

## Journal is devoted to field conceived at DMS

Getting a paper published is something any academic appreciates. So consider the prestige of having an entire issue of a journal devoted to a field you founded *and* getting papers by several colleagues as well as yourself into it. In October, a special online issue of the journal *Health Affairs*—titled “Variations Revisited”—featured the work of several Dartmouth physicians and economists, notably John Wennberg, M.D., director of Dartmouth’s Center for the Evaluative Clinical Sciences (CECS).

**Landmark:** The issue explored variations in patterns of clinical practice from one region of the country to another. In an introductory note, John Iglehart, the editor of *Health Affairs*, wrote that in the 31 years since Wennberg and Alan Gittelsohn published a landmark paper in *Science* on clinical practice variation, “one can only marvel at how little variations . . . have been reduced.”

Asked how he accounts for the persistence of such variation, Wennberg says, “It is very hard to change economic systems. Our system is not yet designed to punish waste and reward efficiency.”

The issue’s lead article, by Wennberg, uses Medicare data to evaluate better-performing hospitals. Concentrating on events in the last six months of life, the study followed 90,616 patients with solid-tumor cancers, congestive heart failure, or chronic obstructive pulmonary disease (COPD)—comparing the number of physician visits, hospitalizations, and ICU stays in 77 well-known academic medical centers (AMCs). A second part of the study focused on seven hospitals named by *U.S. News & World Report (USN&WR)* as the best U.S. geriatric hospitals in 2001.

Among the 77 AMCs, rates of use varied wildly. Looking at cancer patients, for example, the number of days in the hospital ranged from a low of 8.5 to a high of 23. Days in the ICU for COPD patients ranged from 1.8 to 13.1. And for patients with congestive heart failure, the number of physician visits ranged

from 15.2 to 99.3. Within each hospital, however, the study found a high degree of consistency. In other words, hospitals with high use rates for one condition were likely to have high use rates for other conditions.

Even among the seven “best” geriatric hospitals, there were striking differences. Patients at New York’s Mount Sinai Medical Center spent, on average, twice as many days in the hospital during the last six months of life as patients at Mayo Clinic hospitals. The number of ICU days at UCLA Medical Center was three times higher than at Massachusetts General Hospital. And patients at Mount Sinai and UCLA averaged more than twice as many physician visits as those at Duke University Hospital.

**Outcomes:** Other studies by Wennberg and his CECS colleagues have shown that more care and higher spending do not correlate with better patient outcomes. In fact, the opposite may be true: more care can result in worse outcomes. Why does *USN&WR* give high rankings to hospitals that fare poorly under a study like this? “We are using different kinds of measurements,” Wennberg explains. The criteria for making the *USN&WR* list include factors such as numbers of beds and of nurses per bed, plus intangibles such as reputation. “They look at process and structure,” says Wennberg, “but . . . they can’t predict outcomes.”

Elliott Fisher, M.D., M.P.H., a professor of medicine at DMS and codirector of the Veterans Affairs Outcomes Group in White River Junction, Vt., questions in a related paper whether the increased intensity of care at AMCs results in better outcomes. His study tracked mortality rates for Medicare patients who had had heart attacks, colorectal cancer, or hip fractures in 300 hospitals from 1994 to 1996; he followed their care for five years. The hospitals were ranked according to five intensity levels, based on such criteria as frequency of specialist consultations and number of procedures. The data confirmed that



John Wennberg, right, and Elliott Fisher, left, had work featured in a recent special issue of *Health Affairs*.

more services, and more spending, did not improve outcomes. “Conservative practice looks just as good as, if not better than, a more aggressive, high-intensity practice pattern,” he concluded.

**Wake-up call:** Fisher, too, found striking variations in practice patterns. “It’s more than a little surprising that there is so much difference in major medical centers across the U.S.,” he says. “Having academic medical centers differ so profoundly should be a wake-up call.”

The issue’s 21 papers included several others with lead authors from Dartmouth—orthopaedic surgeon James Weinstein, D.O.; pediatrician David Goodman, M.D.; surgeon Justin Dimick, M.D.; and economist Katherine Baicker, Ph.D.—plus an essay by and an interview with Wennberg.

The work is having an impact: at a press conference the day of the journal’s release, the commissioner of the Food and Drug Administration described steps that Medicare is taking to reduce unwarranted variations in care nationwide. CATHERINE TUDISH