

# Building the infrastructure for financial risk

*How leading healthcare organizations are developing a strategy for risk  
contracting and population health management*



### Building infrastructure for financial risk

Within a few years, many healthcare organizations will be taking financial risk for the care they provide, according to predictions by experts and healthcare executives. Unlike incentive-type value-based reimbursement, such as medical home bonuses and upside-only shared savings agreements, these contracts incorporate real financial risk in the form of two-sided shared savings, capitation, and global budgeting.

Both the Centers for Medicare and Medicaid Services (CMS) and private payers have made clear their intentions of moving healthcare providers into risk-bearing arrangements.

By the end of 2018, half of Medicare payments are expected to go to alternative payment mechanisms (APMs) such as accountable care organizations (ACOs), patient-centered medical homes, and bundled payments.<sup>1</sup> While CMS has postponed requiring ACOs in its Medicare Shared Savings Program (MSSP) to take two-sided risk, it has added a track to the MSSP that includes downside risk with higher upside potential than it had offered earlier.<sup>2</sup> Further, the new law that replaces the sustainable growth rate (SGR) with a different Medicare payment approach gives physicians involved in APMs a 5 percent annual bonus from 2019 to 2024.<sup>3</sup>

Meanwhile, a growing number of commercial health insurers are offering risk contracts to providers. According to a recent survey, 56 percent of health plan contracts with ACOs feature downside risk.<sup>4</sup> Hospitals and integrated delivery systems are more likely than physician groups to lead the ACOs that hold these contracts. That is not surprising, considering that successful risk-taking tends to require deep pockets.

Healthcare executives believe that risk is coming soon, and they're scrambling to prepare for it. "We anticipate that every single one of our payers will have that transition to risk," said Robert Fortini, RN, MSN, chief clinical officer of the Bon Secours Virginia Medical Group, in a recent interview with the Institute for Health Technology Transformation.<sup>5</sup> (see more information about his interview on page 12).

Nevertheless, relatively few healthcare organizations are prepared for risk contracting today. In a recent survey by the Healthcare Financial Management Association, nearly 40 percent of financial executives said they doubted that their organizations would have the capabilities needed to take risk within three years. The areas in which healthcare systems are weak include interoperability among IT systems, business intelligence, real-time data access, and chronic care management.<sup>6</sup>

Another survey found that only 12 percent of operational ACOs and 6 percent of provider organizations that plan to start ACOs believe they have the financial technology, outsourced services and consulting they need to be successful. Nearly four of five chief financial officers said they were caught between the need to update traditional revenue cycle management software and the imperative to select ACO solutions to prepare for risk contracting. Without a strong financial solutions vendor, 86 percent of hospital CFOs and 90 percent of ACO executives said they would have to opt out of many risk contracts. Most hospitals, physicians, and ACOs were still struggling to determine the impact of the limited financial risk they had already assumed.<sup>7</sup>

This paper explains what healthcare organizations must do to prepare for risk contracting and the level of maturity an organization must achieve before it can take risk. In addition, recommendations are included for health systems to consider as they develop their strategies, as well as case studies that show what some organizations have done to get ready for risk contracting.

## Background

For several years, the avowed goal of healthcare reformers has been the Triple Aim of improved quality, a better patient experience, and lower costs. Recognizing that pay for volume will inevitably be replaced by pay for value, many healthcare providers have embraced this movement. Nevertheless, the current paradigm of payment reform – incentives for quality and efficiency – is insufficient to induce many providers to change how they deliver care. To achieve fundamental change, organizations must take financial risk.

The favored vehicle for risk contracting is the ACO, a group of physicians, or physicians and hospitals, that agree to be accountable for the quality and cost of care. There are now upward of 700 ACOs, but the amount of risk they're taking is fairly limited. Only 7 percent of the 400-plus ACOs in the MSSP have chosen the two-sided risk track; most have selected upside risk only.<sup>8</sup> The Pioneer ACOs took downside as well as upside risk from the outset, but the number of ACOs in that program has dropped from 32 to 18 since 2012. Most of those that left the program—some to join the MSSP—had lost a fair amount of money.<sup>9,10</sup>

About half of ACOs contracted with private payers in 2014. Shared savings contracts, including those with two-sided risk, formed 69 percent of the private contracts. Fifty-six percent of the private-sector agreements featured some kind of downside risk. In addition, ACO contracts typically include a provision that shared savings are unavailable to providers unless they meet quality goals. If they do, they usually are eligible for a higher share of savings in proportion to the amount of risk they take.<sup>11</sup>

Despite all the changes in healthcare since the first managed care wave of the 1990s, the majority of organizations that take substantial financial risk are still based in California, Massachusetts, and a few other states. Some health systems elsewhere are part of organizations that also own health plans, such as Geisinger Health System, Intermountain Health, and HealthPartners. These healthcare organizations have an inherent motive to contain costs so that their health plans will prosper.

While your organization might not have the resources or the know-how to start your own health plan, the big national carriers have formed partnerships with hundreds of healthcare organizations to start ACOs. Assuming that your organization is the kind of partner that these companies are looking for, working with a health plan is one of the best ways to learn how to manage financial risk.

Either with the help of insurers or on their own, a number of healthcare organizations have boosted themselves to the level where they are capable of managing two-sided shared savings or even full-fledged risk contracts. These include some Pioneer ACOs such as the Banner Health Network in Phoenix, Michigan Pioneer ACO, and the Montefiore ACO in Bronx, N.Y.<sup>12</sup>

None of these ACOs or their parent organizations started taking risk until they had laid a solid groundwork for it. If a healthcare organization has started to build an infrastructure for risk contracting, or is planning its financial risk strategy, it should not try to do everything at once. It should implement the necessary health IT tools one at a time and get its clinicians aboard. And before the organization looks at risk contracts, it must be able to manage the health of its population.

## Overall recommendations for building the infrastructure for risk

### Apply general principles of PHM

- Build the infrastructure required for population health management (PHM), including capabilities for data aggregation and analysis and automated care management.
- Focus PHM efforts not only on high-risk patients, but also on other patients who will become sick and need expensive care unless they receive help.
- Provide continuous care to as large a portion of the patient population as possible, intervening between visits whenever necessary and engaging patients with lower health risks.
- Address some of the social determinants of health to reduce health risks in the population.

### Shift to a value-based mindset

- Add PHM functions gradually as the financial incentives of your organization change. For example, automated messaging to bring in patients who need preventive or chronic care supports a fee-for-service payment model.
- Align physician incentives with PHM by providing sufficient bonuses for quality, efficiency, and teamwork to motivate behavior changes.

### Implement the fundamentals of risk management

- Gather data from as many sources as possible, including Medicare, Medicaid and multiple health plans, to develop a fuller picture of your population.
- Use health IT tools such as risk stratification and predictive modeling software, electronic registries, and automation tools.
- Create mechanisms to improve transitions of care such as referrals and hospital discharges.
- Use telehealth and remote patient monitoring to facilitate non-visit care and keep closer track of patients with serious chronic conditions.

### Budget and forecast to manage financial risk

- Use activity-based cost accounting or other methods to calculate and track the true costs of care delivery.
- Use predictive modeling applications for financial risk management, drawing on as broad a range of data as possible.

## Population health management

As health plans and HMOs have known for decades, one of the best ways to control costs is through effective population health management (PHM). The goal of PHM is to keep a defined population as healthy as possible, limiting the need for expensive interventions such as ER visits, hospitalizations, imaging tests, and procedures.

PHM requires an organized system of care, the use of care teams, coordination across care settings, easy access to primary care, centralized resource planning, continuous care, patient self-management education, and a focus on health behavior/lifestyle changes.<sup>13</sup> A broad array of health IT tools, including an up-to-date EHR and a patient registry, is needed to facilitate PHM.<sup>14</sup>

In theory, PHM should systematically address the preventive, chronic, and acute care needs of each patient. Because the distribution of health risks changes over time, the objective is to modify the factors that make people sick or exacerbate their illnesses. By intervening at an earlier point in the disease cycle, healthcare providers can not only reduce costs but also improve outcomes.

Nevertheless, health plans have traditionally focused mostly on high-risk patients, and some ACOs and medical groups have taken the same approach. Their reasoning is that since 5 percent of the population generates about 50 percent of costs, managing the health of these people well is the most effective use of scarce resources.

Robert Fortini, whose group takes the broader approach to PHM, told iHT2 he understands why so many organizations have a narrower focus: “My best bang for the buck is to interrupt those who are visiting the ER 12 times a year or who are newly diagnosed with a comorbidity that’s going to result in that ER visit. It’s just a matter of time and resources.”<sup>15</sup>

While this focus on high-risk patients can bring short-term rewards, an even better long-term strategy is to build an infrastructure capable of continuously caring for the entire patient population. Since only 30 percent of high-risk patients were in that category a year ago,<sup>16</sup> it clearly makes sense to identify those people who are most likely to get sick or sicker in the coming year. This concept of predictive modeling is central to population health management.

### Non-visit care

Another central concept of PHM is “continuous care.” This doesn’t mean 24x7 monitoring, except for the sickest patients. What it does mean is that a healthcare system, ACO, or patient-centered medical home maintains regular contact with as large a portion of its population as possible. Providers must be available for their patients’ acute needs, and their care teams must also supply the appropriate preventive and chronic care. This cannot be done in a handful of office visits each year. It requires that the care teams keep track of and intervene with patients between visits. It is a proactive, rather than a reactive, approach.

Today, the majority of hospitals and physician practices are not organized to provide continuous care. To do so within the typical infrastructure of a healthcare provider, which is designed for episodic, visit-centered care, would be impossible because it would be too time- and labor-intensive. To better meet the requirements of continuous care, a healthcare organization must build a new infrastructure that emphasizes care teams, analytics, and automation tools.

Two Pioneer ACOs, the Heritage California ACO and the Montefiore ACO, exemplify the application of continuous care in population health management. Both ACOs have extensive support systems for continuous care.

The Heritage California ACO makes sure that its care teams know how individual high-risk patients like to receive health information, whether that's phone calls, emails, texts, or messages from a family member. If they can't get patients to come into the office, they'll track them down and try to engage them in some other way. They also find out all they can about patients, including their living situation, their financial problems, and how their families are involved in their care.<sup>17</sup>

Montefiore, based in Bronx, N.Y., has done something similar. The healthcare system-led ACO, part of an organization that has long held risk contracts, has 600 care managers, including nurses, social workers, and community-based educators. They use health data as well as data on other factors such as drug abuse, mental health problems, and homelessness to predict which people are most likely to get sick. They enroll the highest-risk patients in educational programs, using non-clinical health coaches. They assign patients to the best care manager for them, based on their psychosocial profiles. And they link these people with social services and community organizations that can help them.<sup>18</sup>

### Preparing for financial risk

The Premier Healthcare Alliance, a buying group and performance improvement organization that includes 2,600 US hospitals, in 2012 issued a report on ACOs that contained a number of recommendations for how to build them. While the report is aimed at organizations preparing for value-based reimbursement in general, its recommendations also apply to those getting ready for financial risk.<sup>19</sup>

Premier's ACO collaborative offers these insights:

- Six core structural components are needed to implement an effective ACO. These include patient-centered care; a health home (similar to a patient-centered medical home) that provides primary and preventive care; population health and data management capabilities; an established ACO governance structure; and payer partnership arrangements.

- Contractual arrangements among unrelated providers can substitute for a single, co-owned legal entity comprising physicians and/or hospitals. But the providers must learn how to collaborate in a clinically integrated network.
- Patient engagement is essential. ACO providers must communicate effectively with people, help them manage their conditions, and empower them to use nontraditional means of accessing care, including remote monitoring, telemedicine, and online portals.
- To the extent possible, organizations that belong to ACOs should try to align their reimbursement models with the incentives that payers provide to their care delivery systems. If a healthcare system or physician practice receives a majority of its income as fee for service, it is challenging for that organization to concentrate on reducing the demand for health services.
- ACO leaders must design incentives that encourage providers to work together to deliver effective, efficient care. They must change their physician compensation method from one that emphasizes production to one that rewards high-quality care at a level high enough to change physician behavior.
- ACOs should have financial modeling capabilities that allow them to evaluate the impact of various payment options, including two-sided shared savings and capitation.
- ACOs must make extensive investments in health IT to improve care coordination and prevent duplication of efforts. "To succeed as ACOs, providers need seamless care coordination with sophisticated population health status measurement capabilities that will improve health status and reduce overall costs."
- ACOs must be able to measure and assess their performance on a broad range of clinical quality, efficiency, and patient satisfaction measures. This requires data on utilization of services, patient demographics, financial performance, quality scores, and other relevant metrics. The data must be presented "in a digestible and actionable format."

## Infrastructure building blocks

The core population health management functions of an organization capable of bearing risk include the following:

- Data aggregation
- Predictive modeling and risk stratification
- Care management and care coordination
- Well-coordinated transitions of care
- Patient engagement and education
- Performance assessment
- Financial risk management

Among the health IT capabilities that such an organization should have are:

- Electronic health records
- Patient registries
- Health information exchange
- Predictive modeling software
- Advanced analytics
- Automated outreach
- Transitions of care and referral tracking
- Patient portals
- Telehealth
- Remote patient monitoring
- Cognitive analytics

When reviewing these health IT capabilities in the context of the core PHM functions, bear in mind that no organization can build this entire infrastructure all at once. Instead of trying to boil the ocean, add these functions gradually and apply them to various revenue-producing strategies that can help finance your infrastructure investment ([Financing Provider-Led Population Health Management with New Value-Based Incentives](#)).

For example, when you have a patient registry, you can link it with automated messaging software that can bring in patients for needed preventive and chronic care. This will increase your revenue while your organization is still largely in a fee-for-

service mode and bring in patients who need to be seen according to evidence-based guidelines. Closing care gaps also helps improve many value-based quality metrics. Later, as you transform your primary care practices into patient-centered medical homes, establish care teams, and improve your ability to provide continuous care, you will be well-positioned to take advantage of Medicare's Chronic Care Management program, which pays an average of \$42 per patient per month for eligible Medicare beneficiaries who have at least two chronic conditions.<sup>20</sup>

While your organization builds its new infrastructure, it should also be getting providers used to the idea of value-based reimbursement and being stewards of scarce healthcare resources. Part of that transition must be to change the compensation formula so that physicians are rewarded for improving quality and avoiding unnecessary services. This strategy will also help your physicians do better under the upcoming changes to Medicare reimbursement, which will reward providers who surpass benchmarks for quality and efficiency.

### Data aggregation

To manage population health, an organization must first measure it, and that requires data. The organization can use administrative data, EHR data, and/or claims data if it is available.

Administrative data, which comes from a hospital financial system or a practice management system, is limited because it is generated by billing and registration systems. It doesn't include lab results or other clinical data such as blood pressure and smoking status.

Clinical data recorded in EHRs is richer, but much of it is still unstructured, making it unavailable for analysis. In addition, clinical data usually reflects only what has been done for a patient within the EHR's healthcare organization. So the data may omit lab work, preventive screenings, and other services commonly performed outside of the healthcare system or the practice in which the patient's primary care doctor works.

To get a fuller picture of the health services provided to a patient and where they were delivered, your organization needs claims data, which is one reason to partner with health plans. Among other things, claims data will tell you how many of your patients are going to providers outside of your ACO or network. The main drawback of claims data is that it can be one to three months out of date. Also, the majority of healthcare organizations need to obtain data from many health plans, in addition to Medicare and Medicaid, to construct an all-encompassing picture of the populations they are managing under various value-based and risk arrangements.

The data from these multiple sources can be aggregated in a data warehouse after it has been cleaned, mapped, and normalized. The data can also be fed into a patient registry that may be part of the data warehouse or a stand-alone system. Some EHRs contain registries, but they're not very robust and include only EHR data. Stand-alone registries, which list individual patients, what has been done for them, and when, along with lab results and other key information, typically generate more usable reports than EHRs do.

Health information exchange is increasingly important as providers with different EHRs collaborate on population health management. But regional HIEs are not widespread, and the ability of disparate EHRs to exchange data remains limited. ACOs and other healthcare organizations must find ways to exchange key data among their participants.

### **Predictive modeling/risk stratification**

To manage risk, organizations need predictive modeling tools, which can be used in risk stratification. Stratifying a patient population by health risk helps the organization identify the people who need immediate help to improve their health, while predictive modeling forecasts which patients are likely to generate the highest costs in the next year. Thus, the risk-bearing ACO or healthcare system can use these tools to avoid potential costs and to budget for unavoidable expenses.<sup>21</sup>

In advanced healthcare organizations, risk stratification includes analysis of clinical and claims data plus the results of health risk assessments, which ask patients about their health behavior and family and social factors.

Predictive modeling software was developed for health plans and still depends mainly on claims data. But an increasing number of these programs also integrate clinical data and even patient-reported data, especially to help hospitals prevent readmissions, as well as avoidable admissions and ER visits associated with common chronic conditions.

### **Care management**

If an organization has accurate, timely registry data, it can apply clinical protocols to that data to identify preventive and chronic care gaps for each individual in the population, whether or not an individual seeks care. When those reports are linked with an EHR, physicians can be alerted at the point of care that the patient in front of them needs certain kinds of care.

Registries can also be connected with automated messaging that tells patients who have care gaps that they need to make an appointment with their provider. Studies have shown that these automation tools increase compliance with care plans. This is an example of how health IT designed for PHM can be used to support continuous care for an entire population.

Care managers can use other kinds of applications to identify which patients need urgent help and prioritize their caseloads. They can receive the same alerts from patient registries that providers do, and they can also drill down into the reports to find out what is going on with individual patients. For example, have they filled their prescriptions? Have they had a recent ER visit? Is their hypertension out of control?

To support care teams, this kind of relevant, action-driving data should be available to all team members at all times. In addition, care team members and providers (specialists as well as primary care physicians) should be able to communicate with one another easily through some kind of online platform.

### **Transitions of care**

Transitions of care, including referrals to specialists as well as hospital and ER discharges, present one of the greatest opportunities for cost reduction. If people don't see the specialists to whom they have been referred, or if consultants don't send reports back to the patients' primary care doctors,



the patients are likely to have poorer outcomes. Likewise, if a primary care doctor is not informed when his or her patient is admitted or discharged, or if the patient doesn't make an appointment to see the physician after he or she leaves the hospital, the chance that the patient will be readmitted increases.

Studies show that many transitions of care are mishandled, partly because our healthcare system is so fragmented.<sup>22, 23</sup> But there are ways to improve the situation. For example, some ACOs have collaborated with member hospitals or the hospitals they use to establish a link between their admission/discharge/transfer systems and the EHR that their care managers use. That way, ambulatory care providers can track which of their patients have been hospitalized or have used the ER recently.<sup>24</sup>

Some healthcare systems use automated phone surveys that they send to all patients within 72 hours of discharge. The brief surveys ask the patients about their hospital experience, whether they understand their discharge instructions, and whether they've made an appointment to see their primary care doctor. Depending on how they answer the questions, a care manager could be alerted to call them directly to find out whether they need assistance.<sup>25</sup>

### **Patient engagement**

Population health management will fail unless patients are engaged in managing their own health. This is the hard truth that healthcare organizations must come to grips with before taking risk for the cost of their patients' care.

One of the most powerful motivators for patients is their relationship with physicians. When their doctors tell them to do something, they're more likely to do it than if a lower-level clinician or a health plan tells them to. But patients often don't comply even with doctors' orders, because of financial barriers, lack of understanding, or other reasons. So it is up to the healthcare organization to find ways to communicate with patients and reinforce their motivation to comply with their care plans.

The work of patient engagement doesn't necessarily require intervention from a care manager. Online education can be very potent, especially if it is pushed out in the name of physicians to low- or medium-risk patients who have specific conditions. Using registry data, a healthcare organization can create hundreds of targeted campaigns for patients with various diseases and comorbidities. Some of these might involve coming in for a group diabetes "visit," joining a gym, or enrolling in Weight Watchers.

New technologies offer other ways to reach patients. Some patients might find it easier to do telehealth visits with their providers than come into the office—and these "e-visits" are becoming reimbursable directly from private payers and as part of Medicare's Chronic Care Management program. Remote patient monitoring, such as for patients with heart failure, can alert providers when a patient's status worsens so timely action can be taken to prevent an admission, readmission, or ER visit. And increasingly common patient portals with security-rich messaging offer another way for providers and patients to communicate.

### **Performance assessment**

No risk-bearing organization can function well without assessing its own performance and the performance of its providers on a regular basis. Advanced analytic software can help organizations do that by using data "dashboards" to determine how well they're managing various conditions and subpopulations. Managers can use the same kind of software to analyze the utilization and quality scores of individual providers and sites.

A key part of this process is to give feedback to providers on their performance compared with that of their peers and perhaps national benchmarks. Physicians are very competitive, and this feedback will spur them to do even better. If the numbers are tied to their compensation, their motivation will be even greater.

## Financial risk management

Once an organization has mastered the fundamentals of PHM, it still needs to have the budgeting and forecasting tools to manage financial risk. The majority of organizations lack these: According to a recent KPMG survey, for example, only 15 percent of healthcare finance departments said they had “very sophisticated” capabilities to support capitation, bundled payments, and quality-based payments. But 61 percent of the respondents said they were revamping their financial systems to prepare for the transition to the new payment methods. The areas where they needed the most help were predictive modeling (30 percent) and analytic tools (27 percent).<sup>26</sup>

Traditional revenue cycle management software won’t help in risk contracting, because it is designed to optimize revenue based on the volume of services provided. A different approach that looks promising is “activity-based cost accounting.” This technique uses applications to track the actual costs of delivering care, rather than the charges for that care. Activity-based cost accounting can be helpful in budgeting so that costs do not exceed capitation payments, bundled payments for episodes of care such as joint replacements, or historic benchmarks used in shared savings deals.<sup>27</sup> The University of Utah has been recognized for developing a powerful cost accounting program called Value Driven Outcomes for just these purposes.<sup>28</sup>

A more basic and typical budgeting approach that healthcare organizations use is to look at historic costs based on claims data to estimate the next year’s costs for an entire population. This can provide a marker for budget calculation. But it is not very precise, and it is useless for predicting the number and costs of catastrophic cases, because more data sources and different types of algorithms are required. It is not even very good for forecasting how many high-risk patients your organization may have or who they are likely to be. In fact, only 30 percent of high-risk patients were in that category a year earlier, so the health risks of your population are always changing.

Predictive modeling applications, as mentioned earlier, are far more robust for financial projections as well as for predicting the health risks of individuals. These models draw on multiple sources of data, including clinical and claims data and, increasingly, patient-reported information and known community drivers that impact health, access to care, and

patient engagement (the “social determinants of health”). A couple of caveats are in order, however: First, the results are only as good as the quality of the data. Second, the accuracy of predictive modeling varies with the health and health risk status of different population segments.

In forecasting a hospital admission, for example, the positive predictive value of a predictive modeling application might be as high as 80 percent, but only for high-risk patients. Applied to people with moderate health risks, the same predictor might have a lower positive predictive value. Predictive analytics can forecast which patients will go to the ER with good accuracy in some cases. But because of the random nature of some ER visits, the software doesn’t predict ER visits as well as hospitalizations.<sup>29</sup>

To calculate the odds that a particular patient will have high health costs in the coming year, an organization must have information on the individual’s prior costs and utilization of services, current health status and conditions, diagnoses, lab results, and medications. It would also help to have data on nonclinical factors such as health literacy, living situation, availability of social services, and mental health/substance abuse indicators. By applying an algorithm to all those values, one can compute a risk score for each patient, and from that, derive an average risk score for a defined population.

The organization can then calculate its average historical cost per patient and multiply that by the average risk score and the number of patients in the population. Based on the result, the organization can decide whether the capitation payment or global budget it is being offered is sufficient to cover its expected costs. If the organization has multiple risk contracts, it must go through this exercise for each one, because they will cover different populations.

No matter how sophisticated your predictive modeling software is, it cannot forecast all the outliers in the population. Just a few catastrophic cases could turn a projected profit into an unexpected – and substantial – loss. That’s why organizations that take risk need stop-loss insurance. But having an early warning about these very risky patients can help a provider organization improve its outcomes and protect its bottom line at the same time.

A couple of other pointers can help guide organizations as they enter the complex world of risk contracting. First, payers must clearly indicate which patients a physician is responsible for. The lack of provider attribution in MSSP plans until the end-of-year accounting is a major drawback for Medicare ACOs. Second, a risk-bearing organization must be able to track the movements of patients outside its network, because outside providers can and do charge more than those bound by network agreements.

#### Other kinds of contracts

Up to this point, the discussion of this paper has focused on straight risk contracting. But it is also likely that an organization will have to decide whether to sign two-sided shared savings or bundled payment contracts. Everything said earlier about population health management applies to the downside risk in two-sided shared savings; the main difference between that and global risk is that you're sharing the risk with the payer. Also, in the MSSP, the potential losses are far less than the potential gains.

Bundled payment contracts are shaping up as risk sharing between hospitals and physicians or between hospitals and post-acute-care providers. These agreements generally cover specific episodes of care with designated time periods after (and sometimes before) hospitalizations. Examples include bundled payments for hip and knee replacement operations, which CMS recently made mandatory for Medicare providers in 75 metropolitan statistical areas.<sup>30</sup> So far, there hasn't been much experience with or interest in applying bundled payments to chronic conditions.

With bundled payments, the risk calculations are different for each provider, depending on the kind of care provided, which party is receiving the payment, the negotiating power of the other parties, and each provider's motivation to curb costs.

In both payment bundling and other kinds of risk contracting, provider organizations must make sure that the payers are using risk-adjustment methods that adjust the payments fairly, based on the health risk of a particular patient or the average health risk of a population. This has proved to be a very important issue in Medicare Advantage plans, which must

submit to CMS detailed diagnostic information on each enrolled beneficiary.<sup>31</sup> Providers that take risk from Medicare Advantage or commercial plans must take the same precautions.

Finally, if a healthcare organization is taking global risk, it might consider whether to start its own health plan rather than give a percentage off the top to an insurer. But experience has shown that typically, only fairly large providers can be successful with this strategy, which requires the maintenance of financial reserves and the ability to build an adequate network that can provide all required healthcare services.

## Conclusion

Preparing to assume financial risk is a new competency for many health systems. A number of healthcare organizations, some of them allied with health plans, have done this successfully. But building the infrastructure to take risk requires a deliberate strategy. It is expensive, and it takes time to develop. Equally important, organizations must align the incentives for their physicians and other providers with population health management, and they must figure out how to engage patients in their own care.

The health IT component of PHM is also critical to success in risk contracting. If providers lack the ability to track patients' health status, identify their care gaps, and intervene with them when needed in a timely way, patients' conditions will likely deteriorate, and they may visit the ER or be hospitalized. Health IT is also needed to engage and educate all patients about their conditions and how to care for themselves, independent of their present estimated risk level or whether they have had a recent visit with their primary care provider. In addition, the ability to measure clinical performance and track financial metrics is essential.

To many organizations, all of this seems overwhelming. But it need not be. If a healthcare system or physician group develops a sound strategy and executes it one step at a time, the organization can prosper under risk contracts. To this point, the following examples, discuss how two healthcare organizations have successfully implemented the principles discussed in this paper.

The first example discusses the approach used by the Banner Health Network (BHN), an ACO formed by Banner Health in Phoenix, Ariz., and its affiliated physicians. BHN is one of the most successful ACOs in Medicare's Pioneer program, which requires ACOs to take two-sided shared savings, a form of shared risk. In 2012, BHN saved CMS \$19.1 million and kept \$13.37 million of that. In 2013, the ACO saved CMS \$15.15 million and retained \$9.22 million.<sup>32</sup>

A risk contract between BHN and Aetna resulted in shared savings of \$5 million on fully insured Aetna commercial members in 2013, plus a 5 percent decline in average medical costs. The ACO also improved cancer screening rates and blood sugar management in diabetic members, and it reduced the rate of avoidable hospital admissions.<sup>33</sup>

Banner's success in risk contracting appears to be related to two strategic decisions: The healthcare system achieved a very advanced stage of health IT implementation, and it relied heavily on Aetna's help in building its commercial ACO.

In May 2012, less than six months after BHN joined the Pioneer program, HIMSS Analytics recognized 17 of Banner Health's hospitals for having reached stage 7, the highest level in its EMR Adoption Model. This meant that Banner's hospitals had developed a comprehensive EHR that included computerized physician order entry, physician documentation in the EHR, a data warehouse, and HIE capability. The system's private HIE connects its inpatient and ambulatory care EHRs, which are from different vendors. In addition, private practice doctors can view inpatient information through a web portal.<sup>34</sup>

But the EHR alone was not enough to give BHN the population health management capabilities it needed. For that, it relied largely on Aetna, with which Banner struck an ACO partnership agreement in 2011. Aetna rolled out a new health plan that used the BHN providers as its network. Aetna's risk-sharing pact with BHN rewarded the ACO for meeting quality, efficiency, and patient satisfaction benchmarks.<sup>35</sup>

In 2012, Aetna increased its technology support for Banner's ACO, which by then served 200,000 people. It provided HIE software from its Medicity subsidiary; clinical decision support services from its Active Health Management unit, along with workflow tools to monitor and coordinate care and report on patient outcomes; and the ability for members to make appointments online or via smartphones through iTriage.<sup>36</sup> All of this, combined with Banner's own advanced infrastructure, helped BHN achieve success in risk contracting.

The second example is the approach used by Bon Secours Virginia Medical Group, (as covered in the IHT2 Report, "*Risk-Based Payment Models and Health IT Accelerate Together*").<sup>37</sup> This large multispecialty group based in Richmond, VA employs 624 providers, of whom 150 are physician assistants or nurse practitioners. About 60 percent of its providers are in primary care, and 40 percent are specialists. Five years ago, in contrast, 30 percent were primary care providers and 70 percent were specialists.

BSVMG's emphasis on primary care and on transforming its primary care practices into patient-centered medical homes has been the key to its success with value-based reimbursement, which includes shared savings, care coordination fees, and quality bonuses. For the past few years, for example, those medical homes have held their readmission rates to just 2 percent, which has helped reduce overall costs.

With the help of population health management software that automates much of the routine work of preventive and chronic care, BSVMG has done well with several Medicare Advantage contracts, says Robert Fortini, RN, MSN, the group's chief clinical officer. For example, he expects BSVMG will receive about \$1 million this year from its shared-savings contract with Cigna.

Fortini believes the group is nearly ready to move into full-fledged risk contracting. He expects BSVMG will assume risk in its next three-year contract with Cigna. United's new contract continues sharing savings with BSVMG for the first two years, but the group will start taking downside risk in the third year.

One of the key advantages of having a strong primary care workforce, Fortini notes, is that generalist providers can handle many of the health issues that – at least on the East Coast – have traditionally gone to specialists. In his view, a primary care physician or an NP can do most of what an endocrinologist does to manage diabetes, and the care is cheaper.

Fortini estimates that nearly 80 percent of BSVMG's revenues are now coming in through its ACO, which was built on the foundation of its medical homes. The ACO now includes only BSVMG physicians but will soon expand to include community physicians. It has contracts with Medicare as well as commercial payers. The only payer that the ACO doesn't yet have aboard is Medicaid.

Because claims data is less than timely, BSVMG has persuaded some of its commercial payers to give it daily or weekly utilization data, including information about hospital admissions. Cigna also gives the group ER utilization reports and reports on patients referred to case management.

The group's PHM software tools have also helped quite a bit, Fortini says. By using a registry with automated patient messaging, for example, BSVMG can make 75,000 automated calls a year to people who are overdue for preventive or chronic care. That saves a lot of nursing time, he points out, and 30 percent of the calls produce results.

Moreover, he adds, a new type of application that blends clinical and claims data can tell his care managers which of their patients with a chronic condition such as diabetes are in the worst shape. That allows them to prioritize their lists of patients and phone calls.

BSVMG has 52 care managers embedded in its practices and another dozen in a central location. Fortini believes it is critical to have care managers at practice sites, because they must know the patients in order to be effective. "If you want to change someone's behavior, you need to have a trust relationship," he says.

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### About Phytel, an IBM Company

Phytel, an IBM Company, is a leader in physician-led population health management software that develops and sells cloud-based services that improve long-term health outcomes by helping healthcare providers and care teams coordinate care and engage patients to positively influence population health. Phytel also enables providers to meet the new healthcare quality requirements and reimbursement models by delivering proven quality care to patients based on evidence of what works best.

### About IBM Watson

In January 2014, IBM launched the IBM Watson unit, a business dedicated to developing and commercializing cloud-delivered cognitive computing technologies. The move signified a strategic shift by IBM to deliver a new class of software, services and apps that improves by learning, and discovers insights from massive amounts of Big Data. For more information on IBM Watson, visit: [ibm.com/watsonecosystem](http://ibm.com/watsonecosystem).

### About IBM Watson Health

In April 2015, the company continued to build on its strengths in cognitive computing, analytics, security and cloud with the launch of IBM Watson Health and the Watson Health Cloud platform. The new unit will help improve the ability of doctors, researchers and insurers to innovate by surfacing new insights from the massive amount of personal health data being created daily. The Watson Health Cloud allows this information to be anonymized, shared and combined with a dynamic and constantly growing aggregated view of clinical, research and social health data. For more information on IBM Watson Health, visit: [ibm.com/watsonhealth](http://ibm.com/watsonhealth)



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Route 100  
Somers, NY 10589

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