Core Quality Measures Collaborative: Aligning Approaches to Measure Models

Final Report – January 10, 2023

About the Core Quality Measures Collaborative

The Core Quality Measures Collaborative (CQMC) is a membership-driven and funded effort with additional funding provided by the Centers for Medicare & Medicaid Services (CMS) and America's Health Insurance Plans (AHIP). Originally founded in 2015, the CQMC is a broad-based coalition of healthcare leaders. The CQMC has over 70 member organizations including public and private health insurance providers, primary care and specialty societies, and consumer and employer groups. These leaders are working together in partnership with the National Quality Forum (NQF) to address the proliferation of measures by facilitating cross-payer measure alignment through the development of core sets of measures by clinical area to assess the quality of healthcare in the United States (U.S.).

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Introduction

Value-based payment (VBP) models rely on the accurate measurement of care and outcomes to incentivize and improve quality. A challenge to VBP success is a lack of alignment across programs and payers. Fragmentation in the measures used in different programs across payers leads to inconsistent signals on "good performance," preventing providers from focusing their quality improvement efforts. Providers also report that lack of alignment results in more time spent on data collection and reporting and less time on patient care and quality improvement. A 2016 report from the U.S. Government Accountability Office (GAO) found that quality measure misalignment has an adverse effect on providers' efforts to improve quality and called on healthcare stakeholders to make alignment a priority. The GAO report highlighted several contributing factors to misalignment including dispersed decision making, lack of standardized collecting and reporting, and few meaningful measures.[1]

The CQMC represents a diverse group of stakeholders facilitating cross-payer alignment through the development of quality measure core sets for use in VBP and reporting programs. The CQMC was established to help align measures used across both public and private value-based programs and reduce the burden associated with different measures being used across payers. While these core aims endure, the lack of alignment of measure models — the broader quality measurement process, not only the measures themselves — leads to significant burden for providers and inefficiencies for other stakeholders (e.g., payers, purchasers). In addition, efforts have been made at the regional and state levels to align quality measurement. These efforts are often multifaceted approaches that align measures and aspects of the measurement process through engagement, collaboration, and consensus building. Aligning quality measures and the models in which they are used is a difficult undertaking; however, there have been some successes. A 2019 report from the National Opinion Research Center and the Center for Health Strategies, Inc., highlighted quality measure alignment efforts by state level innovation models and identified best practices and lessons learned for future alignment work.[2]

To date, the CQMC has focused primarily on creating and maintaining core sets and establishing guidance for their implementation. However, it has already begun to advance broader measurement strategies across both the public and private sectors. For example, the CQMC has convened experts to establish the business case for using digital data to advance alignment, identify barriers to data capture and exchange between providers and payers, and define future actions for the CQMC to advance digital measurement. It also began work in 2022 to identify disparities-sensitive measures in the core sets and put forth health equity measures and considerations for their use as part of value-based care.

The CQMC is considering the value of expanding its focus to include the alignment of other key elements of measurement models used to evaluate provider performance. The CQMC has recognized that misalignment challenges go beyond the measures themselves to differences in the data aggregation and measure reporting infrastructures for value-based models. This Measure Model Alignment (MMA) work was informed by the need for greater alignment of measurement models used across public and private payers, as well as purchasers and other groups that rely on provider performance measurement to drive

improved quality, outcomes, and affordability. As a public-private partnership, the CQMC is uniquely positioned to pursue this expanded position.

Purpose

MMA includes the end-to-end process of performance measurement, including the collection, transmission, standardization, aggregation, calculation, and dissemination of performance data. This report defines quality measurement models and explores ways in which measure model elements can be aligned across payers and purchasers. It considers the potential MMA structures, including regional models, networked models, and national models and mechanisms to accomplish MMA; the potential role of registries and health information exchanges (HIEs); and governance considerations required for the collaborative nature of this work.

This report also puts forth a basic value framework for evaluating MMA structures and considers how various approaches to MMA might meet various stakeholders' needs. It also explores promising practices from existing regional MMA models and considers ways in which current operational elements of models may be better aligned or accomplished at a national scale.

The goal of this work is to develop options for potential governance, structural, and operational models that would allow for payer and purchaser alignment on the collection, transmission, standardization, aggregation, and dissemination of performance data to support scaled core set adoption while reducing provider burden. This report serves as a starting point for the development of collaborative models of quality measurement across the nation and outlines the next steps for the CQMC to advance measurement models.

Approach

NQF staff reviewed existing measurement models used across the country to identify key areas in need of greater alignment. In addition, NQF staff solicited feedback from the full CQMC membership during an April 2021 web meeting on key considerations and themes that should be considered to inform this work. Using this content as background, an MMA Workgroup, composed of payers, providers, purchasers, industry partners, regional collaboratives, and measure developers, convened for five web meetings. During these meetings, representatives from regional organizations presented their efforts to develop and implement their measurement models. Model representatives described attributes of their models, discussed their data collection and reporting processes, and noted barriers to scaling aspects of their models. Following these presentations, the Workgroup discussed practices that may support more accurate and actionable measure results and streamline data reporting if scaled nationally.

During an April 2022 meeting with the full CQMC membership, members discussed the following questions to think creatively about ways in which the entire quality measurement process could be more effective, what entity or entities would be best suited to support the implementation of aligned processes, and how this work could be executed:

- Beyond core measure sets, which additional aspects of measurement models are high-leverage areas for alignment (e.g., where greater alignment could significantly advance the success of VBP models)?
- State and association-led regional collaboratives are successfully implementing aligned models in some markets, but not others. Why is that and what prevents these models from scaling nationally?
- Are physician registries or HIEs a potential means to scale multi-payer alignment on a national basis? If not, why? What barriers would need to be addressed to make them feasible?
- On what criteria and in what order of priority should we assess a potential preferred approach?
- Ideally, what structure and functions would appear to achieve multi-payer alignment?

This report synthesizes discussion from these various convenings and outlines options for creating an aligned measurement model across payers that reduces burden and allows providers and other stakeholders to better understand the quality of care provided to patients.

Defining a Measure Model

MMA goes beyond the quality measures used in programs and encompasses all technical and other elements of data aggregation and reporting programs for value-based models. Figure 1 outlines the measurement process, starting with the collection of provider data and ending with the sharing of performance results, including the various entities involved at each step. Measurement alignment can be advanced using decentralized or federated approaches (i.e., participating organizations implement measurement on their own but follow standards and guidance agreed upon for the purposes of multistakeholder alignment) and through centralized approaches (i.e., where a third-party entity conducts the agreed-upon steps of the measurement process on behalf of participating organizations). This report focuses on both approaches, outlining potential governance, structural, and operational considerations of centralized models as well as promising practices that organizations can use as part of decentralized efforts. Figure 2 depicts various structures for measure model alignment that can occur at the regional level, through a networked approach, and/or nationally.

Figure 1. Measurement Process for Value-Based Payment or Other Reporting Programs
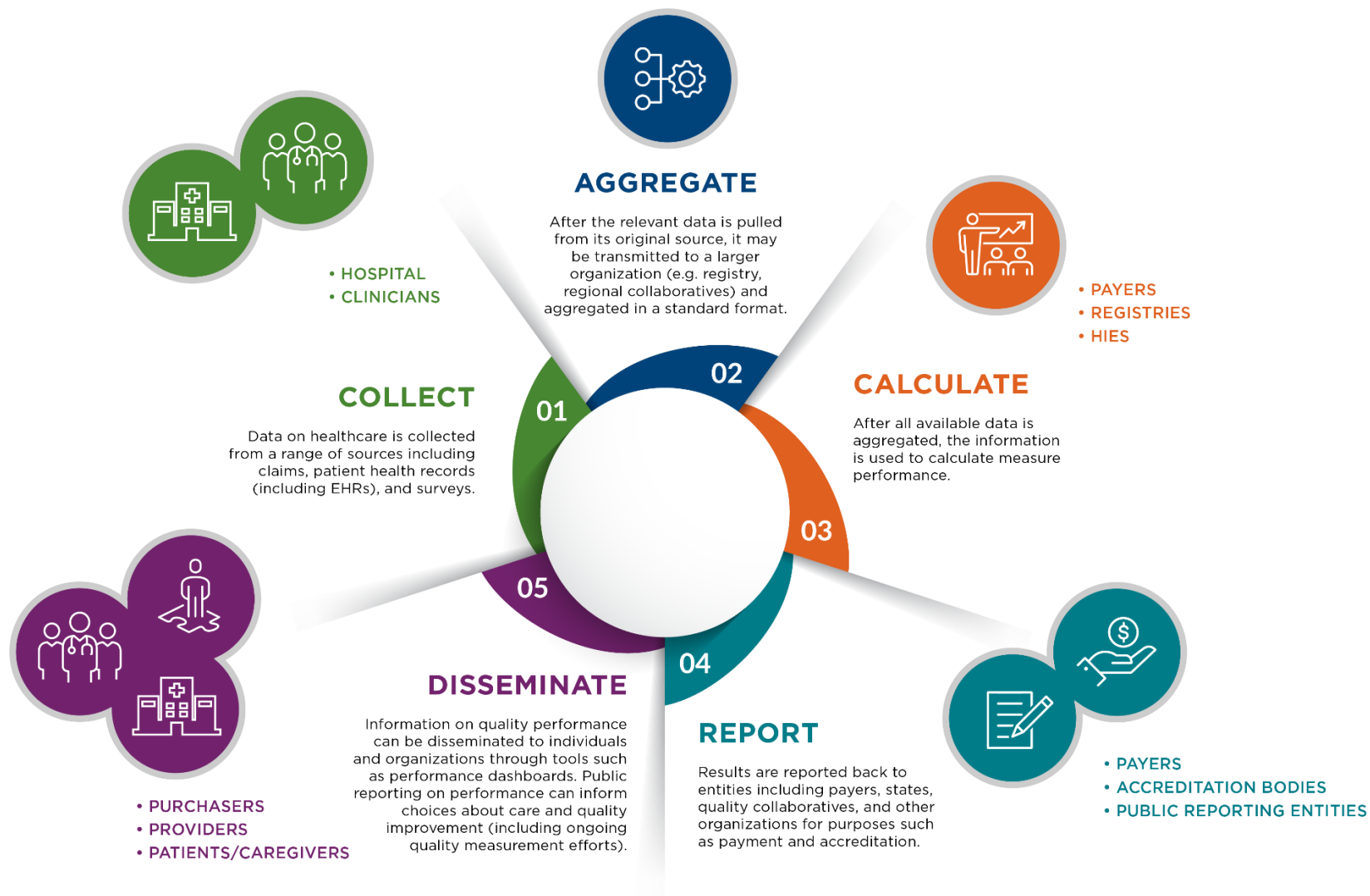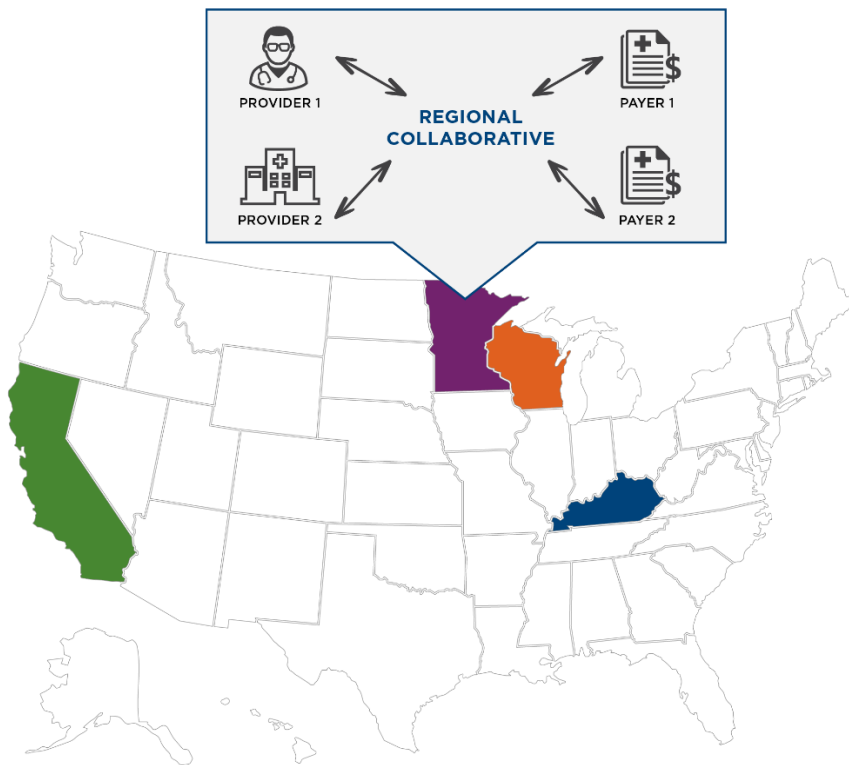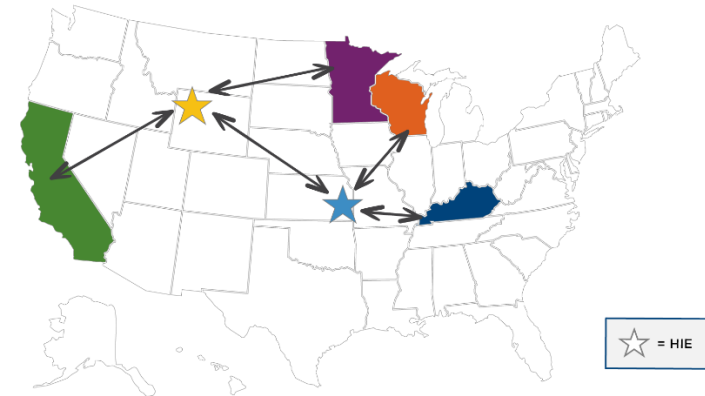
AGGREGATE

After the relevant data is pulled from its original source, it may be transmitted to a larger organization (e.g. registry, regional collaboratives) and aggregated in a standard format.

• HOSPITAL
• CLINICIANS

COLLECT

Data on healthcare is collected from a range of sources including claims, patient health records (including EHRs), and surveys.

CALCULATE

After all available data is aggregated, the information is used to calculate measure performance.

• PAYERS
• REGISTRIES
• HIES

01 02 03 04 05

DISSEMINATE

Information on quality performance can be disseminated to individuals and organizations through tools such as performance dashboards. Public reporting on performance can inform choices about care and quality improvement (including ongoing quality measurement efforts).

REPORT

Results are reported back to entities including payers, states, quality collaboratives, and other organizations for purposes such as payment and accreditation.

• PURCHASERS
• PROVIDERS
• PATIENTS/CAREGIVERS

• PAYERS
• ACCREDITATION BODIES
• PUBLIC REPORTING ENTITIES

*Figure 2. Potential Structures for Implementing Aligned Measurement Models*

OPTION 1: Regional Models. In the current state, regional health improvement collaboratives connect local stakeholders on common goals (e.g., sharing and submitting quality data).

PROVIDER 1

PAYER 1

REGIONAL COLLABORATIVE

PROVIDER 2

PAYER 2

OPTION 2: Networked Models. In a networked model, the regional organizations (e.g., HIEs or regional collaboratives) would connect to share data in a common network system.

☆ = HIE

OPTION 3: National Models. In a national model, a third-party aggregator and convener would compile data from individual providers and/or various organizations (e.g., regional collaboratives, registries, or systems collecting PRO-PM data) before sharing with multiple payers.

THIRD-PARTY ENTITY
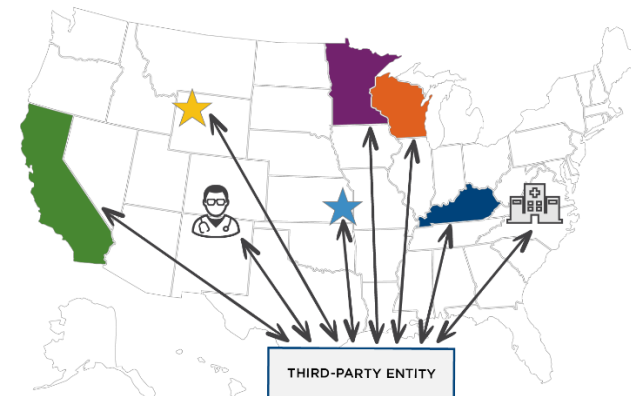
Business Case for Aligning Measure Models

Quality measurement is a vital component of the healthcare system's transformation towards paying for value. Yet a significant amount of burden exists in the current measurement landscape. While agreeing on which measures should be used across payers is a promising start, there is tremendous opportunity available in aligning a broader set of measurement processes. There is a lack of alignment across essential measurement elements, with providers reporting measures to various payers using different methods for data submission. Various methods of attribution, risk adjustment, or scoring can also cause confusion for those held accountable. Greater alignment may be achieved by centralizing certain parts of the measurement process (e.g., using a common data collector and aggregator, identifying regional or national benchmarks), as well as publishing standardized processes for consideration and voluntary use by payers for other parts of measurement (e.g., processes for attributing patients to providers, processes for program-level stratification or adjustment).

Greater alignment of how measurement data are collected, transmitted, aggregated, and scored has the potential to make the measurement process more efficient and improve the comparability and actionability of the results. A compelling business case can help justify the allocation of resources to support the alignment of measurement models. Greater alignment of measurement models has the potential to accomplish the following:

- Enable providers to focus improvement efforts on areas applicable across multiple payers
  - Greater ability to make progress towards common priorities (e.g., patient-centered care, health equity, and population health outcomes)
  - More consistent signal from different programs on "good performance" and areas of focus for quality improvement
- Reduce provider data collection and reporting burden using standardized processes
- Improve data consistency by having common data standards across stakeholders
- Provide a more accurate assessment of care provided across settings and providers
- Overcome sample size challenges for low-volume measures by aggregating data from multiple providers and/or multiple payers
- Enable the development of national and cross-regional performance benchmarks
- Enhance efficiencies using common methods to disseminate performance results
- Offer providers a comprehensive view of performance across their patient population irrespective of the payer
- Allow payers, purchasers, patients, and policymakers to have a comprehensive view of provider performance with robust and relevant benchmarks
- Create the infrastructure and partnerships for stakeholders to test and implement measure types that have been more difficult to broadly implement (e.g., digital quality measures [dQMs], patient-reported outcome performance measures [PRO-PMs])
  - Liberate the potential for leveraging clinical data and patient-generated health data for measurement by having a streamlined process for data transmission and calculation

- Increase provider trust of measure results through greater standardization and transparency of methods (e.g., standardized attribution and risk adjustment)
- Enable payers and providers to identify early trends and gaps in care based on shared outcome data and take timely action
- Enable payers, providers, electronic health record (EHR) vendors, HIEs, purchasers, regional organizations, and consumers to have better informed and more productive discussions about measures

The next sections of this report put forth potential options for the structure, governance, and operational elements of aligned models that may help payers, providers, and other stakeholders involved in the measurement process realize these benefits.

Structure of a Measurement Model

The structure of a measurement model refers to its legal structure and organizational design, including its configuration of organizational units such as the committees or workgroups through which it engages the entity or entities using the measure models. Structural components of measurement models also include the sustainability of the model and funding source(s).

There are multiple structural approaches that could be used to accomplish greater alignment of the measurement process. This section of the report explores several options, including regional models, networked models, and national models, which could be implemented on their own or in combination.

Regional Models

Regional Health Improvement Collaboratives are independent, nonprofit organizations governed by providers, payers, purchasers, and consumers and cover approximately 70 percent of the U.S.[3] Regional collaboratives operate under different structures and functions but share common goals and values. They bring together various stakeholders and often are driven by and align with state measurement priorities and policies. For example, the state regulatory landscape may provide opportunities to mandate the submission of certain data. Through partnerships with providers, payers, and other entities within the state or region, regional collaboratives often aggregate and calculate measure data, as well as create performance dashboards for sharing results. Regional collaboratives create space for stakeholders with common interests to convene in a neutral setting and coordinate efforts in a way designed to mitigate potential antitrust issues. Regional and state collaboratives are often self-funded through membership dues and grants and rely on member volunteers to advance the measurement alignment work.

Networked Models

Building a network of networks (e.g., sharing and aggregating data across entities at the state, regional, and potentially national levels) could create a common infrastructure for sharing and exchanging data. A networked approach could involve connecting existing entities that collect and aggregate data, such as HIEs, registries, or regional collaboratives. Using a networked structure to support greater measurement

process alignment would be beneficial for payers and providers who serve patients nationally.

Multistate HIEs aim to connect existing networks and enhance interoperability. Many HIEs exist at the state level, and some state HIEs have started to connect with one another to expand their reach regionally.[4] A multistate network of HIEs could conduct functions such as data validation, aggregation, and measure score calculations. This centralized approach would reduce provider burden by enabling providers to report quality measurement data to a single location with a single sign-on, reduce data processing burden by streamlining the process for data validation and measure calculation, and support efforts such as improving patient indexing.

In addition to reducing burden for providers, this approach also could lower the burden of data collection for payers. An HIE or a network of HIEs could collect and calculate individual measure performance data from across providers. Ideally, multiple payers would be able to use the data from HIEs in their VBP models without the need to create separate agreements with multiple parties. Individual payers would still make decisions regarding how to best use the measure data in overall performance calculations.

A networked model may also provide an opportunity to spread trust across multiple groups while improving standardization. As an example, stakeholders in Michigan have successfully partnered with their state HIE to share data up to the point of data aggregation. Stakeholders are currently in the process of discussing options for data aggregation, calculation, and dissemination of results, including considerations for ownership and responsibilities.

Taking a critical step to facilitate data sharing among networked networks, the Office of the National Coordinator for Health Information Technology (ONC) recently published the [Trusted Exchange Framework and Common Agreement](#) (TEFCA).[5] Published in January 2022, TEFCA is a set of common principles, terms, and conditions designed to support the sharing of electronic health information between networks across the nation. The Trusted Exchange Framework sets forth principles that promote greater interoperability across the country and decrease the need for separate legal agreements to share data and separate systems for different partnerships. The Common Agreement is a legal contract between the Recognized Coordinating Entity (RCE), currently the Sequoia Project, and the health information network (or other entity) to become a Qualified Health Information Network (QHIN). This agreement establishes the infrastructure model and governance for users in different health information networks to securely share clinical information with each other. Ultimately, TEFCA aims to support the creation of a network of networks infrastructure that connects QHINs, allowing electronic health information to be securely shared across the country, reducing the need for payers and providers to be part of multiple HIEs, and providing a more complete picture of an individual's care across settings and providers.

TEFCA will help support the development of networked quality measurement models by allowing payers, providers, and other healthcare stakeholders to submit data that can be shared through QHINs. TEFCA participants can request these data from a QHIN, allowing organizations to only submit data once

rather than to multiple entities. For example, a provider could submit data to a QHIN directly that could then be drawn upon by payers, public health agencies, HIEs, etc. A convening entity could serve as the connection point, prescribing how data should be collected. Participants would agree to data exchange in a standardized way, so that the data can follow the patient regardless of the payer. Payers could then use the data from the HIEs, and the convening entity would share data back to providers from payers. HIEs could perform the individual measure calculations and payers could use the data to inform their value-based models and scoring approaches for entity performance. There may also be a future role available for HIEs in being able to benchmark performance for individual measures or measure scorecards based on the total data they receive.

National Models

A national approach to measure model alignment is another option in which a single entity could serve as an aggregator and convener for organizations across the country. This approach may be best suited for certain measure types, such as registry measures or PRO-PMs. One potential national model would be for providers to submit measures to a registry that would then share results directly with multiple payers. As a variant on this potential model, the registries could submit measure data to a national entity that would connect and share relevant data with payers. This method would bypass the need for individual payers to contract directly with each registry. As registries are commonly specialty-specific, their use may allow for the collection of clinical measure data directly aligned with clinical guidelines. Registries also typically share measure data back with physicians, which can help them to better understand their patients' quality of care and outcomes. While some registries report directly to CMS as part of certain programs to help ease administrative burden, there is an opportunity for greater use of registry measures by private payers. Using a third-party entity to connect payers with data from multiple registries at the same time would support the ability of private payers to use registry measures as part of their value-based models and further support measure alignment across the public and private sector. The national entity would calculate individual measure performance and share it securely with payers across the nation, simplifying the structural arrangements needed to use measures based on these data sources in VBP models. It would also support the broader aggregation of data to provide a more comprehensive picture of quality and the development of national performance benchmarks, especially for specialty-specific measures.

Another potential national model would involve a third-party convening organization serving as the aggregator of PRO-PMs. Administration could still be managed through the accountable organization (e.g., providers, payers) – for example, triggered to the relevant patient population at the required cadence, leveraging electronic health record capabilities or other solutions designed for this purpose – but the data could flow to a third-party convener for aggregation and calculation. Collection methods could be improved using electronic capture rather than manual submission of PRO-PM data, which could help reduce burden for both patients and providers. The national entity could connect with payers to share measure data, as opposed to providers reporting PRO-PM data separately to each payer they contract with. This approach may also support the creation of national benchmarks. The science and implementation of PRO-PMs in value-based models continue to advance, and these measures may

require greater volume to meet scientific acceptability requirements. A further advantage of a data aggregator model for PRO-PM data would be the potential linkage to claims or other data that would enable a robust assessment of process-outcome linkages, deepening the evidence base regarding treatment approaches that optimize outcomes given particular patient characteristics.

A national model for aggregating measure data in a standardized manner may also be useful for advancing new measurement areas (e.g., health equity and social determinants of health) or improving measurement in existing meaningful areas (e.g., more specific metrics related to patient safety, access to care, and mental health). Having a broad ability to collect and review data shared from across the country could help to speed the development of new measures and inform the refinement of existing measures. Data from the national entity could also be shared back with providers, payers, measure developers, and other stakeholders to aid in benchmarking and understanding opportunities for improvement. This model type could contribute to the continuing development of advanced, meaningful measures that payers could align on using across value-based models.

Measurement Model Governance Considerations

Governance of measure models refers to the mechanism by which an organization would make key decisions including how it determines participation, engages with stakeholders for measurement purposes, develops strategy, and oversees operations, compliance, ethics, and risk management. A governing entity of a measurement model would bring together various stakeholders, including potentially multiple payers and providers, as well as data collectors/aggregators, such as registries and HIEs. The governing entity would establish a common infrastructure for data collection and transfer; it might be situated at the state or regional level (which is the most common model used today) or it could be at the national level.

The best governance structure for a measure model depends on other model characteristics, for example, whether is it situated at the regional or national level and the other entities involved (e.g., registries, HIEs, regional collaboratives, providers, and payers). A governance structure would have to consider how to engage and partner with all involved entities. Importantly, the governance design must also ensure compliance with relevant federal and state laws and regulations, including ways in which to voluntarily collaborate in a manner that comports with antitrust law. Focusing aligned measurement models on data sharing and how individual measure data could be collected, aggregated, and calculated at a broader level than each individual payer performing those functions separately is a valuable starting point. Focusing on these functions would keep information specific to reimbursement, incentive design, and other information that is proprietary to payers out of the measurement model and left solely to individual payers' discretion.

A governance structure should allow for effective decision making and must balance various perspectives and, potentially, competing priorities. This is especially important, given the high-stakes nature of using the data as part of VBP or accountability programs. Even as technology and regulations to support more efficient data standardization and transmission become more available, a governance

structure must be able to build trust and relationships among involved entities in support of the goal of facilitating alignment.

This relationship development and space for stakeholders to share perspectives, discuss topics, and make decisions is an important component of the governance structures that make existing collaborative models successful. Collaboration among relevant stakeholders is key to allowing for the alignment of elements of measurement models. Including representatives from across the healthcare continuum will present multiple perspectives and diversified expertise can help strengthen model alignment efforts. Developing an alignment model with input from a broad group of stakeholders will help ensure the measures and measurement model are both useful and embraced.[2] The consensus process is resource-intensive, and it can be difficult to achieve consensus on measures, especially the use of advanced measures, as well as other model components due to stakeholders' competing priorities. Most collaboratives generally follow a voluntary adoption model and rely on consensus to further commitment to measure use. To achieve success, members must find value in the measures and in aligning components of the measurement process (e.g., less burden in reporting or calculating measure results; access to streamlined performance reports and benchmarks; or the ability to use more advanced measure types like outcome measures and PRO-PMs that comprehensively cover the care provided in certain specialties).

Measurement Model Operational Elements

Operations include all technical and other elements of the execution of measure models. Operational elements represent components of measurement models (e.g., value-based programs) in which greater alignment and consistency may help to reduce measurement burden and provide greater ability for providers and payers to understand and act on the measure results. The elements below are adapted based on NQF's elements of a measurement system, which is a group of measures that, based on a predefined methodology, work together to assess quality or cost in relationship to a goal.[6]

- Goal – the objective that the system is assessing
- Context – background details such as accountable entity, intended use, incentive structure, measurement periodicity, and attribution method
- Measure Selection – the process of choosing and retiring measures, the measures themselves, and how they reflect the goal
- Data – the information sources and collection methods; these also include transmission, standardization, aggregation, and dissemination of performance data
- Measure Grouping – how measures are aggregated or assigned to domains
- Scoring Approaches – the methods by which overall performance is determined and reporting policies
- Risk Adjustment – the approach to isolating quality differences by accounting for differences in patient mix across entities

- Usability – how the methods and performance results are communicated

While the MMA Workgroup emphasized that alignment opportunities do exist for each of these elements, this work focuses on a subset of elements that stakeholders should consider as they build and refine their models: measure selection and adoption, data collection and transmission, stratification and risk adjustment, attribution, and scoring and reporting (i.e., how the measure is scored, not how it is applied to payment within a value-based payment agreement).

Elements

Measure Selection and Adoption

Measure selection and adoption are key model attributes that contribute to successful alignment. A measurement model is linked directly to a payment program model. Payment programs continue to expand and the goals of each program vary, leading to different measures being selected to serve specific purposes. Multi-payer alignment efforts should consider the structure of these programs, their intent, and where opportunities exist to align. There is a need for a broader strategy as well as a mechanism for stakeholders to provide input on the use of measures across programs or models.

One benefit of an aligned measurement model would be the potential to expedite the measure testing process for advanced measures that are of interest to multiple stakeholders. There are clinical guidelines with strong recommendations and evidence that do not have endorsed measures. Because of the time and resources required to develop, test, endorse and broadly deploy measures, there is a delay in the availability and adoption of relevant measures. The CQMC suggested that an entity that could facilitate measure testing and dQM development, or some other mechanism to help multiple groups collaborate on measure testing and development based on common interest concepts, could be helpful in expediting this process. In addition, the CQMC could help educate model implementers about the importance of using consistent measure specifications from the measure stewards to allow national trending and cross-regional comparisons of performance data. The MMA Workgroup also proposed considering user agreements for measure sets (i.e., users agree to implement the set as is or consult the developer/steward if they want to make changes).

Data Collection and Transmission

The CQMC stakeholders emphasized that data collection and transmission are the most crucial measure model elements to align. Currently, data collection, transmission, and aggregation are fragmented and multiple barriers limit alignment. A lack of common data element standards (e.g., variation in how providers and payers collect race and ethnicity data) interferes with the aggregation of data from different environments for quality measurement purposes. In addition, it adds to provider and payer burden to capture the data needed for measurement and to calculate and report on measures.

Model alignment requires more interoperable, standardized data and better mechanisms for validating, aggregating, and exchanging them. Both provider and payer industries have been working to create a

more nimble standards development process for new use cases, including quality measurement, harnessing Fast Healthcare Interoperability Resources (FHIR) standards through Health Level Seven's (HL7) Argonaut and DaVinci Projects as an example. Notably, CMS recently published its vision for enabling the transition to lower burden data collection through fully digital quality measurement in its Digital Quality Measurement Strategic Roadmap.[7] CMS envisions leveraging the healthcare industry's transition towards a common data model based on FHIR. This transition was accelerated by final regulations that ONC and CMS issued in 2020 to advance the interoperability of healthcare data via FHIR data standardization and the use of standards-based FHIR application programming interfaces (APIs).[8] ONC is requiring most providers to implement FHIR APIs that can exchange electronic health information as defined by the 21st Century Cures Act Final Rule.[8] In parallel, CMS is requiring payers in federal programs to exchange USCDI data with each other. Thus, both providers and payers are building out this technology. In addition, USCDI+ builds upon the core data established in USCDI; USCDI+ brings CMS, ONC, and other partners together to create program-specific data sets that can support use cases such as quality measurement.[9] The CQMC intends to leverage its clinical knowledge, technical expertise, and multistakeholder perspectives to advance the transition to digital measures through a new, measure-driven approach to prioritizing data elements that should be interoperable. The CQMC plans to work closely with the core set workgroups to identify the highest-priority measures that require clinical or EHR-based data, as well as working with the Digital Measurement Workgroup to define the key data elements of those measures that should be interoperable as part of future versions of USCDI/USCDI+.

The transition to FHIR-formatted data that can be accessed via FHIR APIs will lower the marginal burden of data collection for quality measurement and expand the types of standardized data available for measurement. A standardized data collection and transmission process would allow data to be automatically harvested from EHRs, aggregated into standardized files, and transmitted electronically to payers. This simplified process could greatly reduce the resources needed for measure reporting by obviating the need for chart abstraction, data entry, and exchange of flat files. It could also improve the quality of the data and the accuracy of the results by relying on standardized data elements.

The scope and specified format of data that ONC, and CMS by extension, is initially requiring to be interoperable include some but not most of the data needed for quality measures; ONC will expand required data over time through its USCDI update process, prioritizing what is added based on use and stakeholder input. The CQMC recognizes that the specific data prioritized for interoperability will affect the adoption of EHR-based CQMC core set measures. During an April 2022 meeting of the full CQMC membership, members discussed the benefits of setting measure-driven priorities for data interoperability by identifying the most important EHR-based measures in the core measure sets and the specific technical data specifications needed to implement them. After identifying the highest-priority data elements, the CQMC could then communicate its preferences to inform ONC's priorities as part of the process to build out requirements for interoperable data for certified health information technology through its expansion of the USCDI and USCDI+ initiatives. The CQMC Digital Measurement

Workgroup will consider the specific approach and timing of this task in the coming months.

While CMS has shared its vision to leverage FHIR APIs as the mechanism for sharing provider-level data for measurement, that transition will not be immediate, and it is not the only possible approach to advancing aligned approaches to data collection. In the current state, the National Committee for Quality Assurance (NCQA) and other organizations are working to develop streamlined approaches to standardizing, validating, aggregating, and reporting dQMs through lower burden data flows. Collaboration with the EHR industry, registries, measurement, and data aggregation partners may be a valuable strategy to identify and support near-term approaches to streamlined EHR data capture. The CQMC's Digital Measurement Workgroup will continue to explore near-term approaches.

Stratification and Risk Adjustment

Stratification and risk adjustment are important elements of the quality measurement process that may be addressed in a measurement alignment strategy. Stratification (i.e., computing performance separately for different groups) allows users of measure results to drill down within a measure to target quality improvement efforts. The CMS Measures Management System (MMS) Blueprint defines the purpose of risk adjustment as "the process of decomposing the measured entity-level variation into factors that are and are not correlated with the quality construct."[10] With funding from CMS, NQF has published several reports to guide the development of risk adjustment models for performance measurement and most recently has focused on technical guidance for assessing the appropriateness of social and/or functional-status risk adjustment.[11,12]

The adjustment method is commonly part of an individual measure's specifications, outlined and tested by the measure developer, but it can also be a component of a measurement model (e.g., if multiple measures are grouped and adjusted together by a model implementer). Aligning methods for adjusting and stratifying measures is important. Even if two payers are using the same measures, providers' performance may appear different if they use different factors for adjustment or if one does not adjust at all. Risk adjustment also requires central data collection and measure calculation in order to provide consistent and reliable results. Differences are also a challenge for creating performance benchmarks that are more universal and less specific to a certain payer or population.

Data used for adjustment can come from a variety of sources including claims, registries, EHRs, etc.; however, data limitations and the resources required for collection can limit the ability to use certain factors. The Workgroup recognized the potential role of stakeholders, including registries, HIEs, and regional health information organizations, who can contribute to aggregation, cleaning, and validating the data needed for all-payer, all-setting measurement; stratification; and adjustment.

While the CQMC stakeholders acknowledged that additional guidance on risk adjustment and stratification would be helpful, there are some potential constraints in this area. For example, private payers must be diligent to adhere to antitrust law in aligning on elements such as risk adjustment. In

addition, federal participants must adhere to federal statutes and rulemaking procedures. The CQMC could seek more information on risk adjustment models and the way measures are used in models as part of the core set maintenance process to develop best practices. It could serve as a common place to share the results of empirical testing on risk adjustment and stratification (e.g., sharing information on disparities in certain settings, sharing testing data to date) to help accelerate measure and model development. In addition, the CQMC could consider equity and stratification considerations as part of the measure selection process and provide feedback to developers on potential improvements to the measures.

Attribution

Attribution refers to the method of assigning accountability for individuals and their outcomes to a healthcare entity such as a clinician, practice, hospital, or payer. Attribution supports outcomes reporting, payment models, and quality improvement, and payers use different methodologies across measurement models. In value-based care and payment, understanding who delivers the care and, importantly, who can influence outcomes is essential.[13] In addition, as patient care becomes team based and interdisciplinary, attribution models can become more complex. Although there is no gold standard method of attribution, there are principles for developing methods.

Attribution methodologies may not accurately capture the role of multiple providers in affecting patient outcomes; however, capturing the contributions of various care team members becomes even more relevant as population-based care and reimbursement models advance. Inaccurate attribution or attribution methods that providers do not understand can affect provider engagement and commitment to measure use. The CQMC is positioned to advance attribution through options such as providing feedback to measure developers early in the development process or outlining promising practices for payers to develop and use attribution models that are understood and accepted by providers. These practices may be especially helpful as attribution models continue to advance to account for team-based care.

Scoring and Reporting

Alignment efforts should consider how providers report measure data, how performance is scored, and how results are shared back to providers. Individual measures are scored based on the specifications defined by the measure developer; therefore, using the specifications outlined by the developer would allow for standardized scoring of individual measures. However, measures may also be grouped and weighted to develop an overall score for an entity compared to a benchmark or to other entities. A consistent method to calculate not only individual measure scores, but also overall performance and provider feedback reports could be more efficient for payers, reduce provider burden, improve the accuracy of results, strengthen benchmarking, and offer a more consistent signal of performance to providers. Note that the way in which these measure and overall performance scores are applied to payment within value-based arrangements would be at the discretion of individual payers.

The desire to avoid potential antitrust issues precludes an approach that relies upon an agreement

among payers to implement comparable methodologies. Some third-party conveners, such as regional collaboratives, do, however, conduct these calculations at arms-length in a voluntary environment ([see Structure of a Measurement Model, Regional Models section](#)) and in collaboration with diverse stakeholder participants. In addition, it is possible that other outside entities such as EHRs, HIEs, and registries, if other safeguards are in place, could develop results according to certain methodologies and then share the results with payers desiring access to them to use, or not, as they see fit in their value-based arrangements.

Alignment efforts should, at minimum, aim for consistency and transparency in scoring and reporting to help eliminate discrepancies and confusion for the accountable entities. This is especially important to allow for meaningful comparisons and to drive healthy competition that may result from reporting. In addition, the ability to compare outcomes across entities, including payers, health systems, or regions is a strong motivator for alignment.

Feasibility of Achieving National Scale With MMA

While state and regional collaboratives cover most of the country and contribute to alignment within their regions, they do not exist in all areas and create significant operational complexities for payers and providers with a national scale who have to establish partnership and contracts with many entities. Scaling alignment nationally, by linking regional models, HIEs, or registries, and/or having a national entity centralize data collection/aggregation for certain measures, may offer several potential advantages. However, certain barriers would need to be addressed to accomplish MMA on a national scale, and different approaches have different limitations. The CQMC recognizes that scaling to a national level may be a challenge, as some measurement models are tailored to the unique health needs and regulatory context of a certain state. In addition, the regional approach fosters close relationships, nimbleness, and innovation that may be difficult to maintain at a national level. The CQMC proposes that organizations interested in achieving MMA at a national scale consider the following criteria when evaluating approaches:

- Feasibility of its governance
- Funding and sustainability
- Geographic footprint
- Participant scope (e.g., minimum number of payers and provider participants)
- Data availability and acquisition requirements
- Specific measures or measure types supported (e.g., advancing use of outcome measures, including PRO-PMs, and dQMs)
- Support of centralized calculations
- Support of common dashboards
- Ability to publicly report results

Examples of Existing Regional Model Attributes

Given the prevalence of regional models, the MMA Workgroup delved into the details of several examples to better understand how they operate and what contributes to success as a foundation to begin the work of evaluating the potential models outlined above. Moreover, even if a national approach is not pursued, this process identified areas of best practice on which these regional models might better align. The Workgroup also identified model elements that are important contributors to alignment and that could support efforts to improve outcomes, assess inequities of care, and compare performance. The Workgroup discussed these elements across several models to understand how various groups approach them in their alignment efforts.

Six models served as examples for the MMA Workgroup to prompt the identification and discussion of promising practices: Integrated Healthcare Association (IHA), Kentuckiana Health Collaborative, Minnesota Community Measurement (MNCM), Purchaser Business Group on Health (PBGH), Wisconsin Collaborative for Healthcare Quality (WCHQ), and Civitas Networks for Health. A table detailing elements of the five state/regional models is included in [Appendix A](#). While Civitas Networks for Health is not captured in the table because their role differs from the other organizations, their work also informed the Workgroup's development of promising practices. Both differences and similarities were identified for the models presented. Models vary by several factors including geographic region (e.g., regional, state), purpose (e.g., improvement, accountability), stakeholders involved, data transmission, and reporting, but they are similar in their approach to measure selection and adoption.

The MMA Workgroup focused on the following measure model elements: measure selection and adoption, data collection and transmission, stratification and risk adjustment, attribution, and scoring and reporting. For each of these measure model elements, the Workgroup identified promising practices that can support greater alignment of measurement and reduced burden across the nation.

Structure and Governance – Promising Practices

The promising practices below are based on how regional collaboratives are structured and governed and can be used to inform how to design alignment activities.

1. **Involve diverse stakeholder representatives, including patients and consumers.** Engaging various stakeholders, including patients/consumers as well as stakeholders outside of the traditional healthcare landscape, is important to ensuring alignment efforts are accepted.

2. **Create a process that is valuable to participants to build ongoing support and engagement.** Collaborative efforts require time and commitment from participants and must create value for those participants. Successful measurement alignment efforts rely on members to drive the process and in return offer them opportunities such as education, resources, and networking.

3. **Foster trust among members, partners, and stakeholders.** Creating trust among members, partners, and stakeholders can lead to greater engagement in the measure alignment process. A

convening organization can develop trust by allowing all perspectives to be heard, encouraging ongoing communication, sharing progress and updates with those involved, and being transparent about the process used for alignment. These strategies also support long-term engagement from participants. Communicating with stakeholders who do similar work can also inform aligned strategies. For example, Civitas engages HIEs and Regional Health Improvement Collaboratives to understand local alignment efforts that can serve as promising practices for larger efforts.

4. **Serve as a neutral convener to build consensus and advance joint priorities.** Achieving consensus among stakeholders with different perspectives and priorities can be a barrier to alignment efforts. Several successful regional models have addressed this challenge by serving as a neutral convener who can reach agreement through discussion and compromise. These groups have also had success in being responsive to shifting priorities by placing regional needs as a high priority and relying on member experts to inform the process. Health equity, for example, has become a high priority for most healthcare entities. Quality measurement alignment work can establish strategies for identifying and addressing disparities through value-based care that may be applicable across payers.

5. **Use a committee structure that reduces volunteer burnout and maintains active engagement.** Aligning measure models often requires time and resources from volunteers. Several regional collaboratives use a tiered committee structure that allows work to be distributed among multiple committees or workgroups. A structure that does not rely too heavily on individual participants but creates opportunities for involvement from a variety of experts who can support engagement and effective decision making.

Operational Elements – Promising Practices

This MMA work sought to learn from practices in successful regional programs and distill learnings into promising practices recommended for scaling. Promising practices for each element are outlined below.

Measure Selection and Adoption

Several regional models approached measure selection by seeking a balance between measures that are known and easy to report and those that are newer and that could have a greater impact on patient outcomes. The MMA Workgroup also emphasized that promoting the CQMC core sets among regional groups, including highlighting organizations that have solved implementation challenges and sharing best practices, may encourage greater CQMC core set adoption. Developing an alignment process that includes selection, actionability of performance data, adoption strategies, and gap identification is critical to success.

1. **Develop transparent and detailed selection criteria.** Many quality measurement models use standardized measure selection criteria that are supported by partners and stakeholders. The criteria should seek to select measures that are both feasible to collect and meaningful to report. Specific criteria considered should include importance/impact, evidence based, known performance gaps, feasibility, actionability, and equity.

2. **Create a comprehensive plan to help provide effective feedback to measured entities.** Models that have successfully aligned quality measures have supported stakeholder adoption through timely communication of standardized results to the entities being measured.

3. **Identify a short- and long-term approach to measure adoption and maintenance.** Measure adoption rates are influenced by both voluntary uptake as well as mandates requiring the use of certain measures. Measure adoption discussions should take into consideration an organization's long-term measurement strategy. The MMA Workgroup recognized the benefits of a flexible adoption approach (e.g., an approach that recognizes the resources required for adoption and offers a phase-in option for new measures). However, the Workgroup also recognized that mandatory adoption of a core set of measures and measure specifications can drive alignment.

4. **Establish a process to address identified measure gaps.** Gap identification is part of the measure selection and maintenance process that balances measure adoption, development, and retirement. Regional and state collaboratives often build a measure gap analysis into the measure selection process to potentiate movement toward a meaningful measure set. One approach to advancing the measures used is to identify "developmental" measures that are ready for use in the near future. Such measures may not yet reach consensus based on limited real-world use; however, they would closely align with priorities and important outcomes for a condition or topic area. Identifying these measures in advance could support providers' understanding of the measures they may soon be accountable for and help payers and providers develop the capacity to collect and report these measures.

Data Collection and Transmission

1. **Leverage technology advancement as a strategy to reduce burden.** Transmitting data to calculate measures can be challenging, especially for providers who may need to report differently based on variation in the measure specifications and transmission standards used across payers. Simplifying the measure submission process as technology advances can support greater alignment.

2. **Engage industry partners to support solutions and advance EHR standardized reporting**. Vendors play an important role in ensuring the integrity of data capture and transmission. While there may be competing priorities present, gaining a vendor perspective on how measurement alignment could be achieved and supported could be helpful to the process.

3. **Create a central data repository.** An efficient and promising approach observed among regional alignment efforts is the use of a central platform for data analysis. In addition, the ability to calculate multiple measures from one central data source is key because it allows measurement to change over time with changing evidence or evolving stakeholder priorities.

Stratification and Risk Adjustment

1. **Consider organizational goals and measurement purpose when choosing a methodology.** Both stratification and risk adjustment are approaches to ensuring outcome measures provide fair comparisons across providers treating patient populations with variable levels of risk. Risk adjustment is often used for accountability applications when making fair comparisons between entities is crucial. Stratification can be used as an alternative or in conjunction with risk adjustment and is commonly used to report performance for a particular group; it can also support actionability for providers by clarifying for which groups targeting interventions to improve quality may be most effective. For example, if the goal of the organization is to support provider improvement and to address equity, a focus on stratification may be most appropriate as risk-adjusting social risk factors may mask disparities.

2. **Prioritize transparency and consensus.** Ensure the methods chosen for both stratification and risk adjustment have been reviewed and discussed with the stakeholders whom they will affect. Providers should understand and support risk adjustment methods related to their patient populations. Stakeholder support for a risk adjustment or stratification method will promote a high level of engagement with the measurement model process and long-term use of the measures.

Attribution

1. **Develop a standardized attribution approach that accounts for changing practice models.** Selecting an attribution method and sharing how attribution is performed with those being held accountable are essential components of measurement in a value-based environment.[14] As team-based and interdisciplinary care becomes standard, embedding multiple views of the data into a measurement alignment strategy grows increasingly important.

2. **Gather provider input in the development process.** The accurate attribution of a patient to a specific provider or practice is critical for adoption and participation from the provider community. Providers are willing to be held accountable for the patients they care for, but not every patient who has an appointment at a provider's office should be included in relevant measures. Involving providers in the attribution development process will contribute to their acceptance of attribution approaches.

3. **Address consistent provider identification and sample size adequacy.** Attribution models rely on the accurate identification of providers, including those who practice in multiple settings. Establishing a methodology that captures patients across practice settings will ensure the patient group is attributed to the correct provider and can also help to ensure the provider's sample size is large enough to meet reporting thresholds. The lack of consistent patient and provider identifications limits the ability of multipayer measurement.

Scoring and Reporting

1. **Incorporate stakeholder feedback when developing scoring approaches.** Stakeholder input in the performance scoring and reporting approaches used by payers can support greater use of methods that allow both payers and providers to meet their goals. For example, an ideal approach may support both an accurate comparison of providers based on the quality of the care they are providing and the ability of providers to understand where to target improvement.

2. **Prioritize transparency.** If providers will be held accountable, the scoring methodology should be understandable and shared with the accountable entities in advance.

3. **Explore using public reporting as a motivator.** There are several collaboratives that use public reporting to encourage improvement, and the MMA Workgroup was in consensus that public reporting can be motivating. Using benchmarks is also a common strategy that invites comparison and competition among providers and informs quality improvement goals. Providers may also be more likely to engage in the process of selecting measures and aligning measure models if measure results are released publicly. If measure results or entity performance results are publicly reported, other measurement elements, such as the attribution, risk adjustment, and scoring approaches, should be reviewed by the entities involved and held accountable. In addition, another approach used by regional models is to first test measures for a period of time and release them internally to members/providers prior to full public release.

4. **Consider measure scoring modifications based on stakeholder needs.** There may be inherent tension between aligning specifications and adjusting measure specifications to understand a specific population (e.g., adjusting measure denominators to address attribution-related provider concerns). On a limited basis, altering measure specifications to meet the individual needs of a region could increase the support and use of a measure. Modifying measures, however, may also contribute to misalignment in both the scoring and reporting of measure results. Modifications should be reviewed and tested prior to implementation.

Conclusion

As a multistakeholder convener, the CQMC is uniquely positioned to offer options for measure model alignment and provide resources for stakeholders interested in greater overall cohesion in how measurement models are designed. This report defines components of measurement models and outlines high-level potential approaches for how they should be structured and governed as well as their operational elements. The concepts presented in this report provide a foundation for organizations interested in aligning measurement activities and serve as key input for the CQMC as it continues its effort to reduce measurement burden. The MMA Workgroup encourages the CQMC to continue exploring the following measure model alignment opportunities:

- Create pilot testing partnerships to bring together stakeholders, including interested providers, payers, HIEs, and registries, to explore opportunities to transmit and aggregate measure data and scale regional efforts to a national level. In addition, consider opportunities to convene providers and payers with common interests to develop strategies to test and implement advanced measure types (e.g., PRO-PMs, measures that rely on EHR data, and digital measures).
- Continue to define and investigate the most effective structure and governance considerations for aligning the measurement process for providers and payers.
- Explore the role of a national entity in fostering alignment in data collection, aggregation, and the reporting of performance results. Explore how partnerships may allow multiple payers and providers to use a common data collection entity and performance dashboard.
- Develop a policy priority agenda to address alignment within the federal and state policy landscape.
- Collaborate with national efforts to address barriers to data transmission and enable electronic health information to be exchanged more consistently.
- Continue to adapt the CQMC core sets over time, considering aspects such as core set size, data sources, and topics with each specialty area and their effect on stakeholders' willingness and ability to implement the core sets.

The CQMC and its partners are committed to advancing quality measurement alignment. The opportunities presented in this report relate to how measurement data are collected, transmitted, aggregated, and disseminated; provide a foundation for organizations interested in aligning measurement activities; and serve as key input for the CQMC as it continues its own efforts. In addition, scaling the promising practices of existing regional or state measure models has the potential to increase efficiency for payers, reduce burden for providers, and incentivize high quality outcomes for patients across the nation.

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Appendix A: Regional Elements

Element/ Model	Minnesota Community Measurement (MNCM)	Kentuckiana Health Collaborative	Purchaser Business Group on Health (PBGH)	Wisconsin Collaborative for Healthcare Quality (WCHQ)	Integrated Healthcare Association (IHA)
Goal	Empower healthcare decision makers with meaningful data to drive improvement	Balance the priorities of consumers, providers, payers, and purchasers	Advance care redesign, VBP and policies that advance performance transparency and accountability; advance patient-centered outcomes measures for accountability use	Public reporting for quality improvement	Standardize how payers, providers, and purchasers measure to create clear, reliable, performance benchmark and reward high-value care through collaboration between plans, provider organizations (POs), purchasers, and consumers to measure performance and report results
Partners	Health care providers, payers, purchasers, consumers, state government	Employers	IHA; public and private purchasers; payers; leadership and providers affiliated with Michigan Oncology Quality Consortium (MOQC), Alliance of Dedicated Cancer Centers (ADCC), and Community Oncology Alliance (COA)	Health care providers	PBGH; Office of Patient Advocates (OPA) for public reporting; NCQA
Stakeholders	Providers, health plans, purchasers, state government, and consumers	All stakeholders represented	All stakeholders represented	All stakeholders represented	Purchasers, payers, providers; consumer advocates

Element/ Model	Minnesota Community Measurement (MNCM)	Kentuckiana Health Collaborative	Purchaser Business Group on Health (PBGH)	Wisconsin Collaborative for Healthcare Quality (WCHQ)	Integrated Healthcare Association (IHA)
Context	The scope of MNCM work includes quality, cost, and health equity	Balance stakeholder priorities and to align incentives	Advance patient-reported outcome measures (PROMs) at scale by addressing barriers and demonstrating feasibility of PRO data and PRO-PMs to be used for accountability	Member-driven performance measurement and quality improvement/practice transformation organization	Value-based approach through a common measure set and benchmarking focusing on clinical quality, patient experience, appropriate resource use and cost used for provider organization accountability (awards, public reporting, incentive design)
Measure Selection and Adoption	MNCM began its work in 2005 focusing on selecting existing measures, but over time the organization began to develop its own measures based on gaps in the availability of measures in priority areas. Consensus based process with emphasis on outcome measures. Provider reporting of some measures is mandated by the state. MNCM began with a voluntary adoption approach; state lawmakers later acted to require data submission for certain measures.	Consensus driven – focus on national alignment	Developed oncology PRO-PMs targeting symptoms and outcomes of cancer diagnosis and treatment that persist and impact patients' entry into cancer survivorship	Based on existing measures with mandatory adoption once measure has been selected	Measure selection based on measure set strategy to advance Align. Measure. Perform. (AMP) measure set. Focused on quality, patient experience, resource use, and cost. Voluntary program and adoption with guidelines on how the data will be used in the program Participation in IHA's model is voluntary, but once members are engaged, they are obligated to report on measures selected through IHA's consensus-based process.

Element/ Model	Minnesota Community Measurement (MNCM)	Kentuckiana Health Collaborative	Purchaser Business Group on Health (PBGH)	Wisconsin Collaborative for Healthcare Quality (WCHQ)	Integrated Healthcare Association (IHA)
Data	Uses measures based on both clinical and claims data. Report at the clinic location level where available, but some measures can only be calculated/reported at the medical group level.

MNCM has recently developed a new clinical data platform to simplify the transmission process for providers and to produce more timely feedback to support performance improvement, decrease provider burden, and adjust measures as needed based on shifting population reporting priorities. | Claims | Patient-reported, clinical and demographic data collected from EHR; developing a PRO data collection solution with COA | Clinical data collected from EHRs either via a flat file submission or a direct feed interface representing all patients and all-payers within the participating health system. | Audited clinical quality from self-reported POs and plans. Payer member-level claims/encounter submission |

Element/ Model	Minnesota Community Measurement (MNCM)	Kentuckiana Health Collaborative	Purchaser Business Group on Health (PBGH)	Wisconsin Collaborative for Healthcare Quality (WCHQ)	Integrated Healthcare Association (IHA)
Attribution	Medical group and/or clinic	Provider and hospital level	Provider level	Hierarchy – clinician/facility/system	Provider Organization Patients are attributed to a medical group in each of the following ways: • Enrollment at the health plan level, communicated to the medical group • Encounter data from the medical group, including member identification or physician identification (so health plans can correctly attribute it), and • Continuous enrollment in the medical group; enrollment in the medical group on the anchor date; and required benefits, as specified for each measure.
Stratification	MNCM uses both risk adjustment and stratification in its scoring and reporting methodologies to serve different purposes. Yes – race, ethnicity, language, country of origin, payer type (Medicaid vs all others)	Yes – equity focused	Testing sample sizes do not allow for reliable stratification by cancer diagnosis; race, ethnicity, and language data; and gender data, but stratified measures can be used for quality improvement	Yes – in place of risk adjustment	Yes – by standard variables based on measure steward specifications

Element/ Model	Minnesota Community Measurement (MNCM)	Kentuckiana Health Collaborative	Purchaser Business Group on Health (PBGH)	Wisconsin Collaborative for Healthcare Quality (WCHQ)	Integrated Healthcare Association (IHA)
Risk Adjustment	MNCM's risk adjustment goal is to enable fair comparisons, while minimizing data burden with emphasis on outcome measures. Yes, for measures based on patient-level clinical data. Methodology is actual versus expected – variables vary by measure: could include age, insurance type, illness severity, area deprivation index, etc.	Yes	Yes, risk adjustment model includes demographic and clinical variables	No WCHQ does not use risk adjustment but uses stratification instead to offer members insight into opportunities for improvement.	Yes – based on measure steward specifications
Scoring	Public reporting indicates whether providers are statistically above or below the statewide average. Does not combine measures into an overall quality score.	Includes benchmarks	Performance scores are the mean score at the follow-up survey, risk-adjusted. Testing is not complete, but measures are intended to be submitted to CMS Quality Payment Program and NQF for endorsement.	Performance scores include overall rank, average, and percentile at the system and clinic branch level.	Plan-specific and plan-aggregated results for each provider organization (PO). IHA performs reliability testing/minimum number of observations methodology to results used for public reporting of clinical quality and cost data.

Element/ Model	Minnesota Community Measurement (MNCM)	Kentuckiana Health Collaborative	Purchaser Business Group on Health (PBGH)	Wisconsin Collaborative for Healthcare Quality (WCHQ)	Integrated Healthcare Association (IHA)
Usability	Public reporting/consumer transparency; used by healthcare providers to compare themselves to statewide averages and drive quality improvement strategies; used by private payers and Medicaid in value-based contracting; used to understand and make progress on reducing health disparities	*	Planned uses: Payment program; quality improvement with external benchmarking and internal to a specific organization; professional certification or recognition program PBGH has engaged members in efforts to align PROs for oncology. While the effort requires strong commitment from members, the value to members includes more consistent and reliable data capture for selected measures, access to a PRO collection platform, access to an implementation guide for measurement and measure adoption, and education on the use of the new measures	Public reporting used by health systems for comparisons to drive improvement; payers use data provided directly (with health system permission) for value-based contracting and mandated quality reporting; public health for priority setting and intervention analysis; academic partners for research; and all partners with a particular focus on reducing health disparities and increasing value of care.	Provider organizations receive plan-specific and plan-aggregated results for their contracted health plans. Health plans receive their plan-specific and plan-aggregated results for POs in their network. Provider organization results are also publicly reporting through the Office of Patient Advocates (OPA)
Reach	Comprehensive coverage within Minnesota; data also includes providers in border communities in WI, IA, ND, and SD	State	National	State of Wisconsin, as well as some representation in adjoining states (Michigan, Minnesota, Iowa, Illinois)	State
Unique Features	Serves as convener, measure developer, data validator, with goal of empowering ALL stakeholders with data, especially payers and providers; Moving to new data submission methods to reduce burden and increase efficiencies	Works with state Medicaid and state private payers for adoption	Dual aims to advance adoption and develop new PRO-PMs; Patient engagement throughout measure development process; National infrastructure to collect and report PRO-PMs is being developed	Direct EHR feed, custom (non-standard) clinical fields, ability to collect data from any EHR platform, central programming of measures, more than 10 years of clinical data in a repository, and medical and dental measures.	IHA serves as a convener; multistakeholder and consensus-driven process; results aggregated to provide a clear performance signal; centralized data collection and analysis to reduce admin burden.

* Cell left intentionally blank.

Appendix B: Figures From Regional Models

Figure 3. Kentuckiana Health Collaborative Measure Selection Criteria Rubric

Measure Selection Rubric

Measure Name: _____ CMS ID # _____

Measure Type: Efficiency, Outcome, Process Screening NQF ID # _____

Risk-adjusted: Yes, No

Measure Priority: Low, Medium, High

| PMAC Selection Criteria	Meets Criteria Fully (Two Points)	Partially Meets Criteria (One Point)	Does Not Meet Criteria (Zero Points)	TOTAL	Don't know/Additional Comments
Stop Points. If any measure below doesn't partially meet these criteria, measure cannot be considered for inclusion in Kentucky Core Healthcare Measures Set.					
1. Does this measure support clinical recommendations?	Measure supports current clinical guidelines	Measure supports most clinical guidelines	Measure does not support current clinical guidelines		
2. Is the measure valid, reliable, and produce sufficient volume?	Measure is valid, reliable, and produces sufficient volume	Measure is mostly valid, reliable, and produces sufficient volume	Measure is not valid, reliable, or produces sufficient volume		
3. Can the measure be captured using data readily available? What is the extent to which the data can be captured without undue burden?	Data required for measure is currently easily available for most providers	Data required for measure is available with some challenges or requires combination of data sources	Data required for measure is difficult to obtain or will require manual abstraction for most providers.		
Score the following measures normally (not automatically rejected if it doesn't meet the criteria).					
4. Is this measure included in the MIPS and/or Medicaid measurement sets?	Measure aligns to both MIPS and Medicaid	Measure aligns to either Medicaid or MIPS	Measure does not align to either measure sets		
5. How important is the measure concept in impacting cost?	Measure has a large, direct impact on cost	Measure has a moderate impact on cost	Measure will have little or no impact on cost		
6. Does the measure provide a significant impact to the health of Kentuckians?	Measure has a large, direct impact on health	Measure has a moderate, direct impact on health	Measure has minimal or no impact on health		
7. Does the measure address a performance gap in primary care providers at an individual or group practice level?	Data supports the need to significantly improve performance in Kentucky	There is little data to support the need to improve but there's consensus of a gap	There is no known data to show a performance gap		
8. Are there avoidable and clinically unnecessary differences in delivery of care for this measure among people and populations? (ie. are there gaps in equity)	Data supports the existence of disparities in care	There is some data that supports the existence of disparities in care	There is no known data to show the existence of disparities in care		
9. Does an individual or group of primary care providers have the ability to impact their performance for this measure?	Providers have a lot of ability to influence their score in this measure	Providers have some ability to influence their score in this measure	Providers have little or no ability to influence their score in this measure		
				Total Score	

Kentuckiana Health Collaborative (KHC) has nine selection criteria built into a rubric so that members can review, score, and compare potential measures.

Figure 4. Purchaser Business Group on Health Advanced Primary Care Measure Set: Alignment With Attributes

| Quality Domain	Measure	NQF ID	Person & Family Centered	High Value	Team Based & Collaborative	Accessible	Coordinated & Integrated
Health Outcomes & Prevention	Asthma Medication Ratio	1800			●		●
	Childhood Immunization Status (Combo 10)	0038	●		●		●
	Colorectal Cancer Screening	0034	●		●		●
	Controlling High Blood Pressure	0018			●		●
	Diabetes HbA1c Poor Control (>9%)	0059			●		●
	Immunizations for Adolescents	1407	●		●		●
Patient Reported Outcomes	Depression Remission at 6 months	0711	●	●	●	●	●
Patient Safety	Concurrent Use of Opioids and Benzodiazepines	3389			●		●
Patient Experience	Patient Experience (CG-CAHPS)	0005	●		●	●	●
High Value Care	Emergency Department Visits	-		●		●	●
	Inpatient/Acute Hospital Utilization	-		●		●	●
	Total Cost of Care	1604		●			

The Purchaser Business Group on Health's (PBGH) measure set includes areas of impact for primary care, which helps inform primary care providers about improvement opportunities based on measure results. PBGH's California Quality Collaborative (CQC) outlines attributes of its Advanced Primary Care measure set that reflect high value and high quality primary care to emphasize focus areas for providers.

Figure 5. Integrated Healthcare Association's Data Submission and Reporting Process
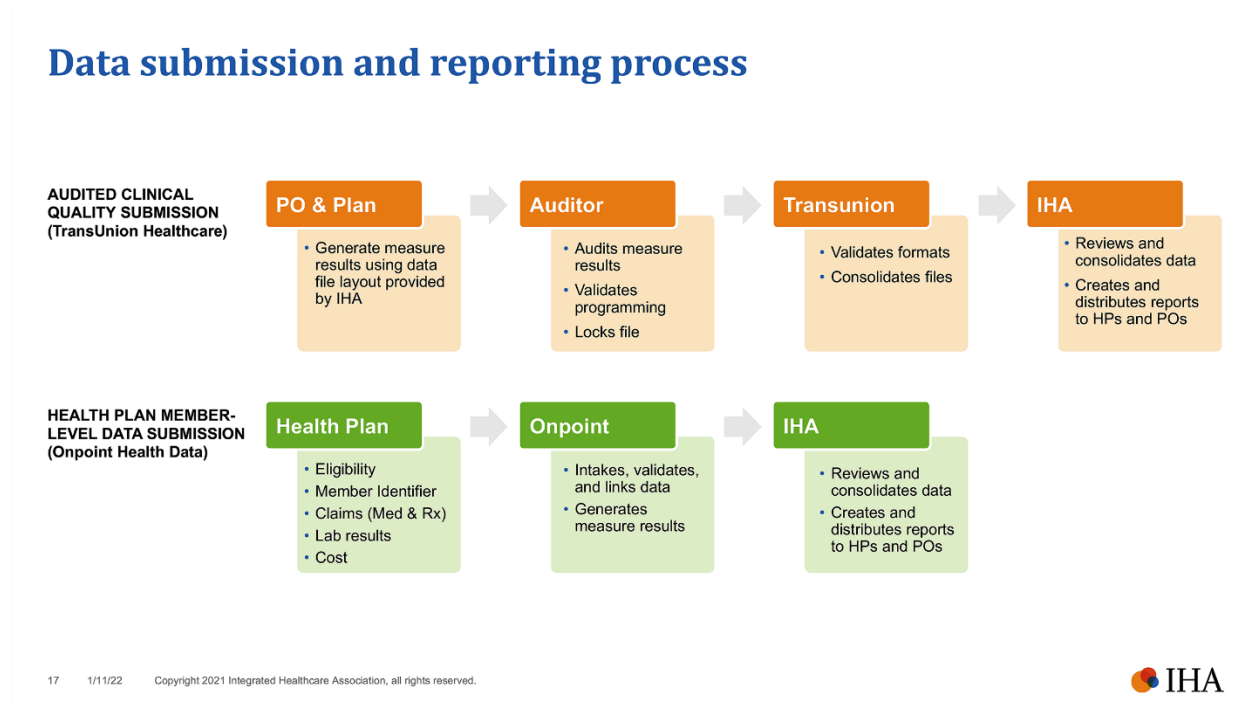
IHA recognizes the roles of the organizations involved in its data submission and reporting process.
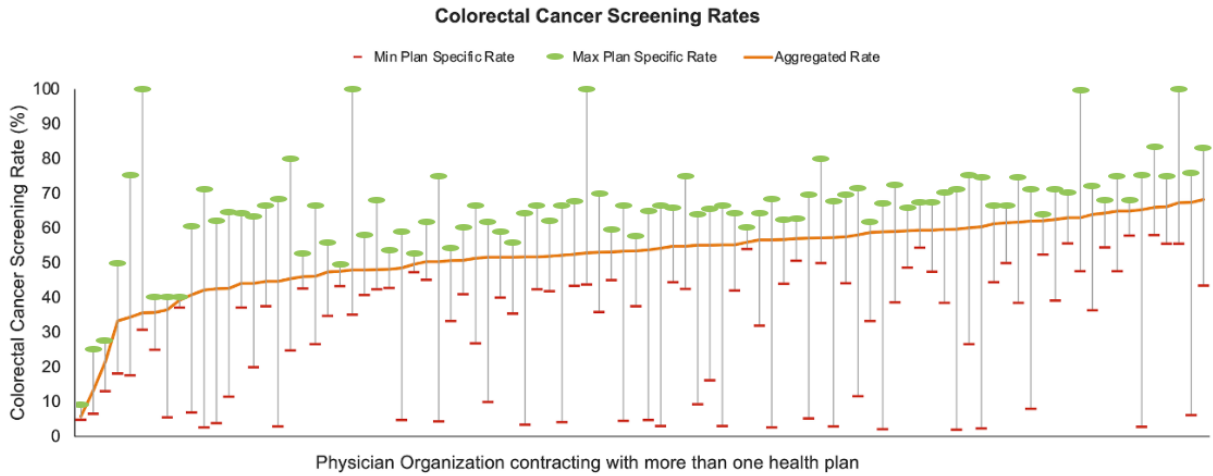
Figure 6. Integrated Healthcare Association's Hierarchy Attribution Methodology
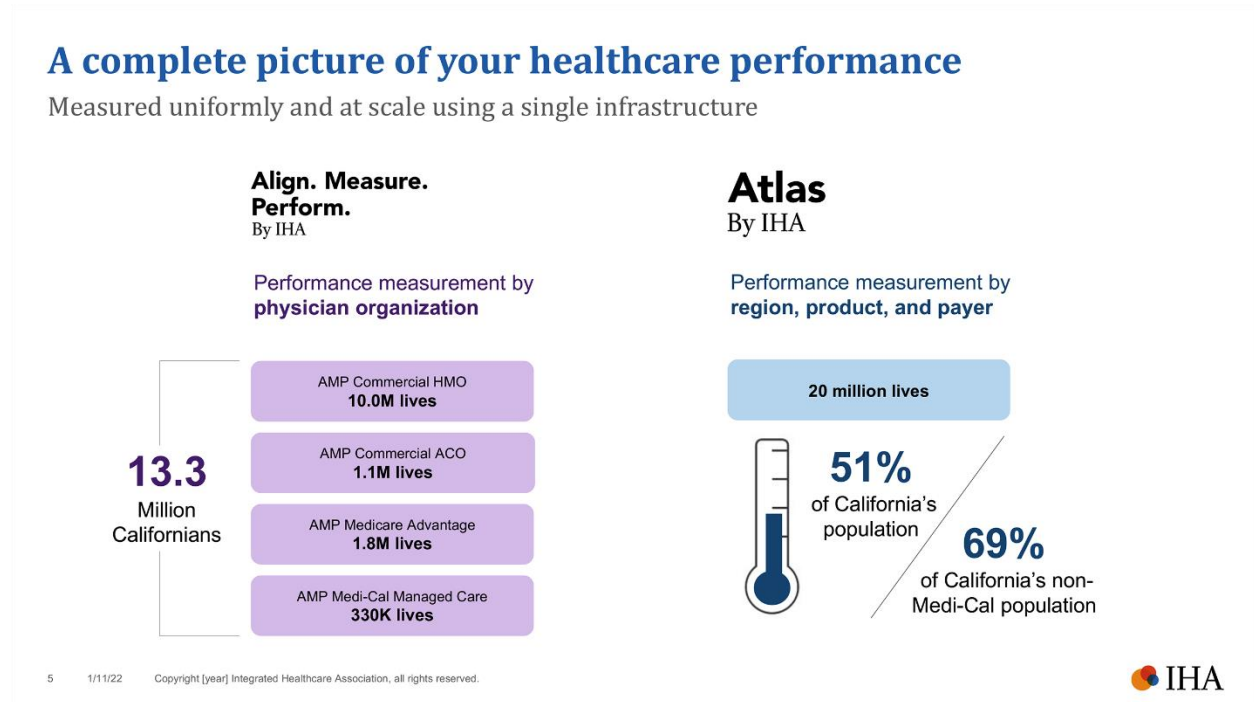
IHA developed a hierarchy attribution methodology based on the needs of its members. The hierarchy allows for reporting at the region, product, payer, and provider levels so that members can identify opportunities and successes for each identified group and care team member.

Figure 7. Example of Integrated Healthcare Association's Measure Results Display

IHA shares performance information with members so that they are aware of their outcomes prior to results being reported publicly.