



Published in final edited form as:

*N Engl J Med.* 2016 October 27; 375(17): 1610–1612. doi:10.1056/NEJMp1607206.

## Days Spent at Home — A Patient-Centered Goal and Outcome

**Adam C. Groff, M.D.,**

Dartmouth Institute for Health Policy and Clinical Practice, Lebanon, NH

BAYADA Home Health Care, Moorestown, NJ

**Carrie H. Colla, Ph.D., and**

Dartmouth Institute for Health Policy and Clinical Practice, Lebanon, NH

**Thomas H. Lee, M.D.**

Harvard Medical School, Boston

Press Ganey, Wakefield, MA

---

Most measures of the quality of health care delivery focus on what health care providers do, not what patients want. If “high-value, patient-centered care” is to be more than rhetoric, health care organizations need to measure outcomes that matter to patients. Only when they do so will care be designed and organized in ways that improve those outcomes.

As an example of how this approach differs from business as usual, consider “days spent at home in the last 6 months of life.” The map shows the mean number of days spent at home by Medicare beneficiaries who died in 2012 or 2013, by hospital referral region (HRR). HRRs are regional health care markets as defined on the basis of historical hospital-usage patterns. “Days at home” was calculated as 180 days minus the number of inpatient days in an acute care facility, an inpatient rehabilitation facility, a skilled nursing facility, or an inpatient hospice unit.

As the map suggests, there is substantial variation in the amount of time dying patients in the United States spend at home. The mean was just 120 (of 180) days in Los Angeles and Miami and 122 in McAllen, Texas, and Chicago. In Mason City, Iowa, dying patients spent an average of 146 days at home. In Grand Junction, Colorado, the average was 143; in Rochester, Minnesota, 142. (A Supplementary Appendix providing the mean number of days for each HRR is available at [NEJM.org](http://NEJM.org).)

Reducing hospital-readmission rates is a laudable goal, but not exactly the same thing as trying to maximize the amount of time that frail and dying patients spend at home. Do a few more weeks at home in the last 6 months of life matter? After all, the ultimate clinical outcome was the same, since all the patients included in the analysis died. Furthermore, there are many patients who prefer not to be at home when they are sick and dying, and for whom days spent at home are days in which they have less-than-optimal relief of discomfort.

Being home at the end of one's life will never but be a universal goal, but our experience and academic research suggest that, all else being equal, patients would rather be at home than in health care facilities. When surveyed about their preferences for dealing with a terminal illness, most people (86%) indicated that they would prefer to be at home in their final days. In addition, they would not want to be on a ventilator in order to gain an extra week of life, and they are not opposed to drugs that could improve symptoms but potentially shorten life. These preferences are highly consistent across regions of the country and people's socioeconomic status.<sup>1</sup> Despite this consistency in end-of-life preferences, there is wide regional variation in the intensity of, expenditures on, and locations of care provided during the last 6 months of life.<sup>2</sup>

Our interest in "days at home" as an outcome measure was stimulated by a comment from one person — a family member of a patient with a disabling condition, who described his emotions as he and the patient entered the front door of their home after a 6-week hospitalization. "Just to see familiar photos on the wall made us feel like we could breathe again," he said. Like many patients and families, they wanted to maximize the number of days the patient could be at home.

A similar message emerged from focus groups conducted by the Camden Clinical Commissioning Group (CCG) in the United Kingdom, which asked frail elderly patients and their caregivers, "What is most important to you?" The priority that emerged was "time spent at home," and when the CCG group decided to organize its clinical and community resources around that single clear goal, the results included lower use of hospitals and emergency departments, better patient experience, and higher clinician morale.<sup>3</sup>

An important message from the Camden CCG experience and from deeper analyses of Medicare data on days at home is that there is a difference between doing more activities that make good sense and organizing around a goal. One might expect that greater use of home health and hospice services would correlate with more days at home, but as the graph shows, the opposite is true. In regions where patients had more days on which they received home health services, hospice services, or both, patients spent fewer total days at home (correlation coefficient,  $-0.52$ ).

In short, when health care providers did more, they did more. There is a difference between doing more and doing better. The Camden CCG experience indicates, however, that when health care providers and community service providers collaborate with the goal of increasing days spent at home, progress can be made.

There are many other important questions to explore regarding days spent at home in the last 6 months of life. For example, what socioeconomic, geographic, cultural, and other nonmedical contributors drive preferences for measured days at home? Would further analysis show that home hospice care is effective at increasing days at home when evaluated within a narrower timeframe, such as in the last 30 days of life? Furthermore, alternative types of payment contracts for health care providers may affect the number of days patients spend at home, so the effect of new payment incentives should be monitored. Ultimately,

eliciting patients' preferences and organizing care to accommodate individual patients' goals is what matters most.

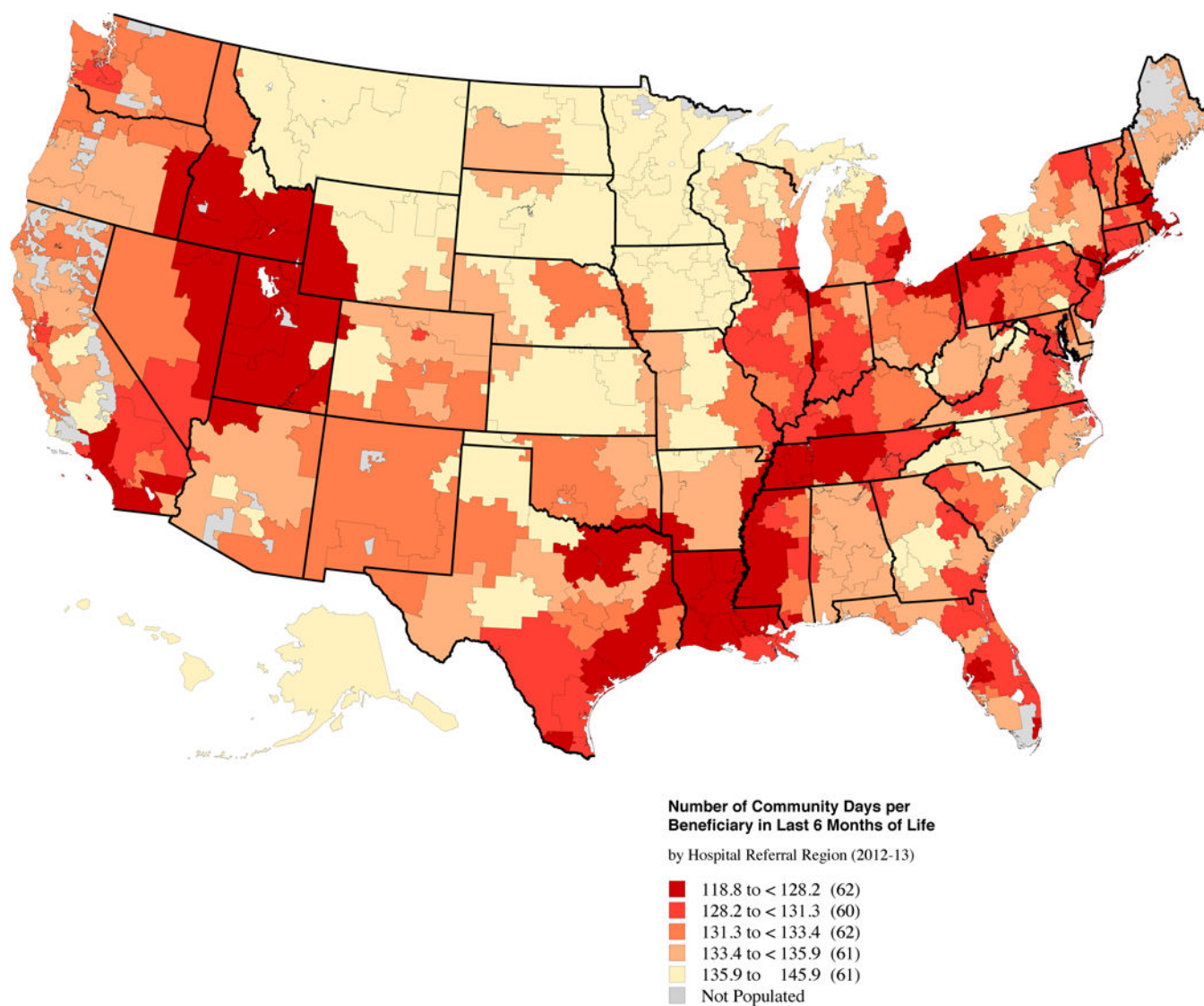
Health policy often stumbles when there is uncertainty about what we are trying to maximize in health care. It is clear that one goal is to minimize costs, but there should be counter-balancing measures to be maximized. Mortality is not a sufficient measure to define excellence in care; in fact, no single performance metric will suffice. Outcome measures that reflect what truly matters to patients can define performance in ways that increase the engagement of both patients, clinicians, and provider organizations in the redesign of care.

## Supplementary Material

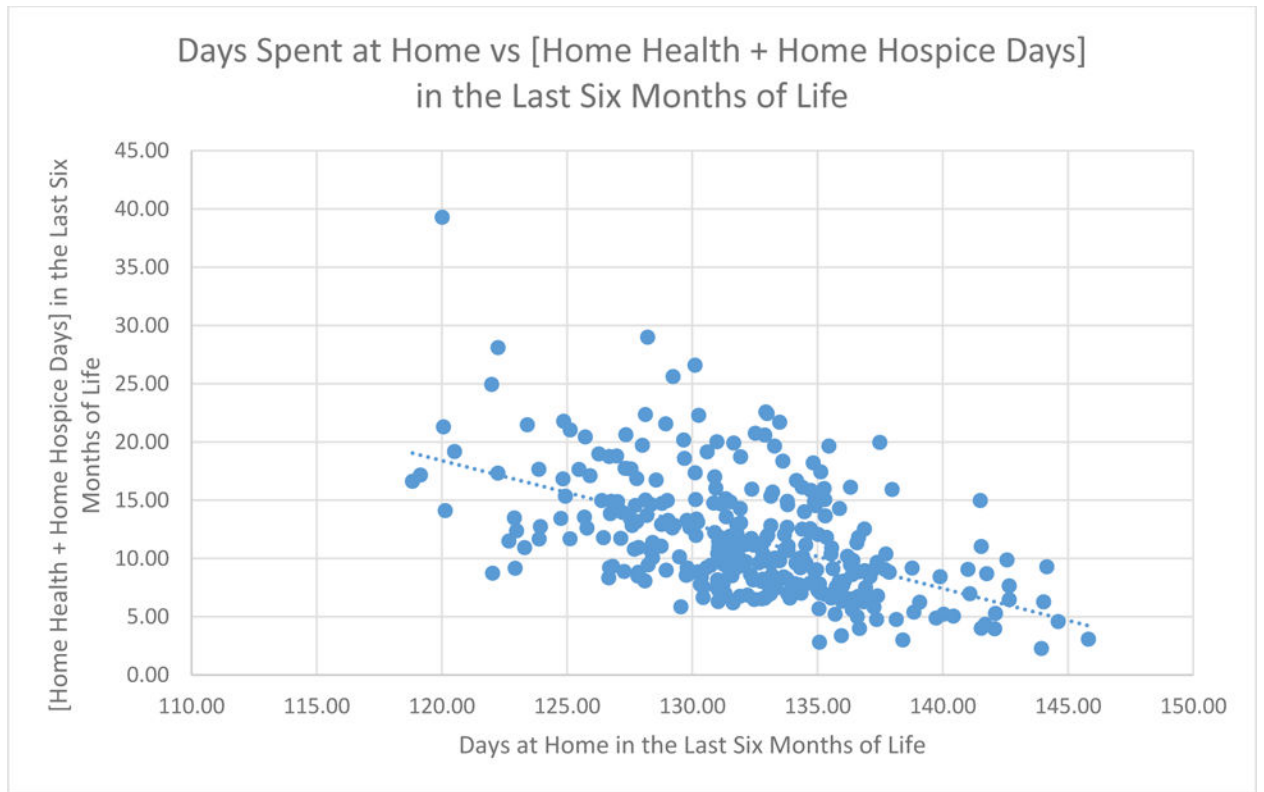
Refer to Web version on PubMed Central for supplementary material.

## References

1. Barnato AE, Herndon MB, Anthony DL, et al. Are regional variations in end-of-life care intensity explained by patient preferences?: A study of the US Medicare population. *Medical care*. 2007; 45(5):386–93. DOI: 10.1097/01.mlr.0000255248.79308.41 [PubMed: 17446824]
2. Wennberg, JE., Cooper, M. The Dartmouth atlas of health care. [Accessed May 6, 2016]. Available at: [www.dartmouthatlas.org](http://www.dartmouthatlas.org)
3. Sayer, C. “Time spent at home” — a patient-defined outcome. *NEJM Catalyst*. Apr 26, 2016. <http://catalyst.nejm.org/time-spent-at-home-a-patient-defined-outcome>



**Figure 1.**  
Mean Number of Days Spent at Home in the Last 6 Months of Life by Medicare Beneficiaries Who Died in 2012 or 2013.



**Figure 2.**

Relationship between Number of Days with Home Health or Home Hospice Services in the Last 6 Months of Life and Total Number of Days Spent at Home in Those 6 Months.