

# The NEW ENGLAND JOURNAL of MEDICINE

## Perspective

### Getting Past Denial — The High Cost of Health Care in the United States

Jason M. Sutherland, Ph.D., Elliott S. Fisher, M.D., M.P.H., and Jonathan S. Skinner, Ph.D.

What seemed to be a golden opportunity to achieve badly needed health care reform now appears to be threatened. Many Americans believe that we simply cannot afford to cover the uninsured,

since doing so would require taxes to be raised beyond the level the public can sustain. Others believe that we can slow spending growth only by rationing needed care. Neither option is attractive. Evidence regarding regional variations in spending and growth, however, points to a more hopeful alternative: we should be able to reorganize and improve care to eliminate wasteful and unnecessary services.<sup>1</sup>

But not everyone is convinced. Some physicians, hospital administrators, and legislators appear to have succumbed to a behavioral bias. They know that their patients are sick and that sick patients need more care than relatively

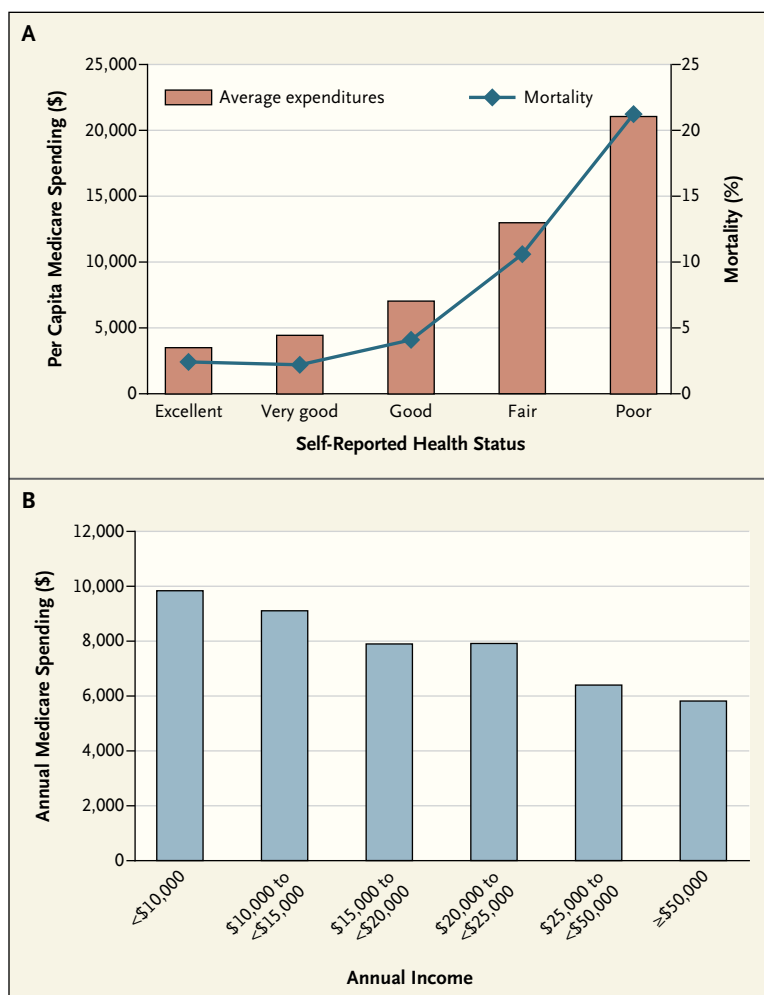
healthy ones. They therefore conclude that the reason their hospital or region spends more is that their patients are sicker and poorer than those cared for by institutions in other regions. Given this reverse “Lake Wobegon” effect that renders all U.S. patients below average (in Garrison Keillor’s fictional town of Lake Wobegon “all the women are strong, all the men are good-looking, and all the children are above average”), they argue that any efforts to rein in costs will cause harm to the people we most want to protect.

And it’s not hard to find examples of places where this explanation might appear to make perfect sense: in Los Angeles, where

Medicare spends \$10,810 per capita, a somewhat higher percentage of the population (15%) is at or below the poverty line than in Minneapolis (10%), which spends \$6,705 per capita.

This is too important a moment to allow physicians or policymakers to be confused by behavioral biases or distracted by one-off examples. Health is indeed the most important determinant of health care spending, but differences in health explain only a small part of the regional variations in spending.<sup>2</sup>

We illustrate by updating our earlier Dartmouth Atlas study<sup>2</sup> with 2004 and 2005 data from the Medicare Current Beneficiary Survey, a nationally representative sample of 15,487 Medicare enrollees that provides detailed information on individuals’ health status, income, health care utilization, and Medicare spending. Med-



**Figure 1. Relationship among Self-Reported Health Status, Annual Per Capita Medicare Spending, and Mortality (Panel A) and Relationship between Income and Annual Medicare Spending (Panel B).**

icare spending data have been adjusted for price differences among regions with the use of the wage index of the Centers for Medicare and Medicaid Services. Thus, spending in New York City has been adjusted downward by 30%, and spending in Enid, Oklahoma, adjusted upward by 12%.

Figure 1A shows what clinicians know: sick people require far more care than healthy people. For people who reported that they were in excellent health, average annual Medicare spending was

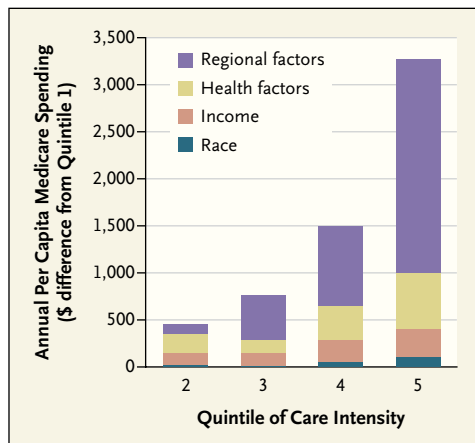
\$3,469; for those reporting poor health, spending was more than six times as high (\$21,064). Self-reported health is also a good predictor of death: 2% of people who said they were in excellent health died by the end of the calendar year, as compared with 21% of those who said they were in poor health. Poverty also matters for health care spending: low-income people are sicker and tend to account for greater health care expenditures (see Figure 1B).

Figure 2 shows the relative

contribution of individual and regional factors to the regional differences in price-adjusted health care spending. Survey respondents were categorized into five equal-sized quintiles on the basis of the average intensity of care in their region ([www.dartmouthatlas.org](http://www.dartmouthatlas.org)). People in the highest-intensity quintile received care costing \$3,300 more per year than those in the lowest-intensity quintile (about 50% more per person). The graph shows the proportions of the regional differences in spending that are explained by individual risk factors. Regional differences in poverty and income explain almost none of the variation. Health status does matter — it accounts for \$593 of the \$3,280 difference between the lowest- and highest-intensity regions, or just about 18%. But that leaves more than 70% of the differences in spending that cannot be explained away by the claim that “my patients are poorer or sicker.”

Where is the money going? The table shows that as compared with Medicare beneficiaries in the lowest-spending regions, patients in the highest-spending regions spend more time in the hospital (an average of 2.1 days vs. 1.4 days), have more frequent physician visits (14.5 vs. 10.7 per year), and undergo more magnetic resonance imaging (MRI) procedures (21.9 vs. 16.6 per 100 beneficiaries) and computed tomographic (CT) scans (61.4 vs. 46.9 per 100 beneficiaries). These findings are supported by previous research showing that discretionary decisions by physicians seem to account for most of the regional variation in spending.<sup>3</sup>

The implications for health



**Figure 2. Proportion of Higher Regional Medicare Spending Attributable to Differences in Race, Income, Health Factors, and Regional Factors.**

The vertical bars show the proportion of the difference in spending between regions in each of the four top care-intensity quintiles and the regions in the lowest quintile that can be explained by differences in patients' race, income, health factors (self-reported health, presence or absence of diabetes, blood pressure, body-mass index, and smoking history), and regional factors. All models control for age, sex, and urban or rural residence. Data are from the authors' analyses of the 2004 and 2005 Medicare Current Beneficiary Surveys.

care reform efforts are clear. Health is indeed a critical determinant of health care spending. Efforts to improve the health of the public and to reduce the

burden of chronic illness should be pursued. And because caring for sicker patients costs more, payment reforms will have to be carefully designed. Health systems such as academic medical centers and safety-net providers that care for disadvantaged patients or those with complex conditions will need to be reimbursed fairly with the use of careful case-mix adjustment in order to reduce the likelihood of harm to either patients or the institutions themselves.

But the large regional differences in spending and utilization that are not due to health or socioeconomic status also highlight the magnitude of the opportunity for improving the efficiency of health care delivery. And they suggest that substantial savings can be achieved without rationing beneficial care: patient outcomes are no worse in low-utilization regions,<sup>4</sup> nor do elderly people who live there feel as if they're being denied necessary care.<sup>5</sup>

The key to attaining these cost-saving goals comes from getting the same (or better) outcome at a lower cost. Consider a patient

with worsening heart failure who could be treated on an outpatient basis through the adjustment of medications. In high-spending regions, more such patients than in low-spending regions are admitted to the hospital,<sup>3</sup> which results not only in more hospital days but also in increased risks of debility and infection that are associated with hospital stays and an increased potential for medication errors when prescriptions are rewritten at admission and discharge.

Similarly, watchful waiting for lower back pain — to see whether symptoms resolve instead of sending patients for an immediate MRI — could reduce the number of unnecessary MRIs and surgeries. Health care providers are also beginning to realize that many services could be delivered by e-mail or over the telephone, thus potentially reducing high rates of specialist referrals or visits.

These are all good ideas, but they suffer from a common shortcoming: they require more time on the part of the primary care

Annual Utilization Rates and Spending on Hospital Services and Selected Physician Services in Regions with Various Levels of Intensity of Care.*					
Type of Care	Level of Medicare Spending per Medicare Beneficiary				
	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Inpatient days per beneficiary	1.4	1.6	1.8	2.1	2.1
Physician visits per beneficiary	10.7	12.1	13.0	13.6	14.5
MRIs per 100 beneficiaries	16.6	17.6	19.3	19.7	21.9
CT scans per 100 beneficiaries	46.9	54.0	58.7	61.2	61.4

\* Utilization data are from authors' analyses of the 2004 and 2005 Medicare physician (Part B) claims and Medicare Provider Analysis and Review data and represent annual rates of selected services and per-beneficiary spending on physician services (adjusted for regional differences in age, sex, and race). The data on computed tomographic (CT) and magnetic resonance imaging (MRI) scans are numbers per 100 beneficiaries, not numbers of beneficiaries undergoing these procedures; many beneficiaries undergo multiple scans in a single year.

physician, the nurse, or the specialist — time that is not currently reimbursed. Eliminating unnecessary care therefore requires reorganizing the delivery system to ensure that providers aren't penalized for providing what is often the better alternative for their patients.

Although many of the details of the best way to implement payment reform remain to be worked out, we need not let this challenge stand in the way of action. We should recognize that so much discretionary care is provided in the United States that we could easily afford to expand coverage without increasing taxes — or rationing care — as long as we couple coverage expansion with a commitment to rapidly test and broadly implement successful reforms in payment and delivery

systems. After all, many U.S. regions have already shown that they can slow the growth of spending while providing high-quality care.

We should not let denial get in the way of acceptance of the need to move forward on fundamental reform of the U.S. health care delivery system. We can't afford the alternative.

Dr. Fisher reports receiving grant support from Aetna and consulting, teaching, or speaking fees from Regence Blue Shield, RAND, Kaiser Permanente, the Center for Corporate Innovation, Blue Cross Blue Shield of Montana, and numerous provider organizations and medical associations. No other potential conflict of interest relevant to this article was reported.

From the Dartmouth Institute for Health Policy and Clinical Practice (J.M.S., J.S.S.) and Dartmouth Medical School (E.S.F.) — both in Lebanon, NH; and Dartmouth College (J.S.S.), Hanover, NH.

This article (10.1056/NEJMp0907172) was published on September 9, 2009, at NEJM.org.

1. Fisher ES, Bynum JP, Skinner JS. Slowing the growth of health care costs — lessons from regional variation. *N Engl J Med* 2009; 360:849-52.
2. Wennberg JE, Cooper MM, eds. The quality of medical care in the United States: a report on the Medicare program: the Dartmouth atlas of health care. Hanover, NH: Dartmouth Medical School, 1999:80-5. (Accessed September 3, 2009, at <http://dartmouthatlas.org/atlas/99Atlas.pdf>.)
3. Sirovich B, Gallagher PM, Wennberg DE, Fisher ES. Discretionary decision making by primary care physicians and the cost of U.S. health care. *Health Aff (Millwood)* 2008;27: 813-23.
4. Fisher ES, Wennberg DE, Stukel TA, Gottlieb DJ, Lucas FL, Pinder EL. The implications of regional variations in Medicare spending. 2. Health outcomes and satisfaction with care. *Ann Intern Med* 2003;138: 288-98.
5. Fowler FJ Jr, Gallagher PM, Anthony DL, Larsen K, Skinner JS. Relationship between regional per capita Medicare expenditures and patient perceptions of quality of care. *JAMA* 2008;299:2406-12.

Copyright © 2009 Massachusetts Medical Society.