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# The seven characteristics of successful alternative payment models

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# Executive summary

Alternative payment models (APMs) are central to the efforts to reduce the growth in healthcare costs and improve outcomes for patients. Yet some stakeholders remain skeptical of their potential. This is understandable, because APMs have shown mixed results. We have identified seven characteristics of well-designed models that yield meaningful savings for payers, improve margins for high-value providers, and improve patient outcomes.

## 1. Density and scale

For an APM to succeed, the proportion of the provider's book of business included in the model must be sufficiently large (high density) to motivate providers to change, justify investments, and adopt dedicated clinical-operational workflows. When the proportion is small (low density), the incentive to change is weak. Worse, the provider's economics may be adversely affected if changes spill over to fee-for-service (FFS) patients.

The absolute scale of the entity contracting the APM (APM contractor\*) also matters. Providers with high volumes of patients in APMs can better afford the necessary investments and target operational changes for the APM patients. Scale also reduces the impact of chance on the contractor's measured performance. Medicare Shared Savings Program (MSSP) accountable care organization (ACO) results suggest that even with 20,000 members, ACOs can routinely save or lose based on random variation alone.

APM design can influence density and scale in multiple ways, including minimum thresholds for participation; concentration of patient volume in APM providers; smart caps on outliers (that do not meaningfully reduce savings opportunities); and alignment with other payers on incentives, measures, and operational requirements. Allowing virtual contracting entities also increases scale, but these may be difficult to successfully migrate to risk.

## 2. Strategic leverage

The leverage available to APM contractors varies considerably. Physician-led APMs can realize savings by reducing admissions, rationalizing diagnostic pathways, and referring patients to lower-cost hospitals—all without incurring revenue loss. With relatively small operating budgets (compared with the total costs of care), savings can have substantial impact on revenue and margins.

For hospitals, these “savings” would be realized largely at the expense of their own revenues, which may explain the more modest savings seen in hospital-led APMs (even those that are well designed):

- Hospital-led ACOs: 1–2%
- Physician-led ACOs: 3–5%
- Hospital-led bundled payment: 3–5%
- Physician-led bundled payment: 5–8%

Yet many opportunities for hospitals exist. Some hospitals can reduce post-acute costs without impacting their revenue, for example, or they can focus on “best-in-class”

\*Throughout this paper, we use the term “APM contractor” to refer to the provider entity that assumes responsibility for the APM's cost and quality arrangements. (The provider entity can be an existing provider or health system, or a group of providers who created a new legal entity for the APM.)

areas of expertise to increase efficiency and market share. They can also increase margins by replacing the avoided (re)admissions with other patients, based on improved physician alignment, thus receiving both shared savings and additional revenue. This approach combines a more traditional revenue-growth strategy with savings realized per patient or episode.

### **3. Skin in the game**

Successful APMs tend to include financial risk. Financial accountability for losses ensures providers' organizational commitment. Models that share both savings and losses with providers allow payers to offer higher shared savings percentages—up to 100%—which helps providers justify needed investments.

Successful APMs also include accountability for outcomes and costs for both low-risk and high-risk patients. Less experienced APM contractors may push to exclude high-risk patients or care outside their direct sphere of influence, which reduces the percentage of savings payers can share. Also, the proposed exclusions (e.g., high-risk patients) are often where the largest possible savings are. Here, a seemingly safe approach can leave both payer and provider with empty hands.

### **4. Focus on the forest rather than the trees**

Rewarding value is possible only when costs can be juxtaposed with quality of care that meaningfully reflects the patient's journey. Most quality measures used for APMs, however, focus on processes that reflect only fragments of the journey. Two innovative metrics move us closer to measur-

ing outcomes. Surveys of patient-reported outcomes (PROs) assess patients' symptoms and functional improvements in ways claims data cannot capture. For many conditions, PROs are the measure that matters most. In addition, the rate of potentially avoidable exacerbations and complications (PECs) is a powerful claims-based metric that captures another core outcome of care: the extent to which the care provided helps to reduce a condition's potential complications or exacerbations.

### **5. Calibration of risks and rewards**

Successful APMs are built upon design choices that balance the payer's interest in reducing medical costs and the provider's interest in minimizing risk and maximizing retained savings. Successful APMs drive predictable savings for payers but remain sufficiently attractive to providers to optimize participation in voluntary models and avoid demotivation and resistance in mandatory ones. Although these goals might not seem compatible, making the right combination of design choices allows APMs to meet both needs. Risk adjustment, benchmarking, and attribution methods can make or break success.

### **6. The right mix of incentives, motivation, and feasibility**

Successful APMs combine financial incentives with two other key behavioral modification drivers: professional motivation and feasible targets. Restoring the link between provider economics and the professional motivation to deliver patient-centered, high-quality care creates a powerful drive. In addition, successful APMs show a feasible path for providers to deliver higher-value

care. The clearer it is to providers how to achieve high-value performance, the more they are likely to succeed. This makes general ACOs a natural anchor point for primary care physicians (PCPs), and episodes of care or specialized ACOs attractive to specialty care providers.

### **7. Accounting for consumer behavior**

Misalignment of the contractor's incentives with consumer incentives can threaten an APM's success. APM contractors can identify and target specific value "leaks" and introduce initiatives to improve con-

sumer behaviors, treatment adherence, and referrals to high-value providers. Payers can also encourage behaviors through well-designed benefits and value-based insurance products.



While these principles appear intuitive in hindsight, most are not yet commonly and consistently applied. Were payers and providers to do so consistently, APMs may achieve consistently greater impact and following from that, broader adoption. ○

# Introduction

Few people in the healthcare industry would dispute the challenges FFS payment creates for the quality and affordability of healthcare. Nevertheless, after years of mixed results, some stakeholders remain skeptical of the potential for APMs to achieve meaningful improvements in care delivery. Indeed, many APMs have not produced savings or improved outcomes. Some models were never widely adopted because of unfavorable provider economics; others were adopted but never obtained true provider commitment. Still other models were effective in isolated circumstances but lacked a path to scale. However, some APMs have yielded impressive results, producing savings of 5% or more for payers while simultaneously showing outcome improvements.

Evaluations of APMs have largely focused on whether the models improved outcomes, not on how provider economics or operations could explain the results achieved. Thus, public and private healthcare leaders are left trying to make decisions without the information that would enable them to invest where success is most likely.


Most examples of underperforming APMs have identifiable flaws in either design or execution. Unfortunately, these failure cases often gave the impression that the overall APM model is flawed, rather than

pinpoint the characteristics that distinguish success and failure.

What makes an APM successful? What features create provider enthusiasm, mitigate medical expenditure growth, and improve patient outcomes? To aid APM (re)design and support providers and payers in their value-based contracting strategy, this paper highlights seven characteristics that distinguish well-performing APMs from poorly performing models:

1. Density and scale
2. Strategic leverage
3. Skin in the game
4. Focus on the forest rather than the trees
5. Calibration of risks and rewards
6. The right mix of incentives, motivation, and feasibility
7. Accounting for consumer behavior

Our insights are based on an extensive review of academic studies and other evaluations of payment innovation. Our experience working with both providers and public and private payers allows for an in-depth understanding of the strategic, economic, operational, and cultural factors that mediate success or failure under APMs.

We focus on the two main payment models aimed at improving outcomes and reducing costs across organizational boundaries: population- and episode-based models.<sup>†</sup> 

\*Evaluation studies use different approaches to assess the impact of APMs on the costs and outcomes of care. In this paper, we analyze “costs of care” from the payer’s perspective (the amounts paid to providers). A model creates *gross savings* if the risk-adjusted actual costs included in the APM are lower than the expected costs. The *net savings* are what remains after the payouts to providers (e.g., share of the gross savings; bonus payments) are subtracted from the gross savings. We consider “outcomes of care” to have improved if the risk-adjusted actual outcomes are better than the historical or expected outcomes. Unless otherwise noted, outcome improvements and savings are annualized and reported as a percentage change versus status quo trend; the savings reported are net.<sup>†</sup>

<sup>†</sup>Definitions of these and other technical terms can be found in the glossary at the end of this paper.

# 1. Density and scale

For an APM to succeed, the volume of patients covered under the model's contracts must be sufficiently large to motivate providers to change, justify investments, and adopt dedicated clinical-operational workflows. If the APM contracts include only a small proportion of a provider's total book of business (i.e., have low density), the provider has a weak incentive to change. Worse yet, the provider's economics may be adversely affected if changes spill over to patients still covered by FFS.

Large providers, with high volumes of patients in APMs (i.e., who have large APM scale), can better afford the necessary investments and segment their operations to target changes at the subset of patients under APMs. Furthermore, scale reduces the impact of chance on the contractor's measured performance.

APM design can influence density and scale in multiple ways, including minimum thresholds for participation; concentration of patient volume in APM-participating providers; and alignment with other payers on incentives, quality measures, and operational requirements.

## Density

Care delivery transformation requires providers to invest in new capabilities and adopt new processes. New skills, governance structures, data, and analytical capabilities are needed to monitor and manage patients' outcomes over time. Most providers would not embark on such a journey lightly: the expected impact on their economics would have to outweigh the costs.<sup>2,3</sup>

Even a total-cost-of-care contract may have little relevance if it affects less than 20% of the provider's revenue.<sup>4</sup> Joining the Centers

for Medicare and Medicaid Services' (CMS's) Bundled Payment for Care Improvement (BPCI) program is attractive for many orthopedic providers, since these Medicare FFS bundles can constitute a large proportion of their book of business. For other specialties, however, the combined contract value of the available bundles in Medicare FFS alone may be too low to matter.

Unsurprisingly, providers that have only a small fraction of their patients in APMs often fail to deliver meaningful savings. For many of the hospitals participating as MSSP ACOs, less than 10% of patient volume is included in the MSSP arrangements. Under such circumstances, even a hospital that initially participated with a strong commitment to success may find that its financial planning or clinical-operational processes remain unchanged. These processes will continue to be driven by the needs of a system geared around FFS incentives. Approaches to reduce admissions and emergency room (ER) visits may in fact "spill over" to patients not included in the ACO, with adverse implications for the hospital's revenue.

What density is necessary for an APM to be effective? Is it 25% of a provider's patient panel? 50%? We find that the financial and operational implications of APM adoption differ among APMs. For example, transformation of a primary care practice into a patient-centered medical home requires greater investment than shifting referrals to lower-cost specialists and hospitals. Conversely, bundled-payment models for specialists may reward changes that require little investment, such as eliminating unnecessary diagnostics or shifting the site of care for diagnostics or post-acute treatment. It is likely for this reason that successful



advanced primary care models and hospital-led ACOs are largely limited to APM contractors with a high proportion of patients included within the models—often, 50% or more. In contrast, bundled-payment models can succeed with 25% or less of a provider's patient panel, and physician-led ACOs can succeed with only a minority of patients in risk-based total-cost-of-care arrangements.<sup>5</sup> While it is not yet possible to determine the proportion of patients that must be in a payment model for it to be successful, a hospital-based APM that includes 10% or less of that organization's revenue is unlikely to succeed. Payers can be skeptical about any APM that allows for adoption with low density if the model demands significant business model changes for success. Conversely, providers that participate in APMs with a greater share of their patient panels can largely disregard the experience of providers that only scratched the surface with APMs.

## Scale

Independent of the density of an APM, the absolute scale of the APM contractor is important. Scale affects not only the impact of chance on cost and other performance measures, but also the potential for providers to spread fixed costs across a broader patient panel, segment patient populations, and create operational protocols tailored to those segments for which an APM can create a stronger return on investment.

**Impact of chance.** Many total-cost-of-care models have established the minimum scale for participation at around 5,000 or 10,000 patients to reduce the probability of payouts based on random chance rather than the contractor's actual performance. However,

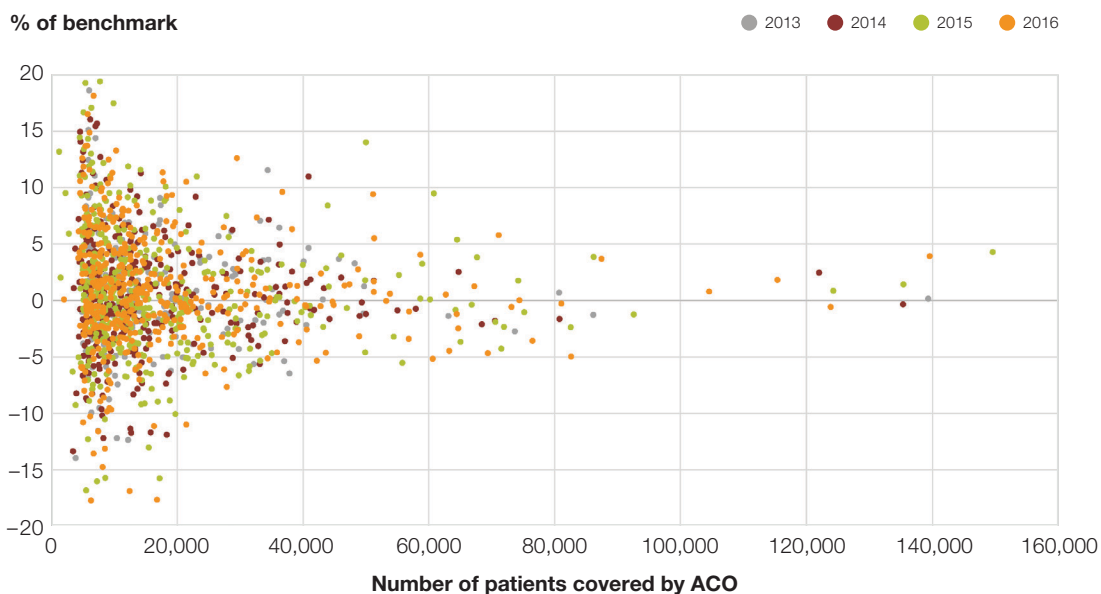
for the 70% of MSSP ACOs that in 2016 had 20,000 lives or less, random variation could routinely result in significant savings or losses (Exhibit 1).<sup>6-8</sup>

These fluctuations can be devastating to small- or mid-size APM contractors that take on risk. For payers with multiple small- or mid-size upside-only ACO contracts, however, the impact is particularly negative. In these models, the payer remains responsible for all losses, yet must share savings. Because the providers are "betting with the house's money," payers are likely to lose.

To reduce the impact of chance, many APMs include minimum savings rates (MSRs) that must be achieved for providers to receive their share of savings. The lower the volume of patients, the higher the MSR. As this approach also reduces the number of contractors receiving shared savings, it tends to diminish the incentive for providers to perform under APMs.<sup>6</sup>

**Economies of scale.** Economies of scale reduce the relative cost of hiring staff or implementing a care management system to succeed with the APM. Whether the minimum efficient scale is 500 or 50,000 depends on the APM's scope and capabilities required. Five thousand beneficiaries may be sufficient to underwrite cost-of-care management if a provider can use off-the-shelf technologies; however, providers whose legacy systems require significant customization may struggle to justify the investment. That said, orthopedic surgeons or obstetricians participating in episode-based APMs may be able to adopt changes without new capital investments even if they have 100 or fewer patients in those models.

## EXHIBIT 1 Plot of MSSP ACO size vs losses or savings



This exhibit illustrates the impact of chance in small- and mid-size ACOs: gains or losses of lower-volume ACOs are much larger than larger-volume ACOs. In addition, the results of low-volume ACOs tend to show little consistency, fluctuating from year to year.

ACO, accountable care organization; MSSP, Medicare Shared Savings Program.

Source: Barr L et al. Payment reform in transition—scaling ACOs for success. *Health Affairs Blog*. Posted May 11, 2018, at <https://www.healthaffairs.org/doi/10.1377/hblog20180507.812014/full/>

**Patient segmentation.** Physicians' clinical decisions do not tend to differ based on the type of insurance patients carry. However, to ensure the success of an APM while avoiding losses in the FFS segment of their panel, providers may want to apply different care management interventions to APM participants. Likewise, providers may want to apply specific interventions only to higher-risk patients. Such segmentation requires scale. It may be difficult for a small physician group to create distinct processes for a portion of their patients, but entirely feasible for a hospital or large independent physician association.

## Reducing density and scale risks

### Mitigating the impact of low density and scale.

Providers will be more likely to participate if savings can be generated with only minor changes to their business model, such as shifts in referral patterns or sites of service for diagnostic tests. Also, low density can be addressed by broadening the APM's patient inclusion criteria or raising the percentage of savings to be shared.

In our view, MSRs are blunt tools to mitigate the impact of low patient volumes: while they prevent some chance savings, they

also prevent payouts for real savings below the MSR.

Better ways to reduce the impact of random chance exist—for example, by limiting the variability in costs per patient (see the sidebar below), stabilizing the benchmark by using multiyear baseline methodologies and multi-year performance periods, and increasing density and scale.

**Increasing density and scale.** APM design can ensure greater density and scale by setting higher minimum volume thresholds for participation. Likewise, payers can in-

crease APM contractors' volumes by steering patients to these contractors or excluding nonparticipating providers from their networks.

APMs could also allow for “virtual” contractors: groups of independent providers whose results are aggregated to ensure scale and whose investments can be minimized by the use of shared services.<sup>6</sup> Virtual groups tend to lack a common ownership and performance culture; assuming risk will likely be difficult. Yet this approach can create a glide path for small providers to become accustomed

## The impact of chance: Cost variability

In addition to patient volume, the risk of unwarranted gains or losses is also driven by variability in per-patient costs (the coefficient of variation\*) within an APM.<sup>8</sup> The coefficient of variation tends to be especially high in ACO models, which can include the full range of relatively healthy, low-cost beneficiaries and a “long tail” of high-cost beneficiaries.<sup>11</sup> Such cost distributions challenge even the best risk-adjustment models.<sup>12-14</sup>

Cost variability can be lowered by capping outliers. Finding the right balance here is essential because lower caps reduce the opportunity to save. More fundamentally, variability can be decreased by carving out subgroups of beneficiaries with substantially different risk and cost profiles. New York

State, for example, created specialized ACOs for high-need behavioral health beneficiaries and those with HIV/AIDS. Removing these higher-cost beneficiaries reduced cost variability in the general Medicaid ACO population. Likewise, the risk and cost profiles of the specialized ACOs are more homogeneous because only specific subpopulations are included.<sup>15</sup> Cost variability is also low in episode-based APMs. In procedural episodes, for example, the risk of erroneous shared savings or losses becomes small once the number of beneficiaries exceeds 100.<sup>16</sup> Far fewer cases (20 or less) may be sufficient for episode-based models that reward providers for achieving distinctive performance (e.g., best quartile, with costs 10% to 15% below the mean).

\*The coefficient of variation is the ratio of the standard deviation to the mean.

to APMs and evolve to organizations better able to move to the next phase.

Finally, density and scale can be improved by aligning APMs across payers. Although this does not alter the impact of chance within an individual APM contract, it reduces the likelihood that a contractor's overall performance will be affected by chance. Multi-payer alignment also reduces providers' administrative burden (the need to cope with multiple payment schemes), which increases their incentive to participate.

Alignment of APMs between payers does not need to be complete; as long as the main financial incentives in different payers' models point in the same direction, they can reinforce one another. Private payers contemplating ACO models do not need to copy the definitions Medicare uses. For providers, the overall incentive to reduce the total cost of care can be sufficiently aligned even if shared savings percentages, benchmark methodologies, or attribution details differ.<sup>9,10</sup> [O](#)

## 2. Strategic leverage

Successful APMs give providers significant strategic leverage in one or both of the following ways:

- The ability to influence the total cost of care for a patient population or episode by reducing the volume of services delivered by other providers without reducing the APM contractor's own revenue
- The ability to favorably affect their patient volume under value-based payment and remaining FFS arrangements

The leverage available to APM contractors can vary considerably. Physician-led APMs can realize savings by reducing admissions, rationalizing diagnostic pathways, and referring patients to lower-cost hospitals—all without incurring revenue loss. For hospitals, these “savings” would be realized largely at the expense of their own revenue.

Yet many opportunities for hospitals exist. Some hospitals can reduce post-acute costs without harming their revenue, for example, or they can focus on “best-in-class” areas of expertise to increase efficiency and market share. They can also increase margins by replacing the avoided (re)admissions with other patients, based on improved physician alignment, thus receiving both shared savings and additional revenue.

### Disrupting others: Physician-led APMs

Physician-led ACOs (which are often heavily oriented to primary care) usually outperform hospital-led ACOs. In CMS's initial BPCI

program (BPCI 1.0), hospitalist-led bundled-payment contractors outperformed hospitals, and non-hospitalist physician groups outperformed both; physician-led APMs tend to save approximately twice as much as hospital-led APMs.<sup>9,17-20</sup> Our research suggests that these net-savings percentages for payers can be taken as a conservative guidepost for well-designed APMs\*:

- Hospital-led ACOs: 1–2%
- Physician-led ACOs: 3–5%
- Hospital-led bundled payment: 3–5%
- Physician-led bundled payment: 5–8%

Physician-led APMs have the potential to lower inpatient and outpatient care utilization as well as post-acute care costs without incurring a revenue loss. They can also refer patients to the lowest-cost/highest-quality providers available, creating additional savings.<sup>21-23</sup> The PCPs leading Blue Cross Blue Shield of Massachusetts's Alternative Quality Contract ACOs, for example, realized almost 90% of the 1.9% gross savings achieved in the first contract year by shifting diagnostic services and procedures to lower-priced providers, and moving patients from in- or outpatient facilities to office-based providers.<sup>22,24</sup> (See the sidebar, “The success of physician-led APMs,” p. 13.)

The payouts for contracting physicians can be substantial. A primary care-led ACO whose average revenue per beneficiary accounts for 7% of the total cost of care<sup>25</sup> could realize a 14% increase in reimbursement if it could reduce total spending by 2%, assuming a 50:50 shared-savings arrangement (Exhibit 2).

\*Caveat: These percentages are indicative and assume a well-designed model (i.e., one that incorporates the characteristics outlined here as well as the technical design components listed in Exhibit 5, p. 22). Specialized ACOs will likely have higher expected savings than ACOs aimed at the general population, but there is not yet enough evidence to quantify this expectation. The feasibility of implementing these designs successfully can vary across markets, depending on the payer's market share and the local provider landscape. As the relative efficiency of the APM contractor increases, the annual savings percentages may become smaller.

## Disrupting oneself: The strategic challenge for hospitals

For hospital-led APMs, reducing potentially avoidable (re)admissions often causes revenue losses larger than the associated shared savings. Depending on the line of business and payment rates, an admission may achieve anywhere from a 30% to 70% contribution margin for a hospital. Contribution margins for some capital-intensive services (e.g., outpatient imaging) may be even greater. Given this, even a model that shares 70% of savings with a hospital-led ACO may not present a compelling business case for reducing admissions in the near term (see Exhibit 2). If benchmarks are adjusted downward over

time (i.e., incorporating savings realized), the long-term economics may be even less attractive.

It is equally difficult for a hospital-led APM to drive volume to high-value services if those services compete with the hospital's own offerings. Referring patients to the best cancer center in a region might improve outcomes and reduce costs; however, if the hospital has its own cancer center, the referrals would cause it to lose patients and revenue.<sup>17,19,28</sup>

The growing recognition among payers that APMs can be designed to consistently realize savings, and that physician-led APMs tend to outperform hospital-led contractors, poses a strategic risk for health systems. Furthermore, concerns have been raised that hospital-led ACOs could encourage provider consolidation<sup>†</sup> and thus reduce

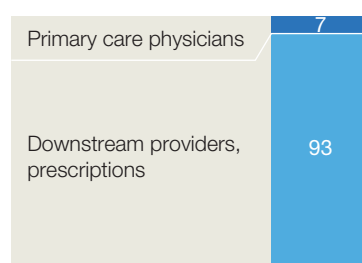
<sup>†</sup>Examples of health system consolidation include horizontal and vertical integration through mergers with other systems and acquisitions of physician practices.

### EXHIBIT 2 Physician-led ACOs can influence a larger proportion of ACO spending without associated revenue loss

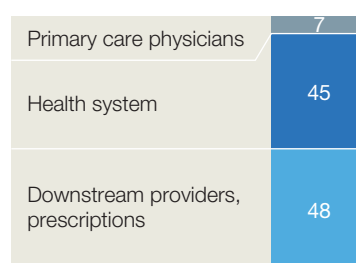
#### Illustrative breakdown of an ACO's spending<sup>1</sup>

- ACO contractor revenue (percentage of ACO spending)
- Potentially influenceable ACO spending without associated revenue loss
- Spending with minimal savings opportunity

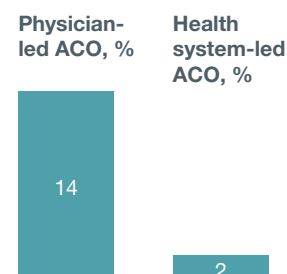
#### Physician-led ACO, %



#### Health system-led ACO, %



**2% shared savings would give both providers a 1% absolute increase in revenue, but the relative impact is larger for physician-led ACOs<sup>2</sup>**



ACO, accountable care organization.

<sup>1</sup>Spending percentages will vary per ACO.

<sup>2</sup>Impact calculations assume that 2% savings can be achieved without impact on fee-for-service revenues; a 1% increase over 7% is a 14.29 relative revenue increase; a 1% increase over 45% is only a 2.22 relative increase.

Sources: Bailit MH et al. *Standardizing the Measurement of Commercial Health Plan Primary Care Spending*. Milbank Memorial Fund. July 2017; Medicare FFS 2016 data

## The success of physician-led APMs

During the first two years (2012–13) of CMS's MSSP program, primary care-led ACOs spent \$371 less per beneficiary (3% of total costs) than hospital-led ACOs did.<sup>19</sup> The difference was primarily due to greater reductions in inpatient and hospital outpatient costs. In 2016, physician-led ACOs—largely, primary care practices—saved CMS \$50 per beneficiary, while CMS lost \$65 per beneficiary with hospital-led ACOs.<sup>9,17,26</sup> High-performing

primary care-led ACOs can increase practice profitability by 25% or more.<sup>23</sup>

Among those APM contractors in the BPCI 1.0 program supported by Remedy Partners (about half of all BPCI 1.0 participants), the hospital-led APMs saved, on average, 5.3% per contracted episode between Q4 2013 and Q1 2017. In contrast, the physician-led APMs saved 9% during that time—in relative terms, 87% more.<sup>20,27</sup>

competition; the resulting higher prices could cancel out any cost reductions realized by the ACOs.<sup>29-36</sup> Indeed, studies have shown that consolidation does lead to higher prices (through increased market power) with limited quality improvement.<sup>29-34,37</sup>

Opportunities for hospitals abound, however. For example, a hospital could improve outcomes and decrease post-acute spending by providing rehabilitation services in patients' homes, reducing discharges to skilled nursing facilities (SNFs), and lowering SNF length of stay. For hospitals that don't own SNFs, the savings would not have negative revenue impact and could significantly improve the hospital's margins. Hospitals have applied this strategy successfully in the Comprehensive Care for Joint Replacement (CJR) bundled-payment program. With only about nine months of implementation, the hospitals within this mandatory program saved 3.3% more than nonparticipating hospitals.<sup>38,39</sup>

For hospitals with market share to gain, embracing APMs can increase margins by com-

binning a traditional revenue-growth strategy with savings realized per patient or episode. Both new APM and FFS patients can fill the capacity freed by reducing (re)admissions, which may more than offset revenue lost. Improving access is one way to increase market share; increasing appropriate referrals (e.g., by alignment with local PCPs) is another. PCP alignment can be boosted by offering these physicians infrastructure or permissible financial support, access to the hospital's electronic health records, or a joint program to improve patient engagement and network loyalty.<sup>40</sup>

Hospitals often underestimate the disproportionate impact that shared savings can have on margins. For a health system with \$3 billion in revenue and 3% operating margin, 8% savings in an APM that includes 10% of the system's revenue could increase margins by more than 21% (assuming an 80%/80% shared savings/losses arrangement).

Another strategy to increase volume is to become a best-in-class provider for episodes of care

(e.g., hip replacement or other elective procedures) at a fixed price. (See the sidebar below.) Alternatively, a hospital could form a specialized ACO for select conditions and realize savings by streamlining care.<sup>41,42</sup> Both options can

improve the hospital's attractiveness to payers, increase volume, and reduce the marginal cost of care delivery. Furthermore, improving outcomes could reduce downstream costs, further increasing net revenue. [o](#)

## Aligning patients' and providers' incentives through centers of excellence

In 2014, the Pacific Business Group on Health (PBGH) launched a centers-of-excellence program for high-volume, mid- to high-cost procedural care. Through this program, large employers such as Walmart, Lowe's, JetBlue, and McKesson contract directly with select providers (e.g., Geisinger, Virginia Mason, and Johns Hopkins) to perform hip replacement, spine surgery, and other procedures for their employees. These episodes are full risk, paid prospectively, and cover all treatment-associated costs (including those resulting from PECs) between initial evaluation and seven to ten days post-discharge. Patients receive concierge-level support, and their employers cover all charges, deductibles, coinsurance, co-pays, and travel and living expenses for the patient and a companion.<sup>125,141</sup> Contracted as a single bundled rate, the average cost to the payer of the spine bundle is 10% to 15% lower than it would have been under traditional FFS, even when additional travel costs, services, and waived out-of-pocket costs are included.<sup>141</sup>

Another characteristic of well-designed centers-of-excellence contracts is that they can reduce the intervention rate, creating additional savings. Geisinger reported that 15% of its hip replacement candidates and 30% to 50% of its spine

surgery candidates (most of whom had been referred for surgery) were advised by integrated teams—orthopedic surgeons, physiotherapists, and behavioral health and pain management professionals—that conservative management was the preferred treatment. Less than 10% of these patients opted for surgery.<sup>141</sup> In its hip-replacement centers-of-excellence program, the California Public Employees Retirement System (CalPERS) saw a 29% reduction in the number of surgeries per 1,000 plan members in the contract's first year and 22% in the second.<sup>139</sup>

Centers-of-excellence contracts can be attractive for providers: the increase in overall volume allows for additional efficiencies of scale, standardization, and better matching of resources with patient demand. Moreover, contracting prepaid bundles generates predictable income and cash flow. By reducing the rate of PECs and use of inpatient rehabilitation services, margins can increase even if the average price decreases. Across the PBGH initiative, discharges to inpatient rehabilitation facilities for joint replacement dropped to 0% (compared with 9% in comparable patients with traditional insurance), readmissions fell to 0.4% (versus 6%), and surgical revisions within six months to 0% (versus 1%).<sup>141</sup>



### 3. Skin in the game

With few exceptions, successful APMs include some form of financial risk (see the sidebar, “The value of two-sided risk,” p. 16). Financial accountability for losses ensures providers’ organizational commitment. In addition, models that share both savings and losses with providers allow payers to share a greater percentage of the savings, which helps providers justify the needed investments.

The type of risk matters: successful APMs include accountability for outcomes and costs across the total patient journey.<sup>11</sup> However, APM contractors should, in principle, not be held accountable for large risks they cannot meaningfully influence.

#### With risk comes commitment

By some estimates, more than 90% of current value-based contracts are upside-only (one-sided). In such models, participating providers may join with the best of intentions, but when competing strategic and operational priorities get in the way, they may discontinue participation or reduce their organizational commitment.<sup>43-46</sup> In some cases, providers may elect to participate simply to “roll the dice.” In our experience, weak commitment is an important factor contributing to the lackluster performance of upside-only programs.

In contrast, models that include downside risk introduce self-selection in participation. Academic evaluators may discount self-selection as “bias,” but experienced payers often realize that this self-selection allows them to focus on those organizations that are committed to change—resulting in larger savings.

#### Risk allows for first-dollar gain sharing

As described previously, payers have leveraged MSRs to reduce chance payouts that systematically disadvantage payers. Although risk does not need to be symmetrical to create provider commitment to change, symmetrical risk may obviate the need for MSRs, since chance payouts go in both directions (and often average out for a payer across multiple APM contractors, or for a single APM contractor over multiple years). Although some payers and providers may still be concerned with the potential for chance payouts under symmetrical risk sharing, we believe it may be better to accept chance payouts (if symmetrical) than to introduce MSRs that would blunt the incentive for providers to perform under the APM.

#### Risk allows for greater rewards

Under two-sided models, payers can offer high shared savings/losses percentage—up to 100%. Upside-only models, on the other hand, commonly reserve a smaller share of savings for providers (e.g., 30% to 40%). In such models, payers retain all the exposure to downside losses, whether they are the result of random chance, exogenous factors (e.g., new treatments, pandemic flu), or underperforming providers.<sup>47</sup> (See the sidebar, “Savings and losses,” p. 17.) An upside-only model offering ACOs 30% to 40% of savings may still be relevant for a physician-led ACO, but not for a hospital-led ACO whose opportunity cost of lost patient volume is likely to exceed the net savings shared.

## Risks to include and exclude

For an APM to succeed, the contractor's responsibility for costs and outcomes should include the continuum of care. Thus, in a population-based APM, the default would be to incorporate all the covered services patients receive. Likewise, a pregnancy episode would cover everything from early prenatal care to post-delivery care, and a procedural episode

would cover preoperative costs, the procedure, and associated post-acute care. The inclusion of longer-term outcomes allows APM contractors to invest “upstream” in the care continuum (e.g., prevention, care coordination, improving a patient's condition before surgery) to save on the usually higher downstream costs (e.g., admissions, complications). Prenatal care, for example, can decrease the percentage of low birth-weight (and hence high-cost) newborns.

## The value of two-sided risk

Whether population- or episode-based, APMs that achieve meaningful savings for public or private payers tend to include financial risk for participating providers. Upside-only models are particularly common in population-based programs: most APMs that specifically focus on primary care, for example, lack downside risk.<sup>48,49</sup> In 2016, CMS's Comprehensive Primary Care program incurred a 1.7% net loss; the savings resulting from reductions in SNF and outpatient services utilization (including ER care) did not outweigh the investment of new care management fees.<sup>50,51</sup> In the MSSP, CMS's largest population-based model, more than 90% of the ACOs are enrolled in the upside-only track. After years of losses, and due to the more positive results of the physician-led ACOs, the program ran a net 0.3% gain in 2017.<sup>52,53</sup>

In comparison, in 2016 CMS's two-sided Pioneer ACO model saved 0.9%, and its Next Generation ACO model saved 1.1%.<sup>54-58</sup> In addition, CMS's specialized ACO for end-stage

renal disease—also a shared-risk model—saved 3.6%.<sup>59</sup> The two-sided Alternative Quality Contract ACO offered by Blue Cross Blue Shield of Massachusetts has generated gross savings since 2009 and turned profitable in 2012 after investments in quality performance and infrastructure paid off.<sup>60</sup>

The episode-based models reporting gains for both payers and providers are also shared-risk models. Providers have reported double-digit savings with joint replacement episodes.<sup>61-63</sup> The BPCI 1.0 decreased spending in 24 of the 32 evaluated episodes; none of the episodes showed a statistically significant increase in spending.<sup>64</sup> Over three years, spending in the most widely used procedural episode (lower joint replacement) was reduced by 4.4%; among the five episodes with statistically significant cost reductions, spending was 6.7% lower. Because CMS kept the program upside-only for a few years, however, BPCI 1.0 ultimately failed to save money for Medicare.<sup>64</sup>

The inclusion of longer-term outcomes also reduces the likelihood that providers shift care to services not included in the APM. If inpatient or SNF costs are excluded, for example, admitting a patient could be a way to avoid other expenditures and remain below the target budget.

Less-experienced APM contractors may push to exclude high-risk patients, care outside their direct sphere of influence, or entire service categories (e.g., inpatient care or drugs). Similarly, some providers may request low stop-loss\* caps to reduce the risk of losses. As the provider's risk decreases, however, the payer's risk increases,

\*A "stop-loss" provision is a form of re-insurance. Individual stop-loss caps limit maximum losses per beneficiary/episode to a negotiated amount. Aggregated stop-loss caps limit the total losses across the contracted population, usually as a percentage of the aggregate benchmark.

## Savings and losses in one- and two-sided models

A simplified example can illustrate the impact of one- and two-sided models for the payer and APM contractor. Let's assume a payer has identical one-sided (upside-only) contracts with ten equally large providers, sharing 50% of savings. If five providers each spend 10% below the target budget while the other five providers spend 10% above budget, the payer's total expenditures will increase 2.5% (half of the savings achieved by half of the providers), even though actual medical costs remain the same.

If the successful providers continue to achieve 10% savings while the five "losing" providers spend only 5% above target, the payer's total medical costs would decrease by 2.5% (which is high for an upside-only model). Because the payer would still have to pay 2.5% to the successful providers, the savings would be wiped out.

If the payer lowered the shared savings percentage from 50% to 20% to reduce its risk,


the 1% paid to half of the providers (20% of the 10% savings) would be smaller than the 2.5% decrease in total expenditures, leaving the payer with a net gain of 1.5%. Although this outcome is attractive for the payer, the incentive for providers to change has become small.

Now, let's assume that the payer offered a two-sided model in which it shared 80% of the savings or losses with the APM contractors. If five providers achieved 10% savings and the other five spent 10% above budget, the payer would come out even—successful providers would receive an 8% payout, and unsuccessful providers would have to pay back 8%. If, instead, the unsuccessful contractors spent only 5% above budget, the payer would realize a 0.5% net gain. (Offsetting the 8% the payer would give to the successful providers would be the 2.5% decrease in medical costs and the 4% payback from the unsuccessful providers.)

likely resulting in a decrease in the percentage of savings shared. Often, the proposed exclusions (e.g., high-risk patients with many potentially avoidable complications) are where the largest possible savings can be found. Here, a seemingly safe approach can leave both the payer and provider with empty hands.<sup>65-68</sup>

On the other hand, there is little value in transferring risks to APM contractors that they cannot reasonably influence, such as the chance that a population will need more high-cost specialty drugs than expected. Small fluctuations in the incidence of high-cost events can significantly affect an

APM contractor's financial results (see the sidebar, "The impact of chance," p. 9).<sup>69</sup>

The "right" amount of risk is not about a percentage of the contract volume but rather the costs the APM contractor can influence. The costs of hospital or SNF admissions can be high, but this risk can usually be acted upon. On the other hand, catastrophic costs or the care needs of patients requiring high-intensity, high-cost treatments (e.g., multi-trauma or burn victims) are likely outside a general APM contractor's scope of influence. Limiting these latter risks tends to increase rather than decrease the APM's impact.<sup>69,70</sup> 

## 4. Focus on the forest rather than the trees

Rewarding value is possible only when the cost of care for a patient's journey can be juxtaposed with the quality of care. Most current quality measures, however, capture only fragments of the journey. Two innovative metrics—PROs and PECs—help bring this goal within reach.

### Measuring steps toward the goal

Current APMs rely primarily on provider-focused measures. Process measures track whether care is delivered according to guidelines: Have the right medications been prescribed and the right tests performed? Was the patient appropriately counseled? Provider-specific outcome measures capture such things as readmissions, ER visits, and patient satisfaction. These measures assess only fragments of the journey and often fail to reflect the journey's overall result: high scores on process measures tend to poorly predict patient outcomes.<sup>71,72</sup> The disconnect between the efforts required to capture the necessary data and the scores' lack of relevance leaves many providers frustrated.<sup>73-75</sup>

### Measures and data

Capturing the impact of care delivery throughout the care continuum is challenging. Most data sources are either confined to a single provider or cover only some patients some of the time. One exception is claims data, which can be used to deduce outcomes over time and across organizational boundaries. Claims data includes diagnostic information and identifies care events that signal outcomes (e.g., a wound infection requiring readmission, a prescription signaling disease exacerbation, or a heart attack in a diabetes patient). Through claims data, it is

possible to identify PECs—outcomes that might have been avoided through better care.<sup>76-78</sup> (See the sidebar, “Potentially avoidable exacerbations and complications,” p. 20.)

Increasingly, clinical data can be extracted from longitudinal electronic health records to capture longer-term outcomes, such as whether blood pressure or inflammatory disease markers are controlled.<sup>79-81</sup> Patients are another source of outcomes information across the care continuum. For example, the clinical success of a hip replacement or a patient's functional status after a stroke can be reliably measured using surveys of PROs.<sup>82-85</sup> These surveys assess—and can detect changes in—a patient's symptoms, physical or behavioral capabilities, and quality of life in ways that claims data cannot capture.

### Value

Together, PROs surveys, clinical data, and longitudinal analyses of PEC rates are bringing a quiet revolution to quality measurement. In combination, they have the capability to directly address the core goals of care that matter most to patients\*: How well are patients able to live with a chronic condition or cancer? How well is their pain alleviated? Can they regain optimal quality of life after a heart attack?<sup>83,89-91</sup>

Publicly reporting these outcomes for a given population or episode, juxtaposed with the cost of care per APM contractor, allows patients, providers, and others to compare the value of care delivered between APM contractors (see Exhibit 3 on p. 20).<sup>92,93</sup> Similar comparisons can be made between regions, payers, or hospitals.<sup>94-96</sup> Such transparency is a powerful driver of value creation. ○

\*Goals vary for different categories of conditions: in patients with severe comorbidities or in palliative care, for example, the importance of quality of life may start to override other goals.<sup>86-88</sup>

## Potentially avoidable exacerbations and complications (PECs)

Using readily available claims and administrative data, it is possible to identify and measure care outcomes that could have been avoided through better prevention, care coordination, outreach, and guideline adherence. Currently, many of these measures are provider-specific (e.g., potentially avoidable ER visits, (re)admissions, in-hospital mortality). Claims data, however, encompasses the full continuum of care, and thus can help gauge outcomes across the continuum. CMS's mandatory CJR bundle payment program, for example, includes a risk-standardized measure of admission-related complications (including death, post-

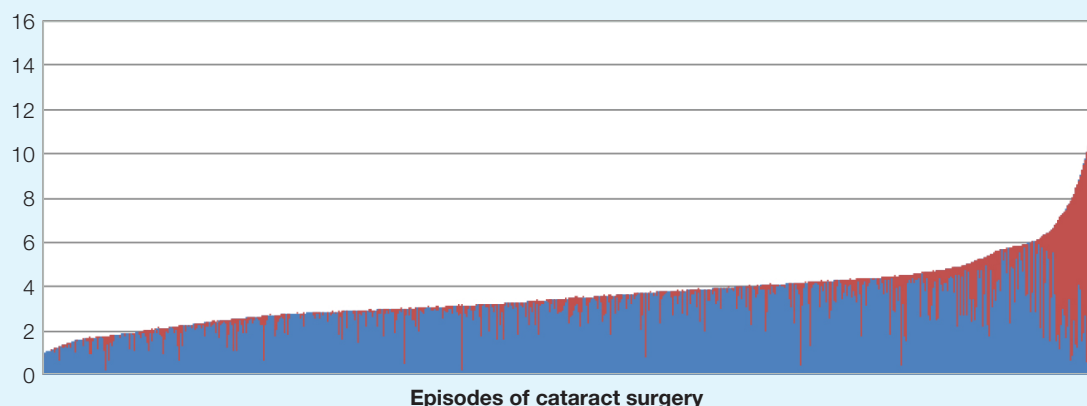
surgical wound infections, cardiovascular events, and bleeding) that occur up to 90 days after discharge.<sup>97</sup> Although still anchored in (re)admissions, this measure draws on all available claims data, follows a patient through time, and combines a broad range of PECs in a single metric.

New York and Maryland have gone one step further, including in their metric not only potentially avoidable (re)admissions but also exacerbations treated in outpatient settings or associated with preexisting chronic conditions. Here, the PECs are aggregated in one rate.<sup>15,78,98</sup>

### EXHIBIT 3 Financial impact of potentially avoidable exacerbations and complications (PECs)

Cost per cataract surgery episode, US \$, thousands

● PEC ● Typical



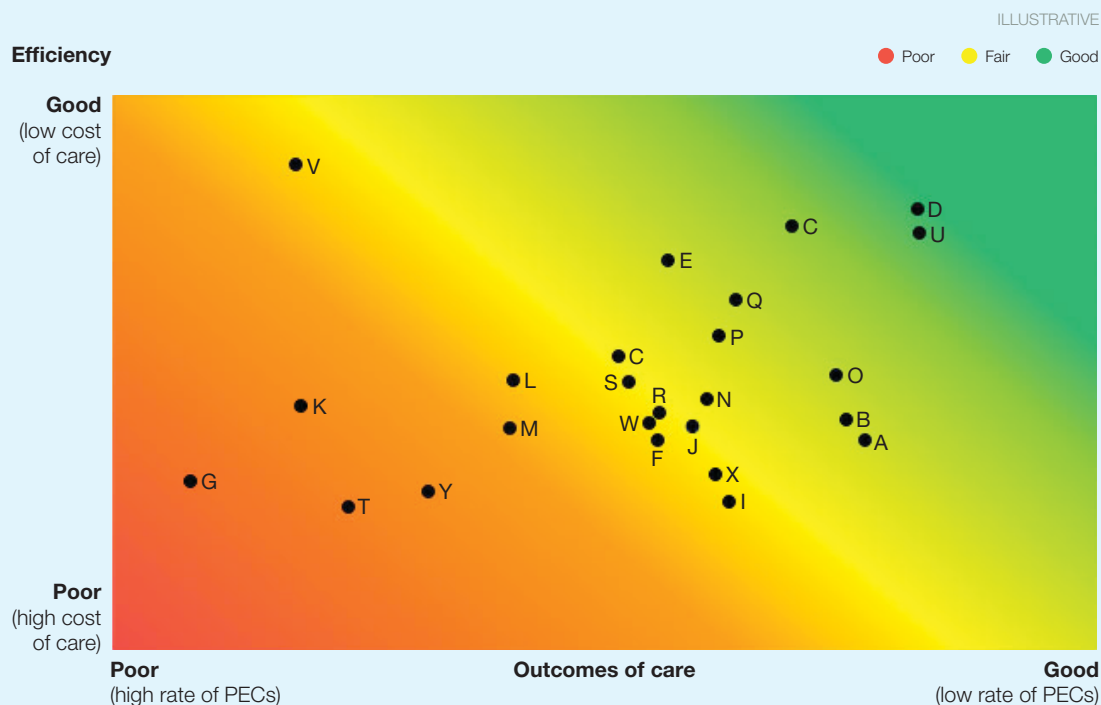
Shown above is the distribution of costs for individual cataract surgery episodes (from low to high), drawn from one commercial payer's claims over a two-year period. In each case, the red bar represents the costs associated with PECs (e.g., wound infections, bleeding, reoperations); the blue bar indicates the cost of typical care not associated with complications.

Source: De Brantes F. My favorite slide: What drives cost variability for episodes of care? *NEJM Catalyst*. Posted January 4, 2016, at <https://catalyst.nejm.org/my-favorite-slide-what-drives-cost-variability-for-episodes-of-care/>

The percentage of care costs associated with PECs is high (Exhibit 3). In commercial and Medicaid populations, these complications account for up to 30% of the cost of care for chronic conditions, 25% for acute care, and 10% for procedural care.<sup>78,98-101</sup> Thus, these

complications create an inverse relationship between outcomes and costs (Exhibit 4). For payers and APM contractors, reducing the rate of PECs is not just a matter of improving outcomes; it is also a direct route toward reducing overall costs.

#### EXHIBIT 4 Visualizing comparisons between APM contractors



In this illustration, each dot represents a hypothetical APM contractor. The risk-adjusted cost of care delivered by each contractor (vertical axis) is juxtaposed with the risk-adjusted contractor's outcomes of care (horizontal axis). The value delivered to patients and payers is greater among the contractors within the green area (high quality/low cost) than among those in the red area. In this illustration, quality outcomes are weighted more than costs are; as a result, providers with poor outcomes remain in the red area even if their costs are low.

## 5. Calibration of risks and rewards

Successful APMs are built upon design choices that balance the payer's interest in reducing medical costs and the provider's interest in minimizing risk and maximizing retained savings. APMs need to remain sufficiently attractive to providers to ensure participation in voluntary models and avoid demotivation and resistance in mandatory ones. Simultaneously, successful APMs should drive predictable savings for payers. At first glance, these goals might not seem compatible. Yet by making the right combination of design choices, both needs can be met.<sup>102</sup>

### Design choices

The technical choices to be made in designing an APM range from how patients are

attributed to contractors to how savings and losses are shared (see Exhibit 5).

These choices strongly influence the likelihood of provider adoption and motivation to change behavior.<sup>8,13,103-105</sup> For example, overly aggressive benchmarks can make it difficult for an APM contractor to succeed. MSRs can frustrate providers by moving the potential for significant savings out of reach.

By combining voluntary participation with a suboptimal benchmark methodology, payers can predictably lose, even if the shared savings/losses percentages discussed in section 3 are set well. (For more details about this, see the sidebars on design components on pp. 23 and 24.)

#### EXHIBIT 5 Technical design components of an APM

<b>Risk-sharing model</b>	Financial risk assumed by provider (e.g., one- or two-sided; exact shared savings/losses percentages; stop-loss and maximum savings/losses)
<b>Reimbursement details</b>	Prospective or retrospective payment, or partially prospective (i.e., up-front care management fees, partial capitated payments); frequency of reconciliation (quarterly, yearly)
<b>Quality measurement</b>	What quality metrics are used, and how reimbursement is tied to quality performance (e.g., by adjusting the savings/losses shared or the benchmark)
<b>Benchmarking</b>	Methodology used to set target budget (e.g., benchmark based on a 3-year baseline of provider's own performance, regional benchmarks, discounts, percentage of premium), including method/frequency with which the benchmark is adjusted (rebasings)
<b>Risk adjustment</b>	Assessment of patient risk to adjust benchmark (e.g., demographic data only, claims-based, including electronic health record data or social determinants of health)
<b>Attribution/assignment</b>	Methodology used to identify patients for whom a principal provider/contractor is accountable (e.g., prospective assignment, retrospective attribution)
<b>Inclusions/exclusions</b>	Beneficiaries and services included and excluded in the APM (e.g., does a diabetes episode include routine PCP visits? Are high-cost specialty drugs excluded? How is a (sub)population defined? Are organ transplantation patients excluded from the APM?)

APM, alternative payment model; PCP, primary care physician.



## DESIGN COMPONENT EXAMPLE

## Determining the benchmark

In an APM, the benchmark is the target budget the contractor's spending during the contract year will be measured against. Often, it is based on the contractor's historical spending to account for the local care context and risk profile of the included beneficiaries. CMS's BPCI 1.0, MSSP, and Pioneer ACO programs all set the APM contractors' benchmark this way. This approach, however, penalizes providers that are already efficient; these providers may decline to join. Indeed, in those programs, the participants with high historical costs were generally more successful in reducing spending than those with lower historical costs.<sup>45,61,108</sup>

To avoid this consequence, more recent models include regional spending levels in their benchmarks. The Next Generation ACO, as well as New York State's Medicaid APMs, use a contractor's quality and efficiency performance to adjust the benchmark up or down. Doing so allows the contractor's current efficiency and quality to affect the starting point for the performance year; the efficiency and quality realized during the performance year influence the savings to be shared.

Some models discount the benchmark to virtually guarantee savings for the payer. The Next Generation ACO, for example, includes a 2.25% base discount. Quality

and efficiency adjustments can limit this discount, but payers' savings are built into the model's design. In 2016, CMS saved \$53 million dollars (1%) of the total cost of care included in Next Generation ACOs through this discount alone. Likewise, the 2% to 3% discount on a provider's benchmark in the BPCI and CJR programs would guarantee that CMS saves that amount. To remain attractive to providers, subsequent savings are often shared at high percentages (e.g., the BPCI programs allow providers to retain 100% of all additional savings).

A similar way to guarantee payer savings while offering providers an incentive to participate is to rebase the benchmark—to reset it periodically to take the reduced overall spending into account. Frequent rebasing predicated on an APM contractor's historical spending is understandably unpopular with providers, as it turns one year's savings into the next year's reduced benchmark.<sup>45,60,109</sup> This tension is further aggravated when innovative care expenditures, such as those for community-based services, are not captured by claims and thus not included as spending (as in most CMS programs). The balance between the desire for lower overall expenditures and provider attractiveness can be restored by reducing the frequency of rebasing and including shared savings (or losses) in calculating new benchmarks.

## DESIGN COMPONENT EXAMPLE

## Fee for service or capitation: The best of both worlds

Most current APMs are built upon existing FFS architecture. Shared savings or losses are calculated and administered retrospectively (“retrospective reconciliation”). Because existing coding, billing, and payment processes remain largely unaffected for both payers and providers, such APMs can be readily scaled. Their administration may rely entirely on post-hoc processes outside of the FFS claims workflow. Yet this reliance on FFS has disadvantages: existing fee schedules may not be well calibrated, and services essential to optimal outcomes (e.g., care coordination, telemedicine, community-based services) may not be part of the fee schedule. In addition, behavioral economics suggests that up-front payments that might later have to be paid back can have greater impact on behavior than retrospective adjustment of FFS payments.<sup>110</sup>

Prospective payment takes away the volume-driving FFS incentive, provides cash flow for APM contractors, and increases the predictability of spending (and savings) for payers. Hospital-only episodes of care delivered by centers of excellence may be paid prospectively; similarly, the use of capitation to cover the cost of primary care (with additional funding provided for care management) is increasing.<sup>2,111</sup>

Full capitation of the total cost of care or prepaid episodes allow APM contractors to establish performance-based contracts, negotiate discounts with ancillary and downstream providers (e.g., diagnostic services, post-acute facilities), and pay for innovative services not included in regular fee schedules.<sup>2,50</sup>


For APMs that span the continuum of care, however, prospective payments would require contractors to build or contract significant administrative capabilities. They would have to adjudicate and pay claims for services delivered by providers they have no separate contractual arrangement with, for example. Few organizations have the capabilities or the ambition to take over this payer role.

Partial capitation or prepayment could be the best of both worlds. Here, the payer remains responsible for all FFS payments to providers not contractually associated with the APM contractor. The APM contractor receives part of the reimbursement for its own services through up-front lump-sum payments. Over time, the prepaid portion of the APM contract can increase as the contractor matures and establishes value-creating subcontracts with value-adding partners.<sup>43</sup>

## Finding the balance

The right balance between savings for payers and attractiveness for providers can take different forms. If potential contractors are new to APMs and slow to come on board, a gradual path could be used. Both the funding for infrastructure investments and shared savings could be skewed in the providers' favor in the first year to ensure that the payer achieves significant savings over three to five years.<sup>60,61,104</sup> Alternatively, if providers' APM capabilities are more mature or the provider landscape is competitive enough, a lowering of the benchmark ("discount") could be combined with higher shared savings percentages. This approach could lock in savings for payers

while delivering significant financial gain to high-performing providers.

Payers are increasingly using both sticks and carrots to incentivize providers to contract APMs. The Medicaid and CHIP Reauthorization Act (MACRA) is a prime example: providers who choose to participate in advanced APMs early are rewarded more than those who join later, and the financial impact of not joining grows over time.<sup>106,107</sup> Similarly, payers can reward taking on risk by eliminating the need to obtain prior authorizations for specific interventions. Likewise, payers can reward early participation by offering privileged inclusion in more restricted provider networks, or generous benchmarks and shared-savings percentages. 

## 6. The right mix of incentives, motivation, and feasibility

Successful APMs align financial incentives for providers with two other key drivers of behavioral modification: professional motivation and feasible targets. Restoring the link between provider economics and the professional motivation to deliver patient-centered, high-quality care is a powerful change from the focus on volume inherent in FFS reimbursement.<sup>92,112</sup> Poor outcomes should not be associated with financial rewards, no matter how low cost a provider is.

In addition, successful APMs provide a feasible path for providers toward delivering higher-value care. The clearer it is to providers how to achieve high-value performance, the more likely it is they will succeed.<sup>113,114</sup> This makes general ACOs a natural anchor point for PCPs, and episodes of care or specialized ACOs attractive to specialty care providers.

### Primary care transformation

The combination of the three drivers of behavioral change (financial incentives, provider motivation, and a feasible goal) helps explain the interest of PCPs in ACOs.

A winning formula is to identify those patients for whom increased engagement can halt a cycle of health crises and (re)admissions. This can involve bringing care to the patients' homes, providing transportation, or addressing social isolation—types of support that are difficult to provide in a FFS environment.<sup>115-117</sup>

The financial incentive is created by the savings resulting from lower downstream costs; professional motivation is triggered by increased collaboration and improved patient outcomes. Feasibility is ensured by focusing on identifiable subgroups.

### Excellence in specialty care

For specialty providers, the three drivers tend to favor episode-based APMs and specialized ACOs. In both types, feasibility is created through a reduction in scope. Redesigning maternity, stroke, or end-stage renal disease care through a bundled-payment approach or specialized ACO is a circumscribed challenge. The number of professionals that need to come to the table is limited; participants share a common interest and are often able to quickly identify inefficiencies, quality gaps, and ways to address them.<sup>11,118,119</sup> The limited scope reduces investment requirements, risk exposure, and capital needs. It also increases the feasibility of developing a core standardized data set for accurate risk-classification and performance management.<sup>120,121</sup>

Feasible does not mean easy, however. The sidebar on “APM success” (p. 27) illustrates how investments in organizational capabilities, as well as data and analytics infrastructure, should be aligned with the behavioral drivers discussed here to realize success at scale. ○

## APM success: Feasibility + infrastructure + organizational capabilities

CMS's BPCI 1.0 program started in 2013 with procedural and acute episodes triggered by a hospital admission. After an initial upside-only period, the program became risk-based. By 2016, 695 hospital or physician-group participants had taken on about 693,000 episodes\*; 51.7% of them were hip/knee replacements (excluding fractures). The other top episode types were sepsis (10.8%), chronic heart failure (8.0%), pneumonia (7.1%), and COPD (5.5%).<sup>61,122</sup>

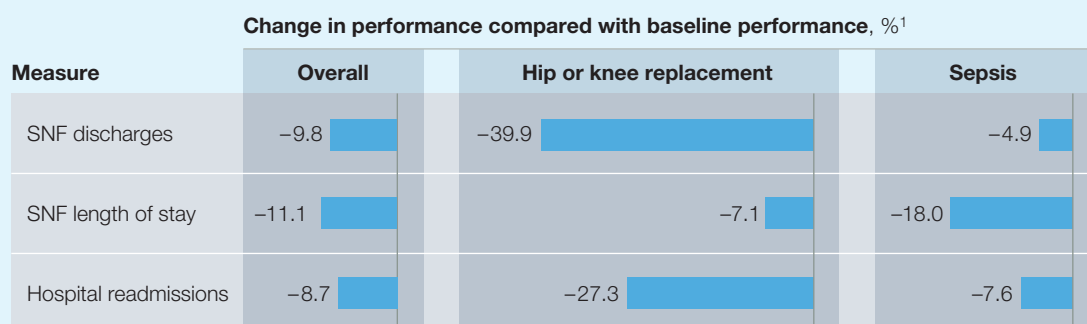
BPCI 1.0 sets a provider-specific benchmark per bundle based on the APM contractor's historical costs, to which a discount is applied (2% for most episodes). All savings and losses

are subsequently owned by the contractor (the "episode initiator"). This method guarantees savings for CMS while allowing providers the chance to earn generous extra income once the 2% "haircut" is passed. Based on the 2% discount, the approximately 400,000 episodes included in the BPCI 1.0 model in 2016 may have saved CMS about \$160 million. In contrast, the total net savings achieved by all Medicare ACO models in 2016, which together involved 8.7 million people, was \$47 million.<sup>57</sup>

A 2% discount is attractive for providers only when there are sufficient, feasible opportunities to save downstream costs. Because the

\*This discussion is limited to BPCI Model 2: bundles that include hospital admission plus 30, 60, or 90 days after discharge. This model accounted for nearly 90% of episodes initiated in BPCI 1.0.

### EXHIBIT 6 2017 results from Remedy Partners' bundled-payment participants



SNF, skilled nursing facility.

<sup>1</sup>Percentages represent the relative change in Q1 2017–Q4 2017 performance compared with the baseline (Q3 2009–Q2 2012) performance. The numbers in the "Overall" column are based on all episode types (medical and surgical).

## APM success: Feasibility + infrastructure + organizational capabilities *(continued)*

BPCI 1.0 program's bundles were triggered by inpatient admissions, potential savings were found primarily in post-acute care. For both surgical and medical conditions, providers realized the main savings by:

- Reducing discharges to SNFs
- Contracting with a subset of SNFs to improve the discharge and rehabilitation process, leading to a shorter SNF length of stay and fewer hospital readmissions
- Establishing relationships with home health agencies to facilitate discharge to home for a larger percentage of patients
- Implementing additional readmission-prevention measures in the discharge process

The support APM contractors received from “conveners” (organizations performing the role of general contractor and financial administrator in the BPCI 1.0 program) was vital for their success.<sup>61</sup> Remedy Partners, for example, helped contractors take on risk and identify key interventions, and it supports the providers with a software system that is integrated with their electronic medical records. Remedy Partners designed its workflow, decision support, and patient/caregiver engagement platform specifically for episodes of care, and handled about half of all episodes in the BPCI 1.0 program in 2017. Its software identifies patients, in real time,

who are entering a BPCI episode. In addition, its data analytics platform delivers program-, provider-, and patient-level metrics that enable performance and program management. This infrastructure helped contractors successfully execute interventions at the right time, with the right patients. Exhibit 6 shows the impact Remedy Partners' participating contractors achieved in 2017.

The reduction in SNF admissions was highest among the planned procedures, because providers were able to set expectations with patients and start the process of a successful transfer to home before the hospital admission took place.<sup>20,61</sup> Furthermore, growing awareness that SNF discharges for hip or knee replacement procedures are frequently unwarranted,<sup>123,124</sup> and that changing these discharge patterns is feasible, has led to the success of these bundles in both BPCI 1.0 and private plans.<sup>61,62,64,125</sup>

Overall, Remedy Partners participants realized gross savings of more than 8% in 2017. Providers' average shared savings were \$1,266 per episode. Across the life of the program, CMS saved more than \$262 million through the discount. Savings increased over time: after two years in the BPCI 1.0 program, more than 80% of participants received payouts.\*

\*These results do not consider that the 422 participating hospitals collectively dropped 47% of the episodes between 2013 and 2016 (participants could sign up for episodes and subsequently drop them without penalty). Twenty-one percent of the hospitals dropped out of the BPCI 1.0 program altogether.<sup>126</sup> Yet this did not seem to impact the results of the program.<sup>61</sup>

## 7. Accounting for consumer behavior

Nonalignment of the APM contractor's incentives with consumer incentives can threaten an APM's success. Payers can prevent this through well-designed, value-based insurance products, and APM contractors can offer their own dedicated consumer benefits (Exhibit 7).

### Benefit design by payers and providers

Discussions of APMs tend to focus on the incentives inherent in the payer-provider contract. Yet the choices patients make can have significant impact on an APM's efficacy. In Medicare FFS ACOs, it has been challenging to align the concept of a coordinating PCP with actual patient use patterns.<sup>65</sup> Value-based insurance design attempts to change this misalignment by selectively waiving co-pays or deductibles and providing other consumer benefits. In these ways, patients can be incentivized to use preventive services,

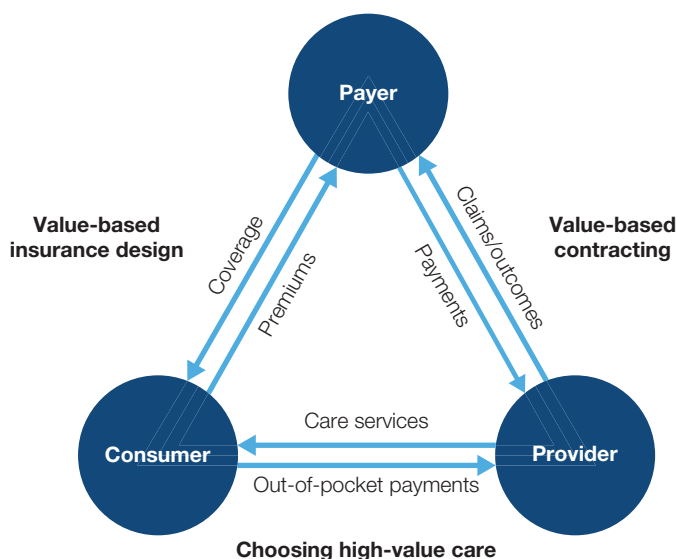
adhere to treatment guidelines, remain within an APM contractor's preferred providers network, and use the contractor as the principal point of care.<sup>127-130</sup>

Although financial incentives for consumers tend to be in the payer's domain, APM contractors are in an excellent position to identify and target specific value "leaks" in patient-care pathways and the APM's provider network. The business case for encouraging patients to make value-increasing choices and alter behavior is often significant enough to warrant providing telehealth equipment, high-quality transportation, or home care, for example.<sup>61</sup> (See the sidebar, "Aligning patients' and providers' incentives," p. 14.)

### Consumer benefits that work

Many attempts to use financial or in-kind incentives to modify lifestyle behaviors have failed,

**EXHIBIT 7 Incentivizing both providers and consumers toward high-value care**



yet evidence that it can be done is growing.<sup>131-133</sup> Improving treatment adherence has been more successful, although the impact on the total cost of care has been inconclusive.<sup>134-136</sup> Incentivizing a con-

sumer's choice of providers has been shown to be feasible without running into legal barriers—and has achieved impressive results.<sup>137,138</sup> (See the sidebar below.) [○](#)

## Reference pricing: Consumer incentives in APM design

Reference pricing has been one of the most successful ways to increase the value of care through consumer incentives. For a selection of their population, the CalPERS reduced the average price it paid for several high-cost procedures by 17% to 21%. They set the reimbursement amount for each procedure to approximately the midpoint market price while assuring that patients had access to

high-quality care. Beneficiaries who opted for higher-cost providers had to pay the difference out of pocket. Many beneficiaries changed providers: those with no or low out-of-pocket costs saw their volume grow by 50% to 100%. Several high-cost providers subsequently lowered their price, further increasing the initiative's impact.<sup>137,139,140</sup>



## Conclusion

Policy initiatives to bend the cost curve have relied on value-based payment to change the financial incentives that drive volume and fragmentation in healthcare delivery. Which payment models work, however, has been an open question. Models sponsored by both public and private payers were frequently launched as experiments. The return on investment has been uncertain and, in many cases, learning from the experiments and creating partnerships with providers were considered to be more important than realizing savings.

After a decade of experimentation, it is now clear which models work and which are unlikely to generate results. Our research and experience indicate that properly designed APMs can consistently reduce medi-

cal costs for payers, improve outcomes for patients, and remain attractive for providers. The signs in the market are clear: pay-for-performance models are being replaced by ACO or episode-based models, and primary care providers and independent specialists are increasingly positioning themselves as core APM contractors.

Value-based payment models can now be used as regular contracting instruments, deployed to achieve the specific results payers and providers seek. Public and private payers, providers, and policymakers should rigorously review their value-based payment strategies and designs to ensure that they have fully leveraged lessons learned from years of trial and error. See the following checklist as a starting point for doing so. [○](#)

# A checklist for successful APMs

## 1) A successful APM allows for density and scale; it includes a sufficient proportion as well as total volume of beneficiaries and revenue for APM contractors

- ☐ Can the APM's contract volume cover a sufficiently large proportion of the provider's total book of business ("density") to prompt a change in provider behavior?
- ☐ Is the proportion of the provider's total book of business included in the APM large enough to mitigate "spill-over" effects that may negatively impact the provider economics for non-APM patients?
- ☐ Is the volume of beneficiaries per APM contractor large enough ("scale") to justify investments, allow for a dedicated focus on the APM population, and reduce the risk that measured costs and outcomes are based on random variation?
- ☐ For providers with low density and/or scale, is it possible to realize savings with minor changes to practice patterns, or does success require altogether new capabilities?
- ☐ To increase providers' overall APM density and scale, does the model allow for virtual groups to contract, and for steering of patients to the APM contractor? Does it align (even directionally) with other payers' models?

## 2) A successful APM tends to give the contractor strategic leverage to reduce the total cost of care per patient or bundle while maintaining or even increasing revenue

- ☐ Where in the APM's continuum of care are the main potential savings? Does the APM facilitate contracting by providers that have significant opportunity to realize savings outside of their own services?
- ☐ Does the APM allow contractors to increase market share through improvements in physician alignment and reduced leakage?
- ☐ When realizing savings inevitably entails a loss of revenue for the APM contractor, does the APM facilitate a change in fixed cost structure so that margins are maintained or increased?

## 3) A successful APM includes financial risk

- ☐ Becoming a successful APM contractor may require new capabilities or even a change in business model. Is the downside risk sufficient for providers to commit to organizational change?
- ☐ Does the APM allow the payer to share a sufficiently high percentage of savings to meet the contractor's investment needs, without predictable losses?
- ☐ Does the contractor's accountability for costs and outcomes include the full continuum of care?
- ☐ Is the APM contractor protected against random and catastrophic costs that even high-performing providers could not reasonably influence?

**4) A successful APM holds the contractor accountable for outcomes that matter to patients**

- ☐ Does the APM include quality measures that sufficiently capture the outcomes that matter most to patients, and reflect the core goals of care?
- ☐ If relevant to the contracted care, are patient-reported outcomes and/or potentially avoidable exacerbations and complications measures used? If not, is there a path toward use of these measures?
- ☐ Is the list of quality measures sufficiently “pruned” to find the optimal balance between measures that matter and the reporting burden on providers?
- ☐ Are outcomes publicly reported or reported to prospective patients? If not, how is the potential impact of performance transparency incorporated in the APM design?


**5) A successful APM is designed to be attractive to providers while realizing savings for payers**

- ☐ Have the design components of the APM been set after assessment of their impact on predicted gains/losses for both the payer and APM contractor (see Exhibit 5)?
- ☐ Can the APM consistently realize savings for the payer while rewarding well-performing providers? Does the APM design stimulate a partnership between committed payers and providers?
- ☐ What is the approach to enrolling providers in APM contracts? Have both positive and negative incentives been considered to persuade providers to participate?
- ☐ Does the APM realistically allow for payer gains within one year of the start of the APM contract? If not, is there a realistic path toward reaching savings at scale?

**6) A successful APM aligns financial incentives with professional motivation and a feasible change agenda**

- ☐ Are the core cost and quality outcomes pursued by the APM aligned with professional motivation (improving health outcomes through improved care)?
- ☐ Are the financial incentives aligned with professional motivation?
- ☐ Is the path for providers to realize these outcomes and associated savings sufficiently clear and feasible?

**7) The APM’s incentives for providers are aligned with incentives for beneficiaries through value-based benefit design**

- ☐ Are financial incentives in place for beneficiaries to stimulate healthy behaviors, reward adherence to prescribed treatments, and reward high-value care utilization?
- ☐ Are APM contractors able to create incentives (financial or nonfinancial) for their attributed patients to realize these same goals? 

## Alternative payment model glossary

An APM is a value-based payment arrangement between a public or private payer and an APM contractor in which the provider's revenue is associated with achieved quality and/or efficiency. The following categorization is aligned with the Healthcare Payment Learning and Action Network's APM Framework<sup>44</sup>:

### Encounter-based pay-for-performance (P4P):

- In P4P models, the FFS architecture remains intact. Providers can receive a bonus or a penalty based on achieving specific quality targets ("pay for quality") or a combination of quality and efficiency targets ("pay for value").

P4P models are not discussed in this paper: the focus of P4P models tends to be on individual provider's performance, and the accountability for costs tends to be limited. These models can help improve providers' quality scores but have generally not been found to affect the total cost or outcomes of care in a meaningful way.<sup>44,142</sup>

### Primary care payment models:

- In primary care payment models, PCPs receive additional payments on top of existing FFS payments to support investments in the care infrastructure, such as IT, staff, and training to support care management and performance management. These providers are held accountable for a range of performance measures, including efficiency

or costs measures: hospital utilization, for example, or the total cost of care. Providers that meet their targets are eligible to receive a bonus payment. In some cases, the additional payments can take the form of lump-sum per member per month payments that partially replace FFS payments.<sup>19,30,83</sup>

### Population-based models:

- In these models, an APM contractor is accountable for the costs and outcomes of the total care for its assigned population, whether the care is delivered by the APM contractor itself or not.
- Population-based models focusing on the general population are predicated on the idea that high-value care requires a strong base of holistic, integrated primary care and a proactive approach to prevention and population health.
- Population-based models can also be focused on a specific subpopulation (beneficiaries with end-stage renal failure, for example).
- APM contractors in population-based models can be physicians, health systems, or both.

### Episode-based models:

- In the episode-based or bundled-payment model, the APM contractor takes responsibility for the costs and outcomes for all care related to a specific condition or procedure, including treatment for any exacerbations

or complications that may arise. Episodes have been defined for procedural care (e.g., hip replacement, spine surgery), oncology care, and maternity care, as well as for acute conditions (e.g., stroke, asthma exacerbation) and chronic conditions (e.g., diabetes, depression, chronic heart failure).

- As with the population-based models, the responsibility for costs and outcomes for the APM contractor's assigned members holds whether the care is delivered by the APM contractor itself or not.
- An episode begins with a trigger event, such as an outpatient visit, hospital admission, or procedure, and includes all related services delivered within a specified time frame—e.g., from 0 to 30 days before the trigger event until 30 to 365 days following that event (timing depends on the type of episode).

#### **Population- and episode-based models share some key characteristics:**


##### ***Shared savings and losses***

- Currently, most models function on top of the existing FFS architecture.
- If the APM contractor manages to keep the total FFS payments included in the

population or episode below a set benchmark or target budget, the payer will share part of the savings with the contractor.

- If, on the other hand, the total costs rise above this benchmark, the APM contractor may have to reimburse the payer for part of the loss.
- Models that only share savings are called “one-sided” or “upside-only” models; those that share both savings and losses are called “two-sided” or “shared-risk” models.
- The amount of savings (or losses) shared typically depends on the APM contractor's performance on key quality measures.

##### ***Prepaid population- or episode-based models***

- In prepaid population- or episode-based models, the FFS architecture is replaced, fully or in part, by up-front “lump-sum” payments or per member per month payments.
- For population-based models, these payments are often referred to as “capitation payments.”
- The quality of care delivered can be reflected in upward or downward adjustments of the prepayments. 

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## Disclosure

This report includes previously unpublished results from Remedy Partners' participants in the Medicare BPCI 1.0 program. This data release was approved by CMS. Remedy Partners' analysis is based on de-identified, aggregated information covering 950 health-care organizations participating in Medicare's BPCI 1.0 program. The data did not disclose the names of any participating organizations. Based on the information obtained from Remedy Partners, we estimate that their analysis covered approximately 50% of the entire BPCI 1.0 participant universe and a higher share of the dollars flowing through Medicare's BPCI 1.0 initiative. [o](#)



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