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Overview of Current Performance Measures Included in Selected Medicare Payment Programs

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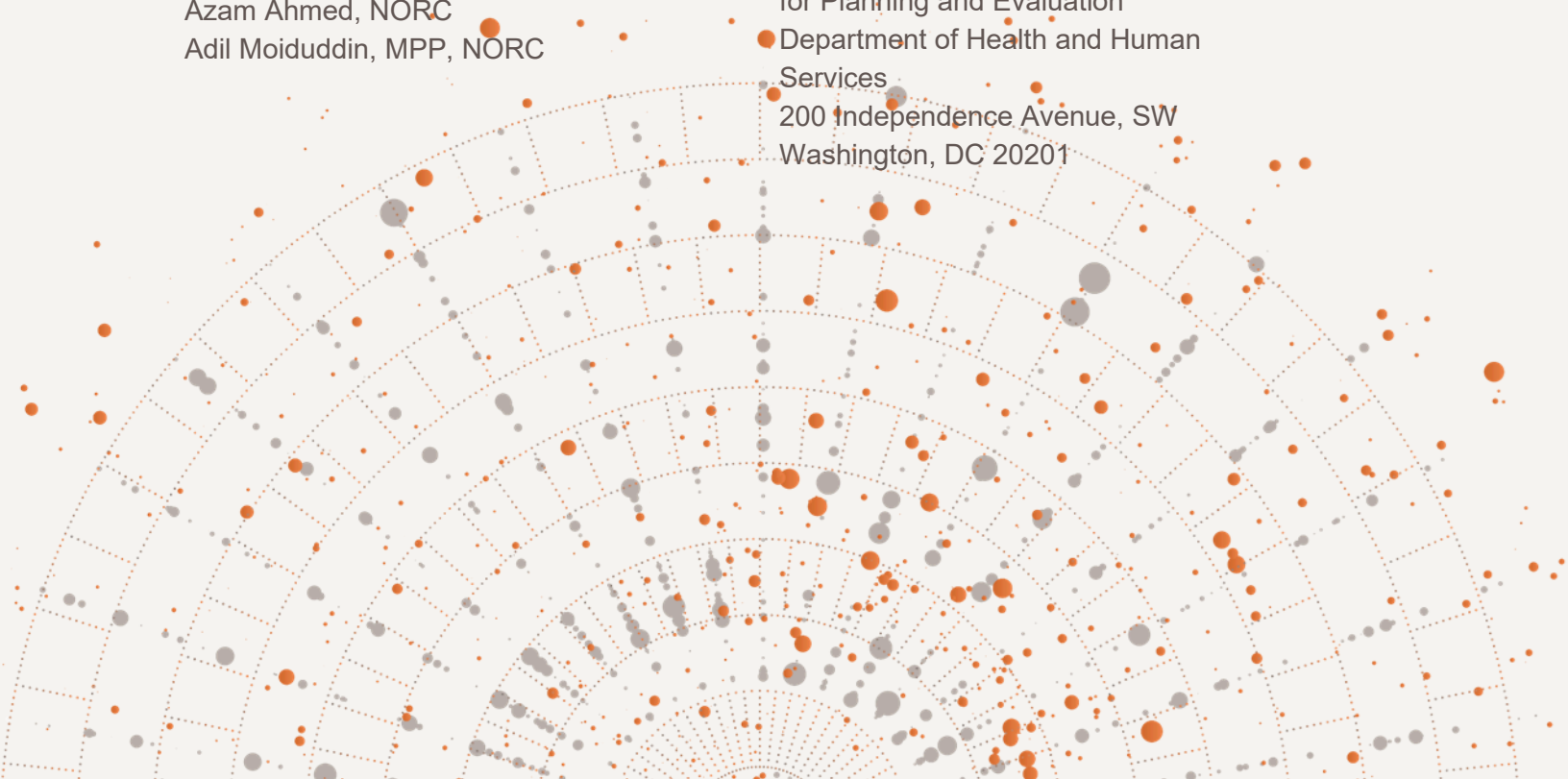

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Overview of Current Performance Measures Included in Selected Medicare Payment Programs

The Physician-Focused Payment Model Technical Advisory Committee (PTAC) conducted a theme-based discussion on developing and implementing performance measures for population-based total cost of care models during the Committee's March 25-26, 2024, public meeting. Prior to the March 2024 public meeting, the Office of the Assistant Secretary for Planning and Evaluation (ASPE) requested an analysis on the "Overview of Current Performance Measures Included in Selected Medicare Payment Programs" to provide an overview of the number and characteristics of the performance measures that are currently being used in **31** selected Centers for Medicare & Medicaid Services (CMS) Medicare payment programs and Center for Medicare and Medicaid Innovation (CMMI) models This analysis was prepared under Contract Number HHSP233201500048I75P00123F37023 between the Department of Health and Human Services' Office of Health Policy of the ASPE and NORC at the University of Chicago. The opinions and views expressed in this analysis are those of the authors. They do not reflect the views of the Department of Health and Human Services, the contractor, or any other funding organizations. This analysis was completed in March 2024.

Executive Summary

Introduction

This report 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 developing and implementing performance measures for population-based total cost of care (PB-TCOC) models.

This report provides an overview of the number and characteristics of the performance measures that are currently being used in **31** selected Centers for Medicare & Medicaid Services (CMS) Medicare payment programs and Center for Medicare and Medicaid Innovation (CMMI) models.

Methods

Analyses and Data Sources

Three types of analyses were conducted using the following data sources: 1) a high-level analysis of performance measure data for 24 selected programs/models using the CMS Measures Inventory Tool (CMIT); 2) information on how performance is linked with payment using information from CMS program and CMMI Innovation Models websites for 18 selected programs/models; and 3) an assessment of potential gaps in current performance measures using publicly available evaluation reports for 18 selected programs/models.

Program Selection

A total of 31 Medicare models and programs were selected for these analyses, including: 17 Medicare payment programs (nine CMS value-based care programs and eight CMS pay-for-reporting programs), and 14 CMMI models. The CMS programs **(17)** were selected to ensure the inclusion of a variety of Medicare performance reporting programs (e.g., pay-for-performance, pay-for-reporting, quality reporting, and other approaches). The CMMI models **(14)** were selected based on the following criteria: 1) the model must have been active in the last five years; 2) the model must include at least one quality measure and at least one utilization or spending measure in implementation and/or monitoring; and 3) the model must be or have been operational in more than one state.

Results

Analysis 1: Performance Measure-Level Analysis Using CMIT Data

Total Current Performance Measures

There are 618 active, in-development, pending, or suspended performance measures (hereinafter referred to as "current performance measures" or "performance measures") in the CMIT for the 24 selected programs and models included in this analysis. The Merit-based Incentive Payment System (MIPS) Program included the most performance measures among the 24 programs/models with 309 performance measures (50% of the 618 measures).[1]

The number of measures included in the other 23 programs/models ranged from 3-33. The Medicare Advantage (MA) Star Ratings Program included the second most performance measures with 33 performance measures (5% of the 618 measures).

Distinct Performance Measures

Of the 618 current performance measures used by the 24 selected Medicare programs/ models, there are 455 "distinct" or unduplicated measures.[2] This includes 375 measures that are only used by one program/model (61% of the 618 current performance measures). The most common current performance measure is COVID-19 Vaccination Coverage Among Healthcare Personnel (measure ID: 180) which is used by eight of the 24 programs/models in this analysis (33%).

Additionally, there are 163 measures (26%) that are used by more than one program. These 163 measures may use different numerators, denominators, or denominator exclusions.

Distinct Measures Focused on Similar Aspects of Care

In addition to measures that are repeated across programs, some programs/models include performance measures that are distinct, but similar to other measures. The top three performance measure groupings for measures focused on similar aspects of care across the 455 distinct measures for the 24 programs/models are 1) screening measures (31 measures, 6.8% of the distinct measures); 2) therapy-related measures for certain chronic conditions (29 measures, 6.4%); and 3) medication-related measures (21 measures; 4.6%).

[1] Participants in MIPS choose at least six quality measures (one must be an outcome measure) from the full list of measures, and CMS calculates and scores each participant on four administrative claims measures. Participants are not scored on all measures.

[2] The number of distinct measures represents the number of current performance measures with distinct names (i.e., if each measure name is counted one time).

Types of Performance Measures

The CMIT includes seven types of performance measures: process, outcome, intermediate outcome, patient-reported, cost/resource use, structure, and composite measures. Of the 618 performance measures included across the 24 programs/models, more than half of the performance measures (323 measures or 52%) were process measures. Outcome measures were the second most common measure type (26%, n=163).

Sources of Performance Measures

The CMIT includes eight performance measure data sources: registries, claims data, electronic clinical data (non-EHR), electronic health records (EHRs), paper medical records, standardized patient assessments, administrative data (non-claims), and patient-reported data and surveys. Of the 618 performance measures included among the 24 programs/models, data sources were spread across the eight different sources. Registry data are the most common performance measure data source used among the 24 models/programs accounting for 24% of measures (n=229).

About half (54%) of the 618 existing performance measures are from electronic sources, including claims data (21%, n=202), EHR data (16%, n=150), and non-EHR electronic clinical data (17%, n=161), Meanwhile, 246 of the 618 measures (40%) use multiple data sources for a given performance measure.

Measure Reporting Level

Of the 618 performance measures included among the 24 programs/models, 31% (n=191) of the measures are reported at the facility, hospital, or agency level; 28% (n=176) are reported at the clinician group practice level. About 28% (n=173) of performance measures do not specify level of reporting.

Performance Measure Endorsement Status

The CMIT includes information on whether the performance measure is endorsed by the CMS Consensus-Based Entity (CBE)[3]. About 34% (n=209) of performance measures are endorsed, 59% (n=366) of measures are not endorsed, and endorsement has been removed for 7% (n=42). Twenty-three of the programs/models have at least one endorsed measure; the MA Star Ratings is the only program without any endorsed measures. For two programs – Hospital Acquired Condition (HAC) Reduction Program and Hospital Readmission Reduction Program (HRRP) – all of the active performance measures are endorsed (six measures each).

[3] The CMS consensus-based entity provides endorsement and maintenance of healthcare performance measures that are used throughout CMS programs, recommendations during CMS' pre-rulemaking consideration of measures, and input on integrated national strategies for performance measurement across payers.

Whether Performance Measures are Tied to Payment

The 24 selected programs/models were categorized as pay-for-performance, pay-for-reporting, or not related to payment based on information from the CMS program and CMMI Innovation Models websites. Fifteen of the 24 programs/models (63%) were characterized as pay-for-performance, defined as programs/models that are focused on providing payment to providers based on outcomes of patients; providing better outcomes results in higher payments. Eight of the 24 programs/models (33%) were characterized as pay-for-reporting, defined as programs/models that are required to report quality measure data to CMS and result in a decrease to Medicare payments for nonperformance. One of the selected programs (4%), the Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting (CHQR), does not currently tie performance measures to payment.

We also examined the distribution of the 618 performance measures based on how the 24 programs/models are linked with payment. Seventy-seven percent (n=476) of the measures correspond with the 15 pay-for-performance programs/models (50% [n=309] are MIPS performance measures, while the remaining 27% [n=167] correspond to the other 14 pay-for-performance programs/models). Twenty percent (n=126) of the measures correspond with the eight pay-for-reporting programs, and three percent of the measures correspond with the one program (PPS-Exempt CHQR) that is not linked with payment.

Analysis 2: How Performance Measures are Tied to Payment

This second analysis focuses on 18 selected programs/models (14 CMMI models and four CMS value-based payment programs) where information on whether and how performance measures are tied to payment was obtained by reviewing CMS program and CMMI Innovation Models websites. All 18 of these models and programs adjust payment based on performance. Thirteen (72%) of the models and programs employ both upside and downside risk for participants. The Making Care Primary (MCP) Model, Independence-at-Home (IAH) Demonstration, Comprehensive Primary Care Plus (CPC+) Model, Oncology Care Model (OCM), and Medicare Advantage (MA) Star Ratings Program employ upside risk only.

A detailed review of the BPCI-A model was performed to provide an example of how performance measures are tied to payment. Participants in the BPCI-A model have the option of selecting either the Administrative Quality Measure (QM) set, or the Alternative QM set for a given clinical episode category. Reconciliation is based on comparing actual Medicare FFS expenditures for all items and services included in a clinical episode with the final total price for that episode. At reconciliation, CMS determines whether participants receive a payment or are required to pay a repayment amount.

Participants receive a Composite Quality Score (CQS) based on the applicable quality measures for the clinical episode. CMS uses the CQS to apply an adjustment amount of up to 10% for the total reconciliation amounts.

Analysis 3: Potential Gaps in Current Performance Measures

This third analysis also focuses on the 18 selected programs/models (14 CMMI models and four CMS value-based payment programs) that adjust payment based on performance. Information on potential gaps in current performance measures was obtained by reviewing publicly available evaluation reports. In the evaluations of the programs and models, various performance measure gaps have been identified. Concerns that have been identified range from the need to have increased financial incentives linked to performance measures to challenges related to the lack of specificity in certain measures. Additionally, few CMMI models incorporated guardrails to prevent unintended consequences, such as worsening disparities.

Introduction

This report 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 developing and implementing performance measures for population-based total cost of care (PB-TCOC) models. Key findings from this report will be included in an environmental scan being prepared for this theme-based discussion.

This report provides an overview of the number and characteristics of performance measures currently used by **31** selected Centers for Medicare & Medicaid Services (CMS) Medicare payment programs (including 9 CMS value-based care programs and 8 CMS pay-for-reporting programs), and 14 Center for Medicare and Medicaid Innovation (CMMI) models based on the results of three types of analyses (**see Exhibit 1**).[4] Of the 31 selected programs/models, 24 are included in an analysis of data from the CMS Measures Inventory Tool (CMIT) and seven models are not part of the CMIT (details on program/model selection are provided below).

Exhibit 1. Programs and Models Included in the Three Types of Analyses

Program / Model Name	Type of Analysis Conducted		
	CMS Measures Inventory Tool (CMIT) Analysis	Information on How Payment Is Linked with Performance	Assessment of Potential Gaps in Current Performance Measures
TOTAL NUMBER OF SELECTED PROGRAMS / MODELS (31)	**24**	**18**	**18**
CMS PROGRAMS (17)	**17**	**4**	**4**
• Ambulatory Surgical Center (ASC) Quality Reporting Program (QRP)	✓		
• End-Stage Renal Disease (ESRD) Quality Incentive Program (QIP)	✓		
• Home Health Quality Reporting (QR)	✓		

[4] CMMI models are pilot programs that test new payment and service delivery methods in accordance with the requirements of section 1115A of the Social Security Act (https://www.cms.gov/priorities/innovation/models#views=models). CMMI models may go through several iterations and transitions to new or expanded models before formal implementation. CMS programs are already implemented programs that are part of the Medicare fee-for-service payment policy.

Program / Model Name	Type of Analysis Conducted		
	CMS Measures Inventory Tool (CMIT) Analysis	Information on How Payment Is Linked with Performance	Assessment of Potential Gaps in Current Performance Measures
• Hospice Quality Reporting Program (HQRP)	✓		
• Hospital Acquired Condition (HAC) Reduction Program	✓		
• Hospital Outpatient Quality Reporting (OQR) Program	✓		
• Hospital Readmission Reduction Program (HRRP)	✓		
• Hospital Value-Based Purchasing (VBP)	✓	✓	✓
• Inpatient Psychiatric Facility (IPF) Quality Reporting Program (QRP)	✓		
• Inpatient Rehabilitation Facility (IRF) Quality Reporting Program (QRP)	✓		
• Long-Term Care Hospital (LTCH) Quality Reporting Program (QRP)	✓		
• Medicare Advantage (MA) Star Ratings Program	✓	✓	✓
• Medicare Shared Savings Program (MSSP)	✓	✓	✓
• Merit-based Incentive Payment System (MIPS) Program	✓	✓	✓
• Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting (CHQR) Program	✓		
• Skilled Nursing Facility (SNF) Quality Reporting Program (QRP)	✓		
• Skilled Nursing Facility (SNF) Value-Based Purchasing (VBP)	✓		

Program / Model Name	Type of Analysis Conducted		
	CMS Measures Inventory Tool (CMIT) Analysis	Information on How Payment Is Linked with Performance	Assessment of Potential Gaps in Current Performance Measures
CMS CENTER FOR MEDICARE AND MEDICAID INNOVATION (CMMI) MODELS (14)	**7**	**14**	**14**
• Accountable Care Organization (ACO) Realizing Equity, Access, and Community Health (REACH) Model	✓	✓	✓
• Bundled Payment for Care Improvement Advanced (BPCI-A) Model	✓	✓	✓
• Comprehensive ESRD Care (CEC) Model		✓	✓
• Comprehensive Primary Care Plus (CPC+) Model		✓	✓
• Enhancing Oncology Model (EOM)		✓	✓
• ESRD Treatment Choices (ETC) Model		✓	✓
• Expanded Home Health Value-Based Purchasing (HHVBP) Model		✓	✓
• Home Health Value-Based Purchasing (HHVBP) (original)	✓	✓	✓
• Independence at Home (IAH) Demonstration	✓	✓	✓
• Kidney Care Choices (KCC) Model	✓	✓	✓
• Making Care Primary (MCP) Model		✓	✓
• Next Generation ACO (NGACO) Model		✓	✓
• Oncology Care Model (OCM)	✓	✓	✓
• Primary Care First (PCF) Model	✓	✓	✓

Methods

Analyses and Data Sources

Three types of analyses were conducted using the following data sources:

1) Performance measure-level analysis for 24 selected programs/models using data from the CMS Measures Inventory Tool (CMIT). This analysis provides the following descriptive information about the performance measures included in these programs/models:

- Total performance measures
- Distinct performance measures
- Measures focused on similar aspects of care
- Types of performance measures
- Sources of performance measures
- Measure reporting level
- Performance measure endorsement status
- Whether performance measures are tied to payment[5]

The CMIT is a repository of performance measure information that includes 46 CMS value-based care programs, CMS pay-for-reporting programs, or CMMI models (as of October 2023 when CMIT data were pulled for this analysis). For each measure, the CMIT includes program/model name, measure name, measure definition, measure type, and measure source.[6] Information from the CMIT was available for 24 of the 31 selected programs/models; seven models are not part of the CMIT.[7] The supplemental Excel file (2023 Performance Measure Data for 24 CMS Models and Programs) contains three tabs. The first tab provides a description of the data included in the second tab of the supplemental Excel file. The second tab provides performance measure-level data obtained for the 24 programs/models pulled from the CMIT or from CMS/CMMI websites; the third tab provides a data dictionary that includes the column name, data sources, column name from the CMIT, definition, and whether the column is a CMIT required field. See Appendix B for additional information on the 2023 Performance Measure Data for 24 CMS Models and Programs supplemental Excel file.

[5] The CMIT variable related to identifying if performance on a given measure is tied to payment for the applicable program/model is not a required field, and CMIT does not specify if performance is tied to payment for 60% (n=373) of the 618 performance measures identified in this analysis. This is a limitation of CMIT. Therefore the 24 selected programs/models were categorized as pay-for-performance, pay-for-reporting, or not related to payment based on information from the CMS website or the CMMI Innovation Models webpage.

[6] Centers for Medicare and Medicaid Services Measures Inventory Tool, https://cmit.cms.gov/cmit/#/MeasureInventory

[7] The seven models not included in the CMIT are the Comprehensive End Stage Renal Disease (ESRD) Care (CEC) Model, Comprehensive Primary Care Plus (CPC+) Model, Enhancing Oncology Model (EOM), ESRD Treatment Choices (ETC) Model, Expanded Home Health Value-Based Purchasing (HHVBP) Model, Making Care Primary (MCP) Model, and the Next Generation Accountable Care Organization (NGACO) Model.

2) The second analysis focuses on assessing whether and how performance measures are linked with payment using information obtained from CMS program and CMMI Innovation Models websites. The report includes tables for the 14 selected CMMI models and four CMS value-based payment programs (out of the 17 programs referenced in Exhibit 1) that describe how performance measures are linked with payment.

3) The third analysis provides information on potential gaps in current performance measures using information obtained from publicly available evaluation reports for the 14 CMMI models and four programs.

Appendix C and Appendix D provide detailed payment information and potential gaps in current performance measures, as applicable, for the 18 programs/models (compiled in October 2023).

See Appendix E for a complete list of the 31 programs/models included in this analysis.

Program Selection

A total of 31 models and programs were selected for these analyses: 17 CMS Medicare value-based care programs (including 9 CMS value-based care programs and 8 CMS pay-for-reporting programs) and 14 CMMI models. The CMS programs **(17)** were selected to ensure a variety of Medicare performance reporting programs (e.g., pay-for-performance, pay-for-reporting, quality reporting, and other approaches). The CMMI models **(14)** were selected based on the following criteria: 1) the model must have been active in the last five years; 2) the model must include at least one quality measure and at least one utilization or spending measure in implementation and/or monitoring; and 3) the model must be or have been operational in more than one state. Information on the methods is also included in Appendix A.

Results

Analysis 1: Performance Measure-Level Analysis Using Data from the CMS Measures Inventory Tool (CMIT)

Total Current Performance Measures

The CMIT includes information on performance measures for a total of 46 CMS programs and models. **Exhibit 2** summarizes the total number of performance measures included in CMIT, and the number of performance measures in CMIT for the 24 selected programs/models included in this analysis.

Exhibit 2. Number of Current Performance Measures in the CMIT for Selected Programs/Models

Description	Number of Programs/ Models	Number of Performance Measures		
		Total Number of Current Measures	Number of Active Measures	Number of Measures in Development, Pending, or Suspended
Selected Programs/Models Included in This Analysis	24	618[1]	523	89

Note: All data are as of October 2023, when CMIT data was pulled. Inactive measures, although available in the CMIT, were not included in the analysis, with the exception of the OCM.
The OCM has six measures; because the OCM is not an active model, the six measures are inactive. To include this model in this analysis, NORC included the six inactive measures associated with the OCM.

There are 618 active, in-development, pending, or suspended[8] performance measures[9] (hereinafter referred to as "current performance measures" or "performance measures") in the CMIT for the 24 selected programs and models included in this analysis. Of these 618 measures, 523 (84.6%) are actively being used in CMS programs, and 89 (14.4%) are in development, pending, or suspended. It is important to note that the 618 measures are not all unique as some measures are being used by multiple programs/models (see further discussion below).

Exhibit 3 provides a breakdown of the number of current performance measures by program/model. The Merit-based Incentive Payment System (MIPS) Program includes the most performance measures among the 24 programs/models with 309 performance measures (50%) of the 618 measures.[10] The number of measures included in the other 23 programs/models ranges from 3-33. The Medicare Advantage (MA) Star Ratings Program included the second most performance measures with 33 performance measures (5% of the 618 measures).

Of the seven CMMI models[11] included in the CMIT, the Bundled Payment for Care Improvement Advanced (BPCI-A) Model includes the most performance measures with 29 measures (5% of the 618 measures); the remaining six CMMI models use five to seven performance measures each.

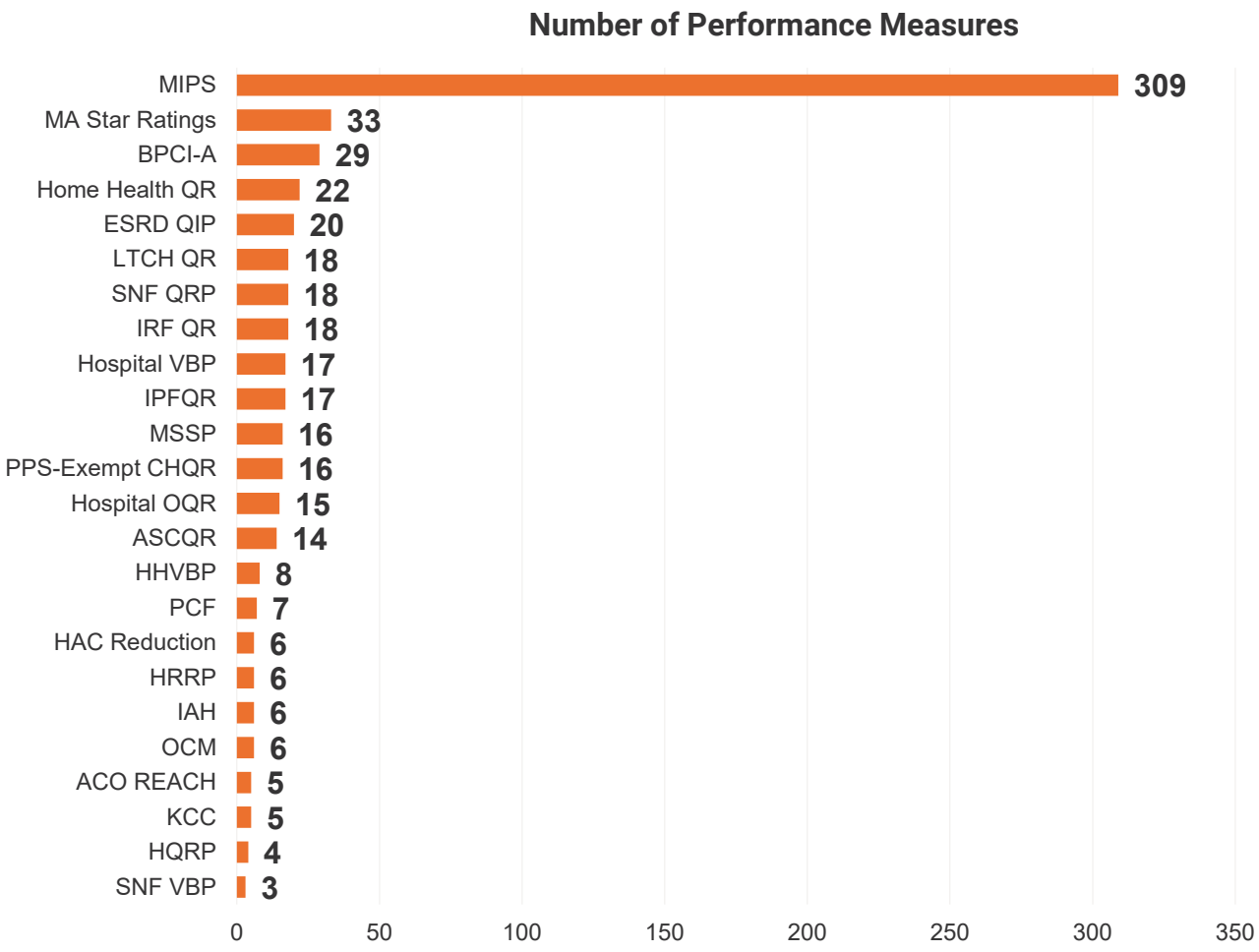
[8] Suspended measures may include measures that were temporarily suspended due to the Public Health Emergency (PHE). One example is the Skilled Nursing Facility (SNF) Value-Based Purchasing (VBP) measure, which uses the 30-day all-cause readmission measure; this measure is currently listed in the CMIT as suspended.

[9] Inactive measures are not included with the exception of the Oncology Care Model (OCM); because this program is not active, all measures were also inactive. To include this model in this analysis, NORC included the six inactive measures tied to the OCM, which are a part of the 618 measures used in this analysis.

[10] Participants in MIPS choose at least six quality measures (one must be an outcome measure) from the full list of measures, and CMS calculates and scores each participant on four administrative claims measures. Participants are not scored on all measures.

[11] The seven models included are the Bundled Payment for Care Improvement Advanced (BPCI-A) Model; Accountable Care Organization (ACO) Realizing Equity, Access, and Community Health (REACH) Model; Home Health Value-Based Purchasing (HHVBP) Model; Independence at Home (IAH) Demonstration; Kidney Care Choices (KCC) Model; Oncology Care Model (OCM); and the Primary Care First (PCF) Model.

Exhibit 3. Number of Current Performance Measures by Program/Model



Note: Current performance measures include active, in-development, pending, and suspended measures listed in the CMIT as of October 2023. Further, the OCM is an inactive model; the six measures associated with the OCM are inactive measures.

Distinct Performance Measures

Most (75%) of the 618 current performance measures in the 24 programs/models included in this analysis are distinct or "unduplicated" measures (n=455).[12] This number includes active measures, as well as measures that are in development, pending, or suspended.

Further, 375 of the performance measures (61% of the 618 total current performance measures) are used for only one program or model.

[12] The number of distinct measures represents the number of current performance measures with distinct names (i.e., if each measure name is counted one time).

Additionally, there are 163 measures (26% of the 618 total current performance measures) that are used by more than one program. These 163 measures may use different numerators, denominators, or denominator exclusions. Exhibit 5 provides two examples of measures that are used by more than one program but are defined in slightly different ways.

Exhibit 4. Two Examples of Measures Where Programs/Models Apply Different Criteria to the Same Measure

Measure	Program/Model	Differences in Measure
Colorectal Screening (Measure ID: 139)	Medicare Advantage (MA) Star Ratings Program; Medicare Shared Savings Program (MSSP); Merit-Based Incentive Payment System (MIPS); Primary Care First (PCF) Model	MIPS uses a denominator that includes patients 50-75 years of age while the three other programs/models use a denominator that includes patients 45-75 years of age.
Controlling Blood Pressure (Measure ID: 167)	MSSP; MIPS; PCF	PCF differs in its denominator exclusion criteria from the other two programs: its denominator excludes pregnant women and does not exclude patients 81 years of age or older with an indication of frailty beyond those with advanced illness.

Exhibit 5 lists the eight[13] performance measures that are most often used across the 24 programs/models. The most common performance measure is COVID-19 Vaccination Coverage Among Healthcare Personnel (measure ID: 180) used by eight different programs (33%). The top eight measures listed in Exhibit 5 include four outcome measures, three process measures, and one cost/resource use measure.

Exhibit 5. Top Eight Performance Measures by Number of Programs/Models

Measure ID	Measure Name	Measure Type	Number of Programs/ Models	Included Programs[14]
180	COVID-19 Vaccination Coverage Among Healthcare Personnel	Process	8	LTCH QRP; PPS-Exempt CHQR; ASCQR; ESRD QIP[1]; Hospital OQR; IPF QR; IRF QR; SNF QRP

[13] Top eight performance measures were chosen because it was a clean break from five to four programs; there were 13 performance measures with four programs each.

[14] See Appendix E for the full names of each program/model.

Measure ID	Measure Name	Measure Type	Number of Programs/ Models	Included Programs[14]
434	Medicare Spending Per Beneficiary (MSPB)	Cost/Resource Use	6	Hospital VBP[2]; IRF QR; MIPS; LTCH QRP; SNF QRP; Home Health QR
210	Discharge to Community-Post Acute Care (PAC)	Outcome	6	Home Health VBP; Home Health QR; IRF QR; LTCH QR; SNF QRP; SNF VBP[3]
462	National Health Safety Network (NHSN) Facility-Wide Inpatient Hospital-Onset Clostridium Difficile Infection (CDI) Outcome Measure	Outcome	5	HAC Reduction; Hospital VBP[4]; IRF QR; LTCH QRP; PPS-Exempt CHQR
459	NHSN Catheter-Associated Urinary Tract Infection (UTI) Outcome Measure	Outcome	5	HAC Reduction; Hospital VBP[5]; IRF QR; LTC QRP; PPS-Exempt CHQR
356	Hospital-Wide All-Cause Unplanned Readmission Measure (HWR)	Outcome	5	IAH Demonstration; ACO REACH; BPCI-A; MSSP; MIPS
727	Transfer of Health Information to the Patient Post-Acute Care (PAC) / Transition Record with Specified Elements Received by Discharged Patients (Discharges from an Inpatient Facility to Home/Self-care or Any Other Site of Care)[6]	Process	5	Home Health QR; LTCH QR; SNF QRP; IRF QR; IPF QR
728	Transfer of Health Information to the Provider PAC / Timely Transmission of Transition Record (Discharges from an Inpatient Facility to Home/Self-care or Any Other Site of Care)[7]	Process	5	Home Health QR; LTCH QR; SNF QRP; IRF QR; IPF QR

Note: All data are as of October 2023, when CMIT data was pulled. Unless otherwise indicated, measures included in this table are active within each program/model.

[1] The COVID-19 Vaccination Coverage Among Healthcare Personnel Measure (measure ID 180) is a pending measure for the ESRD QIP.

[2] The MSPB Measure (measure ID 434) is a suspended measure for the Hospital VBP Program.

[3] The Discharge to Community-PAC Measure (measure ID 210) is a pending measure for the SNF VBP Program.

[4] The NHSN Facility-Wide Inpatient Hospital-Onset CDI Outcome Measure (measure ID 462) is a suspended measure for the Hospital VBP Program.

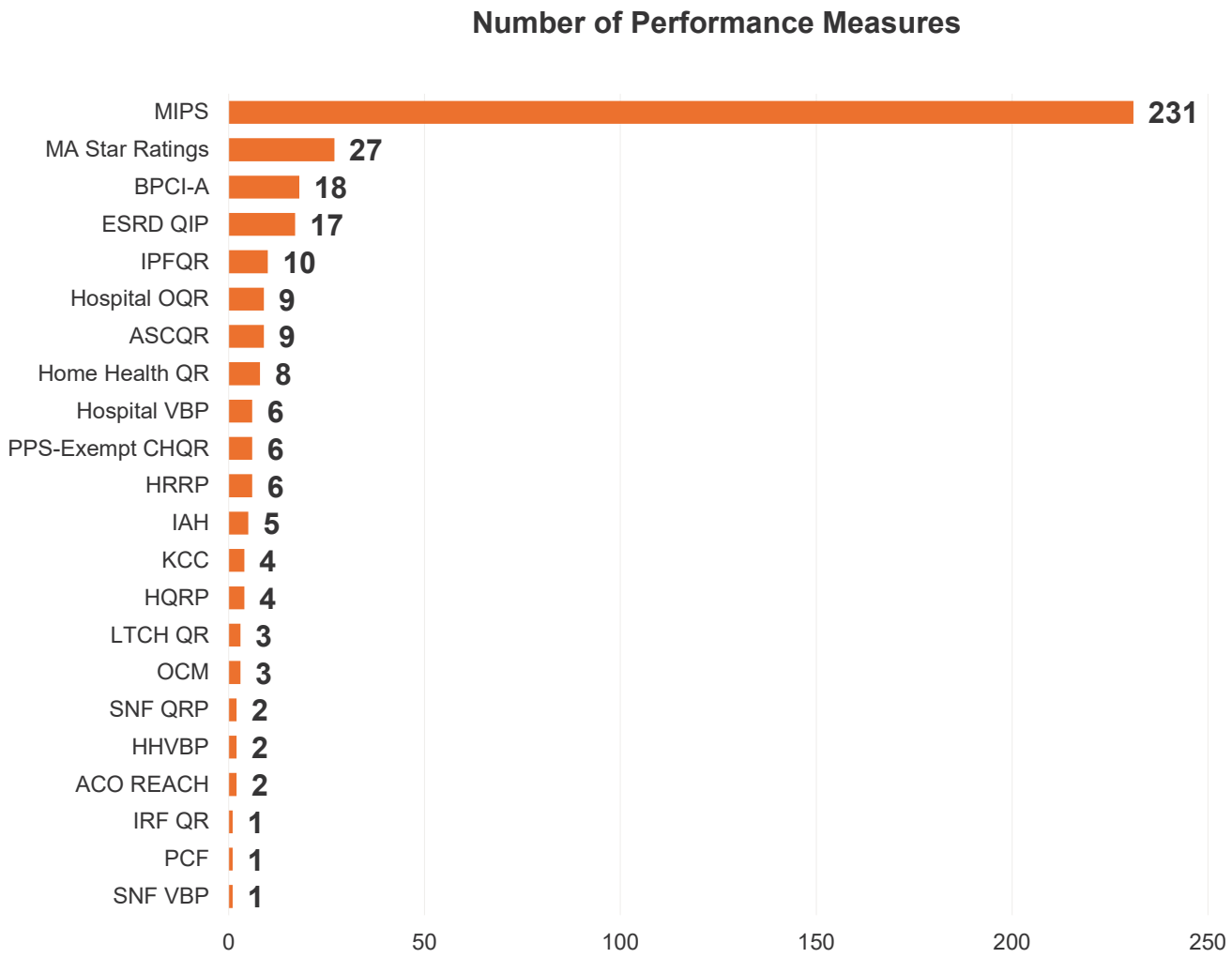
[5] The NHSN Catheter-Associated UTI Outcome Measure (measure ID 459) is a suspended measure for the Hospital VBP Program.

[6] For measure ID 727, the IPF QR Program uses the measure name of Transition Record with Specified Elements Received by Discharged Patients (discharges from an inpatient facility to home/self-care or any other site of care); all other listed programs use the measure name of Transfer of Health Information to the Patient PAC.

[7] For measure ID 728, the IPF QR Program uses the measure name of Timely Transmission of Transition Record (Discharges from an Inpatient Facility to Home/Self-care or Any Other Site of Care); all other listed programs use the measure name of Transfer of Health Information to the Provider PAC.

Of the 618 total measures examined across the 24 programs/models, 375 measures (61%), involving 22 programs, are used by only one program/model. The Measure ID column from the CMIT was used to identify these measures. **Exhibit 6** provides the counts of performance measures used for only one program/model listed by program/model. Of the 375 performance measures used by only one program, 231 measures (62%) are used in only the MIPS Program. Other programs/models range from one to 27 measures that are specific only to that program or model. All except two programs/models (Medicare Shared Savings Program [MSSP] and Hospital Acquired Condition [HAC] Reduction Program) include measures exclusive to their programs/model.

Exhibit 6. Number of Performance Measures Used for Only One Program/Model



Note: Performance measures include active, in-development, pending, and suspended measures listed in the CMIT as of October 2023. Further, the OCM is an inactive model; the six measures associated with the OCM are inactive measures.
Note: Two programs do not have measures exclusive to their programs (MSSP and HACRP).

Measures Focused on Similar Aspects of Care

In addition to measures that are repeated across programs, some programs include performance measures that are distinct, but similar to other measures. **Exhibit 7** provides a summary of distinct measures focused on similar aspects of care. These groupings do not capture all performance measures but offer a look at common measures used among these 24 programs/models.

Exhibit 7. Performance Measure Groupings for Measures Focused on Similar Aspects of Care Across the 24 Programs/Models

Performance Measure Grouping	Number of Performance Measures	Percentage of Performance Measures (Total n=455)
Screening Measures	31	6.8%
Therapy-Related Measures for Certain Chronic Conditions	29	6.4%
Medication-Related Measures	21	4.6%
Measures Related to Number/Rate of Admissions/Visits	20	4.4%
Follow-up-Related Measures after Hospitalizations or ED Visits	15	3.3%
Measures Related to Readmissions	14	3.1%
Surgery-Related Measures	13	2.9%
Immunization-Related Measures	12	2.6%
Pain-Related Measures	11	2.4%
Measures Related to Infections	10	2.2%
Cost of Care Measures	7	1.5%
Measures Related to Mortality Rates	6	1.3%
Measures Related to Care Coordination	4	0.9%

Note: All data are as of October 2023, when CMIT data was pulled.

Types of Performance Measures

This analysis focuses on the 618 total performance measures across the 24 programs/models (not the 455 distinct performance measures) in order to assess performance measures at the program level.

The CMIT includes seven types of performance measures: process, outcome, intermediate outcome, patient-reported, cost/resource use, structure, and composite measures. **Exhibit 8** provides CMS definitions for these seven measure types, as well as examples of each measure type as listed in the CMIT.

Exhibit 8. CMS Definitions of the Seven Performance Measure Types

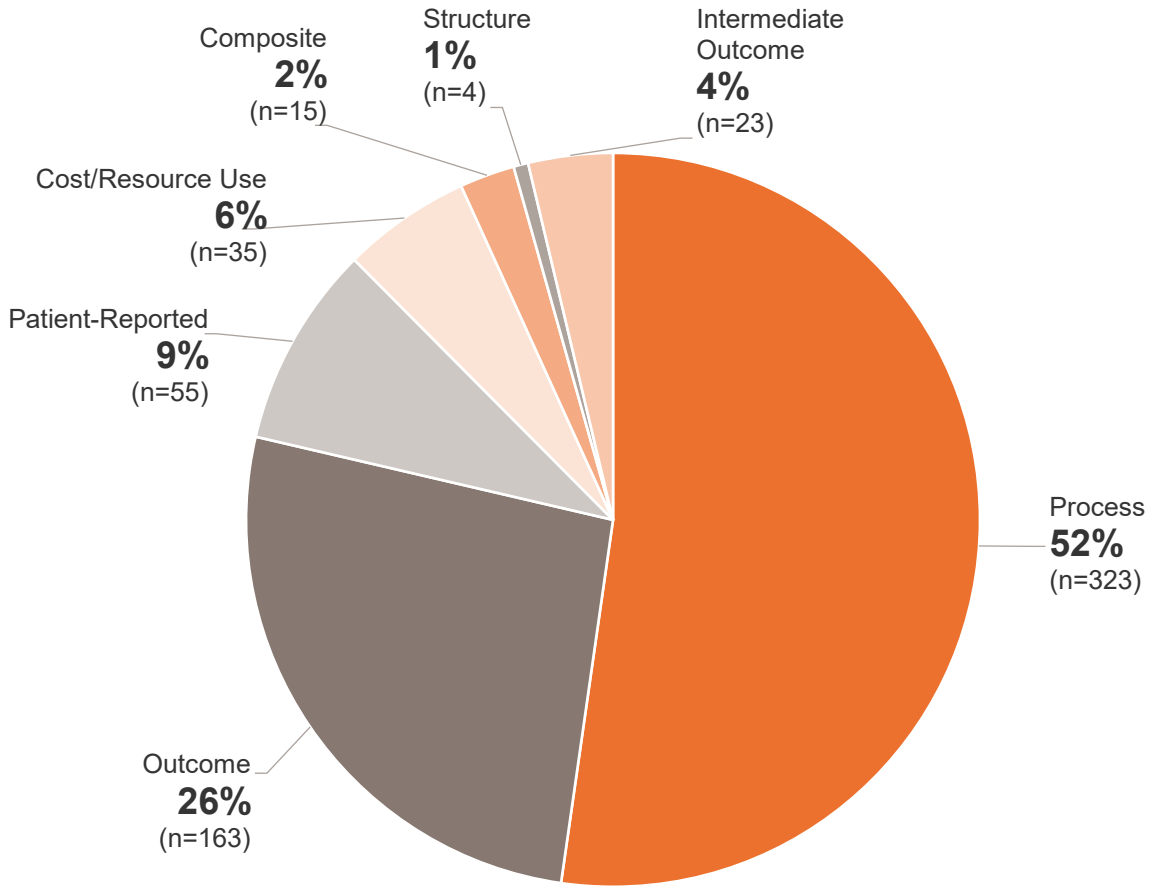
Measure Type	Definition[15]	Examples
Composite Measure	Two or more individual measures that form a single measure and score	Severe Sepsis/Septic Shock: Management Bundle; Patient Safety and Adverse Events Composite; Substance Use Screening and Intervention Composite
Cost/Resource Use Measure	Measures the cost or frequency of health care services provided	Asthma/Chronic Obstructive Pulmonary Disease (COPD) Episode-Based Cost Measure; Medicare Spending per Beneficiary (MSPB); Total Per Capita Cost
Intermediate Outcome Measure	Assesses the change produced by a health care intervention that leads to a long-term outcome	Controlling High Blood Pressure; Diabetes: Hemoglobin A1c (HbA1c) Poor Control (> 9%); Kidney Transplant Referral Rate
Outcome Measure	Focuses on the health status of a patient resulting from health care	Acute Care Hospitalization; Unplanned Readmissions for Cancer Patients; Patient Fall
Patient-Reported Outcome-Based Performance Measure (PRO-PM)	Based on patient-reported outcome measure (PROM) data aggregated for the responsible health care entity	Consumer Assessment of Healthcare Providers and Systems (CAHPS); Functional Status Change for Patients with Hip Impairments; Patient-Reported Overall Physical Health Following Chemotherapy
Process Measure	Focuses on the steps that should be followed to provide good care	Advance Care Plan; Adult Immunization Status; Osteoporosis Management in Women Who Had a Fracture
Structure Measure	Assesses features of a health care organization or clinician related to its ability to provide good health care	Health Screening Rate; Continuity of Care Recall System; Patients Left Without Being Seen

[15] https://mmshub.cms.gov/about-quality/new-to-measures/types

Note: All data are as of October 2023, when CMIT data was pulled.

Exhibit 9 displays the distribution of performance measures by measure type. Of the 618 performance measures included across the 24 programs/models, more than half of the performance measures (323 measures or 52%) were process measures. Outcome measures were the second most common measure type (26%, n=163); patient-reported measures constitute 9% (n=55); and cost/resource use measures are 6% (n=35). Intermediate outcome, composite, and structure measures constitute only 4%, 2%, and 1% of performance measures, respectively.

Exhibit 9. Distribution of Performance Measures by Measure Type for the 24 Programs/Models



Note: Performance measures include active, in-development, pending, and suspended measures listed in the CMIT as of October 2023. Further, the OCM is an inactive model; the six measures associated with the OCM are inactive measures.

Exhibit 10 provides a breakdown of the 618 total performance measures by program/model and measure type. Most of the 24 programs/models use about three to four different performance measure types. The Merit-based Incentive Payment System (MIPS) Program is the only program that uses six measure types (all except composite measures). No program/model uses all seven measure types. Twenty-two programs/models (92%) – all except KCC and Hospice QR – use outcome or intermediate outcome measures. Nineteen programs/models (79%) use process measures; 15 (63%) use at least

one patient-reported outcome measure; five programs/models (21%) use composite measures.[16] Only three programs/models (12%) use structure measures.[17]

Exhibit 10. Distribution of Performance Measures by Program/Model and Measure Type

Program/ Model	Composite	Cost/ Resource Use	Intermediate Outcome	Outcome	Patient-Reported	Process	Structure	Total
Merit-based Incentive Payment System (MIPS) Program	0 (0%)	24 (8%)	8 (3%)	43 (14%)	31 (10%)	201 (65%)	2 (1%)	309
Medicare Advantage (MA) Star Ratings	0 (0%)	0 (0%)	1 (3%)	1 (3%)	7 (21%)	24 (73%)	0 (0%)	33
Bundled Payment for Care Improvement Advanced (BPCI-A)	7 (24%)	0 (0%)	0 (0%)	8 (28%)	1 (3%)	13 (45%)	0 (0%)	29
Home Health Quality Reporting (QR)	0 (0%)	1 (5%)	0 (0%)	12 (54%)	1 (5%)	8 (36%)	0 (0%)	22
End Stage Renal Disease (ESRD) Quality Incentive Program (QIP)	0 (0%)	0 (0%)	6 (30%)	5 (25%)	1 (5%)	7 (35%)	1 (5%)	20
Long-Term Care Hospital (LTCH) QR	0 (0%)	1 (6%)	0 (0%)	9 (50%)	0 (0%)	8 (44%)	0 (0%)	18
Skilled Nursing Facility (SNF) Quality Reporting Program (QRP)	0 (0%)	1 (6%)	0 (0%)	9 (50%)	0 (0%)	8 (44%)	0 (0%)	18

[16] BPCI-A (n=7), IPF QR (n=3), HHVBP (n=2), HQRP (n=2), and HAC Reduction Program (n=1) use composite measures.

[17] MIPS (n=2), ESRD QIP (n=1), and Hospital OQR (n=1) use structure measures.

Program/ Model	Composite	Cost/ Resource Use	Intermediate Outcome	Outcome	Patient-Reported	Process	Structure	Total
Inpatient Rehabilitation Facility (IRF) QR	0 (0%)	1 (6%)	0 (0%)	11 (61%)	0 (0%)	6 (33%)	0 (0%)	18
Hospital Value-Based Purchasing (VBP)	0 (0%)	4 (24%)	0 (0%)	12 (70%)	1 (6%)	0 (0%)	0 (0%)	17
Inpatient Psychiatric Facility (IPF) QR	3 (18%)	0 (0%)	0 (0%)	1 (6%)	0 (0%)	13 (76%)	0 (0%)	17
Medicare Shared Savings Program (MSSP)	0 (0%)	0 (0%)	4 (25%)	3 (19%)	1 (6%)	8 (50%)	0 (0%)	16
Prospective Payment System (PPS)-Exempt Cancer Hospital Quality Reporting (CHQR)	0 (0%)	0 (0%)	2 (13%)	8 (50%)	1 (6%)	5 (31%)	0 (0%)	16
Hospital Outpatient Quality Reporting (OQR)	0 (0%)	0 (0%)	0 (0%)	3 (20%)	2 (13%)	9 (60%)	1 (7%)	15
Ambulatory Surgical Center (ASC) QR	0 (0%)	0 (0%)	0 (0%)	10 (71%)	2 (14%)	2 (14%)	0 (0%)	14
Home Health VBP (HHVBP) (original)	2 (25%)	0 (0%)	0 (0%)	5 (63%)	1 (12%)	0 (0%)	0 (0%)	8
Primary Care First (PCF) Model	0 (0%)	1 (14%)	2 (29%)	1 (14%)	1 (14%)	2 (29%)	0 (0%)	7
Hospital Acquired Condition (HAC)	1 (17%)	0 (0%)	0 (0%)	5 (83%)	0 (0%)	0 (0%)	0 (0%)	6

Program/ Model	Composite	Cost/ Resource Use	Intermediate Outcome	Outcome	Patient-Reported	Process	Structure	Total
Reduction Program								
Hospital Readmission Reduction Program (HRRP)	0 (0%)	0 (0%)	0 (0%)	6 (100%)	0 (0%)	0 (0%)	0 (0%)	6
Independence-at-Home (IAH) Demonstration	0 (0%)	0 (0%)	0 (0%)	3 (50%)	0 (0%)	3 (50%)	0 (0%)	6
Oncology Care Model (OCM)	0 (0%)	0 (0%)	0 (0%)	2 (33%)	1 (17%)	3 (50%)	0 (0%)	6
Accountable Care Organization (ACO) Realizing Equity, Access, and Community Health (REACH) Model	0 (0%)	0 (0%)	0 (0%)	3 (60%)	1 (20%)	1 (20%)	0 (0%)	5
Kidney Care Choices (KCC) Model	0 (0%)	2 (40%)	0 (0%)	0 (0%)	2 (40%)	1 (20%)	0 (0%)	5
Hospice QRP (HQRP)	2 (50%)	0 (0%)	0 (0%)	0 (0%)	1 (25%)	1 (25%)	0 (0%)	4
Skilled Nursing Facility (SNF) VBP	0 (0%)	0 (0%)	0 (0%)	3 (100%)	0 (0%)	0 (0%)	0 (0%)	3
Total	**15 (2%)**	**35 (6%)**	**23 (4%)**	**163 (26%)**	**55 (9%)**	**323 (52%)**	**4 (1%)**	**618**

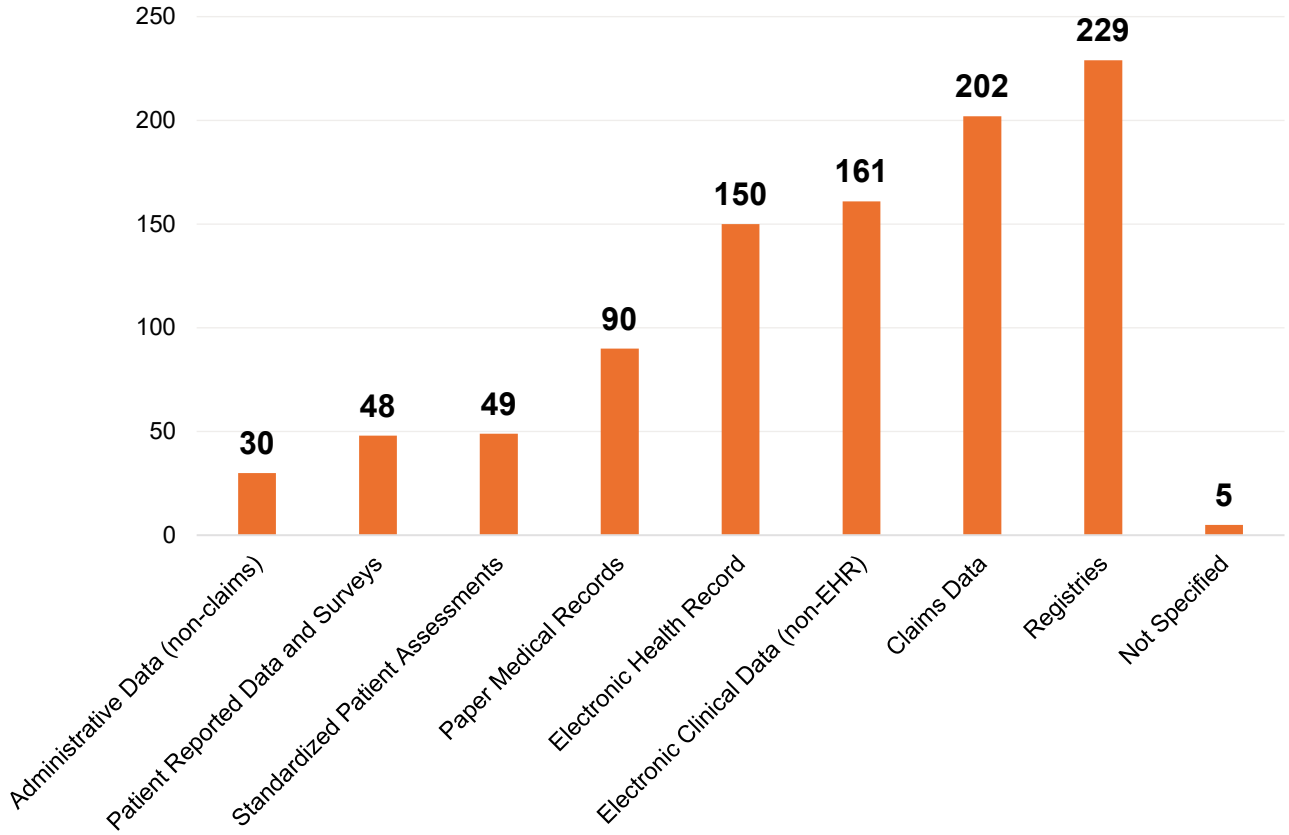
Note: Performance measures include active, in-development, pending, and suspended measures listed in the CMIT as of October 2023. Further, the OCM is an inactive model; the six measures associated with the OCM are inactive measures.

Sources of Performance Measures

The CMIT includes eight performance measure data sources: registries, claims data, electronic clinical data (non-EHR), electronic health records (EHRs), paper medical records, standardized patient assessments, administrative data (non-claims), and patient-reported data and surveys. Of the 618

performance measures included among the 24 programs/models, data sources were spread across the eight different sources. Registry data are the most common performance measure data source used among the 24 models/programs accounting for 24% of measures (n=229). Data sources are not specified in the CMIT for 1% (n=5) of performance measures. **Exhibit 11** provides the distribution of performance measures by data source. There often are multiple data sources used for a given performance measure; accordingly, Exhibit 11 reflects a total n of 964 (as opposed to 618).

Exhibit 11. Distribution of Performance Measures by Data Sources for the 24 Programs/Models

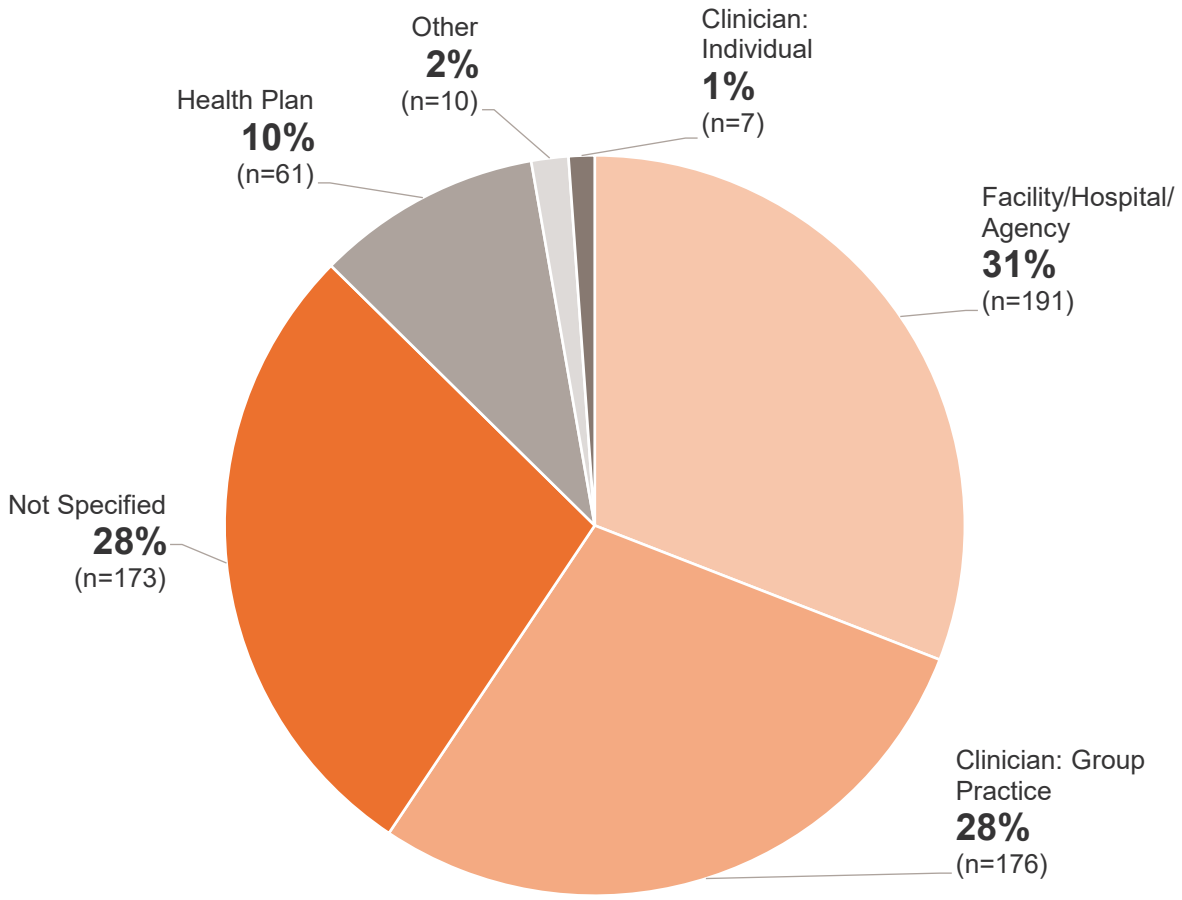


Note: Performance measures include active, in-development, pending, and suspended measures listed in the CMIT as of October 2023. Further, the OCM is an inactive model; the six measures associated with the OCM are inactive measures.

Measure Reporting Level

Of the 618 performance measures included among the 24 programs/models, 31% (n=191) of the measures are reported at the facility, hospital, or agency level; 28% (n=176) are reported at the clinician group practice level. About 28% (n=173) of performance measures do not specify level of reporting. **Exhibit 12** provides the distribution of performance measures by reporting level. Reporting level was created using the column “Level of Analysis” from the CMIT.

Exhibit 12. Distribution of Performance Measures by Reporting Level for the 24 Programs/Models



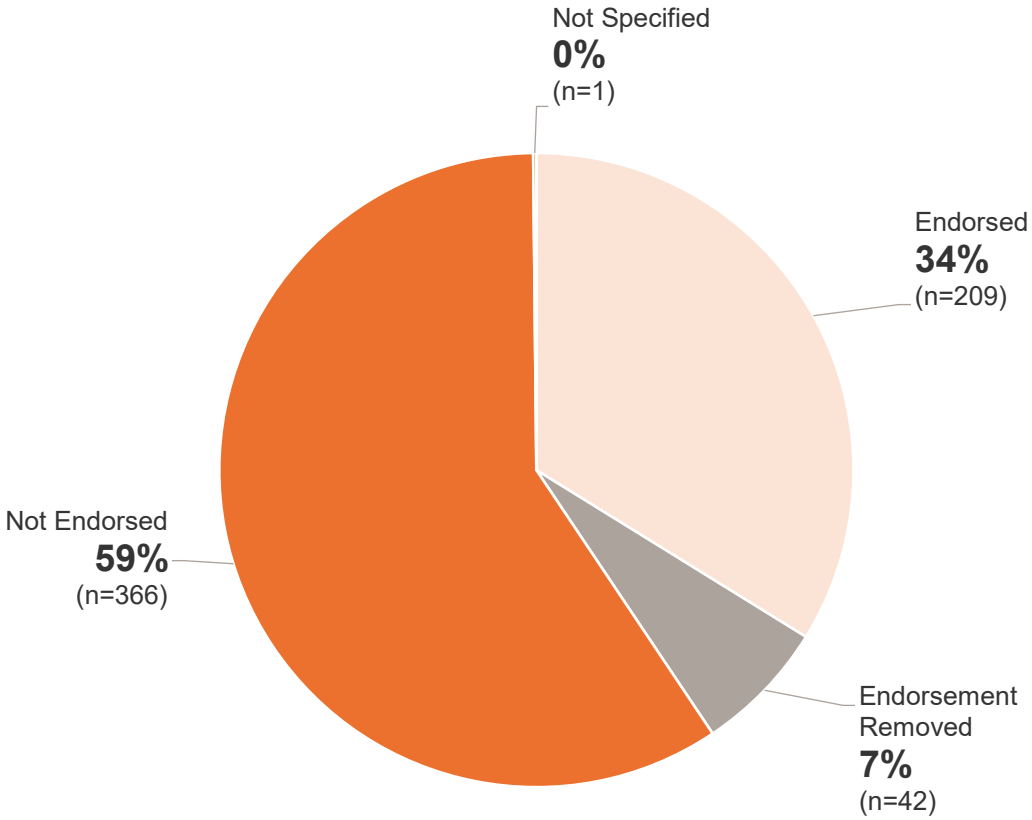
Note: Performance measures include active, in-development, pending, and suspended measures listed in the CMIT as of October 2023. Further, the OCM is an inactive model; the six measures associated with the OCM are inactive measures.

Performance Measure Endorsement Status

The CMIT includes information on whether the performance measure is endorsed by the CMS Consensus-Based Entity (CBE).[18] **Exhibit 13** provides the endorsement status for the 618 performance measures associated with the 24 programs/models. About 34% (n=209) of performance measures are endorsed, 59% (n=366) of measures are not endorsed, and endorsement has been removed for 7% (n=42). Twenty-three programs/models have at least one endorsed measure; the MA Star Ratings is the only program without any endorsed measures. For two programs – Hospital Acquired Condition Reduction Program (HACRP) and Hospital Readmission Reduction Program (HRRP) – all active performance measures are endorsed (six measures each).

[18] Battelle's Partnership for Quality Measurement (PQM) currently serves as the CMS CBE. See https://mmshub.cms.gov/sites/default/files/Blueprint-CMS-CBE-Endorsement-Maintenance.pdf and https://p4qm.org/about for more information on the CMS CBE process.

Exhibit 13. Distribution of Performance Measures by Endorsement Status for 24 Programs/Models



Note: Performance measures include active, in-development, pending, and suspended measures listed in the CMIT as of October 2023. Further, the OCM is an inactive model; the six measures associated with to the OCM are inactive measures.

Whether Performance Measures are Tied to Payment

The 24 programs/models were categorized as pay-for-performance, pay-for-reporting, or not related to payment based on information from the CMS program and CMMI Innovation Models websites.[19] **Exhibit 14** provides the program/model type as it relates to payment for the 24 programs/models. Fifteen programs/models (63%)[20] were characterized as pay-for-performance, defined as programs/models whose focus is on providing payment to providers based on outcomes of patients; providing better outcomes results in higher payments.[21] Eight programs/models (33%)[22] were characterized as pay-for-reporting, defined as programs/models that are required to report quality

[19] https://www.cms.gov/priorities/innovation/models#views=models

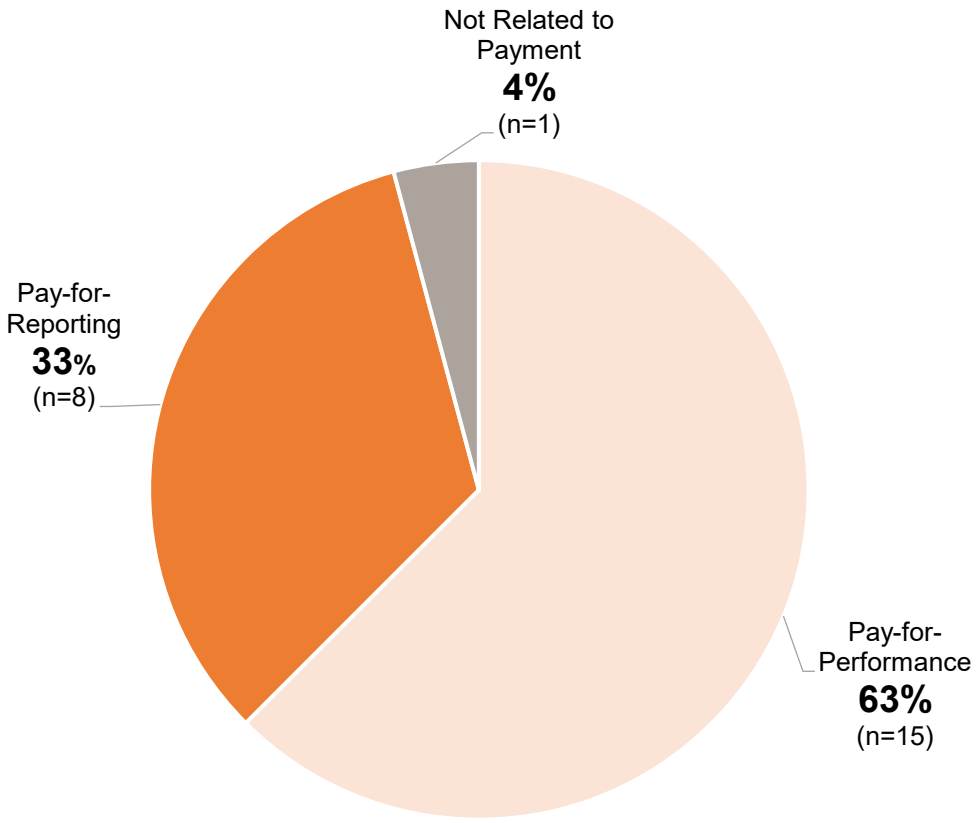
[20] Pay-for-performance programs/models include ACO REACH, BPCI-A, ESRD QIP, HACRP, HHVBP, Hospital VBP, HRRP, IAH Demonstration, KCC Model, MA Star Ratings Program, MIPS, MSSP, OCM, PCF Model, and SNF VBP.

[21] https://www.cms.gov/regulations-and-guidance/guidance/faca/downloads/tab_h.pdf

[22] Pay-for-reporting programs include ASCQR, Home Health QR, Hospital OQR, HQRP, IPFQR, IRFQR, LTCH QR, and SNF QRP.

measure data to CMS and result in a decrease to Medicare payments for nonperformance.[23] One program (4%), the PPS-Exempt CHQR, does not currently tie performance measures to payment.

Exhibit 14. Distribution of the 24 Programs/Models by Relationship to Provider Payment



The 15 pay-for-performance programs/models may also be characterized as another type of program, as defined on CMS program and CMMI Innovation Models websites. For example, four pay-for-performance programs/models were also characterized as disease-specific and episode-based programs/models: BPCI-A, ESRD QIP, HHVBP, and OCM. Also, four pay-for-performance programs/models use the term value-based purchasing to define their program/model: HACRP, Hospital VBP, HRRP, and SNF VBP. Three pay-for-performance models – ACO REACH, KCC, and PCF – are also considered Accountable Care Organizations (ACOs). The IAH Demonstration, a pay-for-performance model, is also defined as a statutory model. The PPS-Exempt CHQR Program, which does not currently tie performance measures to payment, is considered a quality reporting program (as opposed to pay-for-reporting). **Exhibit 15** provides definitions for all programs/model types.

[23] https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Downloads/Pay-for-Reporting-Quality-Assessments-Only-Methodology.pdf

Exhibit 15. Program/Model Type Definitions

Program/Model Type	Definition
Accountable Care	Models in which a doctor, group of health care providers or hospital takes financial responsibility for improving quality of care, including advanced primary care services, care coordination and health outcomes for a defined group of patients, thereby reducing care fragmentation and unnecessary costs for patients and the health system.[24]
Disease-Specific and Episode-Based	Models which aim to address deficits in care for a defined population with a specific shared disease or medical condition, procedure, or care episode.[25]
Pay-for-Performance	Programs/models whose focus is on providing payment to providers based on outcomes of patients; providing better outcomes results in higher payments.[26]
Pay-for-Reporting	Programs/models that are required to report quality measure data to CMS and result in a decrease to Medicare payments for nonperformance.[27]
Quality Reporting	Programs/models are required to report on certain quality measures; however, measures are not necessarily tied to payment.
Statutory Models	Models and demonstrations requiring testing as determined by Congress and/or the Secretary of Health and Human Services.[28]
Value-Based Purchasing	Programs/models that reward providers with incentive payments for the quality of care they provide to Medicare beneficiaries.[29]

NORC also examined the distribution of the 618 performance measures based on how the 24 programs/models are linked with payment (**Exhibit 16**).[30] Seventy-seven percent (n=476) of the measures correspond with the 15 pay-for-performance programs/models (50% [n=309] are MIPS performance measures, while the remaining 27% [n=167] correspond to the other 14 pay-for-performance programs/models). Twenty percent (n=126) of the measures correspond with the eight pay-for-reporting programs, and three percent of the measures correspond with the one program (PPS-Exempt CHQR) that is not linked with payment.

[24] https://www.cms.gov/priorities/innovation/models#views=models

[25] https://www.cms.gov/priorities/innovation/models#views=models

[26] https://www.cms.gov/regulations-and-guidance/guidance/faca/downloads/tab_h.pdf

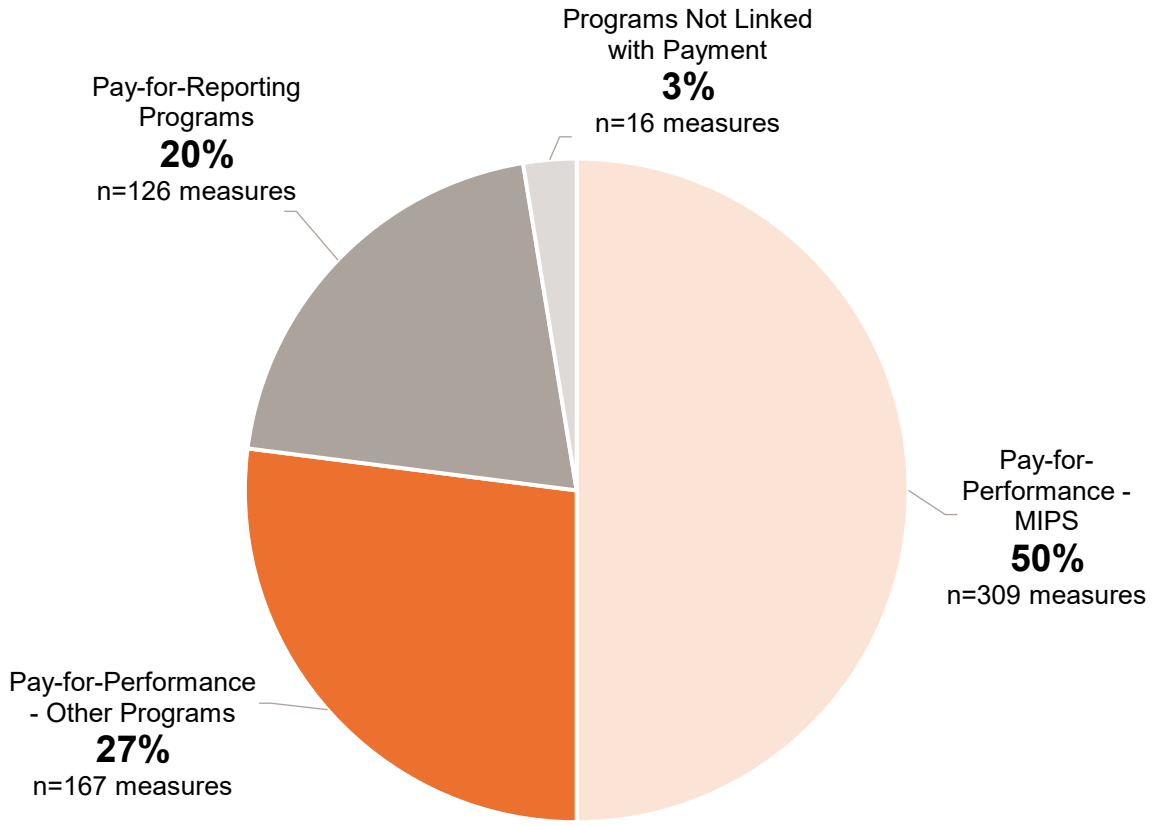
[27] https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Downloads/Pay-for-Reporting-Quality-Assessments-Only-Methodology.pdf

[28] https://www.cms.gov/priorities/innovation/models#views=models

[29] https://www.cms.gov/medicare/quality/value-based-programs

[30] There are some limitations of this analysis, including 1) not all measures for a given program/model are necessarily tied to payment or required to be reported (e.g., some programs/models have many measures from which providers choose a set of measures); 2) measure-specific requirements can change frequently; and 3) measures may be used differently in different programs/models.

Exhibit 16. Distribution of Performance Measures Based on How the 24 Selected Programs/Models are Linked with Payment



Note: Performance measures include active, in-development, pending, and suspended measures listed in the CMIT as of October 2023. Further, the OCM is an inactive model; the six measures associated with the OCM are inactive measures.
Note: There are some limitations of this analysis, including 1) not all measures for a given program/model are necessarily tied to payment or required to be reported (e.g., some programs/models have many measures from which providers choose a set of measures); 2) measure-specific requirements can change frequently; and 3) measures may be used differently in different programs/models.

Analysis 2: How Performance Measures are Tied to Payment

This second analysis focuses on 18 selected programs/models (14 CMMI models and four CMS value-based programs) (refer to Exhibit 1). Information on whether and how performance measures are tied to payment was obtained by reviewing CMS program and CMMI Innovation Model websites.[31]

A detailed review of the BPCI-A model was performed to provide an example of how performance measures are tied to payment. Participants in the BPCI-A model have the option of selecting either the

[31] The available information on each of the 14 selected CMMI models' summary pages on the Innovation Center website was reviewed (https://www.cms.gov/priorities/innovation/models#views=models). Information found in these materials was used to summarize the models' main themes related to performance measurement and other administrative and payment characteristics.

Administrative Quality Measure (QM) set, or the Alternative QM set for a given clinical episode category. For each clinical episode, the Administrative QM set includes:

- 1) The following two measures:
    - Hospital-Wide All Cause Readmission (NQF #1789)
    - Advance Care Plan (NQF #0326); and
- 2) Up to two of the following additional measures:
    - Excess days in acute care after hospitalization for AMI (NQF #2881)
    - Risk-Standardized Mortality Rate CABG Surgery (NQF #2558)
    - Hospital-level Risk-Standardized Complication Rate Following Elective Primary THA and/or TKA (NQF #1550)
    - CMS Patient Safety Indicators PSI 90 (NQF#0531).

For each clinical episode, the Alternative QM set includes:

- 1) The following two measures:
    - Hospital-Wide All Cause Readmission (NQF #1789)
    - Advance Care Plan (NQF #0326); and
- 2) Up to three additional measures (including claims-based and registry-based measures).

Reconciliation is based on comparing actual Medicare FFS expenditures for all items and services included in a clinical episode with the final total price for that episode. At reconciliation, CMS determines whether participants receive a payment or are required to pay a repayment amount.

Participants receive a Composite Quality Score (CQS) based on the applicable quality measures for the clinical episode. CMS uses the CQS to apply an adjustment amount of up to 10% for the total reconciliation amounts. **Exhibit 17** summarizes how performance measures are linked with payment in the BPCI-A model.

Exhibit 17. Performance-Based Payment Example: BPCI-A Model

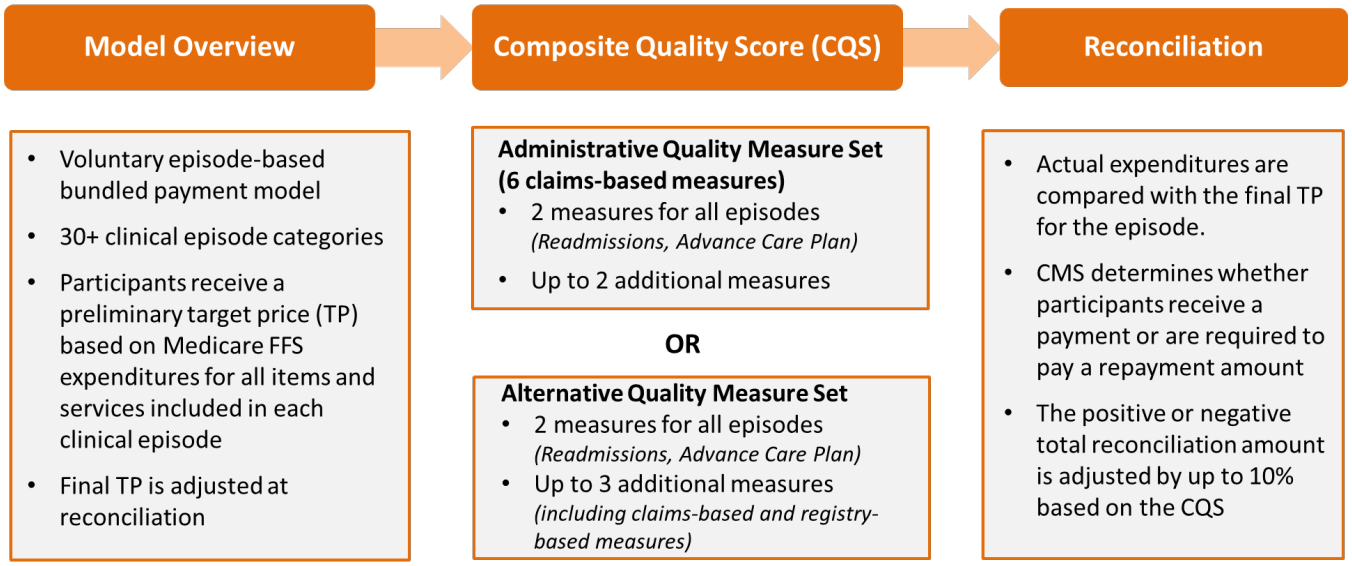


Exhibit 18 provides detailed payment information on the 18 programs/models. All 18 models and programs adjust payment based on performance. Thirteen (72%) models and programs employ both upside and downside risk for participants. The MCP, IAH, CPC+, and OCM models and the MA Star Ratings Program employ upside risk only.

Exhibit 18. Payment Information for 18 Programs/Models

Model	Whether Payment is Tied to Performance	Risk	How Payment is Tied to Performance
Accountable Care Organization (ACO) Realizing Equity, Access, and Community Health (REACH)	Yes	Upside & downside	CMS calculates the total cost of care at the end of the performance year. If the payments and additional fee-for-service (FFS) Medicare expenditures exceed the performance year benchmark, the ACO repays CMS the shared losses according to its risk sharing arrangement; otherwise, CMS pays shared savings to the ACO. Advanced Payment Option (APO) payments are also reconciled in a similar manner. In addition, 2% of an ACO's financial benchmark is held at risk; ACOs can earn part or all depending on their Initial Quality Score (IQS) based on four quality measures.
Bundled Payments for Care Improvement Advanced (BPCI-A)	Yes	Upside & downside	Participants receive a retrospective bundled payment or are required to pay a Repayment Amount based on reconciliation against the benchmark/target price. Participants receive a Composite Quality Score (CQS) based on selected quality measures, and payment is adjusted by up to 10% for positive reconciliation

Model	Whether Payment is Tied to Performance	Risk	How Payment is Tied to Performance
			amounts (where participant receives a payment) or negative reconciliation amounts (where participant is required to pay back).
Comprehensive ESRD Care (CEC) Model	Yes	Upside & downside	The CEC Operations Contractor calculates the Shared Savings or Shared Losses at the end of each performance year. If the ESCO meets or exceeds the Total Performance Score (TPS) minimum level of attainment and the Total Quality Score (TQS) minimum level of attainment (in PY1) or the TQS minimum performance threshold (in PY2 onward), CMS multiplies the total Medicare savings or losses by the ESCO TQS to determine the preliminary shared savings or preliminary shared losses payments.
Comprehensive Primary Care Plus (CPC+) Model	Yes	Upside only	Practices receive performance-based incentive payments (PBIPs) based on patient experience, clinical quality, and utilization; practices retain all or a portion of the PBIP based on performance. The PBIP is paid prospectively for the entire subsequent year based on the prior year's performance. Practices that do not meet the annual performance thresholds for clinical quality/patient experience or utilization are "at risk" for repaying all or a portion of the PBIP.
Enhancing Oncology Model (EOM)	Yes	Upside & downside	Retrospective performance-based payment (PBP) or performance-based recoupment (PBR) based on quality and savings during the performance period (i.e., six-month episodes of care).
End-Stage Renal Disease (ESRD) Treatment Choices (ETC) Model	Yes	Upside & downside	Participants receive a home dialysis payment adjustment (HDPA) and a performance payment adjustment (PPA). Medicare claim payments are increased for facilities and clinicians supporting dialysis at home, and PPAs are either increased or decreased based on the rate of home dialysis and transplant rate, calculated as the sum of the transplant waitlist rate and the living donor transplant rate.
Expanded Home Health Value-Based Purchasing (Expanded HHVBP)	Yes	Upside & downside	Home health agencies receive adjustments to their FFS payments based on their TPS, a composite score of an agency's quality measures, relative to peers' performance. Performance on quality measures impacts payment adjustments in a later year.
Home Health Value-Based Purchasing (HHVBP)	Yes	Upside & downside	Medicare payments are adjusted upward or downward by up to 3%, 5%, 6%, or 7% based on the TPS, a composite score of an agency's quality

Model	Whether Payment is Tied to Performance	Risk	How Payment is Tied to Performance
			achievement/improvement on the measure set and the performance year.
Hospital Value-Based Purchasing (Hospital VBP)	Yes	Upside & downside	2% of participants' payments are withheld; this total amount is used to fund value-based incentive payments to hospitals based on their performance. Participants' payments are adjusted based on a total performance score.
Independence at Home (IAH) Demonstration	Yes	Upside only	Practices can receive 50% of shared savings for meeting/exceeding performance requirements on three measures, 66.7% of shared savings for four measures, 83.3% for five measures, and 100% for all six measures.
Kidney Care Choices (KCC) Model	Yes	Upside & downside	The KCC model offers different payment mechanisms, including the Kidney Care First (KCF) Option (i.e., adjusted capitated payments based on performance on quality measures, health outcomes, and utilization; bonus payments for successful kidney transplants); the Kidney Contracting Entities (KCEs) Option (i.e., adjusted capitated payments; shared savings based on spending and quality measures), which includes the Comprehensive Kidney Care Contracting (CKCC) Graduated Option (i.e., one-sided risk track); the CKCC Professional Option (i.e., share in 50% of earnings or losses); and the CKCC Global Option (i.e., share in 100% of earnings or losses).
Making Care Primary (MCP) Model	Yes	Upside only	Participants are eligible to receive upside-only Performance Incentive Payments (PIP) that reward participants for improving patient health outcomes and achieving savings.
Medicare Advantage (MA) Star Ratings Program	Yes	Upside only	Participants receive a performance-based bonus payment if they obtain a 4-, 4.5-, or 5-Star Rating.
Medicare Shared Savings Program (MSSP)	Yes	Upside & downside	Participants must meet a series of quality thresholds to receive shared savings; ACOs are subject to quality withholds from their shared savings if they do not meet quality benchmarks.
Merit-based Incentive Payment System (MIPS) Program	Yes	Upside & downside	Performance is measured across 4 domains; participants' final scores determine the payment adjustment applied to their claims.

Model	Whether Payment is Tied to Performance	Risk	How Payment is Tied to Performance
Next Generation ACO (NGACO)	Yes	Upside & downside	ACOs participate in shared savings or losses based on performance year expenditures. ACOs may receive an Earned Quality Bonus for meeting quality requirements. CMS uses a quality "withhold," in which a portion of an ACO's performance year benchmark is held "at-risk," contingent upon the ACO's quality score.
Oncology Care Model (OCM)	Yes	Upside only	The amount of the performance-based payment is adjusted based on the participant's achievement on a range of quality measures. Once quality points are assigned, an Aggregate Quality Score (AQS) is calculated and translated into a performance multiplier. This performance multiplier is used as part of the performance-based payment calculation.
Primary Care First (PCF) Model	Yes	Upside & downside	A practice's payment amount depends on its performance compared to peer practices and its degree of improvement compared to its historical performance. Performance-based payment can be up to a 50% increase or a 10% decrease in total primary care payment revenue.

Analysis 3: Gaps in Current Performance Measures

This third analysis also focuses on the 18 programs/models (14 models and four programs) (refer to Exhibit 1). Information on potential gaps in current performance measures was obtained by reviewing publicly available evaluation reports. Various performance measure gaps have been identified in the assessment of the evaluation reports relating to for these programs and models. Concerns that were identified range from the need to have increased financial incentives linked to performance measures to challenges related to the lack of specificity in certain measures. The following are some additional highlights of findings from this analysis.

- Few CMMI models incorporated guardrails to prevent unintended consequences, such as worsening disparities. One exception is the ETC Model, which includes a Health Equity Incentive that provides additional improvement points to participants who show improvement in the home dialysis rate or transplant rate for their attributed dual-eligible or Low Income Subsidy (LIS) beneficiaries.
- Evaluation reports identify the importance of guardrails to prevent unintended consequences within models.
- An evaluation identified performance gaps within the Home Health Value-Based Purchasing (HHVBP) Program suggesting potential disparities in health equity. Over time, a pronounced widening gap between patients with and without Medicaid in HHVBP states raised alarms about persisting quality gaps. The report emphasized the need for targeted initiatives to prevent unintended consequences and to address pre-existing disparities.

Appendix C and Appendix D provide additional information on potential gaps, issues, and concerns related to current performance measures across the 18 selected programs/models.