A Profile of New Hospice and Palliative Medicine Physicians in 2016

Results from the Survey of Hospice and Palliative Medicine Fellows Who Completed Training

By

George Washington University Health Workforce Institute

Leo Quigley, MPH *Edward Salsberg, MPA FAAN* *Dale Lupu, PhD MPH*

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Highlights

For the second year in a row, we surveyed the physicians completing training in hospice and palliative medicine (HPM) in 2015-2016. The 136 respondents to this survey—50% of all 2015-2016 HPM fellows—are very pleased with their new specialty and with their immediate employment path following fellowship. As with the class of 2014-2015, respondent comments about the specialty were almost entirely enthusiastic, heartfelt, and optimistic about finding fulfillment in the work.

A portion of the 2015-2016 class of HPM fellows had substantial experience as practicing physicians prior to entering fellowship: 22% had more than 5 years of medical practice experience and 7% had more than 10 years. This means that many HPM graduates are entering HPM practice with skills and experience beyond the norm for most graduating fellows.

HPM physicians have prior training in many specialties, but more than 80% come from primary care specialties.

The vast majority (83%) are providing patient care services, and most of these physicians are working directly for hospitals or groups affiliated with hospitals (68%); only 9% are working directly for hospices. Of the respondents who reported hours worked by type of HPM activity, 71% reported spending 20 or more hours weekly in palliative care while 24% reported 20 or more hours weekly in hospice. (Some reported more than 20 hours in each setting.)

The job market appears generally good for graduates, although 29% reported some difficulty finding a satisfactory position, mostly related to a lack of jobs in desired locations. The national job market appears very strong. Jobs appear more plentiful in hospital-based palliative care, geriatric and adult HPM, and for hospice medical directors. The job market appears to be tight for non–hospital based palliative care, pediatric HPM, and academic positions.

Average income was reported to be $204,500. Incomes were significantly higher for male than they were for female HPM physicians ($222,500 vs $197,000). Some of this may reflect the low reported income of pediatric HPM physicians ($158,333), all of whom were female. This warrants further study.

The survey of the HPM fellows provides very important insights about the current supply and demand for HPM physicians. This survey, considered along with the previous year's survey, provides a critical baseline to compare results of future surveys of HPM physicians entering the specialty. This information will inform the HPM community and policy makers about important workforce trends impacting the delivery of hospice and palliative care.

The views and findings in this report reflect the work of the George Washington University Health Workforce Institute (GWHWI) and do not necessarily reflect the views of the American Academy of Hospice and Palliative Medicine (AAHPM) or George Washington University.

The GWHWI and AAHPM welcome comments and feedback about this report.

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Preface

The specialty of hospice and palliative medicine (HPM) is a relatively new specialty, receiving formal recognition by the American Board of Medical Specialties (ABMS) and the Accreditation Council of Graduate Medical Education (ACGME) in 2006. This recognition reflected a growing need for care for individuals with life-threatening serious illnesses and those near the end of life. The establishment of the specialty is happening at a time of transformation in healthcare delivery as the nation looks to both increase access and constrain the growth in costs to health care in general.

To better understand issues related to the supply, demand, distribution, and use of HPM physicians, the George Washington University Health Workforce Institute (GWHWI) is collaborating with the American Academy of Hospice and Palliative Medicine (AAHPM) on studies of HPM physicians. One component is a survey of the physicians entering the specialty (ie, those who recently completed fellowship training). New physicians entering the field provide a picture of the future supply, including their demographic and educational backgrounds and their distribution. The survey also provides a good picture of current demand and use based on the jobs new HPM physicians are offered and enter, their professional activities, and their experience in the job market.

This report presents key findings from the survey of the physicians who completed training in HPM in 2016 along with comparisons with the 2015 graduates. The survey is part of a larger study to monitor trends in the HPM workforce, assess the adequacy of the supply and distribution of HPM physicians, and inform policies to ensure a well-prepared hospice and palliative care physician workforce.

This report presents a data portrait of the fellows training in 2015-2016. In different sections, the report presents findings about

- who the fellows are
- their experience prior to fellowship
- their work experience immediately after fellowship
- their job search experience.

For the purposes of this report we use AAHPM's definitions, which describe hospice and palliative medicine as follows:

- Palliative care focuses on improving a patient's quality of life by managing pain and other distressing symptoms of a serious illness. Palliative care should be provided along with other medical treatments.
- Hospice is palliative care for patients in their last year of life. Hospice care can be provided in patients' homes, hospice centers, hospitals, long-term care facilities, or wherever a patient resides.
- Physicians who specialize in hospice and palliative medicine work with other doctors and healthcare professionals, listen to patients and align their treatments with what's important to them, and help families navigate the complex healthcare systems.[1]

1 Taken from: Pallitiavedoctors.org

Executive Summary

In response to rising demand and need, along with the recent formal recognition of the specialty by ABMS in 2006 and the American Osteopathic Association (AOA) in 2007, the specialty of HPM is growing rapidly. The number of fellows training in HPM in ACGME accredited programs has grown from 120 fellows in the 2009-2010 academic year to 274 in 2015-2016[2] and an estimated 325 in 2016-2017[3]. To better understand current and future supply and demand and to inform decisions regarding how much more growth would be advisable, GWHWI in collaboration with AAHPM undertook a survey of the physicians who trained in the specialty in 2015-2016. The survey was designed to provide information about who is going into HPM, where they are going after training, and their experience in the job market.

In October and November 2016, GWHWI surveyed physicians who recently had finished their fellowship. AAHPM provided GWHWI with e-mail addresses of 230 of the estimated 274 2015-2016 fellows. One hundred and thirty-six (136) of the 230 responded for a 59% response rate, representing 50% of all 274 HPM residents. Compared with the demographic and educational characteristics of all HPM fellows as reported to the ACGME, the survey respondents were more likely to be female and osteopathic physicians (DOs) and less likely to be international medical school graduates (IMGs), African American, or Hispanic than all HPM fellows. Only the sex difference was significant ($P = .0254$).

Key Findings

- The vast majority of new HPM physicians in 2016 came from primary care specialties (80.3%; 40.7% from internal medicine, 24.4% from family medicine, 6.7% from general pediatrics); 5.9% came from geriatrics and 7.4% from emergency medicine; several other specialties also are represented (**Exhibit 1** [Exhibit 14 in full report]).
- New HPM physicians can be divided into three groups: those going directly into fellowship training from a prior residency or fellowship program in another specialty (61.5%), those with 1 to 4 years of practice prior to the fellowship (17%), and those with 5 or more years of experience (21.5%). This contributes to the average age of completion of training (37 years) being older than for most specialties.
- The diverse specialty training backgrounds and the presence of a subgroup of experienced graduates is a notable feature of HPM graduates. Although most HPM fellows enter training right after prior graduate medical education (GME), most physicians coming from the specialties of emergency medicine, obstetrics/gynecology, and surgery had 5 or more years of prior medical practice experience (Exhibit 1 [Exhibit 14]).
- Of the 52 physicians with practice experience prior to their HPM fellowship, 10 indicated they had been providing HPM services prior to their fellowship. This represents 7% of total respondents.

2 ACGME Data Resource Book, Academic Year 2015-2016
3 AAHPM Internal Documents

Exhibit 1: Last Specialty Prior to Fellowship by Years of Experience

Last specialty prior to fellowship	All respondents*	Years of experience before fellowship*		
		None	*1 to 4 years*	*5 or more years*
Internal medicine	55 (40.7%)	39 (70.9%)	9 (16.4%)	7 (12.7%)
Family medicine	33 (24.4%)	19 (57.6%)	5 (15.2%)	9 (27.3%)
Emergency medicine	10 (7.4%)	2 (20%)	3 (30%)	5 (50%)
Pediatrics	9 (6.7%)	3 (33.3%)	4 (44.4%)	2 (22.2%)
Geriatrics	8 (5.9%)	8 (100%)	0 (0%)	0 (0%)
Other	6 (4.4%)	2 (33.3%)	2 (33.3%)	2 (33.3%)
Pediatric subspecialty	4 (3%)	4 (100%)	0 (0%)	0 (0%)
Obstetrics and gynecology	3 (2.2%)	1 (33.3%)	0 (0%)	2 (66.7%)
Surgery	3 (2.2%)	1 (33.3%)	0 (0%)	2 (66.7%)
Physical medicine and rehabilitation	2 (1.5%)	2 (100%)	0 (0%)	0 (0%)
Psychiatry and neurology	2 (1.5%)	2 (100%)	0 (0%)	0 (0%)
Total	**135 (100%)**	**83 (61.5%)**	**23 (17.0%)**	**29 (21.5%)**

** "All respondents" shows column percent; "Years of experience" shows row percent.*

Post-Training Activities

- In regard to their current or forthcoming practice, 52% of the fellows said their principal clinical activity was exclusively in either palliative medicine or hospice care, 28% were in a mix of palliative/hospice care and non-HPM care, and only 3% were in patient care that did not involve palliative or hospice care (**Exhibit 2** [Exhibit 16]). Four (3%) were undertaking further training.
- Most of the new HPM physicians (68%) are working for hospitals or hospital-affiliated practices. Only 10 of 115 respondents were working for hospice as their main practice (**Exhibit 3** [Exhibit 21]).

Exhibit 2: Principal HPM Activity Following Completion of Training Program

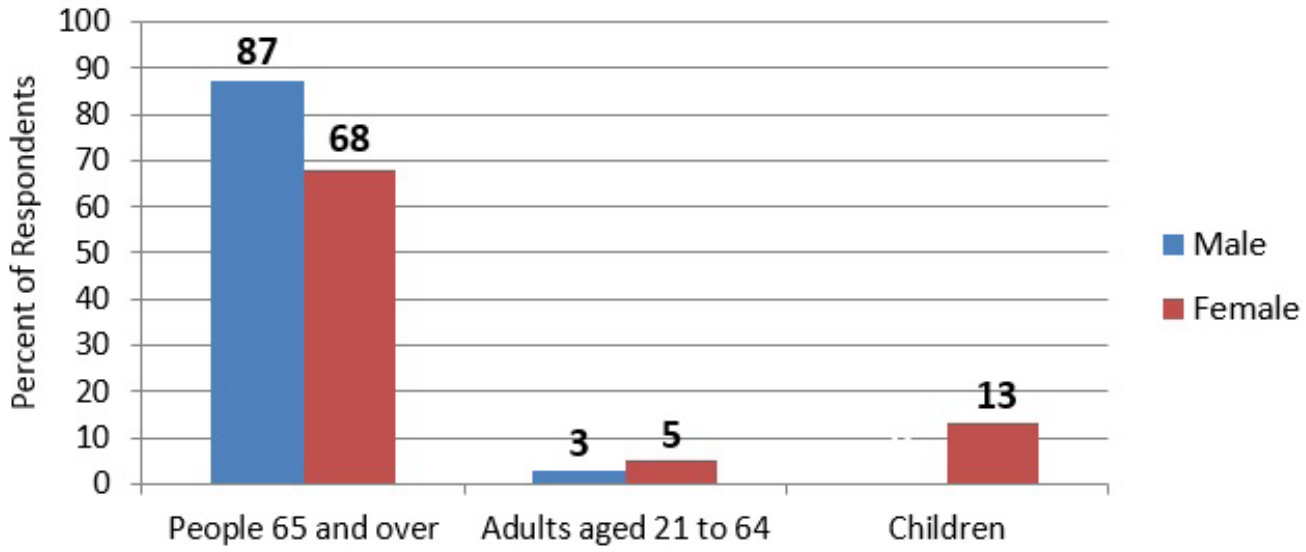
What best describes your principal activity now that you have completed your HPM fellowship program?	Frequency	Percent
Patient care—exclusively HPM	68	51.9
Patient care—mixed HPM and non-HPM	37	28.2
Other	9	6.9
Temporarily out of field of medicine	5	3.8
Patient care—exclusively non-HPM	4	3.1
Additional subspecialty training or fellowship	4	3.1
Educator	3	2.3
Undecided/don't know yet	1	0.8
Totals	**131**	**100**

Exhibit 3: Patient Care Setting

Considering the practice where you provide the MOST hospice and palliative care service, which best describes the practice type?	Frequency	Percent
Hospital: working directly as employee of hospital	55	48
Hospital-affiliated practice owned wholly or in part by a hospital/foundation	23	20
(All hospital practice types)[4]	(78)	(68)
Hospice	10	9
Single specialty group practice	6	5
Medical school	4	3
Multispecialty group practice	4	3
Other	4	3
Veterans Affairs setting	3	3
HMO/managed care organization (MCO)	2	2
I am not providing any hospice or palliative care services	2	2
Nursing home/long-term care facility	1	1
Solo practice	1	1
Total	**115**	**100**

Most new HPM physicians will spend more than 50% of their time caring for people older than 65 years, 9% will provide services primarily to children, and 5% will provide services primarily to adults between the ages of 21 and 64 years. Interestingly, only female HPM physicians will focus a majority of their time on children (**Exhibit 4** [Exhibit 23]).

Exhibit 4: Age of Patients Respondents Expect to Serve in Their Practice



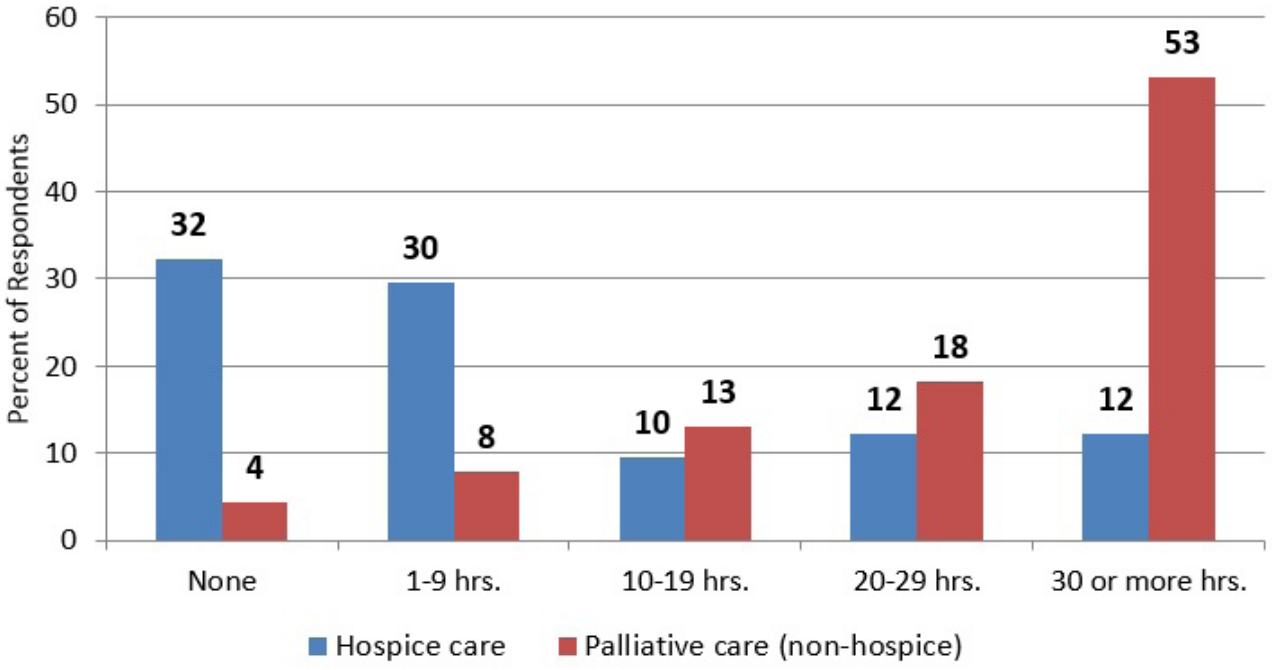
4 This line is the sum of the two lines above and so does not contribute to totals.

Comparing Physicians Going Primarily into Hospice with Those Going into Palliative Care

Fellows reported the number of hours they were spending (or expected to spend) in hospice or palliative care practice (**Exhibit 5** [Exhibit 27]). This makes it possible to assess differences between those whose work was mainly in hospice care and those who were mainly delivering palliative care.

- Of the 115 physicians who reported their weekly hours in patient care activities, 82 (71%) indicated they were spending more than 20 hours per week in palliative medicine, while 28 fellows (24%, compared with 13% in 2015) reported having 20 hours or more in hospice care. However, included in both figures are 15 respondents (13%) who reported spending more than 20 hours per week both in palliative medicine and in hospice care. Twenty (17%) were not spending more than 20 hours per week in either hospice or palliative care.

Exhibit 5: Percent of Respondents by Hours in Hospice and Palliative Care



- As indicated in **Exhibit 6** [Exhibit 28], 13 of 49 internal medicine physicians and 8 of 29 family medicine physicians indicated they were providing 20 hours or more of care per week in hospice (alone and with 20 hours or more of palliative care), but only 1 of 9 geriatricians and 1 of 9 emergency medicine physicians reported providing more than 20 hours per week in hospice.

Exhibit 6: Hours Spent in Palliative Care and Hospice by Last Specialty

Last specialty prior to HPM fellowship	Fellows with indicated number of weekly hours in patient care (percentages are by row)				
	20+ palliative care	*20+ hospice*	*Both 20+*	*Neither*	*Total*
Emergency medicine	6 (66.7%)	0 (0%)	1 (11.1%)	2 (22.2%)	**9 (100%)**
Family medicine	18 (62.1%)	5 (17.2%)	3 (10.3%)	3 (10.3%)	**29 (100%)**
Geriatrics	5 (55.6%)	0 (0%)	1 (11.1%)	3 (33.3%)	**9 (100%)**
Internal medicine	26 (53.1%)	5 (10.2%)	8 (16.3%)	10 (20.4%)	**49 (100%)**
Obstetrics and gynecology	0 (0%)	1 (50%)	0 (0%)	1 (50%)	**2 (100%)**
Pediatrics	4 (66.7%)	1 (16.7%)	0 (0%)	1 (16.7%)	**6 (100%)**
Pediatric subspecialty	1 (25%)	1 (25%)	2 (50%)	0 (0%)	**4 (100%)**
Physical medicine and rehabilitation	2 (100%)	0 (0%)	0 (0%)	0 (0%)	**2 (100%)**
Psychiatry and neurology	1 (100%)	0 (0%)	0 (0%)	0 (0%)	**1 (100%)**
Surgery	1 (100%)	0 (0%)	0 (0%)	0 (0%)	**1 (100%)**
Other	3 (100%)	0 (0%)	0 (0%)	0 (0%)	**3 (100%)**
Total	**67 (58.3%)**	**13 (11.3%)**	**15 (13%)**	**20 (17.4%)**	**115 (100%)**

Average Income

- The average (mean) income for HPM physicians working full time (calculated using the midpoint of the income ranges used in the survey) was $204,500.
- The mean income for the physicians working hospitals was $204,500, and for physicians working primarily for hospice it was $182,000 (**Exhibit 7** [Exhibit 32]).
- Family medicine physicians were making the highest mean income ($212,500) followed closely by emergency medicine physicians ($211,500). Pediatrics and pediatric subspecialists trailed far behind at $158,500 and $177,500 (**Exhibit 8** [Exhibit 38]).

Exhibit 7: Expected Average Income by Practice Description

Demographic of principal practice setting	Mean income	Frequency (percentage) of respondents
Hospital-affiliated practice or employee	$204,500	70 (72%)
Non-hospital solo or group practice	$201,500	9 (9%)
Hospice	$182,000	7 (7%)
Other	$217,500	11 (11%)
Total	**$204,500**	**97 (100%)**

Exhibit 8: Expected Average Income by Last Specialty Before HPM Fellowship

Last specialty before HPM fellowship	2016 mean income	2016 frequency (percentage) of respondents
Internal medicine	$203,500	40 (40%)
Family medicine	$212,500	24 (24%)
Other	$191,500	9 (9%)
Emergency medicine	$211,250	8 (8%)
Geriatrics	$205,000	8 (8%)
Pediatrics	$158,500	6 (6%)
Pediatric subspecialty	$177,500	4 (4%)
Total	**$204,394**	**99 (100%)**

- Men had a higher average income than women ($222,500 vs $197,000); this may be explained in part by the low incomes for pediatric HPM physicians, who were all female. International medical school graduates (IMGs) had a higher average income than US medical school graduates ($218,000 vs $201,500); those in the West had the highest average income at $217,000 while the Northeast region had the lowest at $192,000.

Job Market Experience

- Most fellows were able to find a satisfactory position without difficulty. However, 30 (29%) reported difficulty. This was higher than the 19% who indicated difficulty in 2015.
- The most cited reason for having a difficult time finding a satisfactory position was lack of jobs/practice opportunities in desired locations (21 of the 30 respondents); the second most commonly cited reason was the "undesirable mix of clinical activities" cited by 13 of the 30.
- The responses to the question of whether respondents had to change plans due to limited practice opportunities were similar: 20% reported they had to change their plans compared with 19% in 2015.
- The local job market (within 50 miles of the fellowship program) is somewhat limited: 35% of the respondents reported "no jobs," "very few jobs," or "few jobs" close to their fellowship; however, this was an improvement from 47% in 2015. The national job market again appears much better. Only 12% reported "no jobs," "very few jobs," or "few jobs," and 59% said there were many jobs in the national market (**Exhibit 9** [Exhibit 44]).

Exhibit 9: Job Market Perceptions

Job Market	Local			National		
Job availability	*2016 Frequency*	*2016 Percent*	*2015 Percent*	*2016 Frequency*	*2016 Percent*	*2015 Percent*
No jobs	2	2.0	2.6	0	0.0	0.0
Very few jobs	14	14.0	21.3	5	5.0	2.6
Few jobs	19	19.0	22.7	7	7.0	6.6
Some jobs	35	35.0	40.0	29	29.0	30.3
Many jobs	30	30.0	13.3	59	59.0	57.9
Totals	**100**	**100.0**	**100.0**	**100**	**100.0**	**100.0**

- Respondents were asked about their perception of the types of positions that were more or less available based on their job search. Respondents were given a list of settings developed from the most common responses to the 2015 survey. The more available positions (comparing responses citing many jobs to responses citing no or few jobs) were palliative care hospital positions, geriatric positions, hospice medical directorships, adult positions, and other hospice positions. The least available positions were palliative care non-hospital positions, pediatric positions, and academic positions. Some of the variation may reflect the region or setting of the respondent, but the differences between "many jobs" and "no jobs" or "few jobs" are large for many types of positions. (Percentages are based on the number of people who gave an answer to each question as shown in **Exhibit 10** [Exhibit 45]).

Exhibit 10: Positions More or Less Available

Type of Position	Many jobs *Percent*	No or few jobs *Percent*
Palliative care hospital positions (n = 104)	37.5	11.5
Geriatric positions (n = 101)	35.6	8.9
Hospice medical directorships (n = 103)	33	16.5
Adult positions (n = 101)	31.7	9.9
Other hospice positions (n = 104)	26.9	15.4
Academic (n = 103)	14.6	28.2
Palliative care non-hospital positions (n = 102)	10.8	43.2
Pediatric positions (n = 98)	2	32.7
Other (n = 46)	0	10.9

Would They Recommend the Specialty of HPM?

- Almost all respondents (126 of the 128 fellows who answered this question; 98.4%) said they would recommend the specialty to others, an almost identical result to 2015. In total, 93 of the 136 fellows (68%) provided a written response to this question, often at length, and were overwhelmingly positive in recommending the specialty to others.
- The written responses fell into four main categories: the fellowship provided them with a new and valuable skill set (especially in regard to communicating with patients) and a new outlook on medical care; the work is personally satisfying, fulfilling, and important; HPM is a growing field with likely future practice opportunities; and the level of compensation is "decent" with a healthy job market.

Survey Methods

An early draft of the survey was shared with the American Academy of Hospice and Palliative Medicine (AAHPM) by the George Washington Health Workforce Institute (GWHWI) research team and amended in response to comments. Although the survey design drew on the GWHWI team's experience of surveys of fellows completing training, considerable redesign was required for the unique aspects of the Hospice and Palliative Medicine (HPM) specialty.

According to the Accreditation Council for Graduate Medical Education (ACGME), there were 274 fellows in ACGME-accredited positions in 2016.[5] AAHPM worked with fellowship program directors to obtain e-mail addresses for graduating fellows, yielding e-mail addresses for 230 fellows. GWHWI invited all 230 fellows to participate in the survey. An initial informational e-mail was sent by AAHPM, quickly followed by a formal invitation from GWHWI containing an individualized link through the REDCap survey software. Several follow-up reminders were sent over a period of 6 weeks to maximize the number of responses. The REDCap survey software enabled the GWHWI team to target reminders only to fellows who had not yet submitted complete responses and to follow up to clarify individual responses as necessary.

The final responses were downloaded from REDCap for cleaning and analysis using Stata 12. Some of the final significance testing was more conveniently carried out in Microsoft Excel, which also was used in the production of charts and graphs.

Overview of Respondents

In October and November 2016, GWHWI surveyed physicians who had recently finished their fellowship. One hundred and thirty-six (136) of the 230 responded for a 59% response rate, representing 49.6% of all 274 HPM residents. This is comparable to the response rates for the prior year's survey, which had a response rate of 58% of the 199 fellows invited, representing 46% of all 243 2014-2015 ACGME HPM fellows. Compared with the demographic and educational characteristics of all HPM fellows as reported to ACGME, the survey respondents were more likely to be female and doctors of osteopathic medicine (DOs) and less likely to be international medical school graduates (IMGs), African American, or Hispanic. Only the sex difference was significant (73.5% vs 61.7% female, $P = .0254$). The 0.6 year age difference between the 2016 and 2015 survey respondents is within the sample margin of error (**Exhibit 1**).

Exhibit 1 also shows how HPM compares to several other internal medicine subspecialties and all internal medicine residents and fellows. In general, HPM fellows are older, more likely to be female, more likely to be a DO, and less likely to be IMGs.

5 ACGME Data Resource Book, Academic Year 2015-2016

Exhibit 1. Comparison of Fellows Survey Respondents with ACGME Data[6]

	2016 GW Survey Respondents	All 2016 HPM Fellows (ACGME)	ACGME Geriatrics (IM)	ACGME Hematology/ Oncology	All ACGME Residents and Fellows	2015 GW HPM Survey Respondents
Fellows	136	274	239	1,660	124,409	112
Mean age	37.3	36.2	34.9	32.3	30.6	37.9
Female	73.5%	61.7%	60.7%	44.5%	44.2%	62.6%
Male	26.5%	38.0%	37.2%	54.6%	52.6%	37.4%
IMG	19.1%	21.9%	58.1%	42.2%	25.1%	25.1%
DO (% of all fellows)	19.1%	15.3%	9.2%	5.1%	10.1%	14.4%
Hispanic	5.6%	8.2%	11.3%	5.1%	6.5%	6.3%
African American	1.6%	5.1%	10.3%	3.3%	6.0%	6.8%

Education, Citizenship Status, and Demographics of Fellows

This section presents data on the educational background, citizenship status, and demographics of all respondents.

Location of Medical School

Just over four-fifths of survey respondents were graduates of medical and osteopathic schools within the United States (USMGs). The remaining 19% were educated in other countries (**Exhibit 2**). This is a slight decrease in IMGs compared with the 23% in 2015. As noted above, the percentage of IMGs in HPM is less than in other internal medicine subspecialties; it is also less than in general internal medicine.

Exhibit 2. Medical School Location (Q2.1)[7]

	What type of medical education do you have?			
Where did you attend medical school?	*Allopathic (MD)*	*Osteopathic (DO)*	*Total*	*2015 Respondents*
United States	84 (76%)	26 (100%)	110 (81%)	77%
Canada	0 (0%)	0 (0%)	0 (0%)	1%
Other	26 (24%)	0 (0%)	26 (19%)	22%
Total	**110 (100%)**	**26 (100%)**	**136 (100%)**	**100%**

The great majority (91.5%) of the respondents reported that they were US citizens, either native born or naturalized, almost the same as in 2015 (**Exhibit 3**). Three (2.3%) reported being permanent residents of the United States. Only three reported they were non-citizen holders of H visas, and none reported holding J visas.

6 ACGME Data Resource Book, Academic Year 2015-2016. Average age for ACGME data is average age at entry into training

7 Survey questions are numbered in the copy of the survey instrument supplied separately. These question numbers are used throughout this report to indicate the source question for data tables, charts, and narrative.

Exhibit 3. Citizenship Status (Q7.3)

What is your current citizenship status?	2016 Frequency	2016 Percent	2015 Percent
Native-born US citizen	110	83.3	80.2
Naturalized US citizen	16	12.1	11.3
Permanent resident	3	2.3	0.9
H-1, H-2, or H-3 temporary worker	3	2.3	4.7
J-1 or J-2 exchange visitor	0	0	2.8
Total	**132**	**100**	**100**

Sex

Almost three-quarters of respondents (73%) were female (**Exhibit 4**). This is higher than the percent for all ACGME residents and fellows at 45.8%. IMGs were more likely to be male (40%) than USMGs (23%), but the difference was not significant (*P* = .123).

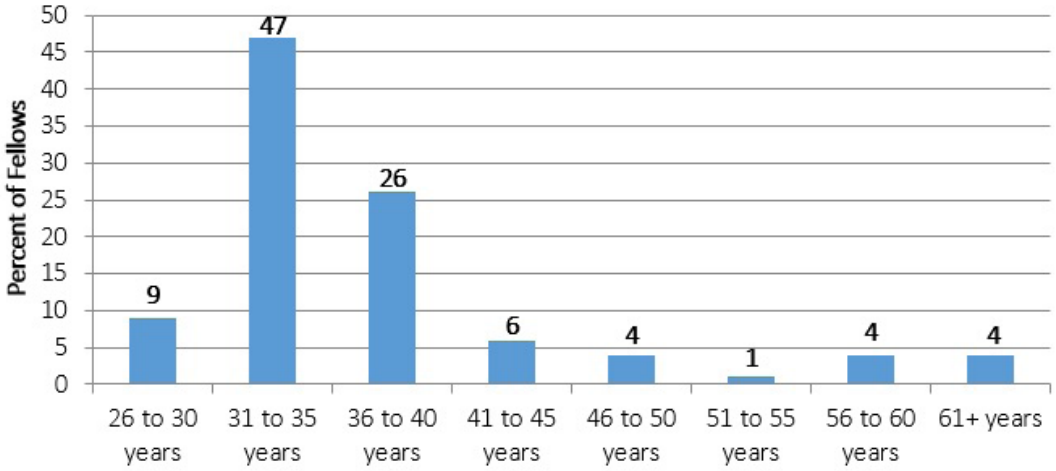
Exhibit 4. Respondents' Sex (Q7.1)

What is your sex?	USMG	IMG	Total Respondents	All ACGME HPM
Female	82 (77%)	15 (60%)	97 (73%)	61.7%
Male	25 (23%)	10 (40%)	35 (27%)	38.0%
Totals	**107 (100%)**	**25 (100%)**	**132 (100%)**	**99.7%**

Age

The median age of fellows on graduation from their HPM fellowship was 35 years, but almost 20% graduated when they were older than 40 years compared with 30% in 2015 (**Exhibit 5**). The average age in 2016 was 37 years. There were no significant age differences by USMG/IMG status (*P* = .721). The older average age of physicians on graduation compared with fellows in other subspecialty training programs is notable and statistically significant. Exhibit 1 shows that the average age on entering training in geriatrics and oncology (both internal medicine subspecialties requiring completion of an initial primary residency) was 33 to 34 years compared with 37 years for HPM fellows upon graduation. The large subgroup of HPM physicians who were 40 years or older on graduation contributed to this difference.

Exhibit 5. Respondents' Age (Q7.2)



Race/Ethnicity

IMGs were significantly more likely to be non-white than USMGs, mainly due to much higher numbers of Asian respondents among IMGs (33% vs 15% for USMGs, $P < .001$ for all racial differences, $P = .043$ for Asian vs all other races; **Exhibit 6**).

Exhibit 6. Respondents' Race* (Q7.4)

What is your race?	USMG	IMG	Total
White	83 (81.4%)	9 (37.5%)	92 (73%)
Asian	15 (14.7%)	8 (33.3%)	23 (18.3%)
Other	3 (2.9%)	6 (25%)	9 (7.1%)
Black/African American	1 (1%)	1 (4.2%)	2 (1.6%)
Totals	**102 (100%)**	**24 (100%)**	**126 (100%)**

**Percentages are based on column totals.*

The proportions of Hispanic respondents among USMGs and IMGs were not statistically different ($P = 1.0$; **Exhibit 7**).

Exhibit 7. Hispanic/Latino Respondents (Q7.5)

Are you Hispanic or Latino?	USMG	IMG	Total
Non-Hispanic	95 (94.1%)	23 (95.8%)	118 (94.4%)
Hispanic/Latino	6 (5.9%)	1 (4.2%)	7 (5.6%)
Totals	**101 (100%)**	**24 (100%)**	**125 (100%)**

Prior Medical Training and Experience

This section explores the medical training and practice background of the HPM fellows. This is particularly important information given that HPM can be entered from a number of specialties and subspecialties.

First GME

As seen in **Exhibit 8,** most of the HPM fellows (74%) took their first GME in internal or family medicine. A further 10% began in pediatrics, and 7% began in emergency medicine. In the "other" category were one fellow whose first GME residency was in combined/pediatrics and one who took combined internal medicine and psychiatry.

IMGs were significantly more likely than USMGs to have taken their first US GME residency in internal medicine (69% vs 45%, $P = .0287$).

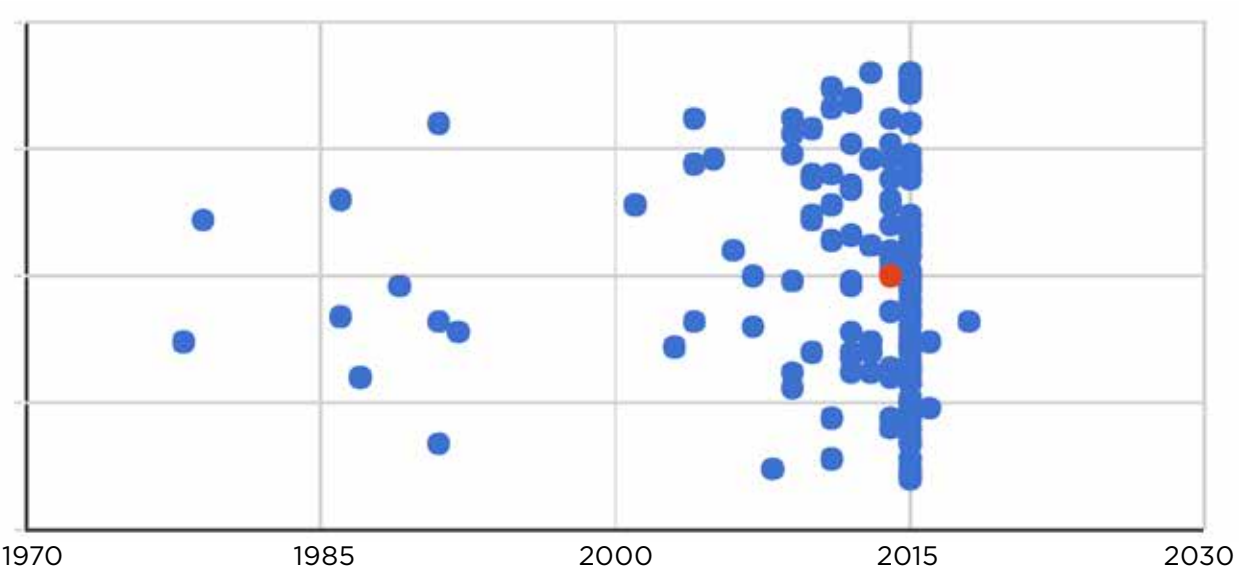
Exhibit 8. Earliest GME Specialty by US/IMG Status (Q2.3 x Q2.1)

What was the specialty of your earliest US GME residency?	2016 USMG	2016 IMG	2016 Total	2015 Total
Internal medicine	49 (44.5%)	18 (69.2%)	67 (49.3%)	50 (45.1%)
Family medicine	25 (22.7%)	8 (30.8%)	33 (24.3%)	26 (23.4%)
Pediatrics	13 (11.8%)	0 (0%)	13 (9.6%)	13 (11.7%)
Emergency medicine	10 (9.1%)	0 (0%)	10 (7.4%)	11 (9.9%)
Surgery	4 (3.6%)	0 (0%)	4 (2.9%)	0 (0%)
Obstetrics and gynecology	3 (2.7%)	0 (0%)	3 (2.2%)	1 (0.9%)
Physical medicine and rehabilitation	2 (1.8%)	0 (0%)	2 (1.5%)	2 (1.8%)
Psychiatry and neurology	2 (1.8%)	0 (0%)	2 (1.5%)	2 (1.8%)
Other	2 (1.8%)	0 (0%)	2 (1.5%)	6 (5.4%)
Total	**110 (100%)**	**26 (100%)**	**136 (100%)**	**111 (100%)**

Exhibit 9 provides a picture of the distribution of the years that respondents completed their first residency programs. Those completing most recently are on the right.

Exhibit 9. Date of Earliest GME (Q2.4)

In what year did you complete your earliest GME residency?



Note: Red dot indicates the median value.

Additional Training Prior to HPM Fellowship

Thirty-one (23%) of the fellows had taken more than one residency or fellowship before beginning their HPM fellowship (**Exhibit 10**).

Exhibit 10. Additional Residencies or Fellowships (Q2.5)

Did you undertake any further residency or fellowship prior to your HPM fellowship?	Frequency	Percent
Yes	31	22.8
No	105	77.2
Totals	**136**	**100**

Prior Medical Practice

Unlike in many specialties, many of the HPM fellows had experience practicing medicine prior to entering the specialty. As indicated in **Exhibit 11,** 52 respondents—close to 40% of the fellows—had practiced medicine prior to their HPM training.

Exhibit 11. Prior Medical Practices (Q3.1)

Were you practicing medicine prior to your HPM fellowship?	2016 Frequency	2016 Percent	2015 Percent
Yes	52	38.5	40.5
No	83	61.5	59.5
Totals	**136**	**100**	**100**

These 52 respondents were practicing in numerous specialties: 73% in internal medicine, family medicine, or emergency medicine and 12% in pediatrics. In the "other" category were two respondents who had been practicing in infectious diseases, and one each from interventional radiology, inpatient palliative medicine, and maternal fetal medicine (**Exhibit 12**).

Exhibit 12. Prior Medical Practice Specialty (Q3.2)

In what specialty were you practicing?	2016 Frequency	2016 Percent	2015 Percent
Internal medicine	16	30.8	24.4
Family medicine	14	26.9	20.0
Emergency medicine	8	15.4	22.2
Pediatrics	6	11.5	11.1
Other	5	9.6	17.7
Surgery	2	3.8	0
Obstetrics and gynecology	1	1.9	0
Anesthesiology	0	0	4.4
Totals	**52**	**100**	**100**

As seen in **Exhibit 13,** 46% of the 52 had 5 years or more of prior experience, including 19% who had 10 years or more.

Exhibit 13. Years of Practice Prior to HPM Fellowship (Q3.6)

For how many years had you been practicing prior to your HPM fellowship?	Frequency	Percent of all respondents	Percent of those with prior practice
0	83	61.5	N/A
1	7	5.2	13.5
2	7	5.2	13.5
3	5	3.7	9.6
4	4	3	7.7
5 to 10	19	14.1	36.5
11 or more	10	7.4	19.2
Total	**135**	**100**	**100**

Last Specialty Prior to HPM Fellowship

Responses about prior medical training and practice enabled fellows to be grouped according to their last specialty before their HPM fellowship. For fellows who had been in medical practice, their last specialty was defined as their prior practice specialty; for those who had not been in medical practice, their last specialty was taken to be their last residency or fellowship prior to their HPM fellowship.

As seen in **Exhibit 14,** the dominant last specialty for HPM fellows was still internal medicine (41%), with significant numbers also from family medicine (24%) and smaller numbers from emergency medicine, geriatrics, and pediatrics (7% for each). Thirteen respondents (25% of those with prior practice) reported they had been working as hospitalists.

Exhibit 14. Last Specialty Prior to Fellowship by Years of Experience (Q2.3 etc. x Q3.6)

		Years of experience before fellowship*		
Last specialty prior to fellowship	All respondents*	*None*	*1 to 4 years*	*5 or more years*
Internal medicine	55 (40.7%)	39 (70.9%)	9 (16.4%)	7 (12.7%)
Family medicine	33 (24.4%)	19 (57.6%)	5 (15.2%)	9 (27.3%)
Emergency medicine	10 (7.4%)	2 (20%)	3 (30%)	5 (50%)
Pediatrics	9 (6.7%)	3 (33.3%)	4 (44.4%)	2 (22.2%)
Geriatrics	8 (5.9%)	8 (100%)	0 (0%)	0 (0%)
Other	6 (4.4%)	2 (33.3%)	2 (33.3%)	2 (33.3%)
Pediatric subspecialty	4 (3%)	4 (100%)	0 (0%)	0 (0%)
Obstetrics and gynecology	3 (2.2%)	1 (33.3%)	0 (0%)	2 (66.7%)
Surgery	3 (2.2%)	1 (33.3%)	0 (0%)	2 (66.7%)
Physical medicine and rehabilitation	2 (1.5%)	2 (100%)	0 (0%)	0 (0%)
Psychiatry and neurology	2 (1.5%)	2 (100%)	0 (0%)	0 (0%)
Total	**135 (100%)**	**83 (61.5%)**	**23 (17.0%)**	**29 (21.5%)**

** "All respondents" shows column percent; "Years of experience" shows row percent.*

Exhibit 14 also presents the number of years of experience providing patient care by last specialty. There were some notable differences in last specialty prior to their HPM fellowship by fellows' years of medical practice experience, with internal medicine tending toward fewer years of experience and emergency medicine tending toward more years of experience. Internal medicine was more likely to be followed by an HPM fellowship before medical practice compared with all other specialties (71% of internal medicine fellows had no prior medical experience vs 55% of others; $P = .073$), and emergency medicine was significantly more likely to be preceded by at least 5 years of practice prior to the HPM fellowship than all other specialties (50% of emergency medicine fellows had 5 or more years of experience vs 19% of others; $P = .0374$). Interestingly, none of the eight fellows from geriatrics had any prior medical practice.

To try to assess whether the HPM fellows were new to providing HPM or had prior experience and were, perhaps, improving their skills and competencies, the survey included a specific question on whether they were providing HPM in their prior medical practice (**Exhibit 15**).

Exhibit 15. Experience Providing HPM (Q3.7)

In your prior position(s) were you providing any hospice or palliative care services?	2016 Frequency	2016 Percent of all respondents (N = 135)	2015 Percent of all respondents (N = 111)
Yes	10	7.4	12.6
No	42	31.1	27.9
Totals	**52**	**38.5**	**40.5**

Fifty-two fellows (38.5%) had been in medical practice before their HPM fellowship. Of those 52, 10 (19%, 7.4% of all respondents who provided information on their prior practice) had been providing hospice or palliative care services before beginning their fellowship. The remaining 42 (81%, 31% of all fellows) were not providing hospice or palliative care services in that practice. From the data from the survey, it is not possible to determine whether HPM had been a focus of or a limited part of the prior work.

Post-Training Practice

One of the key goals of the survey of recent HPM fellows was to learn more about the work they will do after completing their training. The survey included a number of questions on this topic, including:

- What will they be doing?
- What settings will they be working in?
- How many hours per week will they be providing HPM services?
- What population will they be focused on?
- What types of areas will they be practicing in?

Another goal was to learn about any systematic differences among HPM fellows, including by sex, IMG status, and the region they were practicing in.

Principal Activity After Completion of Current Training Program

Of the 131 respondents who answered the question on their post-training plans, 80% were providing HPM-related patient care (52% said their principal clinical activity was exclusively in palliative medicine or hospice care, 28% were in a mix of HPM and non-HPM care) and 3% were in patient care that did not involve HPM (**Exhibit 16**). Three percent (3%) were undertaking further training; 2% reported educator roles as their principal activity, although 20 of 34 who reported additional roles besides their main activity said the additional role was as an educator (**Exhibits 17** and **18**), mostly for less than 10 hours per week (**Exhibit 19**). Included in "other" activities were an advanced geriatric fellowship, a clinical medical ethics consultation, two directorships of palliative care programs, a role split between hospitalist and hospice work, returning to a surgery residency, and maternity leave.

Exhibit 16. Principal HPM Activity Following Completion of Training Program (Q4.3)

What best describes your principal activity now that you have completed your HPM fellowship program?	Frequency	Percent
Patient care—exclusively HPM	68	51.9
Patient care—mixed HPM and non-HPM	37	28.2
Other	9	6.9
Temporarily out of field of medicine	5	3.8
Patient care—exclusively non-HPM	4	3.1
Additional subspecialty training or fellowship	4	3.1
Educator	3	2.3
Undecided/don't know yet	1	0.8
Totals	**131**	**100**

The survey also asked if they had other activities in addition to their principal HPM activity.

Exhibit 17. Other Activity (Q4.4)

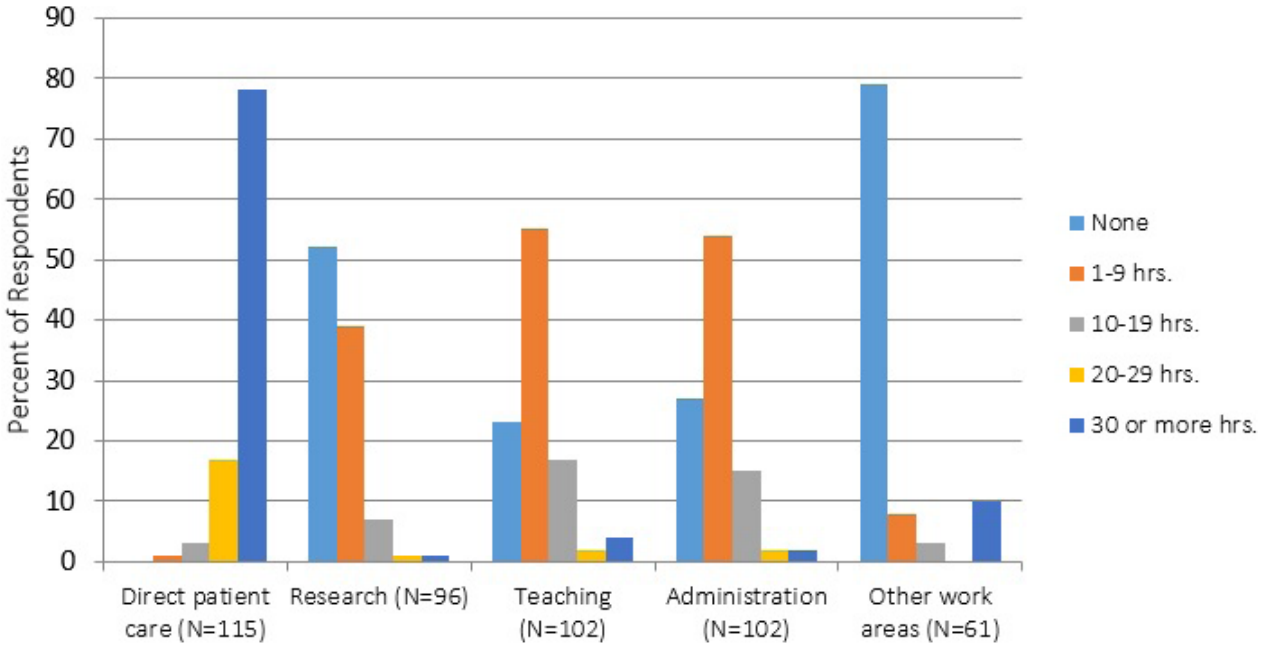
Do you have another type of activity in addition to the one you gave in the last question?	Frequency	Percent
Yes	34	27.4
No	90	72.6
Totals	**124**	**100**

Exhibit 18. Other Activity Type (Q4.5)

What best describes your other activity? (Select only one)	Frequency	Percent
Educator	20	58.8
Other	5	14.7
Patient care—exclusively palliative medicine/hospice	3	8.8
Patient care—exclusively non-HPM	3	8.8
Researcher	3	8.8
Total	**34**	**100**

The survey included a question on how many hours per week they were providing or planned to provide patient care and non–patient care activities (**Exhibit 19**). Ninety of 115 respondents (78%) who gave information about jobs they had commenced or accepted indicated they would be spending 30 or more hours in direct patient care, with a further 20 (17%) expecting to spend 20 to 29 hours in direct patient care. Conversely, only 2 out of 96 (2%) indicated they would be spending 20 or more hours in research, 6 out of 102 (6%) in teaching, and 4 out of 102 (4%) in administration.

Exhibit 19. Hours in Patient Care and Non-Patient Care Activities (Q5.7)



Women were more likely than men to be engaged in research (65% vs 24%, *P* = .0096) and more likely than men to be engaged in teaching (84% vs 58%, *P* = .0123). IMGs were more likely than USMGs to be involved in research (73% vs 54%, *P* = .0476) and less likely to be involved in administration (0% vs 28%, *P* = .0029). There were no significant differences in activity by census region. A map of US census regions is provided in **Appendix 2.**

The primary reasons given for working outside of HPM (**Exhibit 20**) were "personal interest in non-HPM field" (31 responses) and "maintenance of skills/expertise" (28 responses).

Exhibit 20. Reasons for Some Work Being Outside of HPM

Reason for Some Work Outside of HPM (may provide more than one)	Frequency
Personal interest in non-HPM field	31
Maintenance of skills/expertise	28
Financial	10
Not enough FTE available in my location to be 100% HPM focused	10
Other reason	8
Required by my employer to work in HPM	4

Practice Setting

Among respondents who provided information about a job they had commenced or accepted in direct patient care (n = 115), most (78; 68%) reported that their primary practice would be in a hospital or hospital-affiliated practice. Another 10 (9%) reported they would be working in group practices, and 10 (9%) reported that they would be working in a hospice setting (**Exhibit 21**). There were no significant differences by gender, USMG/IMG status, or region.

Exhibit 21. Patient Care Setting (Q5.11)

Considering the practice where you provide the MOST hospice and palliative care service, which best describes the practice type?	Frequency	Percent
Hospital: working directly as employee of hospital	55	48
Hospital-affiliated practice owned wholly or in part by a hospital/foundation	23	20
(All hospital practice types)[8]	(78)	(68)
Hospice	10	9
Single specialty group practice	6	5
Medical school	4	3
Multispecialty group practice	4	3
Other	4	3
Veterans Affairs setting	3	3
HMO/managed care organization (MCO)	2	2
I am not providing any hospice or palliative care services	2	2
Nursing home/long-term care facility	1	1
Solo practice	1	1
Total	**115**	**100**

Relationship Between Prior Practice and New Practice

Forty of the 52 fellows who had been in medical practice before their fellowship provided information about their previous and future practice settings. As in 2015, none reported previous practice in hospice care. Fewer than half of fellows (16 of the 40 respondents; 40%; 12% of all respondents) returned to practices similar to those they were in before their fellowship. The fellowship experience led to a net gain for hospital practice or employment of two fellows, a net gain for hospice care of six fellows, a net loss of seven fellows from non-hospital practice, and a net loss of one fellow from all other practice types.

Exhibit 22. Comparison of Past Versus Future Patient Care Setting (Q3.3 x 5.11)

Prior and future practice type reconciliation	Future practice description (Q3.8)				
Prior practice description (Q1.17)	*Non-hospital practice*	*Hospital practice or employee*	*Hospice*	*Other*	*Totals*
Non-hospital solo or group practice	3	4	2	3	12
Hospital affiliated practice or employee	2	12	3	3	20
Hospice	0	0	0	0	0
Other	0	6	1	1	8
Totals	5	22	6	7	40
Net gain (loss)	(7)	2	6	(1)	0

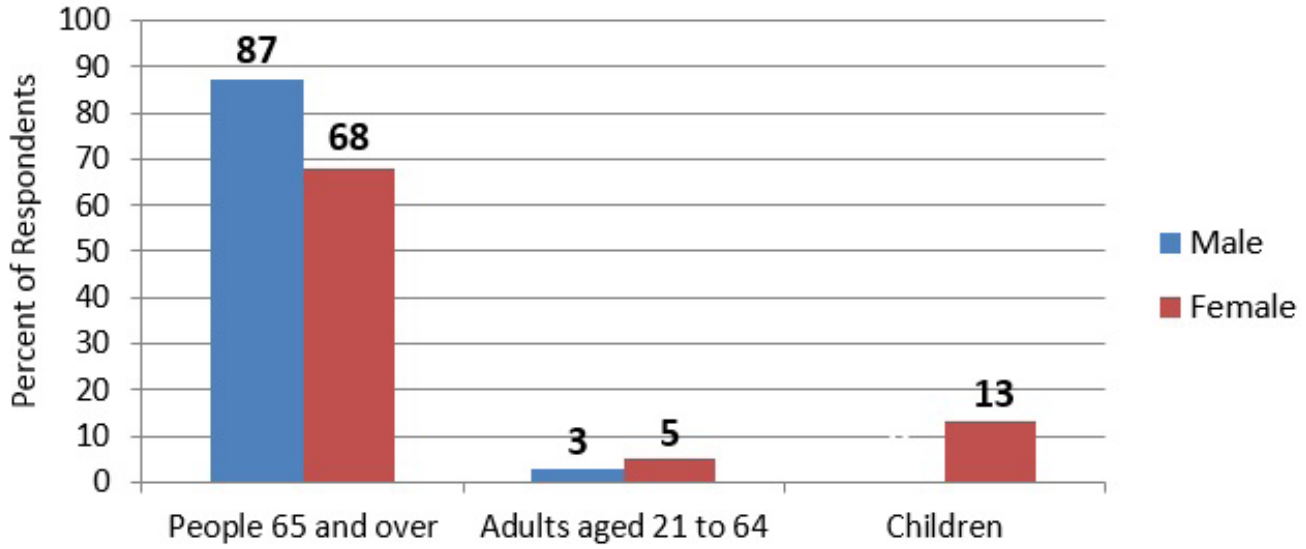
Note: Only includes physicians who had a prior practice.

8 This line is the sum of the two lines above and so does not contribute to totals.

Age of Patients to Be Served

Eighty-one of 111 respondents (73%) reported that they would spend more than 50% of their time treating patients older than 65 years. Nine (9%) reported they would spend more than 50% of their time with children; 68 (72%) reported they would spend none of their time with children; and 17 (18%) reported they would spend some, but not more than 25%, of their time with children. Only five (5%) reported they would spend more than 50% of their time with adults aged 21-64 years. Men were more likely than women to be working with people 65 years and older (87% vs 68%, *P* = .0562), while women were more likely than men to be working with children (13% vs 0%, *P* = .106), with neither result reaching statistical significance. (See **Exhibit 23**.)

Exhibit 23. Age of Patients Respondents Expect to Serve in Their Practice (Q5.22)



Demographics of Practice Area

Among respondents who provided information about jobs they had commenced or accepted in patient care, the vast majority (82%, compared with 90% in 2015) planned to work in a major city or suburban area. Sixteen percent of fellows planned to work in small cities, and 2% planned to work in rural areas. Women were significantly more likely than men to be working in inner city or other major city areas (72% vs 42%, *P* = .0039). There were no significant differences in practice location by IMG status or by census region.

Exhibit 24. Demographics of Practice Area (Q5.3)

Which best describes the demographics of the principal area in which you are/will be practicing?	Frequency	Percent
Inner city	37	31.6
Other area within major city	38	32.5
Suburban	21	17.9
Small city (population less than 50,000)	19	16.2
Rural	2	1.7
Totals	**117**	**100**

Hours Worked: How Many and Where

Exhibits 25 and **26** show the distribution of total hours of work reported by respondents. The vast majority (76%) reported working 40–59 hours per week. Nineteen (17%) reported working less than 40 hours per week, while the remaining 7% reported working 60 or more hours per week.

Exhibit 25. Number of Paid Hours Per Week

Paid weekly hours	Frequency	Percent
1 to 9 hours	1	0.9
10 to 19 hours	2	1.8
20 to 29 hours	7	6.3
30 to 39 hours	9	8
40 to 49 hours	62	55.4
50 to 59 hours	23	20.5
60 or more hours	8	7.1
Total	**112**	**100**

Fourteen of 117 respondents (12%) reported working part time, in arrangements ranging down to 40% of FTE, but with three respondents indicating arrangements that could not readily be characterized in terms of weekly hours.

Respondents were asked how many hours per week they spent at a range of HPM practice sites. As Exhibit 26 shows, the most hours were spent in inpatient palliative care consultation, reflecting the preponderance of respondents working in palliative care as opposed to hospice care.

Exhibit 26. Hours Spent at Different HPM Practice Settings

	Frequencies					
Hours per week HPM Practice Setting	*None*	*1 to 10*	*11 to 20*	*21 to 40*	*More than 40*	Mean Hours*
Inpatient palliative care consultation	21	13	12	47	21	23.8
Inpatient hospice and palliative care unit (within a larger hospital)	62	24	7	8	2	5.3
Physician office	69	15	5	6	3	4.9
Hospital ambulatory care	76	16	2	5	2	3.5
Home hospice	73	15	5	2	1	2.7
Other sites	62	2	2	2	1	2.1
Free-standing hospice facility	83	7	2	4	0	1.7
Nursing home/long-term care facility	84	6	2	2	0	1.2
Home palliative care (not hospice)	80	11	3	0	0	1.1
Total weekly hours						**46.3**

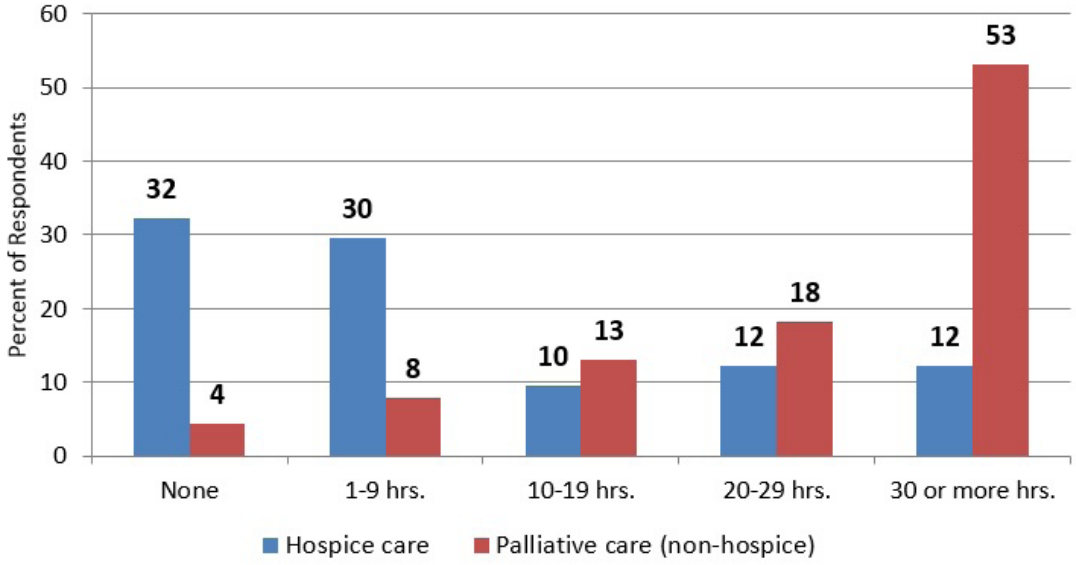
** Mean hours are calculated from a larger table using the midpoint of each hours range.*

Comparison of Fellows Going into Hospice Versus Palliative Care Practice

The questions on the survey regarding hours per week providing HPM services and the setting for providing care make it possible to identify physicians who will primarily be providing palliative care services separately from physicians primarily providing hospice services. The following section explores a variety of characteristics of these two groups of physicians.

Of the 115 physicians who reported their weekly hours in patient-care activities, 82 (71%) indicated they were spending more than 20 hours per week in palliative medicine, and 28 fellows (24%, compared with 13% in 2015) reported having 20 hours or more in hospice care. However, included in both figures are 15 respondents (13%) who reported spending more than 20 hours per week both in palliative medicine and in hospice care. Twenty (17%) were not providing more than 20 hours per week in either hospice or palliative care.

Exhibit 27. Percent of Respondents by Hours in Hospice and Palliative Care (Q5.10)



The information that the fellows provided about the number of hours they were spending (or expected to spend) in hospice or palliative care practice (**Exhibit 28**) opened up the possibility of assessing differences between those whose work was mainly in hospice care and those who were mainly delivering palliative care. However, in contrast to the 2015 survey results (where fellows working mainly in palliative care were more likely to be 40 years or younger, more likely to have taken their earliest GME in family medicine or pediatrics, and more likely to have had fewer than 5 years of practice experience prior to their HPM fellowship), it was hard to identify clear differences between the 2016 respondents based on their hospice or palliative care focus.

Satisfaction with salary was not significantly different between those working primarily in hospice and those working primarily in palliative care. However, 91% of those working 20+ hours both in palliative medicine and in hospice care were very or somewhat satisfied versus 77% for the palliative care 20+ hours group, 85% for the hospice 20+ hours group, and 81% for the neither group. However, there were some significant or almost significant differences between the groups in terms of difficulty in finding a practice position they were satisfied with (0% of those working 20+ hours both in palliative medicine and in hospice care reported difficulty finding a satisfactory position vs 29% for the palliative care 20+ hours group, $P = .0559$; 31% for the hospice 20+ hours group, $P = .0983$; and 44% for the neither group, $P = .0216$).

It was not obvious whether working in a mixed practice was something fellows had desired and sought or was a result of putting together a compromise position after not finding a satisfactory position.

Exhibit 28. Hours Spent in Palliative Care and Hospice by Last Specialty (Q5.10)

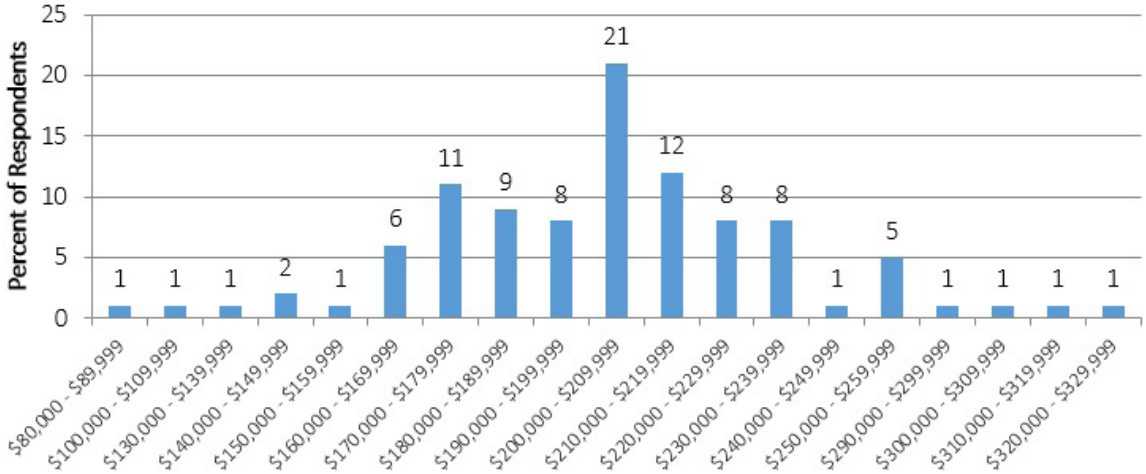
Last specialty prior to HPM fellowship	Fellows with indicated number of weekly hours in patient care (percentages are by row)				
	20+ palliative care	*20+ hospice*	*Both 20+*	*Neither*	*Total*
Emergency medicine	6 (66.7%)	0 (0%)	1 (11.1%)	2 (22.2%)	**9 (100%)**
Family medicine	18 (62.1%)	5 (17.2%)	3 (10.3%)	3 (10.3%)	**29 (100%)**
Geriatrics	5 (55.6%)	0 (0%)	1 (11.1%)	3 (33.3%)	**9 (100%)**
Internal medicine	26 (53.1%)	5 (10.2%)	8 (16.3%)	10 (20.4%)	**49 (100%)**
Obstetrics and gynecology	0 (0%)	1 (50%)	0 (0%)	1 (50%)	**2 (100%)**
Pediatrics	4 (66.7%)	1 (16.7%)	0 (0%)	1 (16.7%)	**6 (100%)**
Pediatric subspecialty	1 (25%)	1 (25%)	2 (50%)	0 (0%)	**4 (100%)**
Physical medicine and rehabilitation	2 (100%)	0 (0%)	0 (0%)	0 (0%)	**2 (100%)**
Psychiatry and neurology	1 (100%)	0 (0%)	0 (0%)	0 (0%)	**1 (100%)**
Surgery	1 (100%)	0 (0%)	0 (0%)	0 (0%)	**1 (100%)**
Other	3 (100%)	0 (0%)	0 (0%)	0 (0%)	**3 (100%)**
Total	**67 (58.3%)**	**13 (11.3%)**	**15 (13%)**	**20 (17.4%)**	**115 (100%)**

The Marketplace: Income and the Job Search Experience

Expected Incomes[9]

Of those who had accepted job offers, were working or planning to work full time, and reported income (n = 99), respondents expected to earn incomes ranging from less than $100,000 (1 respondent, 1%) to between $320,000 and $329,999 (1 respondent, 1%). The most frequently reported expected base income categories were $200,000 to $209,999 (21 respondents, 21%) and $210,000 to $219,999 (12 respondents, 12%). The mean income was around $204,000 and the median was in the $200,000 to $209,999 range. The closeness of the median to the mean suggests an income distribution with little skewing, as **Exhibit 29** seems to confirm.

Exhibit 29. Distribution of Expected Income in 2016 (Q5.8)



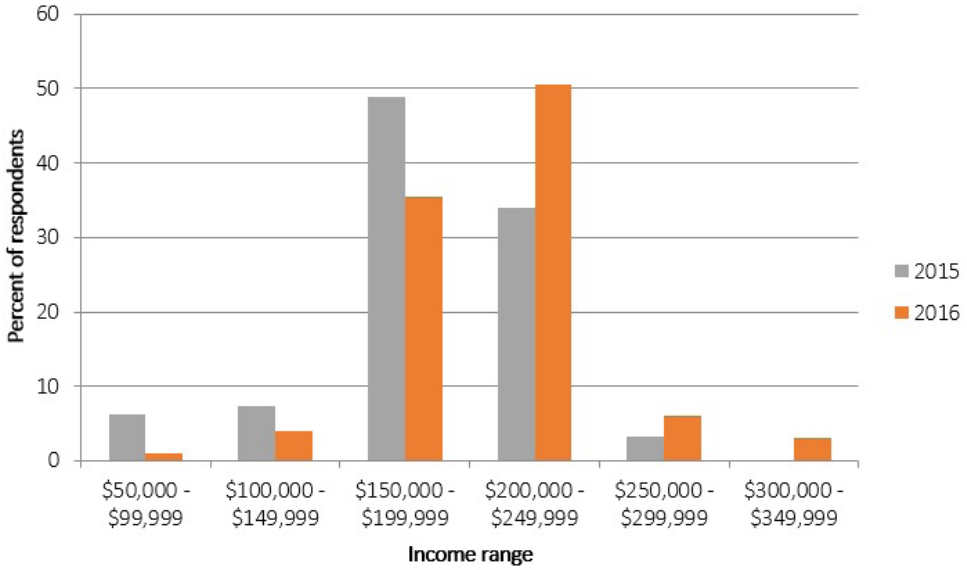
9 The 2016 income summaries are based on the 99 respondents who provided income information and said they were working full time. Income information was reported in $10,000 ranges, and average income is calculated assuming actual incomes were at the midpoints of the reported ranges. Income averages for 2015 were calculated from $25,000 income ranges and included part-time working, and so should be treated with greater caution.

The highest average income was in suburban areas ($220,500), and the lowest was in inner-city settings ($193,500; **Exhibit 30**). These figures are all higher than in 2015 by 12%, on average (**Exhibit 31**). This difference seems to be real—the estimation method was improved for 2016 ($10,000 ranges rather than $25,000 ranges and limited to full-time employment)—but it is difficult to see how this alone could account for such a large income differential across 2015 and 2016.

Exhibit 30. Expected Average Income by Practice Location (Q5.8 x Q5.3)

Demographic of principal practice setting	Mean income	Frequency (percentage) of respondents
Inner city	$193,500	29 (29%)
Other area within major city	$198,500	35 (35%)
Small city (population less than 50,000)	$219,000	16 (16%)
Suburban	$220,500	17 (17%)
Rural	$210,000	2 (2%)
Total	**$204,500**	**99 (100%)**

Exhibit 31. Comparison of Expected Income Between 2015 and 2016 Respondents (Q5.8)



In contrast to the 2015 results, fellows going to work in hospices had the lowest expected incomes ($182,000), and those working in "other" work settings had the highest expected incomes ($217,500; **Exhibit 32**).

Exhibit 32. Expected Average Income by Practice Description (Q5.8 x Q5.11)

Demographic of principal practice setting	Mean income	Frequency (percentage) of respondents
Hospital-affiliated practice or employee	$204,500	70 (72%)
Non-hospital solo or group practice	$201,500	9 (9%)
Hospice	$182,000	7 (7%)
Other	$217,500	11 (11%)
Total	**$204,500**	**97 (100%)**

There was a difference of almost $10,000 in average income between those fellows spending most of their time working in a hospice and those spending most of their time in non-hospice palliative care ($194,000 vs $203,500, or around 4.8%; **Exhibit 33**). Those with less than 20 hours in both hospice and palliative care had a higher average income ($215,500). Those with more than 20 hours in both hospice and palliative care had similar incomes to those working mainly in palliative care ($203,500).

Exhibit 33. Expected Average Income by Patient Care Focus (Q5.8 x Q5.10)

Main practice focus	Mean income	Frequency (Percentage) of respondents
Non-hospice palliative care, 20+ hours	$203,500	57 (58%)
Hospice care, 20+ hours	$194,000	11 (11%)
Both, 20+ hours	$203,500	15 (15%)
Neither, 20+ hours	$215,500	16 (16%)
Total	**$204,500**	**99 (100%)**

There was no clear pattern of income by years of medical experience (**Exhibit 34**). Those without any prior medical experience had slightly higher incomes than those with 5 or more years in practice (around $207,000 vs $203,000). Those with some but limited experience had the lowest expected incomes (about $191,000).

Exhibit 34. Expected Average Income by Years of Experience (Q5.8 x Q3.6)

Years of medical experience	Mean income	Frequency (percentage) of respondents
0 years	$207,000	72 (73%)
1 to 4 years	$191,000	13 (13%)
5 or more years	$203,000	14 (14%)
Total	**$204,500**	**99 (100%)**

As in 2015, census regions 1 (Northeast, $192,000) and 3 (South, $195,500) reported the lowest average incomes (**Exhibit 35**). This year region 4 (West, $217,000) reported the highest average expected income, followed by region 2 (Midwest, $213,500).

Exhibit 35. Expected Average Income by Census Region (Q5.8 x Q4.11)

Census region	Mean income	Frequency (percentage) of respondents
West	$217,000	25 (26%)
Midwest	$213,500	19 (20%)
South	$195,500	33 (34%)
Northeast	$192,000	19 (20%)
Total	**$204,500**	**96 (100%)**

As in 2015, men reported higher expected average income ($222,500) than women ($197,000), but the difference in 2016 was larger ($25,500 vs $15,000). One possible factor contributing to this difference may be the higher proportion of women in pediatrics and pediatric subspecialties, both of which make less than other specialties as indicated below.

Exhibit 36. Expected Average Income by Sex (Q5.8 x Q7.1)

Sex	2016 mean income	2016 frequency (percentage) of respondents	2015 income
Male	$222,500	29 (29%)	$192,200
Female	$197,000	70 (71%)	$177,500
Total	**$204,500**	**99 (100%)**	**$183,400**

Unlike in 2015, USMGs had lower expected incomes ($201,500) than IMGs ($218,000; **Exhibit 37**).

Exhibit 37. Expected Average Income by USMG/IMG Status (Q5.8 x Q2.1)

USMG/IMG status	2016 mean income	2016 frequency (percentage) of respondents	2015 income
USMG	$201,500	82 (83%)	$185,200
IMG	$218,000	17 (17%)	$173,000
Total	**$204,500**	**99 (100%)**	**$182,700**

Comparing specialties, family medicine physicians were making the highest mean income ($212,500), followed closely by emergency medicine physicians ($211,500). Pediatrics and pediatric subspecialists trailed far behind at $158,500 and $177,500 (**Exhibit 38**).

Exhibit 38. Expected Average Income by Last Specialty Before HPM Fellowship

Last specialty before HPM fellowship	2016 mean income	2016 frequency (percentage) of respondents
Internal medicine	$203,500	40 (40%)
Family medicine	$212,500	24 (24%)
Other	$191,500	9 (9%)
Emergency medicine	$211,250	8 (8%)
Geriatrics	$205,000	8 (8%)
Pediatrics	$158,500	6 (6%)
Pediatric subspecialty	$177,500	4 (4%)
Total	**$204,394**	**99 (100%)**

Job Market Experiences and Perceptions

A series of questions on the survey was designed to assess the balance between supply and demand for hospice and palliative care physicians (that is, whether there are many jobs or few jobs for the recent graduates). Some of these questions are subjective, reflecting the expectations and perceptions of the new HPM physicians. These perceptions are important because they can influence the view of the specialty by those who are not currently HPM physicians. Although no single question can provide a clear picture of the marketplace, a series of questions tracked over time can provide a good picture.

We tested for differences in the job market experiences of graduating fellows across three key categories:

- Male versus female fellows
- USMGs versus IMGs
- Census regions (Northeast vs Midwest vs South vs West)

Job Search Experiences

We found the following with respect to the 114 fellows who reported their job search experiences.

Difficulty Finding a Satisfactory Position. Fellows' experiences finding a satisfactory position were generally good: 75 out of 105 (71%) reported no difficulty, a little lower than in 2015 (81%), and 30 (29%, compared with 19% in 2015) reported they had difficulty finding a satisfactory practice position (**Exhibit 39**).

Exhibit 39. Difficulty Finding a Satisfactory Position (Q6.2)

Did you have difficulty finding a practice position involving HPM that you were satisfied with?	2016 Frequency	2016 Percentage	2015 Percentage
Yes	30	29	19
No	75	71	81
Total	**105**	**100**	**100**

In 2015 only one respondent of 16 in the Northeast region reported difficulty finding a position. In 2016, 10 of the 26 (38%) from the Northeast reported difficulty. The West reported the lowest rates of difficulty (3 of 24, 13%). As in 2015, we found no statistically significant difference between male and female fellows' reports of difficulty finding a position (P = .724), between IMG and USMG fellows' reports of difficulty finding a position (P = .503), or across census regions (P = .212).

Reasons for Difficulty (Q6.3; Exhibit 40). Among the 30 fellows who reported difficulty finding a satisfactory position, the most frequently cited reasons were lack of jobs/practice opportunities in desired locations (21; 70% of those who gave an answer to this question), undesirable mix of clinical activities (13; 43%), and overall lack of jobs/practice opportunities (12; 40%; respondents could indicate more than one reason). Lack of jobs/practice opportunities in desired locations was cited as the single most important reason for difficulty by 13 of the 30 respondents who reported difficulty finding a satisfactory position (43%).

Exhibit 40. Reasons for Difficulty (Q6.3)

Reason for difficulty (may answer more than one)	Frequency	Percent
Lack of jobs/practice opportunities in desired locations	21	70.0
Undesirable mix of clinical activities	13	43.3
Overall lack of jobs/practice opportunities	12	40.0
Inadequate salary/compensation offered	11	36.7
Lack of jobs/practice opportunities in desired practice setting (eg, hospital, hospice)	10	33.3
Lack of employment opportunities for spouse/partner	6	20.0
Lack of available expert HPM senior mentorship	3	10.0
Other reason	5	16.7

Percentage is based on number of respondents (30) who reported difficulty finding a satisfactory position. Respondents could indicate more than one reason.

We found no statistically significant difference in reasons for difficulty finding a position between IMG and USMG fellows or between male and female fellows. "Lack of jobs/practice opportunities in desired practice settings" was cited significantly more frequently in the West region than in other regions (by 40% vs 16% of respondents, *P* = .0068). There were no other significant differences in reasons for difficulty finding a position by census region.

Changing Plans Due to Limited Practice Opportunities (Exhibit 41). Only 21 fellows (20% of those who had looked for jobs) reported that they had changed their plans because of limited practice opportunities, which was similar to 2015 (19%). Men were only slightly more likely than women to report changing plans. We found no statistically significant differences in the degree to which fellows changed their plans because of limited practice opportunities between men and women (*P* = .738) or IMGs and USMGs (*P* = .289). Nine of the 26 respondents from the Northeast region (35%) reported having to change plans because of limited practice opportunities (although none of them did so the previous year), compared with 19% from region 2, 16% from region 3, and 13% from region 4 reporting difficulties; the difference between the Northeast region and all other regions was almost statistically significant (*P* = .0516).

Exhibit 41. Changing Plans Due to Limited Practice Opportunities (Q6.5)

Did you have to change plans due to limited practice opportunities?	2016 Frequency	2016 Percent	2015 Percent
Yes	21	20	19
No	84	80	81
Total	**105**	**100**	**100**

Number of Job Applications (Exhibit 42). Fellows' reports of the numbers of job applications they had completed varied widely from one to more than 10; 86% applied for up to five jobs, and 14% applied for six or more jobs.

Exhibit 42. Number of Job Applications (Q6.6)

Number of job applications made	Frequency	Percent*
1	21	20
2	15	14.3
3	25	23.8
4	19	18.1
5	10	9.5
6–10	13	12.4
More than 10	2	1.9
Totals	**105**	**100**

** Percent is based on those who answered that they had looked for a job.*

As in 2015, IMGs were more likely than USMGs to apply for six or more jobs (29% vs 11%, *P* = .0654), although the result did not reach statistically significant difference this year, and patterns were less consistent across the full range of application numbers.

More male than female fellows applied for six or more jobs (22% vs 12%), but the difference was not statistically significant (*P* = .205), and a higher proportion of fellows in the Northeast and West regions reported applying for six or more jobs than did fellows in other regions (23% Northeast and 21% West vs 9% South and 5% Midwest, *P* = .0523).

Number of Job Offers (Exhibit 43). As in 2015, the great majority of fellows (80%) reported receiving between one and three job offers, and only one (1%) reported receiving no job offers.

Exhibit 43. Number of Job Offers (Q6.7)

Number of job offers received	2016 Frequency	2016 Percent	2015 Percent
None	1	1	1.3
1	32	30.8	40.8
2	23	22.1	18.4
3	28	26.9	26.3
4	12	11.5	6.6
5	4	3.8	5.3
6-10	4	3.8	1.3
Totals	**104**	**100**	**100**

There were no clear differences in job offers received between men and women, between IMG and USMG status, or across census regions.

Job Offer Characteristics. Among the 131 fellows who had already accepted job offers, the majority indicated that they were satisfied with their salary and compensation: 38% reported being "very satisfied" with their salary and compensation, and 42% indicated that they were "somewhat satisfied."

There were no statistically significant differences in satisfaction with salary and compensation between men and women (despite the considerable income disparity reported in Exhibit 36, $P = .738$), between IMGs and USMGs ($P = .319$), or across census regions ($P = .450$).

Job Market Perceptions

Fellows' perceptions of local job opportunities were good and better than last year (**Exhibit 44**): 65% thought there were some or many jobs in their local community compared with 53% in 2015. On the other hand, 35% reported that there were no, very few, or few HPM practice opportunities within 50 miles of their training sites (compared to 46% in 2015). The national job market was viewed far more positively. This may reflect the reality around many medical schools and teaching hospitals where former fellows have settled.

We found no statistically significant difference between male and female fellows ($P = .421$), between IMG and USMG respondents ($P = .114$), or across census regions ($P = .125$) in fellows' assessments of local practice opportunities.

Exhibit 44. Job Market Perceptions (Q6.8 x 6.9)

Job Market	Local			National		
Job availability	*2016 Frequency*	*2016 Percent*	*2015 Percent*	*2016 Frequency*	*2016 Percent*	*2015 Percent*
No jobs	2	2.0	2.6	0	0.0	0.0
Very few jobs	14	14.0	21.3	5	5.0	2.6
Few jobs	19	19.0	22.7	7	7.0	6.6
Some jobs	35	35.0	40.0	29	29.0	30.3
Many jobs	30	30.0	13.3	59	59.0	57.9
Totals	**100**	**100.0**	**100.0**	**100**	**100.0**	**100.0**

As in 2015, HPM fellows perceived national HPM job opportunities very positively; 88% reported there were some or many HPM practice opportunities nationally. We found no statistically significant difference between male and female fellows (P = .745), between IMG and USMG respondents (P = .309), or across census regions (P = .706) in fellows' assessments of national practice opportunities.

Respondents were asked about their perception of the types of positions that were more or less available based on their job search. Respondents were given a choice of settings developed from the most common responses to the 2015 survey (**Exhibit 45**). The more available positions (comparing responses citing "many jobs" to responses citing "no" or "few" jobs) were palliative care hospital positions, geriatric positions, hospice medical directorships, adult positions, and other hospice positions. The least available positions were palliative care non-hospital positions, pediatric positions, and academic positions. Some of the variation may reflect the region or setting of the respondent, but the differences between "many jobs" and "no" or "few" jobs are large for many types of positions. (Percentages are based on the number of people who gave an answer to each question as shown in Exhibit 45.)

Exhibit 45. Positions More or Less Available (Q6.11)

Type of position	Many jobs *Percent*	No or few jobs *Percent*
Palliative care hospital positions (n = 104)	37.5	11.5
Geriatric positions (n = 101)	35.6	8.9
Hospice medical directorships (n = 103)	33	16.5
Adult positions (n = 101)	31.7	9.9
Other hospice positions (n = 104)	26.9	15.4
Palliative care non-hospital positions (n = 102)	10.8	43.2
Pediatric positions (n = 98)	2	32.7
Academic (n = 103)	14.6	28.2
Other (n = 46)	0	10.9

Would You Recommend the Specialty to Others and Why? (Q8.1, 8.2)

Almost all respondents (126 of the 128 fellows who answered this question; 98.4%) said they would recommend the specialty to others, an almost identical result to 2015. In total, 93 of the 136 fellows (68%) provided a written response to this question, often at length, and were overwhelmingly positive in recommending the specialty to others.

The written responses were classified into the same four main categories used to classify the 2015 survey responses.

1. The fellowship provided them with a new and valuable skill set (especially in regard to communicating with patients) and a new outlook on medical care.
   - "As a physician, HPM provides [me with] an opportunity to truly spend time with and educate patients and families, effectively manage symptoms leading to better quality of life, and provide quality care for patients at a fragile time in life. HPM also provides a physician the gift of time! No pressure to see 30–35 patients per day."
   - "Hospice and palliative medicine training provides expert training in complex symptom management and effective and compassionate communication strategies and promotes resilience."
   - "I don't think there is a physician who wouldn't be better for it. It rounds out training and improves patient care."

- "The fellowship provided me with an excellent background in providing patient care to those with serious illnesses, and this can be applicable in many different clinical settings."
- "I think as our population ages and medical care becomes more fragmented and complex, it is going to be necessary for all physicians to have at least primary palliative care skills to meet the needs of our patients."
- "It should be in the training for anyone dealing with advanced disease management."
- "I believe this fellowship gives you the skill set necessary to become an excellent physician, regardless of whether you stay in this field or go on to another specialty or even just end up practicing basic medicine."
- "It's one of the purest forms of clinical practice. We get the opportunity to learn evidence, think physiology, and apply to the human in front of us. It's what all medicine should be, but just isn't anymore. I am practicing primarily primary care and only a small amount of hospice right now, but I believe my palliative care training has made me a much stronger doctor all around. I would honestly recommend palliative care fellowship for anyone thinking about palliative care or general medicine practice."
- "Great combination of educational opportunities—clinical and communication. Great colleagues in the field."
- "It is a wonderful career and not only teaches you how to care for others in their greatest need but to care for your team and yourself."

2. The work is personally satisfying, fulfilling, and important.
   - "I find an incredible sense of meaning in my everyday work as a full-time palliative care physician. I feel fulfilled in a way that I never did during my training as a family physician, and my fellowship in HPM really changed me as a physician and the way that I interact with everyone in my life. I cannot recommend my training highly enough."
   - "I feel HPM is the most rewarding area of medicine. I am able to help patients navigate their diseases and illnesses and develop care plans specific to their goals of care. Also I help patients and loved ones approach end of life with dignity and respect so they may have the death they desire."
   - "It's immensely rewarding intellectually and emotionally."
   - "It is an amazingly rewarding field in which we make a difference not only in our patient and family but also medicine in general. I have had specialists tell me they are inspired by the care I give patients, and it reminds them why they went into medicine."
   - "Very rewarding field. I enjoy being able to take the time to really get to know and help my patients and families. Plenty of opportunities for education, which I enjoy. Good work-life balance."
   - "Very wonderful, team-based approach to care. It is an opportunity to really get to know the whole patient and family and learn how to improve their quality of life, which I love. I really enjoy the team-based approach and breadth of services we provide to patients."
   - "Because of the differences you can make with families."
   - "It is one of the most important skills that is needed in contemporary medicine—to be able to be present, develop listening skills, and elicit what matters most as one approaches the end of one's life. Hospice and palliative medicine is empowering and rewarding for both the patient and the physician: the patient doesn't feel abandoned, and the physician can still help the patient along his or her journey."
   - "In fellowship I learned new perspectives and extraordinary communication skills, which reinvigorated my fascination and excitement with practicing medicine. Highly recommended!"

3. HPM is a growing field with likely future practice opportunities.
    - "Hospice and palliative medicine, along with being a growing field, is very relevant to any area of medicine. I think it's important for more physicians to be well versed in this specialty as it enhances patient care in any specialty."
    - "Deeply fulfilling work in a rapidly growing field with many opportunities to contribute both to the broader effort as well as to specific needs in a given practice setting."
4. The level of compensation and health of the job market
    - "Our site alone has four job openings, and we've only received one application."
    - "We are experiencing a shortage in fellowship-trained physicians in the field of HPM."

Of the two respondents who indicated they would not recommend the specialty, one put this in terms of the need for this specialty training to be incorporated into training for all physicians and not just those in HPM; the other expressed a concern that the specialty was appropriate only for people with the right motivation, with a worry about the specialty's ability to sustain itself.

Conclusion

As with the 2014–2015 class of HPM fellows, the class of 2015–2016, as represented by the 136 respondents to this survey, seem to be very pleased with their new specialty and immediate employment path following fellowship. Respondent comments about whether they would recommend the specialty to others were almost entirely enthusiastic, heart-felt, and optimistic about finding fulfillment in the work. Overall, respondents felt that the national job market offered many opportunities, especially in in-hospital palliative care, geriatric care, and hospice positions, and almost all found acceptable jobs following fellowship, mostly with compensation they found very or somewhat satisfactory. Of the 30 fellows who reported difficulty finding a satisfactory position, desired location was the most frequently cited reason for difficulty. In contrast to 2015, when fellows who graduated from programs in the South (region 3) had the highest rate of changing their plans because of limited job opportunities (35%), in 2016 it was the Northeast region that saw the highest rate of changing plans (35% vs 16% for other regions combined). The Northeast also reported the highest rate of difficulty finding a job and the lowest average incomes, again in a departure from the 2015 results.

The vast majority of respondents (88%) are working full time. Most respondents (84%) are or will be working primarily in direct patient care. Although only three respondents (2%) reported "educator" as their principal activity, a further 20 (15%, 59% of those who reported a secondary activity) describe their second activity as "educator," although the total is still lower than the 26% of respondents in 2015 who said their principal activity would be as an academic clinician-educator. About 28% have a mix of HPM and non-HPM clinical care. It is unknown at this point whether this 28% represents inefficiency in using the HPM specialty capacity of the graduates or whether it is a conscious choice on the part of the graduates to maintain other specialty skills in other areas or build bridges between HPM and other specialties.

Most respondents (73%) are spending 20+ hours weekly in palliative care, and only 24% expected to spend 20+ hours weekly in hospice. "Inpatient palliative care consultations" was the only HPM practice site type that reached into double figures in terms of hours spent per week (averaged across all respondents). Although the percentage working in hospice care is up from last year's 14%, it still appears that graduates are acting on a preference for hospital-based palliative care over hospice care, given that fellows reported plentiful job opportunities in hospice. Compensation does not appear to be a major driving factor in this choice, with compensation differing by less than 5% between hospice and palliative care.

As with the 2014–2015 class, a notable observation about this class of HPM fellows is the significant proportion that had substantial experience as physicians prior to entering fellowship: 22% of fellows had 5 years or more of medical practice experience, and 7% had more than 10 years. As in 2015, this group of HPM graduates enters HPM practice with skills and experience beyond the norm for most graduating fellows. It also means that the likely number of years these physicians will work in HPM may be less than for younger physicians, which has an impact on the overall long-term workforce capacity.

This survey of the HPM class of 2015–2016 provides very important insights into the current supply and demand for hospice and palliative care. The survey also provides a critical baseline to compare with the results of future surveys of HPM physicians entering the specialty. This information will inform the HPM community and policy makers about the workforce trends impacting the delivery of hospice and palliative care.

Appendix 1: Comparison of 2016 Respondents to ACGME Data on HPM Fellows

Exhibit 46. Sex

	2016 Survey Respondents		ACGME HPM Fellow Data	
Sex	*Frequency*	*Percentage*	*Frequency*	*Percentage*
Male	35	26.5%	104	38.0%
Female	97	73.5%	169	61.7%
Not reported	0	0%	1	0.4%
Total	**132**	**100%**	**274**	**99.7%**

Exhibit 47. IMG Status

	2016 Survey Respondents		ACGME HPM Fellow Data	
IMG Status	*Frequency*	*Percentage*	*Frequency*	*Percentage*
IMG	26	19.1%	60	21.9%
USMG (MD + DO)	110	80.9%	214	78.1%
Total	**136**	**100%**	0	0
			243	**100%**

Exhibit 48. Race/Ethnicity

	2016 Survey Respondents		ACGME HPM Fellow Data	
Race/Ethnicity†	*Frequency*	*Percentage*	*Frequency*	*Percentage*
Asian & Pacific Islander	23	18.3%	50	19.5%
White	92	73%	157	61.1%
African American	2	1.6%	13	5.1%
Hispanic*	6*	5.9%*	21	8.2%
Native American	0	0%	0	0%
Other	9	7.1%	16	6.2%
Total	**126**	**100%**	**274**	**100.0%**

** Although we use separate race and ethnicity measures in the HPM Fellow Survey, "Hispanic" is included within a single Race/Ethnicity measure in the ACGME data. "Hispanic" figures are therefore not included in the totals for the survey columns.*

† Individuals with unknown race/ethnicity were excluded from calculations of the ACGME data for consistency with the GW survey table.

Appendix 2: Map of US Census Regions

Key:
Region 1: Northeast
Region 2: Midwest
Region 3: South
Region 4: West