



The Dartmouth Atlas Responds to “Critics Question Study Cited in Health Debate,” by Reed Abelson and Gardiner Harris, *The New York Times* (June 3, 2010)

Note: Updated June 7, 2010. Two additional issues are noted, while Error 1 has been amended to point to additional maps measuring mortality (and not just quality).

We were frankly disappointed by the tone and tenor of the recent article on the Dartmouth Atlas data, but most concerned about five factual errors, and several misrepresentations. We begin with the factual errors (with the original newspaper sentences in italics)

1. Measures of quality of care are not part of the formula. For all anyone knows, patients could be dying in far greater numbers in hospitals in the beige regions than hospitals in the brown ones, and Dartmouth’s maps would not pick up that difference.

The implication is that Dartmouth has not examined either mortality or quality of care. This is far from the truth. Not only has our research carefully examined the quality of care along many dimensions, but we have also been producing maps or HRR (hospital referral region) level data and reports that specifically describe the percentage of patients who die in the hospital, ([here](#)) or measures such as the quality of treatments for diabetics ([here](#)), patient satisfaction, and Medicare measures of hospital quality.

2. Neither patients’ health nor differences in prices are fully considered by the Dartmouth Atlas.

This is simply wrong. The end-of-life measures are risk adjusted for the specific chronic conditions that the patients have. And in our published research, whether a 1997 article in the National Tax Journal, the 2003 Annals papers or a more recent New England Journal of Medicine study, focused on risk and price adjusted spending for the patients under study.

More worrisome is the claim that differences in prices are not “fully considered.” Since 1996, our Atlas reports have published actual measures of utilization – ranging from hospital days to physician visits to surgery rates. These rates clearly do not need price adjustment. As well, we have recently developed fully price-adjusted expenditure measures, they are freely available on the Atlas website ([here](#) under Gottlieb et al, 2010).

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3. *But even those who defend Dartmouth say that failing to make basic data adjustments undermines the geographic variations the atlas purports to show. David Cutler, a professor of economics at [Harvard](#), likens it to failing to account for inflation when looking at [gross domestic product](#). “Nobody in their right mind would talk about G.D.P. growth without adjusting for prices,” he said.*

As we stated in (2) above, all of our data reports actual measures of utilization – ranging from hospital days to physician visits to surgery rates. As well, we have developed fully price-adjusted expenditure measures (see the link above). Indeed, based on Maggie Mahar’s website ([here](#)) Professor Cutler was surprised that he was quoted in this way because he was so familiar with the price-adjustment methods used in the Dartmouth work for many years.

4. *Because some regions spent nearly a third more than other regions without any apparent benefit, the Dartmouth team concluded that at least one dollar in three was wasted by Medicare. The 2003 study read: “If the United States as a whole could safely achieve spending levels comparable to those of the lowest-spending regions, annual savings of up to 30% of Medicare expenditures could be achieved.” Not at least one-in-three. Up to 30%. This may appear to be nit-picking but is symptomatic of a general pattern of lax reporting.*

5. *But as it began publicly discussing its research, the Dartmouth team often extrapolated beyond this basic finding. Not only do high-spending regions fail to provide better care, the Dartmouth team began to argue, but those regions actually offer worse care. In just one example of this extrapolation, Dr. Fisher, in testimony before Congress last year, summarized his and others’ work by asking, “Why are access and quality worse in high-spending regions?” This is again a misstatement of the facts. The Annals articles show not only that more spending was associated with generally worse outcomes (for heart attack and colorectal cancer, the results were statistically significant, for other conditions the results were marginally significant but all in the same direction) but also showed poorer measures of quality of care for heart attack patients and on many dimensions of ambulatory care.*

A much-cited 2004 [article](#) showed a strong and clear negative correlation between spending and quality. A number of subsequent studies (including surveys of physicians and patients) found consistent results: the quality of care in higher spending regions is, on average, worse. So to say that the Dartmouth team “often extrapolated beyond this basic finding” is simply wrong.

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The next four statements are not so much factually incorrect as misleading.

6. *Dartmouth researchers also created a company, Health Dialog, to consult for insurers and others on Dartmouth's findings. Valued at nearly \$800 million, the company was sold to a British insurer in 2007 and still helps to finance the Dartmouth work.*

This is highly misleading. Health Dialog uses several of the methods developed by Dartmouth research in Health Dialog's business products. As a result, they pay a license fee to Dartmouth College for intellectual property. This is similar to the licensing fee that a pharmaceutical company might pay when university researchers develop a new drug. Of the money that ultimately reaches TDI, it is used to fund the AHEC summer education camps for high school students, and for research fellows. The dollar amount of the Health Dialog licensing fees are less than 1% of the TDI operating budget, and these funds are not used for the Atlas.

7. *But the atlas's hospital rankings do not take into account care that prolongs or improves lives. If one hospital spends a lot on five patients and manages to keep four of them alive, while another spends less on each but all five die, the hospital that saved patients could rank lower because Dartmouth compares only costs before death.*

As we have explained in an earlier posting on the New York Times Economix blog ([here](#))

[Some believe that]... end-of-life measures could penalize hospitals providing potentially costly but life-saving procedures. This is true of *any* cost measure, and is why we have always emphasized measuring quality, such as patient satisfaction, avoidable-readmission rates or health outcomes. Hospitals trying to save money by skimping on quality would therefore be penalized, not rewarded. The lower-cost hospital systems that are often held up as a national model, in part because of the Dartmouth data, appear to get results that are as good as — if not better than — higher-cost systems.

For measures of quality, see the link in (1) above.

8. *And yet, for the quality of care offered in New Jersey, independent of cost, federal health officials rank New Jersey second only to Vermont.*

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This statement is a classic example of cherry-picking – find the one quality measure that supports the author’s tenuous point. According to the most comprehensive [study](#) using data from the Robert Wood Johnson Foundation, New Jersey ranked 43rd in states in terms of health care quality during 2000-2001. More recently, both the Dartmouth Atlas data on diabetic testing ranks New Jersey below the median ([here](#)) while the 2009 Commonwealth Fund [study](#) ranks New Jersey 21st among states for prevention and treatment, and 30th overall. The Agency for Healthcare Research and Quality (AHRQ) overall quality ranking puts New Jersey at about the 75th percentile, but it still lags well behind Wisconsin – which happens to have the number 1 overall ranking among all states.

9. Researchers who have examined the Dartmouth Atlas numbers have found other flaws that can distort hospital rankings. Doctors at Cedars-Sinai in Los Angeles found that Dartmouth failed to distinguish two different types of intensive care unit beds the hospital runs. Dartmouth might also have overcounted the number of specialists examining each patient. The errors, Cedars-Sinai said, meant that the hospital probably would have fared worse in the Dartmouth rankings than it should have. Cedar's chief medical officer, Dr Michael Langberg, said he had tried to discuss these problems with Dartmouth researchers but had thought they were unresponsive."

This statement makes it appear that we ignored them. We did the opposite. In 2006, Dr. Fisher visited Cedars-Sinai, where he met with Tom Prisolac (CEO) and others, including Dr. Langberg. During that visit, they pointed out the distinction between the two different types of intensive care beds. The Atlas immediately updated our reporting system to make this distinction explicit. The 2008 Atlas (which covers chronic patient care during 2001-2005) includes this update.

The complaint that we over-counted the numbers of specialists was without merit, since the data are based on the number of individual physicians who submit claims to Medicare per patient. Over-counting would require physicians to submit bills for patients they didn't care for at all.

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In sum, readers who wish to understand the problems confronting the U.S. health care system will have to look further than this superficial piece in the Times. An accurate understanding of our work can best be gained by reading the written [response](#) that the Times kindly posted with the article. More importantly, the Times article leaves the impression that we have somehow backed off on our conclusions. We have not.

Our research shows the following. There are marked variations in spending observed across both hospitals and regions that are largely due to how much time similar patients spend in the

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hospital, how many specialists they see, and how many diagnostic test they receive. On average – across the United States – health systems that spend more on these services are less likely to deliver safe and effective care. Our findings point to important opportunities to improve not only the quality of care (by ensuring that effective care is reliably delivered) but also to reduce the costs of care (by reducing avoidable hospitalizations and unnecessary specialist visits).

What is truly unfortunate is that the Times missed an opportunity to help educate the American public about what our research actually shows -- or about the breadth of agreement about what our findings mean for health care reform.

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