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**Brief Report**

# Palliative Care Services in Long-Term Acute Care Hospitals: A National Survey Study

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**Abstract**

**Context.** Virtually every patient in a long-term acute care hospital (LTACH) has a serious illness and thus, potentially eligible for palliative care (PC).

**Objectives.** To evaluate the scope, structure, and staffing of PC programs in LTACHs

**Methods.** Descriptive cross-sectional survey of LTACH leaders affiliated with the National Association of Long Term Hospitals (NALTH) linked with publicly available hospital data to determine presence, structure, and staffing of PC service, and perceptions among leaders of LTACHs without PC services.

**Results.** Among 42 respondent LTACHs (50.6%), 24 (57%) reported having a PC program. LTACHs with versus without PC were more often part of a healthcare system (75% vs. 59%) but not an LTACH chain (38% vs. 53%). Most externally contracted PC services (75%), provided in-person consultation at least most weekdays (82%), were financed by professional billing (71%) and/or hospital support (64%), and were well regarded. The most common staffing discipline was physicians (55%); 10% met the interdisciplinary team definition. Half (55%) reported seeing fewer than 50% of patients perceived to benefit from PC; 36% reported interest in PC training for their staff. Among the 18 LTACHs without PC, most (78%) perceived that PC was beneficial, and recognized recruiting staff, financing, and LTACH/host hospital leadership as barriers.

**Conclusions.** Independently owned, nonprofit LTACHs embedded within healthcare systems more often reported having PC services, with variability in structure and opportunities for further expansion and training. Despite positive regard for PC, barriers of staffing and financing will need to be overcome to establish PC services in LTACHs. *J Pain Symptom Manage* 2025;000:e1–e10. © 2025 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

**Key Words**

*Long-term acute care hospitals, Hospitals, Palliative care, Referral and consultation, Workforce*

**Key Message**

Palliative care (PC) is underused in long-term acute care hospitals (LTACHs), despite most patients being eligible. While 57% of LTACHs in this survey reported having a PC program, staffing and financial barriers hinder wider adoption. Expanding PC services and overcoming these challenges is vital to improving care for LTACH patients.

**Introduction**

Each year, long-term acute care hospitals (LTACHs) care for over 70,000 individuals with complex and serious illness requiring prolonged inpatient care for weeks or months following a short-stay hospitalization.<sup>1</sup> While LTACHs are most distinct from other postacute care settings for their expertise in caring for patients

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with chronic critical illness, three-quarters of the LTACH population are not mechanically ventilated, but have a range of complex medical needs including wound care, intravenous therapies, and dialysis.<sup>2,3</sup> Patients cared for in LTACHs are typically older, disproportionately from underserved backgrounds (black race and dual Medicare-Medicaid), and have substantial multimorbidity.<sup>2,3</sup> Individuals transferred to LTACHs have prognoses similar to patients with metastatic cancer, with a median survival of only eight months, and often spend most of their remaining life in a hospital or long-term care facility.<sup>4</sup>

Given the substantial morbidity and mortality, including for nonmechanically ventilated patients, most, if not all individuals cared for in LTACHs meet criteria for specialty palliative care consultation,<sup>4–7</sup> which in other settings has been shown to improve quality of life and end-of-life experiences, decrease burdensome care, and significantly lower costs by reducing unwanted care.<sup>8–10</sup> Despite these benefits, only about one-third of LTACHs nationwide self-reported having a palliative care program.<sup>11</sup> Moreover, little is known about the structure and characteristics of these programs, including their staffing levels. We also do not know why certain LTACHs lack palliative care programs and how palliative care is delivered in their absence.

We conducted this study to evaluate the scope of palliative care programs and staffing models in LTACHs, to understand differences in characteristics of LTACHs with and without a palliative care program, and perceptions of their leaders regarding the barriers and challenges to starting a program. Understanding these knowledge gaps can help inform optimal design and implementation of palliative care services in LTACHs to care for an extremely at-risk population.

## Methods

### *Study Design, Population, and Data Collection*

We conducted a descriptive cross-sectional survey of leaders of LTACHs who were members of the National Association of Long Term Hospitals (NALTH). NALTH is the only national association of LTACHs and is focused on advocacy, education, and research.<sup>12</sup> NALTH was comprised of 83 member hospitals at the time of our study, which was approximately one-quarter of all LTACHs nationwide. The study was announced by the principal investigator (Dr. Makam) at the NALTH Spring Annual Member Meeting on April 20, 2023, during an in-person presentation, followed by distribution of flyers at the meeting and a recruitment email sent by the NALTH Executive Assistant to the Chief Executive Officers (CEOs) of all member hospitals, including LTACHs without a palliative care

consultation service. We invited the CEOs to ask the “person at (their) hospital most knowledgeable about (their) palliative care services,” such as the service director, to complete a 20-minute online Qualtrics survey. The Executive Assistant sent three follow-up email requests to nonrespondents. Data collection ended on July 31, 2023. Participants who completed the survey received a \$50 gift card. The study was approved by the University of California, San Francisco Institutional Review Board (#22-37829).

We included publicly available information from the Centers of Medicare & Medicaid Services to characterize LTACHs (see [Table 1](#)), which included general information (region, ownership),<sup>13</sup> Provider of Services data (hospital characteristics and staffing),<sup>14</sup> and Hospital Compare data (risk-standardized quality measures).<sup>15</sup>

### *Survey*

We adapted existing surveys of palliative care programs in acute care hospitals from published research conducted by our study team (SZP and DLO) and from the Center to Advancing Palliative Care (survey included in the Appendix).<sup>16–18</sup> We solicited input from NALTH leadership to ensure the content and wording were consistent with LTACH settings. We pilot tested our survey with NALTH leaders from 3 LTACHs to further modify the web-based survey administration for comprehension, flow, and content. We defined a palliative care consultation service in accordance with prior research, as an “interdisciplinary team that sees patients, identifies needs, makes treatment recommendations, facilitates patient and/or family decision making and/or directly provides palliative care for patients with serious illness and their families.”<sup>11</sup> For participants who affirmed that their LTACH had a palliative care consultation service, we inquired about the characteristics of the program, including specific services provided, staffing, and financing (23 questions). For LTACHs without a palliative care service, we asked participants about the staff responsible for delivering core elements of palliative care in the absence of a formal palliative care team, plans for starting a service, and perceived barriers and solutions (17 questions). We asked all participants about general characteristics (17 questions) about their hospital and an open-ended question about “anything else (they) would like to share about (their) hospital’s palliative care services or staffing”.

### *Statistical and Qualitative Analyses*

The primary objective of this study was to describe characteristics of LTACHs with and without palliative care services using proportions for binary variables and either means (standard deviations) or medians (interquartile ranges) for continuous variables depending

Table 1  
Characteristics of LTACHs

	All LTACHs (N = 343) <sup>a</sup>	(1) Non-NALTH LTACHs (N = 261) <sup>a</sup>	(2) Nonparticipating NALTH LTACHs (N = 41) <sup>a</sup>	(3) Participating NALTH LTACHs (N = 41) <sup>a,b</sup>	Std Diff <sup>c</sup> (PValue) 3 vs. 1	Std Diff <sup>c</sup> (PValue) 3 vs. 2
<b>Hospital characteristics</b>						
Region, n (%)					0.38 (0.23)	0.45 (.27)
Northeast	50 (14.6)	40 (15.3)	4 (9.8)	6 (14.6)		
Midwest	66 (19.2)	57 (21.8)	2 (4.9)	7 (17.1)		
South	175 (51.0)	119 (45.6)	31 (75.6)	25 (61.0)		
West	52 (15.2)	45 (17.2)	4 (9.8)	3 (7.3)		
Ownership					0.98 (<0.001)	0.71 (0.01)
For profit	244 (71.1)	201 (77.0)	28 (68.3)	15 (36.6)		
Nonprofit	82 (23.9)	45 (17.2)	13 (31.7)	24 (58.5)		
Other	17 (5.0)	15 (5.7)	0	2 (4.9)		
Part of an LTACH chain	-	-	36 (87.8)	13 (31.7)	-	1.4 (<0.001)
Years in operation, mean years (±SD)	23.0 (±10.2)	22.7 (±9.9)	23.1 (±8.2) (n = 40)	24.8 (±13.3)	0.20 (0.24)	0.15 (0.49)
Total bed count, median (IQR)	48 (34–70)	48 (34–70)	41 (32–59)	51 (35–97)	- (0.50)	- (0.049)
Participates in the Medicaid program	270 (79.0) (n = 342)	200 (76.6)	30 (75.0) (n = 40)	40 (97.6)	.66 (0.002)	0.69 (0.003)
Overall annual volume, med stays (IQR)	301 (221–445) (n = 333)	303 (226–453) (n = 253)	288 (209–406) (n = 39)	307 (190–442)	- (0.75)	- (0.95)
Mechanical ventilation volume, med (IQR)	80 (37–129) (n = 333)	90 (49–138) (n = 253)	38 (18–57) (n = 39)	59 (30–100)	- (0.04)	- (0.005)
<b>Risk standardized quality measures</b>						
Community discharge, mean % (±SD)	19.7 (±5.1) (n = 324)	19.2 (±4.6) (n = 245)	20.8 (±5.3) (n = 40)	21.1 (±6.8) (n = 39)	0.37 (0.03)	0.05 (0.82)
Readmission rate, mean % (±SD)	14.4 (±1.4) (n = 324)	14.5 (±1.3) (n = 245)	14.4 (±1.4) (n = 40)	14.0 (±1.5) (n = 39)	0.35 (0.045)	0.26 (0.26)
Weaned from ventilator, mean % (±SD)	51.5 (±10.0) (n = 283)	51.4 (±10.4) (n = 219)	51.1 (±7.4) (n = 28)	52.0 (±9.3) (n = 36)	0.06 (0.74)	0.10 (0.68)
<b>Employed staffing</b>						
Registered nurses, median FTE (IQR)	26 (13–41) (n = 342)	27 (14–42)	18 (12–37) (n = 40)	29 (17–40)	- (0.54)	- (0.04)
LPN/LVN, median FTE (IQR)	4 (0–11) (n = 342)	4 (0–11)	7 (3–13) (n = 40)	4 (1–10)	- (0.83)	- (0.11)
Social workers, median FTE (IQR)	1 (0–1) (n = 342)	1 (0–2)	0 (0–1) (n = 40)	1 (0–1)	- (0.88)	- (0.046)
Physical therapists, median FTE (IQR)	1 (0–2) (n = 342)	1 (0–2)	1 (1–2) (n = 40)	1 (0–3)	- (0.98)	- (0.41)
Respiratory therapists, median FTE (IQR)	8 (4–12) (n = 342)	8 (4–13)	7 (4–10) (n = 40)	6 (2–10)	- (0.12)	- (0.44)

Abbreviations: NALTH = National Association of Long Term Hospitals; LTACH = long-term acute care hospital; Std diff = standardized mean difference; FTE = full-time employee; LPN = licensed practical nurse; LVN = licensed vocational nurse.

<sup>a</sup>Represents the denominator for each characteristic except where indicated.

<sup>b</sup>Hospital characteristics were presented for a maximum of 41 of 42 participating LTACHs since 1 participant did not include hospital identifying information.

<sup>c</sup>Absolute standardized differences adjusted for small sample sizes are shown for categorical and normally distributed continuous characteristics.

on the distribution. We compared hospital-level characteristics of participating NALTH-member LTACHs to nonparticipating NALTH-member LTACHs to assess response bias, and separately to non-NALTH-member LTACHs to assess generalizability, using absolute standardized mean differences (SMD), which were adjusted for small sample sizes using Hedge's *d*, where differences of 0.2–0.5 were considered small, 0.5–0.8 as medium, and >0.8 as large per conventional practice. For non-normally distributed continuous characteristics we used a *P*-value of <0.05 for statistical significance. For LTACHs with a palliative care service, we assessed how many met the National Coalition for Hospice and Palliative Care guideline definition of an interdisciplinary team consisting of all four staff disciplines (medical, nursing, chaplaincy, and social work).<sup>19</sup> We qualitatively compared characteristics between NALTH-member LTACHs with and without a palliative care consultation service by describing numerical differences because of the small sample size. We used Stata 18 for all analyses. We conducted thematic analysis of the single free response question. Coding was conducted by one author (ANM) and themes were reviewed and decided upon collectively as a group.

## Results

Of 83 NALTH-member LTACHs, leaders from 42 (50.6%) unique hospitals participated. Respondents were hospital leaders (18 CEO/hospital administrators, 7 Vice Presidents/Directors of Operations, 10 nursing leaders, 5 CMOs, 1 Director of Case Management, and 1 CFO). Hospital characteristics of the 261 non-NALTH LTACHs, 41 nonparticipating NALTH-member LTACHs, and 41 participating NALTH-member LTACHs (1 hospital was unidentifiable) are shown in [Table 1](#). The majority of participating LTACHs were in the South (61%) and participated in the Medicaid program (98%). Compared to nonparticipating NALTH-member LTACHs, participating hospitals were far more commonly nonprofit (59% vs. 32%, SMD=0.98; *P* = 0.01), independent facilities (32% vs. 88% were part of an LTACH chain, SMD=1.39; *P* < 0.001) that participated in the Medicaid program (96% vs. 75%, SMD=0.66, *P* = 0.002), somewhat larger in size (median 51 vs. 41 beds, *P* = 0.049), had a higher volume of patients mechanically ventilated (median 59 vs. 38, *P* = 0.005), and employed more registered nurses (median of 29 vs. 18, *P* = 0.04) but fewer licensed practical/vocational nurses (median 4 vs. 7, *P* = 0.11). Compared to non-NALTH LTACHs, participating hospitals were also far more commonly nonprofit (59% vs. 17%, SMD=0.71, *P* < 0.001), more likely to participate in the Medicaid program (98% vs. 77%, SMD=0.69, *P* = 0.002), had a lower volume of mechanically

ventilated patients (median of 59 vs. 90 stays, *P* = 0.04), higher community discharge rate (mean 21.1% vs. 19.2%, SMD=0.37; *P* = 0.03), and similar nurse staffing levels. Years in operation, annual volume, and other staffing levels were similar across all three groups.

### *LTACHs With Palliative Care Consultation Services*

Among the 42 participating LTACHs, 24 (57.1%) self-reported having a palliative care service. Hospitals with a service were largely similar to participating hospitals without a service, except numerically were much more commonly part of a healthcare system (75% vs. 59%), less often part of an LTACH chain (38% vs. 53%), were larger (median of 61 vs. 43 beds), and employed more registered nurses (median of 32 vs. 21 full-time employees; [Table 2](#)).

A description of the palliative care programs is shown in [Table 3](#). Most LTACHs (75%) externally contracted their palliative care service, were mature in their operation (median of nine years in operation), provided in-person consultation (96%), operated at least most weekdays (82%), and met as a team at least weekly (71%). The most common staff disciplines represented included physicians (55%), advanced practice providers (45%), chaplains (40%), and social workers (35%), with 10% of programs meeting the definition of an interdisciplinary team consisting of all four staff disciplines.<sup>19</sup> Most programs relied on professional billing (71%) and hospital support (64%) for financing. About one-third (36%) reported an increased consultation volume versus the year prior and one-third (32%) reported struggling to keep up with their workload. About half (55%) reported seeing fewer than 50% of the patients who they perceived would benefit from a consultation. About one-third (36%) of participants reported an interest in palliative care training for their staff.

### *LTACHs Without a Palliative Care Consultation Service*

Participants from the 18 LTACHs without a service reported that a variety of staff disciplines delivered core elements of palliative care ([Fig. 1](#)). Symptom management, mental health, goals of care, comfort care, and withdrawal of life support were primarily provided by prescribing clinicians and, to a lesser extent, by social workers, case managers and nurses. Social workers or case managers primarily led advanced care planning, caregiver support, and hospice planning. Chaplains primarily provided spiritual counseling and, to a lesser extent, caregiver support. Psychiatrists or psychologists were uncommonly involved.

Most participants (78%) perceived that a palliative care service would benefit their patients and 33% reported an effort underway to start a service ([Appendix Table 1](#)). Perceived barriers to starting a service

Table 2  
Comparison of LTACHs with and without a Palliative Care Service

Characteristic	Palliative Care (n = 24)	No Palliative Care (n = 17) <sup>a</sup>	Std Diff <sup>b</sup> (P-Value)
For-profit ownership	8 (33.3%)	7 (41.2%)	0.16 (0.61)
Freestanding hospital	12 (52.2%)	10 (55.6%)	0.18 (0.58)
Part of a healthcare system	18 (75.0%)	10 (58.8%)	0.35 (0.27)
Part of a chain of LTACHs	9 (37.5%)	9 (52.9%)	0.31 (0.33)
Years in operation, median (IQR)	23 (15–29)	24 (19–28)	- (0.94)
Bed size, median (IQR)	61 (36–100)	43 (35–74)	- (0.50)
Participates in the Medicaid program	23 (95.8%)	17 (100%)	0.29 (0.39)
Overall annual volume, median stays (IQR)	318 (170–537)	304 (212–442)	- (0.92)
Perceived severity of illness			
Mechanical ventilation volume, median stays (IQR)	58 (30–98)	71 (31–107)	- (0.62)
Perceived >50% of patients had a serious illness	16 (80.0%) (n = 20)	13 (81.3%) (n = 16)	- (0.93)
Estimated in-LTACH mortality >10%	6 (30.0%) (n = 20)	5 (29.4%)	0.01 (0.97)
Risk standardized quality measures			
Community discharge, median (IQR)	20.8 (18.0–23.1) (n = 22)	19.8 (16.4–21.0)	- (0.28)
Readmission rate, median (IQR)	13.8 (12.9–15.0) (n = 22)	14.1 (13.7–14.9)	- (0.67)
Weaned from ventilator, median (IQR)	55.0 (46.9–57.8) (n = 22)	49.7 (47.0–56.7) (n = 14)	- (0.44)
Employed staffing			
Registered nurses, median FTE (IQR)	32 (17–42)	21 (18–34)	- (0.67)
LPN/LVN, median FTE (IQR)	4 (1–9)	4 (1–10)	- (0.85)
Social workers, median FTE (IQR)	1 (0–2)	0 (0–1)	- (0.27)
Physical therapists, median FTE (IQR)	1 (0–3)	0 (0–1)	- (0.17)
Respiratory therapists, median FTE (IQR)	7 (3–10)	5 (1–10)	- (0.56)

Abbreviations: LTACH = long-term acute care hospital; Std Diff = standardized mean difference; SD = standard deviation; IQR = interquartile range; FTE = full-time employee; LPN = licensed practical nurse; LVN = licensed vocation nurse.

<sup>a</sup>Among 18 hospitals without a palliative care service, one hospital was unidentifiable.

<sup>b</sup>Absolute standardized differences adjusted for small sample sizes are shown for categorical characteristics only since continuous variables presented were not normally distributed.

most commonly included difficulty recruiting staff, financing, limited leadership support, and uncertain benefit (Fig. 2a). The most common perceived solutions included available staffing, budget analysis, rerouting of funding, and palliative care training for staff (Fig. 2b). Half (50%) reported an interest in palliative care training for their staff and over one-third (38%) reported an interest in receiving training in establishing a program.

#### LTACH Leaders' Perceptions About Palliative Care

Three themes emerged in our analysis of the open-ended free response question: (1) high satisfaction with the palliative care service among hospitals with a program, (2) strong reliance on the host hospital or healthcare system to establish and maintain a program for hospitals with these existing relationships; and (3) a perception that specialty palliative care was not needed among those without a program either because they perceived they were already able to meet the needs of their patients or because the service would not be valued either because of resentment or resistance to engage in goals of care discussions (Table 4).

#### Discussion

Virtually every patient cared for in an LTACH has a serious illness and would be considered potentially eligible for palliative care. In this national survey study of NALTH-member LTACHs, we found that the 60% of hospitals with a palliative care service were more often

independent facilities embedded within a larger healthcare system that provided crucial leadership and financial support. Palliative care services were most often externally contracted, provided in-person consultation for at least most weekdays, and were well regarded by their hospital leaders. Yet, there remained opportunities to expand their footprint and expertise as half of the participants perceived that their service saw fewer than half of the patients who they felt would benefit from a consultation and one-third were interested in further palliative care training for their staff. Among the 40% of LTACHs without a service, participants reported that their hospital delivered palliative care through a mix of staff disciplines. Most leaders of these hospitals perceived value in palliative care, but also reported difficulty recruiting staffing and insufficient financing as the major barriers. Many wanted help in starting palliative care programs and education about palliative care for staff. For LTACHs embedded within a larger healthcare system, support from the host acute care hospital was considered critical to establishing and maintaining a service.

This is the first exploration of palliative care services in LTACHs. We built on our prior research where we found that about one-third of LTACHs who participated in the American Hospital Association (AHA) survey in 2016 self-reported having a palliative care program.<sup>11</sup> Our higher prevalence of palliative care services is likely because we surveyed only NALTH-member hospitals, which are less likely to be for-profit and part of an LTACH chain than non-NALTH

Table 3  
 Characteristics of Palliative Care Programs in LTACHs (n = 24)

Characteristic	N	
External contract, n (%)	24	18 (75.0%)
Parent hospital or health system		6 (33.3%)
Palliative care agency		4 (22.2%)
Private practice MD or group		3 (16.7%)
Community hospice agency		2 (11.1%)
Unknown/missing		3 (16.7%)
Years service in operation, median (IQR)	19	9 (5–14)
0–4 years		4 (21.1%)
5–9 years		6 (31.6%)
10–14 years		7 (36.8%)
≥15 years		2 (10.5%)
Mode of delivery	23	
In person only		17 (73.9%)
Telehealth only		1 (4.3%)
Both		5 (21.7%)
Daytime availability	22	
Some weekdays (1–2 days)		4 (18.2%)
Most weekdays (3–5 days)		11 (50.0%)
7 days a week		7 (31.8%)
Nighttime availability	22	9 (40.9%)
Meets as a team at least weekly	21	15 (71.4%)
Participates in LTACH IDT meeting	22	10 (45.5%)
Staffing		
Disciplines <sup>a</sup> , n (%) >0 FTE / med FTE (IQR)	20	
Physician		11 (55.0%)/0.8 (0.2–3.4)
Nurse practitioner/physician assistant		9 (45.0%)/1.0 (0.8–4.0)
Chaplain		8 (40.0%)/1.0 (0.5–1.0)
Social worker		7 (35.0%)/1.0 (0.2–1.0)
Registered nurse		3 (15.0%)/1.0 (0.1–2.0)
Meets IDT definition of all 4 disciplines	20	2 (10.0%)
Financing <sup>a</sup>		
Professional billing	21	15 (71.4%)
Hospital support	22	14 (63.6%) <sup>b</sup>
In-kind support from hospital	21	6 (28.6%)
Hospice funding	20	1 (5.0%)
Ad hoc without financial support	21	2 (9.5%)
Volume		
Saw more patients than prior year	22	8 (36.4%)
Struggling to keep up with workload	22	7 (31.8%)
Perceived volume of eligible patients	22	
Saw >75% of patients who would benefit		6 (27.3%)
Saw 50%–75% of patients who would benefit		4 (18.2%)
Saw 25%–49% of patients who would benefit		9 (40.9%)
Saw <25% of patients who would benefit		3 (13.6%)
Adjunctive services	22	
Ethics committee or consultant		20 (90.9%)
Bereavement care plan		12 (54.6%)
Interested in palliative care training for staff	22	8 (36.4%)

Abbreviations: LTACH, long-term acute care hospital; IDT, interdisciplinary team.

<sup>a</sup>Staffing discipline and financing include all responses that applied (eg., not mutually exclusive).

<sup>b</sup>Eleven of 14 programs received between \$1 and \$199,000 and 3 programs received >\$600,000 annually.

member LTACHs—two features identified in our previous study and in the present investigation as being less commonly associated with having a palliative care service. Also, there may have been a greater adoption of palliative care over time.

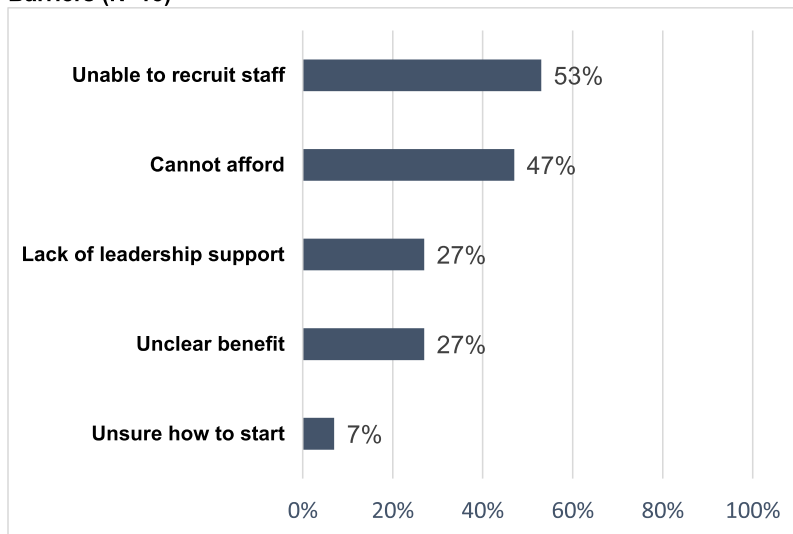
The experience of acute care hospitals may also be relevant to our understanding of palliative care adoption in LTACHs even if the goals of care, services provided, and populations differ substantively. To a greater extent than our findings, hospital ownership was a key differentiator between acute care hospitals with and without palliative care.<sup>20</sup> However, unlike for

acute care hospitals, the prevalence of palliative care services was unrelated to facility size. In our study, nearly 60% of NALTH-member LTACHs reported having a service compared with just 36% of acute care hospitals with fewer than 50 beds (as of 2019).<sup>21</sup> Though LTACHs tend to be smaller facilities (ranging from 35 to 100 beds in our sample), the high concentration of serious illness among their patients may better support a dedicated palliative care team than similarly small acute care hospitals, although similar financial and workforce challenges have also been expressed by rural hospice directors.<sup>22</sup>

	MD/APP	SW/CM	RN	Psychiatrist	Psychologist	Chaplain
Symptom management	100.0%	27.8%	44.4%	0.0%	0.0%	0.0%
Mental health	88.9%	50.0%	55.6%	33.3%	22.2%	27.8%
Goals of care	88.9%	77.8%	66.7%	0.0%	5.6%	11.1%
Advanced care planning	61.1%	83.3%	38.9%	0.0%	5.6%	11.1%
Spiritual counseling	11.1%	27.8%	16.7%	5.6%	5.6%	72.3%
Caregiver support	38.9%	88.9%	61.1%	16.7%	11.1%	66.7%
Hospice planning	72.2%	94.4%	27.8%	0.0%	11.1%	22.2%
Comfort care	94.4%	66.7%	83.3%	0.0%	5.6%	33.3%
Withdrawal of life support	94.4%	50.0%	66.7%	5.6%	11.1%	38.9%

Fig. 1. Delivery of core elements of palliative care by staff discipline for LTACHs without a service (n = 18).

**a Barriers (N=15)**



**b Solutions (N=16)**

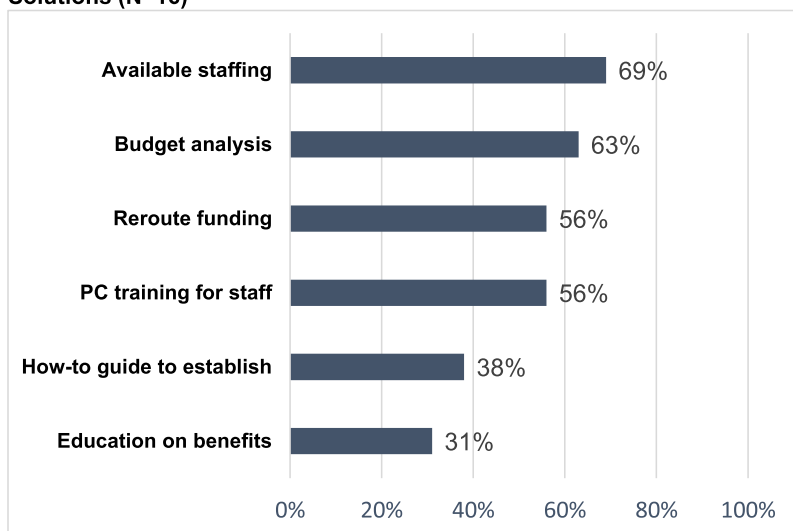


Fig. 2. Perceived barriers and solutions to establishing a palliative care service.<sup>a</sup>

Abbreviation: PC = palliative care.

<sup>a</sup>Participants selected all responses that applied (e.g. not mutually exclusive).



Table 4  
**LTACH Leaders' Perceptions About Palliative Care Services**

Theme	Representative Quote
High satisfaction with palliative care services	"They do a great job helping our patients navigate end of life decisions." "They are prompt to respond to consults, providers, and families. We could not be more pleased with their service."
Strong reliance on the host acute care hospital or health care system	"We are very fortunate to have the availability of a palliative care team due to our system." "We support (palliative care) and just need to get our short-stay acute care hospital partner on board to get this program in place."
Palliative care service is not needed	"Our team handles end-of-life, poor prognosis, and family support very well. We have no barriers to a formal program, yet it's not urgent because we indirectly do this process and do it well." "Many of our patients (and families) have expressed resentment towards palliative care feeling that they are being rushed to die." "Our patients/families and treating physician population tend to be more resistant to discussions of goals of care. . .LTACH families tend to lean toward doing everything at all costs."

Even if most LTACH leaders perceive its benefits, a key implication of our study is that there will not be a one-size fits all approach for establishing and maintaining a palliative care service given the unique structure and makeup of LTACHs nationwide. For LTACHs embedded within a host hospital or part of a chain of LTACHs, broader leadership support beyond the LTACH leadership team is critical in providing financial and technical assistance. Programs under these arrangements may be more likely to be owned and operated directly by the LTACH, their host hospital, or the LTACH chain.<sup>11</sup> Smaller independent facilities will likely require external contracts, including relying on a palliative care agency, community hospice program, or private group, to support palliative care services and may need to be more flexible in their staffing models with less on-site availability. In some situations, facilities may not desire specialty palliative care if their clinical staff are able to provide high-quality primary palliative care services to meet the needs of their patients. Yet, the data are clear that specialty palliative care improves care and quality of life for people with serious illness like those in LTACHs and efforts are needed to make these services available to patients in this setting. There may be a role for legislation and incentives to drive the development of more services.

Regarding workforce considerations, few LTACHs met the definition of an interdisciplinary palliative care team with all four disciplines represented. These services were most often staffed by prescribing clinicians. Notably, registered nurses were rarely involved in staffing these services, yet were more commonly employed by LTACHs with services than without. It is possible that the lack of registered nurses was associated with reported widespread shortages of nurses, which made it difficult for hospitals to dedicate registered nurse staff to palliative care. In addition, many programs engaged nurse practitioners, who might fill the need

for both prescribing clinician and registered nurse knowledge.

Our study had several limitations. First, we only surveyed leaders from NALTH-member LTACHs which differ in important ways from non-NALTH facilities, such as greater penetration of palliative care, and potentially different staffing and structure of these services. Second, our response rate was 50%, with some notable differences with nonrespondent LTACHs. However, this response rate is similar to the LTACH response rate for the American Hospital Association annual survey.<sup>11</sup> Lastly, because our sample size was small, hospital-level comparisons between LTACHs with and without palliative care services should be considered exploratory.

In conclusion, we found that independently owned, nonprofit LTACHs embedded within larger healthcare systems more often reported having a palliative care service. These services delivered care during most days of the week with a range of contractual agreements and staffing, with opportunities for further expansion and training identified by hospital leaders. LTACHs without a palliative care service relied on a mix of staff disciplines to meet their patients perceived palliative care needs. Despite the positive regard for palliative care, barriers such as staffing and financial constraints were commonly noted and are barriers that could be addressed to expand access to palliative care for these patients.

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## Appendix

Appendix Table 1

### Characteristics of and Perceptions of Leaders From LTACHs Without a Palliative Care Service (N=18)

	Data Available	
Had a service within the past 5 years	18	2 (11.1%) <sup>a</sup>
Perceived a service would benefit their patients	18	14 (77.8%)
Perceived reasons why they do not have a service <sup>b</sup>	18	
Cannot afford		6 (33.3%) <sup>c</sup>
No clear benefit		5 (27.8%)
Unable to recruit staff		4 (22.2%)
Other		5 (27.8%)
Interested in palliative care training for staff	16	8 (50.0%)
Interested in training on establishing a service	16	6 (37.5%)
Effort underway to start a service, n (%)	18	6 (33.3%)
Assembled a team and exploring the idea	6	3 (50.0%)
Begun planning	6	3 (50.0%)
Adjunctive services		
Ethics committee or consultant	18	13 (72.2%)
Bereavement care plan	18	6 (33.3%)
Hospice services from local hospice agency	18	10 (55.6%)

<sup>a</sup>One lacked sustained coverage from the host acute care hospital and 1 was unable to recruit staff to replace palliative care staff who departed.

<sup>b</sup>Participants reported all responses that applied (e.g. not mutually exclusive).

<sup>c</sup>Reasons for unaffordability for these 6 hospitals included insufficient funds (66.7%), not revenue generating (66.7%), and/or not cost savings (16.7%).

## Supplementary materials

Supplementary material associated with this article can be found in the online version at [doi:10.1016/j.jpainsymman.2025.03.009](https://doi.org/10.1016/j.jpainsymman.2025.03.009).

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