ACO Path to Viability: Direct Contracting May Be the Opportunity

written by Theresa Hush | February 27, 2020

What if your best route to viability was the high-risk path you feared the most, because that failure might destroy you?

That's the question Accountable Care Organizations (ACOs) have been asking this week—whether to participate in Medicare's new Direct Contracting (DC) initiative. With a shift in payments from Fee for Service (paid per-provider service), to Global Capitation (paid per-beneficiary), DC completely changes the incentives for the health care system.

Whether Direct Contracting is a boon or a bust to ACOs depends on their ability to control the costs of patient care long-term—and whether they have the leverage to do so. How ACOs answered that question this week will be interesting to evaluate, since applications for Direct Contracting were due February 25. But one certainty is that Direct Contracting and its payment mechanisms of Global and Partial Capitation, now

introduced by CMS, won’t be going away anytime soon.

The transition to providing care to patients under a financial risk structure—especially capitated payments—is complex. And the road isn’t well traveled by all provider groups or all ACOs. Over the next several years, we will see capitation emerge in voluntary models created by Medicare, Medicaid, health plans, and employers. And we’ll also see fixed payment mechanisms become take-it-or-leave-it and a permanent fee structure for many arrangements, when purchasers and budgeteers demand it.

Here we begin a series of articles to examine Direct Contracting and why this option may be the best path for many. In future articles, we’ll address not only how ACOs can make DC work for themselves and their patients, but also how the resulting stable population of patients enables providers to advance medicine.

It’s time to prepare.

ACOs Have Not Convinced CMS of Long-Term Value

ACOs originated as CMS’s solution to health care cost-control by engaging providers in a mutually beneficial savings plan. But ACOs have been struggling since then to reduce historic levels of patient care costs. Although there are 517 Shared Savings and 41 Next Generation ACOs, escalation of Medicare expenditures has continued. While there has been progress in achieving more savings, ACOs have still fallen short of convincing CMS of their ability to rein in health care costs to the extent needed.

The slow ramp-up of savings, generated to a larger degree by small physician-led ACOs, failed to instill confidence in the overall shared savings model. It's a stretch to imagine that small physician-led ACOs can do enough to support a nationwide Medicare cost containment program. Independent physician-led organizations are increasingly rare in an environment where the majority of physicians are now employed—mainly by hospitals, whose ACOs have less favorable results. Even if those hospital-led ACOs can realign incentives and resources to lower costs, it will almost certainly take a long time to reach the CMS goal.

Additionally, large consolidated health systems have actually increased per-patient costs. Their slower transition to ACOs and lower savings results have generated more CMS concern about the ACO shared savings model. The result: the late 2018 "Pathways To Success" required that ACOs accept downside financial risk if they failed to meet expenditure targets.

Are ACOs at Risk of Losing Status in Medicare's Value-Based Health Care Program?

Some industry experts believe that the future of ACOs could be in doubt. The highest ACO risk model, Next Generation ACO, is set to expire at the end of 2020 unless renewed by CMS. However, CMS has recently challenged savings results for these ACOs, citing a study that claims that costs have actually increased.

Given this environment and the inevitable disagreement between CMS and providers over the pace of implementing financial risk, CMS's April 2019 announcement of a Direct Contracting model signaled to many that ACOs are at risk of losing their central

status in Medicare's Value-Based Health Care program.

Now that Direct Contracting Entities (DCEs) are defined to include ACOs as well as other similarly governed organizations, ACOs must face the question of whether they should apply or not—and if so, whether Global or Partial Capitation is the better choice.

The National Association of ACOs has appealed to CMS for additional time before implementation, continuation of the existing risk model for NGACOs, and better information about the program's methodologies. While it is unlikely that CMS will grant extra time, that decision will depend on how many ACOs apply for Direct Contracting and whether the program would benefit by either extensions or adding rounds of applications.

ACOs Should Consider Their Biggest Competitive Threat: Medicare Advantage

By any measure, the largest and fastest growing alternative to traditional Medicare is Medicare Advantage (MA, which now covers more than a third of all Medicare beneficiaries, or 22 million individuals. By contrast, ACOs cover 12.6 million, including Next Generation ACOs.

From CMS's perspective—frequently and publicly stated—MA has been a beneficial program for Medicare. Further, it allows CMS to fix expenses; payments to MA plans are capitated. Many of those plans are increasingly capitating their participating providers.

MA plans are allowed extra benefits (like dental services and hearing care) to pass on to enrollees, and those enrollees

generally have full coverage, often without any copayments. Enrollees are voluntarily signing up for MA; they are not attributed based on their medical visits.

There is little doubt that as MA continues to grow and gain leverage in contract negotiations with providers, it will affect the resources of those providers. As is the case with employee coverage, tiered networks will exclude providers. There will be restrictions, such as step-wise therapy recently allowed by CMS for MA plans.

ACOs who have not created an option that can compete competitively on costs will have trouble competing with MA for patients. Their providers will be choosing financial risk or capitation in one way or another, via Medicare Advantage or through a Direct Contracting Entity (DCE). It's worth noting that under commercial plan contracts, there is no "methodology" shared by the health plan about risk methodologies, the capitation calculations, and so on—all issues that ACOs have raised about Direct Contracting. In the private sector, it's all about the provider's negotiating leverage and a perceived "market" cost.

The Chaos of Change is Not Accidental for Health Care

If great changes are preceded by chaos, the strategy that CMS has pursued has been effective. Within Medicare's Value Program are multiple models for paying and organizing health care, in various stages of testing to determine which will have the volume and incentives needed to reduce cost:

- Shared Savings ACOs;

Next Generation ACOs;
Direct Contracting;
Primary Care First;
CPC+;
Specialty Care Models like Oncology Care and Advanced Kidney Care;
Bundled Payments.

Using multiple models to promote change may be confusing, but it spurs action. It creates momentum, energy, discussion, and eventual acceptance of certain changes. Some of these initiatives are on-ramps to fee changes, like bundled payments. Others are designed to get providers seriously engaged in the cost of care.

Direct Contracting Also Provides Opportunities for Providers

Some ACOs have approached Direct Contracting as an opportunity, but others are more reactive to risk of potential losses. The fact is this: Either path may be viewed as perilous to individual ACOs, because of risks from provider inaction. We'll examine fall-out from some ACO decisions in a future article.

But we should not miss the larger opportunity that providers have to steer the direction of health care itself. Advancing clinical science without commoditizing health care is essential. Yes, of course, health care has costs, but health care is more than the sum of its financial transactions.

Providers must have the independence and funding to study and improve patient care through applied science, data, and, especially, new medical technology that promise to reduce costs

and speed diagnosis and treatment. These initiatives were enabled by a lucrative Fee For Service reimbursement but are at risk of being depleted under capitated payments, unless providers control the distribution of dollars under Global Capitation. That can only happen if the health care system accepts leadership and takes financial control of costs associated with patient populations, because that arrangement also provides the opportunity to do something new.

That is why it's so important for ACOs, the front line of improving accountability in health care, to appreciate and advocate for the opportunity afforded by Direct Contracting. What could become possible if health care organizations invested more than just administrative and insurance functions in their ACOs/DCEs, and viewed them as the engine for measuring and advancing medicine in their patient population?

How do you see these opportunities? If you have thoughts on ACOs as Direct Contracting Entities, I'd love to incorporate them. Please contact me at hush@rojihealthintel.com.

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Image: Sebastien

Could AI Push Sales of Personal Health Data? How to Protect Consumers While Advancing Science

written by Theresa Hush | February 27, 2020

We are just beginning to see the power of Artificial Intelligence (AI) in medicine and management of conditions. AI is being used to enhance and speed diagnostic capabilities in conjunction with wearable devices as well as to identify health care cost issues and high risk patients.

Companies, health care providers, and researchers hoping to move forward with better medical technology—and tools to make health care more affordable and accessible—are eager to use AI-powered data in applications. They are largely invested in the quest to use AI in health care for the good of consumers and their patients. But data is not so simple nor the outcomes so obvious that we can afford to blithely gloss over the privacy risks to health care consumers as AI mines vast and deep personal data resources.

We are on the cusp of an intelligence explosion, thanks to better quality data and more data sources (including genomic),

coupled with the growing capability of machine learning and AI. But the undeniable health care benefits must be balanced by a willingness to address the potential, unintended effects that such a data surge might have on consumers—some of which could be harmful—and how data aggregators and providers should act to mitigate any harm.

AI Will Tap Data Well Beyond Health Care Claims

Fueling health-care AI is a rich reserve of individual consumers' health and close personal data. That data is no longer drawn from medical records alone, but also now includes socioeconomic information and preferences from a variety of sources: credit reporting agencies, social service agencies, public records including criminal history, zip code information, and insurance claims. New sources are wearable devices, which record sleep patterns, exercise, some clinical information, and even personal data, such as use of other software applications, as well as political and social preferences.

The rapid rise of AI-powered data-use should raise an orange flag for protecting consumer privacy in health care. The experiences of credit reporting agencies and face-recognition technology are two examples that show how things might evolve—and what we need to prevent.

TransUnion Data Breach Is a Portent for Risks to Health Care Data

TransUnion describes itself as a "global information and insights company that makes trust possible between businesses and consumers, by ensuring that each consumer is reliably and

safely represented in the marketplace." The company states that its "accurate and comprehensive picture of each person" is built on data fusion methodology that integrates public records and credit data. Note that consumers have, in fact, very little power to contest or demand correction of their records. Data is assumed to be correct.

In 2019, Equifax reported a data breach from two years earlier for all three major credit reporting agencies, including TransUnion. It is not yet clear how that identity theft will affect the 150 million consumers involved in that breach, but it reveals the vulnerability of even the largest pools of data from intrusion and theft.

Who aggregates and accesses consumer financial data, and how that data is used, is not a neutral question. There can be ramifications for consumers related to employment tenure, insurance coverage, other employee benefits, retirement, recruitment, selection into career or educational tracks, and so on. The growing use of credit scores—not only to determine creditworthiness, but also as indicators of employability, mental health, stability, and financial worth—are a prime example of how data could negatively impact consumers. Likewise, a breach of confidential health care data could have catastrophic ramifications for employment, insurance coverage, ability to get loans and mortgages, and more.

Clearview AI's Introduction of Unregulated Face Recognition Technology Foreshadows More Risks to Consumers

The surveillance and investigatory capacity of data has been

largely associated with autocracies, with Chinese face-recognition technology, in particular, in the spotlight. Consumers may feel safe in a democracy. But recent revelations about Clearview AI's use of 3 billion photos "scraped" from social media and Internet sites to help law enforcement agencies identify individuals of interest should make health care providers and consumers reconsider the harm from unrestricted use of personal data, to individuals and well as vulnerable groups.

When asked about the risks of Clearview's face-recognition technology app eventually being made available to the public, CEO Hoan Ton-That admitted to *The New York Times*, "There's always going to be a community of bad people who will misuse it." Data aggregated from a variety of health care sources, including those without much privacy protection (for example, wearables), combined with AI and machine learning, creates virtually unlimited capacity for analyzing and using such data to extrapolate conclusions and profiles of individuals. That a company can access personal data without permission and decide on its own how to use such data for profit has serious implications for health care.

Health care data is currently protected only with respect to particular sources, and those consumer protections are focused primarily on the provider entity and, by permission, to a business associate. Personal data, quasi-health care data collected by smart watches, data that is not housed in the EMR—all are vague with respect to ownership and are not protected under HIPAA. Clearview scraped a large tranche of photos from Facebook without the social media giant even knowing, violating its terms of service with impunity. The

risks to unprotected personal health care data being collected and mined for entrepreneurial ends cannot be understated.

Wearables Have the Power to Influence Employer-Based Insurance Coverage

As AI taps into behavior and clinical data from wearable devices, we must also confront serious ethical questions about how we validate and use data that could cause potential harm to consumers.

AI capabilities are most powerful and distinct when they harness granular, patient-specific data such as individual attributes, symptoms, conditions, and behaviors. The aggregation of that granular data is how we learn how to predict risk. The appeal of wearable devices is that they passively collect consumer behavioral and clinical data for determination of risk and cost—and thus point to solutions that mitigate those concerns.

As more companies strive to lower their cost of health care coverage, they are turning to tools that lower their costs—like tiered provider networks, centers of excellence, and hiring or contracting for their own providers—and also to methods that engage consumers.

As a result, consumers are being drawn into incentive programs involving wearables, even if they have reservations about the deal they may be making. Yet they have little ability to change the conditions or data use after the fact. Federal HIPAA and HITECH provisions offer insufficient protections.

Patient data, valid or not, is already being tied to incentives

in employer wellness programs; in the future it will likely feed into differential copays, premium sharing, or other benefit plan components based on behavior and underlying risk. While, so far, companies are avoiding measures that could result in employee backlash, that does not mean that they (or health plans) will not turn to additional data to empower better control of patient risk factors, or patient engagement in lowering costs. Case-in-point: U-Haul recently announced its decision to quit hiring smokers, effective this month.

Aggregation Efforts Should Stipulate Protections for Consumer Health Data

It's no surprise that tech giants are enthusiastically investing in collecting and analyzing wearable data. Apple's smart watch and health record projects and its partnership with Aetna/CVS show both how data can be monetized to help consumers as well as potentially complicate coverage benefits; Apple has also established that it is free to decide how to manage its wearable data assets. Google's planned acquisition of Fitbit will, no doubt, further Google's expertise in profiling consumers and creating analytics around personal data. Again, the use of that data is not regulated, even as it is entirely personal.

Protection and privacy of data must be extended to all data that is aggregated, not just identified data. Lest we assume that aggregate, de-identified data already protects consumers, one study on this topic demonstrated 95 percent accuracy in re-aidentifying adults from a large de-identified data set through machine learning.

Policies and rules must be developed that stipulate how

consumer personal data can be used. Such policies will necessitate a major update of federal privacy legislation and rules, an inevitably lengthy process that will not be able to contain the first wave of harmful effects as health-care AI gains momentum.

At the least, health care providers and insurers, with consumers and other stakeholders, can create the groundwork and code of conduct for their part in generating, aggregating, and analyzing data, by meeting these four goals:

- Ensure transparency and voice for consumers whose data is being collected. Data that is used in relationship to health—including lifestyle behaviors, preferences, and all personal behaviors—should require some limitations of use, protection and privacy, and consent as to their use, especially when the data can be re-identified.
- Validate data by multiple sources. Even clinical data is filled with problematic codes, errors, and misidentifications of individuals. Wearables data is too new and already proven insufficient, in and of itself, to be independently used in incentive programs. Use of every data source should require sampling or other validation methods to verify the data source.
- Never make health insurance benefits “contingent” on good consumer behavior. Because of barriers and social determinants, not everyone can afford time off, transportation, or child-care to adhere to a treatment plan. If that plan had been constructed around the patient, it would have been modified to meet the circumstances as well as health needs.
- Never share or sell patient health or personal information,

> under any circumstances, or permit the sale of such data under HIPAA Business Associate Contracts. Consumer personal data should be used only to improve and provide better direct care to the patient.

None of this analysis is intended to decry the pioneering use of Artificial Intelligence in exciting and promising efforts to provide smarter and more effective health care to individuals. But in our enthusiastic embrace of technological data mining and algorithms, we must not forget that quality of life is at stake. AI's potential to radically improve health care can only be realized if efforts are carefully designed to ensure fair and rigorous protection of data accuracy and use.

Founded in 2002, Roji Health Intelligence guides health care systems, providers and patients on the path to better health through Solutions that help providers improve their value and succeed in Risk.

Image: ev

How AI Can Engage Consumers to Reduce Disease Risk: The Case of Atrial Fibrillation

written by Thomas Dent, M.D. | February 27, 2020

In our last article, we assessed how AI could be used to achieve clinical success for individual conditions, and to apply the technology to broad cost reduction efforts and population health interventions.

But here's the real test: Can we effectively apply AI technology to help patients better engage in lifestyle risk reduction—particularly for specific conditions at higher risk?

To examine the feasibility and issues, let's take a closer look at Atrial Fibrillation (AFib), an increasingly common and expensive condition. In AFib, the upper part of the heart (the atrium) has ineffectual contraction, causing sludging of the blood and lessened cardiac output. It is the most common heart rhythm disturbance.

AFib is also a personal issue for me, because I live with it

and experience first-hand the intensive process of condition management, the discovery and management of associated personal AFib risks, and treatment costs. While I don't intend to give a comprehensive review of AFib with respect to Artificial Intelligence, this analysis provides a useful example of how providers can develop condition-specific efforts to improve costs and outcomes through AI.

The High Cost of AFib is Dangerous for Providers under Value-Based Payments

AFib is estimated to account for about one percent of all health care costs in the U.S. About 3.8 million elderly and 1.4 million working age adults have AFib, and nearly 700,000 of both groups were initially undiagnosed. AFib may remain undiagnosed until or even after complications occur. The number of patients will increase as the population ages.

Most outcomes from Atrial Fibrillation are serious and costly:

- Stroke-Nonvalvular AFib increases the risk of stroke five-fold. Thromboembolism associated with AFib creates a greater risk of recurrent strokes, more severe disability, and higher mortality.
- Extracranial Systemic Thromboembolism
- Heart Failure
- Myocardial Infarction
- Mortality—The Framingham Health Study found that AFib is associated with a two-fold increased risk of death. AFib diminished the survival advantage generally enjoyed by women.

Annual medical costs for AFib patients are at least $8,000

higher than for individuals without the condition. AFib adds about $6 billion annually to our national health care costs, with hospitalization as the primary driver, but some estimates are as high as $26 billion. That's because calculating the costs of AFib is complicated by the downstream effect of treatment, especially anticoagulants.

My own greatest expense is the direct-acting anticoagulant Apixaban. It has caused me to burn through my Part D deductible in one month and, with an assist from the antiarrhythmic drug Dofetilide, my entire donut hole. This translates to over $5,000 of out-of-pocket expense. Initiating the Dofetilide required hospitalization for 3 days in a cardiac care unit.

Patient Risk Factors Are a Driving Force, Suggesting Engagement Interventions

There are three AFib categories:

- Paroxysmal, lasting less than seven days,
- Persistent, lasting greater than seven days and less than six months, and
- Permanent, lasting greater than 6 months .

Currently, treatment is not based on category of AFib but on the risk factors. Categorization is important for ICD-10 coding.

There are non-modifiable risk factors:

- Genetics—Identifying genes related to AFib is at an early stage.
- Advanced age—Aging is the most powerful risk factor for

AFib.
Male sex—Taller stature in men largely explains the higher AFib incidence in men.
European ancestry—This confers a higher risk versus African, Hispanic, and Asian ancestry.

There are also a number of modifiable patient risk factors:

Smoking
Obesity and sedentary lifestyle—The risk goes up 29 percent for every five point increase in BMI; AFib is more severe and more resistant to ablation.
Diabetes
Obstructive Sleep Apnea (OSA)—I have OSA and believe the epidemiologic , clinical, and mechanistic evidence for the relationship with AFib and the value of CPAP.
Hypertension (HTN)—I also have HTN.
Alcohol

Successful Patient Risk Reduction Will Need Integrated but Varied Approaches

The patient risk factors for AFib are similar to those for other chronic cardiovascular conditions. Interventions to reduce those risk factors must be integrated into efforts that seek to reduce patient risk for other diseases and to increase patient engagement.

The question is no longer whether it's necessary to successfully address risk factors; rather, we need to learn how best to do so. Intervention programs that attempt to reduce patient risk factors are wide-ranging. At one end of the continuum, an Australian group created a dedicated risk factor

clinic—an expensive, staff-intensive effort that they maintain is cost effective. At the other end, decentralized, passive data collection via wearable technology, coupled with AI, provides an appealing starting point.

Ultimately, patient risk factors must be focused on the patient rather than the condition. However, interventions might also be helpful for a population without a condition, as a preventative strategy. Lifestyle changes have the potential to reduce AFib symptoms and also reverse its progression.

AI Can Provide Fuel for Interventions to Reduce Patient Risk

Determining optimal approaches to reduction of patient risks is an ideal task for Artificial Intelligence. AI has already begun to influence the diagnosis of AFib in patients using wearable technology.

Smartwatches provide a powerful and elegant means of tracking heart activity. I have this feature in my Apple Watch. A large study with more than 400,000 participants, who self-reported that they did not have a diagnosis of AFib, examined the impact of monitoring heart health via the Apple Heart Study app. If the app detected possible atrial fibrillation, the study was designed to initiate a telemedicine visit followed by mailing an electrocardiography (ECG) patch to the participant, to validate AFib values. Although there were few irregular pulse notifications, the majority of participant notifications were concordant with atrial fibrillation, and one-third had atrial fibrillation validated by ECG patch readings

For those individuals with Obstructive Sleep Apnea—at higher

risk for AFib—digital data is already captured nightly via prescribed breathing machines (CPAPs). Apnea episodes per hour, usage, and mask seal are data points that could be integrated with other patient data such as blood sugars, blood pressure, and weight changes.

Another excellent example of non-intuitive passive data capture and potential for intervention involves alcohol consumption, an additional high risk factor for AFib. Heavy alcohol intake is an established risk factor for new-onset AFib, and recent evidence points to frequent drinking during the week as a key associated risk factor. Transdermal sensors are being developed for tracking blood alcohol levels. Integrated with other data from wearable technology, these values could help to form the basis of population health and patient engagement interventions.

AI Applied to Wearable Tech Data Can Help Tailor Population Health Initiatives

Future interventions for population health and patient engagement should recognize how wearable technology could stimulate patients to seek health care. Fitness trackers, smartwatches, and wearable heart monitors provide a natural gateway for a population already engaged with telehealth. Further, passive capture of data offers the best option for tracking heart activity and evidence of arrhythmias.

What is possible now is but a harbinger of future efforts to capture this information. Once the data is collected, the full power of AI can be utilized to incorporate other data sets and have a significant impact on early identification of health risks. Despite these benefits, however, the use of this data

must respect patient privacy concerns and seek their permission for use.

Providers should consider incorporating Population Health interventions for at-risk patients in order to prevent AFib and/or decrease its frequency and duration, as well as to increase the ability to be successfully treated. For instance, patients who have experienced a sudden worsening of financial status or who are under intense stress for other reasons might be good candidates for interventions to monitor blood pressure surges and arrhythmias. These steps will be very important to entities at financial risk.

Preventing and Managing AFib Is Necessary for Provider Survival under Value-Based Reimbursement

Determining how health care costs are influenced by this data is another job for AI, with cost as both an outcome and data point. The presence of AFib can modify the condition severity scores for capitation payments. This will be a significant issue if a practice experiences vast increase in the number of patients with AFib. Avoiding the massive costs of progressive AFib and its complications will demand aggressive risk factor management. Groups will also benefit from documenting the presence of AFib. For MIPS, the documentation of the CHA2DS2-VASc score is an opportunity to improve the quality score if anticoagulation is prescribed for patients with a score greater than 1.

Given current trends in wearable tech, organizations should be alert to the potential influx of new AFib patients, many of

whom are likely to be asymptomatic. Their diagnosis will be initiated by smartwatches, not by the provider community. Organizations would be wise to develop a strategy for patient wearable technology that is rapidly evolving.

Atrial Fibrillation should be on the radar of practices and healthcare organizations assuming financial risk under VBHC. Patients will be more involved with the diagnosis of AFib via detection on smartwatches, but patient privacy and consent to use their data appropriately cannot be compromised if they are to engage willingly.

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Image: Kelly Sikkema

Can Artificial Intelligence and Machine Learning Reduce Health Care Costs?

written by Theresa Hush | February 27, 2020

All the experts’ 2020 health care technology predictions have

one trend in common—more Artificial Intelligence. AI and its subset Machine Learning are tagged as the winning ticket to advances not only in clinical medicine and research, but also in administration and management. The hype promotes so many potential applications for AI that it begs for an answer to one of its key claims: Can AI reduce health care costs?

I'm referring particularly to Artificial Intelligence that is beyond clinical medicine and new medical technology. AI focused on clinical medicine, from genomics to the latest radiology and cardiology diagnostic capabilities, uses algorithms to create better diagnostics and targeted therapies. AI now can identify ejection fraction more precisely and find tumors that would be missed by human eyes.

Clinical AI is advancing at a fast pace partly because it is specialized—but also because the decision-makers and decision-making process are apart from the quagmire of health care operations and finance. Clinical AI is very likely to help better make diagnoses and decisions in health care. But they won't come cheap, because new technology is expensive, and so is precision.

It's AI in the "other world" of health care that many believe can affect the bottom line. That world is more complicated—and undergoing a seismic shift that mandates living under financial risk, being held accountable for a patient population, and staying competitive against other providers. The business engine of health care needs solutions for affordability. Let's examine whether Artificial Intelligence tools would make a good investment.

In Health Care Operations, Current AI Focus is Problem Identification

Current AI applications in health care operations tend to focus on identifying problems that will lead to losses under real/potential Value-Based payment contracts, claims denials, or reduced revenues. AI in this context is often Machine Learning, finding patterns from huge data sets of patients. Typical examples include:

- Predicting high-risk or high-cost patients
    - for hospitalization, ER use, or other patterns of high utilization, especially associated with patient history, prior usage, lab values, social determinants, and other factors
    - for suicides or mental health crises that might require hospitalization
    - for patients with emerging clinical crises
    - for patients at risk of readmission
- Raising patient risk levels for revenue purposes or risk-related programs, like an HCC score, through diagnosis capture technology
- Reducing workload and duplication/gaps of patient registration and eligibility data
- Improving AR results through better billing processes
- Developing patient populations specific to patient, gender, and management of specific conditions for use in population health

For most of these objectives, the AI solution is to ask which patients, populations, or processes are a problem to be fixed.

There are shortfalls to the use of AI to identify problems and risks associated with patients. For one, the data is often incomplete because the patient may be seeing multiple provider entities, or because the number of patients is small. Second, even the most comprehensive EMRs are subject to variable and/or insufficient clinical documentation associated with a patient. Since clinical and transactional patient data feed AI, gaps in both of these can produce poor results on risk.

Third, AI algorithms—especially when they are not really machine-learning-based and incorporate human biases and assumptions—can be faulty. In short, some "Artificial Intelligence" may be a masquerade. For example, we don't know for certain, based on large-scale studies, which assumptions about risk-creating instances are true. While we can identify "Frequent Flyer" patients with multiple conditions and risk factors, there are also others in the high cost group that simply represent one-time traumas or episodes that are not high risk.

Furthermore, "risk score" and true risk are not necessarily equivalent. The former is a method of adjusting payment so that providers feel like they are not being disadvantaged, but there are no studies that validate such risk scores to real patient risk.

We also don't know how AI has baked in biases related to gender, race, and socio-economic status.

But all those issues are secondary to the big one: Identifying the problem of cost, even if real, is not the same as creating a solution to that problem.

If the Issue is Cost, What is the Problem We Want AI to Solve?

In looking at the list of AI applications, it is immediately apparent that we are not using AI to solve the problems we identify. In fact, there are few developed use cases that incorporate testing of population health solutions. Instead, providers are commonly using historical efforts—patient letters, calls, case managers, care coordinators, efforts that didn't work in health plans—to reach out to patients, and then to assign those patients to some process defined by the provider. Does it work? That's a question too few are asking.

Organizations may have used AI to help calculate costs and identify areas of cost overruns, but it is entirely feasible that those same organizations have under-performed in reducing costs by interventions. One provider group that did study its Frequent Flyer efforts—believed to be very successful—was disappointed at discovering through a randomized trial that the effects were illusory.

Predictive analytics, the most common AI application in health care operations, have a primary purpose of informing smart solutions. The issue of cost for each patient predicted as high risk revolves around this question: what does the patient do next? The answer to that question involves a medical event and response. The response is dependent not only on the particulars of the patient's conditions and environment plus available options, but also on how engaged that patient has become through the provider's intervention (most likely in population health). Yet AI designed to improve the engagement of either patients or providers hardly features in most providers'

initial forays.

Artificial Intelligence—drawing on patient feedback and preferences data in addition to claims history, and incorporating physician engagement measures—should be used to refine specific population health techniques and then test them, to ensure that they are effective.

Four Questions to Ask Before Leveraging AI to Manage Financial Risk

AI requires a thoughtful process of determining what questions we want to be answered with regard to managing costs under financial risk. It would be wasteful to chase less than optimal solutions because of faulty assumptions about patients or, for that matter, providers.

1. What kind of Value-Based arrangements make sense for us?

The provider's participation in financial risk is a strategic decision, and the factors that weighed into that decision should inform the priorities for AI. Right off the bat, organizations with a large primary care provider base will have a different financial risk structure than a heavily specialized organization. Alternatively, specialty care will predominate. These factors will determine whether the risk is global or partial capitation or some derivative, such as medical episode bundled payments, or whether the risk is based on specific specialty procedure or condition-related bundled payments.

2. In what part of that Value-Based arrangement are we most likely to be vulnerable to excessive costs, and what will drive those costs? What will be the target of our first initiative?

Providers with global or capitated risk will generally focus on patients with high disease or utilization risk. But the solutions involve remedies to those issues, which could be one or more of these typical approaches:

- Outreach to ensure referrals for co-conditions that lead to ER use or admissions, such as mental health, substance abuse;
- Patient engagement for better management of core conditions through measured efforts to define and meet goals, avoid crises or hospital use, or through shared decision-making.

AI can be used to calculate the ideal staffing and processes that will create better engagement (as measured by patient response).

Providers with specialty risk may focus on the variation of procedure costs, complications, and outcomes. Some organizations may wish to apply AI to determine which patients have fared well or poorer, testing methods that may be used to improve outcomes and costs. Others may evaluate the variation in individual components of episodic costs such as imaging, type of anesthesia, and post-procedure rehab.

3. How do we ensure that the AI tools provide an unbiased, valid mechanism for testing and evaluating interventions to reduce costs?

Diversity will be essential to guide both problem identification and solutions through AI, including both different levels of providers and staff, and a sampling of patients. As provider organizations begin to adopt more financial risk arrangements under Value-Based Health Care, AI must also be applied to ensure that providers are not dumping high-risk patients, avoiding the provision of necessary care, or following other spurious practices to improve their financial position under risk.

4. How will we share results with providers, especially on variation of costs results? How will we help providers gain additional skills to facilitate their changing roles with patients, as guides in making health goals and decision-making?

Once both analytics and AI produce data-based results—including which solutions are working and which providers are doing well with them—sharing that data within a constructive context is a critical next step. Providers will need to rebuild trust with physicians who are accustomed to being “scored,” in order for the process to be effective. AI can help identify physicians for participation as mentors and/or collaborators in reviewing data, as well as test processes for engaging physicians to evaluate the potential for motivation and aspiration, while balancing time constraints.

For Machine-Learning initiatives and conclusions to be accepted by providers, there must also be transparency in the data all the way down to each individual patient. The algorithms should be built to analyze the data, not just to provide aggregate or single provider results.

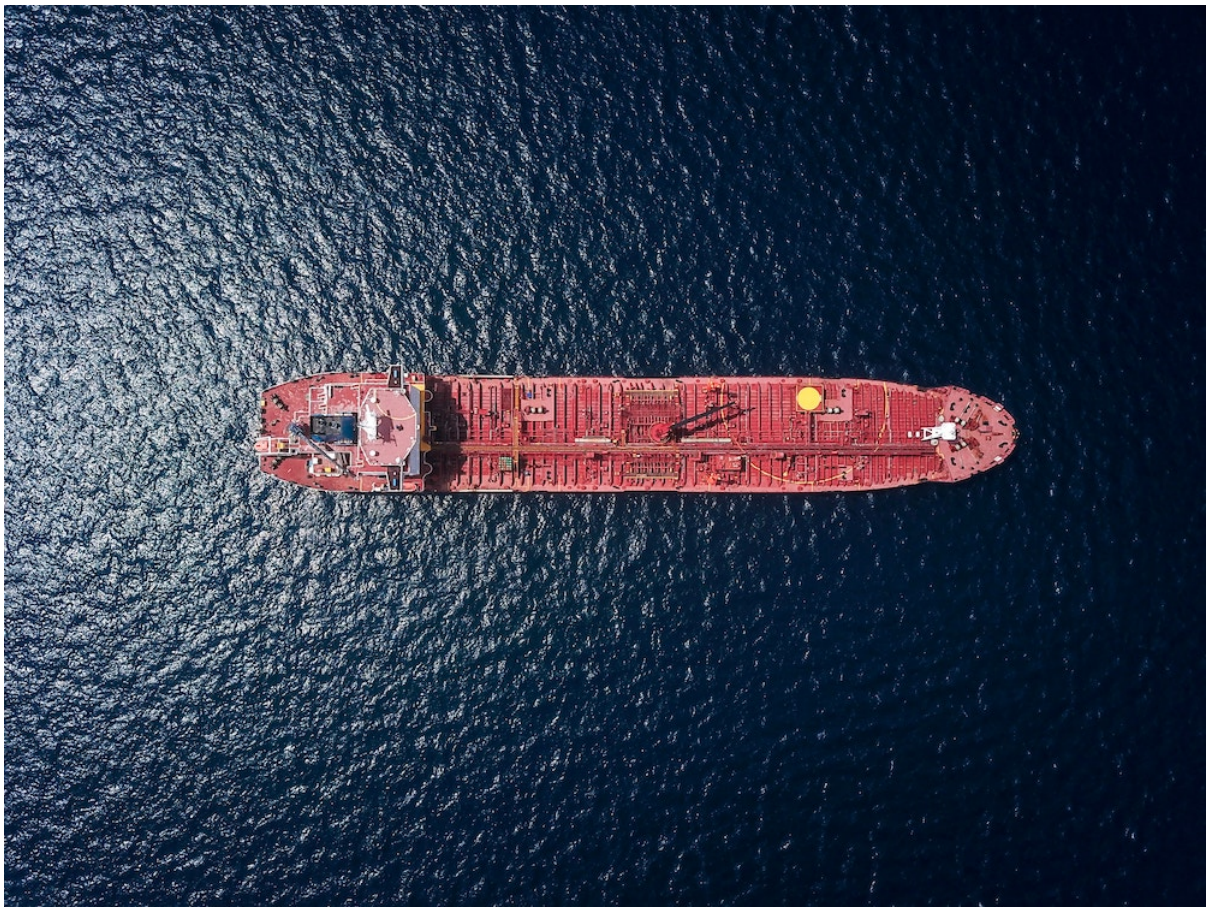
Artificial Intelligence—like all the health care technology that has preceded it—is no panacea. Most real solutions to reducing health care costs haven't been tested. AI will be an essential tool to target both problems and solutions in the future. If carefully designed in conjunction with a strategic direction, AI can illuminate the path to lower cost in a way that is both compelling and non-threatening for stakeholder physicians, and can improve engagement and results for patients. Equally as important, AI and Machine Learning applications must include transparency to avoid harm to patients and deterioration of physician engagement.

Founded in 2002, Roji Health Intelligence guides health care systems, providers and patients on the path to better health through Solutions that help providers improve their value and succeed in Risk.

Image: Robynne Hu

Can Hospitals Still Lead Health Care Under Risk?

written by Theresa Hush | February 27, 2020



As the millennium’s third decade begins, Risk has taken hold as THE strategy for tackling health care costs. Virtually

overnight (in health care years) the industry has moved—albeit not uniformly—to accept Risk. This transition is already beginning to impact hospitals and hospital-based systems, and raises serious questions about the viability of their role as the primary financial engine bankrolling health care operations, reforms and modernization.

Just one year ago, the concept of provider risk in Accountable Care Organizations (ACOs) was anathema to most participants. Despite initial misgivings, however, most ACOs remained in the system after CMS pushed forward with its final rules,. To top it off, some large physician groups applauded last May's Medicare announcement of a direct contracting method that involved a once-reviled risk-based payment mechanism—partial or global capitation. The RFP for that program has just been released for physician groups to apply by submitting letters of intent. The response is unlikely to disappoint.

As Risk gains momentum, the health care industry is undergoing a profound transformation. Even as Value-Based Care models, like Direct Contracting, hold physician groups accountable for costs, they will have ramifications for other providers that represent "downstream" costs from the capitation model, such as hospitals. Let's take a closer look at the impact on hospitals and how they can continue as stewards and financial engines, even as their roles with respect to other Risk program participants may vary.

Disruption in Health Care Has Become the Norm

One reason that Risk became more acceptable is that changes are occurring so fast that it's hard to keep track. Health care is hot, and now it's big business. Consider these trends in 2019:

(Still) more mergers and acquisitions among health care providers;
Equity-backed startups that will compete with those traditional providers' interests, such as practices and facilities. In some specialties, the majority of practices are equity-owned;
Employer-owned health care operations, or exclusive provider contracts, to reduce employer costs of coverage;
Risk-based Medicare payment options to ultimately replace Fee-for-Service;
Artificial Intelligence (AI) in clinical medicine, altering the dependence on traditional diagnostic techniques and manpower;
New benefit plans that further increase consumers' share of costs;
Hospitals (now the owners of a majority of physician practices) replacing physician staffing with nurse practitioners.
Telemedicine and more on-demand access points for consumers.

In short, business and employers have breached the boundaries of the traditional health care system, while the underpinnings of health care finance are changing. What does this mean for hospitals and hospital-based health systems? There is more than enough competition willing to take on the challenge of creating systems that will deliver consumer-valued services at lower cost.

Risk Changes Power Relationship of Hospitals

The bricks and mortar of health care, hospitals have occupied an essential role in health care delivery, defining not only the primary location for medical services but also how the

system of care has evolved. Blue Cross's predecessor developed the first health care insurance policy in 1929 to provide pre-paid hospital care.

By growing other related facilities as technology and needs changed—outpatient services, emergency rooms, and radiology and diagnostic centers—hospitals were able to increase capital as well as physical presence. As a result, hospitals became the focal point of residency training, research, and medical schools.

Hospitals are the engine for organizing much of the health care delivery system and, particularly in recent years, for capitalizing the enormous technology investment required for electronic medical records, state-of-the art diagnostic equipment, and high intensive services.

Since the inception of Managed Care, hospitals have taken on an even greater role in defining how health care is delivered. Once employer-negotiated contracts with health plans became the norm, there was an obvious need for hospitals to gain leverage in negotiations to secure patient volume. That led to the consolidation of hospitals and practices into larger health systems, and the acquisition of physician practices themselves.

Now these same Managed Care market forces will lead to hospitals becoming cost centers under Risk. For provider-led ACOs and group practices whose expenses are tied to their own patient costs, participating hospitals may have bankrolled the entity; but these hospitals also operate as a drain on ACO savings potential.

This will affect physicians' willingness to participate in risk-based arrangements when their incomes are at stake, and serve as a deterrent to independent physicians who might otherwise be interested in joining hospital-led ACOs or Risk arrangements. Hospitals will need to demonstrate to constituents and fellow participants that they can be counted on to be accountable for the shared mission. In hospitals and systems where physicians are employed, a culture of collegiality and common goals must be carefully orchestrated for success under Risk.

Positive Change Strategies for Hospitals in Risk

The transition to Risk is happening quickly, and hospital margins are falling significantly. But hospital-based health systems still have perhaps five years to implement a Risk strategy that not only avoids depleting reserves, but also creates growth. How? The key is to embrace Risk more rapidly through changes that alter the culture and approach to key stakeholders—physicians and consumers.

A collaborative leadership style is an essential component for hospital and health system leaders to keep physician and other provider networks intact under Risk. Creating or purchasing the infrastructure for managing Risk and then measuring costs against Medicare cost targets are key steps for helping hospitals maintain their leadership role for implementing Risk strategies. But those efforts won't succeed without laying a supportive foundation with physicians and with their patients.

Here are a few important internal strategies that should be considered by hospitals and hospital-based health systems, all

of which speak to issues that are deeply connected to culture—and to the costs of care:

1. Revise physician compensation to reward Value contribution, such as building long-term engagement with patients and their support members, guiding patients through Value-based medical decision-making, and collaborating to benefit the health care enterprise. Measurements of those criteria can include:

- Measured patient outcomes improvement over time;
- Best patient-reported outcomes;
- Patient panel retention (primary care) or stability (specialists);
- Costs within risk-adjusted cost targets; and
- Participation or success in specific Value-Based programs.

2. Improve physician understanding of Value-Based Health Care, their data, and their skills for guiding patients under Risk. Rather than simply scoring physician behavior, give physicians the opportunity to learn through data and skill-building courses that help them contribute positively to a shared mission.

3. Create a consumer strategy that responds to the changed attitudes, cost responsibility, and needs of health care consumers. Transparent pricing, access and communication methods, and medical decision-making processes are critical consumer issues that must be resolved if providers are to ensure a sustainable population of patients.

As Risk begins to penetrate the payment arrangements, hospitals that better align operations with their future vision will have

the ability to move forward with the specific initiatives to improve outcomes and cut costs. There are no shortcuts around culture in a change process. While hospitals still have the margins that can finance change—and maintain their competitive advantages—it's time to start turning the ship.

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Image: Shaah Shahidh

Can Consumers Be the Answer to Health Care Cost Control?

written by Theresa Hush | February 27, 2020

In the intense ramp-up to accepting Value-Based Health Care payment models that include financial risk, providers have implemented an array of technologies and programs to improve cost performance. They are in a race against time. Capitation is re-emerging as a dominant payment type under Medicare Value-Based Primary Care Models and commercial contracts. Alternative Payment Models demand payback for excess costs.

In the crunch, however, the most important health care goal is getting lost: how to reduce long-term costs while improving patient outcomes. The most effective solutions will require more than just technology. They will require provider-consumer partnering, facilitated by consumer-focused technologies.

Popular Technologies Aim to Identify “Problem” Providers and Patients

Analytics, artificial intelligence (AI) solutions, population

health, and cost-focused technologies are all in play as providers try to build on EHR functionalities and their financial systems to use valuable patient data. Their top cost control priorities are spotting patients and providers who may generate “excessive” costs compared to targets, and to change those trends.

Most adopted technologies are anchored on these techniques to identify and reduce costs:

- Analytics to identify high-risk patients or frequent utilizers, including predicted cost and risk stratification, and the application of higher-touch interactions, case management, and referrals;
- Population health technology to meet needs of patients with high cost or risk, to fill gaps in care and connect with patients approaching targeted limits for cost or utilization; and
- Financial/administrative technology to perform and distribute cost results, such as calculation of total costs per patient, comparison of episodic costs by patient risk and by provider, and identification of common elements to cost overruns.

Other technologies may be introduced to reduce costs of services while stimulating growth, such as telemedicine and interoperability with post-acute facilities or regional providers. There are also new technology-enabled solutions to gather data and categorize risk associated with social determinants, to make population health initiatives more effective.

Can Current Technologies Help Reduce Long-Term Patient Costs—With Better Outcomes?

Implementation of technology is critical for providers to be able to fill the gaps in cost knowledge and proceed with interventions. The solutions we've cited have enabled providers to move forward with Value-Based Health Care implementation. But the time-critical question as Value-Based Health Care evolves into provider financial risk is this: Can these technologies actually help to reduce patient health care costs in the long term? The answer is not obvious.

One problem is that many efficiency gains generate only one-time gains in cost performance. More savings must be found each year to override the naturally occurring rise of salaries, new clinical technologies, and investments required to keep pace. Results for solutions focused on high-risk or high-cost patients have been recently called into question by randomized trials.

But there is a larger problem too, which is that high costs—usually associated with treatment intensity— and good outcomes are not necessarily connected. New technologies with very high initial costs, such as genomic sequencing, immunotherapy, and pharmaceuticals may not produce expected results for patients. Incentives under Fee-for-Service and physician training can lead to decisions to intervene when clinical benefits do not justify the cost, either in dollars or for the patient.

This raises the fundamental question: how to tie medical decisions and the benefit-cost of therapies to individual patients. While we are looking for predictable costs, we may be

missing the big question of how to make medical decisions that produce value for the specific patient’s condition, goals, and circumstances.

Technology to Manage Costs Operates in a Closed Provider Environment

The audience for current Value-Based Health Care technology is providers. Those providers are conversing with each other and about patients. They’re presuming that they’re in control of patient costs and medical decisions. While there is a great deal of discussion of patient engagement, most of that engagement is focused on patient compliance and responding to providers.

The reality, however, is that provider performance can improve only when consumers change how they approach their health issues, how they make medical decisions, and the information they have available to do so.

Value-Based Technology Investments Must Help Providers Guide Consumers

Controlling costs long-term will require a change in medical decision-making so that the costs and benefits are reviewed and determined by individual patients and their support team. Only a consumer can realistically determine affordability and ability to comply with a therapy process, and weigh the options of various therapies—and since consumers are now bearing a much larger share of the cost, they should justly have both the information and guidance to make decisions based on data.

Providers will need to guide consumers in all aspects of that

process, with more sophisticated information on their conditions and their options. This will involve both provider- and consumer-facing technology that addresses each stage of the health care decision-making process. Consumers currently are facing an opaque process for making decisions, knowing neither the science, nor evidence for therapies, nor the expected costs.

The basics for consumer-focused technologies include milestones in the process of those decisions:

1. Patient designated support team communication channel

Integrating communications for the provider clinical team, patient, and the patient's designated support team members is essential for ensuring that there is an organized medical decision process. Most technology fragments this process so that providers have access (on demand) to patient clinical data. But aside from portals that parse limited data to the patient, the patient's support team is excluded and there is little opportunity for dialogue leading to decisions.

2. Health care education and literacy improvement

Most patients need to become more medically literate regarding their conditions. As a precursor to the patient being able to understand options and make decisions, providers must be able to direct consumers to resources to prepare them with basic understanding of medical terminology, physiology, and pathology associated with their conditions.

3. Patient access to evidence-based findings for treatments

Providers will need to establish different processes for patients to articulate their goals and decide treatments based on discussion. Emerging technology is gathering data on the benefits and harms of therapies revealed through clinical trial data. Helping consumers make informed decisions will be a necessary element of managing provider risk.

4. Transparency of costs associated with projected episodes of care, linked to eligible benefits

Providers have resisted transparency beyond price lists, but these are of little use to consumers because they don’t capture all services in an episode.

5. Patient-reported outcomes and services feedback

Patient outcomes are usually collected on a short-term basis, while results are usually seen over a much longer time frame. It will be important for providers to go beyond typical survey instruments and really understand what the patient’s experience is like, in order to retain the patient.

Theoretically, providers should be able to improve their Value-Based cost performance by developing a more collaborative approach to consumers. Like other methods of cost reduction, this must be implemented and tweaked. But it deserves top priority.

We are in the midst of a huge medical cost shift to consumers, while often narrowing their benefits. Consumers are showing that they are interested in becoming better stewards of their health and health care. But they don’t have right tools. Technology is a means of cementing that provider-patient collaboration into stronger relationships by delivering data, evidence-based options, and transparency.

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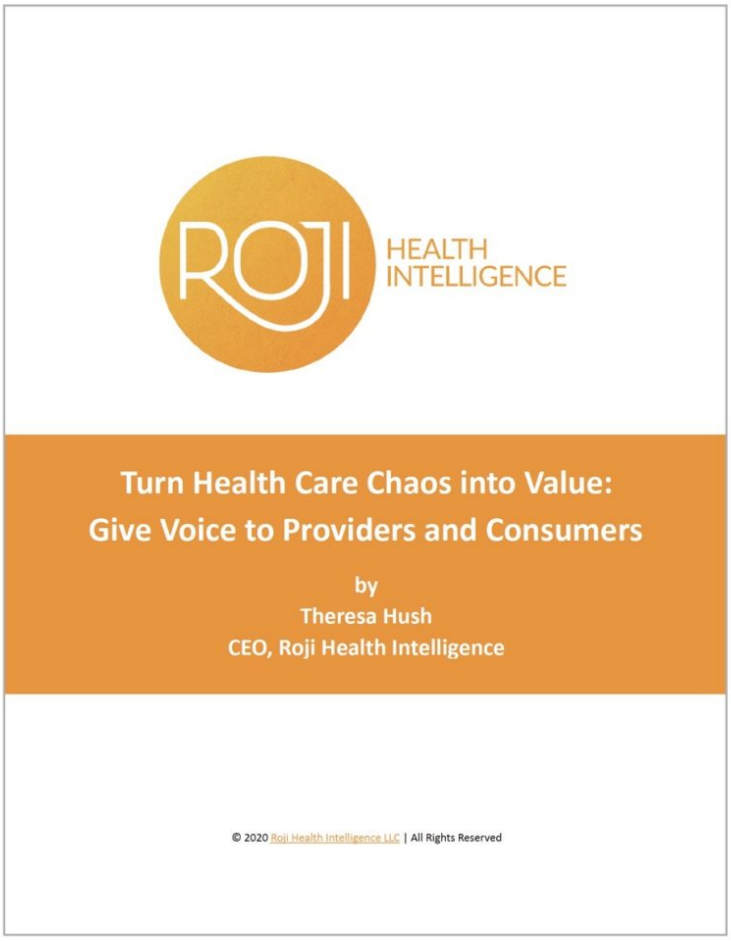
Image: Jens Johnsson

Get the eBook: Turn Health Care Chaos into Value – Give Voice to Providers and Consumers

written by Theresa Hush | February 27, 2020



Are we on a real path to reducing health care costs and improving our citizens' health?

Those were stated goals in the early 2000s that developed into what is now called Value-Based Health Care (VBHC). VBHC has come to mean a major reform effort to slow the pace of cost increases through changes in incentives for both providers and health care consumers. So far, however, the gains have fallen short of expectations.

VBHC reforms require significant changes in the role of providers and consumers in order to succeed. These role changes are evolving too slowly. Health care costs continue to escalate beyond the government's and employers' willingness to pay, and

beyond consumers' ability to pick up their share of the costs. Cost transparency is being challenged by providers. Hospitals are suing patients for lack of payment. Quality measurement is rolling back. Consumers' fight for health care affordability, health care equity, and fair coverage is now a major political battle. Across many measures, health care outcomes are worsening compared to other developed countries.

In our latest Roji Health Intelligence eBook, we examine how to redraw the path for VBHC toward success, with both providers and consumers engaged in creating an accountable and affordable system. Providers will need to be stewards of the system if they hope to retain a leadership role in health care, and help patients achieve cost and medical literacy so that they can make good decisions.

In turn, health care consumers will need to learn how to take an active role in their health care and treatment—what questions to ask, what evidence to demand, and how to form a true shared decision-making partnership with their clinicians.

Only then will we all achieve what health care needs to deliver: quality care that is affordable and accessible, with dependable, best-possible outcomes.

Get your free copy of *Turn Health Care Chaos into Value: Give Voice to Providers and Consumers*.

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Bottom Line: Can Consumers Survive Value-Based Health Care?

written by Theresa Hush | February 27, 2020

As 2019 nears its close, health care has reached a crossroads. Value-Based Health Care was intended to clarify consumer choices and motivate providers to offer high value services that improved outcomes, as well as to improve patient access to those services. But has that goal been realized? Has anything really changed? Or are health care consumers even worse off than before?

Since September, we've been evaluating the consumer perspective of Value-Based Health Care, examining whether the movement is helping consumers achieve affordability, better choices, and good quality. We've focused on two central questions: Is Value on the right track? Has it delivered on its promises?

To answer those questions, we've examined five key criteria:

- Can consumers identify and access high-value health care services?
- Do quality, cost, and patient experience reflect the current criteria for Value?
- Are measures adequate to reflect the criteria, and to see performance?
- What should ACOs and providers do to meet consumer needs for Value?
- What are the critical tools providers need to enhance Value?

Consumers Are Trapped by High Costs with Unknown Value to Guide Choices

These criteria presume that consumers have the agency and resources to make informed medical choices. We've held that presumption up to the light, assessing whether consumers actually have the tools to compare quality of providers—and if

not yet, whether quality measurement is moving in a direction that will help consumers. We've suggested how consumers can improve their skills in health care cost management and medical decision-making to avoid unnecessary costs.

Likewise, whether consumers have the tools to evaluate costs is a major issue. We've explained the tragic consequences for consumers who still lack transparent cost information from providers while simultaneously bearing a larger share of expenses and facing more restricted benefits. On the provider side, we've examined both the financial and ethical imperatives for providers to reorient themselves to help consumers engage in their health care with better knowledge and tools.

This is the bottom line of our analysis: Value-Based Health Care is still not a reality for consumers. While insurance benefits and employer benefit plans have shifted a much higher proportion of costs onto consumers, those consumers lack the essential tools to compare costs and quality and to manage their care. And even if they had those tools, financial incentives within health care organizations to achieve high patient volume discourage clinicians from providing the quality information or adequate time for consumers to make fully informed medical decisions. All too often, the resultant Hobson's Choice for too many consumers is one of forgoing essential health care services or facing financial disaster.

Reimbursement Incentives for Providers Still Favor Volume over Value

While hospitals and physicians are beginning to engage in financial risk payment models, these plans are still in the minority. Only about a third of total payments to providers are

associated with accountability for Value, and a fraction of those reflect serious fixed cost pricing like capitated or bundled payments.

Why is financial risk important? Because it has the potential, in theory, to align providers and patients toward the same goals of improved outcomes and lower cost. The historical Fee-for-Service reimbursement method, instead, rewards for higher volume of more costly services. However, no one can believably demonstrate how much costs can be reduced through financial risk. Value-Based Health Care is an unproven effort, even if there are components intended to improve the health care system.

As a result of slow movement toward financial risk, physicians are still being compensated according to the number of patients seen and services provided, and their employers—often hospitals—are tying compensation plans to downstream services as well as their service-based revenues. That translates into disincentives for spending more time engaging in patient decision-making, and little support for the extra effort required at educating consumers and patients. Additionally, hospitals and physicians continue to resist the cost transparency that consumers need.

Despite these payment models, however, some providers recognize the possibilities of working with consumers and are becoming more responsive. The more competitive environment between consolidated health systems has led to competition for patients. Telemedicine appointments and specialty care bundled payments with transparent pricing are tools that benefit consumers. There is a noticeable upswing in consumer-directed

messaging and outreach.

How Can Consumers and Business Leverage Change in Health Care?

Although consumers collectively have not challenged health care costs and coverage, that began to change under the threat of repealing the Affordable Care Act in 2017. Facilitated by the expansion of high deductible health plans and higher costs in general, a health care consumerism movement has been slowly emerging. There are now multiple consumer groups actively engaged in challenging many aspects of health care.

In addition, business has recognized opportunities to help consumers become more actively engaged in their health care and its costs. From design products to self-managed health care, from not-for-profit websites that collect and compare cost of services by region to consumer-directed groups that aggregate member data for medical research, there is a wealth of non-provider activity directed at increasing consumer leverage.

Whether these efforts create enough momentum to achieve consumer goals under Value-Based Health Care, however, is still uncertain. At present, collective action has not yet reached a level to propel systemic change, and issues remain mired in political debate.

Consumer health care costs are exacerbated by the changing scope of coverage and high-deductible health plans. We must ask how Value-Based Health Care solutions to improve consumer choices, even if they could be achieved, can resolve the basic problem of an unaffordable cost burden. Even a good system of transparency cannot fix the reality of high health care costs

that unevenly hit consumers, regardless of ability to pay.

It’s not a stretch to imagine that the cost burden already in place for consumers will become a financial crisis first for consumers and then providers, if we don’t move faster to change the economics of health care.

More effort by all stakeholders to foster higher medical literacy and a better understanding of coverage, consumer tools for questioning and deciding about services, and access to valid data for comparison shopping are the basics for surviving Value-Based Health Care. But consumers should also not bear the cost of an inefficient system. Government, providers, employers and health plans have the singular ability to create a system that is prepared for consumer responsibility and to preserve our most precious resources—people.

Founded as ICLOPS in 2002, Roji Health Intelligence guides health care systems, providers and patients on the path to better health through Solutions that help providers improve their value and succeed in Risk. Roji Health Intelligence is a CMS Qualified Clinical Data Registry.

Image: Annelie Turner

Can Consumers Ever Get the Transparency Needed to Predict Health Care Costs?

written by Theresa Hush | February 27, 2020

If you’re feeling squeezed to control your medical costs and pressured to find the essential information and help you need to do it, there’s a good reason. Health care professionals, politicians, and economic experts are calling on consumers to make decisions about what services to get and where to get them. While Value-Based Health Care claims may focus on provider accountability for better and more coordinated, economic care, a secondary theme is to achieve greater accountability and cost sharing by patients.

Giving consumers the tools to be accountable underlies the Transparency movement, including the new proposed rule from CMS that requires both transparency of coverage by health plans, and price transparency from providers. The idea is that consumers can shop and pick more cost-effective health care once they know (in advance, theoretically) what the cost of services will be.

Will transparency give you what you need to take control of health care costs? Easier said than done. The answer depends on the changing nature of coverage, issues with transparency, and what consumers will need for good decision-making beyond prices.

Your Insurance Coverage Scope Is Narrowing—and Limiting Options for Access

The reality is that government and private health plans are leveraging consumer capital to lower health care costs for Medicare, Medicaid, and employers. Employers have moved to high deductible health plans with Health Spending Account (HSA) options that put a much higher share of costs on consumers; just over half of employment-based coverage remains

traditional, yet with higher deductibles and copays than in the past. Medicare Advantage (MA) plans, now covering 22 million beneficiaries, are promoted by Medicare—yet insurers can now redline individuals with high risk and charge supplemental costs for coverage if those MA beneficiaries decide to leave their MA plans because they are not able to get the right medical services when really ill, mostly due to narrow network contracting.

The bottom line is that you don't have the luxury of health care shopping—with or without good comparative cost information. Shopping around is not really a coverage option for most Americans.

Even in traditional health coverage, health plans and employers are limiting provider options for employees who would otherwise choose out-of-network providers but cannot afford the result—staggering copayment penalties. Some employers are also directly contracting or hiring their own providers, potentially leaving employees with special needs in the lurch for services..

Health Care Costs and Coverage Are Leading to a Consumer Financial Crisis

If the costs of health care are unaffordable for employers and government, which can spread costs over large groups, they are devastating for an individual consumer experiencing illness. The changing landscape of health care coverage, coupled with the high cost of care, has begun to hurl consumers into financial disaster. Medical bankruptcies and heavy credit debt as well as wage garnishments resulting from provider lawsuits against consumers are occurring at higher rates than ever

before. According to a Gallup survey, more than a quarter of consumers don’t seek the medical care they need each year. One of every seven seniors was unable to pay for medicine for serious illnesses within the last year. The same was true for one of every five individuals earning less than $60,000 annually.

How Transparency Is Complicated by Competitive Health Care Practices

Lack of transparency contributes to consumers’ financial distress in two ways. The first problem is created by providers. Consumers cannot use competitive purchasing practices without being able to predict the cost of treatment. They must also have the ability to compare costs between providers. Almost half of emergency room patients report that they did not know what their costs would be when seeking services, and only one-third of adults say that their doctors discuss the costs of treatment. Consumers are still almost always in the dark about what it will actually cost to get help.

The second problem is the overarching insurance scheme of network negotiations to create competitive pricing. That competition between providers and between health plans determines how expensive the coverage selections will be to employers. Rate negotiations with health plans are usually negotiated by entity—for example, physician practice or hospital, then by the individual practice or service type. None of this is transparent.

To complicate matters, health plans negotiate several network tiers so that they can offer the lowest cost products. The move

to “narrow networks” by health plans has exacerbated this problem.

Solutions for Transparency in Market-Driven Health Care Pricing Is Enormously Complex

Creating predictable costs is more difficult than consumers know, for three reasons:

1. There is no common sticker price for health care services.

Payment rates are negotiated between each health plan and providers on a regular basis, with big differences in charges. A hospital or physician will bill “charges”—using its own fee schedule that is usually three or four times what the payer negotiated—and then write off the difference before charging patients their portion of copayments.

CMS proposed rules will require providers to give consumers payer-specific costs, but this is being hotly contested by organized provider groups. Predictive pricing quotes would require specialized technology and algorithms to give consumers more than ballpark figures, and could lead to liability when actual costs exceed predictions.

Additionally, providers prefer to keep their negotiated rates from public view and analysis. These rates reflect their competitive positions, and comparison may be an embarrassment.

2. Each separate provider on the care team will have their own participation status in a health plan network that is tied to the patient's coverage.

It is far too common to have in-network and out-of-network providers on site in the same facility. You may have selected a provider in the network for service, but her referral to a radiologist may trigger an exorbitant out-of-network cost—and furthermore, that cost may be at full charge rather than a negotiated rate if the provider is simply not participating. Likewise, a provider may be in-network for one Blue Cross Blue Shield or United Health Care benefits plan, and out-of-network for another. Or, the physician may be in-network but the hospital out-of-network, so that any facilities typically included would trigger out-of-network costs for the patient.

Delivering transparency to consumers when providers' network participation differs is enormously complex, and it is hard to believe that all providers could manage the credentialing required to do it, as well as the individual rate calculations.

3. Patients typically don't purchase individual health care services, but, rather, an episode of care.

Current transparency efforts are configured on individual health care services. But that's not how patients experience their choices. Instead, consumers are on a continuum of diagnostics and treatment that will involve multiple services within a given time frame. For chronic illness, that time frame is long, and for individual episodes like surgery, exceedingly short. There are conditions, like auto-immune diseases, that

may involve new events that trigger a mini-episode to manage.

None of the transparency proposals currently require episodes-of-care packaging except where bundled payments are common practice, such as obstetrical services. Without package pricing, consumers can't possibly predict the total cost of a single episode, let alone compare the costs between providers.

Will Price Transparency Even Help Consumers?

Let's be honest, shopping for health care isn't like any other kind of retail experience. First, dealing with the health care system is what most people try to avoid. When they can't, it's because their situations are either immediately urgent or unavoidable. We all know not to shop for groceries while hungry, but hunting for health care often involves urgent and emotionally-driven circumstances. Most of us don't have the time to comparison shop, even if we had the information to do it. And it's far worse for consumers challenged by economic barriers to care.

Second, who understands the health care product? Even if your doctor gives you a good explanation of what's involved in treatment, knowing how that translates into individual health care services by more than one professional is extremely hard for the consumer to do, let alone know the participation status of each provider in your health plan.

If you have been recommended surgery, for example, knowing the cost of the surgeon's fee is just one part of the total cost. There is also the anaesthesiologist, the radiologist, the hospital or facility fee, labs, services before and after the surgery such as rehab or other therapy post-surgery, the

inclusion of assistant surgeons or other professionals, and prescription drugs.

With all that said, current transparency efforts are still a good first step to relieving the frustration of unknown costs for consumers. While not the full solution, they may have a positive effect in opening discussions about costs, and ensuring that consumers have some needed information to compare various treatment alternatives.

How Transparency Must Evolve and Be Part of a Larger Reform Effort

The complexity of educating medical decisions through cost transparency is daunting. To be effective in an environment of competitive rate negotiations, the most comprehensive effort is likely beyond the capacity of most providers. Governmental and private health plans should be engaged in a collaborative effort to create a common framework for providers to access and to compile both pricing and provider participation data that can be relevant based on an individual's coverage.

The transparency issue is a byproduct of our complicated market-based health care system, which has inherent and hidden costs. Countries where the norm is universal benefits or health care pricing have an easier foundation for transparent pricing, because there is no need to capture participation of providers, negotiated fee schedules, and individual coverages in a single system of predictive cost transparency. Beyond universal coverage, the issue of transparency, complexity, and hidden costs are what propel interest in Medicare-for-all proposals.

While there may be future consensus for big changes in health

care, we can’t delay helping consumers out of the crises they face now. It is unreasonable—unethical, in fact—to permit coverages that impose significantly higher cost share to consumers without pairing a reliable method to predict costs at time of medical decision-making, and then sue and impoverish patients who cannot pay.

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Image: Marek Okon

How Aching Joints Can Teach Consumers to Question the Evidence

written by Theresa Hush | February 27, 2020

As explained in our last article, there’s more to managing

personal health care costs than concentrating on insurance payments and uncovered costs. As health care consumers, we'd all benefit from learning how to determine whether the value of the services—as delivered by a given provider—is worth the cost, potential risk, and benefits.

Here, again, are the four key questions:

- Request evidence for new or continued treatment;
- Ask about your providers' cost and quality performance and service standards;
- Question what doesn't seem right about your experience, diagnosis, and treatment;
- Request episode-based cost information.

There's a good chance that some consumers will dismiss this list outright. Some (perhaps many) don't feel comfortable questioning their doctors. Older patients may feel that questioning medical decisions or treatment alternatives is beyond their expertise, and that the physician "knows best."

For others, it just might seem difficult to ask questions if they don't understand basic anatomy and physiology, let alone recent medical knowledge. The idea of requesting clinical trial results may feel uncomfortable or seem ridiculous.

But consider this: Health outcomes and the growing financial burden of health care services can be life-altering, and the cost will only increase with time. We all have to own the responsibility for better understanding and managing our health, including making better decisions about the value of medical interventions and other services.

What It Means to Question the Evidence

So let’s take a closer look at the first and most important thing that we can do as health care consumers: Question the evidence.

It’s all about identifying and understanding basic criteria. Think about the last time you purchased a car. Did you understand all the internal mechanics and computer systems under the hood? Most likely, you relied on certain key factors when you shopped around, like fuel efficiency, driver ergonomics, passenger seating, cargo room, and repair history. Obviously, making decisions about health care is more nuanced, but with the proper criteria in mind, the choices become clearer, when made in partnership with a provider who is willing to participate in an informed, shared decision-making process. The benefits are not only physical, emotional, and financial; chances of success increase when patients are fully invested in the treatment plan.

Take the case of osteoarthritis, one of most common types of illness that affects us as we age. Indeed, 53 million adults experience one or more of the joint diseases categorized as arthritis. Osteoarthritis is the most frequently diagnosed condition within that category, and is typically age- and/or activity-related. Despite some known risk—and improvement—factors, however, the progression and pain of degenerative joint diseases is unique to each individual.

Alternative Paths in Osteoarthritis Treatment

Typically, patients with osteoarthritis are prescribed anti-inflammatories; supplements; exercise regimens and/or physical

therapy; as well as, possibly, joint injections of corticosteroids, hyaluronic acid, or other agents. All of these therapies have side-effects, some of which are damaging. Even the common use of over-the-counter NSAIDs comes with risks.

Unfortunately, while various instruments can measure the severity of arthritis, these tools are inconsistently used to determine treatment. Rather, clinicians often depend on X-rays to determine therapies, rather than taking into account measurement of pain and dysfunction, a practice that potentially leads to overtreatment.

One of the most common overtreatments is joint replacement. Osteoarthritis is a major diagnosis for hip and knee replacements, but there is a growing belief that hip and knee replacements are being overperformed, costing tens of thousands of dollars. One study estimated as much as one third of knee replacements could be inappropriate based on key criteria.

Another problematic treatment involves opioids, which have been routinely prescribed for both chronic pain and post-surgical pain management related to arthritis. Despite indications that these drugs provide no greater pain relief than NSAIDs in arthritis of the hip and knee, providers continue to prescribe them. Even when use of opioids received a cautionary review as a treatment for pain related to osteoarthritis and surgeries by the American College of Rheumatology (ACR), feedback from patients that these drugs should remain available, despite evidence that they are no more effective, weighed in favor of their remaining in use. As a result, there is a risk that arthritis can be a potential gateway for opioid addiction.

Multiple therapies, inconsistent effectiveness, cost variations from zero to tens of thousands of dollars, and outcomes that may be complicated by addiction—these are why health care consumers should begin asking questions about the therapies recommended by physicians.

How Standard Therapies Suddenly Became Ill-Advised

On its website, Cleveland Clinic promotes the use of joint injections to relieve the pain of arthritis in hips and knees. They are not alone among providers who promote this common pain therapy. Yet the evidence about efficacy is questionable, at best. The ACR recently reviewed clinical studies of support therapies specifically for hip, knee, and hand osteoarthritis, and specifically recommended against the following therapies; their findings will be released in guidelines next month:

- Joint Injections:
    - Hyaluronic acid injections (hip)
    - Platelet-rich plasma injections (hip, knee)
    - Stem cell injections (hip, knee)
    - Interleukin-1 receptor antagonists
- Supplements:
    - Glucosamine
    - Chondroitin (hip and knee)
    - Transcutaneous electrical nerve stimulation (hip and knee)
- Drugs used more typically in autoimmune diseases or in rheumatoid arthritis:

Hydroxychloroquine (antimalarial)
Methotrexate (immunosuppressive)
Tumor necrosis factor inhibitors

Corticosteroid joint injections, the first line of therapies with joint injections, also have a questionable track record, despite being in mainstream use and remaining as acceptable therapeutics by the ACR guidelines. A 2017 study of corticosteroid injections for knee arthritis revealed that pain was not reduced and that deterioration of cartilage actually worsened. Further, the ACR further investigated negative outcomes with corticosteroid injections in 2018, and found that four negative outcomes warranted more caution because of negative effects on cartilage—as well as fractures and earlier progression to joint replacement.

How to Question the Evidence with Your Provider

Google research about medical conditions is often dismissed by providers as alarmist or misleading—not without cause. But as patient engagement gains credence, some providers are more welcoming of conversations about merit of therapies. What's needed is the time for longer discussions with providers, coupled with solid research-driven information to patients.recent movements toward engaging patients has some providers more welcoming of the conversations. Yet time does not always permit the extensive discussion needed, and unfortunately many practices have not compiled consumer-directed information that can help them navigate key information.

For that to happen, consumers will need to drive the process of questioning. Here's how to start with finding the right

osteoarthritis treatment:

Begin a self-education process about your conditions, earmarking important findings or advice. There is good information on the Arthritis Foundation site that explains degenerative joint diseases, and provides findings on activities, e.g. running with arthritis. You can find good information on therapies that are now recommended—for example, the ARC has recently upgraded recommendations for education and exercise, and tai chi in particular—as well as articles on the National Institutes of Health PubMed search engine for health care research.

Provide a list of questions to your physician about your condition and activities to discuss, including information gleaned from websites, for validation.

Request information from your physician on how the severity of your arthritis is being measured, what instrument is being used, and the result. You need to determine that quality of life and other measurement criteria are being used for therapeutic recommendations, not just X-rays.

Seek consistency of treatment plans with your goals. Goals to improve running performance or to reduce pain are very different and require different approaches. You should discuss and seek consensus with your clinicians on a plan to reach your goals, not generic goals.

Take someone you trust to your appointments, so that you can benefit by support and later confirm the information you received and impressions of the visit.

Before embarking on a major therapy such as surgery, seek a second opinion from someone who will have nothing to do with your case.

Ask for articles from randomized trials that show (in

numbers) the benefits and harms for any recommended treatment or therapy, prior to agreeing to therapy.

Any consumer with a computer and web browser can participate in a process that leads to becoming more knowledgeable and engaged in how to manage the pain and movement issues associated with arthritis. As for most medical conditions, consumers may well find that much of their status will depend on their own activities and efforts to be pain-free or pain-reduced. Osteoarthritis is a chronic and progressive disease, and the current science has no quick fixes or cures. Therapies must be individually appropriate as well as proven effective to show value for the money spent.

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Image: Matthew Bennett