Good for what ails us: The disruptive rise of value-based care

Executive summary

Thanks to strong and increasing demand for better value in health care, there is potential for a disruptive innovator to leverage technology and provide a low-cost alternative to the traditional ways physicians provide patient care.

This report reviews what disruptive innovation is and illustrates the concept with examples outside of health care. The primary lesson learned is that an innovator serving an economically unattractive market may be rewarded by creating a new operating model that provides more value at lower cost. Powered by an enabling technology, this new model eventually creates a compelling value proposition that meets mainstream customers’ needs so much better that the innovator often unseats the market leader.
Changing the rules of today’s health care system

The Affordable Care Act (ACA) has fanned the flames lapping at health care’s already burning platform: Purchasers want to spend less and get better results. Challenged by increasing calls to improve the affordability, value, access, and quality of health care, the industry has responded in ways that validate cartoonist Randy Glasbergen’s depiction of the Albert Einstein maxim, “We cannot solve our problems with the same thinking we used when we created them.”

But what if health care stakeholders could change the rules and break the constraints of today’s system? What could happen? Where could it start? How could people know if it was truly happening? And how could the impact of the change be measured?

It could take decades to feel the full impact of the ACA, but portents of what lies ahead can be found in how other industries have evolved when the status quo was no longer sustainable. It is likely that health care’s new model will be part accountable care, part patient-centric care, and part mission-critical advanced technology, combined in a way that should be a good deal for everyone. Well…almost everyone.

Much of health care’s future can be divined using the lens of “disruptive innovation.” This term is often invoked colloquially to describe transformational change. It was coined, however, to capture the process by which new solutions to old problems migrate from the periphery of a market and ultimately supplant incumbents’ offerings – and, oftentimes, the incumbents themselves.

Part of what makes disruption theory so powerful – and frequently counterintuitive – is that solutions following a disruptive path to dominance do not start out with an innovation. After all, to be truly innovative, a solution must break constraints, delivering greater performance at constant or lower cost, or constant performance at lower cost. Disruptive innovations eventually break relevant cost and performance constraints…but not at first. Disruptive innovators follow a very specific path, initially focusing on an insignificant and relatively economically unattractive market segment. They build a solution that is demonstrably inferior to mainstream offerings, but one that is better suited to that segment’s most pressing problem. Very often, large and well-heeled incumbents could offer similar solutions but choose not to for seemingly rational economic reasons: Why build a low-margin, low-volume product or service for down-market customers?

From this starting point, however, disruptors improve the performance of their solution in ways that appeal to even mainstream segments. Such improvements often ride the wave of technological advancement, which means that their initial “less for less” solution becomes “more for less.” In other words, the solution becomes a bona fide innovation.

As more customers switch to disruptors’ offerings, market leaders begin to respond. Thanks to their head start, however, the disruptors have an insuperable advantage, even when incumbents are much larger and better-resourced. Ultimately, the new disruptive entrants assume marketplace leadership – usually to the surprise of no one save the erstwhile incumbents.

For example, when Netflix launched “movies by mail,” the company was not targeting the last-minute, Friday-night, movie rental market (one in which customers typically incurred a couple of days’ late fees) that was the core of Blockbuster’s model. Instead, it was targeting the previously unaddressed “job” of helping customers work through the long list of movies they had always wanted to see, but never got around to.
Enabling technologies in the form of video streaming and near-ubiquitous, high-speed access allowed Netflix to move from wait-listed, obscure Woody Allen films by mail to on-demand Jerry Bruckheimer movies via download, all for $7.99/month. “More for less,” indeed! By the time Blockbuster figured out the true nature of the threat, it was too late: Netflix had mastered the process of consumer access to the movies they wanted when they wanted them, at a lower price…and no late fees!

Many incumbents in the health care industry could be in danger of becoming “Netflixed.” At almost 19 percent of GDP, health care is the largest industry in the United States. Yet, in stakeholders’ eyes of those surveyed, the system under performs (Figure 1). To address persistent quality and cost concerns, a wide range of new clinical and financing models have been emerging from all corners. Instead, today’s health care innovators are targeting marginal industry segments using novel solutions built around a host of new enabling technologies, such as electronic medical records (EMRs), mobile health platforms (mHealth), social media, health information exchanges (HIEs), more powerful processing and low-cost memory for massive health databases, and greater standardization of health care data transactions. Add increasingly tech-savvy patients and clinicians and conditions are ripe for disruption.

For example, many new clinical and financial models share a common objective of identifying ways to do the right thing for patients, unconstrained by the existing fee-for-service (FFS) system. This can prove liberating for physicians, who want to provide the best possible outcomes for their patients in a cost-efficient manner.

Unfortunately, the FFS system rules defined by Medicare are considered by many to be arcane and do not reward providing the right service, at the right time, in the right setting by the most cost-effective provider. Consequently, the U.S. spends more than other developed nations on health care, not necessarily because it consumes more health care services, but because its unit cost per service is so much higher. If the new value-based care models are able to reduce overall costs by improving clinical productivity, changing the site of care, aligning labor expenses with the intensity of services, and increasing self-care options, the unit cost issue likely can be reduced.

Figure 1. Overall performance of the U.S. health care system

Using a typical report card scale with grades of A, B, C, D, and F, with A being excellent and F being failing, how would you grade the overall performance of the U.S. health care system?

Chart displays weighted percentages for employers and physicians
Data are rounded
*3 percent of consumers responded “don’t know”
This type of wholesale change has been the “holy grail” of many failed attempts at reinventing the U.S. health care industry, most of which have tried to change too much, too fast. In contrast, a disruptor, using a new clinical model of serving those beyond the current system’s reach and unconstrained by FFS rules, is well-positioned to pioneer a radically different combination of cost and performance. Powered by enabling technologies, this new solution could, in short order, better serve patients at a lower cost and produce better outcomes and access.

To see how this concept works in other industries, consider Southwest Airlines, one of the most recognized brands in air travel. Southwest began operations by connecting three cities in Texas – Dallas, Houston, and San Antonio – in 1971. Pioneering a number of airline operation process innovations, Southwest created a cost structure that gave it a decisive market advantage, allowing it to be highly profitable while offering prices that competitors found difficult to match.

A defining element of Southwest’s operations was a fleet consisting entirely of 737 series Boeing airplanes. This conferred material benefits: ease of crew rotation, maintenance, cleaning the planes between flights, and so on. The point-to-point route structure, one class of seating, no meals on the planes, etc., were applicable to any route. However, one critical strategic choice limited the company’s growth prospects: The 737s’ cost to fly was almost two cents per passenger-mile more than 747s and other airframes flown by incumbent, national-scale airlines. On short-haul flights, Southwest’s ground efficiency more than made up that deficit, but the company simply could not compete on routes of more than 500 miles. Consequently, incumbent air carriers were free to ignore the upstart: It simply made no sense to reconfigure their entire operating model to defend such a small and relatively insignificant market in Texas that was essentially all of Southwest’s business.

The 1990s saw the introduction of new generations of 737s that had lower operating costs and greater ranges and efficiencies. This allowed Southwest to add longer routes to its network without compromising the defining features of its business model: a single type of airframe, a point-to-point route structure, and operating out of secondary airports. The company grew dramatically yet did not have to give up its singular competitive position, thereby preserving its superior profitability. The result – a ten-year run of share price appreciation that is all but unequalled in the history of U.S. public corporations – is testament to the value-creating potential of successful disruption.

Few industry leaders have been able to disrupt themselves. Why should or would they? Why risk changing from a model that has worked so far to one that may result in less revenue per unit of service? Why incur new risks of failure? Just as incumbent airlines proved unable to mount effective responses to Southwest’s low-cost carrier model, market leaders in health care such as integrated health systems have had plenty of opportunities to buck the status quo but have shied away from transformational change because of the perceived risk.
Adopting a “jobs to be done” approach

A good way to describe this new model is a “jobs to be done” approach, which is based on Clay Christenson and Michael Raynor methodology of describing specific needs and what can be accomplished (Figure 2).

Figure 2. “Jobs to be done” analysis

### Patients

**Empower**
Help me make positive health care decisions

**Navigate**
Help me understand my health care benefits and options

**Engage**
Motivate me to stay on track

**Arrange**
Help me engage others in my health

**Inform**
Help me understand my health

### Providers

**Diagnose**
Give me a full view of my patients' health and help me interpret their risks

**Prepare**
Help me prioritize my tasks and organize care for my patients

**Intervene**
Help me select the most effective treatment plan for my patient

**Coordinate**
Help me refer my patients to other high value providers or services

**Monitor**
Help me monitor my patients and their compliance
Once this new “proto-remote” diagnosis and triage model is in place, the panoply of technologies arising to enable it will likely be viewed as inspiring or overwhelming, depending on a person’s perspective. These technologies will likely play a combined role of connective tissue, sensor, planner, traffic cop, compliance officer, neural extender, communicator, decoder, pattern synthesizer, compliance officer, quality check, and alarm system. They will likely enable caregivers to make better and faster decisions by providing access to more information that is consistent with their standard practice of clinical pathways. As these technologies mature and are adopted, the resulting lower-cost, remote solutions are likely to prove superior to an in-office visit – moving beyond simply providing accurate historical data to predict outcomes.

What began as a way to diagnose and treat patients who otherwise would not have come into a physician’s office ultimately might displace the vast majority of office visits: Physicians will be able to take stock of a patient’s progress, decide what action is needed, verify against their checklist, order the necessary care or support, leverage their care team, and send a note to the patient. And they could do this for hundreds of patients per week with accuracy and thoughtfulness.

In other words, the tradeoff between cost and effectiveness might finally have been broken…but disruptively.

The rate at which a disruption proceeds is dependent, in large measure, on the maturity and adoption of its enabling technologies. For example, it took 70 years for Toyota’s quality management system to disrupt GM because process improvements (Toyota’s enabling technology) advanced relatively slowly.\(^\text{10}\) It took 37 years for Southwest to disrupt the hub-and-spoke carriers, thanks to the relatively slow rate of improvement in airframes’ fuel efficiency but only 13 years for Cisco to disrupt Alcatel-Lucent on Internet routers, since those technologies improve on a timetable defined by Moore’s Law.\(^\text{11}\)

Much of the technology to support new health care models exists now. It can enable clinicians to:

- Review a patient’s daily vital sign results using wireless medical devices from home
- Review results of a specialist visit
- Answer patient emails instead of seeing a patient
- Take action on elevated blood sugars alerts
- Prescribe a medication based upon a telemedicine visit
- Check the probability of an adverse reaction to a medication
- Review a patient’s genotype for predispositions or ensure the checklist is complete

While many providers are already using these new care platforms, significant barriers to widespread adoption remain. For example, health care IT systems often have been siloed by department, location and type of service, increasing integration challenges. Also, it can be expensive and complex to deploy the many custom modifications new solutions require, due to standardization issues such as the lack of a common patient identifier or a common clinical data model. Other challenges include capturing non-numerical data results, identifying tools for making
interoperability of electronic records easier, developing more robust health information networks, creating broader and deeper mobile applications, and providing access to vertical technologies at home and in commercial settings. The right kind of technology systems should enable connectivity across different sites of care, facilitate measurement and new reimbursement approaches, and tie together the numerous parts of a well-structured care delivery model.

While these technology barriers are significant, they are not insurmountable. As the number of value-based-care deals between health plans and providers increases, momentum to tackle the industry’s standardization issues is expected to accelerate the transition from proprietary system-based arrangements to broad-based community standards. Expensive, customized, interdependent systems likely will be replaced by integrated platforms sold in modules that feature secure cloud-based applications accessible to hospitals, health care providers, health plans, patients, and care teams in their office, home, or on the go. Also, if all of the necessary technology was mature the disruption would already be under way and the signs of change apparent even to market leaders. Likely it will take a few more years of development and refinement before the kind of change in performance will be possible on the scale required.

**Figure 3. Potential points of innovation**

- **Transition from dominant payment models (FFS or Global Capitation) to reimbursement models that reward providers for improving the value of care**
- **Shift delivery from discrete services based organizations (e.g. specialists) to team based models that address a patient’s overall need**
- **Move from competitive single tier networks to multi-site networks that address adequacy yet support superior services delivery**
- **Reorganize provider facilities to focused factories with defined niche services and concentrated volume to integrate care**
- **Transition from measurement of process based compliance and cost of charges to activity based cost accounting and outcomes tracking**
- **Information Technology**
  - Integration technology that transitions from siloed systems leveraging aggregation of data, connectivity to all stakeholders and experts systems that allow for seamless sharing and engagement
**Disruptive model economic analysis**

The disruptive clinical model should be both financially lucrative for primary care physicians and improve patient access. Enhanced clinical efficiencies from technology and staffing investments may enable physicians to increase visits and shift their distribution, allowing them to care for more consumers at an improved financial position. Compared to an average primary care physician’s current practice, small investments could result in a win-win for all.

The disruptive clinical model is anticipated to enable a physician to become 15 percent to 25 percent more efficient and productive, resulting in a projected larger panel size (Figure 4). With a larger panel size, primary care physicians could expect increased revenue (Figure 5).

**Figure 4. Projected increasing panel size**

![Projected increasing panel size](image)

Baseline | Low projection | Average projection
---|---|---
Visits/physician/year | Visited panel size

Note: Visits include face-to-face office visits, physician extender visits, e-visit / online, and retail clinic

**Figure 5. Projected increasing physician margin**

![Projected increasing physician margin](image)

Baseline | Low projection | Average projection
---|---|---
Contribution margin

Note: Low projection = 15% productivity gain in panel size; average projection = 25% productivity gain in panel size
Consumers’ access to care should improve as primary care physicians leverage the disruptive clinical model. The result of improved efficiencies is a projected 24 percent decline of in-person visits, which are expected to shift to e-visits, physician extenders, and other channels (Figure 6).

Unit cost is expected to decrease in the disruptive clinical model (Figure 7) due to flat fixed costs and lower-cost physician extender staffing.

However, small investments may be required for the average primary care physician practice. There is a projected 5 percent to 8 percent incremental cost to hire and train new staff and for increased supplies/purchased services.

**Figure 6. Shift in type of visit**

**Figure 7. Projected decreasing cost per visit**
Planting the seeds of tomorrow’s disruptions

Thankfully, health care stakeholders need not wait for technology to mature before planting the seeds of tomorrow’s disruptions. There are several potential points of innovation (Figure 3) which can be nurtured by focusing on an economically under-served segment, such as a primary care group practice’s Medicaid population.

A medical group that leverages a collaboration agreement with a health plan which includes a performance-based or prepaid contract that is not bounded by the FFS model can give itself the financial freedom to design a different clinical model; one enabled by rapidly advancing technologies that, when combined into a platform, will likely have access to all of the eligibility, clinical EMR, and claims data and insights from the health plan’s care management team.

With the new platform in place, the physicians and health plan can consider adopting a set of practice protocols; deploy a lower-cost and more convenient clinical model for chronic care and disease management; gain greater access to clinical and non-clinical information on patient well-being; engage more fully and effectively with patients; deploy a rules engine that helps to prioritize the workload based upon variances to care; and continually assess how processes are working.

Along the way, the physicians may find that they can reduce in-person physician office visits for maintenance or wellness visits, and/or shift visits to other members of the care team, creating higher levels of clinical productivity and giving them additional time to focus on more complex cases. This could allow the physician to have larger panel sizes, better outcomes and higher earnings levels. Unit costs per visit might decrease, even after an initial investment in technology and larger staff support (see economic analysis sidebar).

This disrupting medical group may also discover that they are able to attract a variety of capital partners and, therefore, be able to assume greater financial performance risk for a larger number of products.

The medical group is likely to find that the hardest part of implementing its new model is not integrating and using a more sophisticated technology platform but rather mastering change management elements. These might include:

- New collaboration models between specialists and primary care physicians; care teams and family members; care teams and health plans
- The pace of change and the development and rapid adoption of new insights based upon analytics and compliance with evidence-based clinical approaches
- The most appropriate and effective incentives to increase patient engagement
- New roles for care team members, new business processes and clinical approaches for chronic care, end of life, wellness and health education
- New governance models, compensation formulas, and professional development.

It is these elements working in unison which creates the strength, integrity, and synergy that make the disruptor’s competitive offering so compelling and hard for the market leaders to imitate. The pieces all fit together and reinforce the structure which they have created so that the whole is greater than the sum of its parts.

As the disruptor moves upstream to more financially attractive patient populations such as Medicare and the commercially insured (while continually improving its approach), the market leader(s) begin to wake up and take notice. By this time, however, it’s too late. Even though market leaders will likely try to replicate the disruptor’s approach by picking and choosing its best practices or adopting its enabling technology, they will most likely fail. The situation is similar to how the major airlines created their own low-cost carriers to fend off Southwest: They used their fixed assets and established processes and technologies, and accepted lower fares without breaking the constraints of their existing models. Eventually most, if not all, of these ventures failed and were shut down.

A successful disruptor could improve outcomes and lower the costs of health care in its community and, potentially, be a catalyst of change impacting all the constituents of the U.S. health care delivery and financing industry – including the market leaders, some of which are likely to resist the changes until it is too late.
The key differentiator: enabling technology

While many in the industry have witnessed the potential of a closed panel group practice to change the health care landscape, the model has yet to achieve scale and consistently outperform competitors. So why is this possible now? What’s different this time?

Most likely the key differentiator is enabling technology that leverages electronic medical record (EMR) data, health information exchanges (HIEs), powerful analytic applications, low-cost data storage, mobile applications (mHealth), workflow tools, innovative medical devices, greater standardization of data transactions, configurable rule engines, and much more. It is similar to the Boeing 737-500, without which Southwest may never have expanded beyond a 500-mile range; and streaming video, without which Netflix may have remained a mail-order video-of-the-month club; and without an enabling technology platform, ACO might have been an acronym for Abandoned Care Outliers rather than Accountable Care Organizations.

If the use of enabling technology in health care is good news for everyone, where is the disruption? It begins to occur when the disruptors expand beyond their initial practice area to cover more locations and increase their patient population until their market share represents a significant percentage of the primary care delivery capacity in that geography. In doing so, the disruptors’ model will likely become the standard course and specialists and hospitals will either learn to adapt to the new model or lose patients. The disruptor medical groups may also compete for talent and in many markets the local hospital—which until now had a monopoly on talent—might have to vie for employees against organizations using a new clinical model that is capable of generating potentially higher financial, equity, and psychological rewards.

If a disruptive medical group assumes a larger portion of the financial risk for its patients’ care, it might allow the organization to become a purchaser of health care services from other members of the care continuum and control how, where, who, and how much they are willing to pay for those services. This will be quite a change for hospitals, which are used to negotiating with health plans on reimbursement rates and terms but not with one of their principal sources of referrals to their specialists and admissions.

Disruptive physician practices likely will need capital to drive innovation and assume additional risk. Their chosen capital partner may, therefore, be a major influencer in the disruptor’s strategic decision-making process, including target patient population, practice size and scale, the amount of risk they assume, and their growth aspirations. Also, while the disruptive innovation model requires collaboration with health plans, the relationship might expand beyond the traditional health plan—provider arrangement to include financing for new technologies, capabilities, facilities and services, and acquisitions.

Opportunities in a post-reform world

In a post-reform world where price and quality transparency is expected to become a major factor for consumers selecting physicians and hospitals, outcomes data, convenience, cost, and access are factors that should help disruptors win as much patient loyalty as they are able to absorb. And disruptors won’t need all of a market’s patients to change the course of the health care industry’s future—just enough of them to make it clear that the existing model will no longer work.

The theory of disruptive innovation is predicted on the fact that almost all market leaders can only improve on a marginal basis, while the amount of improvement required in health care is much greater than what’s available on the margin. Consequently, disruptive innovation should have no shortage of opportunities in many local health care markets. Disruptors will likely be recognizable by their powerful enabling technology platform and a distinctively new operating model that delivers better value.

To paraphrase W. Edwards Deming’s famous words, learning isn’t compulsory, but neither is survival. Those who don’t learn—who don’t change—won’t survive. Current health care market leaders may not feel like they have a mandate to change. If history is any indicator, the growing number of disruptive innovators may make it difficult to survive if they don’t.

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References


10 Ibid.

11 Ibid.


13 Deloitte analysis based on the following: "No Evidence that Primary Care Physicians Offer Less Care to Medicaid, Community Health Center, or Uninsured Patients," *Health Affairs*, September 2013, via AAFP; "Primary Care Physicians’ Care Quality Not Affected by Patients’ Insurance Status," *Health Affairs*, October 2013; "Retail Clinics, Primary Care Physicians, and Emergency Departments: A Comparison Of Patients’ Visits," *Health Affairs*, September 2008; RAND, "Retail Clinics Play Growing Role in Health Care Marketplace," 2010.
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