Environmental Scan on Identifying a Pathway Toward Maximizing Participation in Population-Based Total Cost of Care (PB-TCOC) Models

September 13, 2024

This environmental scan was prepared at the request of the Office of the Assistant Secretary for Planning and Evaluation (ASPE) as background information to assist the Physician-Focused Payment Model Technical Advisory Committee (PTAC) in preparing for a theme-based discussion on identifying a pathway toward maximizing participation in population-based total cost of care (PB-TCOC) models. This environmental scan provides background on the goal of having all Medicare beneficiaries with Parts A and B in accountable care relationships by 2030; information on challenges and technical issues related to maximizing participation in PB-TCOC models; and summarizes relevant features in previously submitted PTAC proposals. Appendices include tables summarizing relevant features of selected Center for Medicare and Medicaid Innovation (CMMI) models and selected previously submitted PTAC proposals.[i]

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Table of Contents

I. Introduction and Purpose 7

II. Key Highlights 8

II.A. Definitions 8

II.B. Key Findings 9

III. Research Approach 13

III.A. Research Questions 13

III.B. Research Methods 14

IV. Background on the Goal of Having All Beneficiaries in Accountable Care Relationships by 2030 15

IV.A. The Accountable Care Relationship Goal and PB-TCOC Models 15

IV.B. Factors Affecting Medicare FFS Beneficiary Alignment with APMs 17

IV.C. Summary of PTAC Recommendations Related to PB-TCOC Models 19

IV.D. Challenges and Approaches to Increasing Provider Participation in PB-TCOC Models 20

IV.E. CMMI Models and Plans for Accountable Care Relationships 21

V. Technical Issues in PB-TCOC Models 23

V.A. Challenges Regarding Organizational Structure, Payment, and Financial Incentives 23

V.B. Challenges Regarding Developing a Balanced Portfolio of Performance Measures 29

V.C. Challenges Regarding Benchmarking, Risk Adjustment, Attribution, and Data 31

VI. Relevant Features in Previously Submitted PTAC Proposals 35

VII. Areas Where Additional Information is Needed 38

Appendix A. Research Questions by Environmental Scan Section 39

Appendix B. Summary of Key Takeaways from Previous PTAC Theme-Based Public Meeting Discussions 42

Appendix C. Summary of Relevant Components for Selected PTAC Proposals Reviewed by PTAC 44

Appendix D. Summary of Key Value-Based Care Components for Selected CMMI Models 50

Appendix E. Areas for Future Exploration and Research 57

Appendix F. Annotated Bibliography 58

Appendix G. References 59

List of Exhibits

Exhibit 1. Medicare Beneficiaries in ACO or ACO-Like Relationships, 2021 Versus 2023 16
Exhibit 2. Percentage of Payment by (APM Payment Category and Payer Type, 2022..... 16
Exhibit 3. The Evolution of the Medicare Shared Savings Program..... 18
Exhibit 4. Factors Affecting Medicare FFS Beneficiary Alignment with ACOs 18
Exhibit 5. The Evolution of CMS and Innovation Center Models..... 22
Exhibit 6. Selected PTAC Proposals that Included Components Relevant for Establishing Relationships with Accountability for Quality and TCOC 36
Exhibit C1. Key Value-Based Care Components of Selected PTAC PFPM Proposals..... 45
Exhibit D1. Key Value-Based Care Components of Selected CMMI Models 51

List of Acronyms

ACEP	American College of Emergency Physicians
ACO	Accountable Care Organization
ACO AIM	Accountable Care Organization Investment Model
ACO PC Flex	Accountable Care Organization Primary Care Flex
ACO REACH	Accountable Care Organization Realizing Equity, Access, and Community Health
ADI	Area Deprivation Index
AIP	Advance Investment Payments
AHEAD	States Advancing All-Payer Health Equity Approaches and Development
AHRQ	Agency for Healthcare Research and Quality
APM	Alternative Payment Model
AQS	Aggregate Quality Score
ASPE	Assistant Secretary for Planning and Evaluation
AUCM	Acute Unscheduled Care Model
BPCI-A	Bundled Payments for Care Improvement Advanced
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CBO	Community-based organizations
CDC	Centers for Disease Control and Prevention
CEC	Comprehensive End-Stage Renal Disease Care
CHIP	Children's Health Insurance Program
CHW	Community health workers
CI/SEP	Continuous Improvement and Sustained Exceptional Performance
CKD	Chronic kidney disease
CMMI	Center for Medicare and Medicaid Innovation
CMS	Centers for Medicare & Medicaid Services
CPC	Comprehensive Primary Care
CQS	Composite Quality Score
DCE	Direct Contracting Entity
E&M	Evaluation and management
ED	Emergency department
EHR	Electronic health record
EI	Episode Initiator
EOM	Enhancing Oncology Model
ET3	Emergency Triage, Treat, and Transport
ETC	End-Stage Renal Disease Treatment Choices
ESRD	End-stage renal disease
FFS	Fee-for-service
FHIR	Fast Healthcare Interoperability Resources
GAO	Government Accountability Office
GCT	Geriatrician care team
GDPC	Global and Professional Direct Contracting
GUIDE	Guiding an Improved Dementia Experience
HaH-Plus	Hospital at Home-Plus
HCC	Hierarchical condition categories
HCP-LAN	Health Care Payment Learning & Action Network

HEBA	Health Equity Benchmark Adjustment
HEP	Health Equity Plan
HHS	Health and Human Services
HHVBP	Home Health Value-Based Purchasing
HRSN	Health-related social need
ICM	Intensive care management
I-PaCS	Integrated Primary Care and Community Support
IT	Information technology
KCC	Kidney Care Choices
MA	Medicare Advantage
MACRA	Medicare Access and Children's Health Insurance Program Reauthorization Act
MA VBID	Medicare Advantage Value-Based Insurance Design
MCCM	Medicare Care Choices Model
MCP	Making Care Primary
MD-TCOC	Maryland Total Cost of Care
MedPAC	Medicare Payment Advisory Commission
MEOS	Monthly Enhanced Oncology Services
MSSP	Medicare Shared Savings Program
OCM	Oncology Care Model
P4P	Pay-for-performance
PAC	Post-acute care
PACE	Program of All-Inclusive Care for the Elderly
PBP	Performance-based payment
PBPM	Per beneficiary per month
PBR	Performance-based recoupment
PB-TCOC	Population-based total cost of care
PCDT	Preliminary Comments Development Team
PCF	Primary Care First
PCMH	Patient-Centered Medical Home
PCP	Primary care physician
PFPM	Physician-focused payment model
PIP	Performance Incentive Payment
PRC	Personalized Recovery Care
PROM	Patient-reported outcome measure
PRT	Preliminary Review Team
PTAC	Physician-Focused Payment Model Technical Advisory Committee
RFI	Request for Input
RPA	Renal Physicians Association
RTS	Report to the Secretary
SDOH	Social determinants of health
SME	Subject matter expert
SNF	Skilled nursing facility
SNMHI	Safety Net Medical Home Initiative
TCM	Transitional care management
TEAM	Transforming Episode Accountability Model
UIP	Upfront Infrastructure Payment

U.S.	United States
VA	Veterans Affairs
VBP	Value-Based Purchasing

I. Introduction and Purpose

Under the bipartisan Medicare Access and Children's Health Insurance Program (CHIP) Reauthorization Act (MACRA) of 2015, Congress significantly changed Medicare fee-for-service (FFS) physician payment methods. The law also specifically encouraged the development of Alternative Payment Models (APMs) known as physician-focused payment models (PFPMs) and created the Physician-Focused Payment Model Technical Advisory Committee (PTAC) to review stakeholder-submitted PFPM proposals and make comments and recommendations on them to the Secretary of Health and Human Services (HHS; "the Secretary").

Since its inception, PTAC has received 35 proposals for PFPMs from a diverse set of physician payment stakeholders, including professional associations, health systems, academic groups, public health agencies, and individual providers.[ii] PTAC evaluates the PFPM proposals based on the extent to which they meet the Secretary's 10 regulatory criteria for PFPMs (specified in federal regulations at 42 CFR § 414.1465). Within this context, PTAC has assessed previous submitters' use of proposed model design components and the extent that the proposed model provides value-based accountable care. Among the 35 proposals that were submitted to PTAC between 2016 and 2020, including 28 proposals that PTAC has deliberated and voted on during public meetings, nearly all of the proposals addressed the potential impact on cost and quality, to some degree. Committee members found that 20 of these proposals met Criterion 2 (Quality and Cost), including five proposals that were found to meet all 10 of the regulatory criteria established by the Secretary of Health and Human Services (the Secretary) for PFPMs. Additionally, at least nine other proposals discussed the use of TCOC measures in their payment methodology and performance reporting.

Given the increased emphasis on developing larger, population-based APMs that encourage accountable care relationships, PTAC has been conducting a series of theme-based discussions since 2022 that have examined various care delivery and payment issues related to developing and increasing participation in population-based total cost of care (PB-TCOC) models.

This environmental scan seeks to examine key issues related to identifying pathways toward maximizing participation in PB-TCOC models in order to achieve the Center for Medicare & Medicaid Services Center for Medicare and Medicaid Innovation's (CMMI or the Innovation Center's) goal of having all beneficiaries with Parts A and B in care relationships with accountability for quality and TCOC by 2030. The environmental scan will also examine components in several previously submitted PTAC proposals that are relevant for encouraging accountability for quality and TCOC as part of their proposed model designs.

Topics identified for investigation in this environmental scan include:

- Background on the objective of having all beneficiaries with Parts A and B in accountable care relationships;

[ii] The 35 proposals submitted to PTAC represent an unduplicated count (i.e., proposals with multiple submissions are counted only once) of the number of proposals that have been voted and deliberated on by the Committee (28) and the number of proposals that have been withdrawn by stakeholders (seven, including one proposal that was withdrawn prior to any review by the Committee).

- Challenges and technical issues related to organizational structure, payment, and financial incentives; developing a balanced portfolio of performance measures; and data, benchmarking, and risk adjustment; and
- Relevant features in selected CMMI models and previously submitted PTAC proposals.

This environmental scan provides PTAC members with background information and context reflecting expert perspectives on issues related to identifying a pathway toward maximizing participation in PB-TCOC models. The environmental scan is expected to help PTAC members review strategies in proposals previously submitted to the Committee. In addition, the environmental scan can inform the Committee's review of future proposals and future comments and recommendations that Committee members may submit to the Secretary relating to identifying a pathway toward maximizing participation in PB-TCOC models.

Section II provides key highlights of the findings from the environmental scan. Section III describes the research questions and methods used in the environmental scan. Subsequent sections provide background on the goal of having all Medicare beneficiaries with Parts A and B in accountable care relationships (Section IV), technical issues in PB-TCOC models (Section V), relevant features in previously submitted PTAC proposals (Section VI), and areas where additional information is needed (Section VII). Additionally, a list of abbreviations can be found at the beginning of the environmental scan, following the Table of Contents.

II. Key Highlights

The following section provides important definitions and highlights key findings from this environmental scan on identifying a pathway toward maximizing participation in PB-TCOC models.

II.A. Definitions

Beginning in 2021, PTAC has conducted a series of theme-based discussions to examine topics relevant to PFPMs, with a focus on issues related to accountable care and PB-TCOC models. Within this context, PTAC has developed the following working definitions:

<u>Accountable Care Relationship</u>

- A relationship between a provider and a patient (or group of patients) that establishes that provider as accountable for quality and total cost of care (TCOC) including the possibility of financial loss/risk for an individual patient or group of patients for a defined period (e.g., 365 days).
- Would typically include accountability for quality and TCOC for all of a patient's covered health care services.

Population-Based Total Cost of Care (PB-TCOC) Model

- Alternative Payment Model (APM) in which participating entities assume **accountability for quality and TCOC** and receive payments for **all covered health care costs**[iii] for a broadly defined population with varying health care needs during the course of a year (365 days).
- Within this context, a PB-TCOC model would not be an episode-based, condition-specific, or disease-specific specialty model. However, these types of models could potentially be "nested" within a PB-TCOC model.

These definitions will likely continue to evolve as the Committee collects additional information from stakeholders.

Additionally, based upon the information that the Committee has acquired over the course of its series of theme-based discussions relating to developing and implementing PB-TCOC models, PTAC has identified the following key questions for identifying pathways toward having all Medicare beneficiaries in accountable care relationships:

- Categorizing Medicare beneficiaries by the extent to which they are currently in care relationships with accountability for quality and/or TCOC.
- Characterizing geographic areas by the extent to which their providers are participating in value-based care.
- Identifying model characteristics associated with success.
- Developing approaches, models, target timeframes, and intermediary steps for increasing involvement in accountable care relationships for various categories of Medicare beneficiaries (e.g., by dual eligible status, age).
- Identifying and addressing gaps and challenges.

II.B. Key Findings

Below are highlights of the key findings from the different sections covered in this environmental scan.

Background on the 2030 Goal of Having All Beneficiaries in Accountable Care Relationships

The Centers for Medicare & Medicaid Services (CMS) Center for Medicare and Medicaid Innovation (CMMI; the Innovation Center) has identified a goal to have all Medicare beneficiaries with Parts A and B coverage in a care relationship with accountability for quality and TCOC by 2030.[1] The Medicare Payment Advisory Commission (MedPAC) has estimated that as of 2023, only about half of traditional Medicare beneficiaries were in accountable care relationships (defined within this context as Accountable Care Organizations (ACOs) or ACO-like models).[2]

Through a series of theme-based public meetings, PTAC has examined various issues related to implementing population-based TCOC (PB-TCOC) models and developed comments and recommendations related to designing and increasing provider participation in these models.[3] Some of the topics that have been addressed in PTAC's recommendations include, emphasizing person-centered team-based care, offering multiple participation tracks, integrating specialists, aligning performance metrics across models and payers, providing up-front funding and timely incentives for providers,

[iii] For this purpose, all covered health care costs does not include pharmacy-related costs (Medicare Part D).

rewarding improvement and absolute performance, and ensuring that the necessary data infrastructure is in place.

Several challenges exist related to increasing participation in APMs and accountable care relationships, including administrative complexity, the profitability of FFS arrangements, provider hesitancy to take on financial risk, and a need to focus on health equity.[4] A number of approaches to address these risks have been proposed, including reducing the overall number of models, increasing the duration of models, aligning technical standards across models, increasing financial incentives and using multi-payer models, modifying benchmarking and risk adjustment methods, developing different participation tracks with varying levels of risk-bearing, and ensuring that health equity is a central model component.[5,6,7,8]

CMS has identified several steps to help advance accountable care at the Innovation Center, including developing APMs with varying risk and payment levels, creating incentives and approaches to promote specialty care, providing funding for small practices to implement value-based care, revising risk adjustment and benchmarking methodologies, and coordinating between Medicare and Medicaid.[9] Beginning in 2024, CMMI is initiating several new APMs that may help promote movement to more widespread provider participation in accountable care relationships.[10,11,12,13]

Challenges and Technical Issues in PB-TCOC Models

Challenges Regarding Organizational Structure, Payment, and Financial Incentives

Substantial resources and investments are required to build organizational competencies and ultimately redesign care under value-based models.[14] Due in part to a lack of resources, many challenges to participating in APMs are particularly acute for rural and underserved areas.[15] Generally, practices that operate within a larger medical group or health care system tend to show greater participation in APMs relative to independent practices.[16]

Different factors influence Accountable Care Organizations' (ACOs') success with reducing cost while maintaining or improving quality of care. For example, low-revenue ACOs, usually led by physicians, tend to outperform high-revenue ACOs, typically led by hospitals.[17] Whereas high-revenue ACOs had net per-beneficiary savings of $80 per beneficiary, low-revenue ACOs had a net per-beneficiary savings of $201 per beneficiary in 2019. In addition, ACOs that participate in two-sided risk models tend to generate more savings and receive bonuses than ACOs in one-sided risk models.[18] Despite its benefits, however, downside risk can discourage participation among providers serving rural or underserved populations.[19] These practices may lack the resources required to participate in APMs. For example, a lack of financial resources can prevent practices from investing in the infrastructure needed to improve value, meet quality benchmarks, and/or implement programs that reduce costs.[20]

Performance-based financial incentives can focus on clinical quality or patient safety, total cost of care, patient satisfaction or experience, panel size, access, and efficient utilization of resources.[21] Pay-for-performance (P4P) incentives, larger incentives, more timely incentives, and financial penalties for poor performance may have a positive impact on performance.[22,23,24,25] However, P4P programs can also have unintended consequences. For example, P4P programs can disproportionately penalize providers that treat patients who are high-risk or socially challenging. As a result, providers may cherry-pick patients to avoid penalties.[26]

Setting accountability across provider types poses a challenge to integrating primary and specialty care in PB-TCOC models. Further, the risk of financial loss while participating in TCOC models can deter some specialists from moving into value-based relationships.[27] Nesting specialty care episodes in PB-TCOC models through bundled payments may facilitate the integration of care received by primary care providers and specialists in PB-TCOC models.

Challenges Regarding Developing a Balanced Portfolio of Performance Measures

Many technical challenges exist with measuring performance in PB-TCOC models, including selecting appropriate and relevant measures, specifying how measures are constructed and data on measures are collected across providers with different data systems, capturing health equity considerations in measurement schema, and integrating specialty- or condition-specific performance measures.

To date, specialist integration into PB-TCOC models has been limited, with the most common type of APM – bundled payment models – addressing shorter-term or episodic needs, rather than long-term care and support provided by many specialists.[28] There are several challenges with integrating specialty- or condition-specific performance measures into PB-TCOC models, including selecting actionable and valid performance measures that capture high-value specialty care;[29] the importance of measures

constructed using clinical (versus administrative) data, which can increase reporting burden;[30] barriers to data sharing between ACOs, primary care providers, and specialty care providers;[31] determining appropriate benchmarks;[32] and implementing performance measures specific to a subset of patients, including valid and reliable identification of these patients.

Incorporating patient-reported outcome measures (PROMs) that reflect quality of life, symptoms and symptom burden, and health behaviors is important in PB-TCOC models to capture outcomes that cannot be measured by administrative or claims-based data sources.[33] However, challenges remain related to capturing PROMs, including increased burden on providers and patients, measurement challenges, and technological barriers.[34] While patient-reported outcomes are included in current CMS programs and models at a low rate (9 percent of measures across selected CMS programs and models in 2023),[35] there has been an increased focus on integrating these outcomes in recent years.

There has also been an increased focus on using performance measures that evaluate whether PB-TCOC models are addressing health equity; however, lack of data collection and inconsistent measurement of disparities and health-related social needs (HRSNs) have limited efforts to mitigate health disparities and promote health equity to date. [36,37] In recent years, CMMI has intentionally designed models considering health equity, including the ACO Realizing Equity, Access, and Community Health (REACH) Model and the ESRD Treatment Choices Model.[38,39] Broadly, many PB-TCOC models, including ACO REACH, encourage or require participating organizations to develop appropriate data collection strategies to measure disparities; however, PB-TCOC models have not yet tied performance on health equity-related outcomes to payment.[40,41]

Challenges Regarding Benchmarking, Risk Adjustment, Attribution, and Data

Use of appropriate benchmarks, risk adjustment methods, patient attribution rules along with availability of relevant data sources, and access to a robust data infrastructure are essential requirements for achieving success through a PB-TCOC model; however, challenges exist within each of these areas.

Benchmarks that require improvement that is increasingly challenging to achieve during the course of a model, including rebasing benchmarks based on performance and changing benchmarks to be more difficult to achieve, may result in providers or organizations exiting the model. [42,43,44,45] Few risk adjustment methodologies incorporate social and area-level factors outside claims data that impact health. Additionally, the utility of benchmarks is limited by the data used to develop them; for instance, if benchmarks are developed using data from administrative claims, financial settlements cannot be reliably computed until claims run-out is complete, which can lead to delays in reimbursement.[46]

Developers of patient attribution rules face challenges in determining the appropriate methodology to accurately identify relationships between providers based on historical and/or current patterns of care.[47,48,49] These challenges include determining the appropriate timing for using claims-based attribution algorithms (e.g., prospective or retrospective attribution), selecting an appropriate timeframe to establish historical care patterns, and capturing patients who seek a large proportion of their care from specialty providers.

Technical challenges related to addressing social determinants of health (SDOH) and health equity include collecting standardized data on individual-level social risk factors, incorporating area-level risks into benchmark and risk adjustment methodology, defining disparities and reference groups, and selecting appropriate data elements that capture relevant elements of social risk.[50,51]

Also, a range of data sources are needed to implement performance measures, calculate benchmarks, and accurately risk-adjust measures. Since performance measurement, benchmarking, and risk adjustment are key components of PB-TCOC models, it is essential that data sources are complete, reliable, and valid.

Many challenges remain, especially for smaller practices and/or practices in historically underserved areas, including accurate tracking and reporting for quality and financial metrics, determining the appropriate level of aggregation of results to provide meaningful and actionable data for providers (e.g., plan, provider or provider organizations, practice, geographic unit), sharing data while maintaining privacy and security, and combining often disparate electronic health record (EHR), clinical, and administrative data systems.[52,53] More technical assistance, greater financial resources, a longer "on-ramp" for financial accountability on quality measures, and additional time for establishing relationships with data owners may need to be built into future models for organizations to successfully build their data capacity and infrastructure.[54,55]

Relevant Features in Previously Submitted PTAC Proposals

Among the 35 proposals that were submitted to PTAC between 2016 and 2020, including 28 proposals that PTAC has deliberated and voted on during public meetings, nearly all proposals addressed the potential impact on cost and quality, to some degree. Committee members found that 20 of these proposals met Criterion 2 (Quality and Cost), including five proposals that were found to meet all 10 of the criteria established by the Secretary of Health and Human Services (the Secretary) for PFPMs. Additionally, at least nine other proposals discussed the use of TCOC measures in their payment methodology and performance reporting.

III. Research Approach

This section provides a brief review of the research questions and methods that were used in developing this environmental scan.

III.A. Research Questions

Working closely with the Office of the Assistant Secretary for Planning and Evaluation (ASPE) staff and with input from a subset of Committee members known as a Preliminary Comments Development Team (PCDT),[iv] the following high-level research questions were developed to inform this environmental scan:

- What has PTAC learned from the Committee's previous theme-based discussions that is relevant for identifying a pathway toward achieving the 2030 goal?
- What is CMS' plan for achieving the goal of having all traditional Medicare beneficiaries in accountable care relationships by 2030?

[iv] A Preliminary Comments Development Team (PCDT) comprised five PTAC members: Angelo Sinopoli, MD (Lead); Joshua Liao, MD, MSc; Terry Mills Jr., MD, MMM; Soujanya Pulluru, MD; and James Walton, DO, MBA.

- What are the characteristics of beneficiaries who are not currently participating in accountable care relationships (e.g., ACOs, advanced primary care models)?
- What characteristics of different provider organization types (e.g., integrated care delivery system versus independent physician-led) are most conducive to supporting accountable care relationships and PB-TCOC models?
- How do different provider organization types achieve care coordination across multiple providers and settings?
- What types of financial incentives are used in current and planned PB-TCOC models?
- What kinds of financial incentives are used for providers participating in current and planned PB-TCOC models?
- How can nested models and episodes of care be used to better align financial incentives in PB-TCOC models?
- What types of performance measures are most appropriate for a measure portfolio for PB-TCOC models?
- How have PB-TCOC models integrated measures specific to specialty, condition, setting, and/or patient risk level?
- To what extent are patient-reported outcome measures included in current PB-TCOC models?
- What challenges exist with developing APM payment approaches when using multiple performance measures?
- What are current strategies for setting performance benchmarks in PB-TCOC models? Does this vary by performance measure domain (e.g., spending, patient-reported outcomes)? What factors are considered in determining the "appropriateness" of a benchmark?
- What are common risk adjustment frameworks for performance measures used in existing PB-TCOC models? What are the benefits and challenges of using these frameworks?
- What are current challenges in attributing patients to providers in PB-TCOC models?
- How are social determinants of health and/or health-related social needs accounted for in benchmarks or risk adjustment in PB-TCOC models?
- What data sources are needed to implement performance measures, including benchmarking and risk adjustment, in PB-TCOC models?
- What are existing best practices to ensure data interoperability across programs/ models/ settings?
- To what extent is it currently possible for non-integrated provider organizations (such as independent physician-led organizations) to effectively share the necessary data to facilitate participation in PB-TCOC models?

These primary research questions, along with secondary research questions, organized by the environmental scan section, are provided in **Appendix A.**

III.B. Research Methods

The environmental scan includes information gathered from a targeted review of the literature, an analysis of selected previous PTAC proposals, and an analysis of selected CMMI models with a focus on three broad topics (background on the goal of having all Medicare beneficiaries with Parts A and B in accountable care relationships by 2030, technical issues in PB-TCOC models, and relevant features in

previously submitted PTAC proposals). Resources most relevant to these topics and the research questions are reviewed and summarized here.

Appendix C, analysis of relevant components of selected previously submitted PTAC proposals, includes information based on a review of the previously submitted proposals themselves, PTAC reports to the Secretary, and content available in other documents related to the PTAC proposal review process documents (e.g., public meeting minutes, Preliminary Review Team [PRT] reports).

The analysis of selected CMMI models (**Appendix D**) is based on a review of publicly available resources, including descriptions on the CMMI website and technical documents related to each selected CMMI model, as well as recent CMMI model evaluation reports when available.

IV. Background on the Goal of Having All Beneficiaries in Accountable Care Relationships by 2030

In 2021, CMS published a white paper outlining its strategy refresh setting priorities for CMMI in its second decade since being established.[56] Driving accountable care was identified as one of five strategic objectives to advance health system transformation in the 2020s.[v] As a way to measure progress to achieving this objective, the Innovation Center specified a key metric as having all traditional Medicare beneficiaries (i.e., those with Medicare Parts A and B coverage) in a care relationship involving accountability for quality and TCOC by 2030.[57]

IV.A. The Accountable Care Relationship Goal and PB-TCOC Models

CMS uses the following definition of accountable care: "A person-centered care team takes responsibility for improving quality of care, care coordination and health outcomes for a defined group of individuals, to reduce care fragmentation and avoid unnecessary costs for individuals and the health system."[58]

PTAC has developed the following working definition of an accountable care relationship:

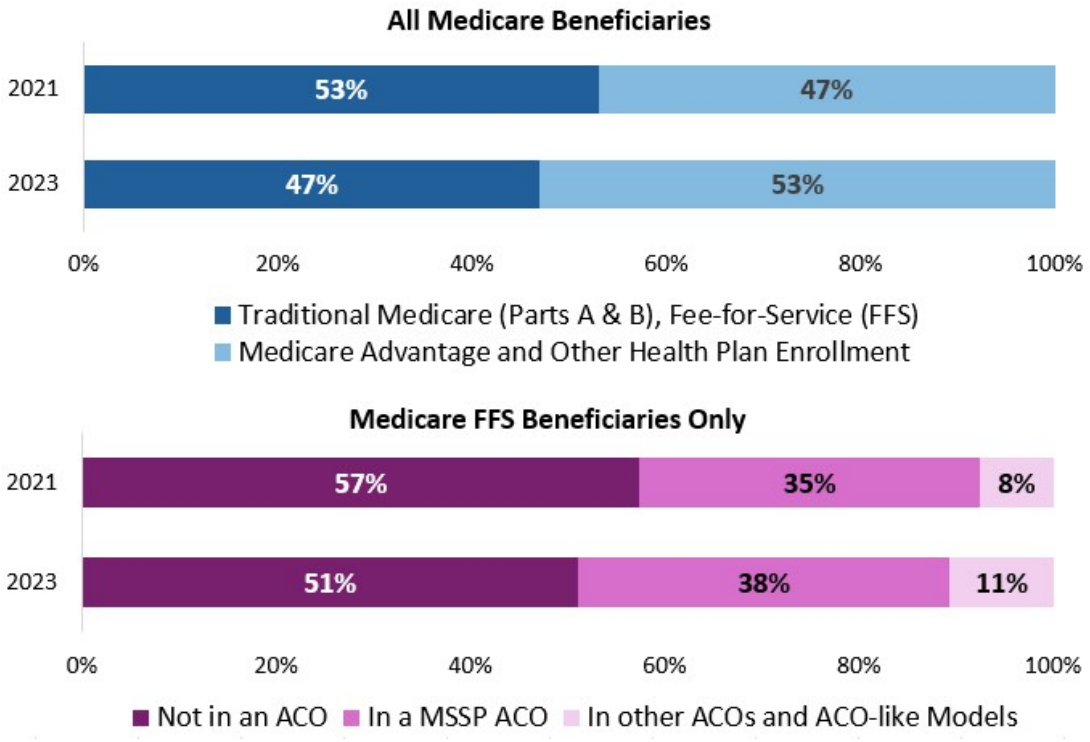
- A relationship between a provider and a patient (or group of patients) that establishes that provider as accountable for quality and total cost of care (TCOC) including the possibility of financial loss/risk for an individual patient or group of patients for a defined period (e.g., 365 days).
- Would typically include accountability for quality and TCOC for all of a patient's covered health care services.

As of 2023, according to the Medicare Payment Advisory Commission (MedPAC), approximately half of beneficiaries in traditional Medicare were involved in an ACO or an ACO-like relationship, with the majority of those being part of a Medicare Shared Savings Program (MSSP) ACO (see Exhibit 1).[vi,59]

[v] The Innovation Center's five strategic objectives are: drive accountable care, advance health equity, support innovation, address affordability, and partner to achieve system transformation.

[vi] The remaining beneficiaries in accountable care relationships were part of other ACOs or ACO-like models, including the Next Generation ACO Model or ACO Realizing Equity, Access, and Community Health (REACH), the Maryland TCOC Model, and the Vermont All-Payer Model.

Exhibit 1. Medicare Beneficiaries in ACO or ACO-Like Relationships, 2021 Versus 2023



Source: Based on source data from the July 2021 and July 2023 MedPAC Data Books[60,61]

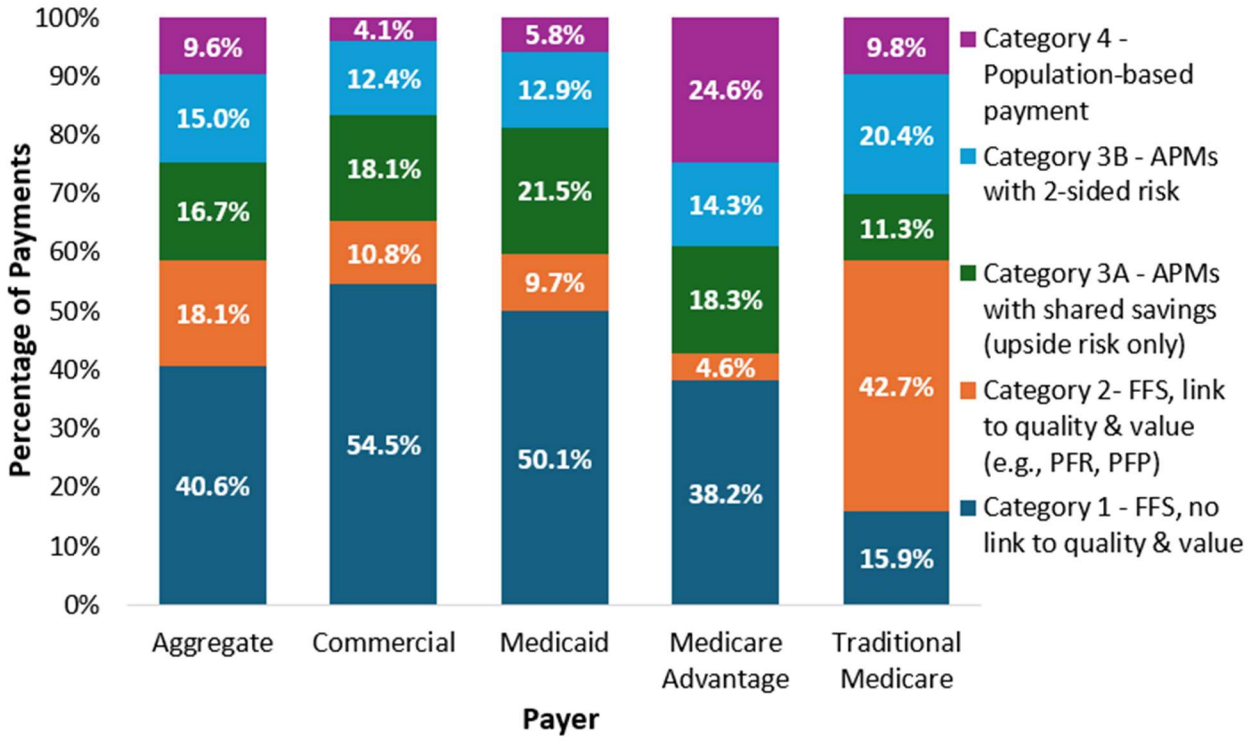
PB-TCOC models involve design and payment arrangements that promote and reward accountable care relationships. PTAC has developed the following working definition of PB-TCOC models:

- Alternative Payment Model (APM) in which participating entities assume **accountability for quality and TCOC** and receive payments for **all covered health care costs**[vii] for a broadly defined population with varying health care needs during the course of a year (365 days).
- Within this context, a PB-TCOC model would not be an episode-based, condition-specific, or disease-specific specialty model. However, these types of models could potentially be "nested" within a PB-TCOC model.

Through its annual payer survey, the Health Care Payment Learning & Action Network (HCP-LAN) provides information on the percentage of U.S. health care payments that are population-based. HCP-LAN categorizes payments made to health care providers into one of four categories: Category 1: FFS with no link to quality and value; Category 2: FFS linked to quality and value; Category 3: APMs built on FFS architecture (subset as upside rewards only [3A] or both upside and downside risk [3B]); and Category 4: population-based payment.[62] The distribution of 2022 U.S. health care payments by payer and HCP-LAN payment category are shown in Exhibit 2.

Exhibit 2. Percentage of Payment by (APM Payment Category and Payer Type, 2022

[vii] For this purpose, all covered health care costs does not include pharmacy-related costs (Medicare Part D).



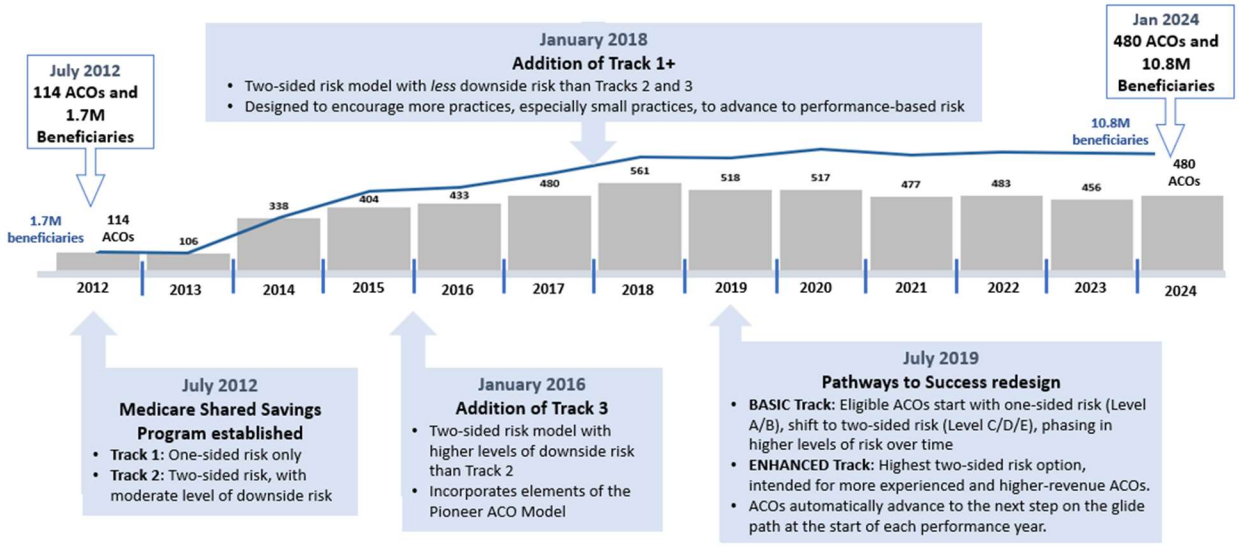
Source: ASPE PTAC September PCDT Findings Presentation, September 2024 (based on source data from HCP-LAN)[63]

As of 2022, less than 10 percent of U.S. health care payments were population-based (see Exhibit 2).[64] By payer, Medicare Advantage (MA) had the highest percentage of payments that were population-based (24.6 percent) whereas commercial payers had the lowest (4.1 percent). Payers are in various stages of shifting to population-based payments. Across payers, MA had the highest percentage of payments (57.2 percent [sum of Categories 3A, 3B, and 4]) associated with APMs involving shared savings or risk, or with population-based models. Traditional Medicare had the highest percentage of payments (84.2 percent [sum of categories 2, 3A, 3B, and 4]) associated with either advanced FFS models, APMs, or population-based models.

IV.B. Factors Affecting Medicare FFS Beneficiary Alignment with APMs

One of the most important factors that affects the number of Medicare FFS beneficiaries that are aligned with APMs relates to provider decisions to participate in these models. For example, Exhibit 3 shows that growth in beneficiary enrollment in the Medicare Shared Savings Program (MSSP) generally increased as the number of ACOs participating in the MSSP program was increasing, but became flat when the number of ACOs began to decrease.

Exhibit 3. The Evolution of the Medicare Shared Savings Program

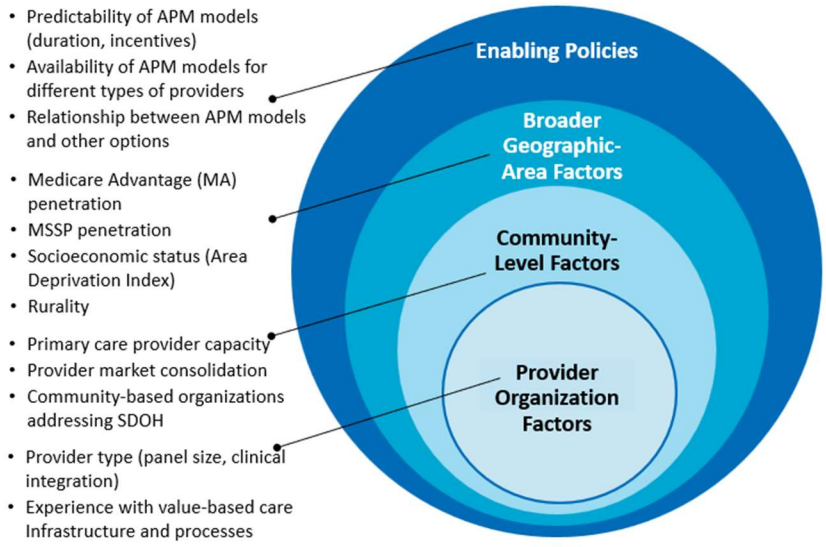


Source: ASPE PTAC September PCDT Findings Presentation, September 2024

More recently, as the proportion of physicians that are employed by hospitals or corporate entities has increased (from 62.2% in January 2019 to 77.6% in January 2024), ACO participation decisions may be primarily being made by non-provider organizations.[65]

Exhibit 4 provides an overview of additional provider organization, community-level, broader geographic area factors, and enabling policies that affect FFS beneficiary alignment with ACOs.

Exhibit 4. Factors Affecting Medicare FFS Beneficiary Alignment with ACOs



Evidence From Published Literature

ACO Participation More Likely	ACO Participation Less Likely
Urban location	Rural location
Northeast, South, Midwest	West
Moderate MA penetration	Lower MA penetration
Multispecialty practice	Single specialty or solo practice
Hospital-owned	Physician-owned
Involves PCPs	Does not involve PCPs
Integrated EHR system	Non-integrated EHR system
Previous risk experience	No previous risk experience

Source: ASPE PTAC September PCDT Findings Presentation, September 2024

IV.C. Summary of PTAC Recommendations Related to PB-TCOC Models

Between 2021 and 2024, PTAC has conducted a series of theme-based discussions to examine topics relevant to PFPMs, with a focus on issues related to accountable care and PB-TCOC models.[66]

Based on review of the literature, as well as expert and stakeholder input, PTAC has submitted comments and recommendations to the Secretary of HHS regarding development and implementation of PB-TCOC models.[67] PTAC's recommendations predominantly fall in four key domains related to PB-TCOC models: model design, performance measurement, financial methodology, and data infrastructure.

First, PTAC identified the importance of designing models that emphasize person-centered multidisciplinary team-based and involve multiple tracks for provider participation, including allowing a phase-in path for providers to begin to take on two-sided financial risk. PTAC has noted the importance of integrating specialists into these models, ensuring clearly defined roles for primary care providers (PCPs) and specialists. PTAC has also pointed to two high-level model design issues that require consideration: balancing whether participation in PB-TCOC models should be voluntary or mandatory, and aligning PB-TCOC models and incentives across multiple payers.

Second, PTAC has recommended that key performance metrics should be identified and that these measures should be aligned across PB-TCOC models. This is an essential step to simplify the requirements for participation in these models for providers who treat a wide range of patients across payers. Moreover, performance metric standardization can reduce the administrative burden associated with collecting and analyzing performance data. The Committee has also discussed the importance of promoting multi-payer alignment, including across data and payment methodology approaches such as patient attribution and risk adjustment.

Third, PTAC has pointed out the need for sufficient up-front funding to be available for practices to invest in resources—including staff and information technology—to create the infrastructure that will be required to promote changes in care delivery. Additionally, the Committee has noted that timely incentives are critical for promoting change at both the individual provider level and the level of the larger provider organizational entity. PTAC also has noted the importance of ensuring that financial incentives reward not only performance improvement but also absolute performance relative to benchmarks.

Finally, PTAC has identified the critical role that data infrastructure plays in the success of PB-TCOC models, reflecting on the necessity of ensuring that data can be readily accessed and exchanged in a timely manner so that providers are able to effectively use the information.

PTAC's examination of issues related to successful implementation of PB-TCOC models has extended to focus in-depth on several topics, including care coordination, SDOH and health equity, specialty integration, care transitions, and rural providers. PTAC has produced a series of reports with comments and recommendations to the Secretary of HHS relating to each of these topics.[68,69,70,71,72] A summary of PTAC's key findings related to these additional topics is provided in **Appendix B**.

Drawing upon previous PTAC recommendations, PTAC has identified the following key questions for identifying pathways toward having all Medicare beneficiaries in accountable care relationships:

- Categorizing Medicare beneficiaries by the extent to which they are currently in care relationships with accountability for quality and/or TCOC.
- Characterizing geographic areas by the extent to which their providers are participating in value-based care.
- Identifying model characteristics associated with success.
- Developing approaches, models, target timeframes, and intermediary steps for increasing involvement in accountable care relationships for various categories of Medicare beneficiaries (e.g., by dual eligible status, age).
- Identifying and addressing gaps and challenges.

IV.D. Challenges and Approaches to Increasing Provider Participation in PB-TCOC Models

Following the varied model testing that occurred during the 2010s, Rachel Werner and colleagues (2021) identified several challenges to achieving accountable care in APMs: administrative complexity, the profitability of FFS arrangements, provider hesitancy to shift to risk-bearing arrangements, and a need to focus on health equity.[73]

First, there is substantial administrative complexity associated with participating in APMs, both in terms of the number of overlapping and potentially competing models, as well as the requirements associated with participation.[74] CMS and CMMI simultaneously administer multiple APMs with multiple participation tracks, and many providers participate in different models concurrently.[75] This overlap can result in confusion for providers regarding focus areas around practice transformation and dilute financial incentives across models.[76,77] MedPAC recommended implementation of a smaller and more harmonized portfolio of APMs.[78] Relatedly, shifting attention from short-term models to more longitudinal models may be useful to allow providers to focus on the necessary infrastructure investments and transformations required to achieve accountable care.[79,80]

Participation in APMs is also made more difficult because of the administrative burden associated with participation. This issue can be exacerbated by differing requirements across models and payers. For example, technical standards and definitions, such as performance measure specifications and risk adjustment methods, can vary substantially across models, even when they are focusing on the same or very similar goals (e.g., definition of a measure of diabetes control).[81] Aligning technical standards across models and payers would simplify the burden to providers participating in APMs.

A second challenge to moving to accountable care relationships is the profitability of traditional FFS.[82] To address this challenge, efforts could be made to make the traditional FFS payment system less attractive by modifying the payment schedule to shift reimbursements away from specialty procedures and toward primary care.[83] On the flip side, the value of the financial incentives could be raised to increase the appeal of participation in APMs.[84] A related approach is to increase multi-payer involvement in APMs (i.e., including Medicaid and commercial/employer plans in addition to Medicare), thereby increasing the number of patients impacted, expanding available revenue, and strengthening incentives associated with participating in these models.[85] Additionally, CMS could consider implementing hybrid payment models, in which reimbursement is based on both FFS and prospective or capitated payments to encourage team-based primary care.[86,87]

From a technical perspective, performance benchmarks and risk adjustment methods can be identified that will be more likely to encourage provider participation in APMs.[88] Current benchmarking

approaches commonly use a provider's own performance, either individually or as part of a region, to define the benchmark, which is rebased over time as performance changes. This approach creates a scenario (sometimes referred to as a "ratchet effect") that may penalize already efficient providers and may discourage providers from staying in the model as it becomes increasingly difficult to meet the shifting benchmark when the opportunity for further efficiency improvements diminishes.[89] Risk adjustment approaches also are needed that adequately adjust a provider's performance metrics to account for their patient mix. Methods that rely on provider-reported clinical coding may encourage gaming compared with more independent measures of health risk such as from the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey.[90] Further, adjusting benchmarks for providers who disproportionately treat underserved groups is an important consideration for promoting health equity.[91]

A third challenge to provider participation in APMs is simply that some providers are unable or unwilling to take on the financial risk associated with accountable care relationships.[92] Providers who already are established and financially able to take on risk (e.g., hospital systems or large academic medical centers) may be more inclined to voluntarily shift to accountable care relationships, whereas those without the infrastructure or resources (e.g., smaller independent physician practices unaffiliated with a system), or where the profitability of FFS is strong, may be less willing to participate in APMs.[93] One approach is to shift from voluntary to mandatory participation in APMs. However, mandated participation may meet with substantial stakeholder pushback. An alternative is to develop different tracks to participation that accommodate providers with varying capability to take on shared risk, such as providing a low-risk option for small practices.[94] As providers begin to transform their practices, they can be shifted to increasingly higher levels of risk sharing.[95]

A final challenge in the shift to accountable care is that APMs have typically not focused on addressing health equity as a goal related to performance.[96] Reducing health disparities and promoting health equity has been identified as a key objective for 2030 by HHS generally and for CMMI APMs specifically.[97,98] Because health equity has not been a focal consideration in the design of many APMs to date, health disparities may remain unchanged or even unintentionally worsened as a result of these models.[99] Well-designed risk adjustment approaches are one method to begin to address health equity issues; providing funding and tying financial incentives directly to care of socially disadvantaged populations is another option.[100,101]

IV.E. CMMI Models and Plans for Accountable Care Relationships

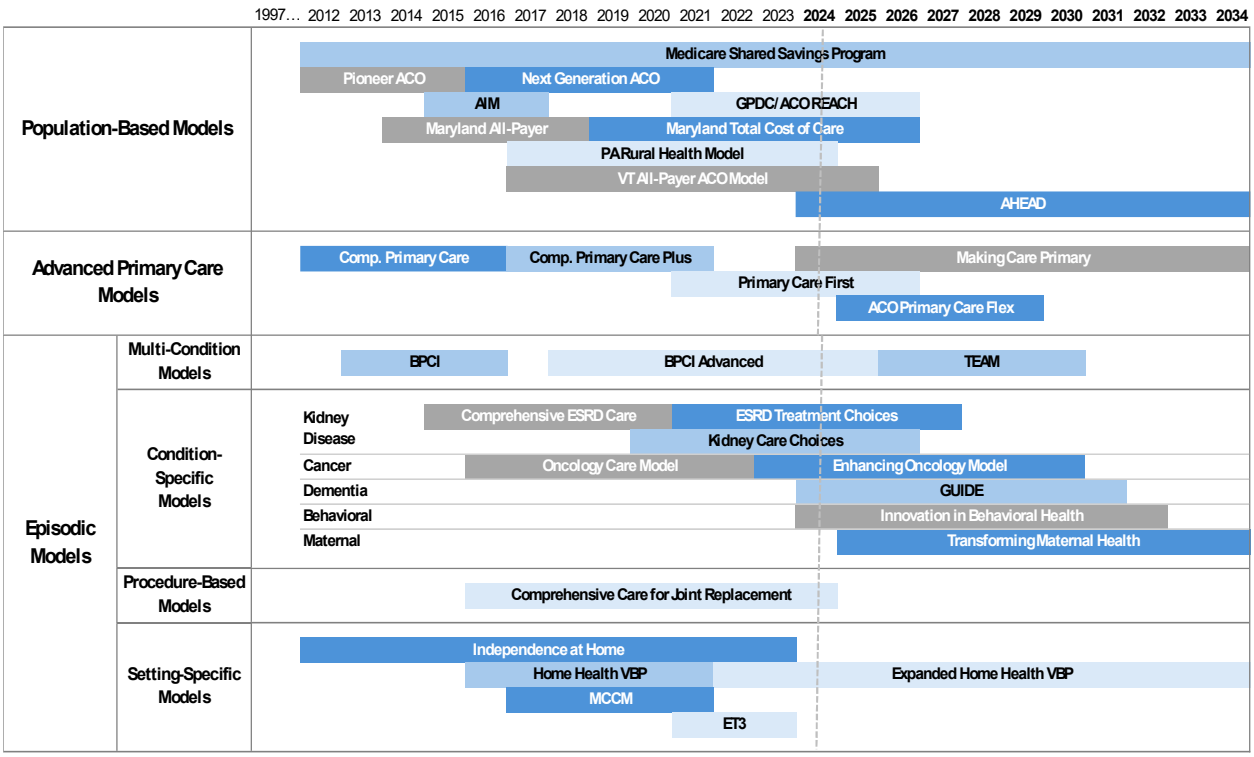
In its 2021 strategy refresh, the CMS Innovation Center outlined steps to achieve the goal of having all beneficiaries with Medicare Parts A and B in accountable care relationships by 2030.[102] Approaches outlined by CMMI that may help with progress toward this goal include:

- Varying risk and payment levels based on provider readiness;
- Using incentives and approaches to promote integration of specialty care;
- Funding small practices to facilitate transition to value-based care;
- Revising risk adjustment and benchmarking methodologies;
- Coordinating among other Medicare and Medicaid programs;
- Using meaningful outcome measures such as PROMs; and
- Addressing issues with beneficiary engagement, alignment, and attribution.

Many of CMMI's proposed steps to increase provider participation in PB-TCOC models align with approaches identified in the literature (see Section IV.D).

In addition to completing and extending several ongoing APMs, CMMI is introducing a number of new models beginning in 2024 and beyond. The history and future of CMMI models are summarized in Exhibit 5.

Exhibit 5. The Evolution of CMS and Innovation Center Models



Abbreviations: Accountable Care Organization (ACO) Investment Model (AIM); Global and Professional Direct Contracting (GDPC) Model/Accountable Care Organization (ACO) Realizing Equity, Access, and Community Health (REACH); States Advancing All-Payer Health Equity Approaches and Development (AHEAD) Model; Bundled Payments for Care Improvement (BPCI) Model; Bundled Payments for Care Improvement Advanced (BPCI Advanced) Model; Comprehensive End-Stage Renal Disease (ESRD) Care (CEC); End-Stage Renal Disease Treatment Choices (ETC); Home Health Value-Based Purchasing (VBP); Medicare Advantage (MA) Value-Based Insurance Design (VBID); Medicare Care Choices Model (MCCM); Guiding an Improved Dementia Experience (GUIDE) Model; Emergency Triage, Treat, and Transport (ET3) Model; Transforming Episode Accountability Model (TEAM)

Source: ASPE PTAC September PCDT Findings Presentation, September 2024

Among the new models scheduled to begin in 2024–2026 are the States Advancing All-Payer Health Equity Approaches and Development (AHEAD) Model, Guiding an Improved Dementia Experience (GUIDE) Model, Transforming Episode Accountability Model (TEAM), and Accountable Care Organization (ACO) Primary Care Flex (ACO PC Flex) Model.

AHEAD, a voluntary state-level model initiated in 2024 and expected to run 11 years through 2034, focuses on improving state population health, advancing health equity, and decreasing the TCOC.[103] With the model's emphasis on health equity, participating states are required to create a Statewide Health Equity Plan, and financial incentives under AHEAD incorporate social risk adjustments. Another

core component of AHEAD is its all-payer approach, including Medicare, Medicaid, and private health insurance.

GUIDE, a voluntary provider-level model beginning mid-2024 and expected to run eight years through 2032, focuses on providing coordinated care for people with dementia and support for their unpaid caregivers.[104,105] GUIDE overtly includes a health equity strategy that involves a health equity adjustment (HEA) to assist providers with treating underserved populations and a lump sum payment to safety net providers to support infrastructure investment.[106]

TEAM, a mandatory episode-based, hospital-level model scheduled to begin in 2026 and run five years through 2030, focuses on promoting accountable care relationships for patients who receive specific types of surgical procedures.[107,108] Hospitals will be responsible for the TCOC for patients from the procedure through 30 days post-discharge. TEAM promotes the integration of specialty and primary care as hospitals performing the specialty procedures must coordinate follow-up care for the patient, including connecting them with a primary care provider. TEAM prioritizes health equity by allowing a lower-risk track for safety net hospitals and including incentive adjustments to account for underserved populations.

ACO PC Flex, a voluntary ACO-level model scheduled to begin in 2025 and run five years through 2030, focuses on promoting innovative, team-based primary care among ACOs.[109,110] ACO PC Flex will operate as part of the MSSP and targets low-revenue ACOs, such as those in rural areas. ACO PC Flex includes a one-time payment to assist practices with administrative costs associated with establishing and participating in an ACO, as well as a non-risk payment enhancement to help the ACO with financial stability.

V. Technical Issues in PB-TCOC Models

Designing and implementing PB-TCOC models that effectively reduce total cost of care while maintaining or improving quality of care can come with challenges. This section summarizes challenges related to organizational structure, payment, and financial incentives for PB-TCOC models; challenges related to developing a balanced portfolio of performance measures; and challenges related to data, benchmarking, attribution, and risk adjustment. Potential opportunities to address the challenges are also presented.

V.A. Challenges Regarding Organizational Structure, Payment, and Financial Incentives

The transition from traditional FFS to population-based models can increase provider accountability for quality and cost; however, it may also be associated with tradeoffs regarding participation, care delivery, and payment. This section highlights some of the challenges different types of organizations face when participating in APMs.

Challenges Regarding Organizational Structure in PB-TCOC Models

The types of providers and organizations that can serve as entities accountable for quality and cost of health care include physician group practices, hospitals, and other health care providers; MA plans; Programs of All-Inclusive Care for the Elderly (PACE); and Medicaid managed care plans.[111] Substantial resources and investments are required to build organizational competencies and ultimately redesign care under value-based models,[112] which can influence APM participation. Physician practices in the

Northeast tend to show greater participation in APMs compared with practices in other areas. In addition, ACOs tend to be developed in areas with lower poverty rates, especially ACOs with private payers.[113] Practices that operate within a larger medical group or complex health care system show greater participation in APMs relative to independent practices, and practices that are in many APMs tend to have more than 21 physicians.[114] Greater participation in APMs is also observed among practices with greater clinical integration (i.e., coordination of care and services) and functional integration (i.e., exchanging information to enable collaboration).[115]

Challenges with participating in population-based payment models can vary by organization type. For example, small and rural practices can be challenged by risk-based payments, which tend to favor larger health systems and physician groups.[116] For example, eligibility requirements to participate in certain risk-based models or programs can favor larger systems. To be eligible to join the MSSP, ACOs must have approximately 5,000 Medicare FFS beneficiaries assigned to the ACO in each benchmark year. Further, the program provides the most favorable financial rules to large organizations (i.e., ACOs with more than 60,000 beneficiaries). In addition, because risk adjustment methods do not always account for patients with greater health care needs, practices with a large quantity of patients with greater needs may be financially penalized in APMs.[117] Thus, requiring small and rural providers to take downside risk can lead practices and hospitals to close or merge with larger health care systems, which can ultimately result in greater costs and lower quality of health care.[118]

Successful Components of Accountable Care Organizations

The transition from FFS to APMs can vary by provider type. In Medicare, provider participation in population-based payment models is concentrated in the MSSP.[119] MSSP ACO arrangements are generally considered to be APMs built on an FFS architecture, where providers are paid on an FFS basis but are incentivized for providing coordinated care, are eligible to share in savings generated, and can be at financial risk if costs are greater than the budget.[120,121] Evaluations of ACO models have identified factors that facilitate and hinder ACO success with maintaining or improving quality of care while reducing cost. The design of financial incentives to promote accountability can influence an ACO's success. ACOs that participate in two-sided risk models tend to generate more savings and receive bonuses compared with ACOs in one-sided risk models.[122] In 2019, ACOs in the MSSP that adopted downside risk had a net per beneficiary savings of $152 compared with $107 per beneficiary among ACOs that did not adopt downside risk.[123] Two-sided risk models can encourage providers to use innovation in care delivery to reduce costs.

Despite its potential benefits, downside risk can discourage model participation among providers, particularly providers serving rural or underserved populations that have smaller margins.[124] Statistics from the U.S. Governmental Accountability Office (GAO) showed that only 11.9 percent of providers in rural and Health Professional Shortage Areas participated in advanced APMs in 2019 compared with 14.8 percent of providers in other areas.[125] Practices located in underserved and rural areas and disproportionately caring for patients with low income and/or from certain racial and ethnic groups may lack the resources required to participate in APMs. A lack of financial resources can prevent practices from investing in the infrastructure needed to improve value, meet quality benchmarks, and/or implement programs that reduce costs, which ultimately can widen racial and ethnic health disparities in health care and outcomes.[126] ACOs in rural areas also have smaller reductions in costs than ACOs in

urban areas; in 2019, urban ACOs produced $125 net per beneficiary savings, whereas rural ACOs produced $64 net per beneficiary savings.[127]

Practices serving rural areas and underserved patients may benefit from additional incentives to encourage participation in APMs. For example, the ACO Investment Model (AIM) provided up-front and ongoing monthly payments to small groups of providers in rural and underserved areas to help them build the infrastructure required to participate in the model. Providers participating in AIM showed reductions in health care utilization and subsequent costs.[128] Specifically, MSSP ACOs serving rural and underserved areas that participated in AIM demonstrated a net reduction of $48.6 million in Medicare spending in the first year.[129] In addition, the MSSP is offering a new payment option in 2024, the Advance Investment Payments (AIP), to encourage providers in rural and underserved areas to form ACOs. AIP provides a one-time, up-front fixed payment of $250,000 and up to two years of quarterly payments to support organizations while building the infrastructure needed to succeed in the MSSP.[130]

The methods used to determine spending targets (i.e., benchmarks) can also impact ACOs' participation. Some benchmarking methods link an ACO's benchmark growth to its own performance, where the benchmarks are periodically rebased, or reset, to the ACO's most recent level of spending. In these cases, ACOs that reduce spending can be penalized with lower benchmarks, and ACOs that perform well can be penalized because they are held to higher savings targets over time. These methods can lead ACOs to avoid engaging in efforts to maintain lower spending because short-term profits could potentially be offset by future loss.[131] Although using benchmarks based on regional spending averages decouple an organization's benchmark growth from its savings, which can incentivize the ACO to lower spending, the use of regional benchmarks can penalize ACOs serving high-need, high-cost patients by penalizing them if they are outperformed by neighboring ACOs.

Governance structure type can also have an influence on an ACO's success with generating savings. Low-revenue ACOs, typically led by physicians, tend to outperform high-revenue ACOs, typically led by hospitals. In 2019, low-revenue ACOs had a net per beneficiary savings of $201, whereas high-revenue ACOs had a net per beneficiary savings of $80.[132] Compared with hospital-led ACOs, physician-led ACOs tend to offer a narrower set of services and typically do not provide services for patients who are not part of the ACO contract. Despite evidence suggesting physician-led ACOs outperform hospital-led ACOs, hospital-led ACOs are less likely to exit ACO programs.[133]

One area in need of additional research is understanding how APMs should be designed to advance health equity.[134] ACOs have the potential to advance health equity through population-based payments and increasing payments for underserved groups. However, health equity has not been a central component of many models. Experts suggest equity must be explicitly built into the payment design as was done for the ACO Realizing Equity, Access, and Community Health (REACH) Model. In addition, future work should identify alternative approaches for risk adjustment that allow considerations of social risk factors. For example, risk adjustment methods that set payments above current levels of FFS spending specifically for groups that experience health disparities could incentivize providers to deliver care to those groups.[135]

Achieving Care Coordination

Effective care coordination is a key component of achieving success through APMs as it supports the management of patients' clinical and social needs. Evidence shows that ACOs foster integration and

improved care coordination. Hospitals affiliated with ACOs tend to use more care coordination strategies (e.g., chronic care management, discharge care plans, medication reconciliation) compared with hospitals not affiliated with ACOs.[136] In addition, hospitals affiliated with an ACO that used FFS shared savings payment models and partial or global capitation payments were more likely to use care coordination strategies.[137] The inclusion of advanced primary care in the design of ACOs may contribute to improved quality of care, reduced costs, and better population health outcomes. This design element can encourage care coordination, manage the needs of complex patients, and address behavioral and social needs.[138]

Evidence suggests care coordination with deliberate advance care planning can transform end-of-life care. The Advanced Illness Management (AIM) model is an innovative care coordination model that received a Health Care Innovation Award from CMS in 2012.[139] The model is designed for patients with a high burden of disease who either (1) have a prognosis that meets the requirements for hospice services but are not enrolled in hospice; (2) have shown substantial functional or nutritional decline or recurrent or unplanned hospitalizations; or (3) are considered to die within one year. Key features of the model include advance care planning, early end-of-life conversations, and care coordination across different settings (e.g., hospitals, home health, providers' offices, and on-call triage). The model demonstrated a lower rate of hospitalization and a greater likelihood that patients were in hospice in the last 14 and 30 days of life relative to matched comparison patients. The model also demonstrated a lower total cost of care per patient in the last 30 and 90 days of life. Notably, the AIM model had a $6 million return on investment for Medicare.[140]

Non-physician providers can support care coordination efforts, especially for high-risk patients (e.g., patients with multiple chronic conditions). A review of interventions aimed to reduce racial and ethnic disparities among the Veterans Affairs (VA) integrated health care system highlighted the importance of community health workers (CHWs) in improving care coordination, helping patients manage treatments, and linking patients to resources to address SDOH.[141] The Integrated Primary Care and Community Support (I-PaCS) model, a complementary model to the Patient-Centered Medical Home (PCMH) model, integrates CHWs into primary care settings and includes the management of SDOH. An evaluation of the model showed a 12.6 percent decrease in inpatient hospital, outpatient hospital, and emergency department (ED) costs for patients with high and moderate risk levels. The evaluation also suggested that the model is expected to realize a 7.1 percent savings in its third year.[142] The Safety Net Medical Home Initiative (SNMHI), a five-year demonstration project that helped primary care safety net sites become PCMHs, also promoted care coordination by leveraging community providers and resources. By making the primary care practice the center of all activities, the initiative promoted care coordination by connecting patients to community resources to provide referrals and respond to social needs; integrating behavioral health and specialty care into care delivery through co-location and referral agreements; tracking patients when services are received outside of the practice; following up with patients following an emergency room visit or hospital discharge in a timely manner; and sharing test results and care plans with patients and families.[143] For additional information on care coordination, see PTAC's *Environmental Scan on Care Coordination in the Context of Alternative Payment Models (APMs) and Physician-Focused Payment Models (PFPMs)* for more information.

Challenges Regarding Financial Incentives in PB-TCOC Models

Different forms of value-based payment described in this section, including shared savings and risk, reference pricing, capitation, and bundled payments, can be combined with performance-based financial incentives to improve quality of care and reduce costs. Performance-based financial incentives can focus on clinical quality or patient safety, panel size, patient satisfaction or experience, efficient utilization of resources, total cost of care, and access,[144] and can use data from electronic clinical quality measures, claims-based measures, and patient-reported experience of care surveys (e.g., CAHPS measures).

Types of Financial Incentives in PB-TCOC Models

Performance can be tied to payment through P4P (i.e., payment is dependent on providers' performance compared with established benchmarks) and pay-for-reporting approaches (i.e., payment is dependent on whether providers report performance measure data). Pay-for-reporting can be considered a step in the transition to APMs and population-based payments where providers can become familiar with quality measures and reporting mechanisms before transitioning to P4P arrangements.[145] Most CMS programs and models use P4P approaches,[146] which utilize existing FFS payment systems. In P4P designs, payers can lower overall FFS payments and use the funds to compensate hospitals based on their performance. Alternatively, hospitals can be penalized for poor performance, and the financial penalties become direct cost savings for payers or used to create an incentive pool.[147]

Research evidence suggests that P4P incentives, larger incentives, more timely incentives, and financial penalties may have a positive impact on performance.[148,149,150,151] However, P4P programs can have unintended consequences, including creating an environment where providers cherry-pick patients to avoid treating those who are high-risk or face challenging social circumstances.[152] P4P programs can also disproportionately penalize providers serving patients of lower socioeconomic status and/or minority status. Use of risk adjustment and stratification, exception reporting, and pay-for-improvement can help reduce disparities in P4P programs.[153,154] In addition to unintended consequences, collecting and reporting quality measures for P4P and other value-based programs can also place administrative burden on providers. Physicians and staff spend approximately 785.2 hours per physician annually managing quality measures, which translates to an average annual cost of $40,069 per physician.[155]

Despite growth in PB-TCOC models and an increased focus on value-based models, physician payment continues to be driven by volume-based incentives (e.g., number of services provided). A focus on volume-based incentives can reduce performance-based incentives on physician payment. Although most PCPs and specialists receive performance-based incentives, these payments can average less than 10 percent of their total compensation.[156] Volume-based compensation remains the most common incentive among both PCPs and specialists, such that it reflected an average of 68.2 percent and 73.7 percent of the total compensation for PCPs and specialists, respectively.[157] Physicians may face difficulty balancing incentives associated with volume versus performance because they are simultaneously receiving payment through PB-TCOC models and through traditional FFS arrangements depending on the patient. Additional information about different payment models, including shared savings, capitation or global payments, and bundled or episode-based payments can be found in PTAC's *Environmental Scan on Issues Related to the Development of Population-Based Total Cost of Care (TCOC) Models in the Broader Context of Alternative Payment Models (APMs) and Physician-Focused Payment Models (PFPMs)*.

Incorporating Setting- or Specialty-Specific Episodes in PB-TCOC Models

Most PB-TCOC models have focused on the role of the PCP as the accountable provider for the patient's care rather than the specialist(s) involved in the patient's care. Because diseases are managed differently, there is variation in the extent to which PCPs and specialists share management of different conditions for any given patient. Determining accountability for cost and risk sharing among PCPs and specialists for any given patient poses a challenge to integrating care across different provider types in PB-TCOC models. Financial incentives are currently lacking for specialists to transition to value-based relationships. For example, risk of financial loss with limited upside potential can deter specialists from joining TCOC models if they have small panels of patients in value-based care arrangements.[158] However, CMMI is testing a number of new episode-based, disease-specific models, including the Kidney Care Choices (KCC) Model, Enhancing Oncology Model (EOM), GUIDE, and TEAM.

Nested Models and Episode-Based Payments

Episode-based payments provide a single fixed payment to participating organizations to financially cover a procedure or treatment and all associated services for a clinical episode. This type of payment is a bundled payment because it covers all services related to the procedure or treatment delivered by all providers during the episode of care.[159] Bundled payments align incentives for providers to coordinate care and improve efficiency and quality and can engage specialists in value-based payment models.

Nested models, or hierarchical models, allow the global budget of a population-based model to serve as an umbrella of accountability under which episode payments are applied.[160] Achieving CMS' goal of having every beneficiary in a care relationship with a provider organization accountable for quality and total cost of care by 2030 may require harmonization between population-based models and episode or bundled payment models.[161] Nested models can foster an environment of accountability and shared participation between primary and specialty care. For example, under a hierarchical payment structure, ACOs would be responsible for overseeing care management and coordinating with episode-based models. This structure could promote collaboration among PCPs and specialists and encourage transparency on quality and cost of care. With this structure, episode-based payments have the potential to generate efficiencies and improve cost and/or quality that population-based models may not generate on their own.[162]

Evidence suggests that patients with acute conditions benefit when they receive care under population-based and episode-based models concurrently. Hospitals simultaneously participating in both the MSSP and Bundled Payments for Care Improvement (BPCI) initiative had lower readmission rates compared with hospitals participating in the BPCI initiative alone.[163] Liao et al. (2018) discussed both advantages and disadvantages of the overlap between MSSP ACOs and bundled payments. Whereas the BPCI initiative assigns accountability for episodes starting with hospitalization and extending through post-acute care, the MSSP uses global accountability for quality and cost across an entire year. The models can work together to improve the quality of care and reduce health care utilization. For example, bundled payments can improve the quality of hospital and post-acute care while ACOs can reduce hospitalizations. Despite these benefits, assigning accountability for quality and cost can be challenged when the models overlap in health care markets and provider organizations.[164] Model overlap can also challenge model testing; separating out the effect of a single model may be difficult if it overlaps with other models.[165]

For additional information on options for integrating episode-based models in PB-TCOC models, see PTAC's *Supplement to the Environmental Scan on Issues Related to the Development of Population-Based Total Cost of Care (TCOC) Models in the Broader Context of Alternative Payment Models (APMs) and Physician-Focused Payment Models (PFPMs)*.

V.B. Challenges Regarding Developing a Balanced Portfolio of Performance Measures

Accurately measuring performance on key quality and health outcomes is an essential component of PB-TCOC models, as participating organizations are financially responsible for their performance on these outcomes to encourage provision of high-quality care. However, there are many technical challenges with measuring performance in PB-TCOC models, including selecting appropriate and relevant measures, implementing data collection and specification across organizations with different data systems, capturing health equity considerations in measurement schema, and integrating specialty- or condition-specific performance measures. With the multitude of performance measures available, streamlining and aligning quality measures has been a focus for CMS in recent years in order to reduce administrative burden, simplify compliance requirements for quality reporting across programs, and align approaches across programs and payers.[166] This effort is reflected in the vision set forth in the 2022 National Quality Strategy[167] (and 2024 update),[168] the Universal Foundation effort,[169] and the Meaningful Measures 2.0 initiative.[170] From 2016 to 2023, these strategies contributed to a 15 percent reduction in measures used by CMS programs, an increase in high-value outcome measures, and use of more outcomes from digital data sources (e.g., EHR records, administrative systems, clinical registries) which have a lower administrative burden to measure.[171]

Selecting Appropriate and Relevant Performance Measures

PTAC has defined four types of performance measures for PB-TCOC models: 1) quality measures (including structure, process, and patient-reported experience); 2) outcome measures that measure health status (including patient-reported outcomes and specialty-specific health outcomes); 3) cost measures; and 4) utilization measures.[172] While each type of measure captures a different domain of success, with the right balance, a mix of these measures will provide a broader picture of implementation success for PB-TCOC models and how components of the model (e.g., processes, structures) may be affecting health outcomes in the desired way. As of 2024, the majority of measures reported by 24 CMS programs/models are process measures (52 percent) or outcome measures (26 percent).[173]

Many frameworks exist for selecting appropriate and relevant performance measures, all having a common understanding of the goals and components of the initiative or program for which measures are being selected. CMS' National Quality Strategy, which includes the Meaningful Measures 2.0 initiative and the Universal Foundation, lays out a strategic framework for measure selection based on program goals and federal guidelines and priorities.[174,175,176] The Agency for Healthcare Research and Quality's (AHRQ's) guide for selecting quality measures focuses on key questions to ask when considering the selection of quality measures, including whether a measure is "good" (e.g., standard, comparable, valid, relevant, credible) and whether a measure is appropriate for the intended audience

(e.g., whether the results of a measure can improve decision-making and accountability).[177] PTAC also previously developed five guiding principles related to selecting performance measures for PB-TCOC models: providing proactive, patient-centered, high-touch care; encouraging patient engagement; managing care transitions and care coordination; achieving equity; and improving efficiency.[178]

Integrating Specialty- or Condition-Specific Performance Measures

To date, specialist integration into PB-TCOC models has been limited, with the most common type of APM—bundled payment models—addressing shorter-term or episodic needs, rather than long-term care and support provided by many specialists.[179] CMMI's episodic and bundled payment models (e.g., the BPCI Advanced Model, EOM) integrate quality measures tied to payment, most of which are outcome measures and reported at the level of the entity assuming financial risk in the model (e.g., provider, practice, hospital).[180,181] Although some PB-TCOC models report condition-specific performance measures, these tend to be common conditions managed by primary care practitioners, or reflect a narrow specialty focus of the model.[182] For instance, the Making Care Primary (MCP) model includes performance measures specific to hypertension (Controlling High Blood Pressure) and diabetes (Hba1c Poor Control), and the KCC Model uses quality measures related to kidney disease that incentivize care management strategies that can delay disease progression.[183,184] There are several challenges with integrating specialty- or condition-specific performance measures into PB-TCOC models, including selecting actionable and valid performance measures that capture high-value specialty care;[185] the potential need for clinical (non-administrative) data, which can increase reporting burden;[186] lack of data sharing between primary and specialty care providers;[187] determining appropriate benchmarks;[188] and technical complexities of implementing performance measures that may apply to a subset of the entire model's population (e.g., identifying an eligible subpopulation using available data).

Using Patient-Reported Outcomes

Incorporating PROMs that reflect quality of life, symptoms and symptom burden, and health behaviors is important in PB-TCOC models to capture outcomes that cannot be measured by administrative or claims-based data sources.[189] PROMs should be patient-centered, reliable and valid, and feasible with minimum patient burden; provide useful information to improve quality of care; be culturally competent and able to be translated; and be adaptable to a clinical workflow. [190,191] Although patient-reported outcomes are included in current CMS programs and models at a low rate (9 percent of measures across selected CMS programs/models in 2023),[192] there has been an increased focus on integrating these outcomes in recent years. In its 2022 update on person-centered innovation, CMMI reported that 29 percent of models tracked at least two patient-reported outcomes, with a goal of increasing that to 50 percent of models by 2025 and 75 percent of models by 2030.[193] Many current programs and models use CAHPS data to report on patient experience; the increased focus on PROMs can be an opportunity to broaden the scope of patient-reported outcomes across models to include mental health, additional health behaviors, functional status, and social health.[194,195] However, challenges remain to capturing PROMs, including increased burden on providers and patients; measurement challenges, including

concerns about reliability and accuracy of patient-reported assessments of health status and outcomes; and technological barriers.[196]

Addressing Equity Using Performance Measures

Using performance measures to address health equity in PB-TCOC models is another area in which there has been increased focus in recent years. CMS defines health equity as "the attainment of the highest level of health for all people, where everyone has a fair and just opportunity to attain their optimal health regardless of race, ethnicity, disability, sexual orientation, gender identity, socioeconomic status, geography, preferred language, or other factors that affect access to care and health outcomes."[197] One of the key CMS health equity goals is to close the gaps, or disparities, in health care access, quality, and outcomes for historically underserved beneficiaries.[198] Broadly, many PB-TCOC models encourage or require participating organizations to develop appropriate data collection strategies and measuring disparities; however, models have not yet tied performance on health equity-related outcomes to payment.[199,200] One 2018 study lays out a roadmap for addressing health disparities , implementing evidence-based interventions to reduce disparities, investing in the development and use of health equity performance measures, and incentivizing the reduction of health disparities and achievement of health equity.[201] Many federal and state agencies, including HHS and CMS, have also developed frameworks for measuring health disparities and developing health equity measures.[202,203] As part of its 2021 strategy refresh, CMMI identified advancing health equity as one of five strategic objectives for advancing system transformation.[204] As presented in the strategy refresh and reflected in the design of new models, CMMI is focusing on standardized collection of demographic data (e.g., race, ethnicity, geography, disability) and screening for HRSNs. For instance, in the Making Care Primary model (launched July 1, 2024), participants are required to draft Health Equity Plans for identifying and addressing disparities, screening patients for HRSNs, and collecting data on patient demographics.[205] However, this model includes no financial incentives for performance on health equity-related outcomes (e.g., improving outcomes for historically marginalized groups), which is the ultimate goal.[206]

For additional information on performance measures for PB-TCOC models, see PTAC's *Environmental Scan on Developing and Implementing Performance Measures for Population-Based Total Cost of Care (PB-TCOC) Models*.

V.C. Challenges Regarding Benchmarking, Risk Adjustment, Attribution, and Data

Setting Performance Benchmarks

Benchmarks, or financial and quality targets used in PB-TCOC models, are essential for creating effective incentives for organizations participating in these models to provide more efficient and higher-quality care at a lower cost.[207] Currently, most CMMI models set financial benchmarks empirically, basing targets on historical spending, projected changes in payments over the course of a model (e.g., accounting for projected trends in national Medicare FFS spending), and appropriate risk adjustment.[208,209] Some models also use a blended approach in which benchmarks incorporate both historical and regional spending targets. For quality performance, CMMI sets benchmarks based on

factors that best define quality in a specific model, including health outcomes (e.g., how effective a treatment is) and care provided (e.g., preventive screenings).[210] For example, in ACO REACH, quality performance benchmarks are determined using data from non-ACO REACH provider organizations of a similar size as REACH ACOs (e.g., physicians, group practices, or hospitals).[211] In some cases, benchmarks are modified for high-cost populations, including separately calculating benchmarks for end-stage renal disease (ESRD) beneficiaries, removing COVID-19 episodes from benchmark calculations during the public health emergency, and separately calculating benchmarks by organization type in ACO REACH.[212,213,214]

There is also evidence that providers and organizations are more likely to exit a model if changes are made to the benchmark that make it less likely that their participation will result in savings, including rebasing benchmarks during the course of a model, changing the benchmark to be more difficult to achieve, and paying penalties in previous performance periods.[215,216,217,218] McWilliams and others have indicated that a key feature of a successful benchmark would be to "decouple" the benchmark from actual spending trends, which creates stronger incentives to deliver more efficient care.[219,220]

Risk Adjustment Approaches

Risk adjustment in PB-TCOC models is used to determine appropriate adjustments to the benchmarks and financial targets based on the needs of patients who an organization or provider serves.[221] There are a number of risk adjustment models used for this purpose across plans and regions, including the Chronic Illness and Disability Payment System, the Adjusted Clinical Groups system, and 3M's Clinical Risk Groupers; the most commonly used risk adjustment model for Medicare beneficiaries is the CMS-Hierarchical Condition Category (HCC) model.[222,223,224,225] The CMS-HCC risk adjustment model is calculated prospectively and uses demographics and major medical conditions to predict Medicare expenditures for the subsequent year, using Medicare FFS data.[226] While this type of risk adjustment can better account for beneficiaries with higher acuity, one potential drawback is that these models can be "gamed" by participating organizations attempting to increase observed patient acuity, and thus, revenue; PB-TCOC models must take precautions to guard against this.[227,228] Data sources used by CMS to adjust PPS payments for specific settings in addition to administrative claims (e.g., the Outcome and Assessment Information Set [OASIS] instrument for home health) are not commonly incorporated into PB-TCOC models because of their limited scope among patients attributed to those models; however, these types of data sources could be considered if relevant for the a specific model's patient population.[229]

Risk adjustment for non-financial measures is less common, although it can be applied to some quality measures as determined appropriate; for example, the ACO REACH model risk-adjusts two of the five quality measures tied to financial incentives.[230] Recent literature suggests that it may be more appropriate to adjust payments tied to quality measures rather than the quality measure scores directly.[231] To date, few risk adjustment methodologies take into account social and area-level factors outside claims data that impact health. Although there are some measures that could be used as a proxy (e.g., percentage of dual-eligible beneficiaries in a county), better data on these types of risk are needed to be able to appropriately adjust for these measures.[232]

Patient Attribution Methodologies

In PB-TCOC models, patient attribution is the process of how patients are assigned, or attributed, to the model for purposes of determining financial accountability.[233] Broadly, patients can be attributed to PB-TCOC models either voluntarily (i.e., the patient self-reports an existing care relationship with a provider), or via a claims-based algorithm that aims to identify relationships between providers and patients based on historical and/or current patterns of care.[234,235,236] Since attribution approaches are designed to address model-specific goals, there is no standard approach for patient attribution in PB-TCOC models. For example, while both MCP and ACO REACH have a lookback period of 24 months in which patterns of care are analyzed for claims-based attribution, MCP conducts attribution quarterly based on the number (plurality) and recency of eligible primary care visits to MCP clinicians, while ACO REACH attribution is conducted annually based on plurality of allowable charges for qualified primary care services to ACO REACH participating providers.[237,238,239]

There are several challenges with designing and accurately implementing a patient attribution methodology, including:

- Determining appropriate timing for using claims-based attribution algorithms. These can be implemented prospectively or retrospectively. Prospective attribution involves assigning patients based on historical care patterns but may miss patients with low utilization or new patients who have recently established a care relationship with a provider. Retrospective attribution involves assigning patients based on care patterns within the performance year, which may make it difficult for providers to target care interventions to attributed patients.[240,241]
- Selecting an appropriate timeframe to establish historical care patterns. Providers may be held financially responsible for patients whom they did not see during a performance period, for instance, if a patient was aligned to them prospectively based on historical care but did not seek care during a performance period.[242]
- Capturing patients who seek a large proportion of their care from specialty, rather than primary, care providers.[243] An HCP-LAN working group on attribution recommends that evaluation and management (E&M) codes for specialty care furnished by selected specialty providers be included in the claims-based algorithm.[244] For certain models, it may be more appropriate to use voluntary alignment (i.e., the patient self-reports an existing care relationship with a provider), rather than attributing these patients from claims data; the GUIDE model is taking this approach.[245]

Accounting for Social Determinants of Health and Health-Related Social Needs

PB-TCOC models can be important levers for addressing SDOH and HRSNs for patients by better allocating resources to historically underserved populations.[246] Currently, many PB-TCOC models incorporate some aspects related to SDOH and HRSNs, with most efforts focused on building infrastructure and capacity (e.g., setting up screening and referral processes, building relationships with community organizations that directly address SDOH and HRSNs) rather than assessing outcomes and improvements. [247,248,249]

Because accounting for SDOH and HRSNs is a relatively novel effort in PB-TCOC models, there are many technical challenges to implementing these approaches, including being able to accurately identify needs and how they are related to barriers to accessing care, collecting standardized data on individual-

level social risk factors, incorporating area-level risks into benchmark and risk adjustment methodologies, defining disparities, and selecting the appropriate area-level approximation of social risk.[250,251] Models (especially those that do not prioritize reaching underserved beneficiaries) may be underpowered to assess disparities in small subpopulations of historically underserved beneficiaries or have incomplete data on HRSNs that limits the usability of those data in evaluation.[252] Recent publications have suggested that a paradigm shift is necessary to address SDOH and HRSNs within PB-TCOC models, and propose "equity-motivated adjustments" rather than risk adjustment and a shift to "invest-for-equity" rather than pay-for-performance to incentivize improvements and reverse decades of underinvestment for some populations and areas.[253,254]

The ACO REACH model introduced a Health Equity Benchmark Adjustment (HEBA) in 2023 that adjusts the benchmark to incentivize ACOs to include historically underserved areas in their service areas.[255] The benchmark adjustment incorporates four elements (national Area Deprivation Index [ADI] ranking, state ADI ranking, dual eligibility status, and low-income subsidy status) and ranges from +$30 for ACOs that serve beneficiaries in the 90th percentile of most underserved areas, to -$10 for ACOs that serve beneficiaries in the lowest 30th percentile of underserved areas.

Data Sources

A range of data sources are needed to implement performance measures, calculate benchmarks, and accurately risk-adjust in PB-TCOC models. As described in the PCDT presentation at the March 2024 PTAC meeting, key data sources include administrative data, claims and encounter data, registry data, electronic clinical data, paper medical records, EHR data, patient-reported data and surveys, and patient assessment data.[256] Since performance measurement, benchmarking, and risk adjustment are key components of PB-TCOC models, it is essential that data sources are complete, reliable, and valid.

Depending on an organization's existing data infrastructure and capacity, it can encounter various technical challenges when participating in a PB-TCOC model. Many organizations participating in PB-TCOC models may enter with relatively sophisticated data systems and analytic capacity, which may reflect the voluntary nature of participation in these models; that is, organizations participating are self-selecting due in part to their ability to track complex financial and quality measures for attributed beneficiaries.[257] However, many challenges remain, especially for smaller practices and/or practices in historically underserved areas, including accurate tracking and reporting for quality and financial metrics, determining the appropriate level of aggregation of results to provide meaningful and actionable data for providers (e.g., plan, provider, or provider organizations; practice; geographic unit), sharing data while maintaining privacy and security, and combining often disparate EHR, clinical, and administrative data systems.[258,259] The varied levels of capacity may require a staged, or stepped, approach to onboarding some practices into PB-TCOC models.[260,261] More technical assistance, financial resources, a longer "on-ramp" for financial accountability on quality measures, and additional time allocated for building relationships with data owners may be required in future models for organizations to successfully build their data capacity and infrastructure.[262,263]

Additionally, PB-TCOC models typically consider data for a beneficiary across multiple providers (e.g., tracking hospital stays for patients attributed to primary care providers), necessitating an additional level of data sharing from the payer or model convener back to providers who have financial

responsibility for those patients.[264] For instance, delays in sharing lists of attributed patients with providers can complicate efforts to provide model services and benefits to those patients.[265]

Data Interoperability

Interoperability across data sources, owners, and systems is essential for the success of PB-TCOC models and to achieve the goals of value-based care.[266] While researchers note a trend toward more robust data sharing between provider organizations, the lack of widely accepted standards for data interoperability, the high cost of retrofitting systems to be interoperable, legal concerns, and workforce challenges are key barriers to achieving high levels of data integration and interoperability across models.[267] Additionally, the level of data interoperability needed varies by data type and element depending on the intended use; not all data need to be fully integrated into one location to maximize their use in PB-TCOC models.[268] Examples of various levels of interoperability include hospitals providing real-time or near real-time alerts on admissions, discharges, and transfers to primary care physicians; facilitating EHR data integration through Fast Healthcare Interoperability Resources (FHIR), which can be very resource-intensive; and viewing data from outside sources by using a single sign-on function in an EHR.[269,270]

VI. Relevant Features in Previously Submitted PTAC Proposals

This section summarizes findings from an analysis of components in previously submitted PTAC proposals that are relevant for encouraging care relationships with accountability for quality and TCOC . Among the 35 proposals that were submitted to PTAC between 2016 and 2020, including 28 proposals that PTAC has deliberated and voted on during public meetings, nearly all of the proposals addressed the potential impact on cost and quality, to some degree. Committee members found that 20 of these proposals met Criterion 2 (Quality and Cost), including five proposals that were found to meet all 10 of the criteria established by the Secretary of Health and Human Services (the Secretary) for PFPMs. Additionally, at least nine other proposals discussed the use of TCOC measures in their payment methodology and performance reporting. **Exhibit 6** includes the results of an analysis of relevant value-based care and technical components of the following five previously submitted proposals that were found to meet all 10 of the criteria established by the Secretary for PFPMs:

- American College of Emergency Physicians (ACEP): Acute Unscheduled Care Model (AUCM): Enhancing Appropriate Admissions
- Avera Health: Intensive Care Management in Skilled Nursing Facility Alternative Payment Model (ICM SNF APM)
- Icahn School of Medicine at Mount Sinai: “HaH-Plus (Hospital at Home-Plus)” Provider-Focused Payment Model
- Personalized Recovery Care (PRC): Home Hospitalization: An Alternative Payment Model for Delivering Acute Care in the Home
- Renal Physicians Association (RPA): Incident ESRD Clinical Episode Payment Model

Exhibit 6. Selected PTAC Proposals that Included Components Relevant for Establishing Relationships with Accountability for Quality and TCOC

Proposal	Clinical Focus	Value-Based Care and Technical Components
American College of Emergency Physicians (ACEP) (*Provider association/ specialty society*) **Acute Unscheduled Care Model (AUCM): Enhancing Appropriate Admissions**	Emergency department (ED) services	**Overall Model Design Features:** AUCM aims to coordinate care post-discharge from ED. **Approaches to Improve Specialty Integration:** Ensure follow-up care when barriers exist to primary or specialty care access; mandated physician-to-physician communication when patients are discharged from the ED, or admitted or placed on observation status **Approaches to Address Health Equity:** Not specified **Financial Methodology:** Episode-based, bundled payment; if spending for eligible and attributed episodes is less than the bundled payment target price, the participant is eligible for a positive reconciliation payment; if it is more, the participant will have to reimburse CMS. Also includes payment waivers for ED acute care transition services, telehealth services, and post-discharge home visits.
Avera Health (*Regional/local multispecialty practice or health system*) **Intensive Care Management in Skilled Nursing Facility Alternative Payment Model (ICM SNF APM)**	Primary care (geriatricians) in skilled nursing facilities (SNFs)	**Overall Model Design Features:** The ICM SNF APM aims to provide care for nursing facility residents through 24/7 access to a geriatrician care team (GCT) using telemedicine. **Approaches to Improve Specialty Integration:** Addresses multidisciplinary care in SNFs following an acute event, establishing accountability or negotiating responsibility; geriatrician-led, multidisciplinary team where GCT responsible for medication reconciliation, and medication management is handled in coordination with the PCP **Approaches to Address Health Equity:** Not specified **Financial Methodology:** Two-tier payment: one-time payment for new admission care and an ongoing monthly payment for post-admission care. It also discusses an option to make this a shared savings model.
Icahn School of Medicine at Mount Sinai (Mount Sinai) (*Academic institution*)	Inpatient services in home setting	**Overall Model Design Features:** HaH-Plus aims to provide hospital-level services in a home setting for beneficiaries with certain acute conditions.

Proposal	Clinical Focus	Value-Based Care and Technical Components
"HaH-Plus" (Hospital at Home-Plus): Provider-Focused Payment Model		**Approaches to Improve Specialty Integration:** Multidisciplinary care around an acute care event providing pre-acute, acute, and transition services **Approaches to Address Health Equity:** HaH-Plus serves underserved populations and provides culturally sensitive health care. **Financial Methodology:** Prospective, episode-based payment replacing FFS and with flexibility to support non-covered services; shared risk through retrospective reconciliation
Personalized Recovery Care (PRC) (*Regional/local single specialty practice*) Home Hospitalization: An Alternative Payment Model for Delivering Acute Care in the Home	Inpatient services in home setting	**Overall Model Design Features:** Home Hospitalization APM is an operational program in Marshfield, Wisconsin, where participants provide treatment to commercial and MA patients with certain acute conditions in their home or SNF instead of in the hospital. **Approaches to Improve Specialty Integration:** Multidisciplinary care around an acute care event **Approaches to Address Health Equity:** Not specified **Financial Methodology:** Retrospective bundled payment with two components: 1) risk payment compared with the target cost of care (i.e., the "Target Bundled Rate"); and 2) per episode payment ("Home Hospitalization Payment"). If total costs are more than the Target Bundled Rate, participants are 100% liable (up to 10% of the benchmark rate).
Renal Physicians Association (RPA) (*Provider association and specialty society*) Incident ESRD Clinical Episode Payment Model	End- stage renal disease (ESRD)	**Overall Model Design Features:** The Incident ESRD Clinical Episode Payment Model proposes care coordination and renal transplantation, if applicable, for dialysis patients transitioning from chronic kidney disease (CKD) to ESRD (six-month episodes of care). **Approaches to Improve Specialty Integration:** Coordination among medical specialists and dialysis providers **Approaches to Address Health Equity:** Not specified **Financial Methodology:** Episode-based model with continued FFS payments and an additional payment for transplant; one- and two-sided risk options

Appendix C includes additional information about the relevant components of the five selected proposals that were found by Committee members to meet all 10 of the Secretary's criteria for PFPMs.

Additionally, at least nine other proposals discussed the use of TCOC measures in their payment methodology and performance reporting:

- American Academy of Hospice and Palliative Medicine (AAHPM),
- Coalition to Transform Advanced Care (C-TAC),
- University of Chicago Medicine (UChicago),
- American Academy of Family Physicians (AAFP),
- American College of Surgeons (ACS),
- American Society of Clinical Oncology (ASCO),
- Large Urology Group Practice Association (LUGPA),
- New York City Department of Health and Mental Hygiene (NYC DOHMH), and
- Illinois Gastroenterology Group and SonarMD, LLC (IGG/ SonarMD).

VII. Areas Where Additional Information is Needed

This section includes a summary of some areas for consideration to guide future research on identifying a pathway toward maximizing participation in PB-TCOC models. **Appendix E** further describes areas for future exploration and research.

Characteristics of Beneficiaries and Providers Not Participating in ACOs

Additional research is needed to identify characteristics of both beneficiaries and providers who are not currently participating in an ACO or an accountable care relationship. While some studies have looked at provider characteristics, more research is needed to determine strategies that would effectively promote ACO participation, and minimal to no studies have been conducted looking at beneficiary characteristics.

Designing APMs to Advance Health Equity

Additional research is needed around understanding how APMs should be designed to advance health equity.[271] Health equity has not been a central component of many models. In addition, future work should identify alternative approaches for risk adjustment that allow considerations of social risk factors.

Appendix A. Research Questions by Environmental Scan Section

Section	Research Questions

Section IV. Overview of the 2030 Goal of Having All Beneficiaries in Accountable Care Relationships	• What has PTAC learned from the Committee's previous theme-based discussions that is relevant for identifying a pathway toward achieving the 2030 goal?
	  ○ What challenges exist related to achieving the 2030 goal?
	  ○ What approaches have been identified during previous theme-based discussions for addressing these challenges?
	  ○ What steps or milestones have been identified by subject matter experts (SMEs) and/or Committee members during previous theme-based discussions that would be important for achieving the 2030 goal?
	  ○ What additional information is needed for achieving the 2030 goal?
	• What is CMS' plan for achieving the goal of having all traditional Medicare beneficiaries in accountable care relationships by 2030?
	  ○ What information is included in CMMI's Innovation Center Strategy Refresh and other CMS publications regarding CMS' plan for achieving the CMS 2030 goal?
	  ○ How do CMS and CMMI's recently announced models contribute to achieving the 2030 goal?
	• What are the characteristics of beneficiaries who are not currently participating in accountable care relationships (e.g., ACOs, advanced primary care models)?

Section V. Technical Issues in PB-TCOC Models	• What characteristics of different provider organization types (e.g., integrated care delivery system versus independent physician-led) are most conducive to supporting accountable care relationships and PB-TCOC models?
	  ○ What are successful components of current ACOs?
	• How do different provider organization types achieve care coordination across multiple providers and settings?
	• What types of financial incentives are used in current and planned PB-TCOC models?
	  ○ How do payment approaches in PB-TCOC models differ as a function of type of provider organization?
	  ○ How are performance-based financial rewards earned by PB-TCOC models aligned with opportunities for cost savings for payers?
	• What kinds of financial incentives are used for providers participating in current and planned PB-TCOC models?
	  ○ Are there examples of PB-TCOC models that are using value-based payment incentives for participating providers? If so, which approaches are most effective?
	  ○ Is it possible for PB-TCOC models to be effective in encouraging accountability for quality, outcomes, and TCOC while primarily reimbursing providers on an FFS basis?
	• How can nested models and episodes of care be used to better align financial incentives in PB-TCOC models?
	• What types of performance measures are most appropriate for a measure portfolio for PB-TCOC models?
	  ○ What benefits and challenges exist with using process and outcome measures in PB-TCOC models?

Section	Research Questions
	○ What benefits and challenges exist with using organizational-level, provider-level, and patient-level measures in PB-TCOC models? • How have PB-TCOC models integrated measures specific to specialty, condition, setting, and/or patient risk level? ○ What types of measure domains are represented? ○ At what level are those measures reported (e.g., provider, organization)? ○ What challenges exist with integrating these more specific types of measures in PB-TCOC models? • To what extent are patient-reported outcome measures included in current PB-TCOC models? ○ What kinds of PROMs are included in current PB-TCOC models? ○ What kinds of additional PROMs are appropriate for inclusion in PB-TCOC models? ○ What barriers exist related to implementing PROMs in PB-TCOC models? • What challenges exist with developing APM payment approaches when using multiple performance measures? • What are current strategies for setting performance benchmarks in PB-TCOC models? Does this vary by performance measure domain (e.g., spending, patient-reported outcomes)? What factors are considered in determining the "appropriateness" of a benchmark? ○ Using national benchmarks versus regional benchmarks ○ Using performance thresholds versus measuring relative improvement over time ○ Implications of rebasing a performance benchmark mid-way through a program ○ Impact of high-cost beneficiaries on performance benchmarks for different kinds of provider organizations • What are common risk adjustment frameworks for performance measures used in existing PB-TCOC models? What are the benefits and challenges of using these frameworks? ○ What types of performance measures are typically risk-adjusted in PB-TCOC models? What are key considerations when deciding whether to risk-adjust performance measures? • What are current challenges in attributing patients to providers in PB-TCOC models? ○ What are effective strategies for dealing with current attribution challenges? ○ How should attribution be determined when considering patients who receive care from multiple specialty providers? • How are social determinants of health and/or health-related social needs accounted for in benchmarks or risk adjustment in PB-TCOC models? ○ What is the rationale and theory of change for how incorporating these measures in performance benchmarks would affect the performance of organizations in these models? Are there other considerations when incorporating social determinants of health and/or health-related social needs into model benchmarks?

Section	Research Questions
	○ How has the Area Deprivation Index been used to benchmark or risk-adjust in PB-TCOC models? • What data sources are needed to implement performance measures, including benchmarking and risk adjustment, in PB-TCOC models? ○ What challenges exist for practices to obtain and use these data? At what point in the data collection, processing, and/or analysis workstreams are there major barriers or gaps in capacity to do that work? ○ What infrastructure is needed to support practices in securing and using data for calculating performance metrics (including benchmarks and risk adjustment) for PB-TCOC models? • What are existing best practices to ensure data interoperability across programs/models/settings? ○ What are the current standards/guidelines (if any), and who is responsible for ensuring that standards are being met? ○ What are the challenges with ensuring data interoperability across programs/models/settings? • To what extent is it currently possible for non-integrated provider organizations (such as independent physician-led) to effectively share the necessary data to facilitate participation in PB-TCOC models? ○ What approaches are currently being used for data sharing among non-integrated provider organizations? ○ What steps are needed in the short term to support data sharing among non-integrated provider organizations in order to facilitate their ability to participate in PB-TCOC models?

Appendix B. Summary of Key Takeaways from Previous PTAC Theme-Based Public Meeting Discussions

Exhibit B1. Key Takeaways from the PTAC Committee's Ongoing Series of Theme-based Discussions

Theme-based Discussion	Key Takeaways
Telehealth and Alternative Payment Models *(September 2020)*	• APMs may be an efficient way to incorporate important payment components such as risk adjustment, risk sharing, service payment differentials based on location, and multi-payer alignment; and to test the efficacy of various telehealth interventions. • APMs could support a cultural shift from using telehealth in a discrete encounter to viewing health holistically as part of an interdisciplinary team-based care model. • Avoiding the exacerbation of disparities is important, as issues such as language, access to and ease of use of technology, and type of technology could adversely affect the potential benefits of telehealth for vulnerable populations.
Care Coordination and Alternative Payment Models *(June 2021)*	• APMs can help incentivize the provision of multispecialty and interdisciplinary care coordination throughout the patient's journey; and provide opportunities for testing the effectiveness and scalability of new care delivery models. • There is a need to move beyond traditional outcome measures when measuring the value and return on investment of patient-centered care coordination. • Having a "toolkit" of care coordination models could be a useful resource for different kinds of providers who want to implement patient-centered care coordination, particularly for small or independent practices that have limited resources or infrastructure.
Social Determinants of Health (SDOH) and Equity and Alternative Payment Models *(September 2021)*	• Multidisciplinary teams are central for addressing the association between non-medical factors and health outcomes. There is a need to acknowledge the importance of coordination among traditional and non-traditional care team members and provide adequate reimbursement for the full range of patient-centered activities. • There is a need for greater collaboration between health care providers and community-based organizations (CBOs) in implementing SDOH- and equity-related initiatives. • Innovations that could be embedded into future payment models include adjusting payments for social risk factors; incorporating SDOH- and equity-related performance metrics; expanding participation criteria; and considering the potential value of hybrid and/or multi-payer approaches within the same model.
Population-Based Total Cost of Care (TCOC) Models *(March, June, and September 2022)*	• Providing upfront resources to support desired care delivery transformation can help to increase participation in PB-TCOC models, particularly in cases where risk is based on retrospective rewards for savings. • Placing financial accountability for TCOC at the entity or organization level is appropriate to manage risks for individual clinicians or smaller groups of clinicians, but incentives should be focused at the level of the provider.

Theme-based Discussion	Key Takeaways
	• It is essential to 1) develop a comprehensive strategy that includes producing models with multiple tracks and phase-in periods for taking on two-sided risk; 2) balance providing incentives for voluntary participation with the potential for requiring mandatory participation in certain cases; and 3) consider multi-payer alignment.
Specialty Integration in Population-Based Models *(March 2023)*	• Provision of timely data on quality, cost, and utilization is essential for facilitating patient care management and identifying high-value providers. • Payment for care delivered by specialists should be "carved in," or nested within population-based APMs, instead of being "carved out." • Participation in nested, condition-specific models could evolve from being voluntary to being mandatory for certain types of providers (e.g., hospital-affiliated ACOs) to increase participation in value-based care and encourage sustainable improvement.
Care Transitions in Population-Based Models *(June 2023)*	• Managing transitions in care requires an interdisciplinary team. • Improving the management of care transitions requires the development of information technology (IT) solutions that can notify providers when a patient is admitted to a hospital or discharged to home or another setting. • Payment models should explore linking financial incentives for managing care transitions with outcomes. • Nested models should extend beyond inpatient care and incorporate multiple specialists, as well as longitudinal and transitional care across settings. • Increasing uptake of current Medicare Transitional Care Management (TCM) codes can help to support the transition from FFS to value-based care.
Encouraging Rural Participation in PB-TCOC Models *(September 2023)*	• An effective model of care for rural health should include four main components: 1) high-touch, proactive, team-based care; 2) a holistic approach to rural value-based care; 3) screening for medical care, behavioral health, and SDOH needs; and 4) support for hospitals as conveners. • Models using glide paths that increase financial risk for rural providers over time as they gain more experience can encourage their engagement in value-based care arrangements. • APM design can support rural health provider engagement in value-based care by considering subsidies to support innovation in care delivery, tailoring performance measures to reflect value in a rural context, investing in team-based care and primary care, using prospective payment or other up-front payment approaches, and aligning financial incentives and value-based objectives across all providers in a rural area. • Resolving the "rural glitch" is necessary to ensure that rural providers are not disadvantaged in models with regional benchmarking and to adequately differentiate rural and non-rural health care providers' performance.

Appendix C. Summary of Relevant Components for Selected PTAC Proposals Reviewed by PTAC

Overview of Methodology Used to Review the Proposals

The following information was reviewed for each submitter's proposal, where available: proposal and related documents, PRT Report, and Report to the Secretary (RTS). Information found in these materials was used to summarize the proposals' main design features, including approaches to improve specialty integration, provision of specialist consultations, approaches to address health equity, financial methodology, how payment is adjusted for performance, performance measures related to improving coordination, attribution, risk adjustment, and benchmarking.

Among the 35 proposals that were submitted to PTAC between 2016 and 2020, nearly all proposals addressed the potential impact on cost and quality, to some degree. Committee members found that 20 of these proposals met Criterion 2 (Quality and Cost), including five proposals that were found to meet all 10 of the criteria established by the Secretary of Health and Human Services (the Secretary) for PFPMs. Additionally, at least nine other proposals discussed the use of TCOC measures in their payment methodology and performance reporting.

Findings from the review of value-based care and technical components of that are relevant for establishing relationships with accountability for quality and TCOC in the five proposals that were found to meet all 10 of the Secretary's criteria are summarized in the following table.

Exhibit C1. Key Value-Based Care Components of Selected PTAC PFPM Proposals

Submitter, Submitter Type, Proposal Name, and PTAC Recommendation and Date	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components
American College of Emergency Physicians (ACEP) (*Provider association/ specialty society*) Acute Unscheduled Care Model (AUCM): Enhancing Appropriate Admissions **Recommended for implementation, 9/6/2018**	**Clinical Focus:** Emergency department (ED) services **Providers:** ED physicians **Setting:** ED **Patient Population:** Patients with qualifying ED visits	**Overall Model Design Features:** AUCM aims to coordinate care post-discharge from ED. **Approaches to Improve Specialty Integration:** Ensure follow-up care when barriers exist to primary or specialty care access; mandated physician to physician communication when patients are discharged from the ED, or admitted or placed on observation status **Provision of Specialist Consultations:** As needed on discharge from the ED **Approaches to Address Health Equity:** Not specified	**Financial Methodology:** Episode-based, bundled payment; if spending for eligible and attributed episodes is less than the bundled payment target price, the participant is eligible for a positive reconciliation payment; if it is more, the participant will have to reimburse CMS. Also includes payment waivers for ED acute care transition services, telehealth services, and post-discharge home visits. **How Payment is Adjusted for Performance:** Performance on a set of quality measures determines eligibility for reconciliation payments and the size of discount built into each episode's target price. **Performance Measures Related to Improving Coordination:** Yes; Shared Decision-Making (process of care coordination) **Attribution:** Episodes are attributed to the ED physician based on a qualifying ED visit. All Medicare services (except those identified in BPCI Advanced) that occur in 30 days post-ED visit are included. **Risk Stratification or Adjustment:** Uses CMS-HCC methodology to adjust target prices annually **Benchmarking:** Based on participants' historical performance, risk-adjusted for factors that impact the admission decision
Avera Health (*Regional/local multispecialty practice or health system*)	**Clinical Focus:** Primary care (geriatricians) in skilled nursing facilities (SNFs) **Providers:** Geriatrician Care Teams (GCTs)	**Overall Model Design Features:** The ICM SNF APM aims to provide care for nursing facility residents through 24/7 access to a geriatrician care team (GCT) using telemedicine.	**Financial Methodology:** Two-tier payment: one-time payment for new admission care and an ongoing monthly payment for post-admission care. It also discusses an option to make this a shared savings model.

Submitter, Submitter Type, Proposal Name, and PTAC Recommendation and Date	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components
Intensive Care Management in Skilled Nursing Facility Alternative Payment Model (ICM SNF APM) **Recommended for implementation, 3/27/2018**	**Setting:** SNFs and NFs **Patient Population:** SNF residents	**Approaches to Improve Specialty Integration:** Addresses multidisciplinary care in SNFs following an acute event, establishing accountability or negotiating responsibility; geriatrician-led, multidisciplinary team where GCT responsible for medication reconciliation, and medication management is handled in coordination with the (PCP **Provision of Specialist Consultations:** Telemedicine consultations **Approaches to Address Health Equity:** Not specified	**How Payment is Adjusted for Performance:** Quality performance will be measured against performance criteria; quality scores determine whether regular payments will be reduced by some amount. **Performance Measures Related to Improving Coordination:** Yes; SNF 30-day All-Cause Readmission Measure **Attribution:** Based on trigger event being the beneficiary's admission to a participating SNF/NF; beneficiaries are aligned to the facility throughout their stay, and the alignment period ends 30 days following facility discharge. **Risk Stratification or Adjustment:** The Shared Savings Model option will use the CMS HCC risk score to adjust target bundle prices. **Benchmarking:** Measure-specific performance criteria for achievement and improvement
Icahn School of Medicine at Mount Sinai (Mount Sinai) (*Academic institution*) "HaH-Plus" (Hospital at Home-Plus): Provider-Focused Payment Model **Recommended for implementation, 9/17/2017**	**Clinical Focus:** Inpatient services in home setting **Providers:** Physicians; HaH-Plus providers **Setting:** Patient home **Patient Population:** Eligible patients in one of 44 diagnosis-related groups (DRGs) for acute conditions	**Overall Model Design Features:** HaH-Plus aims to provide hospital-level services in a home setting for beneficiaries with certain acute conditions. **Approaches to Improve Specialty Integration:** Multidisciplinary care around an acute care event providing pre-acute, acute, and transition services **Provision of Specialist Consultations: C**are team initiates referral to appropriate services as needed. **Approaches to Address Health Equity:** HaH-Plus serves underserved populations and provides culturally sensitive health care.	**Financial Methodology:** Prospective, episode-based payment replacing FFS and with flexibility to support non-covered services; shared risk through retrospective reconciliation **How Payment is Adjusted for Performance:** Need to attain quality targets; will not receive shared savings if quality targets are not attained. If a participant's costs exceed the financial benchmark, participant is responsible for excess even if quality targets are achieved. **Performance Measures Related to Improving Coordination:** Yes; Post-acute ED visits, Measures of Care Plan, and Adverse Events (e.g., hospital-acquired infections, complications) **Attribution:** Claims-based

Submitter, Submitter Type, Proposal Name, and PTAC Recommendation and Date	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components
			Risk Stratification or Adjustment: A comparison group of patients admitted to non-participating hospitals in the same region will be used to find a spending target for the amount Medicare would have spent without the HaH-Plus program. **Benchmarking:** Separate achievement thresholds for each of 10 quality metrics linked to payment
Personalized Recovery Care (PRC) (*Regional/local single specialty practice*) Home Hospitalization: An Alternative Payment Model for Delivering Acute Care in the Home **Recommended for implementation, 3/26/2018**	**Clinical Focus:** Inpatient services in home setting **Providers:** Admitting physician at facility receiving PRC payments; On-Call Physician; Recovery Care Coordinators **Setting:** Patient home **Patient Population:** Commercial and Medicare Advantage patients with acute conditions, based on approximately 150 DRGs	**Overall Model Design Features:** Home Hospitalization APM is an operational program in Marshfield, Wisconsin, where participants provide treatment to commercial and MA patients with certain acute conditions in their home or SNF instead of in the hospital. **Approaches to Improve Specialty Integration:** Multidisciplinary care around an acute care event **Provision of Specialist Consultations:** Through the PRC operator **Approaches to Address Health Equity:** Not specified	**Financial Methodology:** Retrospective bundled payment with two components: 1) risk payment compared with the target cost of care (i.e., the "Target Bundled Rate"); and 2) per episode payment ("Home Hospitalization Payment"). If total costs are more than the Target Bundled Rate, participants are 100% liable (up to 10% of the benchmark rate). **How Payment is Adjusted for Performance:** To be eligible for shared savings, providers must meet or exceed benchmarks for performance measures. Participants are eligible to receive 20% of savings for each measure that meets or exceeds the benchmark. Participants receive 100% of savings if all five performance measures are met (0% if none are met). **Performance Measures Related to Improving Coordination:** Yes; Percentage of Episodes with Follow-Up PCP Appointment Scheduled Within 7 Days, Percentage of Episodes with Medication Reconciliation, and Percentage of Episodes with Adverse Events (Deep Vein Thrombosis [DVT], Pressure Ulcer, Fall with Injury) **Attribution:** Claims-based **Risk Stratification or Adjustment:** Yes, for patient clinical characteristics. Participants also propose excluding beneficiaries

Submitter, Submitter Type, Proposal Name, and PTAC Recommendation and Date	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components
			with the following: end-stage renal disease, hospice enrollment, or initial admissions to intensive care unit. **Benchmarking:** Based on historical, episodic expenditures for each condition plus a three percent discount to derive target prices
Renal Physicians Association (RPA) (*Provider association and specialty society*) Incident ESRD Clinical Episode Payment Model **Recommended for implementation, 12/18/2017**	**Clinical Focus:** End- stage renal disease (ESRD) **Providers:** Nephrologists, PCPs **Setting:** Dialysis centers **Patient Population:** Patients with chronic condition (incident ESRD)	**Overall Model Design Features:** The Incident ESRD Clinical Episode Payment Model proposes care coordination and renal transplantation, if applicable, for dialysis patients transitioning from chronic kidney disease (CKD) to ESRD (six-month episodes of care). **Approaches to Improve Specialty Integration:** Coordination among medical specialists and dialysis providers **Provision of Specialist Consultations:** Yes **Approaches to Address Health Equity: Not specified**	**Financial Methodology:** Episode-based model with continued FFS payments and an additional payment for transplant; one- and two-sided risk options **How Payment is Adjusted for Performance:** Quality scores based on performance on patient-centered quality measures (0-100) determine the percentage of overall shared savings the physician receives. The higher the quality score, the higher amount of shared savings to the participant. Further, physicians choosing to participate in Merit-based Incentive Payment System (MIPS) APM versus Advanced APM will determine the total upside shared savings and downside risk. There is also a one-time financial incentive/bonus payment for patient receiving a kidney transplantation. **Performance Measures Related to Improving Coordination:** Yes; Emergency Department Utilization Continuous Improvement, and Person-Centered Primary Care Measure **Attribution:** Claims-based **Risk Stratification or Adjustment:** Medicare beneficiary's most recent HCC risk score normalized so that an average risk patient would have a score of 1; values greater than 1 would indicate comorbidities associated with higher costs of care; values less than 1 would indicate lower costs of care. Benchmarking: **Based on risk-adjusted target expenditures**

Appendix D. Summary of Key Value-Based Care Components for Selected CMMI Models

Overview of Methodology Used to Review the Selected CMMI Models

Available information on selected CMMI models' summary pages on the CMMI website was reviewed. This included model overviews, informational webinars, evaluation reports and findings (as applicable), summaries, fact sheets, and press releases. Information found in these materials was used to summarize the models' main design features, including approaches to improve specialty integration, provision of specialist consultations, approaches to address health equity, financial methodology, how payment is adjusted for performance, performance measures related to improving coordination, attribution, risk adjustment, and benchmarking.

Five CMMI models were selected ensuring two population-based models (ACO REACH and Maryland TCOC), two episode-based or condition-specific models (BPCI-A and EOM), and one advanced primary care model (MCP). Findings from the review of these five models are summarized in the following table.

Exhibit D1. Key Value-Based Care Components of Selected CMMI Models

Model Name	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components	Lessons Learned
Global and Professional Direct Contracting (GPDC)/Accountable Care Organization Realizing Equity, Access, and Community Health (ACO REACH) *Participants Announced* Years active: 2021-present[viii]	**Clinical Focus:** Primary and specialty care **Providers:** Direct Contracting Entities (DCEs) under GPDC, ACOs under ACO REACH; Participating and Preferred Providers **Setting:** Broad applicability **Patient Population:** Medicare FFS beneficiaries; patients with complex chronic diseases and serious illnesses	**Overall Model Design Features:** ACO REACH brings together health care providers, including PCPs, specialty providers, and hospitals, to form an ACO. **Approaches to Improve Specialty Integration:** Higher risk sharing arrangements and risk-adjusted monthly payments for all covered costs under total care capitation option (which includes payment for specialty care services). **Provision of Specialist Consultations:** Yes **Approaches to Address Health Equity:** ACO REACH requires health equity plans, benchmark adjustments, data collection, nurse practitioner services benefit enhancement, and scoring for health equity experience.	**Financial Methodology:** Two risk-sharing options: 1) Professional: 50% savings/losses; participants receive a primary care capitation payment (risk-adjusted monthly payment for primary care services; 2) Global: 100% savings/losses; participants can receive either a primary care capitation payment or a total care capitation payment (risk-adjusted monthly payment for all covered services, including specialty care). **How Payment is Adjusted for Performance:** ACOs earn a quality score (0-100%) based on performance across all measures compared to the benchmark; 2% of ACO benchmark is withheld to be earned back based on quality score. Additionally, there is a Continuous Improvement and Sustained Exceptional Performance (CI/SEP) component. ACOs that meet or exceed the CI/SEP criteria can receive up to the full (2%) based on quality score; ACOs that do not meet the CI/SEP criteria can receive only half (1%) based on quality score. **Performance Measures Related to Improving Coordination:** Yes; All-Cause Unplanned Admissions for Patients with Multiple Chronic Conditions, Risk-Standardized All Condition Readmission, and Timely Follow-up After Acute Exacerbation of Chronic Conditions **Attribution:** Voluntary; Prospective, claims-based **Risk Stratification or Adjustment:** Adjusts the benchmark for ACOs that have a higher percentage of underserved beneficiaries. These ACOs are identified using a measure that combines the ADI and dual Medicaid status.	Model evaluations have not been completed yet for ACO REACH. According to an evaluation report under GPDC, DCE strategies for population health management focused on avoidable utilization (90%), complex or population-specific care management (90%), and investments in primary care (63%). While there was no significant impact on gross or net expenditures for Standard or New Entrant DCEs in PY2021, Standard DCEs significantly reduced acute care hospitalizations and skilled nursing facility days, and both Standard and New Entrant DCEs significantly reduced ED visits. Standard DCEs also reduced hospitalizations for ambulatory care sensitive conditions.

[viii] The transition from the GPDC Model to the ACO REACH Model was announced on February 24, 2022. The ACO REACH Model began on January 1, 2023.

Model Name	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components	Lessons Learned
			Benchmarking: Based on historical baseline expenditures and/or ACO REACH/KCC rate book or a blend of historical and regional expenditures or regional expenditures, depending on DCE/ACO type and alignment	
Bundled Payments for Care Improvement Advanced (BPCI-A) *Ongoing* Years active: 2018-present	**Clinical Focus:** Cross-clinical focus **Providers:** Acute care hospitals, physician group practices, ACOs **Setting:** Inpatient and outpatient services **Patient Population:** Medicare beneficiaries with certain clinical episodes (29 inpatient, three outpatient)	**Overall Model Design Features:** BPCI-A requires participants to coordinate care across all providers/settings for the duration of the clinical episode, which begins at the start of an admission or procedure and ends 90 days after hospital discharge or completion of a procedure. **Approaches to Improve Specialty Integration:** Establishes an "accountable party" and shifts emphasis from individual services to clinical episodes **Provision of Specialist Consultations:** N/A **Approaches to Address Health Equity:** Not specified	**Financial Methodology:** Participants (or Episode Initiators [EIs]) receive a retrospective bundled payment or are required to pay a Repayment Amount based on reconciliation against the benchmark/target price. **How Payment is Adjusted for Performance:** EIs receive a Composite Quality Score (CQS) based on selected quality measures, and payment is adjusted by up to 10% for positive reconciliation amounts (where EI receives a payment) or negative reconciliation amounts (where EI is required to pay back). **Performance Measures Related to Improving Coordination:** Yes; All-Cause Unplanned Hospital Readmissions, Advance Care Plan, Excess Days in Acute Care after Hospitalization for Acute Myocardial Infarction, Hospital-Level Risk-Standardized Complication Rate Following Elective Primary Total Hip Arthroplasty, Cardiac Rehabilitation Patient Referral from an Inpatient Setting, In-Person Evaluation Following Implantation of a Cardiovascular Implantable Electronic Device, Patient-Centered Surgical Risk Assessment and Communication, and Time to Intravenous Thrombolytic Therapy **Attribution:** Claims-based (note: clinical episodes, and not the patient, are attributed to providers). **Risk Stratification or Adjustment:** Adjusts target prices based on HCCs, HCC interactions, HCC severity, recent	The model reduced total episode payments, institutional post-acute care (PAC) payments, discharges to institutional PAC settings, and the number of SNF days among patients who received SNF care relative to the comparison group.[ix]

[ix] https://www.cms.gov/priorities/innovation/data-and-reports/2024/bpci-adv-ar5

Model Name	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components	Lessons Learned
			resource use, demographics, long-term institutional care, dementia, Medicare Severity (MS)-DRGS/Ambulatory Payment Classifications (APCs), clinical episode category-specific adjustments, and COVID-19 infection rate. **Benchmarking:** Prospective; based on historical expenditures, patient characteristics, and characteristics and trends of the hospital's peer group for the episode; rebased annually and updated to reflect changes in Medicare FFS payment rates	
Enhancing Oncology Model (EOM) *Ongoing* Years active: 2022-present	**Clinical Focus:** Oncology **Providers:** Oncologists **Setting:** Oncology practices **Patient Population:** Medicare beneficiaries with cancer	**Overall Model Design Features:** EOM participants coordinate care for cancer patients across all their providers and services needed, including health-related social needs and psychosocial health needs. **Approaches to Improve Specialty Integration:** Participants are incentivized to provide additional/enhanced services via Monthly Enhanced Oncology Services (MEOS) payments; additionally, each patient receives a detailed care plan, specifying engagement and preferences surrounding prognosis, treatment options, symptom management, quality of life, and psychosocial health needs. **Provision of Specialist Consultations:** Yes **Approaches to Address Health Equity:** EOM requires health equity plans, risk adjustments by dual-eligible status and	**Financial Methodology:** Participants are responsible for total cost of care for six-month episodes; based on total episode costs and quality performance, participants will earn a performance-based payment (PBP) or owe a performance-based recoupment (PBR). Participants also have the option to bill an MEOS payment per beneficiary per month during six-month episodes for the provision of Enhanced Services. Additional MEOS payments for dually eligible beneficiaries may also be provided to participants. **How Payment is Adjusted for Performance:** Participants receive an Aggregate Quality Score (AQS) based on their quality performance. PBP and PBR amounts are adjusted based on participants' AQS scores. **Performance Measures Related to Improving Coordination:** Yes; Admissions and Emergency Department Visits for Patients Receiving Outpatient Chemotherapy, Proportion of Patients who Died who Were Admitted to Hospice for 3 Days or More, and Percentage of Patients who Died from Cancer Receiving Chemotherapy in the Last 14 Days of Life **Attribution:** Based on first qualifying E&M service after chemotherapy initiation if that practice provides at least 25 percent of cancer-related E&M services during the episode OR the majority of E&M visits	EOM builds on lessons learned from the Oncology Care Model (OCM). The EOM Model performance period began in July 2023. Model evaluations have not been completed yet.

Model Name	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components	Lessons Learned
		Low-Income Subsidy eligibility, and collection and reporting of beneficiary sociodemographic data. Further, participants are provided dashboards displaying metrics stratified by sociodemographic data in order to identify applicable health disparities.	**Risk Stratification or Adjustment:** Cost benchmarks/target amounts are adjusted based on cancer type, dual-eligible status, and Low-Income Subsidy eligibility. **Benchmarking:** Based on predicted episode amounts from trended forward baseline expenditures	
Making Care Primary (MCP) Model *Ongoing* Years active: Launched in July 2024	**Clinical Focus:** Primary care **Providers:** PCPs **Setting:** Primary care practices **Patient Population:** All Medicare beneficiaries in participating regions	**Overall Model Design Features:** MCP provides participants with three options that build upon past primary care models (Comprehensive Primary Care [CPC], CPC+, and Primary Care First [PCF]) to take on prospective, population-based payments; build infrastructure to integrate specialty care and behavioral health; and improve access to care. **Approaches to Improve Specialty Integration:** CMS provides Upfront Infrastructure Payments (UIPs) for participants to build infrastructure needed to integrate specialty care, such as partnering with specialists and social service providers and implementing care management services. **Provision of Specialist Consultations:** Yes **Approaches to Address Health Equity:** MCP requires health equity plans, payment adjustments, and implementation of HRSN screening and	**Financial Methodology:** Varies depending on the three options, or tracks: Track 1) FFS; however, participants may earn financial rewards for improving patient outcomes; Track 2) 50% FFS and 50% prospective, population-based payments; and Track 3) 100% prospective, population-based payments. **How Payment is Adjusted for Performance:** Participants may receive a Performance Incentive Payment (PIP) (upside-only risk), determined by their performance on quality measures. PIPs are calculated as a percentage of the sum of the participants' FFS and prospective primary care payment revenue; percentages are determined based on performance on quality measures and track: Track 1 may receive PIP percentage bonus of up to 3%; Track 2, up to 45%; and Track 3, up to 60%. **Performance Measures Related to Improving Coordination:** Yes; Emergency Department Utilization Continuous Improvement, and Person-Centered Primary Care Measure **Attribution:** Voluntary; Prospective, claims-based **Risk Stratification or Adjustment:** Some performance measures used for MCP are risk-adjusted; however, the model does not employ additional adjustments.	Model evaluations have not been completed yet.

Model Name	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components	Lessons Learned
		referrals. Additionally, participants can reduce cost-sharing for certain patients, as applicable.	**Benchmarking:** Continuous Improvement Measures assess performance against participants' own historical performance. Other measures use regional or national benchmarks.	
Maryland Total Cost of Care (TCOC) Model *Ongoing* Years active: 2019-present	**Clinical Focus:** Hospital and primary care **Providers:** Hospitals and PCPs **Setting:** Hospitals and primary care practices **Patient Population:** All Medicare beneficiaries in Maryland	**Overall Model Design Features:** The Maryland TCOC Model expands on the Maryland All-Payer Model by providing incentives for providers to coordinate care and holding the state accountable for a sustainable growth rate in per capita TCOC spending. It includes three programs: 1) Hospital Payment Program 2) Care Redesign Program; and 3) Maryland Primary Care Program. **Approaches to Improve Specialty Integration:** Implementation of care coordination plans and patient-centered care teams **Provision of Specialist Consultations:** Not specified **Approaches to Address Health Equity:** Little information is available on how the program addresses health equity; however, payment incentives could improve care management.	**Financial Methodology:** Payments differ among the three programs: 1) Hospital Payment Program - each hospital receives population-based payment amount for all hospital services; 2) Care Redesign Program - hospitals may make incentive payments to non-hospital providers who perform care redesign activities for the hospital; hospitals may give incentive payments only if they have achieved savings under its fixed global budget; and 3) Maryland Primary Care Program - participating primary care practices receive an additional per beneficiary per month payment for care management services. **How Payment is Adjusted for Performance:** Hospitals receive additional payments for meeting quality metrics (as long as the cost across all settings for 90 days after discharge falls below the benchmark). **Performance Measures Related to Improving Coordination:** Yes; All-Cause Admissions, Preventable Admissions, 30-day Unplanned Readmissions, Timely Follow-up After Acute Exacerbation **Attribution:** The Primary Care Program attributes patients based on primary care visits to participating practices. The Hospital Payment Program and Care Redesign Program do not attribute patients. **Risk Stratification or Adjustment:** For the Primary Care Program, care management fees are adjusted based on beneficiary risk tiers assessed using HCC.	Research shows a reduction in hospital readmissions from 1.22% above the national average to 0.19 percentage points below the national average. The model also saw a 53% reduction in the rate of hospital acquired conditions across all payers.[272] The model allowed Maryland to retain its rate-setting authority for Medicare expenditure despite shifting 80% of hospital revenue into a facility-based global budget payment model.

Model Name	Clinical Focus, Providers, Setting, Patient Population	Value-Based Care Components	Technical Components	Lessons Learned
			Benchmarking: Based on actual Medicare spending in Maryland trended forward at the national Medicare spending growth rates	

Appendix E. Areas for Future Exploration and Research

Please note that the items listed below may be better addressed through the Request for Input (RFI), SME discussions or listening sessions, roundtable panel discussions, or another research approach. They are captured here for further exploration.

- Identifying characteristics of beneficiaries and providers who are not currently participating in an ACO or an accountable care relationship
- Understanding how APMs should be designed to advance health equity
- Gaining various stakeholder perspectives (e.g., ACOs, small/rural practices, primary care providers, specialty care providers, beneficiaries) on the key steps or milestones needed to achieve the 2030 goal of having all beneficiaries in care relationships with accountability for quality, outcomes, and TCOC
- Exploring necessary components of CMMI models or CMS programs for success
- Developing multiple pathways for different types of PB-TCOC organizations to achieve the 2030 goal
- Integrating specialty care into PB-TCOC models (e.g., through bundles or nested models)
- Exploring mandatory versus voluntary requirements or other alternatives for participation in PB-TCOC models
- Structuring payment models based on the types of organizations (e.g., integrated delivery system versus independent physician-led)
- Balancing organizational versus provider-level measures
- Effectively integrating PROMs into current technologies to promote increased adoption
- Exploring best practices for establishing benchmarks and appropriate risk adjustment methods in PB-TCOC models
- Developing approaches to close the gap between existing data source needs for PB-TCOC models and current infrastructure
- Ensuring data interoperability across programs, models, and/or settings

Appendix F. Annotated Bibliography

Forthcoming

Appendix G. References

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