Driving Better Health Policy: “It’s the Evidence, Stupid”

Uwe Reinhardt Memorial Lecture

Katherine Baicker

Health policy can be substantially improved by the use of high-quality evidence, but this requires dedication and discipline. First, it is important to define policies with enough specificity to allow serious assessment. Second, articulating goals as distinct from policies is crucial to evaluating the most effective policies for achieving those goals. Third, researchers must assess an often nuanced body of evidence without allowing their own policy preferences to bias their interpretation. Last, researchers need to dedicate effort to timely, accessible, reliable translation in order for evidence to have a real impact on policy

Key Words. Health policy, health economics

Uwe Reinhardt set an incredibly high bar for all of us working in health policy. Delivering remarks that live up to his standard of being insightful, intelligent, knowledgeable, irreverent, provocative, and pithy is nigh on impossible—but I will nevertheless try, starting with a nod to his witty titles (Anderson et al. 2003).

I focus today on what our role as health researchers and analysts is in driving evidence-based policy (Baicker and Chandra 2017). Speaking in favor of evidence-based health policy can be more controversial than one might think. Health policy analysts, health services researchers, and economists in particular often get in trouble by trying to quantify what many hold as unquantifiable and trying to put a price tag on what many think should be priceless. “You can’t put a price on your health”—a phrase we hear all the time. When we are confronted with stories of terrible suffering by patients and their families, it seems callous even to try to assess what health care is “worth.” It is crucial that we not lose track of the human toll of disease and injury, but I believe that it is also crucial that we quantify the costs and benefits of the resources we devote to improving health. If you do not put a price on health—and other important priorities such as education, housing, food, public safety—you

fundamentally cannot allocate resources across competing needs to the greatest good. We do a disservice to those we are aiming to help if we pretend that there are no resource constraints, and if we do not provide the best evidence that we can about the costs and benefits of different policy choices.

Let us then start with the premise that we are all in favor of evidence-based health policy. We then have to be clear about what we mean by the phrase “evidence-based health policy.” It is one of those things that is easy to say but turns out to be harder to define than one might think. I am going to try to lay out what I mean by each of those words so that we can come to a common understanding of how we are going to try to drive evidence-based health policy.

WHAT IS AND IS NOT A POLICY

Slogans are Not Policies

Let me start with what I mean by “health policy.” The idea that policy can be summed up in a bumper sticker is fundamentally antithetical to thinking carefully about nuanced policies. Of course, shorthand has its place, but often it is used to sweep important differences under the rug. Unfortunately, discussion of nuanced policy can be challenging to introduce into the political process. For example, it is popular to say we need to focus on population health. Yes, population health can be a metric of how good a job the health system is doing overall, but it is not as though we can have a policy “the population shall be healthier.” It is an outcome, not a policy, and a pretty ill-defined outcome at that.

Being in favor of a single payer system is much closer to a policy, but that is a prime example of a simplified shorthand that obscures potentially first-order differences. When forced to be specific, it is often revealed that people mean very different things by the phrase. When people say, “I am in favor of single payer system,” do they mean direct provision of health care, with doctors as government employees and hospitals as government-owned? Do they mean Medicare for all? Is that fee-for-service Medicare for all? With service limits? With premiums? And if we do not define what we mean by a single payer system, it is easy to make claims that are unsubstantiated by evidence about whether it will work.

Address correspondence to Katherine Baicker, Ph.D., Harris School of Public Policy and NBER, University of Chicago, 1155 E 60th St, Chicago, IL 60617. e-mail: kbaicker@uchicago.edu.

Differentiating Between Goals and Policies

It is vital to distinguish between policies and goals. First, the same policy can have multiple goals. Suppose one considers a policy of making an additional payment to primary care providers for care coordination. That policy might be aiming to achieve different goals. One goal might be to improve patient outcomes through better coordination, mitigating the risk of handoffs and transitions between sites of care. A different goal might be to reduce total spending through reductions in duplicated tests, shorter lengths of stay, or fewer readmissions, with the coordination payments paying for themselves. The evidence may have something very different to say about the effectiveness of the policy in achieving these different goals—for example, suggesting modest gains in quality but no reduction in spending. Assessing whether the policy “worked” requires specifying the goal against which it is being assessed.

The other side is that if we have a goal in mind, many different policies might address that goal. If the goal is to improve care coordination to reduce the adverse health consequences of multiple handoffs, that goal might best be achieved through interoperable electronic health records, vertical integration, care coordination payments, or any of a number of other policies. If one is clear about what one’s goal is, one can evaluate the effectiveness of alternative policies to reach it.

EVIDENCE IS INHERENTLY EMPIRICAL

What do I mean by evidence? Theory and evidence are very different beasts. Introspection is a terrible way to do public policy—especially introspection by economists, who are notoriously bad at understanding what other people might be thinking. Theory cannot substitute for evidence. First, theory often suggests competing effects that go in different directions. Second, even in the limited circumstances in which theory gives us the likely direction of an effect, it never gives the magnitude. This is not to say that theories and models are not important—they help us know where to look for evidence and to understand and draw deeper lessons from the fact patterns we observe.

Evidence is Rarely Straightforward

Evidence also requires interpretation. Important, complex questions are rarely answered by a single study, and different studies almost never yield exactly the same answers. Analytical frameworks can help put the different

pieces in context, but researchers also need to use judgment in assessing the strength and interpretation of different pieces of evidence. All studies are not created equal, and sorting this out is a major contribution that careful researchers can make.

This is why it is particularly important that researchers not let their own policy goals and preferences flavor their interpretation of the evidence. We do not get to cherry pick the results we like to be consistent with our own personal goals or values. Again, this does not mean that we should treat every study as equally valid: We ought to be curating the results based on the quality of the evidence. One can too often find “a study” to support any side of a debate. It is our job to help sort the wheat from the chaff and give our unbiased reading of where the best evidence lies.

Of course, sometimes the evidence is diffuse, and academics have an unfortunate tendency to hedge. Undue caution in asserting a conclusion is no more helpful than unwarranted certainty. Appropriately characterizing what we know and what we do not requires both a sophisticated reading of the evidence and a dedication to the integrity of the body of evidence.

Fact Patterns Alone Do Not Reveal Policy Effects

Good evidence certainly starts with hard facts. New facts can point us in new directions. They can give us insights about the world, generate hypotheses, and suggest promising avenues for policy development. The Dartmouth Atlas of Health care is a great example (Wennberg and Cooper 1999). The Dartmouth group documented previously unappreciated wild variation in health care spending and outcomes across the United States, even for enrollees in the same traditional Medicare insurance. This started a vast and important new literature in understanding the causes and consequences of that variation, including suggesting new payment models and delivery system reforms. All of that started with a “simple,” powerful set of summary statistics. But just the facts alone do not tell us about causal connections, and causal connections are crucial for assessing the effects of changes in policy. We need to have a very high standard for assessing causality if we want our evidence to be used to formulate policy. Most of our causal identification strategies are not watertight, and there is almost never a study for which there is no alternative explanation or limitation. Here, too, as researchers and analysts, we need to exercise judgment in expressing our degree of certainty about causal connections.

Even before one considers the causal effect of a given policy, sometimes the import of a given fact pattern is subject to interpretation. Consider the

question of whether high U.S. health care spending can be attributed to high prices or high utilization. The title of these remarks references one of Uwe and colleagues' best-known titles: "It's the Prices, Stupid." (Anderson et al. 2003) In typical fashion, the title really drives his point home. But Amitabh Chandra and I, among others, have taken an alternative view that it is difficult to know whether variation in health care spending across countries, or even within the United States, is driven by prices or quantities (Baicker and Chandra 2018). The reason that I think it is harder to discern than one might imagine is that quality is very hard to measure, and without a really good measure of quality that is comparable across settings, it is not possible to generate a measure of quantity that is comparable across settings. Comparing prices for a given service across countries (or states or providers) requires that the prices are for the same service of the same quality.

But suppose we have really good measures of quality, and therefore quantity, and can therefore decompose differences in spending across countries into the share attributable to prices versus the share attributable to quantities. That would not tell us the effect, let alone desirability, of any given policy aiming to change prices or quantities. The price and quantity of care consumed in the United States, for example, are the result of patients' demand for care (affected by health, income, insurance, etc.) and providers' supply of care (affected by labor markets, reimbursement systems, market competition, etc.). A policy that affects supply or demand will affect both price and quantity. Lowering prices by reducing demand might result in lower utilization, while lowering prices by increasing supply might result in higher utilization. The socially optimal policy depends on the specific problem that we are trying to fix as well as a careful analysis of the underlying causal mechanisms driving the patterns that we see. It also very much depends on what our collective priorities are.

Given my own research, I want to use the effects of Medicaid expansion as another example, drawing on my work with Amy Finkelstein and coauthors. Of course, "expand Medicaid" is not a specific enough policy to evaluate. Expand to what population? With what type of coverage? Paid for how? Suppose we are talking about expanding Medicaid in a state like, for example, Oregon to able-bodied adults under 100 percent of the Federal poverty level. We also need to specify what outcome metrics we care about. Some people hypothesized that Medicaid expansion of this kind would reduce total spending by promoting access to primary care that would reduce expensive emergency department visits. Others focused on the financial strain that health care places on uninsured families, or the way that the insurance might change health outcomes.

These are very different outcomes, and the evidence suggests that the policy is more effective at improving some than others. Start with the effect of Medicaid on emergency department use. Theory strongly suggests that when you make something free, people will use more of it: Medicaid pays for emergency department visits, which can be very expensive for the uninsured, so it should not surprise us if medicaid coverage results in higher utilization. On the other hand, Medicaid also covers doctor's office visits, so if those are substitutes for the emergency department, that would have a countervailing effect of reducing emergency department visits, leaving the net effect unclear. My reading of the evidence is that when you expand Medicaid, people go to the emergency department more—but others may synthesize the multiple studies on this question differently (Taubman et al. 2014; Finkelstein et al. 2016; Sommers, Gawande, and Baicker 2017). This is an example of where judgment comes in: I am very concerned about the bias from confounding factors in observational (and even some quasi-experimental) studies and thus weight particularly heavily the evidence from the randomized controlled evaluation in Oregon. In terms of increasing financial security, I think the evidence is clear: When you give people Medicaid, they are much better off financially (Finkelstein et al. 2012). People also report that they are in much better health and have substantially lower rates of depression, but evidence of improvement in chronic physical health conditions such as high blood pressure is weak (Baicker et al. 2013; Sommers, Gawande, and Baicker 2017).

This makes for a nuanced picture of the effects of the policy: Expanding Medicaid in this way comes with both benefits (those who are insured have better access to care, more financial security, and better self-reported health and mental health) and costs (taxpayers have to pay for the increase in health care use for Medicaid enrollees) that policy makers need to weigh. If one's goal is to redistribute resources to improve health by expanding coverage, pretending that this tradeoff does not exist by asserting that Medicaid coverage reduces health care spending ultimately does a disservice to that goal.

Public discourse is, to put it mildly, often not conducive to this kind of nuanced discussion. Headlines reporting on just one paper from the Oregon study, for example, ran the gamut of saying that the paper showed that Medicaid worked stunningly well to saying that it was an utter failure. My personal favorite was the headline "How to Use the Oregon Medicaid Study to Your Ideological Advantage." (Bennett 2013) This is what we see from many stakeholders and advocates, but it is never what we should see from researchers who are aiming to bring rigorous evidence to bear on important policy questions.

WORKING TO BASE POLICY ON EVIDENCE

Separating Evidence from Preferences

This leads us to the question of how evidence ought to inform policy. I would argue that no research study can tell policy makers what the “right” policy is. That very much depends on one’s goals, one’s values, and one’s priorities. No research study should purport to tell people what their values should be. Which is most important: health care for vulnerable populations, food for the hungry, economic prosperity, national security? We live in a world of scarce resources and competing goals—driving home the importance of quantifying the costs and benefits of competing policies to make the best choices we can.

Separating Advocacy from Evidence

There are many different stakeholders in our health care system and in our policy process. I would argue that the role of researchers and policy analysts as evidence generators and translators is fundamentally incompatible with the role of advocate. There is certainly an important role for advocates in our system, and others may make different choices for themselves, but I believe that my own best contribution to evidence-based health policy is to keep a bright line between my personal preferences and priorities and my reading of the evidence. That can be challenging, because, of course, as a voter, I have my own strong views about policy—as I ought. But if we put a thumb on the scale in translating research for policy makers or lay audiences, we undermine the very idea that there are objective facts and that those facts ought to drive policy choices, not the other way around.

Just as patients need to be able to rely on their physicians to translate their specialized knowledge to inform their choices, the public needs to rely on us as trained researchers to translate an often complicated body of evidence. Contrary to the old saw, the evidence rarely speaks for itself. If we do not serve that role, then we are left in a world where people are allowed to have not only their own views but their own evidence.

Using Evidence to Inform Policy

It takes a lot of effort to translate one’s work into something that is usable. Academic research is often inaccessible. It is rarely timely. It is almost never definitive. It always has limitations and caveats and stipulations and footnotes.

Sometimes, all of the nuance that I have touted gets in the way. If we want our work to inform policy, we need to ensure that it is actually informative—accessible to the people who need it, available at the time they are making choices, and appropriately synthesized to convey what we do and do not know.

Where does that leave us? The current public debate can sometimes be disheartening. Does anyone actually care about the evidence we work so hard to produce? I believe that we owe it to the millions of people affected by health policy to inject that evidence into the policy process. It has never been more important for us to be a force for reasoned, unbiased, evidence-based health policy.

Box: Driving Evidence-Based Health Policy

- Serious policy assessment requires a detailed description of the policy—slogans are not policies.
- Clearly articulating and differentiating between goals and policies is crucial to evaluating the most effective way to achieve policy goals.
- Evidence is often mixed or ambiguous. Researchers should not let their own policy preferences bias their interpretation or synthesis of the evidence.
- Evidence does not speak for itself. Researchers need to dedicate effort to timely, accessible, reliable translation.

ACKNOWLEDGMENTS

Joint Acknowledgment/Disclosure Statement: I am grateful to Amitabh Chandra for helpful comments and lifelong coauthorship. Much of the work on which this piece draws was funded by NIH grants P01 AG005842 and R01 AG034151.

Disclosures: Baicker is a director of Eli Lilly and serves on the Congressional Budget Office's Panel of Health Advisers.

Disclaimer: None.

REFERENCES

- Anderson, G. F., U. E. Reinhardt, P. S. Hussey, and V. Petrosyan. 2003. "It's the Prices, Stupid: Why the United States Is So Different from Other Countries." *Health Affairs* 22 (3): 89-105.
- Baicker, K., and A. Chandra. 2017. "Evidence-Based Health Policy." *New England Journal of Medicine* 337 (25): 2413-5.

- Baicker, K., and A. Chandra. 2018. "Challenges in Understanding Differences in Health Care Spending between the U.S. and Other High Income Countries." *Journal of the American Medical Association* 319 (10): 986-7.
- Baicker, K., S. Taubman, H. Allen, M. Bernstein, J. Gruber, J. Newhouse, E. C. Schneider, B. J. Wright, A. M. Zaslavsky, A. N. Finkelstein; Oregon Health Study Group. 2013. "The Oregon Experiment - Effects of Medicaid on Clinical Outcomes." *New England Journal of Medicine* 368 (18): 1713-22.
- Bennett, D. 2013. "How to Use the Oregon Medicaid Study to Your Ideological Advantage." *Atlantic* [accessed on October 13, 2018]. Available at <https://www.theatlantic.com/politics/archive/2013/05/oregon-medicaid-study/315672/>
- Finkelstein, A., S. Taubman, B. Wright, M. Bernstein, J. Gruber, J. Newhouse, H. Allen, K. Baicker, and Oregon Health Study Group. 2012. "The Oregon Health Insurance Experiment: Evidence from the First Year." *Quarterly Journal of Economics* 127 (3): 1057-106.
- Finkelstein, A., H. Allen, B. Wright, S. Taubman, and K. Baicker. 2016. "Effect of Medicaid Coverage on ED Use — Further Evidence from Oregon's Experiment." *New England Journal of Medicine* 375 (16): 1505-7.
- Sommers, B. D., A. A. Gawande, and K. Baicker. 2017. "Health Insurance and Health — What the Recent Evidence Tells Us." *New England Journal of Medicine* 377 (6): 586-93.
- Taubman, S. L., H. L. Allen, B. J. Wright, K. Baicker, and A. N. Finkelstein. 2014. "Medicaid Increases Emergency-Department Use: Evidence from Oregon's Health Insurance Experiment." *Science* 343 (6168): 263-8.
- Wennberg, J., and M. Cooper. 1999. *The Dartmouth Atlas of Health Care*. Chicago, IL: American Hospital Association Press.