US Health Care Reform by Region

This paper was presented by Thomas Nolan, PhD, Senior Fellow, Institute for Healthcare Improvement (IHI), to the IHI Board of Directors on February 17, 2010.

The trajectory of national health insurance reform legislation in the United States offers a civics lesson about how Congress works when trying to solve that large a problem at that large a scale. Underlying the contention and variation in approach seem to be at least three big assumptions: 1) that health care costs will grow at a rate that exceeds the growth in other fundamentals of the economy such as Gross Domestic Product and total wages and benefits; 2) that providing equitable access to health care for all residents of the United States will require an infusion of more money into the health care system; and 3) that national solutions to national health care problems must begin at the national level.

Changes in federal health care policy can help to move America toward what we want: better health and sustainable, universal, high-quality health care. But how would our national approach differ if we started with three different assumptions: 1) that regional health care systems can be designed and operated such that health care costs rise at a sustainable 3% per year (or less) while maintaining or improving quality; 2) that there is enough capacity in the current health care system to provide equitable access to high-

quality health care to all US residents with no new money; and 3) that national solutions to national health care problems can begin at the regional level if accompanied by a scale-up plan to reach the entire US?

President Obama in mid-2009 changed his labeling of the efforts on health care from "health care reform" to "health insurance reform" to reflect the reality that the work of Congress was addressing only one of two components that are necessary for comprehensive health care reform: insurance reform and delivery system reform. If would-be reformers were to start with the above alternative set of assumptions, they would be required to make delivery system reform the foundation of their efforts, even as the context of insurance and national policy evolved around them.

The idea of focusing on delivery system reform immediately raises the question: "What system are we talking about?" How many "health care delivery systems" are there in American health care? And who funds them?

These questions may seem, at first, intractable. The US has thousands of hospitals, tens of thousands of physician practices, 3,500 counties, and at least 35,000 cities and towns. To enumerate "health care systems" seems a fool's errand. But, maybe not.

How Many Health Care Delivery Systems Does the US Have?

Over the past three decades, Professor John Wennberg and his colleagues at Dartmouth Medical School have guided the Dartmouth Atlas Project,[1] which is in part based on a statistical model of the flow of patients and care in the US. It empirically defines 306 relatively separate, geographically defined Hospital Referral Regions (HRRs), where the resident population receives most of its care. The mapping of patients to delivery organizations within an HRR is not perfect; some patients leave their HRR for some care. But, according to Wennberg and colleagues, 80% of the US population lives in HRRs in which more than 85% of care is delivered by providers within that HRR.[2]

Although the technical details of how the HRRs are defined go beyond the scope of this paper, the logic underpinning the construction of the HRRs is simple. People go to doctors that are close to where they live. Doctors admit patients to hospitals that are close to their medical offices. Community hospitals that do not perform cardiac or neurosurgery refer patients to a tertiary care hospital that is close to them. The Dartmouth team looked at these patterns of referrals by zip code and defined the total customer base of the local health system: the HRR.

Take, for example, the HRR that includes the zip code 11542. In 1955 my mother and father moved with their three children from Brooklyn to Glen Cove, Long Island, and for the next 54 years at least one member of the family lived in a house in zip code 11542. For all those years, the family received health care services in what the Dartmouth Atlas Project now calls the Eastern Long Island HRR. Those services included treatment for fractures, sprains, muscle strains, and severe facial lacerations suffered in a workplace accident. They also included management of heart failure and hypertension, immunizations and physical checkups, kidney dialysis, open heart surgery, and hospice care.

Each of these services was provided by doctors, nurses, and other clinicians in facilities within the Eastern Long Island HRR, one of the 306 American HRRs. Collectively these providers constitute, arguably, the “health care system” for the residents of Glen Cove, Long Island. The case is similar for most Americans; the HRR is a pretty good unit of analysis. That is, from the viewpoint of most of us, the US has 306 relatively self-confined, relatively independent health care systems. Residents in the Eastern Long Island HRR will have high-quality, sustainable care that is accessible to all only if the health care providers in that HRR redesign their system to make it so. Changes in the Boston, Seattle, or Cedar Rapids HRRs will not affect the residents of eastern Long Island.

Trying to change health care delivery, as opposed to health care insurance, directly from the national level runs headlong into a tangle of political and sociological obstacles. If HRRs can provide a rational framework for defining health care systems, then perhaps addressing access, cost, quality, and redesign through an approach rooted in the 306 local health care systems and their customers can make the redesign process less complex and less contentious. A national solution to health care's insurance problems may need to begin at the national level, but perhaps a national solution to our health care delivery problems does not.

Who Funds America's 306 Health Care Systems?

What about the money? The sustainable redesign of health care systems, whether at the national, state, HRR, or local level, requires knowledge of and control over the flow of health care funds. So, who funds care at the level of the HRR?

Funding for the Eastern Long Island HRR comes from the wages and taxes on those wages of the residents residing in the zip codes that make up the Eastern Long Island HRR (including zip code 11542). Unfortunately the multiplicity of pathways for paying the invoices of health care providers, including, for example, commercial insurance, employer-sponsored insurance, Medicare, Medicaid, and out-of-pocket payments by patients and families, obscures the fact that money to pay the bills comes ultimately

from a single common pool that is continually replenished by the paying residents of the HRR. Some residents of the Eastern Long Island HRR think that the government funds their health care; others think that their employer funds it; and still others believe that, somehow, insurance companies fund it. They are all mistaken. The root source for the funds for health care is their own wages and taxes on their wages. Of course, there is some "leakage" of both care and costs outside the HRR. Differences in Medicare or commercial payment rates from region to region in the US, for example, may redistribute some funds from one HRR to another, but, even with that boundary-crossing, in the main, the money spent for health care in an HRR comes from that HRR; it is both "their" care and "their" money.

In a course that I recently taught, this realization suddenly struck the Chief Medical Officer of an academic medical center in Texas, who described and contrasted two executive meetings that he regularly attends. One meeting is devoted to developing his hospital's revenue growth strategy, which, he confessed, includes expanding high technology services whether the region as a whole — his HRR — needs them or not. The participants at that meeting formulate business models to generate this revenue growth, figuring out how to pull more money from the HRR's common pool. The other meeting is to decide what salary increase should be given to the employees of the hospital. The attendees at that second meeting begin with an estimate of total increase in salary and benefits that the hospital can afford in the upcoming year, typically 3% or

so. They then predict what their health care premium increase will be, lately 6% to 8%, and subtract that from the pool of money to be used for salary increases. It occurred to this CMO, and troubled him, that his hospital was funding its revenue growth in part with the forgone salary increases of its own employees.

A socially responsible goal for the residents of the Eastern Long Island HRR and their health care service providers is to design a health care system that delivers high-quality care for all residents in the HRR with no new money, at a rate of inflation of less than 3% per year.

Can HRRs Redesign Care?

In the current political fray, the goal of a sustainable high-value health care system that covers everyone in a region with a cost inflation of less than 3% may sound preposterous, especially if the three current assumptions — inevitable cost increases, insufficient funds for universal coverage, and the requirement that system redesign be national at the start — remain unchallenged.

Regardless of the progress of federal and state initiatives, I believe that the fundamental building block of health care delivery system reform to achieve this socially responsible goal is at the HRR level. I have reached this conclusion for several reasons: the

components that are needed to construct a comprehensive health delivery system usually exist within an HRR; common vision and values are more likely to emerge (for example, the importance placed on equitable access to high-quality, affordable care for all residents); solutions depend on context, and knowledge of context is more accurate locally (for example, striking the appropriate balance between cooperation and competition among health care providers); and platforms for dialogue and negotiation that include all stakeholders in the community exist or can be created.

The goal of regional coverage with a cost inflation of less than 3% is technically within the capability of the health care providers in an HRR, if other stakeholders in the HRR help them summon the political will to attempt it. Encouraging experiments are underway all over the country to invent mechanisms to integrate and govern local design efforts. The leaders of these efforts are coalitions of health care providers, health plans, and local businesses. Several efforts are underway in relatively isolated small markets such as Grand Junction, Colorado.[3] Some activity is taking place in segments of larger markets. In northwest metropolitan Minneapolis, HealthPartners and Allina-Mercy have formed a formal alliance to provide care to the approximately 200,000 residents in that region while simultaneously pursuing improved health care quality, better health for the population, and "bending the cost trend," a three-part ambition that the Institute for Healthcare Improvement has called the Triple Aim.[4]

Today the most promising arena for health care delivery reform may be at the HRR level, initiated and led by stakeholders, including the health care providers, in each local region. Our country needs at least one HRR that both commits to a socially responsible goal of a high-quality sustainable health care system for all its residents and accepts the responsibility for local system redesign to achieve exactly that. Such a local coalition will be in a strong position to bargain for policy changes, changes to insurance practices, or waivers from inhibiting regulations. From their efforts we all will learn which organizations and business models are helpful and which are not. They will also provide a model for others to follow without waiting for a common solution to emerge, fully baked, for the nation as a whole. Even while we struggle as a nation for a badly needed solution all together, the potential for local innovation and local solution is cause for optimism.

[1] Center for Evaluative Clinical Studies. Appendix on the geography of health care in the United States. In: The Center for the Evaluative Clinical Sciences, Dartmouth Medical School. *The Dartmouth Atlas of Health Care 1999*. Chicago, IL: Health Forum, Inc; 1999:289-307.
[2] Skinner J, Fisher ES, Wennberg JE. The Efficiency of Medicare. In: Wise DA. *Analyses in the Economics of Aging*. Chicago, IL: University of Chicago Press; 2005:132.
[3] Nichols LM, Weinberg M, Barnes J. *Grand Junction, Colorado: A Health Community That Works*. New America Foundation; 2009. Available at: http://newamerica.net/files/GrandJunctionCOHealthCommunityWorks.pdf.
[4] Berwick DM, Nolan TW, Whittington J. The Triple Aim: care, health and cost. *Health Affairs.* 2008;27(3):759-769.