnicity; however, ACGME collects diversity data about fellows in training. As seen in **Exhibit 5**, an estimated 4.7% of fellows were black/ African American and 7.7% Hispanic/Latino, compared with 5.3% and 6%, respectively, of all physicians according to the 2010-2012 American Community Survey.⁸

⁶ http://jamanetwork.com/journals/jama/fullarticle/185433

⁷ http://bhw.hrsa.gov/healthworkforce/data/minimumdataset/index.html

⁸ US DHHS, Health Resources and Services Administration, National Center for Health Workforce Analysis. Sex, Race, and Ethnic Diversity of U.S. Health Occupations (2010-2012), Rockville, Maryland; 2014.

Exhibit 5. Race and Ethnicity of HPM Fellows 2015-2016

Race/Ethnicity	Number	Percent
White, non-Hispanic	157	57.3
Asian or Pacific Islander	50	18.2
Hispanic/Latino	21	7.7
Black, non-Hispanic	13	4.7
Native American/Alaskan	0	0.0
Other	16	5.8
Unknown	17	6.2
Total	274	100%

Source: ACGME Resource Data Book, 2015-2016

Type of Medical Education

In terms of the overall supply of active HPM physicians, just over two-thirds (67.9%) are MDs, 26.4% are graduates of IMGs, and 5.8% are DOs (**Exhibit 6**). The percent of practicing physicians who are IMGs is consistent with the percent for the US physician workforce overall; however, the percentage of DOs is below the national representation (5.8% vs 7.6%, respectively).⁹ The pipeline of future HPM physicians, those now in training, shows a different distribution of DOs compared with the overall supply of practicing HPM physicians (15.3% vs 5.8%). The 15.3% figure for DO fellows is well above the 10.1% for all residents and fellows in training in 2015-2016.

Exhibit 6. Type of Medical Education

	Active HPM I	Physicians	ACGME HPM Fell	lows 2015-2016	All ACGME Residents and Fellows 2015-2016
	Frequency	Percent	Frequency	Percent	Percent
MD	4,352	67.9	172	62.8	64.8
IMG	1,690	26.4	60	21.9	25.0
DO	369	5.8	42	15.3	10.1
Total	6,411	100	274	100	100

Sources: AMA Masterfile, January 2016; ACGME Resource Data Book, 2015-2016

Exhibit 7 presents the distribution by type and location of medical education by 5-year age cohorts. Although there is a slightly higher proportion of IMGs in the middle age groups, the younger 5-year cohorts have a lower representation of IMGs.

9 Association of American Medical Colleges (AAMC) 2016 Physician Specialty Data Book



Exhibit 7. Distribution of HPM Physicians by Age and Type of Education

Source: AMA Masterfile, January 2016

As seen in **Exhibit 8**, the percentage of US MDs entering the field has been in the 60% range for the past 8 years. Exhibit 8 also shows the recent rise in DOs and decrease in IMGs entering the specialty.





Source: ACGME Annual Resource Data Books

Activities

The vast majority of HPM physicians (93.5%) are primarily engaged in patient care (**Exhibit 9**).





Source: AMA Masterfile, January 2016

Middle-aged HPM physicians (younger than 65 years) are more likely to be involved in medical research, administration, and teaching. It cannot be determined from this data if this is a natural career progression, with younger HPM physicians focused almost exclusively on patient care, or if this reflects a new pattern of work for older generations of HPM physicians.

Distribution

The supply of HPM physicians primarily providing patient care is not distributed evenly across the country. **Exhibit 10** and **Exhibit 11** present the number of active HPM physicians and the distribution of HPM fellowship programs. HPM physicians are more likely to be located near training sites, which tend to be academic medical centers and children's hospitals. It should be noted that the physicians and fellowship programs were located on the maps based on their HRR.¹⁰ The 305 HRRs reflect hospital use patterns of Medicare patients and are a common way to carry out geographic planning and analysis of healthcare services. The physicians and fellowship programs on the map are located in the center of their HRR, which may not reflect the exact geographic location of the physician or the program.

As the map shows, there is a higher concentration of HPM specialists (and training programs) in the eastern half of the United States and on the West Coast, with relatively fewer in central and western states.

10 Dartmouth Atlas of Health Care

Exhibit 10. Number of Active HPM Physicians by Hospital Referral Region



Data on HPM physicians from AMA Masterfile, January 2016. Placed in HRRs by ZIP code of practice. The dots are placed in the geographic center of the HRR, which may be slightly different from the actual physical location.



Exhibit 11. Number of HPM Fellowship Programs by Hospital Referral Region

Source: American Academy of Hospice and Palliative Medicine

Source: AAHPM

Exhibit 12 and **Exhibit 13** present the number of HPM physician per 100,000 people aged 65 and older by HRR. The ratio ranges from 0 to more than 50 physicians per 100,000 people aged 65 years and older. Although this is a large range, it is not atypical of other physician specialties. Because HRRs differ in square mileage and population density, HRRs that include large rural areas (eg, Alaska and northern Arizona) may appear to have a high ratio of physicians per 100,000 even when there are relatively few HPM practitioners present. For instance, Anchorage, AK, and St. Paul, MN, are both in the top quartile with a similar density of HPM physicians per population within their HRR (29/100,000 for Anchorage, 28/100,000 for St. Paul). However, the 16 HPM physicians in Alaska must cover 663,000 square miles, while St. Paul's 34 physicians cover only part of a city and are augmented by the 56 additional physicians in neighboring Minneapolis. Other large, less populous states have similar issues—a concentration of HPM physicians in the limited urban centers doesn't reflect the small numbers of HPM providers in the states' remaining, largely rural, regions. Regardless of the adequacy of the overall number of physicians in a specialty, understanding and addressing maldistribution is a major policy challenge.



Exhibit 12. Histogram of HPM Physician Density for Population 65 Years and Older

Exhibit 13. HPM Physicians per 100,000 Population 65 Years and Older by HRR



Data on HPM physicians from AMA Masterfile, January 2016. Placed in HRRs by ZIP code of practice. HRRs are geographic areas based on Medicare inpatient use patterns; they can cover a large geographic area, especially in rural areas. Thus, even if the ratio of HPM physicians/100,000 may be relatively high, access to HPM physicians can be a challenge for rural communities.

Growth of HPM

As illustrated in **Exhibit 14** and **Exhibit 15**, the number of fellowship programs and the number of fellows have been growing steadily since 2009, shortly after the specialty was formally recognized. The annual number of fellows has grown by more than 130% over the past 8 years. Data from AAHPM indicate that there were 327 fellows in 2016-2017, demonstrating continued strong growth.





Source: ACGME Annual Resource Data Books





Source: ACGME Annual Resource Data Books

Given the continual but varying increases in the number of fellows each year, it is hard to predict what the inflow will be in 5 or 10 years. Efforts to project future supply are further confounded by the grandfathering in of a large number of practicing HPM physicians in 2010 and 2012, which makes it difficult to know how the current and potential future level of inflow will compare to the rate of retirement of older HPM physicians. Nevertheless, the supply of HPM physicians will grow if the specialty continues to attract more than 300 new HPM physicians each year. The 5-year age cohorts of existing HPM physicians older than 55 years number 900 or less (see Exhibit 2). Training 300 new HPM physicians per year would yield 1,500 new HPM physicians over 5 years, significantly more than the number reaching retirement age. On the other hand, not all new graduates will go into HPM patient care practice, average age at entry is older than most specialties, and we know little about retirement patterns. All of this suggests that while growth is clear, additional analysis will be needed to better assess the level of likely future growth.

Areas for Future Study

This report gives a general picture of the overall supply of HPM physicians. One area that needs additional work is understanding the supply and demand for pediatric palliative care. When assessing the low number of HPM physicians with board certification in pediatrics, we could not assume that it was these physicians alone who were serving pediatric palliative care patients. Pediatric and adult HPM practitioners train in the same fellowship programs. Data currently is not available to determine whether pediatric HPM physicians primarily treat children or treat a mix of pediatric and adult patients, nor do we know what proportion of pediatric HPM patients are served by adult HPM physicians. Further study is needed to elaborate both the numerator and denominator of the pediatric palliative care need and supply.

Finally we caution that this report does not address estimates of need for HPM physicians. New models of care, such as outpatient or home palliative care, may create additional demand for specialist physicians. On the other hand, increased training of other physicians in basic palliative care skills could shift some of the HPM workload from specialty HPM physicians to other specialists or primary care practitioners. Additional study of the forces that are driving changes in the role of HPM specialists is needed to project future demand.

Appendix 1. Methodology and Data Sources

This descriptive analysis relies heavily on the AMA Masterfile. The AMA Masterfile is one of the most comprehensive sources of data about physicians in the United States. It includes a wide range of data on all licensed physicians in the United States, including demographics, education, training, specialty, board certification status, practice location, license, and practice setting. However, the Masterfile is limited by delays in entering new physicians and in moving physicians from active to inactive status when they stop working or stop working full time.

GWHWI purchased the Masterfile for HPM physicians in January 2016. Physicians who listed HPM as their first or second specialty or who were board certified in HPM and were recorded as working more than 20 hours per week were included in the purchased file. There were 6,391 physicians in the file who were active in medicine. This is close to the 6,748 physicians who have achieved subspecialty certification in HPM as of December 31, 2015, as reported by ABMS (**Table A1**). However, the AMA and the ABMS include some different physicians. For example, ABMS includes some physicians who may be retired or working fewer than 20 hours per week, while the AMA Masterfile may include some physicians who self-define as HPM but are not board certified. Nevertheless, the similarity between the numbers suggests this is the general range of the number of active HPM physicians in the United States.

Table A1 provides a breakdown of HPM board-certified physician numbers based on year of certification and other specialty certification. The table shows the high rate of certification during the period up to the grandfathering deadline in 2012.

	Year of HPM Certification				
Additional Specialty Certification	2008	2010	2012	2014	Total
Anesthesiology	20	39	52	6	117
Emergency medicine	11	23	58	20	112
Family medicine	347	488	812	76	1,723
Internal medicine	788	1,061	2,126	225	4,200
Obstetrics and gynecology	9	12	47	2	70
Pediatrics	47	53	110	24	234
Physical medicine and rehabilitation	9	9	22	6	46
Psychiatry and neurology	25	24	55	6	110
Radiology	9	11	42	5	67
Surgery	10	16	36	7	69
Total	1,275	1,736	3,360	377	6,748

Table A1. Board Certification by Year of Exam Passage

Source: ABMS Board Certification Report, 2013-2014; American Board of Medical Specialties, 2015

Calculating the Ratio of HPM Physicians per 100,000 People Aged 65 Years and Older by Small Area

To show the supply of HPM physicians relative to the population in need, the report calculates the ratio of the number of active HPM physicians to the number of people in the area aged 65 years and older. Although the number of HPM physicians can be compared to a variety of potential measures of need (eg, total population or deaths in an area), for this analysis we selected the population aged 65 years and older, which could be calculated by small areas developed by the Dartmouth Atlas Project. These areas, known as HRRs, are based on Medicare patient hospital use patterns. Communities are included in an HRR if a majority of the Medicare patients in the community use a hospital in that area. ZIP codes are the building blocks of the 304 HRRs identified in the United States. The Dartmouth Atlas of Health Care makes a wealth of data available by HRR.¹¹ A limitation of this method is that it does not account for need in the population younger than 65 years. This is especially problematic for the pediatric population, whose distribution may differ from the distribution of the 65 years and older population.

To produce the map of HRR physician-to-population ratios, the Dartmouth Atlas HRR dataset matching ZIP codes to HRRs was first used in the Statistical Analysis System (SAS) to distribute all the doctors with an HPM specialty by HRR. The population in each ZIP code that was 65 years and older was then calculated from a file downloaded from the US Census Bureau (factfinder.census.gov) that provides population estimates by age grouping and ZIP code. SAS was used to calculate the population that was 65 years and older of each HRR based on the population of the ZIP codes included within it. A general map of the United States by HRR was developed in ArcGIS using mapping files from Dartmouth; these files included unpopulated regions to ensure the map did not have any gaps. The data from SAS were exported to ArcGIS, where a new variable was created for number of doctors by the total population aged 65 years and older in that region, after which the new variable was merged with the appropriate map background to produce the final map.

11 The Dartmouth Atlas of Health Care, http://www.dartmouthatlas.org/

Appendix 2. HPM/100,000 Population Aged 65 Years and Older by HRR

Hospital Referral Region	Number of HPM Doctors	Population 65 Years and Older	Doctors per 100,000 People
AK-ANCHORAGE	16	54,929	29.129
AL-BIRMINGHAM	43	317,859	13.528
AL-DOTHAN	2	57,767	3.462
AL-HUNTSVILLE	4	83,221	4.806
AL-MOBILE	8	113,849	7.027
AL-MONTGOMERY	6	59,662	10.057
AL-TUSCALOOSA	7	33,546	20.867
AR-FORT SMITH	4	55,236	7.242
AR-JONESBORO	3	35,133	8.539
AR-LITTLE ROCK	29	229,806	12.619
AR-SPRINGDALE	6	64,950	9.238
AR—TEXARKANA	2	39,028	5.125
AZ-MESA	12	162,580	7.381
AZ-PHOENIX	74	410,914	18.009
AZ-SUN CITY		96,101	0.000
AZ-TUCSON	23	192,947	11.920
CA-ALAMEDA CO	65	173,219	37.525
CA-BAKERSFIELD	7	104,393	6.705
CA-CHICO	2	46,211	4.328
CA-CONTRA COSTA CO	38	125,570	30.262
CA-FRESNO	18	123,871	14.531
CA-LOS ANGELES	183	1,068,899	17.120
CA-MODESTO	14	100,016	13.998
CA-NAPA	7	43,960	15.924
CA-ORANGE CO	58	372,929	15.553
CA-PALM SPR/RANCHO MIR	5	82,234	6.080
CA-REDDING	4	54,838	7.294
CA-SACRAMENTO	53	325,393	16.288
CA-SALINAS	3	43,261	6.935
CA-SAN BERNARDINO	35	297,910	11.749
CA-SAN DIEGO	82	404,403	20.277
CA-SAN FRANCISCO	96	195,470	49.112
CA—SAN JOSE	72	191,113	37.674
CA-SAN LUIS OBISPO	5	37,600	13.298
CA—SAN MATEO CO	36	107,928	33.356
CA—SANTA BARBARA	5	57,413	8.709
CA-SANTA CRUZ	12	30,189	39.750
CA-SANTA ROSA	13	68,301	19.033
CA-STOCKTON	9	62,900	14.308
CA-VENTURA	14	100,400	13.944

Hospital Referral Region	Number of HPM Doctors	Population 65 Years and Older	Doctors per 100,000 People
CO-BOULDER	17	30,828	55.145
CO-COLORADO SPRINGS	9	95,898	9.385
CO-DENVER	55	293,899	18.714
CO-FORT COLLINS	8	37,321	21.436
CO-GRAND JUNCTION	12	45,650	26.287
CO-GREELEY	6	44,540	13.471
CO-PUEBLO		27,558	0.000
CT-BRIDGEPORT	18	92,808	19.395
CT-HARTFORD	25	215,322	11.611
CT-NEW HAVEN	37	210,589	17.570
DC-WASHINGTON	52	310,595	16.742
DE-WILMINGTON	20	100,147	19.971
FL-BRADENTON	2	66,205	3.021
FL-CLEARWATER	12	115,854	10.358
FL-FORT LAUDERDALE	45	533,545	8.434
FL—FORT MYERS	28	292,045	9.588
FL-GAINESVILLE	11	81,696	13.465
FL-HUDSON	10	102,635	9.743
FL—JACKSONVILLE	29	199,204	14.558
FL-LAKELAND	5	60,497	8.265
FL-MIAMI	56	442,684	12.650
FL-OCALA	10	156,198	6.402
FL-ORLANDO	64	581,285	11.010
FL—ORMOND BEACH	12	91,983	13.046
FL-PANAMA CITY	3	32,210	9.314
FL-PENSACOLA	10	110,034	9.088
FL—SARASOTA	10	132,537	7.545
FL-ST PETERSBURG	12	78,245	15.336
FL-TALLAHASSEE	12	99,366	12.077
FL—TAMPA	31	173,201	17.898
GA-ALBANY	4	25,988	15.392
GA—ATLANTA	98	606,049	16.170
GA—AUGUSTA	8	87,084	9.187
GA-COLUMBUS	7	41,430	16.896
GA-MACON	14	95,196	14.707
GA-ROME	5	39,835	12.552
GA—SAVANNAH	9	111,173	8.095
HI-HONOLULU	41	195,138	21.011
IA-CEDAR RAPIDS	5	41,730	11.982
IA-DAVENPORT	5	77,190	6.478
IA-DES MOINES	20	151,279	13.221

Hospital Referral Region	Number of HPM Doctors	Population 65 Years and Older	Doctors per 100,000 People
IA-DUBUQUE	2	25,476	7.851
IA-IOWA CITY	10	45,476	21.990
IA-MASON CITY	6	25,156	23.851
IA-SIOUX CITY	3	38,984	7.695
IA-WATERLOO	3	33,625	8.922
ID-BOISE	16	105,703	15.137
ID—IDAHO FALLS	1	24,076	4.154
IL—AURORA		27,861	0.000
IL-BLOOMINGTON	2	22,546	8.871
IL-BLUE ISLAND	9	116,747	7.709
IL—CHICAGO	48	267,836	17.921
IL-ELGIN	5	78,958	6.332
IL-EVANSTON	31	144,434	21.463
IL-HINSDALE	16	53,401	29.962
IL—JOLIET	3	74,515	4.026
IL-MELROSE PARK	23	155,851	14.758
IL-PEORIA	8	98,213	8.146
IL-ROCKFORD	6	103,568	5.793
IL-SPRINGFIELD	5	134,540	3.716
IL-URBANA	7	62,203	11.253
IN-EVANSVILLE	8	104,343	7.667
IN-FORT WAYNE	6	116,055	5.170
IN-GARY	1	69,170	1.446
IN-INDIANAPOLIS	45	353,859	12.717
IN-LAFAYETTE	3	27,345	10.971
IN-MUNCIE		25,346	0.000
IN-MUNSTER		41,511	0.000
IN-SOUTH BEND	4	94,900	4.215
IN-TERRE HAUTE	2	26,099	7.663
KS-TOPEKA	8	60,776	13.163
KS-WICHITA	18	182,333	9.872
KY-COVINGTON	4	45,728	8.747
KY-LEXINGTON	21	197,852	10.614
KY–LOUISVILLE	37	232,608	15.907
KY-OWENSBORO	3	21,673	13.842
KY-PADUCAH	4	64,132	6.237
LA-ALEXANDRIA	3	39,773	7.543
LA-BATON ROUGE	14	103,725	13.497
LA-HOUMA	1	33,460	2.989
LA-LAFAYETTE	6	74,497	8.054
LA-LAKE CHARLES		33,216	0.000

Hospital Referral Region	Number of HPM Doctors	Population 65 Years and Older	Doctors per 100,000 People
LA-METAIRIE	8	63,289	12.640
LA-MONROE	5	37,372	13.379
LA-NEW ORLEANS	13	72,893	17.834
LA-SHREVEPORT	9	97,293	9.250
LA-SLIDELL	4	25,838	15.481
MA-BOSTON	126	671,456	18.765
MA-SPRINGFIELD	20	106,707	18.743
MA-WORCESTER	20	104,076	19.217
MD-BALTIMORE	55	326,908	16.824
MD-SALISBURY	7	81,513	8.588
MD—TAKOMA PARK	17	98,046	17.339
ME-BANGOR	7	67,213	10.415
ME-PORTLAND	27	162,351	16.631
MI—ANN ARBOR	67	173,206	38.682
MI-DEARBORN	6	70,621	8.496
MI-DETROIT	15	229,221	6.544
MI-FLINT	12	76,928	15.599
MI-GRAND RAPIDS	16	143,839	11.124
MI-KALAMAZOO	9	92,157	9.766
MI-LANSING	6	87,171	6.883
MI-MARQUETTE	5	35,200	14.205
MI-MUSKEGON	4	39,553	10.113
MI-PETOSKEY	1	32,843	3.045
MI-PONTIAC	8	55,737	14.353
MI-ROYAL OAK	21	99,571	21.090
MI—SAGINAW	9	112,339	8.011
MI-ST JOSEPH	3	22,501	13.333
MI-TRAVERSE CITY		44,708	0.000
MN-DULUTH	8	56,294	14.211
MN-MINNEAPOLIS	56	400,259	13.991
MN-ROCHESTER	27	64,767	41.688
MN-ST CLOUD	5	33,894	14.752
MN—ST PAUL	34	120,745	28.159
MO-CAPE GIRARDEAU		41,376	0.000
MO-COLUMBIA	13	101,511	12.806
MO-JOPLIN	4	58,599	6.826
MO-KANSAS CITY	50	308,605	16.202
MO-SPRINGFIELD	16	146,210	10.943
MO-ST LOUIS	41	468,600	8.749
MS-GULFPORT	2	23,017	8.689
MS-HATTIESBURG	6	40,578	14.786

Hospital Referral Region	Number of HPM Doctors	Population 65 Years and Older	Doctors per 100,000 People
MS-JACKSON	12	133,546	8.986
MS-MERIDIAN	1	29,222	3.422
MS-OXFORD		19,629	0.000
MS-TUPELO		54,718	0.000
MT-BILLINGS	8	81,117	9.862
MT—GREAT FALLS	3	23,397	12.822
MT-MISSOULA	7	59,670	11.731
NC-ASHEVILLE	33	124,631	26.478
NC-CHARLOTTE	36	279,680	12.872
NC-DURHAM	38	184,041	20.648
NC-GREENSBORO	10	84,656	11.813
NC-GREENVILLE	6	117,068	5.125
NC-HICKORY	10	45,145	22.151
NC-RALEIGH	18	213,987	8.412
NC-WILMINGTON	6	68,200	8.798
NC-WINSTON-SALEM	30	167,109	17.952
ND-BISMARCK	2	34,765	5.753
ND—FARGO/MOORHEAD, MN	10	80,140	12.478
ND-GRAND FORKS	3	24,241	12.376
ND-MINOT		19,546	0.000
NE-LINCOLN	5	84,137	5.943
NE-OMAHA	16	172,207	9.291
NH-LEBANON	20	66,212	30.206
NH-MANCHESTER	28	114,093	24.541
NJ-CAMDEN	39	433,396	8.999
NJ—HACKENSACK	29	178,486	16.248
NJ-MORRISTOWN	24	134,575	17.834
NJ-NEW BRUNSWICK	19	129,230	14.702
NJ—NEWARK	18	173,613	10.368
NJ—PATERSON	10	51,351	19.474
NJ-RIDGEWOOD	12	56,850	21.108
NM-ALBUQUERQUE	52	225,116	23.099
NV-LAS VEGAS	20	247,447	8.083
NV-RENO	17	100,960	16.838
NY-ALBANY	35	276,475	12.659
NY-BINGHAMTON	2	60,451	3.308
NY-BRONX	29	142,446	20.359
NY-BUFFALO	28	215,696	12.981
NY-EAST LONG ISLAND	136	651,359	20.879
NY-ELMIRA	5	54,096	9.243
NY-MANHATTAN	150	618,646	24.246

Hospital Referral Region	Number of HPM Doctors	Population 65 Years and Older	Doctors per 100,000 People
NY-ROCHESTER	49	183,518	26.700
NY-SYRACUSE	16	147,885	10.819
NY-WHITE PLAINS	43	159,416	26.973
OH—AKRON	23	98,201	23.421
OH-CANTON	7	101,589	6.891
OH-CINCINNATI	38	212,462	17.886
OH-CLEVELAND	62	317,669	19.517
OH-COLUMBUS	70	374,029	18.715
OH-DAYTON	15	158,557	9.460
OH-ELYRIA	2	37,113	5.389
OH-KETTERING	14	63,722	21.970
OH-TOLEDO	18	136,902	13.148
OH-YOUNGSTOWN	2	114,396	1.748
OK-LAWTON	1	26,301	3.802
OK-OKLAHOMA CITY	25	245,841	10.169
OK-TULSA	29	187,285	15.484
OR-BEND	5	35,718	13.999
OR-EUGENE	22	117,523	18.720
OR-MEDFORD	6	81,328	7.378
OR-PORTLAND	69	327,730	21.054
OR-SALEM	7	42,577	16.441
PA-ALLENTOWN	20	185,411	10.787
PA-ALTOONA	3	52,218	5.745
PA-DANVILLE	7	89,193	7.848
PA-ERIE	8	118,998	6.723
PA-HARRISBURG	20	157,883	12.668
PA-JOHNSTOWN	1	41,869	2.388
PA-LANCASTER	15	96,649	15.520
PA-PHILADELPHIA	103	559,540	18.408
PA-PITTSBURGH	53	503,272	10.531
PA-READING	6	89,244	6.723
PA-SAYRE	1	33,079	3.023
PA-SCRANTON	4	55,914	7.154
PA-WILKES-BARRE	5	45,710	10.939
PA-YORK	6	62,938	9.533
RI-PROVIDENCE	24	171,689	13.979
SC-CHARLESTON	27	144,441	18.693
SC-COLUMBIA	27	156,827	17.216
SC-FLORENCE	5	52,796	9.470
SC-GREENVILLE	23	126,781	18.142
SC—SPARTANBURG	9	54,331	16.565

Hospital Referral Region	Number of HPM Doctors	Population 65 Years and Older	Doctors per 100,000 People
SD-RAPID CITY	3	30,753	9.755
SD—SIOUX FALLS	13	119,892	10.843
TN-CHATTANOOGA	7	101,555	6.893
TN-JACKSON	3	52,251	5.742
TN-JOHNSON CITY	4	42,565	9.397
TN-KINGSPORT	4	83,416	4.795
TN-KNOXVILLE	8	215,385	3.714
TN-MEMPHIS	17	209,332	8.121
TN-NASHVILLE	37	340,457	10.868
TX-ABILENE	5	47,272	10.577
TX-AMARILLO	9	56,528	15.921
TX-AUSTIN	31	148,530	20.871
TX-BEAUMONT	8	64,527	12.398
TX-BRYAN	5	26,491	18.874
TX-CORPUS CHRISTI	10	72,650	13.765
TX-DALLAS	78	451,456	17.277
TX-EL PASO	8	126,901	6.304
TX-FORT WORTH	36	217,966	16.516
TX—HARLINGEN	11	64,915	16.945
TX-HOUSTON	129	591,995	21.791
TX-LONGVIEW	1	29,264	3.417
TX-LUBBOCK	16	85,407	18.734
TX-MCALLEN	6	61,118	9.817
TX-ODESSA	6	39,858	15.053
TX—SAN ANGELO	4	23,784	16.818
TX—SAN ANTONIO	63	307,222	20.506
TX-TEMPLE	8	48,947	16.344
TX-TYLER	15	88,275	16.992
TX-VICTORIA	6	22,693	26.440
TX-WACO	5	48,326	10.346
TX-WICHITA FALLS	2	30,281	6.605
UT-OGDEN	5	42,677	11.716
UT-PROVO	5	42,473	11.772
UT-SALT LAKE CITY	41	204,122	20.086
VA-ARLINGTON	47	201,804	23.290
VA-CHARLOTTESVILLE	18	84,556	21.288
VA-LYNCHBURG	10	43,207	23.144
VA-NEWPORT NEWS	7	76,533	9.146
VA-NORFOLK	24	146,924	16.335
VA-RICHMOND	34	213,115	15.954
VA-ROANOKE	17	112,495	15.112

Hospital Referral Region	Number of HPM Doctors	Population 65 Years and Older	Doctors per 100,000 People
VA-WINCHESTER	3	60,957	4.922
VT-BURLINGTON	14	87,442	16.011
WA-EVERETT	7	81,621	8.576
WA-OLYMPIA	5	56,975	8.776
WA-SEATTLE	93	336,784	27.614
WA-SPOKANE	21	208,196	10.087
WA-TACOMA	18	88,228	20.402
WA-YAKIMA	4	34,965	11.440
WI-APPLETON	8	46,547	17.187
WI-GREEN BAY	7	76,171	9.190
WI-LA CROSSE	13	53,867	24.134
WI-MADISON	29	139,540	20.783
WI-MARSHFIELD	6	63,809	9.403
WI-MILWAUKEE	58	327,204	17.726
WI-NEENAH	3	34,896	8.597
WI-WAUSAU	2	32,288	6.194
WV-CHARLESTON	9	137,734	6.534
WV-HUNTINGTON	3	57,191	5.246
WV-MORGANTOWN	3	61,065	4.913
WY-CASPER		28,069	0.000