



Specialty Payment Model
Opportunities Assessment
and Design

Summary of the Technical
Expert Panel for Cardiology

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Cardiology Technical Expert Panel Summary

Introduction

The Brookings Institution convened a technical expert panel (TEP) to solicit input on how best to design an alternative payment approach for cardiology specialty care. The TEP was one phase of the Specialty Physician Payment Model Opportunities Assessment and Design Project, a Center for Medicare and Medicaid Innovation (CMMI) effort intending to identify opportunities for better alignment of high-quality care delivery, and supporting payments in cardiology and additional specialties. The project aligns with CMMI's goals of developing models that improve quality of care while reducing costs. CMMI's objective is to create and evaluate models and eventually scale successful models nationally.

Cardiology care was selected as the second specialty for analysis in this project because cardiovascular disease represents a high disease burden in the United States (US), particularly among the Medicare population. Consequently, high healthcare costs are incurred. Moreover, stakeholders in the cardiology space are actively engaged in numerous efforts that are rewarding higher value care through the following mechanisms:

- Paying for services that are not fully covered in the current reimbursement system
- Shifting funds away from fee-for-service (FFS)
- Shifting funds to and from various providers involved in cardiovascular care
- Distributing shared savings

The cardiology TEP met in person on April 8, 2014 in Washington, DC at The Brookings Institution. In addition to the invited TEP members, staff from Brookings, RAND, MITRE, and CMMI attended the meeting either as conveners or listeners. A list of TEP members and meeting attendees is included in Appendix A. The meeting agenda is available in Appendix B.

Methods

The primary purpose of the TEP was to solicit feedback on the trajectory of cardiology payment reform, and provide an opportunity for stakeholders to provide input on a range of payment and delivery system reforms and their potential impacts. The goal was not to achieve consensus or produce a formal recommendation, but rather to continue discussions on how different model components can fit together in an alternative payment model. In addition, TEP members discussed concurrent reforms that are needed to support changes in payment and care delivery. Based on the preceding environmental scan that included a literature review, stakeholder interviews, and other evidence, TEP members were asked to provide feedback on elements of a potential payment model in three different areas: (1) population health and chronic disease, (2) acute episodes, and (3) complex care. TEP members were asked to reflect on models focused on primary care and cardiology, as well as team-based care. These models were not exhaustive, but contained key concepts across a range of cardiology payment reforms and thus provided a practical foundation for further assessment of practical payment reform models.

TEP Meeting Objectives

As articulated to the TEP members before the discussion, the objectives of the panel included:

- Provide input on how to best design payment and delivery reform models based on the following elements:
 - Care delivery structure
 - Payment structure
 - Requirements for provider groups
 - Feasibility of implementation
 - Potential undesirable consequences

- Address the following common questions when discussing alternative models:
 - What should the structure of the payment models be?
 - Which patient populations should be included in the models?
 - How do models improve care coordination between providers, particularly primary care physicians (PCP) and cardiologists?
 - How do the models improve appropriate use of diagnostics, procedures, and/or other treatments?
 - How do the models promote efficiency in care delivery?
 - How should “site of service” payment differentials be addressed?
 - What data and infrastructure improvements are necessary for the models to succeed?
 - What quality measures are needed with the models?
 - What are the key barriers to implementing the various models, especially for smaller practices and those in underserved areas?
 - How feasible are the models in the short term and longer term?

TEP Meeting Materials

Prior to the in-person meeting, TEP members received a preparatory briefing booklet that included the following documents:

- Background information on the CMMI Specialty Payment Model Opportunities Assessment and Design Project
- A preliminary draft of the Cardiology Environmental Scan
- A list of related quality measures
- Links to preparatory reading material
 - American Medical Association. Early Innovators Share What They Have Learned. Innovators Committee; 2012. (page 55). <http://www.ama-assn.org/resources/doc/washington/physician-payment-reform-white-paper.pdf>. (Accessed 3/28/14).
 - American Hospital Association. Bundled Payment: AHA Research Synthesis Report. (May 2010). <http://www.aha.org/research/cor/content/BundledPayment.pdf>. (Accessed

- 3/28/14).
- Share, DA and MH, Mason. Michigan’s Physician Group Incentive Program offers a regional model for incremental ‘fee for value’ payment reform. *Health Aff (Millwood)*, 2012; 31:9. <http://content.healthaffairs.org/content/31/9/1993.full.pdf>. (Accessed 2/20/14).
- SMARTCare (Smarter Management and Resource Use for Today’s Complex Cardiac Care). March 30, 2014. 1-4. http://wcacc.org/SMARTCare_Overview-of-Payment-and-Care-Changes.docx. (Accessed 4/1/14).
- List of Participating TEP Members
- Biographies of TEP members

Conceptual Framework

The meeting was organized around in-depth discussions of three disease management categories: population health and chronic disease, acute episodes, and complex care. The majority of the day’s discussion focused on population health and treatment of stable, chronic disease. Within this disease management category, models were separated into specific clinical disciplines: primary-care, cardiology, and team-focused models. For each proposed model, the following series of questions were posed to the TEP members for discussion:

- *What should the structure of the payment models be?* Each proposed model category includes a variety of potential payment models that could promote a shift from the current FFS system to more value-based, patient-centered care. While they each include some payments that are not based on volume and intensity, they differ as to whether they simply add a new payment or shift a payment away from existing FFS systems. These payment structures have implications both regarding the strength of incentives necessary to modify current practices, as well as the flexibility and added financial risk that physicians face in shifting payments within alternative models.
- *Which patient populations should be included in the models?* Each of the proposed model categories could address care for a variety of patient populations. Models will need clearly defined specific triggers that will help determine which patients are best treated by each type of model.
- *How do models improve care coordination between providers, particularly primary care providers (PCP) and cardiologists?* In the current FFS system, there is a significant lack of coordination and communication between PCPs and specialists, including cardiologists. Thus, improving care between these providers presents a critical opportunity for reform and improvement in quality of care. Each model attempts to address this issue through a variety of payment structures.
- *How do the models improve appropriate use of diagnostics, procedures, and/or other*

treatments? Overuse of testing and procedures represents another area of waste and inefficiency in cardiovascular care. The proposed models aim to reduce this area of waste by promoting greater adherence to evidence-based medicine.

- *How do the models promote efficiency in care delivery?* The goal of any model is to incentivize providers to deliver the most efficient care possible. Any payment model redesign should encourage providers to deliver high quality care, while controlling overall cost.
- *How should “site of service” payment differentials be addressed?* In the current Medicare payment system, fees differ for the same service delivered in different settings. TEP members were asked to discuss how this differential could be remedied.
- *What data and infrastructure improvements are necessary for the models to succeed?* In order for physicians to provide higher quality, efficient care, certain types of data and tools are necessary. Data is important to identifying areas in which there are opportunities for improvement. Infrastructure, such as advanced electronic health record (EHR) systems, is essential for providers to improve communication and coordination of care. TEP members were asked to discuss what specific improvements providers would require in order reach these goals.
- *What quality measures are needed with the models?* A core component of any payment model is linking appropriate quality measures to payment. While many providers agree that it is reasonable to hold physicians accountable for the provision of quality care, it is vital that performance measures capture accurate and meaningful data that physicians can use to improve the quality of their care. TEP members discussed which quality measures are appropriate for cardiology payment models.
- *What are the key barriers to implementing the various models, especially for smaller practices and those in underserved areas?* While larger, integrated medical systems may have already implemented some of the changes discussed by the TEP members, smaller and more rural practices may have significantly more difficulty in implementing these changes. The lower budget on which they operate and the smaller patient population in which they care for are a few of the possible complications they may face. However, regardless of a particular practice structure, TEP members were asked to identify specific barriers in each potential model that could prevent successful implementation and discuss how they could be mitigated.
- *How feasible are the models in the short and long-term?* Similarly, the feasibility for models will vary based several factors, including the readiness of the implementing organization. TEP members discussed the possibility that a model could be realistically implemented in the current cardiovascular environment.

Discussion 1: Primary Care-Focused Model(s)

Many existing alternative payment models have focused on primary care, since PCPs play a significant role in managing a patient's comprehensive health needs, including prevention and chronic disease management. However, specialists often manage the majority of chronic cardiovascular disease. In considering how to reform care delivery and payment, it is important to create a model that encourages the most efficient utilization of specialty resources. The models discussed in this section are considered primary care-focused because the majority of incentives are directed towards PCPs with goal of encouraging appropriate use of specialist resources.

TEP members opened the conversation around primary care models by discussing evidence that supports the patient-centered medical home (PCMH) model, and the factors that contribute to their success and failure, specifically with regards to cardiology. While recent evidence suggests that the PCMH may not have as large an impact as anticipated, several payers felt that their organizations had success with the PCMH model in reducing emergency department (ED) utilization. They felt that this model was successful in managing the chronically ill population, many of whom are affected by cardiovascular disease.

Role of Primary Care

TEP members agreed that in reality, many PCPs can manage the majority of patients with cardiovascular disease. However, there is not necessarily one relationship between primary care and cardiology that is right for all physicians. There are a number of factors that influence the role of the PCP including the type of provider, geographical availability of physicians, and patient preference.

Within primary care, there are different roles for a variety of providers. Nurse Practitioners (NP) and Registered Nurses (RN) can provide a large portion of care, especially in situations where patients require close management of a chronic condition. The critical role of NPs and RNs should be considered in any future payment model. In the current FFS system, the care coordination and care management services that they provide are not reimbursed. Creating a payment model that incentivizes this type of care may prevent more costly procedures, complications, hospitalizations, or other acute events.

The geographical availability of providers can also affect the role of primary care. In areas with fewer cardiologists, primary care may take on a larger role in managing cardiovascular disease compared to areas in which patients have greater access to specialists. TEP members also highlighted the fact that patient preference affects the role of primary care. Often patients have strong opinions about their own care and may insist upon seeing a cardiologist, even if the PCP believes that it is unnecessary.

In general, TEP members felt that PCPs can manage a greater portion of cardiovascular disease, but they need to have more time to spend on care management with patients. Whether this management is performed by PCPs themselves or other support staff, TEP members agreed that the current FFS system fails to properly pay for close care management. Instead, current payments encourage a focus on volume of patients rather than incentivizing appropriate management.

Regardless of the relationship between the various providers involved in a patient's care, the majority of TEP members believed that each physician's role should be clearly defined ahead of time. These roles should clearly define who is in charge of managing patient's medications and referrals, and identify their primary point of contact. While the role of providers and specialists may differ based on the patient, the group agreed that clarity and communication of each role is critical.

Role of Cardiologists and Other Specialists

TEP members agreed that there is still significant work to do in order to incorporate cardiologists and other specialists into the primary care-focused models mentioned above. Quality measures and registries related to cardiology are often involved in primary care-focused models due to the significant amount of cost related to cardiovascular disease. However, these efforts only involve cardiology indirectly. Alternatively, the medical neighborhood model incentivizes cardiologists to coordinate with a medical home using population-based metrics. This model is an extension of a PCMH emphasizing collaboration between PCPs and approved specialists to ensure all of a patient's physical, mental, and even socioeconomic needs are cared for. The payments for these specialists in this model primarily remain FFS-based. However, these efforts have been implemented in limited settings. Data on the success of this type of model is not yet available.

TEP members expressed optimism around the inclusion of cardiologists and other specialists within the accountable care organization (ACO) model. Essential to including specialists in an ACO is determining how to divide shared savings among physicians. One payer discussed their ACO experience, in which they provide the shared savings in a lump sum to the organization and allow them to divide it among themselves. While they do not participate in the division of savings directly, they do require transparency and encourage organizations to spread the savings among primary care and specialists.

Care Coordination Improvement

Overall, TEP Members agreed that improved care coordination is essential to the success of including cardiologists in any primary care-focused model. The current FFS system does not allow for easy communication between providers, even when a simple phone consultation between a cardiologist and a PCP is required. Instead, FFS has turned the referral system into a mechanism for providers to use office visits as a type of consultation in order to ensure their work is billable. TEP members emphasized that models should focus on enabling primary care to consult with cardiologists without the need for office visits. One TEP member in particular stressed the importance of incentives to increase care coordination between PCPs and cardiologists, rather than putting the PCP between the patient and the cardiologist.

Some TEP members suggested that one way to incentivize this type of coordination is to only work with providers who are willing to manage patients in a similar manner. Even without creating a new payment model, cardiologists that are willing to work together with PCPs to provide higher quality care would receive a higher volume of patients as an incentive. In order to ensure a successful relationship between primary care and cardiology, it will be important to define exactly what each provider is responsible for managing.

Appropriate Use

TEP members agreed that the current FFS system leads to fragmented delivery of care and incentivizes high volume, rather than appropriate use, of testing and procedures. Payment and delivery reforms should encourage proper care choices from providers when managing patients' health. This may require incentivizing providers not to perform and/or order certain diagnostic tests and/or procedures that may not add value to the patient's overall care. TEP members, however, struggled in describing a payment strategy that might properly accomplish this type of incentive. While appropriateness criteria and decision support tools are available, they are not widely used. TEP members did not comment on the reason for the lack of uptake regarding these criteria and tools. An important aspect of implementing decision supports tools will be having the infrastructure available to support these tools. However, in terms of thinking about appropriate use of testing and procedures, one TEP member pointed out that it is important to recognize that their use is closely tied to outcomes. While measuring outcomes is complex, valid outcomes measurement will help in the ongoing development of these decision support tools. TEP members, however, did not elaborate on which valid outcome measures they would suggest employing. A model should lead to improved outcomes, as well as appropriate use of testing and procedures.

Efficiency in Care Delivery

TEP members suggested that the most efficient way to organize providers, especially those that are not part of a large integrated system, may be to let them organize themselves in the context of an alternative payment model. When providers are given this flexibility, several TEP members found that providers are more willing to take on risk and responsibility for their patients.

However, one unintended consequence of a primary care-focused model is the possibility of incentivizing PCPs to underutilize cardiologists or to base referral patterns solely on a cardiologist's cost profile. TEP members agreed that current primary care-focused models have not been the ideal way to engage specialists. They expressed a need to find a way to increase access to cardiologists for PCPs. Additionally, one TEP member emphasized the importance of not forcing patients to coordinate their own care between the various different providers. TEP members, however, did not reach a conclusion as to the best way to accomplish these goals.

Model Feasibility

When designing an alternative payment model, TEP members discussed the importance of assessing the level of provider readiness. Some providers are more willing and able to use available data in their practices. Some TEP members suggested a tiered payment approach that could allow providers at various stages of readiness to participate and improve their performance before moving to a payment model requiring more overall risk.

Discussion 2: Cardiology-Focused Model(s)

In contrast to models that would provide payments directed to primary care, cardiology-focused models provide incentives solely to cardiologists, in order to encourage them to provide more efficient, higher quality care. These models directly incentivize cardiologists through a variety of mechanisms, which could include add-on payments, case or episode-based person-level payments, shared savings, and/or full or partial capitation. Overall, TEP members believe that the cardiology-focused model required expansion to meet the aims of achieving greater care coordination, less fragmentation, and the overall improvement of cardiovascular patient care. Most stakeholders indicated that incentives focused solely towards cardiologists would fail to address these overarching goals. Inclusion of other providers involved in the patients' care is necessary on a broader level to avoid crucial communication gaps and inappropriate utilization. Bridging such gaps through aligned provider payment structure(s) may lead to more sustainable payment reform efforts, ultimately helping to achieve increased value while also controlling the total cost of care.

In this discussion, TEP members advocated for a team-based approach as opposed to a cardiology-specific method. They all agreed that a fundamental cultural change in how health care is provided would greatly increase communication across all provider platforms and allow for improved, broad-based alignment of incentives across providers and institutions. The team-based approach was discussed in more detail in a subsequent discussion period covered later in this summary.

Payment Model Structure

While TEP members agreed that any cardiology-focused payments should promote patient value, they had differing views on how to best promote it within a particular payment structure. TEP members believed that cardiologist inclusion in shared savings could help develop greater coordination and integration of care with other providers. A TEP member noted that including cardiologists in shared savings could have great potential for encouraging cardiologists to think about how their decisions more broadly affect their patients' health.

However, TEP members could not agree on how to accurately attribute cardiovascular care to each provider and/or appropriately distribute the shared savings amongst the contributing providers. Besides emphasis on patient value, TEP members also agreed that incentive alignment between the various providers (e.g., PCPs, cardiologists, hospitals) was a crucial step in any payment reform model. Some TEP members believed that an absence of aligned incentives might lead to a lack of motivation across providers and institutions, ultimately resulting in diminished effectiveness of value-based implementation efforts. However, TEP members had difficulty determining how alignment would be best achieved. One TEP member advocated for fully aligning incentives across PCPs, cardiologists, and hospitals, as opposed to awarding incentives to cardiologists alone. Exact actions for carrying out full alignment of incentives were not specified, which will be an area requiring more follow-up research and analysis.

Some other TEP members presented a few other potential incentive designs. One TEP member recommended incorporating some type of technology-based add-on payment that would incentivize the

use of explicit web-based technologies. Another TEP member advocated for incentivizing the use of cloud-based innovation through a tiered approach. This incentive structure would use an initial payment for installing and accessing the system, with a secondary payment tier for actual patient utilization of the system. Ultimately, many TEP members believed that a fundamental cultural change toward increased cross-provider interaction would provide the necessary infrastructure for sustaining these quickly-produced incentive systems, while eliminating overutilization and underutilization of tests and procedures.

Efficiency in Care Delivery

TEP members generally acknowledged the importance of care improvement and increased efficiency in care delivery by cardiologists, but had different views on how to best approach this. Two TEP members strongly believed that care should be improved through emphasis on early detection and early intervention in the primary care setting. However, another TEP member disagreed, noting that patients may lack classic heart disease symptoms, and thus prevention may not always be feasible. More needs to be done to determine the points of most efficient intervention in care to avoid higher cost treatment further down the road.

Barriers to Implementation

Challenges exist in implementing cardiology-focused payment models, including clinician ambivalence, quantifying the cost of care, and potentially negative setbacks and fears tied to the various payment models. TEP members agreed that quantifying the actual cost of care is difficult, and geographic variations continue to exist that need to be resolved in the coming years. One TEP member noted that clinicians, including cardiologists, are resistant to change, making implementation of any major payment reform efforts difficult. Furthermore, clinicians are aware and anxious about the fact that cardiology practices are being sold to hospitals at an increasing rate. Another TEP member stated that in certain areas, the standard of care may vary, making it difficult to design clear appropriate criteria that can apply to all practices. For example, in more rural areas, more testing may be required to arrive at clear diagnosis, compared to areas that have access to more advanced technology. At one point, one TEP member noted that invisible aspects, such as physician incentives and devices, created difficulties in quantifying cost. Contextualizing regional, local, statewide, and national differences may help guide the efforts surrounding population-based chronic payment reforms, and resolve many of the challenges mentioned above.

Discussion 3: Team-Focused Model(s)

Team-focused models provide a similar set of incentives to each provider involved in a patient's care, which may include PCPs, cardiologists, surgeons, radiologists, and/or other subspecialists. TEP members broadly agreed that team-focused care involving a range of providers make sense for patients with complex, chronic disease. However, this type of care management mostly occurs in large integrated systems, and there are several challenges in implementing a team-focused model in less integrated settings.

Payment Model Structure

TEP members suggested a number of ways to structure a payment model around this type of care. One model is a performance-based program in which the team receives payment for achieving certain quality metrics, ultimately leading to a shared savings model. Another possible model could include a payment for the team to convene and discuss each patient's case. However, for this type of incentive to succeed, clear communication around pivots of care would need to be established beforehand. TEP members also discussed an existing team-based model for Transcatheter Aortic Valve Replacement (TAVR). Within this model, all physicians involved in the patient's care including the surgeon, cardiologist, anesthesiologist, interventional cardiologist, echocardiographer, PCPs, and nurses play a role in the care planning process. TEP members have experienced positive clinical changes in their practices with implementing this type of communication process. Unfortunately, most were on a small scale and were not necessarily tied to any overall cost benefits.

Applicable Patient Population

TEP members agreed that a team-focused model could provide improved care for patients with complex, chronic disease. However, the same model may not be necessary for less complicated cases. Instead, a single PCP can manage most cases of controlled, chronic disease. In designing a payment model around team-based care, TEP members emphasized the importance of thinking about procedures or diagnoses that could trigger a payment model. They believed that models should start by focusing on diagnoses with clearly defined care management roles for providers. Several TEP members believed the three disease categories covered in the Brookings' preliminary environmental scan draft – congestive heart failure (CHF), atrial fibrillation (AF), and coronary artery disease (CAD) – had the potential to succeed in this type of environment. Beyond a trigger, the duration or end point of the model is also important to consider.

Additionally, a team-focused model must consider which providers should be a part of the team based on the patient's condition. Patients experiencing an acute episode will need a team involving many more providers than patients dealing with chronic disease in the outpatient setting. For example, patients who are more seriously ill may need to have a palliative care provider as a part of their care team and patients in an outpatient setting may need regular contact with a PCP and/or advanced practice clinician, such as an NP or PA, who can work with them on improving healthy behaviors.

In any team scenario, TEP members agreed that it will be important to divide roles clearly, especially in terms of who is responsible for communicating regularly with the patient. However, a few TEP members pointed out that this type of incentivized care coordination can often lead to an overemphasis on phone calls and communication with the patient. Too many phone calls from different providers may have the unintended consequence of reducing the patients' participation in their care team. One TEP member thought patients may feel a sense of confusion regarding who is managing their care and/or generally overwhelmed by the number of instructions, some of which may be contradicting. Any team should clearly designate one person as the main care coordinator.

Barriers to Implementation

Many team-focused models currently exist in large, integrated systems. Implementing this type of model would be significantly more difficult in a small or solo practice. Larger systems currently have little to no incentive to work with smaller practices. Therefore, a team would have to be comprised of providers from a variety of different settings. This would create significant administrative and operational challenges in a payment model.

Another barrier will be determining how to incent the care team to come together and make a decision for a patient's care plan, when their decision may be to provide less care. In the current FFS system, this would result in the providers receiving less reimbursement. In order for the system to be successful, there must be some way for the team to decide on providing appropriate care without being financially penalized.

Model Feasibility

While it seems clear that incentivizing providers to work together as a team is the ideal approach for delivering high quality care, especially for patients with complex, chronic disease, designing a payment model to appropriately incentivize physicians to work together is more difficult in reality. One challenge will be determining how to divide incentives among members of the team, especially when they are associated with different groups. One TEP member emphasized the need to discern clinical utility in the context of an ultimate payment structure.

Discussion 4: Acute Episode Management

While the discussion around primary-care focused, cardiology-focused, and team-focused models centered on patients with stable, chronic disease, this portion of the discussion was aimed at how to properly incentivize high quality care around acute cardiovascular events.

The discussion around acute episode payment models primarily centered on bundled payments intended for major cardiovascular events and procedures such as valve replacement or bypass surgery. Three bundled payment models were discussed in varying detail – 1) the Acute Care Episode (ACE) Demonstration 2) Geisinger Health System's ProvenCare and 3) CMS' Bundled Payments for Care Improvement (BPCI). Overall, stakeholders believed the bundled payment framework had a lot of potential, particularly those tied to conditions with discrete procedures. On the other hand, many TEP members had difficulty in expressing how the bundled payments should be structured. This included discussions around how to attribute the care of each provider and how payment should be distributed. Additionally, many TEP members found implementing bundled payment models a difficult task given the issues surrounding defining episodes of care. TEP members have also found bundles difficult to manage when associated with chronic condition episodes lacking discrete procedures. However, those stakeholders currently involved in bundled payment initiatives, such as BPCI, have found some positive results, particularly with post-acute care, even only a few months after implementation. One TEP member saw some modest cost savings from changes in post-acute care related to bypass surgeries and aortic valve replacements. Most also saw vast improvements in provider communication.

Payment Model Structure

One obstacle discussed by TEP members was the absence of a “one-size-fits-all” approach when shaping models covering cardiovascular bundles of care. Part of this absence could be attributed to the difficulty in defining a cardiac bundle that could be applied to each cardiovascular diagnosis, even for those patients diagnosed with the same disease. Each diagnosis may require divergent treatment and management needs depending on the severity of the condition and presence of other comorbidities. Bundled payments can be partially or fully bundled, from short-term, discrete procedural bundles to more comprehensive fully bundled payments that include physician services, hospital services, and sometimes post-acute care. Currently, however, the majority of cardiology bundles have focused on acute major procedures, such as valve replacements or bypass surgeries, where there are a clear triggers and clearly defined roles of physicians coordinating care for that event. One TEP member believed that post-acute care should be included as well. They again noted that it was hard to specifically define episodes of care for some bundles. However, the TEP member thought that an outlier clause could be inserted to resolve some of those ambiguities. Another TEP member advocated for a shared savings approach that included post-acute patient care data. The creation of regional groups of care was also mentioned for smaller-scale providers, which could be used within a shared savings environment.

Regardless of the exact bundled payment structure, TEP members emphasized the essential need for a systemic, organizational, and cultural change that increases the presence of clinical leadership. TEP members observed that physicians are comfortable accepting additional risk if they are involved in the development and execution of the bundle initiative. This type of approach would allow providers to feel like they are in more control of their risk and help clearly define their roles within the bundle of services. This process would also need to involve identifying clinical and operational efficiencies, creation of additional payment codes for infrastructure supporting care delivery changes, and applying meaningful financial incentives—rewarding, in particular, key transformations in care to help providers adapt to new models. TEP members did not specifically address how these processes might be accomplished or how the significant transformations in care could be defined.

Efficiency in Care Delivery

Many TEP members agreed that a large area of variability for patient care occurs in the post-acute setting. Therefore, they felt that bundled payment reform efforts in this area were ripe for decreasing fragmentation of care. Several TEP members discussed cost variability; one TEP member stated that the greatest cost variation was found in post-acute care and implant devices. However, another TEP member disagreed, asserting that there is not much variation in either overall physician or hospital costs with regard to specific cardiovascular procedures. Another TEP member added that better pre-procedural planning would help in stemming cost variation, particularly with bypass surgeries, which are often performed urgently with a lack of pre-planning. In response, a TEP member disagreed, stating that for angioplasties, variation existed in how the patient arrived there, and how they were treated in the lab. Overall, bundling post-acute services may have the potential of forcing physicians to pay closer attention to variable costs and potential efficiencies within various post-acute care options.

Barriers to Implementation

TEP members discussed four key barriers for implementing acute episode models:

- 1) Provider readiness
- 2) Practice size
- 3) Population size
- 4) Veritable care

TEP members felt there was a need for more clinical leadership in payment reform efforts. Provider readiness in particular may require a fundamental cultural change, as discussed elsewhere in this summary. Additionally, TEP members emphasized the difficulty of creating meaningful change within overall costs when associated populations are too small, which may be a particular issue for small and rural providers. Finally, part of the challenge with implementing bundles involves variable decisions regarding procedures, implant devices, and post-acute care, among others.

Independent facilities and small-scale providers have comparable issues; obstacles and potential solutions that apply to small-scale providers may also apply to rural-based, independent facilities. A TEP member mentioned that a key challenge in small practices is determining the best quality measures to use, all of which are self-reported and thus raise concerns about reliability. A possible solution would be offering some type of bonus for data sharing. Another barrier faced is underdeveloped electronic health systems among small-scale providers, which must be further developed so data can be drawn out on a regular basis, preferably week-to-week rather than month-to-month.

Discussion 5: Complex Care Management

Lastly, TEP members discussed payment models that could support the management of cardiovascular patients with multiple chronic, co-morbid conditions who require longitudinal care, in addition to being at risk for acute events and hospitalizations. TEP members agreed that complex, chronic disease represents an area where there is significant opportunity to improve care delivery and reduce cost. TEP members discussed key elements of any model addressing complex care as well as the types of patients that would be eligible for such a model. While they agreed that complex care is an important area to focus on, there was no consensus on a model that would appropriately address these issues.

Payment Model Structure

When discussing possible payment structures, some TEP members felt that a specialist PCMH could be beneficial for patients requiring complex management. TEP members emphasized the need for models to account for the use of care providers that are easily accessible and have intimate knowledge of each patient's health. Patient navigators or care coordinators are one way to support this type of all-encompassing care. This person should be someone that can develop close relationships with patients and develop an understanding of the factors that affect the patient's ability to receive proper health care.

Another important element of complex care is addressing socioeconomic factors that have a significant impact on a patient's health. Socioeconomic factors are a significant cost driver for complex patients and can be out of the traditional scope of a physician. For example, access to transportation plays a major role in a patient's ability to adhere to doctor's appointments. While transportation may not be something that a physician would take responsibility for, access to transportation is essential to keep a complex patient healthy.

TEP members were also concerned about defining complex care in terms of episodes. One TEP member described dealing with these diseases as a journey rather than an episode. A complex patient's care cannot be divided into 30, 60 or 90 day cycles. Giving physicians a global budget to care for their patients is one way to allow them to identify issues and address them without having to bill for typical medical services.

Applicable Patient Population

In cardiology, heart failure is an underlying condition for many complex patients, driving the majority of their care. Thus, TEP members agreed that complex heart failure patients would be ideal for inclusion in a complex care management model. Many socioeconomic factors play a role in this disease, and there is a significant opportunity to improve care when patients are managed closely. For the patient population with complex heart failure, a specialty medical home model with a focus on cardiology may make the most sense. TEP members felt it would be feasible to identify a population of heart failure patients for which this model would improve care. However, they emphasized the need for accurate predictive modeling to determine which specific patients could have improved outcomes and decreased costs as a result of a complex care management model.

Efficiency in Care Delivery

In deciding how to direct patients to the most efficient providers, it will be important to consider scope of practice issues. Some TEP members thought models should incentivize NPs to play a larger role in managing patients closely. In many cases, NPs can provide the most effective care. NPs can receive certifications on specific elements of cardiology practice including lipid management, and in these cases can provide closely-managed, high quality care to their patients.

Other Topics

Quality

An essential aspect of each model discussion was the ability to ensure that appropriate quality measures would be used to properly incentivize high quality, efficient care. TEP members discussed a variety of ways of implementing quality measures as a part of any alternative model. One option discussed was the inclusion of a "quality gate". This type of incentive structure would require providers to meet a certain level of quality measures before being eligible for additional payments. Another option would be to track specific quality measures for a provider and modify payments based on the level of quality achieved.

Additionally, many current models already include some cardiology quality measures as a part of their evaluation of primary care due to the importance of cardiovascular care to a patient's overall health. While an important step towards encouraging coordinated care between PCPs and cardiologists, these quality measures only directly incentivize PCPs. TEP members emphasized the need for new payment models to include measures that are focused towards cardiologists as well, which should further enhance care coordination between these provider groups. Additionally, some models have used cost measures as a part of their evaluation. However, this type of payment structure can have the unintended consequence of incentivizing PCPs to avoid cardiologists altogether or to send patients only to the least expensive cardiologists, which does not guarantee high quality care.

TEP members further discussed some specific metrics that they believed could support enhanced care in cardiology. The first was a new measure capturing the ability of a patient to connect to their doctor or a member of the care team when they have a question. Another important measurement emphasized by TEP members was ED admission rates. The goal of any model should be to reduce cost by encouraging providers to keep patients healthier and avoid unnecessary visits to the emergency room. Finally, TEP members deliberated the importance of outcomes measures, especially as they related to incentivizing appropriate use of testing and procedures. TEP members felt that these tests and procedures were closely associated with outcomes. Therefore, more outcomes measures should be used, which will incentivize appropriate care indirectly.

Data and Infrastructure

In discussing each type of model, TEP members repeatedly referenced data and infrastructure as common elements necessary for the success of any alternative payment structure. Overall, TEP members emphasized the importance of improving data and other available tools to assist physicians in providing appropriate, higher quality care. Additionally, several members believed that physician access to proper cost data was necessary to truly analyze and manage value-based models.

TEP members underscored the significance of having timely and accurate data accessible as a part of any delivery reform. First and foremost, data is essential to understanding possible areas for improvement in patient care. Precise cost and outcomes data, albeit difficult to collect, needs to be collected in a standardized format to allow for proper physician comparison and accurate evaluation. Physicians currently lack suitable cost information, which could otherwise help inform patient care choices and help cut waste. One TEP member suggested the data from registries and claims data should be combined into a more usable, comprehensive format. Another TEP member thought that historically-based claims data could be used to help detail the cost of a particular disease; the purpose would be to create a framework of goals for physicians to strive for by analyzing currently accessible data. While they agreed that the current data needs improvement, this method could at least be used as a way to transition providers into being more comfortable with implementing various alternative payment models. TEP members also thought data should be made available in a timely fashion, thus allowing physicians the opportunity to promptly adapt their care and improve their metrics. Determining appropriate patient attribution is another area where access to appropriate data is critical. Additionally,

several TEP members agreed that it is important to ensure data is objective. One suggestion was to have the physicians own the data, which would be supported by carefully-scrutinized internal reviews.

Several TEP members acknowledged that the American College of Cardiology (ACC) in particular has been successful in creating registries that capture this information. The Society of Thoracic Surgeons (STS) in Virginia has taken their database a step further by creating a clinical financial tool that blends their registry with claims data. This tool has been very useful in providing the basis for care improvement projects. Tools, such as the one created by STS, and registries, such as PINNACLE, allow physicians to see their performance relative to their peers, to identify areas for improvement, and to provide high-quality cardiovascular care. While these tools are in use, uptake has been fairly low.

TEP members also agreed that providing upfront payments for infrastructure is essential to payment reform. Several emphasized the need for payment models to incentivize non-office-based interactions, encouraging the use of telemedicine to help manage episodes of care for patients. This should limit the need for unnecessary office visits or unwanted trips to the ED, while still maintaining the overall quality of care for patients. They discussed a variety of elements that could be included in this type of infrastructure.

One potential element was a dashboard or tool that could present providers with essential data. Other possible tools included those for decision support, communication infrastructure, or the ability to support telemedicine. When multiple providers are working together in a team, TEP members believed a consistent infrastructure should be in place across all physicians in order to support increased collaboration. From a payer perspective, one TEP member stressed the importance that all payers agree to use similar standards and support infrastructure equally. Payers will be less likely to provide financial support for infrastructure if they fear that other payers will benefit from it without supporting it themselves.

“Site of Service” Payment Differentials

TEP members also discussed aspects of cardiovascular care that could help address the issue of site of service payment differentials amongst various sites of care, specifically between community-based physician offices and hospital outpatient cardiology departments (HOPD). Currently, Medicare payment rates often differ for the same services provided in different settings. TEP members specifically highlighted the need for physician access to accurate outpatient setting cost data in order to successfully address these payment differentials.

This type of data could provide helpful insight into the true costs of providing outpatient services in various settings. Additionally, they could help determine what alternative payment structures could best address potential overpayment of services performed in HOPD settings caused by additional facility fees. One TEP member noted that payment differentials may in fact increase without this type of analysis. Other potential solutions discussed included equalizing payments across all sites of service or implementing a partial capitation or gain-sharing approach for shared savings among physicians.

RAND Overview

The RAND team described their collaborative role with Brookings and CMS, and their perspective on the ongoing cardiology project. After the conclusion of the TEP, RAND will inform CMS of possible impacts of different cardiology payment design decisions, and will outline a series of potential model characteristics for simulation. Data sources for RAND's simulation include Medicare patient claims data and patient enrollment information.

The first phase of RAND's efforts in the cardiology project will incorporate model design decisions. This will be followed by a more detailed accounting of Medicare payment, and issues raised during the TEP will be delved into at this stage in the future. In particular, RAND will determine and assess patient eligibility for the various cardiac payment models, and payment variation between and within providers. These phases will increase RAND and CMS' understanding of the current cardiology payment landscape.

Additionally, the RAND team listed two main challenges for this project. First, they highlighted the difficulty in applying knowledge from historical patterns of cardiac care to cardiology payment models in the future. Second, RAND has an imperfect view of what actually occurs clinically in current payment models based. These issues include analyzing waste and inefficiency fees properly since they are not easy to identify in claims data. Additionally, RAND underlined the difficulty in properly attributing all aspects of a patient's care to each specific physician using claims data. RAND will examine opportunities to quantify these amounts. Variation may not necessarily indicate waste, but would require RAND determining whether variation is provider or patient-driven. Overall, the cardiology payment models discussed are very new and therefore not many of these models are applied yet among current Medicare populations. RAND will play an integral role in informing knowledge of these cardiac models, broadly assessing potential likely scenarios that could emerge.

TEP Review

During this review period, TEP members discussed additional areas of concern that were not clearly addressed during the other discussion periods. A few TEP members discussed the topic of medical education, mentioning the need to incentivize medical schools to encourage improved cost-effective care. TEP members also described the overall high cost of medical education, which causes substantial amounts of debt. Unfortunately, this process can force newly-minted physicians to choose more lucrative, highly-specialized fields rather than more general specialties in order to repay their staggering educational loans. As a result, there has been less of a focus on primary care and the important role that PCPs play in care coordination.

Other discussions involved medical insurance coverage disparities and the potential cardiac payment model implications of the pending ICD-10 system. In particular, the ICD-10 system could provide opportunities for more accurate performance measurements due to the increasingly detailed claims data. Additional data topics included the need for automatic flow of data across a greater number of institutions, and the difficulty of data management across a defined timeline.

Conclusion of TEP

The TEP concluded with an emphasis on the hard work and dedication that providers in cardiovascular care have in reforming our payment system and, ultimately, how care is provided. All of the TEP members acknowledged that this only the beginning of this work. Each TEP member felt a responsibility to continue working on these efforts toward highly effective, sustainable cardiovascular payment reform.

Appendix A: Technical Expert Panel Attendees

Name	Affiliation	Attendee Status
Helen Barold	Comprehensive Cardiac Care	In Person
Cathie Biga	Cardiovascular Management of Illinois	In Person
Vincent Bufalino	Advocate Medical Group	In Person
Paul N. Casale	Lancaster General Hospital	In Person
Manuel Cerqueira	Cleveland Clinic	In Person
Elizabeth Curran	Aetna	In Person
Linda Gillam	Atlantic Health System	In Person
Brian Kiss	Blue Cross and Blue Shield of Florida	In Person
Karen E. Joynt	Harvard School of Public Health/Harvard Medical School	In Person
Thomas J. Lewandowski	Appleton Cardiology ThedaCare	In Person
Margo B. Minissian	Cedars-Sinai Medical Center	In Person
Bob Phillips	American Board of Family Medicine	In Person (9:00AM to 12:00 PM)
Gary Piefer	Evolent Health	In Person
Jeffrey Rich	Mid-Atlantic Cardiothoracic Surgeons/Sentara Cardiovascular Research Institute	In Person
Emily Santer	Blue Cross Blue Shield Michigan	In Person
Lynne Stevenson	Brigham and Women's Hospital/Harvard Medical School	In Person
Arthur Stillman	Emory Healthcare	In Person
Fredonia B. Williams	Mended Hearts	In Person
Additional Attendees		
Rahul Rajkumar	Centers for Medicare & Medicaid Services	In Person
Mary Kapp	Centers for Medicare & Medicaid Services	In Person

Name	Affiliation	Attendee Status
Claire Schreiber	Centers for Medicare & Medicaid Services	In Person
Erin Smith	Centers for Medicare & Medicaid Services	In Person
Jyme Schafer	Centers for Medicare & Medicaid Services	In Person
Mark McClellan	The Brookings Institution	In Person
Kavita Patel	The Brookings Institution	In Person
John O'Shea	The Brookings Institution	In Person
Darshak Sanghavi	The Brookings Institution	In Person
Judith Tobin	The Brookings Institution	In Person
Chris Botts	The Brookings Institution	In Person
Sarah Bleiberg	The Brookings Institution	In Person
Laura Pang	The Brookings Institution	In Person
Anna Marcus	The Brookings Institution	In Person
Joanna Klatzman	The Brookings Institution	In Person
Peter Hussey	RAND Corporation	In Person
Chapin White	RAND Corporation	In Person
Andrew Mulcahy	RAND Corporation	In Person
Heidi Giles	MITRE Corporation	In Person
Jay Schnitzer	MITRE Corporation	In Person

Appendix B: Technical Expert Panel Meeting Agenda

Specialty Payment Model Opportunities Assessment and Design Technical Expert Panel for Cardiology Agenda

- 8:30 a.m. Check In**
- 9:00 a.m. Welcome and Introductions**
Rahul Rajkumar, MD, JD, Senior Advisor to the Deputy CMS Administrator
- 9:15 a.m. Overview of the Day, Cardiology Delivery and Payment Reform Framework**
Mark McClellan, MD, PhD, Director, Initiative on Innovation and Value for Healthcare and Senior Fellow, The Brookings Institution
- 9:30 a.m. DISCUSSION PERIOD: Management Category 1 (Population & Stable/Chronic Disease)**
PART 1 – Primary Care-Focused Model(s)
Kavita Patel, MD, MS, Fellow and Managing Director at the Engelberg Center for Health Care Reform, The Brookings Institution – *Facilitator*
- 10:30 a.m. Break**
- 10:45 a.m. DISCUSSION PERIOD: Management Category 1 (Population & Stable/Chronic Disease)**
PART 2 – Cardiology-Focused Model(s)
Darshak Sanghavi, Fellow and Managing Director at the Engelberg Center for Health Care Reform, The Brookings Institution – *Facilitator*
- 11:45 p.m. Lunch (bring back food for working lunch) – {Cafeteria 1st floor}**
- 12:15 p.m. DISCUSSION PERIOD: Management Category 1 (Population & Stable/Chronic Disease)**
PART 3 – Team-Focused Model(s) {Working Lunch}
John O’Shea, Visiting Scholar at the Engelberg Center for Health Care Reform, The Brookings Institution – *Facilitator*
- 1:15 p.m. DISCUSSION PERIOD: Management Category 2 (Acute Episode)**
Mark McClellan – *Facilitator*
- 2:15 p.m. Break**
- 2:30 p.m. DISCUSSION PERIOD: Management Category 3 (Complex Care)**
Kavita Patel – *Facilitator*
- 3:30 p.m. RAND: High Level Overview**
- 4:00 p.m. TEP Review**
Kavita Patel – *Facilitator*

4:25 p.m. **Concluding Remarks**
Mark McClellan

4:30 p.m. **Adjourn**