Health Care Transformation and the Learning Health System: Where Are We and What's Next?

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KEY POINTS . . .

There is a rapidly changing context for health care payment and delivery.

We need to: increase the value of health care delivered; reduce waste; promote high value innovation; and make the system easier for everyone.

We must simultaneously achieve the "Triple Aim" of improving individual experience, improving population health, and controlling the inflation of per capita costs.

I would like to offer an "outside/in" view of the Learning Health System. That means examining what is going on in the areas of payment and delivery reform and asking 'what do customers–the patients–want?'

The Learning Health System is an important vision, and I am a proponent of that vision. However, I think its implementation has been spotty. I find that most Learning Health Systems are focused on transforming operations, not on learning. While the current imperatives have been to drive up quality and efficiency and meet Accountable Care Organizations' (ACOs) goals in terms of clinical alignment, let me say that the 'playbook' is known but, at least for now, the execution has been lagging.

One issue may be with the Learning Health System concept itself. It may be too organizationally focused versus a focus on network models of learning.

Eliminating Waste

According to a report from the Institute of Medicine (IOM) [1], our health care system is suboptimal in its performance and, as a result, wastes one-third of all U.S. health care spending–that means that one-third of $3 trillion–is money wasted. The IOM cites six overlapping domains in which the spending is not only wasteful, but does not benefit the patient. Those six domains are: unnecessary services; inefficiently delivered services; prices that are too high; excessive administrative costs; fraud; and missed prevention opportunities. The costs associated with each of these domains vary (see below).

> Private sector employers understand waste and variation, and they have effective strategies to control costs through wellness initiatives, high deductibles, cost sharing, care management, and delivery reform. What is lacking is the Learning Health System.

The IOM study included an analysis of episodes of care that showed the extent of variation as well as the opportunities for improvement. We carried out a study on a procedure that should not vary much at the market level in terms of cost and quality of care–diagnostic cardiac catheterization. Yet, costs varied from $4000 to $15,000 for the

Figure 1: 30% of U.S. Health Spending Is Waste (doesn't benefit the patient) and Is Driven by Six Overlapping Domains *(Source: Institute of Medicine: "The health care Imperative: Lowering Costs and Improving Outcomes - Workshop Series Summary")*

same procedure and the scores for quality care ranged from 82% to 100%. And, it is worth noting, the data included only physicians designated as those providing higher-quality care.

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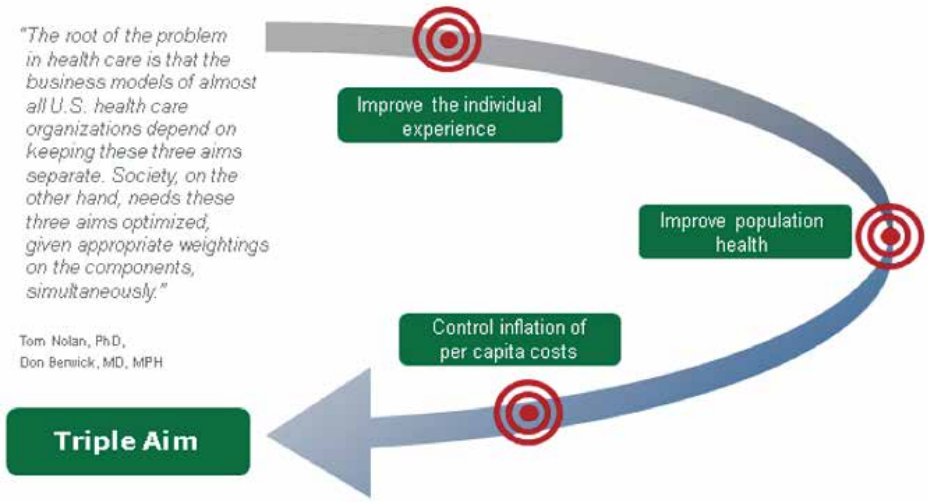
Varying levels of waste and variation are making purchasers, both public and private, demand action. I would suggest that one way to make things better is to achieve the "Triple Aim."

Figure 2: Achieving the "Triple Aim" *"The Triple Aim: Care, Health, and Cost," Health Affairs, 27, no.3 (2008): 759-769. Donald M. Berwick, Thomas W. Nolan and John Whittington (Source: quote).*



Achieving the 'Triple Aim'

The 'Triple Aim' has three components: improving individual experience, improving population health, and controlling the inflation of per capita costs. We have to accomplish all of these, and do so **simultaneously**. That is the challenge.

We need to have better alignment on what ACOs focus on, what they are doing, and what they should be doing. At an event at the Brookings Institution last year, the state of accountable care was addressed in discussions that centered on the "ACO Learning Network," a member-driven network of providers, payers, associations, consulting firms, pharmaceutical and device manufacturers, and other related industries.

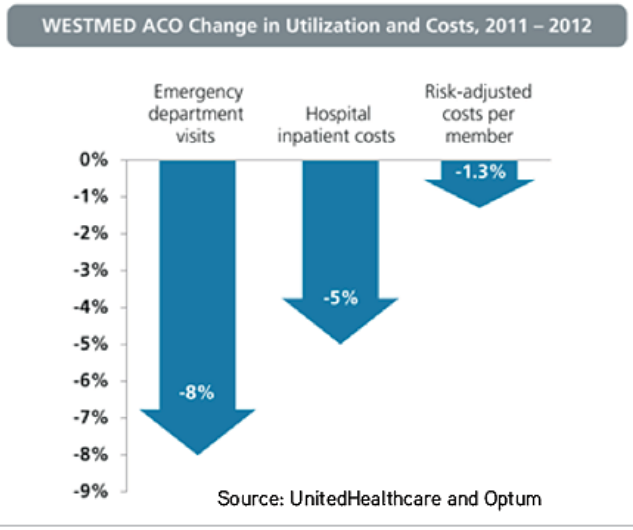
The ACO Learning Network provides participating organizations with the tools and knowledge necessary to successfully implement responsible care and delivers national guidance on practical policy steps for advancing health care reform. The network also fosters the critical exchange of implementation strategies and thought leadership to move member organizations forward in their responsible care efforts, and helps ACOs overcome the implementation and policy challenges.

We need better, deeper collaborations, and an example is WESTMED's commercial ACO that works in partnership with UnitedHealthcare and Optum. Established in mid-2012, WESTMED's ACO, part of a large multispecialty group medical practice in Westchester County, has seen significant improvements in patients taking their prescription medications properly, and for diabetics, enabled more routine screening and better control of blood sugar levels. The ACO also achieved reductions in hospitalization utilization and costs. WESTMED Medical Group announced recently that its ACO program improved on nine of 10 health quality metrics, increased patient satisfaction and also reduced health care costs.

Future Challenges

We know quite a bit. As I said before, the playbook is known, but we need to use what is known. Some of the new challenges raise questions that need answers. For example, how can we integrate medical care with behavioral care? How can we integrate community and social services with family support services? All of these efforts need an infrastructure and a platform of tools and sophisticated analytics so they can learn operationally.

Figure 3. WESTMED's Commercial ACO, in Partnership with UnitedHealthcare and Optum, Achieved Reductions in Hospital Utilization and Costs.



To further spread the effective capabilities for promoting population health management and the Triple Aim, we need the ability to perform sophisticated analysis of both clinical and administrative data for risk stratification, predictive modeling, and input into care management programs. We also need scalable, efficient effective care management and consumer engagement programs to further the optimization of specialty referrals, care transitions, readmission reduction and site of service.

Finally, the Learning Health System needs to be able to deal with what is coming down the pike – genomics, proteomics, big data, the microbiome, and the "digitalized self." I don't know of any Learning Health System that is "future proofed" with plans or roadmaps to deal with these advancements. As with all concepts, the Learning Health System may have to evolve and adapt.

References

[1] *The Healthcare Imperative: Lowering Costs and Improving Outcomes: Workshop Series Summary, Institute of Medicine* (US) Roundtable on Evidence-Based Medicine; Yong PL, Saunders RS, Olsen LA, editors. Washington (DC): National Academies Press (US); 2010. ■

Additional information:

The preceding article is based on an address given at the First Plenary Session, "Taking Stock of the Learning Health Care System: What Have We Achieved and Why Does it Matter," at the ISPOR 20th Annual International Meeting 16-20 May, 2015, Philadelphia, PA, USA.

To view Dr. Sandy's presentation from this meeting, go to: http://www.ispor.org/Event/ReleasedPresentations/2015Philadelphia

IOM Report: The Health Care Imperative: http://www.ncbi.nlm.nih.gov/pubmed/21595114

Brookings Institution: http://www.brookings.edu/~/media/events/2014/10/20-aco/aco-public-event-full-deck-final.pdf

WEBCONNECTIONS

What Does the Need for Broader Access to CMS Data Mean for Patients?

The Centers for Medicare and Medicaid Services (CMS) recently made an announcement allowing innovators and entrepreneurs to analyze and utilize datasets maintained by the federal agency. This includes using the data for a research study or to create analyses related to their business needs, such as creating care management or predictive modeling tools. Go to their website at: **http://www.resdac.org/cms-data/request/innovator-research**.

Do you know of any websites that you would like to share with the ISPOR community? If so, contact *Value & Outcomes Spotlight* at: vos@ispor.org