


# Hospice care

## ► Intervention in brief

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| <p><b>High risk:</b></p>           | <p><b>Hospice care</b> is a type and philosophy of end-of-life care, which includes non-curative medical care, pain management, and counseling services, for patients facing a terminal illness. The goal of hospice services is to provide comfort to patients at the end of life across the continuum or in the patient's home.</p>  |
| <p><b>Strength of evidence</b></p> | <p> <b>Medium</b> Cost savings are demonstrated when hospice is used within 180 days of end-of-life, but use of hospice is associated with higher cost in the last year of life for non-cancer patients. More study is needed on utilization, quality, and satisfaction outcomes.</p>   |
| <p><b>Impact</b></p>               | <ul style="list-style-type: none"> <li>• <b>Decreased cost (wide range):</b> <ul style="list-style-type: none"> <li>• 6-79% decreased spending in the last 30 days of life</li> <li>• 5-52% decreased spending in the last 60-91 days of life</li> <li>• 11% decreased to 28% increased spending in the last 180-365 days of life</li> <li>• \$4,270 decreased spending in the last year of life for cancer decedents</li> </ul> </li> <li>• <b>Decreased utilization:</b> <ul style="list-style-type: none"> <li>• Fewer hospital admissions in the last 105 (by 0.64 admissions, 52%), 30 (0.4 admissions, 54%), 14 (0.40 admissions, 83%), and 7 (0.23 admissions, 66%) days of life<sup>1</sup></li> <li>• Fewer hospital days in the last 105 (by 9 days, 72%), 30 (4.10 days, 91%), 14 (4.17 days, 96%), and 7 (0.91, 76%) days of life<sup>1</sup></li> <li>• Fewer ICU admissions in the last 105 (by 59%), 30 (68%), 14 (91%), and 7 (67%), days of life<sup>1</sup></li> <li>• Fewer ICU days in the last 30 (by 2.61 days, 89%), 7 (0.49 days, 86%) days of life for patients enrolled in hospice for 15-30 days, 1-7 days respectively; insignificant change at 105 and 14 days</li> <li>• Lower proportion of patients with 30-day readmissions among patients enrolled in hospice for 53-105 days (by 58%) and 30 days (83%); insignificant change for patients enrolled for 8-14 days or 1-7 days</li> </ul> </li> <li>• <b>Improved quality, clinical outcomes:</b> Lower proportion of patients dying in the hospital among patients enrolled in hospice for 53-105 days (95%) 14-30 days (86%), 8-14 days (81%), and 1-7 days (72%)</li> <li>• <b>Increased access:</b> None</li> <li>• <b>Improved stakeholder satisfaction:</b> 29% increased likelihood patient died in preferred place; 7-15% increased likelihood to report that patient received high quality of care; 6% increased likelihood to report that patient wishes were followed “a great deal”</li> </ul> |
| <p><b>How to succeed</b></p>       | <p>To build effective hospice service offerings:</p> <ul style="list-style-type: none"> <li>• Educate physicians on the benefit of hospice to overcome entrenched fears around end-of-life conversations that commonly result in delayed patient access to hospice care</li> <li>• Deploy an interdisciplinary team including physicians, nurses, aides, social workers, bereavement counselors, spiritual counselors, and trained volunteers to provide not only medical care, but counseling and family support</li> <li>• Determine what hospice providers already exist in the community in order to partner effectively in the event of staffing or space constraints</li> <li>• Scope your program to focus on the last 105 days of life or less in order to achieve the greatest ROI in terms of cost and utilization measures; savings potential increases as hospice length of stay shortens toward end-of-life</li> <li>• Prioritize cancer patients in order to see the greatest financial return, especially for longer hospice lengths of stay</li> </ul> <p>To learn how to take an evidence-based approach to developing a concurrent hospice/curative care program, check out our Hospice Concurrent Care Assessment <a href="#">here</a>.</p>   |

1) For patients enrolled in hospice for 105, 30, 14, and 7 days, respectively.

Source: Population Health Advisor research and analysis.

# Hospice care

## ► Demonstrated impact

### Literature review summary

**Title:** Impact of Hospice Use on Costs of Care for Long Stay Nursing Home Decedents

**Publication:** Journal of the American Geriatrics Society

**Date:** 2015

**Type:** Retrospective analysis

**Study population:** 2,510 long-stay ( $\geq 90$  days) nursing home residents in Indiana nursing homes covered by Medicare and Medicaid (including dual-eligible patients) who died during a nursing home stay or within 30 days of nursing home discharge. 35% of decedents received hospice.

**Major findings:** Receiving hospice care at all was associated with lower total Medicare costs in the last two days (by 72%), seven days (61%), 14 days (53%), 30 days (40%), and 90 days (18%) prior to death. Costs were not significantly lower 180 days prior to death. A hospice length of stay (LOS) of 1-7 days was associated with lower total Medicare costs during the last week of life (29%); a LOS of 8-14 days was associated with lower total Medicare costs during the last two weeks of life (37%); a LOS of 15-30 days was associated with lower total Medicare costs during the last month of life (36%).

**Source:** Full article [here](#).

**Title:** Spending in the Last Year of Life and the Impact of Hospice on Medicare Outlays

**Publication:** Medicare Payment Advisory Commission

**Date:** 2015

**Type:** Retrospective analysis

**Study population:** All adults in the U.S. age 65 and older covered by Medicare fee-for-service who died in 2013 and who had a full 12 months of fee-for-service enrollment

**Major findings:** Receiving hospice care in the last 30 days of life was associated with:

- Decreased Medicare spending at 30 days (\$3,355, 21%), 60 days (\$2,340, 12%) and 91 days (\$1,264, 5%)
- Increased Medicare spending at 182 days (\$1,629, 5%) and 365 days (\$5,708, 13%)
- Decreased Medicare spending during specific time intervals according to hospice LOS:
  - LOS of 1-7 days decreased spending during the last week of life by \$688-\$7,518 (6-79%)
  - LOS of 8-14 days decreased spending during the last two weeks of life by \$4,229-\$8,914 (32-69%)
  - LOS of 14-28 days decreased spending during the last 28 days of life by \$5,777-\$9,432 (39-64%)
  - LOS of 28-60 days decreased spending during the last 60 days of life by \$7,792-\$10,383 (39-52%)
  - LOS of 60-91 days decreased spending during the last 91 days of life by \$6,922-\$9,143 (28-37%)
  - LOS of 92-182 days decreased spending during the last 182 days of life by \$3,121-\$4,945 (11-17%)
- Increased Medicare spending during the last year of life for patients with a hospice LOS of 183-365 days (\$10,810-\$11,792, 26-28%)
- Decreased spending in the last year of life for cancer decedents (\$4,270)
- Increased spending in the last year of life for non-cancer decedents (\$7,488)

**Source:** Full article [here](#).

# Hospice care

**Title:** Changes in Medicare Costs with the Growth of Hospice Care in Nursing Homes

**Publication:** New England Journal of Medicine

**Date:** 2015

**Type:** Retrospective analysis

**Study population:** 786,328 predominantly female Medicare fee-for-service beneficiaries age 67 or older (mean age 85 years) who died while they were nursing home residents in 2004 or 2009

**Major findings:** Receiving hospice care was associated with:

- Increased spending during last year of life as compared to non-hospice users (\$6,761)
- Lower ICU admissions in the last month of life as compared to non-hospice users (7.1 percentage points)

**Source:** Full article [here](#).

**Title:** Hospice Enrollment Saves Money for Medicare and Improves Care Quality Across a Number of Different Lengths-of-Stay

**Publication:** Health Affairs

**Date:** 2013

**Type:** Retrospective analysis

**Study population:** 3,069 Health and Retirement study survey participants ages 65 and older who died during 2002-2008. Participants had continued Medicare Parts A and B coverage for the full year prior to death; 23% were dual-eligible for Medicare and Medicaid while half had supplemental private insurance. Participants were predominantly white, female, and educated through high school, with a mean age of 83 years. 58% did not need assistance with basic activities of daily living; 21% lived in a nursing home. 35% of participants enrolled in hospice prior to death.

**Major findings:** Receiving hospice care was associated with:

- Decreased costs for patients enrolled in hospice during the last 53-105 days (\$2,561, 10%), 30 days (\$6,431, 38%), 14 days (\$5,040, 47%), and 7 days of life (\$2,651, 36%)
- Mixed impact on utilization across differencing hospice lengths of stay
  - 53-105 days of enrollment resulted in the following outcomes in the last 105 days of life:
    - Fewer hospital admissions (0.64, 52%)
    - Fewer hospital days (9, 72%)
    - Lower proportion of patients with ICU admissions (59%)
    - Insignificant change in ICU days
  - 15-30 days of enrollment resulted in the following outcomes in the last 30 days of life:
    - Fewer hospital admissions (0.40, 54%)
    - Fewer hospital days (4.10 days, 91%)
    - Lower proportion of patients with ICU admissions (68%) and fewer ICU days (2.61, 89%)
  - 8-14 days of enrollment resulted in the following outcomes in the last 14 days of life:
    - Fewer hospital admissions (0.40, 83%)
    - Fewer hospital days (4.17, 96%)
    - Lower proportion of patients with ICU admissions (91%)
    - Insignificant impact on number of ICU days
  - 1-7 days of enrollment resulted in the following outcomes in the last 7 days of life:
    - Fewer hospital admissions (0.23, 66%)
    - Fewer hospital days (0.91, 76%)
    - Lower proportion of patients with ICU admissions (67%) and fewer ICU days (0.49, 86%)
  - Lower proportion of patients with 30-day readmissions among patients enrolled in hospice for 53-105 days (by 58%) and 30 days (by 83%). Insignificant change for patients enrolled for 8-14 days or 1-7 days.
- Lower proportion of patients dying in the hospital among patients enrolled in hospice for 53-105 days (95%) 14-30 days (86%), 8-14 days (81%), and 1-7 days (72%)

**Source:** Full article [here](#).

# Hospice care

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**Title:** Family Perspectives on Hospice Care Experiences of Patients with Cancer

**Publication:** Journal of Clinical Oncology

**Date:** 2017

**Type:** Cohort study

**Study population:** 2,307 patients with advanced-stage cancer; the majority of the 55% of patients enrolled in hospice were white (81%) and spoke English (94%)

**Major findings:** Families of patients that used hospice were more likely to report that their loved one:

- Died in their preferred place (29 percentage points)
- Received excellent quality of end-of-life care (15 percentage points)
- Received just the right amount of help breathing (8 percentage points)
- Received just the right amount of pain medication (7 percentage points)
- Had their end-of-life wishes followed “a great deal” (6 percentage points)

**Source:** Full article [here](#).

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## Appendix

- Unroe K, et al., “Impact of Hospice Use on Costs of Care for Long Stay Nursing Home Decedents,” *Journal of the American Geriatrics Society*, 64, no. 4, (2015): 723-730, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4840056/>.
- Hogan C, “Spending in the Last Year of Life and the Impact of Hospice on Medicare Outlays,” Medicare Payment Advisory Commission, (2015), <http://www.medpac.gov/docs/default-source/contractor-reports/spending-in-the-last-year-of-life-and-the-impact-of-hospice-on-medicare-outlays-updated-august-2015-.pdf?sfvrsn=0>.
- Gozalo P, et al., “Changes in Medicare Costs with the Growth of Hospice Care in Nursing Homes,” *NEJM*, 372 no. 19 (2015): 1823-1831, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4465278/>.
- Kelley A, et al., “Hospice Enrollment Saves Money for Medicare And Improves Care Quality Across A Number Of Different Lengths-Of-Stay,” *Health Affairs*, 32, no. 3 (2013), <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.2012.0851>.
- Kumar P, et al., “Family Perspectives on Hospice Care Experiences of Patients with Cancer,” *Journal of Clinical Oncology*, 35, no. 4 (2017): 432-439, <http://ascopubs.org/doi/full/10.1200/JCO.2016.68.9257>.