

Looking at the doctors-dollars link

Do physicians play a role in driving up health-care costs? DMS researcher Brenda Sirovich, M.D., is confronting that loaded question head-on with two studies—one just out and one that's due to be published in 2006. Both reveal a correlation between regional patterns of health-care spending and primary-care physicians' tendency to order tests, procedures, and referrals.

Doctors in areas that spend more per capita on health care, Sirovich has found, are more likely to pursue such interventions than their counterparts in low-spending parts of the country. That link may seem self-evident, but it "has not been made clear before," says Sirovich, who is an internist at the Dartmouth-affiliated VA Medical Center in White River Junction, Vt.

Patterns: Sirovich's research builds on two major findings that researchers at the DMS Center for the Evaluative Clinical Sciences have consistently shown: First, that health-care spending varies widely throughout the United States. And second, that in areas where spending is higher, patients have no better—and often worse—health-care outcomes. Sirovich and her research team want to know what's behind these patterns.

"A lot of the work to date on health-care variations," she says, "has implicitly assumed that physicians are not only behind the variations but that they are responsible for it, based on the decisions they make." Yet that assumption "has not been well studied," she points out.

In her first study, Sirovich analyzed data from the 1998-1999 Community Tracking Study Physician Survey, a nationwide telephone survey of 5,490 primary-care doctors. The surveyed doctors were read six patient vignettes and then asked how often they would take a certain action.

For example, one vignette read as follows: "Consider a 35-year-old man who developed low back pain after shoveling snow three weeks ago. He presents to the office for an

evaluation. On examination there is a new left foot drop." Survey participants were then asked: "For what percentage of such patients would you recommend an MRI?" The results: physicians in the highest-spending regions said they would recommend an MRI to about 83% of such patients, versus 70% for physicians in the lowest-spending regions.

Based on all the vignette responses, Sirovich calculated that doctors in high-spending areas order further evaluation or treatment for approximately 10 more patients per 100 than doctors in low-spending areas. "This finding," she wrote in the *Archives of Internal Medicine*, "held true for every clinical situation save one." That one vignette concerned a 50-year-old man with chest pain and abnormal results on an exercise tolerance test; physicians from all areas responded overwhelmingly in favor of referring him to a cardiologist—suggesting that the best course of action in this case was less subjective than in the other examples.

But "a lot of medical decisions," explains Sirovich, are "not black and white."

Survey: Sirovich's second study also employs a survey—this time one that she and her colleagues in the White River Junction VA Outcomes Group designed. Their survey includes a broader range of questions—including some on screening and follow-up—and richer content, she says.

This survey is also calculated to assess physicians' decisions in clinical situations for which there *are* clear guidelines. In high-spending areas where physicians tend to intervene more frequently, Sirovich wonders,



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A new study by Brenda Sirovich confirmed a relationship—between physicians' tendency to order tests and other interventions, and regional spending patterns—that had been assumed but never proved.

"are they doing a lot of the right stuff? Are they intervening when evidence says intervene and also intervening in cases where there is no evidence at all?"

Ultimately, Sirovich hopes her research will inform policies aimed at changing patient and physician behavior and controlling health-care costs. Any such policies are "doomed," she says, "unless you understand why physicians and patients, or both, want different things or do different things depending on where [they] live."

She does not presume that her research will answer those questions entirely but rather that it will provide a foundation for further inquiry. JENNIFER DURGIN