A Trillion-Dollar Geography Lesson

The variations research from Dartmouth gives us some key ingredients for raising the trillion dollars needed to pay for comprehensive coverage.

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ABSTRACT: Dartmouth researchers have demonstrated that there is tremendous geographic variation in the efficiency of health care delivery systems, fostered by perverse incentives that penalize integration, reward fragmentation, and encourage the use of technologies in the “gray areas” of medicine. This research suggests that it is possible to deliver higher-quality care at lower cost. We argue that integrated delivery systems, bundled payments, and more sophisticated comparative effectiveness analysis, rather than crude across-the-board cuts in payments, are the keys to stemming cost growth, improving value, and raising the trillion dollars needed to cover the uninsured. [Health Aff (Millwood). 2009;28(5):1448–51; 10.1377/hlthaff.28.5.1448]

As Congress considers reforms to insure the uninsured, it seems that the cost of most proposals to achieve universal coverage would be around $1.6 trillion over the next decade. Where do we find money for this expansion? There are two promising sources of funds. The first, which most economists agree on, is to limit the privileged status of employer-sponsored health insurance. The current tax treatment of employment-based health insurance is both regressive and inefficient, reserving the largest subsidies for the most expensive policies held by people with the highest incomes—at the expense of those without access to insurance at all. But the Congressional Budget Office estimates that capping this tax benefit would likely generate “only” about $500 billion (depending on the particulars) over the next decade. How do we find another trillion dollars?

The answer lies north. No, not in Canada—but in New Hampshire. For more than thirty years, researchers at Dartmouth and their collaborators (occasionally including us) have compiled a vast literature that explores the phenomenon of regional variation in health care utilization and its uncertain connection to patient outcomes. Designing policies that target the source of these inefficiencies is key to finding that extra trillion dollars—unless, of course, you just want to raise taxes.

What Can We Learn From Dartmouth?

There are two central findings from the Dartmouth work (which can be perused online at http://www.dartmouthatlas.org) with implications for cost-saving reforms. First,
there is tremendous geographic variation in the efficiency of local delivery systems that is not explained by patients’ health or preferences or by malpractice pressure and that does not seem to be associated with systematically better patient outcomes. In fact, this kind of variation has been found across many settings (states, regions, cities, hospitals), many different types of patients (aged, newborn), and many different types of care (medical, surgical, disease management). The presence of this variation means that the goal of lowering costs while preserving quality is not unattainable: there are already plenty of providers who are achieving it. The existence of these providers suggests the potential for substantial cost savings without commensurate reductions in health outcomes—which is the key to “bending the curve,” or slowing health care cost growth.

Second, the Dartmouth research yields insights into the source of these inefficiencies—and therefore offers a lot of guidance on how to structure interventions to promote efficiency. Variation in the level and growth of health care spending seems to be driven by the use of technologies with widely varying benefits—technologies that greatly improve health for some patients but are of questionable value for others. Things like bypass surgery and major hospitalizations are not the biggest drivers of cost growth. Rather, costs are rising fastest in the “gray areas” of medicine: services such as office visits, specialist consultations, and diagnostic imaging that don’t lend themselves to clinical trials, and where reasonable physicians are likely to disagree about the right rate of treatment. Computed tomography (CT) scans and magnetic resonance imaging (MRI) are undoubtedly valuable for many patients, but there is an unlimited patient pool on whom they could be performed, and it is very difficult to know what the right rate is. This information problem is exacerbated by a reimbursement system that pays providers to do more without regard to the improvements in health that the care produces.

The particular public policies that should be undertaken to achieve these improvements, however, are not so straightforward. The existence of geographic variation in how medicine is practiced does not imply that we can just cut reimbursements in high-cost places to turn them into low-cost places. Nor does it imply that the solution should have a geographic focus: rather, we should target the key drivers of these variations and eliminate the perverse incentives in the system that penalize integration and reward fragmentation.

**So What Do We Do?**

- **Promote integrated delivery systems.** The Dartmouth research has consistently demonstrated that American health care is not a monolithic system where all providers are inefficient: many are able to deliver high-quality care without being high-cost suppliers. Reform efforts should focus on more widely promoting the kind of care delivered by these organizations. One of the hallmarks of the organizations delivering high-value care today—such as Geisinger, Intermountain Healthcare, and Mayo Clinic, in contrast to providers in McAllen, Texas—is that they are accountable for all of their patients’ care, not just piecemeal components such as this bypass or that hip replacement surgery. Because they retain the savings from better prevention, lower readmission rates, and greater compliance with medications, they have the right incentives to avoid procedures of dubious benefit. This sounds a bit like a program we already have: Medicare Advantage. Although there are clearly big shortcomings in the current Medicare Advantage system, the underlying principle of having a single organization accountable for all enrollees’ care—from prescription drugs to hospitalizations to postoperative care to skilled nursing—is absolutely sound. It does not require administrative micromanagement of the spe-
specific provider payment structure (salary, fee-for-service), the specialist or generalist mix of the workforce, or reimbursement rates for specific procedures: each organization can figure out what works best for its enrollees. But it does require a way to ensure that these organizations compete for patients and their premiums without seeking to avoid the sickest patients. This relies on risk adjustment that is sophisticated enough not to penalize providers who treat sicker patients. It also suggests a strong role for centrally coordinated data collection on patients and their outcomes, both to improve risk adjustment and to facilitate the broader comparative effectiveness research described below.

Bundle payments (but with big bundles!). Although integrated delivery systems would promote coordinated and high-value care, we also need to reform the payments to providers in such systems. One solution is to bundle payments for care: these payments combine reimbursements for inpatient, outpatient, and home health care into a single payment. For bundled payments to have the greatest impact, they would have to be comprehensive over providers and time: bundling payments for, say, the first thirty days of care assures us that there will be a spike in utilization on day thirty-one, and care provided on days 30–365 after an acute care hospital admission is now a major source of cost growth. Second, we should never underestimate the ability of the system to respond to bundled payments by producing more bundles—there is an unlimited reservoir of patients and body parts for providers to image, diagnose, and treat. The only way to curb this incentive is to offer more comprehensive bundled payments for longer time horizons, which in the extreme will result in fixing payments on a per person (as opposed to a per episode) basis. In other words, targeting price or quantities is unlikely to be as effective in stemming cost growth as strategies that focus on their product and expenditures and leave providers with the freedom to allocate resources within those bundles.

Invest in comparative effectiveness. The Dartmouth research program demonstrates that variation in use and cost growth originates in the use of technologies whose benefits are hard to measure: it is hard to measure and quantify the benefits of greater imaging services in reducing patients’ anxiety or of a new chemotherapy drug in reducing side effects. No provider group, no matter how well-intentioned, can undertake the massive trials necessary to gauge these benefits, making them a prime candidate for public investment.

Although the case for greater government spending should always be viewed with caution, the argument here is strong: research in determining what works and what doesn’t for these technologies is underprovided relative to the social optimal. (This is the old economics argument about externalities: any given provider doesn’t care about the benefits that other providers reap from new research, so each underinvests relative to the social optimum.) Armed with the results of these trials and the rich new data on patient outcomes described above, different providers will make different decisions about which therapies to cover and how much to pay for them, but as long as each has the right incentives not to overuse a therapy, the resulting variation will be driven by patients’ preferences (which is a good thing).

Don’t indiscriminately cut payments. When one is confronted with rising costs that are unaccompanied by improvements in patient outcomes, it is natural to think about cutting payments. Unfortunately, the answer is not that simple: if reimbursements for CT scans are reduced, providers can respond by performing more CT scans. That wouldn’t do much to reduce cost growth or improve efficient. More subtly, a new generation of research...
from Dartmouth demonstrates that cutting reimbursement rates for high-cost regions won’t make them low-cost regions. Rather, regions and providers have specialized in the use of different production technologies to deliver care. Such specialization means that they’re good at what they do; surgically intensive places are good at surgery, even though they may overuse surgery overall or fail to deliver low-cost therapies when indicated (perhaps because the specialists who are good at intensive medicine are not good at offering less-intensive care). In such a world, cutting spending in Miami will not make it Minneapolis: Miami is not just Minneapolis with 30 percent waste added on. Cutting reimbursements alone will not automatically make high-spending areas adopt the systems, culture, and experience of low-spending areas. Rather, we need to change the broader incentives under which medicine is practiced, including removing the incentives to practice without regard to outcomes.

S o w h a t c a n w e s a v e by embracing the lessons of the Dartmouth work? As with all forecasts of complicated policy changes, the precise answer is hard to quantify—just ask the Congressional Budget Office. But the scope for savings is tremendous; here, too, the variations literature offers insights. The growth of Medicare Parts A and B spending since 2000 in San Francisco, known for its stellar care, has been about 2 percent annually. If we reduced the national growth of Medicare spending to that rate instead of the 3.7 percent it has grown annually, we would save $850 billion over the next ten years. This is without any change in spending covered by Medicaid or private insurance—where incentives could be generated for providers that let them reap some of the benefits of improved efficiency. Of course, some of these savings might not be “scorable” in the ten-year budget window in the absence of a fixed, pre-specified growth rate—the Congressional Budget Office is justifiably cautious in putting dollar values on uncertain effects—but they give us a sense of the vast savings that could be reaped from a systemwide rationalization of the way we organize and pay for health care.

No, this isn’t a simple recipe for fixing our health care system, but the Dartmouth research gives us key ingredients. This isn’t to say that these are the only ingredients, for there are inefficiencies within every health care market that must be addressed. Adding tax reform, insurance market reform, and medical malpractice reform to the mix would make for a potent combination.