A Brief Commentary on Disruptive Innovation in Healthcare
U.S. Senate Committee on Commerce, Science, and Transportation

The Problems:

We face many problems in healthcare today. A few examples:

- We must improve our systems for patient safety and quality improvement.
- We face severe man (and women) power shortages, particularly in nursing.
- Major healthcare institutions across the country incur losses in the multi-million dollar range.
- Indigent care and 40 million uninsured remain unresolved puzzles.
- Most clinicians find their practice environment has deteriorated significantly.
- Health care costs appear to be rising at a double-digit rate while our economy slows, placing an increasing competitive burden on our major employers and government.

The Present Solutions:

Despite these well-recognized problems, intense effort and investment, present policy and strategy seem limited to five, well-worn, "no-win" solutions.

- Control costs by decreasing available healthcare.
- Wring more cost out of the system.
- Find a technological "silver bullet" solution
- Increase organizational market power to leverage higher reimbursements
- Increase governmental and private subsidies.

It seems as if we have heard this story before.

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The Issue:
Large numbers of dedicated, intelligent people have spent a great deal of time, effort and money on solving our healthcare problems and yet they are unresolved and the solutions proposed appear inadequate. Are there other examples when the Best Leadership with the Most Resources doing all the Right Things failed? Is there a way to take a different view, find a new common language, discover another way to frame our problems and there solutions?

A "Disruptive View" of the Problem
Being surrounded by difficult problems and inadequate, conventional wisdom solutions is what makes the notion of Disruptive Innovation such a timely idea. Coined by Harvard Business School professor Clay Christensen, it is at the heart of his book "The Innovator's Dilemma." The core of his argument is that success handcuffs organizations. Paradoxically, the very act of successfully serving their best customers well makes them vulnerable. While they continue to improve and reap maximum benefits out of the top end of the market (sustaining innovation), they miss the opportunity to create new products and services based on ideas and technologies that are promising, but initially do not have great functionality, and most importantly are based in simpler, less costly business models. The established organizations scoff: why worry about telephones when telegrams are doing quite nicely? Why give up profitable mainframes and minicomputers for those dinky new personal computers? Why bother with discount merchandising when our big downtown department store prospers? Why build an ambulatory surgery center when we have all these empty, full service operating rooms? Why change the way I practice…..it's worked great for years?

The more successful you are the worse it gets. Companies with the best technologies, the most effective products, the best services and particularly the most prosperous businesses always work on improving what they do best, sustaining innovation – they don't (in fact they usually cannot) work on the technologically simple, but poorly functioning ideas that eventually grow to dominate the market. That's the "innovator's dilemma" doing what you do best, will cause you to overshoot the needs of many of your customers and miss great but simpler opportunities that can serve those you have left behind. And those simpler opportunities can grow to meet mainstream needs.

What is the Opportunity of Disruptive Innovation?
History suggests the opportunity is great. Whenever an industry makes a dramatic change, whenever somebody rewrites the script, it is almost always through disruptive innovation. And the disruption is never led by the established leadership.

Success has been great; many of our economies most powerful and successful companies had their origins in disruptive innovation, AT&T, Microsoft, Cisco, Intel, Toyota, Sony, Merrill Lynch, Charles Schwab, Sears, Barnes and Noble, and many others had their origin in simple, poorly functional, less costly ideas that improved underneath the leaders and eventually supplanted them. Finally, it is the customer who benefits the most as disruptive innovation has always brought more – better quality products and services

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at lower and lower cost.

So disruptive Innovation is a strategy tool. A new way to see success and failure, a new common language for success and a different lens through which to view our ideas and the environment in which our ideas live, to better tailor them for growth and expansion.

Disruptive Innovation in Healthcare

But what about healthcare? When I help a healthcare audience discover disruptive innovation, I come to a slide that lists many of the great companies who started as disrupters and I can see the audience mentally saying "no, not us." Where is the healthcare on the list?

In fact, many of our great institutions began with simple ideas in a corner of the market the leaders did not care about. For example, The Mayo Clinic started when two frontier Minnesota surgeons had the still disruptive idea that there is "no place for individualism in healthcare." Baylor University Hospital's Depression Era innovation of guaranteeing Dallas school teachers 21 days of hospital care for $6 per year became Blue Cross. The inability to obtain healthcare for WWII shipyard workers and the technologically simple innovations of capitation and salaried physicians led to Kaiser Permanente, the largest healthcare organization in America. Surgery and anesthesia similarly began as disruptive innovations, derided by the established institutions, just as more recent changes such as out-patient surgery centers, angioplasty and non-MD clinicians.

What does a Disruptive Innovation look like?

How can you identify an innovation as disruptive? Look for the five cardinal characteristics of Disruptive Innovation listed below.

1. Technological simplicity, initially "worse" functionality.
2. Fundamentally simpler, less costly business model starting in market tiers that are overlooked or financially unattractive to the leaders.
3. Takes root in markets where institutional and regulatory barriers can be minimized.
4. Customers do not have to change their ways as incremental improvement moves the disruption to more sophisticated users
5. The innovation eventually allows many more accessible, appropriately skilled people to do the work formerly done by centralized, expensive specialists. No tradeoffs; more for less.

What are the "disruptive" issues today?

It is not the pace of present innovation that is important, but rather the opportunities presented by innovations that are <u>not occurring</u>.

Disruptive innovation has been the source for great change in many industries and has worked in healthcare in the past. Why not now? What is happening? It's another part of the lesson; put on your disruptive lens and take another view.

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First, present leadership never leads disruptive change because the business models that led to their success also trap them; *their capabilities are their innovative disabilities*. They continue to improve functionality but that only overshoots the needs of more and more patients and aggravates the problem. We will use hospitals as an example but the same is true for physicians and other institutions. What are your hospitals investing in now? All the places they can make a profit, cardiac-pulmonary, orthopedics, more procedures, sicker and sicker patients, but where is the bulk of healthcare – it is in the other 95%. Because hospitals are saddled with the high cost business models that led to their success in the 60's and 70's they exit unprofitable tiers of the market to move upstream. We overshoot the needs of most of our patients and everyone starts to crowd into the upper end of the market – a space where there is little room and no air to breath.

Second, the developers of new technology must meet the needs of their best customers. This means more investment poured into sustaining innovation improving the functionality of present products and services based in traditional business models. Internet connectivity may be a new enabling technology but established institutions treat it as a technical problem to be adapted to present needs. Disruptive innovation suggests that if e-health initiatives transform healthcare, they will come from "outside and under," not the present established organizations and institutions.

Third, as the established institutions overshoot the needs of more patients, *the basis of competition changes* from increasing functionality to new parameters for success – reliability, access, customization, convenience and low cost. Poorly equipped to compete on this basis, the leaders turn to market power, subsidy and regulation for support. When present business models fail, particularly when they involve entrenched and highly valued institutions, the pressure for increasing subsidies and protective regulation becomes almost overwhelming.

Finally, regulation pours concrete around the status quo. Attempts to use regulation to stave off disruptive attacks are quite common. U.S. automakers, for example, relied on import quotas as long as they could to keep disruptive Toyota and Honda at bay. The links between healthcare institutions, federal and state regulators, and insurance companies are strong and wielded to preserve the status quo. In addition, because healthcare is so complex and dynamic, well-meaning regulatory institutions such as the JCOHA, HCFA or the FDA, can kill disruptions simply by sapping the innovative energy out of an organization as it tries to negotiate regulatory barriers or defuse bureaucratic land-mines.

These are not simple issues; regulators are not bogey men and everyone else victims, but, a remember #3 in "What's a Disruptive Innovation Look Like" above. **Disruptive innovations take root (and grow) in markets where organizational and regulatory barriers are minimized.**

The Need for Leadership

Once an industry is in crisis, individual leaders become paralyzed. They're incapable of embracing disruptive approaches because the profitability of the institutions they lead has been so eroded. Typically,

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not only do they ignore the potential disruptions, they work to actively discredit and oppose them. Thus far, this pattern has held true in the healthcare industry as well.

Successful disruptive transformation of this system will unfold more quickly, and far less painfully for everyone, if leaders at regional and national levels work together – not to regulate the existing system but to coordinate the removal of barriers that have prevented disruptions from happening.

Government and health care industry leaders need to step forward – to help insurers, regulators, managed care organizations, hospitals, and health professionals work together to facilitate disruption instead of uniting to prevent it. Then patients can realize the opportunities that come with disruption – because it is the fundamental mechanism through which we will build a higher quality, more convenient, lower cost healthcare system. If the leaders with such a vision do indeed step forward, we will all have access to more healthcare, not less. No tradeoffs.

Wise men have said:
- "Insanity is repeating the same behaviors and expecting different results" – *Anonymous*
- "You cannot solve the problems of the present with the solutions that produced them." – *Einstein*

Anonymous and Einstein, two classic disruptive thinkers.

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