

**Commentary by Dana Goldman on:**

**Outcomes Assessment and Health Care Reform  
Jonathan Skinner, Amitabh Chandra, Elliott Fisher**

I am impressed by the optimism Jonathan Skinner, Amitabh Chandra, and Elliot Fisher share for outcomes assessment, but I do not find it surprising. They are undoubtedly some of the finest practitioners of such assessments in the world, and have raised the important debate about how we spend our Medicare dollars and what we get for the marginal dollar spent. Their research on post-AMI outcomes is clearly the gold standard for how one does such an analysis. That being said, I believe there are several reasons to be cautious and I begin by articulating these.

First and foremost, technology assessment, outcomes assessment, cost-effectiveness and the like all are predicated on the availability of high-quality data. The investments that these researchers have made in accumulating data on heart attack patients is formidable, and the return has been immense. But while AMI patients are clearly important, they are still a minority of the patient population. Health is such a heterogeneous good—and comparative effectiveness is so infrequently studied—that it is difficult for me to believe that even if we organized delivery around “accountable care organizations” that we would be able to achieve significant improvements. The question then is whether the investment in data infrastructure will be worth the payoff in terms of outcomes. I will come back to this point later.

Second, all of the current approaches ignore the social value of care. Technology and outcomes assessment measure the private value of care based on mortality or some health metric that is either general—quality-adjusted life years, physical or mental functioning, disability-adjusted life years—or specific—heart function or a recurrent cardiovascular event. Nowhere in these measures does it take into account the interest that others might have in a patient’s health.

I would argue that these are not second-order effects; in fact, it explains why we have programs like Medicaid and why we go after Jenny when she falls in the well. (If it were just private value that mattered, little Jenny could save her own life with perfect capital markets because, as Viscusi and Aldy demonstrate, the private value of her life is around \$6 million.) There is also a reciprocal desire, namely the interest of a patient in not causing a burden to society and family. These need to be accounted for in our models.

Social value can also go a long way to explain the type of trade-offs embodied in the Nord results. In Table 1 of Skinner, Chandra, and Fisher, we see that a plurality of the respondents preferred a strategy that saved lives of people with both diseases. The cost-effective strategy (treat only disease X) was roundly rejected. This type of finding has been replicated in many contexts. Thus, I share their skepticism for technology assessment as a means of allocating resources.

Third, there is a puzzle about how we think about end-of-life care. Much of health care spending occurs at the end of life and the proportion has remained stable for several decades (Hogan et al. 2000; Lubitz and Riley 1993). These high costs have been a source of consternation for many observers, including Skinner and colleagues, who often assume observed levels of end-of-life are irrational or against the interest of those involved. Certainly part of the problem is that we do not observe death *ex ante*, but the issue is much deeper than this as we continue to practice aggressive medicine for patients who are clearly very sick and whose remaining life-years are limited even with successful treatment. (Avastin for metastatic colorectal cancer is but one prominent example.) When it comes to outcomes research for end-of-life care, our models are completely asynchronous with the stated and observed behavior of many patients willing to spend a large fraction (maybe all) of their and their family's wealth on such care.

Fourth, it has never been clear to me who is the marginal patient in these analyses, and how we should change their care. If one considers the McClellan et al *JAMA* paper that

demonstrated small effects of intensive treatment, the marginal patient is one who would get intensive treatment if they lived 2.5 miles from a tertiary care hospital, but not otherwise. I have never seen such a question on a medical form. In the context of the Skinner, Fisher work, we do know that some hospitals have improved over time but without knowing the reasons it is hard to replicate their success.

Fifth, intergenerational transfers to future cohorts need to be considered. Does cost-ineffective care today lead to cost-effective care for future generations? The argument here is that technologies that do not pass muster today will ultimately be cost-effective when applied to other populations or when their prices decline once generics have entered the market. It is interesting to consider that Medicare is passing much of the cost of this care onto future generations anyway, so perhaps we should also be encouraging innovations that will provide a future payoff.

All of this is by way of saying that some skepticism is warranted. (To be fair, Skinner, Chandra, and Fisher are also skeptical.) But it is always easy to be critical, and so I think the burden must fall on me to provide a prescriptive solution. What would I do? First, I would like to develop evidence on comparative effectiveness and this evidence should be publicly financed and conducted publicly without interference from private interests. For example, agreements to cover services in exchange for evidence development is a good first step. Second, I would finance an outcomes assessment institute with a wasting endowment of \$XX million and a charter that if they can generate more than \$XX million on cost-savings within 10 years, then they will get a more permanent charter....more on this later...