

# An interview with Dr. Richard Cooper, critic of the Dartmouth Atlas of Health Care research

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*Dr. Richard Cooper, a professor of medicine at the University of Pennsylvania, is a proponent of health care reform that addresses the needs of low-income families and a critic of the Dartmouth Atlas of Health Care.*

JL: Could you touch on some of your differences with the Dartmouth studies?

RC: There are basically two problems with the Dartmouth group's approach. One is methodological and the other is ideological. Although they are quick to point out that they have published 100 papers, these are based on only a few methodologies—and each is flawed. I'll get into what's wrong with their methodology later.

But even if they were right, they're burdened with another problem—ideology. It's not unusual for policy research to be burdened in this way. In the case of Dartmouth, it's to an extreme. And, worse, through Peter Orszag, director of the Office of Management and Budget, their ideology has become the cornerstone of health care reform.

It was John Wennberg and his associate, Elliott Fisher, who led Orszag and others to believe that studies of geographic variation prove that doctors and hospitals over-treat and over-charge, to no benefit. And it was they who proposed the 30 percent solution, claiming that the money needed for health care reform was easily available—no new taxes would be required (as President Obama had promised).

If only health care were “more efficient,” the nation could save 30 percent of health care expenditures, \$700 billion annually. And to create that “efficiency,” all that was needed was to force all providers to function like the Mayo Clinic (which cares predominantly for white, middle-class patients) and to utilize more primary care physicians (which Mayo doesn't).

That's what I call the sin of commission—the tragedy of misleading the process of health care reform. There's a second sin—the sin of omission, or obfuscation. It's not simply that the Dartmouth work on geographic differences is methodologically wrong and its conclusions incorrect, nor simply that its policy implications misdirected health care reform. It's that there is another explanation for the geographic differences, which has to do with differences in the distribution of poverty.

So all the while that they talked about saving money by reducing wasteful geographic variation (by providing less care where it's actually needed), the fundamental needs of the poor and the large added costs of caring for them were ignored.

It's actually worse. Poverty was denied, because it couldn't be both ways. Either the Dartmouth group was right and the high costs in some areas were because of too many specialists and hospitals doing too many unneeded things, or this higher spending was due to the added costs of

caring for the poor. The truth is that it is the latter.

Therefore, the only way to really save money is to make a long-term commitment to ameliorating the high health care costs that are a result of poverty and other social determinants of disease. Not that there aren't inefficiencies. But physicians have been dealing with inefficiencies as long as I've been a doctor—which is 50 years—and certainly before that.

As medicine evolves, there are always more inefficiencies to deal with, but as fast as we deal with them, new ones emerge. So constant diligence is necessary. But is medicine more efficient than in 1960? You bet it is. And is poverty a bigger problem for health care spending now than it was then? You bet. We seem to know how to make things more efficient. But as a nation, we aren't very good at reining in poverty. It just grows.

JL: What's wrong with Dartmouth's methodologies?

RC: In the beginning, nothing. The Dartmouth group, or at least John Wennberg, started out in the 1970s by looking at practice differences among physicians or physician groups within and between cities.

One group of doctors may treat a disease one way, another group another way. This tends to occur most often with diseases where nobody knows which treatment is best—prostate cancer, for example. There are a half a dozen ways to treat prostate cancer. It's treated differently by different physicians and in different locales.

It was very important for Wennberg to point this out. It made people more conscious of such differences and undoubtedly emboldened health care leaders to look for ways to minimize such differences. That's where practice guidelines came from. Wennberg encouraged a new way of looking at things. Not that studies comparing treatments hadn't been going on. One example is the national cooperative cancer research groups that began in the 1960s. But Wennberg helped to create a culture that's lasting.

Then things began to go wrong. Wennberg and his colleagues wanted to connect these observations to population health, spending and outcomes. That's real health policy. And to do that, they needed larger units of analysis and a broader set of medical conditions. And, so, studies of geographic variation in health care were born.

The fundamental problem with studying geographic differences is that poverty is geographic, and poverty is the major factor that influences population health, health care costs and outcomes. Low-income patients are sicker, they cost more and their outcomes are worse.

The Dartmouth group uses three different levels of analysis. One is hospitals, and we know that some serve poor populations. A second one is states, and we know that there are rich states, like Massachusetts, and poor ones, like Mississippi. But it's more complicated than that. Some states, like New York and California, are wealthy on average but include areas of dense poverty.

The third level is made up of about 300 hospital referral regions in

which most of the patients use hospitals in the region most of the time. These are the building blocks of the Dartmouth Atlas. But averages can be misleading.

For example, if you average a city like Detroit, one of the poorest, with the adjacent Oakland County, one of the richest, you get average. The economist Robert Reich likes to point out that if you average him and Shaquille O'Neal, you get a 6'2" basketball player.

This is convenient for the Dartmouth folks because you can't talk about income inequality if you take an area like Detroit and Oakland County and average it. In fact, overall it's rich. But there is a tremendous use of resources in Detroit because of the poor population. That's where all the utilization is.

There's another important point. The relationship between lower income and higher utilization is not linear. It zooms up at very low income. So, whether in a hospital referral region, a state or a hospital, if the population of patients is averaged to obtain a single value for income, utilization and outcomes, small numbers of poor patients contribute to high utilization and poor outcomes, while small numbers of wealthy patients raise the average income to a higher level.

There could be real differences in the way care is given, but the income effect is so large, they're impossible to discern. On the other hand, if you believe that there are no differences due to income, or you think you have corrected for them, then all of the differences that are observed are interpreted as due to practice differences. And that's exactly what the Dartmouth group does.

There's one more methodological point worth mentioning. The Dartmouth studies are all based on Medicare, but Medicare spending in a state or region doesn't correlate with spending for other patients, through Medicaid or private insurance, nor with the number of uninsured. Medicare is not a proxy for the whole population. Nonetheless, until recently, the Dartmouth group has insisted that it is, and the fact that it isn't is rarely mentioned.

JL: Tell me more about the hospital studies. Don't they criticize academic medical centers in Los Angeles and Philadelphia?

RC: Yes, they do. They find that smaller amounts of resources are used at Dartmouth's hospital and the Mayo Clinic, which are in small towns that are virtually devoid of minorities and lack the kind of poverty that exists in major urban centers. In fact, all of the low-cost hospitals are in such cities—Madison, Wisconsin; Columbia, Missouri; Salt Lake City, and so on. While all of the high-cost hospitals are in the major cities, like LA, Philadelphia, New York, Detroit, Chicago and Miami.

That alone should have tipped them off that something was wrong in their interpretation. Everyone knows that patients who use the most resources live in urban poverty ghettos, and all of the major urban centers that contain poverty ghettos are among the high-use hospitals. Statistics aside, someone should have noticed this pattern.

There was another problem with these studies, and it was pointed out in papers by Gerald Neuberger at Columbia, Michael Ong and his associates in California and, most recently, Peter Bach in the *New England Journal of Medicine*. It has to do with what is measured. The Dartmouth group only measures costs in the last two years of life, and because everyone had died.

They point out on their Web site that "The study focused on patients who died, so we could be sure that patients were similarly ill across hospitals. By definition, the prognosis was identical—all were dead. Therefore, variations cannot be explained by differences in the severity of illnesses."

Now, that is patently absurd. Everyone knows it. In fact, Peter Bach showed that length of stay in various hospitals correlates strongly with the predicted risk of death of patients on admission. Poorer and sicker patients stay longer.

So if you look at hospital readmission rates in the inner cities of places

like Detroit or Milwaukee, two very segregated cities, the rate of admission for common diseases, heart failure and asthma, are five- and six-times higher in the poorer areas than in the rest of the community.

You can't just do what Dartmouth does. You can't take a great big area and assume that this great big blob of Detroit plus Oakland County has anything in common with a big blob of Wyoming, even if the averages are all the same.

JL: Dartmouth uses the term "supply-sensitive" to describe patterns of utilization.

RC: It's like saying the more snowplows you have, the more snow you'll plow. Plows cause snow. It's preposterous.

Who would believe that there are specialists dying to give unneeded care to the unsuspecting poor people? That's how you would have to interpret the data if you were interpreting it with Dartmouth's eyes. In fact, that's obviously not what is happening.

It's sad that Obama's health care bill uses these distorted figures. John Wennberg came to Los Angeles, a city with areas of extreme wealth and extreme poverty. The central area of Los Angeles houses 2 million of the poorest people in the country, and their utilization of hospital services is high. And the major hospitals, like UCLA, are magnets for very sick patients, both rich and poor, so utilization is high.

His interpretation of the data was that the extra utilization was being driven by suppliers—physicians and hospitals—and that some hospitals in Los Angeles should close. Well, UCLA had to respond, and they did with a study published in *Circulation*.

UCLA has a big heart transplant department—people waiting for heart transplants are in congestive heart failure, so they hang around the hospital for a very long time because new hearts are not all that available. It's very common for patients to die in the hospital waiting for a transplant.

If you look at the rate of hospitalization for congestive heart failure at UCLA, you'll find that it's very long because of this unusual group of patients waiting for transplants. When these patients are excluded and when other adjustments are made for the severity of illness, the differences between hospitals largely go away.

JL: Dartmouth claims that the supply line of physicians is sufficient to meet future needs until 2020.

RC: The Dartmouth philosophy is anti-specialist and anti-technology. The notion is that if there are fewer specialists and more primary care physicians we would spend less. It's not based on data. It's more a political and social philosophy.

In fact, some care is unnecessary, and large amounts of necessary care are not being delivered. The system is imperfect. But this is not a geographic problem. It's true everywhere and in all income groups. What is geographic and draws on a lot of extra resources is poverty. The "big bucks" are in the care that is necessarily given to patients who are poor. Their care is necessary. Their poverty is not.

JL: Dr. J. Thomas Rosenthal from UCLA Health System has criticized Dartmouth, saying that one must distinguish between excellence and excess in medical care, otherwise efforts to cut wasteful spending would amount to blunt rationing.

RC: Yes. Most of the variation in spending has to do with accomplishing excellence. It's not simply excess. In fact, patients who received excellent care and survived a serious illness would not even be in the Dartmouth study, because they are alive. Their studies are of patients who died. End-of-life. It's ridiculous.

Obviously, the money was spent and the resources were used with the hope and expectation that patients would not die. The expectation, or at least the hope, was that they would live.

JL: And the conclusion reached by the California study was that the hospitals that spent the most seemed to save the most lives.

RC: They did find that. But their main finding was that, once differences

in income and risk were accounted for, there were very few differences among the hospitals that they studied, whereas the Dartmouth group had reported large differences.

And they did find better survival where more was spent, but the fact is that you very often find the other. That's because the sickest people who have the highest chance of dying use the most resources. It took meticulous risk adjustment to account for the differences in risk in the California study, but once they did, they found better survival where there was more spending.

It was a huge effort at risk adjustment. And remember, not everything is in the hospital data. The data weren't collected for this kind of retrospective study. A lot of very important social and economic factors never get recorded in the hospital record. But in general, people can't risk-adjust as well as they did in the UCLA study. As a result, what you find worldwide is a phenomenon called the "doctor mortality paradox"—the more inputs, the higher the mortality. Intensive care units are a good example. You have tremendous amounts of physician and nurse inputs, and high mortality.

JL: Dartmouth makes reference to the *New England Journal of Medicine* September 9, 2009 article "Getting Past Denial—The High Cost of Health Care in the United States" that finds that, as they put it, "just" 30 percent of the excess spending in the high-cost regions is attributable to income and health.

RC: This article seems to be a direct rebuttal to things that I have said and published. It's a mastery of obfuscation. There's no way to know how they arrived at that conclusion. Simply pie in the sky.

But a conclusion that is easy to arrive at from this paper is that 34 percent of all Medicare spending is the added costs of caring for patients whose annual income is below \$25,000. Anyone who reads this can make the same calculation from a figure on Medicare spending by income group that is in the same paper, together with data from the Census Bureau that tells how many seniors are in various income groups. No complicated statistics. No adjustments for anything. Just who spent what, and the answer is clear and unambiguous.

It's really tragic that the Dartmouth folks went to such lengths to obfuscate poverty. But it's not so important to show that they were wrong. That's becoming increasingly apparent. The recent study in the *New England Journal of Medicine* by Peter Bach is a further proof of that. What's really important is that policy makers understand the profound impact of poverty and of the urban condition on health care spending. So if we're going to do health care reform that improves health and saves money, we have to pay attention to the large population of people who cost a lot to care for because of the circumstances under which they live.

In the inner city residents have poorer education, worse nutrition and poorer social support systems. Many have drug problems or mental health problems. They tend to have multiple chronic illnesses and a higher burden of disease. Much is known about the sociology of urban ghettos. How tragic that in this era of health care reform, the Dartmouth group and their groupies misrepresent this human condition as a manifestation of greedy physicians and hospitals over-treating and over-spending to no good purpose.

JL: Instead, Dartmouth has other recommendations—such as making "low-spending" institutions like the Mayo Clinic, which have a high degree of care coordination, the benchmark.

RC: If you look at the Mayo Clinic among its peer institutions, patient costs are more. Mayo's referral regions are mostly white, Scandinavian people. The entire region has low poverty and few minorities. Contrast that with Sinai Grace in Detroit, a hospital that cares for the poorest population in America, and the costs are double those of Mayo. But how would Mayo do in the Middle of Detroit?

JL: Could you speak about what you refer to as "the social determinants of disease"?

RC: Social determinants of disease are stress, lack of family support systems, poor nutrition, previous time in prison, poor access to grocery stores, language barriers, difficult transportation, unsafe neighborhoods and more. Poor education is the biggest one. They all correlate with low income, but it's not just simply income. One that people are interested in is neighborhood structure. I've gotten very interested in the notion of the poverty ghetto as opposed to being poor. Being poor in an urban ghetto is much worse than in a small town.

What has angered me about the work from Dartmouth is not simply its poor quality. It's that they have gone to such lengths to mask the whole issue of poverty.

I supported President Obama. My image of Obama was the guy who came from the South Side of Chicago. I had the image of a guy who really understood what was central to my goal as a physician: trying to level the social playing field and understand the tremendous pressures and costs of health care.

We measure the cost by what gets spent, but the real costs are human costs. What human potential has been lost because of inadequate health care and inadequate social circumstances? Yes, it costs more to take care of poor people, but they really bear the costs because they have a poorer quality of life.

The human cost is much more than the monetary cost. And I really thought that President Obama was going to come in and focus health care reform on these issues. But his administration lined up behind this Dartmouth Atlas, which basically is a way to conceal and deny that poverty is a major element in health care expenditures.

To sum up: Is poverty the major factor underlying geographic variation in health care? It assuredly is. There is abundant evidence that poverty is strongly associated with poor health status, greater per-capita spending, more hospital readmissions and poorer outcomes. It is the single strongest factor in variation in health care and the greatest contributor to "excess" health care spending. It should be the focus of health care reform, but sadly, many provisions in the current bills will worsen the problem. To be able to communicate this to a wide audience as the *World Socialist Web Site* is able to would be so crucially important.

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