

Optimal Oncology Alternative Payment Models



April 2018

The way forward for alternative payment models in oncology

Executive Summary

The Department of Health and Human Services (HHS) aims to have 50% of Medicare payments delivered under alternative payment models (APMs) or population-based payments by the end of 2018.¹ Following HHS's lead, payers and providers across the United States have introduced a variety of new APMs for rewarding value-based care provision in medical specialties, including cancer.² These models attempt to encourage standardization and quality of care and reduce the cost of treatment, which will cost the United States \$174 billion by 2020, according to the National Cancer Institute.³

As the paradigm shift from volume to value advances in the United States, some stakeholders are questioning the progress and impact of APMs in oncology. Oncology is complex to manage and expensive to treat, and innovation in diagnostics and therapeutics is rapidly evolving. Therefore, some oncology leaders wonder whether APMs in this specialty will succeed. They also question whether oncology APMs, given their many variations and discrete pilots across the United States, share common goals.

To help address these issues, Tapestry Networks spoke with relevant leading stakeholders and held a roundtable workshop in March 2018 in Washington, DC. The workshop included a select group of public and private payers, providers and provider association representatives, patient advocates, manufacturers, and other experts in oncology APMs. Co-hosted by the American Cancer Society and sponsored by biotechnology manufacturer Amgen, the meeting served as a platform for participants to discuss:

- **The unique challenges oncology presents for APM design and implementation.** Participants largely affirmed that oncology was unique among specialties given its clinical complexity, rapid pace of innovation, high cost of care, and emotional implications for patients. That said, some noted that stakeholders could still consider and adopt lessons and approaches from APMs in other specialties. *For more details, see page 5.*

“One thing that surprised me and gives me cause for optimism was that despite the different stakeholders with different perspectives here, there was more or less consensus on the issues. There was more agreement than I thought.”

– Provider representative



- **APM goals across public-payer, commercial-payer, and provider-developed models.** Participants also agreed that various oncology APMs share the same two-fold objective—reducing cost and improving quality of care—but weigh these two factors differently. Some participants questioned whether one APM can, at this point in time, achieve both. Furthermore, not all APMs are definitively moving to risk-based or capitation models or expect to meaningfully reduce costs to the system. Some participants welcomed this diversity of approaches; others expressed a greater sense of urgency that APMs work to “*bend the cost curve*” more rapidly. *For more details, see page 6.*
- **APMs’ current pain points.** To their surprise, participants largely agreed on many of the pain points and challenges associated with implementing oncology APMs. These included: a lack of consensus on appropriate measurements for quality and performance; the need for technology infrastructure that makes data capture and analysis cheaper, quicker, and easier for providers; inadequate incentives for payers and some providers to participate; complexity in defining and utilizing clinical pathways and standards of care; and the uncertain prospects for APMs’ financial sustainability. *For more details, see page 7.*
- **Suggestions to improve the pain points.** The group proposed several improvements that need to be made to ensure high quality and appropriate care delivery, make APMs work better, and create a continuous learning environment for APM implementation and evaluation. In particular, they called for an environment and pilot framework that allows for more flexible experimentation, iterations, and fast fails for both providers and payers. They also reiterated the crucial leadership role that the Center for Medicare and Medicaid Innovation (CMMI) plays in spearheading oncology payment reform. *For more details, see page 14.*

This *ViewPoints* reflects views of leading thinkers in value-based payment reform and oncology, as well as results from the March 2018 workshop. It offers both a synthesis of stakeholder perspectives and recommendations for improving oncology APMs.



Contents

| | |
|---|----|
| Executive Summary..... | 1 |
| Background..... | 4 |
| Defining APMs..... | 4 |
| The unique challenges of oncology to APMs..... | 5 |
| Shared goals and divergent priorities..... | 6 |
| Consensus on oncology APM pain points..... | 7 |
| Quality and performance measures..... | 7 |
| Data and IT infrastructure | 10 |
| Incentives | 11 |
| Clinical pathways..... | 13 |
| Financial sustainability | 13 |
| Multistakeholder suggestions for improvement and paths forward..... | 14 |
| Ensuring that value-based care is high quality and appropriate..... | 15 |
| Making APMs work better..... | 16 |
| Creating a continuous learning environment across stakeholders..... | 18 |
| Conclusion..... | 19 |
| About this document | 20 |
| Contributors | 21 |



Background

“There is no turning back to an unsustainable system that pays for procedures rather than value. In fact, the only option is to charge forward—for HHS to take bolder action, and for providers and payers to join with us.” – Alex Azar, US Secretary of Health and Human Services⁴

The United States is still early in its journey to replace fee-for-service with payment systems that reward value, and exactly how HHS will accomplish this vision remains an open question. HHS’s CMMI is piloting the Oncology Care Model (OCM)—the only national, public-payer oncology APM in the United States. Less than two years into OCM’s implementation, some oncology stakeholders are concerned about its prospects for success: *“We are hearing from practices that are concerned about the level of risk in the model.”* Some of these stakeholders are already proposing new iterations of its design or entirely new models.⁵ Additionally, in late November of 2017, HHS invited recommendations from the public for revamping its approach to testing and validating new payment models in healthcare.⁶

Defining APMs

Outside of OCM, private payers and provider groups are piloting many and diverse oncology APMs.⁷ When defined broadly, APMs can include insurance contracts that offer rewards to providers for activities that can improve and streamline healthcare delivery. These may be per-member-per-month payments for care coordination activities, which are often seen in medical home models, or incentives for complying with clinical pathways, which are detailed protocols for delivering cancer care for specific patient populations based on type, stage, and molecular subtype of disease. Both Aetna and Blue Cross Blue Shield of North Carolina have piloted these types of models.⁸

Some payers have designed APMs to include reimbursement contracts that define cost-targets and reward providers if those targets are achieved. Taken a step further, some models, like OCM, offer a two-sided risk option. This offers potential for greater performance bonuses but also penalties if defined targets are not reached.

Several variations of risk-based models exist specifically for oncology. Some models include payments that are bundled—that is, based on estimated costs for treating specific types of cancer—or designed around an episode of care, such as delivery of chemotherapy treatment. United Healthcare’s pilot program on head and neck cancers with MD Anderson Cancer Center and OCM are examples of bundled and episode-based models, respectively.⁹

Some stakeholders see the United and OCM examples as true APMs since these models represent a more distinct shift away from fee-for-service. During this effort, however, the group has used the broader definition of APMs to include commercial payer models in oncology that are medical home or pathways-based models.



The unique challenges of oncology to APMs

“Oncology is not special because of the degree of personalization in treatment. It’s unique because of the price tag and the emotional aspect of diagnosis. There’s a lot of complexities in medicine, like a co-morbid patient with diabetes, heart disease, and so forth. I don’t understand clinically why cancer is more difficult.” – Payer

“A major limitation of oncology APMs is accurate risk adjustment because in oncology, contrary to other specialties, breast cancer can be ten types ... it makes analysis complicated. If you don’t adjust for things like HER-2 [presence] and Herceptin [response], it’s a totally different cost from other types.” – Provider

Alternative payment models generally work best when the variables included in them are well known, consistent, and applicable to relatively broad categories of patients. Oncology faces several distinct challenges that make designing and implementing APMs difficult.

First, there are a large number of variables involved in cancer care. Cancer is divided into many types, sub-types, and, increasingly, biomarker-based categories. Cancer populations are getting more and more fractionalized, and corresponding standards of care are growing more targeted and complex. Patients may need to see several specialists throughout the course of treatment, including surgeons, radiation oncologists, and others. The toxicity of treatments, patient co-morbidities, and social determinants of health can require other specialists during a patient’s course of treatment. This makes attribution—the methodology that payers use to assign patients to providers for the purposes of accountability—more complex, as discussed further on page 8.¹⁰ Finally, the emotional aspects of a cancer diagnosis make it challenging for payers and providers to direct patients to specific treatments or courses of action. Therefore, patient preferences can also vary the direction of treatment.

“These models really have to be iterative because oncology is so dynamic. It’s constantly changing. I don’t think you can have a static model—even if it is a model that is established around basic parameters—in this segment.”

– Payer

Second, because cancer innovation occurs at a distinctly rapid pace, these variables are not static. A payer said, “You can’t just stick with, ‘Okay, this is what we decided. For the next five years, we’re going to be here.’ It’s not working, because new drugs are coming out, it’s very fast paced, and so many things are changing all the time.” New, costly classes of therapies, such as Chimeric Antigen Receptor T-cells (CAR-T), create additional challenges for static payment models: “This is a good time to have this conversation and get multistakeholder input. Some models like OCM have spent a lot of time coming up with adjustments and models to adapt to current innovative therapies, only to then be faced with the arrival of CAR-T,” a participant said.



Irrespective of these complexities, several participants underscored that some lessons and design elements from APMs in other specialties can be applied to oncology APMs: *“I realize there’s a lot about oncology that’s unique, but it can learn from other specialty areas as well. They are not that different when it comes to monitoring symptoms, coordination, and so forth. A lot of that is shared across specialties.”* Oncology APMs may be able to leverage other APMs’ approaches for resolving attribution, for example, as discussed on page 17.

Shared goals and divergent priorities

The diversity and number of APMs in oncology have caused some stakeholders to ask what the real objectives of APMs are, and to what extent they are focused on improving the quality of care or reducing costs. As one provider said, *“There is a lack of articulation of the exact problem we are trying to solve. Some people say they are focused on improving quality, but it is not clear why one thing versus another poses a risk to quality.”* During the meeting, payers revealed that while the overarching goals are the same, the shift to risk-based or capitation models that address the total cost of care is more urgent to some than others.

The group generally affirmed that APMs in oncology have two broad objectives: improving care and reducing costs. However, participants concurred that different APMs assign these goals *“different weights.”* Some APMs focus more on rewarding efficient, high-quality care delivery than upending the underlying fee-for-service system. A provider representative underscored the importance of this nuance: *“APMs are a system of how and when you will get paid. It’s not a care delivery system. But you can’t have one without the other.”*

Stabilizing or reducing costs through a population-based or a downside-risk-based payment model is not the goal at this point for some APMs, as stated by a payer: *“Do I really think this is going to save us a lot of money? In my heart, I don’t think so. Personally, I think I’m satisfied with that. I’m satisfied with even a little bit of a trend deflection. As long as you can prove to yourself that we are driving quality, and we’re measuring something that means something, I think it’s fine.”* Furthermore, as discussed below, many providers are not ready for such a shift.

This diversity of objectives was amenable to many participants, including—to the surprise of some participants—some payers: *“There’s been a narrative that moving toward downside-risk models is the goal. But after the discussion today, it seems like it might not be the goal for everyone. And what I was especially surprised to hear from payers, is that that might be okay.”*

Others, however, felt that the need for APMs to change the underlying payment model and reduce costs was more urgent. A payer said, *“What I worry about, and why limited time and scope bundles are lower on my priority list when I think about how to change things, is because you split too*

“I don’t think we have a choice except to get better payment models. We’ve got to have better payment systems than we have right now ... practices right now are not sustainable. Payers are not going to be able to sustain the current payment system. Something has to change.”

– Provider representative



much. And when you split and split and split, you end up back where we started, but with a lot more transactions in between. Where do you take the biggest cut to [impact] the total cost of care?"

Consensus on oncology APM pain points

The group agreed on critical pain points that prevent progress in oncology APMs and discussed approaches to collaboratively resolve them. These obstacles spanned five categories: quality and performance measurements, data and IT infrastructure, incentives, clinical pathways, and long-term financial sustainability.

Quality and performance measures

Many stakeholders believe that current APMs lack sufficient, fair, and clear ways to measure provider quality and performance.

Quality metrics

As healthcare shifts to value-based models, many stakeholders are working to improve quality metrics. Some believe that the field of quality measurement in cancer has been especially weak, suffering from a lack of consensus within the oncology community on which measures are appropriate and should be prioritized. *"One thing I would like to see come out of this group is really a push to say, 'Can we have consensus among everybody on what the priority quality metrics should be that we can all live by for some period of time?'"* a provider representative proposed. Given the lack of consensus, each APM has its own specific quality and performance measurement system. This causes significant administrative burden for providers, particularly if a provider is involved in multiple APMs with different payers.

Others take issue with the types of measures that some APMs prioritize: *"There are too many process measures, and not enough outcomes measures."* While the group generally agreed that APMs need better outcomes-focused measures, some emphasized that certain process measures are important. For example, it would be valuable to have a process measure that captures whether a provider has ordered molecular diagnostic testing on a patient. Such tests can help inform decisions about targeted therapies and in turn save costs by avoiding ineffective treatments.

Responding to these challenges is not easy. At the meeting, participants underscored the cost of designing and implementing a new quality measure: *"I saw an estimate the other day that a process measure, which we all don't like anymore, cost about \$50,000 to develop and test and validate. An outcomes measure could cost anywhere from \$100,000 to \$150,000."* New measures require time and effort to sensitize and encourage adoption by end-users: *"There's a big process involved with [introducing a new quality measure] to the point where people will accept it as a measurement that they would want to do."*

Performance measurement

Appropriate measures for performance-based payments, which are fundamental to risk-based models, remain a major pain point, especially for providers. Participants underscored three major issues with performance measurement that are especially urgent under OCM and apply to other risk-based models:



- **Attribution:** Attribution is a challenge across current APMs, including outside of oncology.¹¹ However, as noted above, some stakeholders emphasized that oncology as a specialty adds additional complexity to this thorny issue. *“When you think about aligning incentives, and testing alternative care delivery models, it’s tough in oncology because it’s multidisciplinary. There’s surgery, radiation, etc. ... To whom do you attribute outcomes? The surgeon or the provider delivering chemotherapy?”* a provider asked. OCM attributes episodes to the practice that bills the most evaluation and management services with a corresponding cancer diagnosis during the six-month period that constitutes a patient’s episode.¹² In practice, this approach is easier said than done: *“We’re seeing a lot of discrepancies in terms of which beneficiaries the practices are counting on their end that they’re treating under the OCM versus the list of beneficiaries that CMMI has.”*
- **Provider risk:** OCM and other risk-based models require providers to assume risk for costs that are outside of their control. First, some participants contended that clinicians should only be held accountable for performance risk, e.g., whether they have administered a drug or treatment effectively, and not for the cost of the drug or treatment itself. Others disagree: *“It’s reasonable to separate out the drug costs, and I understand the argument, but it doesn’t make the drug costs go away. And we need to take a systemic approach on this.”* Second, in addition to drug costs, providers—especially community oncologists—cannot sufficiently predict and manage actuarial risk, unlike payers. Providers cannot control who walks in their door, and a complex, costly batch of high-need patients in a given year could ruin a small practice. Finally, many are also concerned about being held accountable for unrelated services, such as a patient’s visit to an emergency department following a car accident, fall, or other issue that is not connected to a patient’s chemotherapy.
- **Baseline targets:** Some participants discussed challenges with the way risk-based models set baseline targets. Given cancer’s complexity and the increasing use of biomarkers in cancer diagnosis and treatment, they argue that targets need to be more narrowly defined. For detail on new suggestions for how to do this, *see box below*. Additionally, OCM targets are based on practices’ historical performance, which is adjusted for current trends and factors like the introduction of novel therapies. Under this approach, some believe that practices delivering low-quality care can improve marginally but good practices may have greater difficulty in reaching the next level of improvement.

“The reality is taking on actuarial risk is the core business of payers. They know how to do that. And there are benefits that even payers can get from these models without pushing that risk onto providers.”

– Subject matter expert

New ideas for lowering risk and leveraging systems: Making Accountable Sustainable Oncology Networks

Although OCM is less than two years into implementation, some stakeholders have offered other ideas for oncology APMs for Medicare patients. Innovative Oncology Business Solutions, Inc. (IOBS), which founded the OCM predecessor model, COME HOME, recently submitted a proposal for the Making Accountable Sustainable Oncology Networks (MASON) APM to the Physician Focused Payment Model Technical Advisory Committee (PTAC). PTAC reviews stakeholder proposals for physician-based APMs on behalf of HHS.

IOBS developed MASON in direct response to concerns from participating OCM members. These concerns include the need for more accurate baseline targets, reduced levels of risk, immediately updated treatment pathways, and a more streamlined data collection process.¹³ As one stakeholder described, *“one of the problems that we’re seeing with the Oncology Care Model is the actuarial risk we’ve talked about. The targets are not granular enough ... also, you have to have the right variety of patients, and we have no control over that.”* As such, this pilot aims to:

- Provide clinicians with real-time, high-quality diagnostic and therapeutic pathways that generate a more precise, individualized treatment plan for each patient based on genomic information, co-morbidities, and patient preferences
- Use the above pathways to develop more granular and accurate cost targets, or Oncology Payment Categories
- Employ virtual accounts that reflect maximal expenditures that could be updated in real time, which would improve the financial reporting delays cited under OCM and allow practices to course correct
- Remove the risk of drug costs from participants’ targets and, for small practices in particular, use reinsurance to help mitigate the risk of practice closure

As evidenced by the above objectives, MASON focuses on addressing several of the pain points discussed, particularly those relating to data infrastructure, pathways, and incentives. It emphasizes the need for a more seamless provider experience in demonstrating compliance with clinical pathways and timely access to financial data pertaining to a patient’s cost of care.¹⁴



Data and IT infrastructure

“I think the big issue in this whole thing is all around data. And, you know, people are working on it, but to be able to begin to gather and bring together these diffuse data sets, to bring clinical information in that you need, and to put it together with claims and cost and all that, and make that available in relatively real time to the providers, is important.”

– Provider representative

Current technology infrastructure fails to bridge a critical information gap between payers and providers, which can negatively affect the performance and sustainability of APMs. Participants see both the state of technology itself and prohibitive costs for adopting and optimizing the technology as significant challenges.

First and foremost, participants stressed the significant time burden that current APMs pose on clinicians. In addition to documenting physician notes and/or inputting information—oftentimes manually—into electronic health records systems (EHRs), clinicians need to report on quality-related measurements. *“We’ve created this dichotomy, or this world in which we have our physician note, which is primarily to communicate to other clinicians and to justify documentation for our billing. And then we have all this documentation that we click and do in structured data, which is for quality reporting ... those two things ultimately need to be part of the same process,”* an industry participant said. Technology vendors, some noted, are working to solve some of these issues. Better conversion of voice to text, for example, could potentially reduce the need for manual entry of physician notes into systems, but such solutions may be a long way off, as noted by one participant: *“I don’t think we’re there yet, and I don’t think it’s imminent. [However], I think that people are thinking about it and are working on it. I see a path there.”*

In addition to data inputs, participants underscored that a major challenge with data and IT infrastructure is the lack of interoperability across EHRs, claims and financial data, clinical data, pathways systems, and so forth. First, the cost and delays imposed by some EHR vendors for extracting and sharing information across payer and provider systems is significant: *“I would like to have CMMI break down the firewall between the providers and their contractors so that we can deal with interfaces that are easier for the practices to use and expedite the transfer of data to CMS.”*

Second, this lack of a timely information flow from payers to providers can threaten provider sustainability. Payers provide financial reports, based on claims data, to providers. These reports arrive far too late, preventing providers and payers from being able to identify problems and address them midstream. *“We got beautiful data feedback reports from United on our episodic care programs. I mean, beautiful graphs that laid out all the different costs that were part of that model. However, it took them a year-and-a-half to get those reports back to us,”* a provider said. In response, a payer shared, *“I’m hearing that more real-time data, even from an individual payer, would be extremely helpful, and I do feel like we’re getting closer to that in understanding that maybe the data won’t be perfect, but providers would still like to have it sooner.”* For more discussion on this issue, see box on pages 11-12.

Incentives

Many participants underscored that in OCM and other risk-based models, there are insufficient incentives for providers to participate. As a provider representative noted, *“I believe the goals of any APM need to improve the satisfaction of the physicians. There’s lots of burn out. Many don’t like fee-for-service. Other specialties seem to like APMs. But oncologists do not.”*

In pre-meeting conversations, many underscored the insufficient financial support for some oncology practices—especially smaller, community-based providers—to participate in APMs. Data and IT infrastructure and human resource costs for supporting an APM are significant and frequently underestimated by payers, they explained. As such, some called for more robust, prospective financial support for providers to be able to transform their practices.¹⁵

Many also acknowledged, both before and during the meeting, that the fee-for-service system currently encourages providers to cross-subsidize services in healthcare. Participants questioned whether the benefits offered for providers’ participation are attractive enough to change the status quo. Specifically, the revenue from prescribing high-cost drugs supports other services like symptom management or care coordination and ensures the financial health of practices.¹⁶ As one provider explained, *“I agree that fee-for-service creates perverse incentives. There are many services that I provide and want to provide to my patients that I don’t get paid for. There are social services patients need. Dealing with social determinants of health needs to somehow be paid for.”* Several were skeptical that a per-member-per-month care coordination payment and the prospect of a performance bonus would sufficiently replace these margins.

Driving an iterative process for oncology payment reform: OCM 2.0 and beyond

While MASON proposes a new model that could be implemented in parallel to OCM, other groups such as the Community Oncology Alliance (COA) have started to think about the next phase of OCM itself. “OCM 2.0” includes an iterative long-term vision for OCM 3.0 and 4.0. These later phases, as currently proposed, reflect a definitive movement to downside risk, and over time, capitation.¹⁷

OCM 2.0’s draft design aims to alleviate many of the commonly cited pain points with OCM, including, for example:

- **Streamlining and reducing errors in the attribution process.** The current model has, according to some participants, a 40% error rate. This means that providers can end up owing CMMI significant amounts of money. OCM 2.0 plans to work with CMMI to correct this.

Driving an iterative process for oncology payment reform: OCM 2.0 and beyond *contd.*

- **Changing “prescriptive” OCM practice transformation requirements to reflect practical, tailored approaches.** Currently, these requirements include detailed care plans for each patient across 13 components, some of which are unclear and impractical, in the view of some stakeholders. For example, OCM 2.0 recommends changing vague requirements that providers need to talk to patients about the costs of care. Instead, it calls for a more supportive approach that would entail insurance navigation support for patients along their care journey.
- **Improving the reporting administrative burden.** Currently, practices need to report on 15-16 quality measures per patient through a manual, line-by-line process in a CMMI portal.¹⁸ OCM 2.0 plans to reduce the number of measures and advance automation in reporting platforms.
- **Ensuring quality metrics are meaningful and reportable.** Current quality measures call for information that is imprecise or hard for physicians to obtain. For example, a quality metric on timeliness requires OCM participants to provide the date of diagnosis. This can be challenging for providers to access if another specialist referred or diagnosed a patient. Consequently, this metric defaults to the date of entry in the oncologist’s system, which is not the date of diagnosis.¹⁹
- **Creating a faster information flow across clinical and claims data.** OCM 2.0 proposes working with CMMI and systems vendors to extract and assess data from claims and clinical systems more promptly. As a provider noted *“CMS, to their credit, is acutely aware of that problem and diligently are trying to collect that data. But, you know, at the end of the day, the collection process is—to put it bluntly—clunky and, again, is adding to the costs of trying to comply with the program.”*

In addition to fixing the above pain points, OCM 2.0 proposes further changes that could benefit participating physicians. First, it would define episodes of treatment more broadly. Episodes would commence upon administration of any recommended course of treatment, not only chemotherapy.²⁰ Second, under COA’s current vision for OCM 2.0, providers would be eligible to receive shared savings by competing against each other from the start. Currently, OCM participants must first beat their own historical performance. The proposed change would promote transparency among practices as to which are setting the bar.²¹

Finally, OCM 2.0 calls for a defined maximum of potential losses and/or use of reinsurance.²² These options could help mitigate risks for providers while encouraging a gradual shift to two-sided risk.



Additionally, models with voluntary two-sided risk, such as OCM, currently provide incentives that result in participant self-selection, some participants believed. Again, the prospect for actuarial risk is significant under these models. Without making the potential benefits and bonuses more significant, these models generate little incentive for practices to opt for downside risk, especially if that risk is voluntary. However, providers that have already made relevant investments in their practices are easily incentivized to participate in one-sided risk APMs: *“For APMs that have one-sided risk, the practices view it as a free option. If you are doing quality reporting anyway or if you have the IT systems, there’s no risk. They think, if I don’t save money, there’s no risk, but if I happen to do well then I can get a bigger check back.”*

“To improve the quality of their care, oncologists have to invest in the right tools and systems. But for practices that haven’t, what will it cost them? OCM participants are the cream of the crop. Practices are at different points, and getting them to the same level will require money.”

– Provider representative

Clinical pathways

Some studies have shown use of oncology clinical pathways has generated greater efficiencies and cost-savings.²³ However, given the complexity of characterizing an individual patient’s cancer, participants underscored the difficulty in appropriate definition and utilization of clinical pathways.

There are numerous pathways systems in oncology, some of which are developed by payers or by individual practices in-house. Other pathways are independent proprietary solutions, which can also be procured and customized by practices.²⁴ Regardless, participants noted that pathways are approximately *“the same,”* especially in first or second-line courses of treatment and in accordance with National Comprehensive Cancer Network (NCCN) guidelines. However, there are challenges in how quickly practices adopt new treatment guidance offered in pathways. Comprehensive cancer centers generally adopt new innovations or technologies ahead of pathways because they have participated in clinical trials.

Because pathways are an essential element of improving quality and stabilizing costs, some participants also questioned whether they should be more closely evaluated or managed by independent third parties to provide greater transparency.

Financial sustainability

Many participants were candid about their doubts that oncology APMs would be financially sustainable for payers and providers, both in the short term and over the long run.

Some questioned whether payers would see a return on investment given the significant initiation costs. *“There’s a pretty fairly long ramp-up period,”* a payer explained. While some participants noted that regional or state-based commercial payers are more nimble, easier to work with than CMS, and are well aligned with local delivery networks and providers, many of these payers lack the scale of patients that



justify such an investment. Indeed, some payers described APMs in oncology as *“significant investment with diminishing returns.”*

Some stressed, however, that current APMs are pilots, and the community is still assessing early results. *“It’s difficult to talk about long-term sustainability when we don’t have short-term financial sustainability yet ... Some of these models now are not and don’t necessarily have to be budget-neutral,”* a payer noted.

As an extension of the conversation on APM goals, some participants also questioned the impact of APMs on the sustainability of the healthcare system more broadly. This is especially pertinent to a high-cost field like oncology. *“Will 4-6% savings really change the cost curve that much? Have we overestimated APMs?”* a provider representative asked. Another noted, *“maybe the result of the whole OCM thing will be that playing with the numbers in oncology care actually doesn’t do anything we like with total cost of care, but at least that’s one of the points the approach tests.”*

Complicating the calculations on financial sustainability is the site of service differential, or the difference in payments based on whether care is provided in an independent practice or a hospital. The ongoing trend in provider consolidation exacerbates this, threatening independent oncology practices and potentially driving up costs. A provider said, *“One of the elephants in the room is that the same service is paid for at up to three times as much if it’s delivered through the Hospital Outpatient Prospective Payment System than if it’s through the Physician Fee Schedule.”* Another explained this challenge from a payer perspective: *“That’s one of the biggest challenges that a lot of private or commercial payers face. A hospital acquires a community practice, and it’s the same care, almost, and, they’re delivering the same chemo in the same office. But the next day, they’re on a new tax ID and we get charged much more.”*

A provider noted that there can be positive collaboration between community providers and hospital systems. Furthermore, APMs, when designed well, should keep community providers in practice and enable them to flourish.

Multistakeholder suggestions for improvement and paths forward

“I’m optimistic because, somehow, you got all of these people in a room together for six hours. That says something about how important lots of different stakeholders think this is. And I’m encouraged by how little disagreement there seems to be about some of the problems and, at least directionally, what some of the solutions should be.”

– Industry participant

The group recommended addressing the agreed-upon pain points to advance current APM pilots and payment reform in oncology more broadly. These recommendations covered three thematic areas: ensuring that value-based care is high quality and appropriate, making APMs work better, and building a continuous learning environment about APMs in this specialty. The group did not identify any easy solutions; however, many noted that ongoing and proposed pilots had elements that addressed some of these issues. Hence, many called for additional resources, collaborative platforms across pilots, and new test beds to support a faster, less risky, more transparent, and iterative approach to piloting APMs across the country.



Ensuring that value-based care is high quality and appropriate

Leveraging existing efforts on quality metrics

Stakeholders underscored the need to revise, prioritize, and achieve consensus on quality metrics for oncology care delivered under APMs. These metrics need to be electronically accessible and outcomes-based, and include select process metrics that are meaningful and serve to promote quality (e.g., use of molecular diagnostics). Additionally, some suggested that advanced technology can be used to measure technical quality through compliance with pathways.²⁵

The way forward: Many initiatives on developing, validating, and improving quality metrics are under way today. Therefore, rather than invest in new efforts to make these improvements, a dedicated alignment mechanism or sharing platform across these efforts that is specific to oncology may be beneficial. Such an approach should focus not only on the content of quality metrics but also on implementation. It should also closely engage payers and vendors on how existing clinical pathways systems can be leveraged to fulfill technical quality reporting requirements, which would help reduce providers' reporting burden.

Optimizing use of clinical pathways

End-to-end pathways, which more closely follow the patient journey from diagnosis to end-of-life care or survivorship, are needed to address the prospect of undertreatment and to more closely align with the total cost of care, participants urged. Furthermore, embedding pathways into EHRs would enable more seamless clinical decision support and reporting—a capability that is being explored under newly proposed models.²⁶

“The overall take-home message for me was: invest in pathways.”

– Payer

Additionally, some stakeholders noted that pathway design and compliance could have a broader impact on reducing costs. Use of pathways can reduce the need for prior authorization, for example, which can help save costs and time for providers and payers alike. Pathway design may also drive competition for treatment manufacturers: *“Now one thing we’ve found, more recently, is with all the immunotherapies that are coming about, [manufacturers] want to be on top of the pathway. We’re getting a lot of pharmaceutical companies competing against each other for lower cost to be up there. Because our pathways are number one, efficacy, number two, side effects, and number three, assuming number one and number two are the same, cost. A lot of these immunotherapies are equally efficacious, so it comes down to cost.”*

The way forward: Champions for these topics could partner with academics or other researchers to explore the value of clinical pathways to oncology payment reform, including how they can be better leveraged to reduce time and costs on quality reporting, authorizations, and other areas. Such an effort could also explore the role of third party organizations, such as the American Society of Clinical Oncology (ASCO) or NCCN, in managing and promoting the use of pathways within the context of APMs.



Addressing the cost of drugs

The cost of high-efficacy, innovative treatments is an ongoing challenge in oncology APMs. However, in contrast to the above view, some participants emphasized that there are limited circumstances in oncology where a provider can make choices between treatments that are equal in efficacy and toxicity, but different in cost. Given the significance of drug costs to cancer care, rather than simply remove the risk of drugs from APMs and ignore the issue entirely, some underscored that the biopharmaceutical industry needs to be at the table to advance progress in this area. As one stakeholder said, *“on drug costs, we tend to want to carve it out because we can't control it ... We also talk about pathways. Of course, drugs will be a part of pathways. I would like to encourage us to think about not excluding drugs from the overall cost considerations [in APMs] because this issue will continue to grow, become an even a bigger target, and threaten innovation, I think, if we don't figure out a way to incorporate it.”*

The way forward: Industry could help further consider how value-based contracts for individual drugs—such as indication-based pricing or value-based pricing—can be integrated into APM design. Industry could also work with payers in a pipeline-agnostic advisory capacity to help improve current novel therapy adjustments under OCM and other relevant models. Current pilots could also include a learning and feedback platform for industry to understand how drug costs affect delivery, performance, and payment models.

Better linking clinical with end-of-life care

Participants recognized that many cost-savings opportunities occur following first- and second-line therapies. Ensuring appropriate, informed decisions on palliative care and enabling hospice settings to provide covered clinical services, such as provision of blood products, could encourage patients to move to settings that better support their needs and reduce the cost of unnecessary treatments. Some stakeholders cautioned, however, that in the context of payment reform, such efforts could be deemed rationing: *“The big elephant in the room is end of life issues in oncology. There is a huge cultural assumption in the US that you should have access to everything that you want. Savings in third or fourth line therapy is not something patients will embrace. Europeans are much more accepting when [a] clinician says, let's stop here.”*

The way forward: Other cross-stakeholder initiatives, such as the Coalition to Transform Advanced Care, have proposed APMs on end-of-life and palliative care needs.²⁷ These efforts are looking at outcomes, actuarial analysis of these models, their impact to stakeholders, and implementation approaches. It may serve the oncology community well to engage directly with these stakeholders to understand the connections between oncology APMs and these models.

Making APMs work better

Leveraging advanced technologies

The IT and data issues remain significant. Easily accessible systems that enable deeper analytics for providers—such as population-level analysis and tools that allow clinicians to benchmark their patients or providers against each other—would be beneficial, the group agreed.



New APM proposals indicate that some vendors have the ability and interest to offer more complex solutions to providers. These solutions can leverage machine learning and other advanced capabilities to seamlessly extract data from multiple sources, embed more sophisticated pathways into EHRs, and develop more accurate targets.²⁸ The extent to which such solutions will ultimately be successful and accessible for more providers remains an open question.

The way forward: Some APMs have proposed use of advanced cognitive computing systems to support clinical care, target setting, and data extraction. Additional resources, perhaps from industry, could support APMs' use of such technology and promote continuous learning about its success and feasibility for broader uptake by providers. Such efforts will require the willingness of established technology developers to collaborate with providers and payers on these issues. New, disruptive players in the health data space may also have a role to play.

"I've sat in a number of forums since the 1980s talking about data. I am incredibly frustrated by the system in place. I'm incredibly frustrated by the failures. Data represents, to me, the core competency and core ability of people to be able to get knowledge and make decisions."

– Patient organization

Improving attribution

Attribution, as detailed above, is a major challenge. Some participants suggested that voluntary attribution, which has been tested in other models outside of oncology, could be one option to help solve this challenge: *"I mean, the patient could say, 'This is the oncologist who's managing my cancer treatment.' You have that in, I think, the Comprehensive Primary Care Plus Model, and it's available in ACO models. Would something like that help in oncology models?"* Some participants noted that self-attribution could present challenges on the payer side, but indicated it could be worth further exploration.

The way forward: Payers welcomed further conversation with participants on ideas for more accurately attributing patients. A small, nimble working group of oncology experts in this area may be able to solve immediate issues in OCM implementation and that process may include a deep-dive on the potential use of self-attribution by patients. Allowing commercial providers to observe such an effort may be helpful in informing their approach to attribution in the future.

Taking a provider-centered approach to APM design

Participants recommended that those designing APMs should better consider the concerns and perspectives of providers in new models or iterations.

First and foremost, they need to better mitigate risks to providers and understand that providers are not experts in underwriting and risk management. Some participants underscored the need to help providers identify high-risk patients that will need higher-touch care. From a practical perspective, this may require material support for analytics, risk management tools, and relevant IT solutions. Current APMs, like OCM, have compelled some practices to develop these capabilities by hiring costly outside vendors, which is not sustainable in the long run: *"Any APM that is so complex and potentially risky that it requires participants to hire vendors is not going to work."* Additionally, some pointed to reinsurance as a potential



solution for providers to manage their risks in participating in APMs. However, some participants warned that reinsurers may not sufficiently understand the risks for practices and that prices could be highly variable.

Second, some participants emphasized that moving forward, in OCM and in similar models, providers within a given region should be able to compete against each other from the start rather than only with themselves. Transparency about other providers' performance would encourage more rapid learning and a clear understanding of which practices are leading the pack: *"We have to be able to compare ourselves with other people, which we're currently not legally allowed to do now, so that we can figure out what are the best practices, and figure out who is making the most impact on improving quality and decreasing cost."*

Finally, in addition to these needed improvements, some participants noted that current APMs are benefitting providers. *"I think the biggest benefit to the practice over the time I've been doing this is that for the first time, we've had very engaging conversations with our payers that aren't adversarial conversations like they have been in the past. I think there's a real can-do, work-together spirit that's come out of these alternative payment models,"* a provider said. Additionally, while designing appropriate financial models that both incentivize provider performance and reap savings for payers is an open challenge, some early findings from OCM suggest a positive direction in provider performance. Some participants reported that following additional adjustments, an estimated 25-35% of providers will receive performance bonuses, a percentage that seemed directionally positive for some stakeholders.

The way forward: The community could benefit from a deeper-dive on utilizing reinsurance to support providers and payers taking risks in APMs, coupled with an effort to educate the reinsurance sector on the risk profile of practices. Additionally, stakeholders could better assess the frequency and cost of vendors for OCM participants and the financial implications for future phases and iterations of the program.

Creating a continuous learning environment across stakeholders

Participants called for a testing environment that allows for more experimentation, iterations, and fast fails. Such an environment would need to provide new test beds beyond CMS. Plans that have close and collaborative relationships with local providers and the will to invest in innovation would be ideal partners. A provider said, *"I feel a little bit like working with CMS is boiling the ocean, whereas with some of the smaller, local, regional players, oftentimes we can make progress faster. They are more open to some of the things that we've talked about here today as far as being more iterative."* Some noted that state plans, such as the Blues, could be potential testing sites given that they have a balance of scale and agility.

Furthermore, a more localized approach, as noted above, could also enable providers to compete against regional or local counterparts. This would promote greater transparency in performance measurement for providers of similar geographical background, patient population, and resources—something that might not be possible on a national level.



Such an environment must also enable opportunities for APMs that are similar in principle to share with one another, while testing specific individual hypotheses. One provider representative proposed, *“I think what I’ve seen is a lot of these APMs—MASON, OCM 2.0, the ASCO Patient-Centered Oncology Payment model—have some similarities to them. One of the suggestions I have is that we bring the similarities together, make different pilots from them, but ask a specific different question in each one. So keeping the [framework] in common but then asking a specific question that’s different in each one that you might test out.”*

Oncology stakeholders could also benefit from more transparency on APMs’ goals and how these are being measured. This includes how APMs weigh and measure cost reduction and quality of care, given that they prioritize these differently.

Finally, stakeholders recognized the critical role that CMS/CMMI plays in driving APMs in oncology. First, some underscored that while there is a need for new test beds, it is also important to give OCM time to mature, share lessons, and adapt accordingly: *“Before we get to multiple solutions, we have to come up with at least the first one. And that should give us some clue as to how to model the others ... whatever we design first off is never going to be perfect. But it’s good and we can build upon it.”* Second, the scale of Medicare patients and CMS’s leadership is central, although some participants hoped for better alignment between OCM and private payers in the future: *“CMS needs to continue to be a big player in this space in order to keep things moving quickly, or there needs to be some kind of broader cooperation amongst multiple payers, which I think is just not really a feasible thing to do in the near term.”*

“I think one of the things that the OCM did that I had never seen before is that for the first time we saw CMS as a partner rather than an adversary. You need that partnership with payers so that if you fail—if the model doesn’t work—you haven’t put your whole practice on the line and lost.”

– Provider

The way forward: Resources to accelerate a more iterative, dynamic testing environment remain uncertain. Stakeholders would need to discuss this issue with CMMI or consider the availability of private resources. Umbrella groups such as the Blue Cross Blue Shield Association could be channels to explore piloting new APMs with regional or state plans. Finally, stakeholders could consider adding a multistakeholder steering committee to current or new pilots to ensure each is testing a slightly distinct hypothesis. Alternatively, they could consider the value of a broader ongoing coordination mechanism. While there are existing mechanisms like HCP-LAN, a specific effort dedicated to oncology could be beneficial to align commercial, public, and provider-developed APMs.

Conclusion

This effort brought together a diverse set of stakeholders to focus on the progress of oncology APMs. Given the rapidly moving innovations in clinical science, greater individualization of treatments, and increasing costs, participants questioned whether APMs are and can be designed to reflect the realities



of oncology care delivery. Given the complexities, costs, and effort involved in APM design and implementation, some participants remained skeptical about APMs' return on investment: *"The caveat I have is the amount of work that CMMI has put into doing just OCM is incredible. The amount of work that private providers are putting into it is incredible. It's great to come out and say, 'Oh here's 40 different things we could do.' ... But I think the fundamental question is, when are we going to show that the juice is worth the squeeze?"*

Others, however, focused on advancing, evaluating, and learning from current models, particularly OCM. As one provider representative emphasized, *"APMs are not going away."* In this spirit, many agreed on the need to more rapidly and collaboratively address the agreed-upon pain points that hinder progress to new models of payment: *"Honestly, all of us being here in the room together and listening, having an ability to share ideas, and having some consensus around some of the challenges as well as the opportunities really brings optimism for me."*

In our dynamic healthcare environment, with increasing consolidation and pressures on all stakeholders, all agreed there is an urgent need to ensure appropriate alignment of payment models with care delivery. They urged that the timing is particularly ripe to do so in complex, high-cost fields like oncology.

About this document

About ViewPoints

ViewPoints reflects this effort's use of a modified version of the Chatham House Rule whereby participants' names and affiliations are a matter of public record, but comments are not attributed to individuals, corporations, or institutions. Italicized quotations reflect comments made by participants before and during the meeting.

Tapestry Networks

Tapestry Networks is a privately held professional services firm. Its mission is to advance society's ability to govern and lead across the borders of sector, geography, and constituency. To do this, Tapestry forms multistakeholder collaborations that embrace the public and private sector, as well as civil society. The participants in these initiatives are leaders drawn from key stakeholder organizations who realize the status quo is neither desirable nor sustainable and are seeking a goal that transcends their own interests and benefits everyone. Tapestry has used this approach to address critical and complex challenges in corporate governance, financial services, and healthcare.

The views expressed in this document represent consolidated views of those who participated in interviews and meetings for the Optimal Oncology APMs initiative and are integrated with broader landscape analysis. This document is not intended to represent the particular policies or positions of the network's individual participants or their affiliated organizations. This material is prepared and copyrighted by Tapestry Networks with all rights reserved. It may be reproduced and redistributed, but only in its entirety, including all copyright and trademark legends. Tapestry Networks and the associated logo are trademarks of Tapestry Networks, Inc.



Contributors

- Aetna: Roger Brito, Senior Medical Director of Oncology Solutions*
- American Cancer Society: Len Lichtenfeld, Deputy Chief Medical Officer;* Kirsten Sloan, Vice President, Public Policy; Mark Fleury, Principal, Policy Development, Emerging Science
- American Medical Association: Barbara L. McAneny, President-Elect, and CEO/CMO, Innovative Oncology Business Solutions Inc., and Founding Partner/CEO, New Mexico Oncology Hematology Consultants and New Mexico Cancer Center;* Sandra S. Marks, Assistant Director, Federal Affairs*
- American Society of Clinical Oncology: Stephen S. Grubbs, Vice President, Clinical Affairs*
- Amgen: Claes Hornstrand, Vice President, Head of US Value and Access; Cindy McDonald-Everett, Executive Director, US Value and Access, Oncology;* Jaime Moy, New Product Development Lead, US Value and Access*
- Anthem: Mai Pham, Vice President, Provider Alignment Solutions; Robert Krebs, Staff Vice President, Specialty Payment Models
- Association of Community Cancer Centers: Christian G. Downs, Executive Director; Leah Ralph, Director, Health Policy*
- Blue Cross Blue Shield Association: Naomi Aronson, Executive Director of Clinical Evaluation, Innovation, and Policy*
- Blue Cross Blue Shield of California: Torrie Fields, Senior Program Manager for Palliative Care
- Blue Cross Blue Shield of Massachusetts: Dana Safran, Chief Performance Measurement and Improvement Officer; Maura Feldman, Director, Hospital Performance Measurement & Improvement
- Blue Cross Blue Shield of North Carolina: JP Sharp, Principal Strategic Advisor, Healthcare Strategy*
- Bristol-Myers Squibb: Tamar Thompson, Executive Director, State Government Affairs, Alliance Development and Federal Payment; Greg Long, Executive Director, Head of Oncology Access & Payer Marketing; Mitch Higashi, Vice President, Health Economics & Outcomes Research; Ali Lakhani, Oncology Payment & Policy
- Catalyst for Payment Reform: Suzanne Delbanco, Executive Director
- Center for Healthcare Quality and Payment Reform: Harold Miller, CEO
- Center for Medicare and Medicaid Innovation: Ellen Lukens, Division Director, Ambulatory Payment Models*
- Cigna: Bhuvana Sagar, Medical Director*
- Coalition to Transform Advanced Care: Bill Novelli, Co-Chair; Jon Broyles, Executive Director
- Community Oncology Alliance: Bo Gamble, Director of Strategic Practice Initiatives
- Dana-Farber Cancer Institute: Belen Fraile, Senior Director of Finance, Department of Population Health Management and Decision Support



- Equity Healthcare: Bob Galvin, CEO
- Fairview: Kyle Skiermont, Chief Operating Officer, Fairview Pharmacy Services*
- Flatiron Health: Bobby Green, Senior Vice President, Clinical Oncology*
- Friends of Cancer Research: Jeff Allen, President & CEO*
- Georgia Cancer Specialists: James Gilmore, Executive Vice President
- Jewish Healthcare Foundation/Pittsburg Regional Health Initiative: Robert Ferguson, Director, Government Grants and Policy
- Memorial Sloan Kettering Cancer Center: Peter Bach, Director, Center for Health Policy and Outcomes
- Midwest Business Group on Health: Cheryl Larson, CEO
- Milliman: Bruce Pyenson, Principal and Consulting Actuary; Pamela Pelizzari, Senior Healthcare Consultant*
- National Association of Medicaid Directors: Matt Salo, Executive Director; Jack Rollins, Senior Policy Analyst; Lindsey Browning, Program Director for Medicaid Operations
- Northwest Georgia Oncology Centers and Community Oncology Alliance: Bruce Gould, Medical Director and President*
- Novartis: Tracy Baroni Allman, Executive Director and Head of Health Policy, Novartis Oncology; Bob Spurr, US Country Head and Vice President, Patient Access and Health Policy
- Pacific Business Group on Health: Emma Hoo, Director,* Olivia Ross, Associate Director
- Tapestry Networks: Lindee Goh, Partner,* Liz Shaughnessy, Senior Associate*
- UnitedHealth Group: Jennifer Malin, Senior Medical Director, Oncology and Genetics
- University of Pittsburgh Medical Center, Hillman Cancer Center: Stan Marks, Chairman, UPMC Hillman Cancer Center; Rushir J. Choksi, Oncologist & Hematologist, Oncology Care Model Lead Physician*

** Meeting participants*



Endnotes

-
- ¹ See [“Better Care. Smarter Spending. Healthier People: Paying Providers for Value, Not Volume.”](#) The Center for Medicare & Medicaid Services, January 26, 2015.
- ² For an overview of current APMs and their variations, see Duke-Margolis Center for Health Policy, [Exploring approaches for value-based reimbursement of oncology therapies](#), (Washington, DC: Duke-Margolis Center for Health Policy, 2017), 2-3, 16-22.
- ³ [“Cancer Prevalence and Cost of Care Projections.”](#) National Cancer Institute, accessed March 26, 2018.
- ⁴ Alex M. Azar II, [“Remarks on Value-Based Transformation to the Federation of American Hospitals,”](#) (speech, Federation of American Hospitals, Washington DC, March 5, 2018).
- ⁵ Barbara L. McAneny, [“MASON - Making Accountable Sustainable Oncology Networks,”](#) Proposal to the Physician Focused Payment Model, Technical Advisory Committee, February 18, 2018, and [“Evolving the OCM: OCM 2.0 & Beyond,”](#) Community Oncology Alliance, January 9, 2018.
- ⁶ Seema Verma, [“Medicare and Medicaid Need Innovation,”](#) *The Wall Street Journal*, September 19, 2017, and [“Centers for Medicare & Medicaid Services, Innovation Center New Direction,”](#) Centers for Medicare & Medicaid Services, September 20, 2017.
- ⁷ See Duke-Margolis Center for Health Policy, 16-22. The HCP-LAN’s four-tier framework is a leading resource for defining APMs broadly and can be applied to the oncology space. See [“Alternative Payment Models \(APM\) Framework,”](#) Health Care Payment Learning & Action Network, accessed March 27, 2018.
- ⁸ For example, see Aetna, [“Aetna, Moffitt Cancer Center Form Oncology Medical Home,”](#) news release, April 16, 2015 and Blue Cross Blue Shield North Carolina, [“BCBSNC to Implement New Medical Oncology Program Effective April 1, 2017,”](#) news release, accessed March 26, 2018.
- ⁹ MD Anderson Cancer Center, [“MD Anderson, UnitedHealthcare Launch New Cancer Care Payment Model,”](#) news release, December 16, 2014, and Center for Medicare & Medicaid Services, [“New Affordable Care Act initiative to encourage better oncology care,”](#) news release, February 12, 2015.
- ¹⁰ Andrew Ryan, Ariel Linden, Kristin Maurer, Rachel Werner, Brahmajee Nallamothu, [“Attribution methods and implications for measuring performance in health care,”](#) commissioned by the National Quality Forum, July 15, 2016.
- ¹¹ Ryan et al., 1-5.
- ¹² Center for Medicare & Medicaid Services, [“OCM Performance-Based Payment Methodology Webinar,”](#) April 20, 2016, 20.
- ¹³ McAneny, [“MASON - Making Accountable Sustainable Oncology Networks,”](#) 1.
- ¹⁴ McAneny, [“MASON - Making Accountable Sustainable Oncology Networks,”](#)2.
- ¹⁵ For discussion on this topic, see American Society of Clinical Oncology, [Patient-Centered Oncology Payment: Payment Reform to Support Higher Quality, More Affordable Cancer Care](#) (Alexandria, VA: American Society of Clinical Oncology, 2015), ii, and Barbara L. McAneny, [“Letter of Intent – Making Accountable Sustainable Oncology Networks,”](#) Letter to the Physician-Focused Payment Model Technical Advisory Committee, December 28, 2017, 1.
- ¹⁶ Deborah Schrag, [“Reimbursing Wisely? CMS’s Trial of Medicare Part B Drug Payment Reform,”](#) *New England Journal of Medicine*, June 2, 2017.
- ¹⁷ [“Evolving the OCM: OCM 2.0 & Beyond,”](#) 7.
- ¹⁸ [Charting a Path Forward for the Oncology Care Model](#), Community Oncology Alliance, February 2018, 3-4.
- ¹⁹ *Ibid.*, 5
- ²⁰ [“Evolving the OCM: OCM 2.0 & Beyond,”](#) 8.
- ²¹ [Charting a Path Forward for the Oncology Care Model](#), 7.



²² [“Evolving the OCM: OCM 2.0 & Beyond,”](#) 16.

²³ David M. Jackman, Yichen Zhang, Carole Dalby, Tom Nguyen, Julia Nagle, Christine A. Lydon, Michael S. Rabin, Kristen K. McNiff, Belen Fraile, and Joseph O. Jacobson, [“Cost and Survival Analysis Before and After Implementation of Dana-Farber Clinical Pathways for Patients With Stage IV Non–Small-Cell Lung Cancer,”](#) *Journal of Oncology Practice* 13, no. 4 (April 2017).

²⁴ Amy Schroeder, [“Clinical Pathways: A Current Snapshot, and the Journey Ahead,”](#) *Journal of Clinical Pathways*, March 15, 2017.

²⁵ McAneny, [“MASON - Making Accountable Sustainable Oncology Networks.”](#)

²⁶ McAneny, [“MASON - Making Accountable Sustainable Oncology Networks,”](#) 16, 21.

²⁷ Khue Nguyen, [“Advanced Care Model \(ACM\) Service Delivery and Advanced Alternative Payment Model,”](#) proposal to the Physician-Focused Payment Model Technical Advisory Committee,” October 4, 2017.

²⁸ McAneny, [“MASON - Making Accountable Sustainable Oncology Networks,”](#) 2, 7, 204.