

UCSF

UC San Francisco Previously Published Works

Title

Few Hospital Palliative Care Programs Meet National Staffing Recommendations

Permalink

<https://escholarship.org/uc/item/69b638p4>

Journal

Health Affairs, 35(9)

ISSN

0278-2715

Authors

Spetz, Joanne
Dudley, Nancy
Trupin, Laura
et al.

Publication Date

2016-09-01

DOI

10.1377/hlthaff.2016.0113

Peer reviewed

Health Affairs

At the Intersection of Health, Health Care and Policy

Cite this article as:

Joanne Spetz, Nancy Dudley, Laura Trupin, Maggie Rogers, Diane E. Meier and
Tamara Dumanovsky
Few Hospital Palliative Care Programs Meet National Staffing Recommendations
Health Affairs 35, no.9 (2016):1690-1697
doi: 10.1377/hlthaff.2016.0113

The online version of this article, along with updated information and services, is
available at:

<http://content.healthaffairs.org/content/35/9/1690>

**For Reprints, Links &
Permissions :**

http://content.healthaffairs.org/1340_reprints.php

Email Alertings : <http://content.healthaffairs.org/subscriptions/etoc.dtl>

To Subscribe : <https://fulfillment.healthaffairs.org>

Health Affairs is published monthly by Project HOPE at 7500 Old Georgetown Road, Suite 600, Bethesda, MD 20814-6133. Copyright © by Project HOPE - The People-to-People Health Foundation. As provided by United States copyright law (Title 17, U.S. Code), no part of may be reproduced, displayed, or transmitted in any form or by any means, electronic or mechanical, including photocopying or by information storage or retrieval systems, without prior written permission from the Publisher. All rights reserved.

Not for commercial use or unauthorized distribution

By Joanne Spetz, Nancy Dudley, Laura Trupin, Maggie Rogers, Diane E. Meier, and Tamara Dumanovsky

DOI: 10.1377/hlthaff.2016.0113
HEALTH AFFAIRS 35,
NO. 9 (2016): 1690–1697
©2016 Project HOPE—
The People-to-People Health
Foundation, Inc.

Few Hospital Palliative Care Programs Meet National Staffing Recommendations

Joanne Spetz (joanne.spetz@ucsf.edu) is a professor of economics at the Philip R. Lee Institute for Health Policy Studies and the Healthforce Center at the University of California, San Francisco (UCSF).

Nancy Dudley is a VA Quality Scholars fellow with the UCSF Department of Geriatrics and the San Francisco Veterans Affairs Medical Center.

Laura Trupin is an epidemiologist in the Philip R. Lee Institute for Health Policy Studies at UCSF.

Maggie Rogers is senior research associate at the Center to Advance Palliative Care, in New York City.

Diane E. Meier is the director of the Center to Advance Palliative Care and a professor in the Brookdale Department of Geriatrics and Palliative Medicine at the Icahn School of Medicine at Mount Sinai, in New York City.

Tamara Dumanovsky is a vice president for research and analytics at the Center to Advance Palliative Care.

ABSTRACT The predominant model for palliative care delivery, outside of hospice care, is the hospital-based consultative team. Although a majority of US hospitals offer palliative care services, there has been little research on the staffing of their program teams and whether those teams meet national guidelines, such as the Joint Commission's standard of including at least one physician, an advanced practice or other registered nurse, a social worker, and a chaplain. Data from the 2012–13 annual surveys of the National Palliative Care Registry indicate that only 25 percent of participating programs met that standard based on funded positions, and even when unfunded positions were included, only 39 percent of programs met the standard. Larger palliative care programs were more likely than smaller ones to include a funded physician position, while smaller programs were more reliant upon advanced practice and registered nurses. To meet current and future palliative care needs, expanded and enhanced education, as well as supportive financing mechanisms for consultations, are needed.

Palliative care provides patients with relief from symptoms such as pain, shortness of breath, fatigue, and depression. Palliative care supports the best possible quality of life for patients with serious illnesses and their family caregivers, regardless of whether the patient is expected to recover or live with the illness for an extended period of time or is nearing the end of life.^{1–4} Palliative care includes hospice care but, unlike hospice care, is not focused strictly on end-of-life care after curative treatment has been terminated.

Palliative care programs, which are distinct from hospice care but may have a relationship with a hospice program, have increased in numbers. In 1998, 15 percent of US hospitals with over fifty beds had a palliative care program. The percentage had risen to 67 percent in 2013.⁵ Palliative care programs are now spreading into community health care settings such as nursing

homes and home care services.^{1,6} Growth in palliative care programs has been driven in part by evidence that palliative care improves patient outcomes and satisfaction, while reducing costs associated with intensive medical care.^{1,7–14}

Palliative care can be provided in settings throughout the continuum of care, but the predominant model in the United States (outside of hospice care) is the hospital consultative team model.³ Central to this model are interprofessional teams, which can include physicians, advanced practice and other registered nurses, social workers, chaplains, pharmacists, rehabilitation therapists, direct care workers, and other clinical and nonclinical specialists.^{1–3,15}

Palliative care programs that have higher staffing levels are able to serve more patients, and programs with higher service penetration (higher percentages of patients who received a consultation from the program) report shorter lengths of time to initial consultation.¹⁶ The

standards for the Joint Commission's Advanced Certification Program for Palliative Care state that the core palliative care team should include a physician (a doctor of either medicine or osteopathy), an advanced practice or other registered nurse, a chaplain, and a social worker—all with specialized training or clinical experience in palliative care.¹⁷ In addition, a consensus panel convened by the Center to Advance Palliative Care recommended that palliative care programs have specific funding for a board-certified physician.¹⁵ And the National Consensus Project for Quality Palliative Care has advised that programs should have on-site staffing coverage during normal business hours and telephone coverage at all times.²

There is limited research on staffing within palliative care programs. A 2011 survey of palliative consultation services in hospitals in California reported that physicians were included in 85 percent of the programs, both social workers and spiritual care professionals in 58 percent, advanced practice registered nurses in 46 percent, and registered nurses in 63 percent.¹⁸

A 2012 national survey of children's hospitals identified 112 pediatric palliative care programs, which reported an average of 2.33 full-time-equivalent (FTE) personnel—of which 0.85 FTEs were licensed physicians or nurse practitioners.¹⁹ FTE staffing was as follows: 59 percent of the programs employed physicians; 63 percent, registered nurses; 45 percent, advanced practice registered nurses; 34 percent, social workers; and 26 percent, chaplains.

These studies suggest that many palliative care programs do not meet national staffing recommendations, although it is widely acknowledged that the need for skilled providers is growing.³ For example, two bills pending in Congress, both called the Palliative Care and Hospice Education and Training Act (the House version is H.R. 3119 and the Senate version is S. 2748), aim to increase the number of palliative care faculty members in medical schools, nursing schools, social work schools, and other programs.²⁰

There have been no national assessments of the extent to which Joint Commission and other consensus recommendations are met by hospital palliative care programs. We sought to fill this gap in knowledge through an analysis of national data on staffing in the programs and an assessment of whether there are important staffing differences by program characteristics, hospital characteristics, or region.

Study Data And Methods

DATA We analyzed data from the 2012–13 annual surveys of the National Palliative Care Registry.

The registry is a project of the Center to Advance Palliative Care and the National Palliative Care Research Center.²¹ Its voluntary surveys collect self-reported operational data on hospital palliative care programs. The programs compile and submit information that includes the size and nature of the program, size and type of the hospital in which the program is located, penetration, scope of services, patient profile, staffing levels, and certification.

For this analysis we used data from 2013 unless a program did not respond in that year, in which case we used data from 2012 if they were available. A comparison of the programs for which we used 2013 data and those for which we used 2012 data is provided in online Appendix Exhibit A1.²² There were no significant differences between the two sets of programs.

Data in the survey are collected at the program, not the hospital, level. A small number (thirty-five) of palliative care programs in our data served multiple hospitals. We excluded these programs from our analysis, since they were substantively different from the single-hospital programs. There also were twelve hospitals in the survey that had two distinct palliative care programs. We retained data only from the program with the larger number of consultations. Thus, each of our 410 observations represented a single program in a single hospital.

Staffing information included both funded and unfunded (in-kind—which includes time paid by another department of the hospital—and volunteer) positions, which provided a count of the number of staff members in each health care provider category as well as FTE employment. We grouped the professions as follows: director (nonphysician administrator or medical director), physician (a doctor of either medicine or osteopathy), advanced practice registered nurse or physician assistant, registered nurse, social worker, chaplain, and all others.

METHODS We began by identifying the characteristics of the palliative care programs in the data set. We then developed a detailed breakdown of staffing by the professional groups identified above for both funded and unfunded positions. We also computed the percentage of palliative care programs with a complete team, according to the Joint Commission's standards.¹⁷ We assessed whether programs complied with recommendations for on-site staffing coverage during normal business hours and for telephone coverage at all times.² We also determined whether programs included a paid physician in accordance with the recommendation of the consensus panel of the Center to Advance Palliative Care¹⁵ and, if not, whether they included an advanced practice or other registered nurse.

We used cross-tabulations to explore differences in staffing by palliative care program characteristics and chi-square tests to assess whether differences across groups were significant. Comparisons were made by program size, measured as the number of consultations per year; hospital size, measured as the number of beds; the types of palliative services offered; staffing coverage; program penetration; and region, using the ten regions developed by the Health Resources and Services Administration. Following previous research,⁵ we divided hospitals into the following two groups: those with fewer than 300 beds and those with 300 or more beds.

LIMITATIONS This study had several limitations. First, the data set did not include all palliative care programs. It has been estimated that 1,591 hospitals with fifty or more beds had palliative care programs in 2014.⁵ Our analytic data set of 410 programs represented only 26 percent of those programs. Our data overrepresented programs in larger hospitals: 59 percent of the hospitals in our data had 300 or more beds (Appendix Exhibit A2),²² but only 42 percent of programs nationally are in hospitals of this size.⁵ Given the voluntary nature of the survey and the overrepresentation of larger hospitals, participating programs may be more established and have better resources than average. Thus, their staffs may include a broader and better-trained mix of professionals than average.

Second, the survey data are reported by programs and are not systematically verified. The degree of reporting error is unknown, but we assumed that programs were able to accurately report on their staffing.

Third, the training and clinical experience of members of the palliative care team are not reported in the survey, except for the number of staff members with palliative care certification. Thus, we could not determine whether a program's staff was fully compliant with Joint Commission standards.

Study Results

Of the 410 palliative care programs in our data, 95 percent offered only a consulting service (in which palliative care team members serve patients across all hospital units), and the remaining 5 percent offered a consulting service as well as a dedicated palliative care unit (Appendix Exhibit A2).²² Sixty of the programs (14.6 percent) were certified by the Joint Commission, and seventy-five (18.3 percent) had applied for certification or were planning to do so within the next year.

Hospitals with 300 or more beds accounted for 240 of the programs (59 percent). Of the pro-

Expanded access to palliative care requires greater attention to the workforce that provides palliative services.

grams, 129 (31.4 percent) had an outpatient clinic, 69 (17 percent) had a home-based program, and 390 (95.1 percent) had a relationship with a hospice program. Only 272 (66.3 percent) had staffing coverage in accordance with the guidelines published by the National Consensus Project for Quality Palliative Care.²

The programs reported medians of 531 consultations per year and 336 per 10,000 admissions. The programs reached a median of 3.4 percent of hospital patients (interquartile range: 2.1–4.9 percent). Patients older than age sixty-five made up a median of 71 percent of all patients receiving palliative consultations.

FUNDED AND UNFUNDED PROGRAM STAFFING

The mean number of funded staff members in hospital-based palliative care programs was 6.8, which produced 4.9 FTEs (Exhibit 1). Forty-five percent of programs reported having in-kind or volunteer staff members. More than half of the programs reported that they had funded positions for physicians, nurses, and social workers, but only 38 percent had funded chaplain positions. The difference between the numbers of staff and FTEs suggests that part-time funding was less common among nurses and social workers and more common among physicians, chaplains, and other staff members. The mean FTEs per 10,000 admissions was 3.3.

The most commonly reported unfunded positions were chaplains, other professionals, and social workers (Exhibit 1). Unfunded chaplains provided an average of 43 percent of chaplain FTEs, and unfunded social workers provided 22 percent of social worker FTEs. The position of administrator or medical director was unfunded in 13 percent of the programs. The median annual consultations per FTE (funded and unfunded) was 144 (Appendix Exhibit A2).²²

STAFFING DIFFERENCES BY PROGRAM CHARACTERISTICS AND REGION We found variations in

EXHIBIT 1
Staffing of palliative care programs in US hospitals, 2012-13

Funded positions	No.	%	Among programs with any positions		
			Mean staff	Mean FTEs	Mean FTEs per 10,000 admissions
Total	393	100	6.8	4.9	3.3
Administrator or medical director ^a	225	57	1.5	0.6	0.6
Physician (DO or MD)	260	66	2.2	1.5	0.8
Advanced practice nurse or physician assistant ^b	271	69	1.8	1.5	1.0
Registered nurse	204	52	1.9	1.5	1.2
Social worker	202	51	1.3	1.2	0.8
Chaplain	150	38	1.3	0.7	0.5
Other ^c	155	39	2.7	1.8	1.2
Unfunded positions	No.	%	Mean staff	Mean FTEs	Unfunded as % of all FTEs
Total	175	45	4.8	1.9	13.5
Administrator or medical director ^a	51	13	1.2	0.5	13.3
Physician (DO or MD)	31	8	1.7	0.9	8.2
Advanced practice nurse or physician assistant ^b	19	5	1.6	0.9	4.3
Registered nurse	21	5	1.7	0.9	6.6
Social worker	66	17	2.1	0.9	22.4
Chaplain	111	28	1.7	0.8	43.0
Other ^c	100	25	3.4	1.1	36.0

SOURCE Authors' analysis of data from the 2012-13 annual surveys of the National Palliative Care Registry. **NOTES** Unfunded positions include both in-kind and volunteer positions. FTE is full-time equivalent. DO is doctor of osteopathy. ^aMedical director time is nonclinical only. ^bOnly twelve programs had a physician assistant on staff. ^cIncludes psychiatrists, licensed practical nurses, psychologists, fellows, pharmacists, ethicists, music or art therapists, physical or occupational therapists, speech therapists, dietitians or nutritionists, hospice liaisons, and clerical staff members.

EXHIBIT 2
Funded staffing in palliative care programs, by program characteristics, 2012-13

Characteristic	Per 10,000 admissions		Percent with funded:			
	Median staff	Median FTEs	Physician	RN	Social worker	Chaplain
All programs	3.14	2.17	66	52	51	38
Number of annual consultations (percentile)						
At or below 50th	2.93	1.80***	53***	51	40***	29***
51st-75th	3.31	2.27***	73***	50	60***	49***
Above 75th	3.32	2.53***	86***	57	65***	46***
Number of beds						
Fewer than 300	4.24***	2.56***	56***	55	45**	31**
300 or more	2.72***	1.88***	73***	50	56**	43**
Services						
Outpatient clinic	3.94***	2.68***	66***	47	53	43
Home-based program	4.01***	2.61***	75	49	55	49**
Recommended coverage	3.61***	2.39***	62***	54	53	44***
Above median penetration ^a	4.13***	2.77***	67	57**	54	40

SOURCE Authors' analysis of data from the 2012-13 annual surveys of the National Palliative Care Registry. **NOTES** Significance refers to comparisons within groups of characteristics—that is, by number of annual consultations for three categories, by number of beds for two categories, and by whether or not each service was provided for each of the last four rows. FTE is full-time equivalent. RN is registered nurse. ^aMedian penetration of services is 3.4 percent. ** $p \leq 0.05$ *** $p \leq 0.01$

staffing according to program characteristics (Exhibit 2; see also Appendix Exhibit A3).²² There was a positive correlation between median FTEs per 10,000 hospital admissions and the number of annual consultations in a program. Programs whose consultation volumes were in the top quartile (above the seventy-fifth percentile) reported median FTEs per 10,000 admissions of 2.53, as compared with 1.80 FTEs for programs with consultation volumes at or below the median. The likelihood of having funded physician, social worker, and chaplain positions—but not of having funded registered nurse positions—was greater for programs with consultation volumes in higher versus lower quartiles of number of consultations.

Hospitals with fewer than 300 beds reported more FTEs per 10,000 admissions than did hospitals with 300 or more beds (2.56 versus 1.88). This is likely because programs need to maintain a minimum level of staffing regardless of hospital size, and thus FTEs per 10,000 admissions can be relatively high for small hospitals. Programs that had outpatient clinics, home-based programs, recommended staffing coverage, and penetration above the median had greater numbers of staff and FTEs per 10,000 admissions than programs that did not.

Funded chaplains were more likely to be re-

ported by programs that had home-based programs and recommended staffing coverage than by programs that did not. Funded physicians were more common in programs with outpatient clinics and recommended staffing coverage than in those without (Exhibit 2). There were no significant regional differences in funded staff positions except for registered nurses (Appendix Exhibit A4).²²

ALIGNMENT WITH NATIONAL STAFFING RECOMMENDATIONS Two-thirds of the programs reported having a funded physician (Exhibit 3). Programs with greater consultation volumes were more likely to report having a funded physician than were programs with lower volumes. Regional differences in the presence of physicians, advanced practice or other registered nurses, and registered nurses were not significant (Appendix Exhibit A5).²²

Only 25 percent of hospitals had a complete team of funded staff members, according to the Joint Commission standards¹⁷ (Exhibit 4). If unfunded positions were included, the share rose to 39 percent. Hospital programs with complete teams were more likely than other hospitals to have greater consultation volumes: Only 14 percent of hospitals with volumes below the median had a complete funded team, compared to 36 percent of programs with volumes in the top quartile. Programs with outpatient clinics, home-based programs, and recommended coverage also were more likely than other hospitals to have complete funded teams. There were no significant regional differences in the prevalence of complete teams (Appendix Exhibit A6).²²

EXHIBIT 3

Funded lead clinical staff members in palliative care programs, 2012–13

Program characteristic	Percent of lead clinical staff members who are:				p value
	MDs or DOs	APRNs or PAs	RNs	Other	
All programs	66.2	19.9	12.2	1.8	
Number of annual consultations (percentile)					<0.001
At or below 50th	52.6	27.0	18.4	2.0	
51st–75th	73.5	16.3	9.2	1.0	
Above 75th	85.9	9.1	3.0	2.0	
Number of beds					<0.001
Fewer than 300	56.0	27.0	15.1	1.9	
300 or more	73.1	15.0	10.3	1.7	
Services					
Outpatient clinic	85.6	10.4	1.6	2.4	<0.001
Home-based program	73.9	14.5	8.7	2.9	0.15
Recommended coverage	71.4	16.8	9.5	2.3	0.001
Above median penetration ^a	66.9	21.0	10.5	1.7	0.56

SOURCE Authors' analysis of data from the 2012–13 annual surveys of the National Palliative Care Registry. **NOTES** Significance refers to whether the percentages are different from each other. The first p value indicates whether there are significant differences by number of annual consultations; the second p value indicates whether there are significant differences by number of beds; the last four p values indicate whether there is a significant difference for programs that offer each service versus those that do not. DO is doctor of osteopathic medicine. APRN is advanced practice registered nurse. PA is physician assistant. RN is registered nurse. ^aMedian penetration of services is 3.4 percent.

Discussion

The Institute of Medicine has recommended that all Americans with advanced illnesses have access to palliative care services provided by well-trained transprofessional teams.³ However, our data revealed that palliative care programs reached only a median of 3.4 percent of hospital patients. Although the “right” penetration level has not been determined, 3.4 percent is likely below the need for consultation among hospital patients. One recent study estimated that 13.8 percent of intensive care unit admissions met criteria for palliative care consultation,²³ and a study in a large cancer center estimated that one-third of hospitalized cancer patients should receive a palliative care consultation.²⁴ In addition, we found that one-third of palliative care programs did not have recommended coverage—personnel available on site during weekday business hours and by telephone at all times.²

Many palliative care programs have staffing

gaps, which could explain the low penetration of services within hospitals and the inability of programs to provide recommended coverage. Only one-fourth of programs have a complete team for palliative care services, based on funded positions. Larger programs are usually led by physicians, but nearly half of smaller programs rely on advanced practice and other registered nurses to lead their teams.

Palliative care programs often rely on volunteer and in-kind staff members, particularly in the positions of chaplain and social worker. It is not known what impact in-kind unfunded time has on the other job duties of professionals serving in palliative care programs. Because the survey data we used were voluntarily reported and overrepresented programs in larger hospitals, it is likely that they have higher staffing levels than the average among all US hospitals. Thus, our data may overestimate the adequacy of palliative care program staffing.

These findings underscore the difficulty of ensuring that all Americans with serious illnesses have access to high-quality palliative care services. Palliative care physicians are in short supply,²⁵ and it has been estimated that 18,000 more of them would be needed to staff current programs at recommended levels.²⁶ It is unlikely that palliative care fellowships can expand sufficiently to fill the gap between current supply and estimated need.⁴ Alternative strategies are required to ensure access to palliative care services for patients in need.

Access to palliative care could be improved by enriching all health professionals' training in palliative care, particularly in prelicensure education programs. Current education programs do not provide adequate training in palliative care.^{3,25} In addition, greater education in inter-professional teamwork skills is required, because the care of seriously ill patients with complex conditions is optimally provided by teams.³ Palliative care education needs to include social work as well as the health professions.²⁷

Midcareer palliative care education can also play an important role in improving access to services. Some leaders in the palliative care field have recommended a midcareer certification for so-called palliative care champions, who could provide palliative care consultations when needed, engage in case reviews with board-certified palliative care physicians, and participate in self-paced education.⁴ The acute care setting offers many opportunities for education in palliative care,²⁸ and online and video education programs have proved effective in developing palliative care knowledge and skills.²⁹⁻³¹ To encourage greater uptake of palliative care education opportunities, state licensing boards could encour-

EXHIBIT 4

Percentage of palliative programs with a complete team, 2012-13

	Funded positions only	p value	All positions	p value
All programs	25.2	— ^a	39.4	— ^a
Number of annual consultations (percentile)				
At or below 50th	13.8	<0.01	28.6	<0.01
51st-75th	36.7		48.0	
Above 75th	36.4		52.5	
Number of beds				
Fewer than 300	16.4	<0.01	30.8	<0.01
300 or more	31.2		45.3	
Services				
Outpatient clinic	21.1	<0.01	35.9	0.03
Home-based program	22.7	0.02	38.6	0.45
Recommended coverage	14.7	<0.01	22.5	<0.01

SOURCE Authors' analysis of data from the 2012-13 annual surveys of the National Palliative Care Registry. **NOTES** A complete team has at least one of the following staff members: physician, advanced practice registered nurse or registered nurse, chaplain, and social worker (see Note 17 in text). Significance refers to whether each value in a group is significantly different from each other (for number of annual consultations and number of beds), or as compared with hospitals that do not have the characteristic (for example, a hospital with an outpatient clinic versus one without an outpatient clinic). ^aNot applicable.

age or even require palliative care education as part of continuing education requirements.

The Palliative Care and Hospice Education and Training Act, now pending in Congress, would amend the Public Health Service Act to increase the number of palliative care faculty members in medical schools, nursing schools, social work schools, and other programs.²⁰ This would increase the capacity of health professions education programs to prepare new professionals in palliative care and might expand opportunities to develop midcareer and continuing education in the field. The Bureau of Health Workforce within the Health Resources and Services Administration can play a role in supporting palliative care education through its grants programs.

Access to palliative care services also depends on the presence of reimbursement policies that are aligned with the provision of palliative care consultations and services. The Centers for Medicare and Medicaid Services (CMS) has established policies and programs that may support this, such as separate payment for advance care planning and provisions to allow hospices in the Medicare Care Choices Model to offer patients supportive services while continuing to receive curative treatment.²⁰ Bundled payment reimbursement could increase the use of palliative care because of its demonstrated cost savings.⁷⁻¹⁴ CMS and private insurers should also explore reimbursing providers for telehealth consultations, which could facilitate access to

specialty-level palliative care in programs that do not have physicians and in rural and other safety-net settings.^{32,33}

Health system managers have a responsibility to ensure that palliative care is available and of high quality.³ They can implement programs to increase access regardless of whether or not they can maintain a complete palliative care team. For example, checklists have been developed to identify patients in need of palliative care consultation. These can be administered by multiple types of hospital personnel, streamline the referral process, and reduce the odds that patients' needs are missed.^{23,24,34} Managers should ensure that their palliative care programs collaborate with other related hospital programs such as advance care planning, case management, and pain services.

Managers also need to be attentive to the risk of turnover among palliative care personnel. Palliative care is particularly susceptible to turnover because of the burnout and stress associated

with the emotional labor of the work—burnout rates as high as 62 percent have been reported.^{35–37} Interventions to promote self-care strategies have been demonstrated to be effective at improving stress management and resiliency^{36,37} and could be supported by employers.

Conclusion

Enhanced and expanded access to palliative care requires greater attention to the workforce that provides palliative services. Workforce policy and palliative care leaders should work together to identify the areas of greatest need and evaluate the impact of policies intended to support palliative care. Rapid and sustained efforts in education, financing, and health systems management will be required to prepare the US health workforce to meet the palliative care needs of a growing and aging population living with serious and complex chronic illnesses. ■

This study was supported by the Health Resources and Services Administration (HRSA) of the Department of Health and Human Services (HHS) under the Cooperative Agreement for a Regional Center for Health Workforce Studies (Grant No. U81HP26494). The information in or content and

conclusions of this article are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by, HRSA, HHS, or the US government. The National Palliative Care Registry is supported by the Center to Advance Palliative Care, the National Palliative

Care Research Center, and the Patty and Jay Baker National Palliative Care Center. R. Sean Morrison provided helpful suggestions in the interpretation of the National Registry data and editorial suggestions.

NOTES

- 1 Meier DE. Increased access to palliative care and hospice services: opportunities to improve value in health care. *Milbank Q*. 2011;89(3):343–80.
- 2 Dahlin C, editor. *Clinical practice guidelines for quality palliative care*. 3rd ed. Pittsburgh (PA): National Consensus Project for Quality Palliative Care; 2013.
- 3 Institute of Medicine. *Dying in America: improving quality and honoring individual preferences near the end of life*. Washington (DC): National Academies Press; 2015.
- 4 Kamal AH, Maguire JM, Meier DE. Evolving the palliative care workforce to provide responsive, serious illness care. *Ann Intern Med*. 2015;163(8):637–8.
- 5 Dumanovsky T, Augustin R, Rogers M, Lettang K, Meier DE, Morrison RS. The growth of palliative care in U.S. hospitals: a status report. *J Palliat Med*. 2016;19(1):8–15.
- 6 Kamal AH, Currow DC, Ritchie CS, Bull J, Abernethy AP. Community-based palliative care: the natural evolution for palliative care delivery in the U.S. *J Pain Symptom Manage*. 2013;46(2):254–64.
- 7 Penrod JD, Deb P, Luhrs C, Dellenbaugh C, Zhu CW, Hochman T, et al. Cost and utilization outcomes of patients receiving hospital-based palliative care consultation. *J Palliat Med*. 2006;9(4):855–60.
- 8 Gade G, Venohr I, Conner D, McGrady K, Beane J, Richardson RH, et al. Impact of an inpatient palliative care team: a randomized control trial. *J Palliat Med*. 2008;11(2):180–90.
- 9 Morrison RS, Penrod JD, Cassel JB, Caust-Ellenbogen M, Litke A, Spragens L, et al. Cost savings associated with US hospital palliative care consultation programs. *Arch Intern Med*. 2008;168(16):1783–90.
- 10 Casarett D, Pickard A, Bailey FA, Ritchie C, Furman C, Rosenfeld K, et al. Do palliative consultations improve patient outcomes? *J Am Geriatr Soc*. 2008;56(4):593–9.
- 11 Penrod JD, Deb P, Dellenbaugh C, Burgess JF, Zhu CW, Christiansen CL, et al. Hospital-based palliative care consultation: effects on hospital cost. *J Palliat Med*. 2010;13(8):973–9.
- 12 Morrison RS, Dietrich J, Ladwig S, Quill T, Sacco J, Tangeman J, et al. Palliative care consultation teams cut hospital costs for Medicaid beneficiaries. *Health Aff (Millwood)*. 2011;30(3):454–63.
- 13 May P, Garrido MM, Cassel JB, Kelley AS, Meier DE, Normand C, et al. Prospective cohort study of hospital palliative care teams for inpatients with advanced cancer: earlier consultation is associated with larger cost-saving effect. *J Clin Oncol*. 2015;33(25):2745–52.
- 14 May P, Garrido MM, Cassel JB, Kelley AS, Meier DE, Normand C, et al. Palliative care teams' cost-saving effect is larger for cancer patients with higher numbers of comorbidities. *Health Aff (Millwood)*. 2016;35(1):44–53.
- 15 Weissman DE, Meier DE. Operational features for hospital palliative care programs: consensus recommendations. *J Palliat Med*. 2008;11(9):1189–94.
- 16 Dumanovsky T, Rogers M, Spragens LH, Morrison RS, Meier DE. Impact of staffing on access to palliative care in U.S. hospitals. *J Palliat Med*. 2015;18(12):998–9.
- 17 Joint Commission Resources. *Palliative care certification manual 2015–2016*. Oak Brook (IL): Joint Commission; 2015.
- 18 Pantilat SZ, O'Riordan DL, Bruno KA. Two steps forward, one step

- back: changes in palliative care consultation services in California hospitals from 2007 to 2011. *J Palliat Med.* 2014;17(11):1214–20.
- 19 Feudtner C, Womer J, Augustin R, Remke S, Wolfe J, Friebert S, et al. Pediatric palliative care programs in children's hospitals: a cross-sectional national survey. *Pediatrics.* 2013;132(6):1063–70.
 - 20 Kelley A, Meier D. Expanding access to palliative care services: the tide is turning. *Health Affairs Blog* [blog on the Internet]. 2015 Aug 6 [cited 2016 Jul 8]. Available from: <http://healthaffairs.org/blog/2015/08/06/expanding-access-to-palliative-care-services-the-tide-is-turning/>
 - 21 National Palliative Care Registry. The growth of palliative care in U.S. hospitals: 2015 snapshot (2000–2013) [Internet]. New York (NY): The Registry; [cited 2016 Jul 8]. Available from: https://media.cape.org/filer_public/34/77/34770c03-a584-4079-a9ae-edb98dab6b20/growth_snapshot_2016_final.pdf
 - 22 To access the Appendix, click on the Appendix link in the box to the right of the article online.
 - 23 Hua MS, Li G, Blinderman CD, Wunsch H. Estimates of the need for palliative care consultation across United States intensive care units using a trigger-based model. *Am J Respir Crit Care Med.* 2014;189(4):428–36.
 - 24 Glare PA, Chow K. Validation of a simple screening tool for identifying unmet palliative care needs in patients with cancer. *J Oncol Pract.* 2015;11(1):e81–6.
 - 25 Aldridge MD, Hasselaar J, Garralda E, van der Eerden M, Stevenson D, McKendrick K, et al. Education, implementation, and policy barriers to greater integration of palliative care: a literature review. *Palliat Med.* 2016;30(3):224–39.
 - 26 Lupu D. Estimate of current hospice and palliative medicine physician workforce shortage. *J Pain Symptom Manage.* 2010;40(6):899–911.
 - 27 Supiano KP, Berry PH. Developing interdisciplinary skills and professional confidence in palliative care social work students. *J Soc Work Ed.* 2013;49(3):387–96.
 - 28 Weissman DE, Block SD, Blank L, Cain J, Cassem N, Danoff D, et al. Recommendations for incorporating palliative care education into the acute care hospital setting. *Acad Med.* 1999;74(8):871–7.
 - 29 McDonald CJ, Stodel EJ, Hall P, Weaver L. The impact of an online learning resource designed to enhance interprofessional collaborative practice in palliative care: findings from the Caring Together Pilot Project. *J Res Interprof Pract Educ.* 2009;1(1):42–66.
 - 30 Ellman MS, Schulman-Green D, Blatt L, Asher S, Viveiros D, Clark J, et al. Using online learning and interactive simulation to teach spiritual and cultural aspects of palliative care to interprofessional students. *J Palliat Med.* 2012;15(11):1240–7.
 - 31 Ray RA, Fried O, Lindsay D. Palliative care professional education via video conference builds confidence to deliver palliative care in rural and remote locations. *BMC Health Serv Res.* 2014;14:272.
 - 32 Watanabe SM, Fairchild A, Pituskin E, Borgersen P, Hanson J, Fassbender K. Improving access to specialist multidisciplinary palliative care consultation for rural cancer patients by videoconferencing: report of a pilot project. *Support Care Cancer.* 2013;21:1201–7.
 - 33 Kidd L, Cayless S, Johnston B, Wengstrom Y. Telehealth in palliative care in the UK: a review of the evidence. *J Telemed Telecare.* 2010;16(7):394–402.
 - 34 Weissman DE, Meier DE. Identifying patients in need of a palliative care assessment in the hospital setting: a consensus report from the Center to Advance Palliative Care. *J Palliat Med.* 2011;14(1):17–23.
 - 35 Perez GK, Haime V, Jackson V, Chittenden E, Mehta DH, Park ER. Promoting resiliency among palliative care clinicians: stressors, coping strategies, and training needs. *J Palliat Med.* 2015;18(4):332–7.
 - 36 Kamal AH, Bull JH, Wolf SP, Swetz KM, Shanafelt TD, Ast K, et al. Prevalence and predictors of burn-out among hospice and palliative care clinicians in the U.S. *J Pain Symptom Manage.* 2016;51(4):690–6.
 - 37 Mehta DH, Perez GK, Traeger L, Park ER, Goldman RE, Haime V, et al. Building resiliency in a palliative care team: a pilot study. *J Pain Symptom Manage.* 2016;51(3):604–8.