

# The Dartmouth Atlas of Healthcare is a Portrait of a Disorganized System

**A new report from the Dartmouth Institute for Health Policy and Clinical Practice confirms what Dr. John Wennberg and colleagues have been warning for years:** There are vast and troubling disparities in chronic healthcare, and more care isn't necessarily better care.

by Phillip Lozano

LEBANON, N.H. - According to a new report, among the 90 million Americans who receive care for chronic disease, there are remarkable and distressing variations in the quality of care, depending on geographic location, and generally uncoordinated with rising costs.

Medicare pays many hospitals and their doctors more than the most efficient and effective health care institutions to treat chronically ill people. Yet Medicare patients gets worse results, according to *Tracking the Care of Patients with Severe Chronic Illness: The Dartmouth Atlas of Health Care 2008*, released by the Dartmouth Institute for Health Policy and Clinical Practice.

"This report demonstrates the need to overhaul the ways we care for Americans with chronic illness," said Dr. Risa Lavizzo-Mourey, President and CEO of the Robert Wood

Johnson Foundation.

"The extent of variation in Medicare spending, and the evidence that more care does not result in better outcomes, should lead us to ask if some chronically ill Americans are getting more care than they or their families actually want or need," Lavizzo-Mourey said.

The report calls for a major overhaul of the Medicare system in particular, and the United States healthcare system in general. Dartmouth cites, as a model, the practice patterns of Mayo Clinic in Minnesota, which could save Medicare tens of billions of dollars annually.

The Dartmouth Atlas indicates that institutions that provide the best care do it at a lower cost by not over-treating patients; that being said, Medicare and most other payers encourage the over-utilization of acute care hospital services and proliferation of medical

specialists due to financial incentives, especially when it comes to the treatments of the chronically ill.

Caring for people with chronic disease now accounts for more than 75 percent of all health-care spending. Medicare spending which, like health care spending overall, is expected to double over the next decade. Latest estimates predict health care spending will reach \$4 trillion annually by 2017.

Lead author Dr. John Wennberg and colleagues Dr. Elliott Fisher, Dr. David Goodman, and Jonathan Skinner, M.A., Ph.D., studied chronically ill patients because a third of Medicare dollars each year is spent on them during the last two years of life. Two-thirds of the people in the study were diagnosed with cancer, congestive heart failure and/or chronic lung disease.

Wennberg called for a crash program to learn how leading organizations such as Mayo use fewer resources and spend less per capita than their peers, while receiving high marks on quality measures.

"Medicare policy, including reimbursement, should support "organized" systems of effective care management, with a strong primary care component. The federal government should also support better research into clinical practices for managing chronically ill patients," Wennberg said.

Although there are differences in the prevalence of severe chronic illness across U.S. regions, these differences explain only a small proportion — about four percent — of the variations in Medicare spending across the 306 hospital referral regions defined by the Dartmouth Atlas Project.

While there is a general assumption that more medical care means better care, it turns out that whether from patients' perspective or from physicians' perspective, higher spending and greater use of supply-sensitive care is not associated with better outcomes. Physicians will adapt their practice to the available resources in any given geographic area, based on variations in supply that emerge in an unplanned marketplace; and a fee-for-service payment system that rewards providers for staying busy.

From the primary care physician's perspective, for example, it will often seem more efficient to refer to a specialist or admit to the hospital if those resources are available and payments

>>The report calls for a major overhaul of the Medicare system in particular, and the United States healthcare system in general. Dartmouth cites, as a model, the practice patterns of Mayo Clinic in Minnesota, which could save Medicare tens of billions of dollars annually. <<

for office-based primary care have been constrained.

As has been documented in previous Dartmouth Atlases, the amount of money the Medicare program spends per patient with severe chronic illness in the last two years of life varies substantially among states. During the period 2001-2005, thirteen states had spending levels above the national average; 37 states had spending levels below the national average, and in fourteen of these, spending was less than 85 percent of the national average.

The highest spending states consumed more than one and a half times the Medicare dollars spent by the lowest spending states. Three states — New Jersey, California, and New York — spent at a level that was more than 20 percent above the national average of \$46,412.

At the opposite end of the spectrum, three states — North Dakota, Iowa, and South Dakota — spent less than \$35,000 per person, more than 25 percent below the national average.

There was even greater variation in spending among the 306 hospital referral regions. Spending in the three highest HRRs — Manhattan, the Bronx, and Los Angeles — exceeded spending in the three lowest — Mason City, Iowa; La Crosse, Wisconsin; and Dubuque, Iowa — by almost \$46,000 per patient. And the degree of varia-

tion among HRRs located within a single state, New York, was nearly as great as that found among all hospital referral regions: more than \$75,000 per chronically ill decedent in the Bronx and Manhattan hospital referral regions compared to \$36,824 in Rochester and \$33,271 in Binghamton.

"We need to benchmark the best systems and use policy to drive providers toward the benchmark by holding them accountable for the volume of services they deliver," said study co-author, Dr. Elliott S. Fisher, director of the Center for Health Policy Research at the Dartmouth Institute for Health Policy and Clinical Practice.

The Atlas research shows that hospitals, regions and states that use more services per patient do not necessarily have higher quality care. In fact, it is slightly worse.

Among the Atlas findings:

- The majority of spending occurs in the acute care hospital setting. Almost 55 percent of the total amount spent on Medicare beneficiaries during their last two years of life was in the acute care hospital setting.

- The volume of services provided is a major determinant of differences in spending. Medicare and other payers have focused much of their attention on controlling the prices paid to providers for clinical services. Analyses presented in the current

Atlas show that differences in the volume of services are more strongly related to state and regional differences in spending than price.

- Tradeoffs among sectors of care: no evidence of substitution. Many believe that expanding access to non-acute care sectors, such as skilled nursing or rehabilitation facilities, home health services, or hospices, will reduce the utilization of expensive acute care hospital services. The data in this Dartmouth Atlas suggest that making other kinds of care more readily available does not necessarily lead to a decline in either hospitalizations or inpatient spending.

- The system rewards volume and reinforces fragmentation. Traditional Medicare pays for utilization in each sector without regard to the level of spending in the others. Second, both the current fee-for-service payment system and the culture of medicine itself ensure that available capacity is utilized. Third, the positive association between the use of inpatient facilities and use of skilled nursing facilities and home health agencies makes clinical sense; these facilities are important in planning for the discharge of chronically ill patients from acute care hospitals. When more patients are hospitalized, more are discharged to other care sectors, creating "demand" for such services.

- Training more primary care physicians alone won't solve the problem. Some have argued that the fragmentation of care is due to a shortage of primary care physicians, who should be coordinating care between a patient's various doctors and the different sectors of care. But simply increasing the number of primary care physicians alone will not address the lack of coordination.

The wide variations among academic medical centers clearly show the lack of scientific consensus on how to manage chronically ill patients, according to the report. Consider this comparison between the Mayo Clinic's flagship St. Mary's Hospital and UCLA Medical Center.

**Spending:** UCLA spent more than \$93,000 per patient over the last two years of life. The Mayo Clinic, by contrast, spent \$53,432—a little more than half the amount of UCLA on similar patients over the same period of time.

**Utilization:** Chronically ill patients in their last six months of life had more

than twice as many physician visits at UCLA compared with Mayo, and they spent almost 50 percent more days in the hospital.

**Resource Use:** Compared to the Mayo Clinic, UCLA uses one-and-a-half times the number of beds, almost twice as many physician FTEs in managing similar patients.

The report says academic medical institutions and federal agencies devoted to health research must begin producing studies on when to hospitalize chronically ill people, how often they should visit a doctor and the like.

The report also found that, contrary to conventional wisdom, adding alternatives to hospitals is not slowing down costs. Spending on hospitalization actually was higher in regions with more alternatives to hospitals—such as rehabilitation hospitals and skilled nursing facilities. Spending for hospice care was the only exception, and it had only a marginal effect.

The Dartmouth Atlas Project is run by the Institute for Health Policy and Clinical Practice at Dartmouth Medical School. The principal funding for the project comes from the Robert Wood Johnson Foundation. The entire Medicare claims data is available at

[www.dartmouthatlas.org](http://www.dartmouthatlas.org). • DT