CQMC Implementation Guide

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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 and Medicaid Services (CMS) and America's Health Insurance Plans (AHIP).

Originally founded in 2015, the CQMC is a broad-based coalition of health care leaders. The CQMC is comprised of over 70 member organizations including CMS, 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.







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Executive Summary

The U.S. healthcare system is moving from one that pays for the volume of services to one that pays for value. Value-based payment requires quality, patient experience, and efficiency metrics to assess the success of alternative payment models (APMs) and their participants at delivering value.

This increased reliance on performance measures as part of these models has led to a corresponding expansion in the number of measures. This expansion increases the burden on providers implementing the measures, the confusion among consumers and purchasers seeing conflicting measure results, and the operational difficulties among payers. The Core Quality Measure Collaborative (CQMC) is a public-private partnership working to address the proliferation of measures by facilitating cross-payer measure alignment through the creation and adoption of core measure sets.

Moving from fee-for-service to more advanced payment models is challenging. It is not uncommon for initiatives to fail. This Implementation Guide identifies key elements of success for value-based payment programs and synthesizes strategies and resources to help your organization succeed.

Strong and committed leadership is foundational for success in payment transformation. Successful and lasting change requires clear and consistent support and reinforcement at all organizational levels. Organizations will need to partner and engage in different ways. Leadership is essential to building the relationships and trust necessary for lasting partnerships.

The four elements of success for value-based payment implementation are:

- Leadership and Planning Senior leadership support is crucial to the success of value-based payment efforts.
 Implementation of value-based payment programs and core sets within these programs, flows from and feeds into strategic planning and relationship building.
- 2. Stakeholder Engagement and Partnership Advancing performance measurement and payment models will require strong relationships, cooperation, and trust. Innovation in payment, performance measurement, and care models requires collaboration. Health care organizations will need to work together in new ways.
- 3. Measure Alignment Aligning on the same measures sends a clear message about what is important. It brings clarity to all stakeholders and allows work to focus on adding value through improvement instead of diverting resources to managing multiple, potentially conflicting, measures and specifications.
- 4. Data and Quality Improvement Support Value-based payment can only result in system transformation when all stakeholders have the necessary data, information, and resources to improve and transform. Organizations will need to source and share data in new ways to support this transformation.

It is crucial to make sure your organization's leadership team shares the vision of these elements and is willing and able to provide complete and ongoing support for this effort.

Background

The U.S. healthcare system is moving from one that pays for the volume of services to one that pays for value. Value-based payment requires quality, patient experience, and efficiency metrics to assess the success of alternative payment models (APMs) and their participants at delivering value.

This increased reliance on performance measures as part of these models has led to a proliferation of measures and a corresponding increase in burden on providers implementing the measures, confusion among consumers and purchasers seeing conflicting measure results, and operational difficulties among payers. Thus, the CQMC aims to:

- Identify high-value, high-impact, evidence-based measures that promote better patient outcomes, and provide useful information for improvement, decision-making and payment.
- Align measures across public and private payers to achieve congruence in the measures being used for quality improvement, transparency, and payment purposes.
- Reduce the burden of measurement by eliminating low-value metrics, redundancies, and inconsistencies in measure specifications and quality measure reporting requirements across payers.

The CQMC is accomplishing these goals through the development and implementation of core measure sets.

About the CQMC Core Sets

The CQMC defines a core measure set as a parsimonious group of scientifically sound measures that efficiently promote a patient-centered assessment of quality and should be prioritized for adoption in value-based purchasing and APMs.

Meeting the needs of multiple stakeholders for multiple applications of measurement (such as public reporting, provider feedback reports, or VBP) is a challenging task. These core sets are not intended to cover every possible scenario for every stakeholder, but rather to serve as a starting point for implementation and alignment. Organizations seeking to implement measures should choose measures from within the core sets when possible.

To date the CQMC has chosen to focus on clinician measurement, primarily in the outpatient setting, and to identify measure sets that could support multiple care delivery models. The sets are developed using a multistakeholder process. See **Appendix B** for more details on this process.

Initial core set development focused on ten core sets in areas identified as high priority by CQMC members. The ten sets cover the following topic areas:

- Accountable Care Organizations (ACOs), Patient-Centered Medical Homes (PCMH) and Primary Care
- Cardiology
- 3. Gastroenterology
- 4. HIV and Hepatitis C
- 5. Medical Oncology

- 6. Obstetrics and Gynecology
- Orthopedics
- 8. Pediatrics
- 9. Behavioral Health
- 10. Neurology

The CQMC will be adding a Cross-Cutting Core Set in 2021. For information on the process used to select core set areas, see **Appendix C**.

These existing core sets will be revised as needed to reflect the changing measurement landscape, including, but not limited to, changes in evidence-based clinical practice guidelines, data sources, or risk adjustment.

Who Should Use This Guide?

The primary audience for this Guide is health plans seeking to implement or evolve value-based purchasing (VBP) programs. While intended primarily for plans, a broad set of stakeholders, including providers, purchasers, regional collaboratives, and policy and regulatory bodies may find the content valuable to help encourage increased alignment of health care performance measurement.

How to Use This Guide

Your plan can use the implementation strategies to design, refine, strengthen, and extend your plan's VBP initiatives. The Guide is not a list of "must-do's," but rather offers options from which to choose, depending on context, resources, and needs. The implementation strategies include content for plans that are starting out on a value-based payment journey as well as plans seeking to strengthen and sustain existing initiatives. These categories are roughly based on likely resource-intensiveness and organizational effort. Plans can determine which approaches are the best fit based on context and strategy. The considerations include a broad range of options to use and increase the likelihood of success.

The Guide is organized into key elements of success for VBP programs. We define success to mean full implementation of a program that achieves its goals, presumably increasing the value of care. Details of contractual or payment arrangements are outside the scope of this guide. Each element of success includes a brief description, implementation strategies, potential barriers and suggested solutions, and curated tools and resources that provide more in-depth information and guidance on relevant topics **Appendix A**. includes hyperlinks to overarching tools and resources that cross multiple areas. The Guide also includes information, strategies, and resources on key drivers of change, specifically planning and building relationships. This Guide also includes information on using data to identify and address disparities and implementation insights gathered from key informant interviews.

Elements of Success for Value-Based Payment Implementation

The CQMC identified four elements for successful VBP implementation by health plans:

- 1. Leadership and Planning
- 2. Stakeholder Engagement and Partnership
- 3. Measure Alignment
- 4. Data and Quality Improvement Support

While these elements are explored in separate sections for ease of navigation, the elements are inter-related, and all are necessary for successful VBP implementation.

Element of Success 1: Leadership and Planning

Senior leadership support is crucial to the success of VBP efforts. Implementation of value-based payment programs and core sets within these programs, flows from and feeds into strategic planning and relationship building.

KEY TAKEAWAYS

- Involve a cross-functional team from the start: clinical, technical, and measurement staff, etc. Include natural leaders/champions. Each area will bring insight, skills, and knowledge to the process.
- Set clear goals for the program. Tie goals to improving care for patients. All stakeholders can find common ground in this. Prioritize and maintain focus on what is most important. Be prepared to adjust tactics to achieve the goals.
- Create a culture that welcomes innovation. Teams may need to iterate and revise initial plans and projections on the way to success. Learn from "failures" along the way.

IMPLEMENTATION STRATEGIES: STARTING OUT

- Start small. Implement what is doable. Small wins and positive early experiences will help set the stage for more challenging work.
- Be strategic about where to start. Set the project up for success.
 - Select teams and partners that are enthusiastic about and can champion VBP.
 - Consider partnering with groups that have already demonstrated success in VBP.
 - Leverage senior leaders as active and engaged project sponsors.
- Identify an experienced project manager with a track record of success and involve them in the project as early as possible.
- Design a process for choosing measures and setting a strategic plan for future measurement in concert with external stakeholders. Incorporate core measure sets into this process.
- Create and maintain an inventory of measures already in use.
- Create an inventory of available data. Include internal and external data sources. Sources may include data available through stakeholders; regional, state, and national data; or data sets available for purchase. See Element of Success 4: Data and Quality

- **Improvement Support** for more strategies and resources on data and data sharing.
- Determine what value-based payment arrangements are already in place, both in your organization and in other organizations. Consider aligning measurement and measurement strategies with other organizations to increase signal and reduce burden. This includes aligning update cycles where possible so that all organizations are on the same version of measures.
- Determine what type of VBP model will be used, for example, shared savings, bundled payment, population-based payment.
- Determine if provider participation in the VBP program will be voluntary or mandatory as this will impact program design, including measure selection. Consider starting voluntarily with willing partners and progressing from there.
- Consider these factors when weighing which core measures to use in a VBP: type of payment arrangement, experience with measurement, available data, technical capabilities, strategic priorities.
- Obtain the most recent measure specifications.
 Review the measure specifications and create a plan for implementation. See Appendix E for considerations.

- Choose core measures with opportunity for improvement. It will be easier to obtain stakeholder partnership and engagement around measures that have variation in performance or that have opportunity for performance improvement across the board
- Prioritize core measures that offer participation and opportunity for most providers and where improvement will impact many patients and purchasers.
- Set a vision for future measurement initiatives. Identify paths to that future state and work on moving forward. Progress may be slow. Be patient and play the long game.
- Allow adequate time and resources to build a strong foundational program.
- Highlight and support the use of core measures in internal and external communications.
- Keep it simple, especially to start.

IMPLEMENTATION STRATEGIES: STRENGTHENING AND SUSTAINING

- Rebalance measures as you move from fee-forservice based payment models to population-based payment models. Payment for volume of services may lead to concerns of overtreatment. Shifting to payment models such as global budget may correspond to a shift to concerns of undertreatment.
- The more payment models shift from a fee-forservice basis to population-payment basis, the more systems (both information and healthcare) will also need to change. Planning, cooperation, and coordination will be crucial and will need to expand

- to include more stakeholders.
- Include your full book of business (fully insured and not fully insured) in payment transformation. It is easier to implement, support, and sustain system and culture changes for a large, aligned population than for smaller, conflicting populations.
- Culture change associated with payment and system transformation will require clear and consistent leadership support in all stakeholder organizations.

Suggested Tools and Resources

Resource	Address
Health Care Payment Learning & Action Network whitepaper on the use of performance measurement in value-based payment models	http://hcp-lan.org/workproducts/pm- whitepaper-final.pdf
Managing Transitions by William Bridges Book on managing the human side of organizational change. Strategies and tactics to help employees navigate and even embrace organization change and transitions.	Available on Amazon or through other bookstores: https://www.amazon.com/dp/0738219657/ Company website: https://wmbridges.com/
Center for Healthcare Quality & Payment Reform: How to Create an Alternative Payment Model: Designing Value- Based Payments That Support Affordable, High-Quality Healthcare Services	http://www.chqpr.org/downloads/How_to_ Create_an_Alternative_Payment_Model.pdf
American Medical Association, Center for Healthcare Quality & Payment Reform: A Guide to Physician-Focused Alternative Payment Models	http://www.chqpr.org/downloads/Physician- FocusedAlternativePaymentModels.pdf
Agency for Healthcare Research and Quality: Will It Work Here? A Decisionmaker's Guide to Adopting Innovations	https://innovations.ahrq.gov/guide/guideTOC
The Healthcare Transformation Task Force: Three Shared Attributes Drive High Performing ACOs	https://hcttf.org/wp-content/ uploads/2018/03/Three-Shared-Attributes- Drive-High-Performing-ACOs.pdf

Taking Action

Factors to consider while planning and designing a VBP initiative:

- Risk tolerance and proficiency of plan and providers
- Technological capabilities of plan and providers
- Potential partners and stakeholders
- Marketplace: consolidation, concentration, competition
- Patients and conditions to include/not include
- Current and desired financial incentive structure

- Are you going to build a solution internally, purchase a solution, build partnerships?
- What barriers do you want to remove?
- What behaviors do you want to encourage?
- What other initiatives are in place? Is there opportunity to collaborate?
- What needs to be in place for stakeholders to collaborate without anti-trust concerns?

Budget considerations

Functions that may need to be covered in a budget include:

- Project management/administration
- Research and design if building out new functions or products
- Any necessary software for risk adjustment, data transfer, or measure calculations
- Legal costs for review of data use agreements, shared services agreements, or other agreements
- Fees associated with joining a regional collaborative or other existing group
- Data collection
- Data analysis

- Data reports to guide ongoing performance improvement
- Auditing of results to ensure the calculations are correct and bolster credibility
- Updating and negotiating/renegotiating contracts
- Any post-audit revisions
- Programming or system changes to claims payment software to process payments under new payment model
- Payments made as part of the program, either incentive or to support quality initiatives
- Program evaluation

Dr. Harold Miller's Six Steps to Creating a Successful APM (See full document in Resources and Tools above):

- Step 1: Identify one or more opportunities for reducing spending and/or improving the quality of care
- Step 2: Identify changes in care delivery that will reduce spending or improve quality in those opportunity areas
- Step 3: Identify the barriers in the current payment system that prevent or impede implementing the improved approach to care delivery
- Step 4: Design the Alternative Payment Model so that it will overcome the barriers in the current payment system and assure the delivery of highervalue care
- Step 5: Determine how payers and providers can operationalize the APM as easily and quickly as possible
- Step 6: Implement the APM, assess its performance, and make improvements as needed

Element of Success 2: Stakeholder Engagement and Partnership

Advancing performance measurement and payment models will require strong relationships, cooperation, and trust. Innovation in payment, performance measurement, and care models requires collaboration. Health care organizations will need to work together in new ways. Organizations will need to share data and work together.¹ Coordinated efforts, both internally and externally, will be necessary to move from payments based on fee-for-service structures to population-based payments. Partnering with providers and other stakeholders in program design and implementation increases ownership and contributes to program success.²³ Successful relationship building is a foundation for elements such as measure alignment and data sharing. We have purposely defined stakeholder broadly in this Guide, to include as many use cases as possible.

KEY TAKEAWAYS

- Partner and build relationships with external and internal stakeholders. Future measurement initiatives
 will require new collaborations and working relationships. Building these relationships now will help
 everyone advance measurement and implementation goals.
- Use a neutral facilitator to help achieve stakeholder alignment.
- Collaborate with other entities to align priorities and work toward cross-organization alignment on measurement.
- Build on existing stakeholder strengths but be willing to make changes to how things have always been done.

IMPLEMENTATION STRATEGIES: STARTING OUT

- Include providers, patients, purchasers, and other stakeholders in the program design process.
 - Start with a proposal for groups to react to instead of starting with a blank page.
 - Work with the stakeholders to prioritize implementation.
 - Offer program design options where possible while maintaining alignment where necessary.
 - Work to consensus. Strive for a solution all stakeholders understand and can live with.
- Work to address "rules of engagement" prior to running results/measures. Keep discussion focused on design of the program and not specific cases or organizations.
- Use a neutral and respected third-party auditor to validate measure results.

- Offer a dry-run option for new or updated measures to help create stakeholder comfort with process and results. A dry run is calculating and sharing results privately with providers without taking financial action on or publicly posting the results. This will allow all parties to work through the process without payment pressures.
- Offer a preview period for results, allowing providers to see their results prior to the results being used in a program. Establish a process for addressing questions and concerns.
- Be transparent about the measures and methodologies used in value-based payment programs. Sharing this information with providers, purchasers, and patients builds trust in the program and provides visibility into the linkage between the program and high-quality care.

- Consider working with a convening entity or regional collaborative if one is available. Advocate for the use of core measures.
- Provide feedback and information to stakeholders to assist with quality improvement and benchmarking efforts. Ask stakeholders what information is most useful to them.
- Choose evidence-based measures that are meaningful to all stakeholders (purchasers, patients, providers). Prioritize measures that align with core sets and that capture processes and outcomes that are meaningful and motivating.
- Choose measures with opportunity for improvement. This may mean there is variation in performance or that performance has opportunity for improvement across the board. It will easier to obtain stakeholder buy-in and engagement around measures that have opportunity for improvement.
- Choose areas of focus and prioritize. Clearly communicate these areas during stakeholder discussions and when contracting. Find areas of commonality and start with those areas.

- Cultivate internal champions for the adoption of core sets and measures.
- Focus on the clinical aspects and benefits to patients with the clinicians. Let the data and analytics teams focus on the specification and calculation details.
- Help team members understand how their work feeds into and produces high-quality care for patients. Translate and distill measure specifications and results into language that is relevant to their work. Discuss how to achieve results within the spirit of the measure focus. Strive for commitment to high-quality care as a route to high-performance versus a narrow focus on measure specifics.
- Incorporate core measures into internal programs and focus. Share results broadly. Discuss results in team meetings. Provide feedback on performance and strategies for improvement.
- Align internal compensation and incentive programs with value-based payment principles and measures.

IMPLEMENTATION STRATEGIES: STRENGTHENING AND SUSTAINING

- Consider creating a regional collaborative or shared data analytics entity for all stakeholders to align on measures and share data and data resources.
- Discuss ways in which stakeholders can support each other and work together to achieve quality goals (e.g. for blood pressure control, ensure formulary includes most effective options and implement value-based benefit design to minimize patient barriers, provide medication adherence feedback to accountable provider).
- Engage patients throughout the process and solicit ways to change health care delivery to improve the value of care.
- Engage providers throughout the process and solicit ways to change health care delivery to improve the value of care. Explore what payer (or other stakeholders) changes could facilitate those changes.

- Identify providers serving patients with social risk factors and engage them in the process. Discuss how to design and implement the VBP program to help providers improve care for these patients.
- Consider any perverse financial incentives resulting from measures and how to address via payment/ contract. For example, if performing well on the measures will result in a reduction in urgent and emergent visits, consider the impact this may have on overall reimbursement.
- Offer a range of options for value-based payment programs. Meet each provider where they are today and work to progress to preferred arrangements.

Suggested Tools and Resources

Resource	Address
Center for Healthcare Quality & Payment Reform: How to Create an Alternative Payment Model: Designing Value-Based Payments That Support Affordable, High-Quality Healthcare Services In the Implementing the Alternative Payment Model section (page 158), Dr. Harold Miller presents a thorough accounting of barriers and solutions by stakeholders.	http://www.chqpr.org/downloads/How_to_ Create_an_Alternative_Payment_Model.pdf
Health Care Transformation Task Force Toolkit for Successfully Building Value-Based Partnerships	https://hcttf.org/building-successful-value-based-partnerships/
Agency for Healthcare Research and Quality: Tools and Resources for Practice Transformation and Quality Improvement	https://www.ahrq.gov/ncepcr/tools/transform-qi/index.html
The Health Care Transformation Task Force: Partnership Evaluation Tool	https://hcttf.org/value-partnership-evaluation-tool/

Taking Action

Stakeholder Identification

Consider the following stakeholder groups when developing stakeholder engagement plans:

- Internal stakeholders (for example, IT department, claims system administration)
- Provider organizations (for example, contracted provider groups, specialty and medical societies)
- Purchasers and employer organizations (for example, entities purchasing insurance, self-funded organizations using administrative services, state purchasers such as state benefit plans and Medicaid)
- Patients and patient organizations (for example, patient focus group, patient advocacy groups)
- Regional organizations (for example, collaboratives, health information exchanges)

Stakeholder Roles and Responsibilities

Clear roles and responsibilities are critical to project success. These roles and responsibilities will vary by implementation. Consider the use of a responsibility assignment tool to work through and document roles and responsibilities so that all stakeholders are clear and in agreement. One popular tool is a RACI (responsible, accountable, consulted, informed) matrix.

Responsible entities/individuals perform the work.

At least one entity should be assigned responsibility.

- Accountable entities are answerable for timely and correct completion of the work. For clarity, only one entity should be designated as accountable.
- Consulted entities/individuals provide input to the work through two-way communication.
- Informed entities/individuals are informed of work through one-way communication.

Sample RACI matrix

Task	Plan	Provider	Purchasers	Patients
First task	Α	R	С	С
Second task	Α	С	I	1
Third task		Α		

Element of Success 3: Measure Alignment

Measure alignment is frequently identified as a key success factor for value-based payment programs.⁴⁵ Core measure sets are a promising strategy for measure alignment and the Health Care Payment & Learning Action Network recommends using core sets as sources of measures for population-based payment.6

KEY TAKEAWAY

Prioritize core measures for implementation in new or existing programs. The CQMC core sets have been developed with a goal of alignment with existing national measurement programs. Users of this guide will find familiar measures within the sets. These measures should serve as a starting point for implementation and alignment. These are living sets that will be updated on a regular basis, evolving alongside the science and capability of performance measurement.

IMPLEMENTATION STRATEGIES: STARTING OUT

- Visit the CQMC website and browse the core sets. Become familiar with the content. http://www. qualityforum.org/CQMC_Core_Sets.aspx
- Compare the core set measures with measures you already use. There may already be areas of overlap. You also may discover non-core measures currently in use that address similar areas to measures in the core sets. Determine if it is possible to replace the existing measure with the core measure.
- Explore what community or regional data and measurement resources are available. Coordinate with community or regional measurement efforts to align on core measure sets.
- Choose cross-cutting measures to supplement specialty-specific measures. This will increase the proportion of care captured and decrease the

- likelihood of missing results for providers due to small case numbers. See Addressing Small Numbers and Measure Reliability for more information.
- Use measures as specified. Changing measure specifications results in misaligned measures and increased measurement burden.
- Coordinate with measure steward for specifications. Make sure you are using the most recent version of the specifications.
- Provide implementation feedback to the measure steward. Feedback on implementation questions and issues is a valuable resource for measure steward.
- Highlight the importance of alignment and core sets in discussions and communications. Secure buy-in from other stakeholders for these principles as well.

DEFINITION: measure steward and measure developer (from CMS Measures Blueprint⁷) Some measures may have both a steward and a developer, while for others the steward and developer may be the same entity. We have used the term "measure steward" in this Guide to represent the entity with overall ownership and responsibility for the measure.

MEASURE STEWARDS: Stewards have permission to approve, reject, and publish measures that their assigned developer groups create and submit. Stewards provide overall coordination and management of the measures created by developers under a specific program or for a specific purpose. Stewards are responsible for approving measure content. Stewards may withdraw measures from approval.

MEASURE DEVELOPERS: Measure developers create, edit, and submit measures to a designated steward, in this case, CMS. Developers submit measures to their assigned stewards for approval. It is also the responsibility of the developer to circulate their measure content for feedback and to collaborate on potential measure changes suggested by other authors or other entities.

IMPLEMENTATION STRATEGIES: STRENGTHENING AND SUSTAINING

- Join the CQMC and help build, strengthen, and sustain the core measure set development.
- When implementing patient-reported outcome measures (PROMs), use tools and instruments as specified. Changing the tool or instrument without thorough testing to examine potential impact on measure results may lead to misaligned measures
- and unintended consequences (e.g. provider withdrawal from market, increasing barriers to care).
- Use adequate risk-adjustment when selecting outcome measures for VBP programs and monitor for unintended consequences to ensure providers serving vulnerable sub-populations are not underpaid for their services.

Suggested Tools and Resources

Resource	Address
National Quality Forum: Variation in Measure Specifications: Sources and Mitigation Strategies	http://www.qualityforum.org/ Publications/2016/12/
	Variation_in_Measure_SpecificationsSources_ and_Mitigation_Strategies_Final_Report.aspx
Alignment Success Example: Coalition for Compassionate Care of California	https://coalitionccc.org/public-policy/california-advanced-illness-collaborative-caic/
Alignment Success Example: Minnesota Community Measurement	https://mncm.org/
Alignment Success Example: Integrated Health Care Association's Align. Measure. Perform. programs	https://www.iha.org/our-work/accountability/value-based-p4p

Element of Success 4: Data and Quality Improvement Support

Data sharing and quality improvement support are frequently identified as key elements of success for VBP and APM implementation.891011 Strategies in this section address not just how data are obtained and used to calculate measure results, but also what data are necessary for performance improvement and improving patient care. Data sharing depends on the relationships and stakeholder engagement discussed earlier in this document.

KEY TAKEAWAYS

- The Health Care Payment Learning and Action Network's Data Sharing Requirements Initiative White Paper included in the Suggested Tools and Resources of this section contains a wealth of resources and tactics. Review the white paper for strategies and tactics to help your organization implement and improve data sharing capabilities.
- Creating value may require working together in new ways and providing new types of supports, including data, technical assistance, and payments to support infrastructure change 12 Collaborate to move forward efficiently.
- Data and interoperability standards are progressing quickly and will be key to achieving alignment across stakeholders.

IMPLEMENTATION STRATEGIES: STARTING OUT

- Inventory existing internal and external data assets that may be used for reporting and improvement.
- Explore what community or regional data sources are available. Using a community or regional data source that is more comprehensive than internal data sources may help capture care more accurately and yield more meaningful results. Examples of data sources include all-payer claims databases (APCDs), standardized data sets, and regional collaborative data warehouses.
- Avoid the temptation to exchange or collect more data than are necessary. Data capture that does not add value adds additional overhead and burden.
- Explore the use of existing Quality-Data Codes such as Category II CPT Codes and G-Codes as a way of obtaining quality data through existing claims mechanisms. Uniform use of these codes in an APCD could make all-patient quality data available for shared use and analysis.
- Use existing Quality-Data Codes rather than creating additional, unique Quality-Data Codes to help reduce administrative burden.13
- If using results from a registry, verify the registry's

- policies and procedures for data and results sharing to avoid any surprise restrictions on data use.
- EHRs may not have measures embedded, even if they are certified. Help send a unified signal to the EHR marketplace through alignment around core measures to encourage inclusion of the measures in future versions.
- Support EHR customers advocating for alignment on core measures and coordinate requests for vendors to improve capture and reporting of core measures. Ask other stakeholders and partners to amplify the importance of electronic and digital measurement of core measure sets.
- Progress to patient-reported outcome measures (PROMs) through building blocks.
 - Provide supports for implementation of patientreported outcome tools and instruments.
 - Set completion rate targets as part of the payment program.
 - Progress to paying for reporting PROM results.
 - Move to full implementation of payment based on results of PROMs.

- When implementing PROMs, incorporate processes for sharing data and results among stakeholders so that all participants have access to necessary information and data.
- Obtaining clinical data for use in measurement and quality improvement does not have to be high-tech or complicated. One health plan sent lists of relevant

patient identifiers to provider organizations. The providers queried their systems for the identifiers and returned a parsimonious list of most recent clinical data results. The health plan then loaded these results into its care management system, enabling disease prevention and management programs, HEDIS results, and other internal quality uses.

IMPLEMENTATION STRATEGIES: STRENGTHENING AND SUSTAINING

- Consider providing targeted support to assist providers caring for patients with social risk factors. This targeted support should consider the unique characteristics of patients with social risk factors and the providers serving these patients, and include solutions specifically tailored to the needs of these stakeholders.¹⁴
- Leverage technology where possible to automate collection and to capture necessary data in reportable fields and formats. This technology should minimize clinician and patient burden.
- Be thoughtful about where data capture best fits into the clinical workflow and who should gather the data.
- Consider starting a regional collaborative or other entity to create shared data resources and reporting within the community.

- Participate in pilot programs for innovative data sharing or data exchange.¹⁵
- Use and support existing data interoperability standards, such as Health Level 7 International's (HL7's) Fast Health Interop Resources (FHIR).
- Create a mechanism for sharing claims information with provider groups, particularly those in a riskbearing arrangement. Example mechanisms are provider portals and interfaces¹⁶ Consider pushing data to providers rather than requiring them to pull data.
- Support providers in establishing technological capability, both infrastructure and personnel, through innovative mechanisms, such as virtual structures (e.g., independent practice associations).

Potential Barriers and Suggested Solutions

Barrier: Data needed for measurement crosses sources (such as vaccinations).

- Determine potential data sources.
- Consider using a shared-services (external resources) model for assistance with combining clinical data from more than one system. Data standardization and provider identity matching can be difficult and resource intensive. Creating a shared-services model or leveraging existing external resources is probably more efficient than developing a new solution.¹⁷
 - Include organizations producing public reports of healthcare quality as potential shared-service partners.
 - Explore working with state agencies on data sharing. For example, the Wisconsin Department of Health Services created the Wisconsin Immunization Registry to track vaccinations,

- making vaccine records available to all providers and patients.
- Consider working with a health information exchange or regional collaborative to fill data gaps.
- An organization working on its own to combine the clinical data will need to be prepared to address these requirements:¹⁸
 - Patient identity management matching patient records across the systems
- Provider identity management matching providers across the systems
- Data standardization ensuring the same data value from different sources corresponds to the same clinical meaning
- Implement an internal data governance structure,

- including separate agreements and governance for each data flow.19 Obtain legal input early in agreements to address legal concerns ahead of completing negotiations.
- Consider using the Data Use and Reciprocal Support Agreement (DURSA) in the **Tools and Resources** section as a starting point for agreements.
- Leverage existing data standards such as HL7's Consolidated Clinical Document Architecture to obtain data and HL7's Da Vinci Project Data Exchange for Clinical Data Exchange, Quality Measures (DEQM), and Gaps in Care.

Suggested Tools and Resources

Resource	Address
Health Care Payment Learning & Action Network Guide to Implementing Data Sharing to support VBP and APMs. This thorough guide helps organizations understand what data they will need to reach their payment reform goals, assess their current-state data sharing capabilities, and how to close data sharing gaps. It contains numerous case studies and examples of data sharing. The guide provides context of regional and national initiatives to encourage alignment in data sharing methodologies. Key concepts and tools include: • Foundational Building Blocks (p 7) • Business Requirements for Data Sharing (p 10) • Strategies for Addressing Governance, Barriers, and Sustainability (p 19) • Data Sharing Barriers (p 22) • Specific Scenarios and Checklists for Developing Data Sharing Capacity (p 28) • Building Shared Infrastructure (p 37) • Detailed Resources (p 45)	http://hcp-lan.org/workproducts/dsri-report.pdf
Health Care Payment Learning & Action Network whitepaper on data sharing includes use and case studies of successful data sharing, along with fundamental recommendations.	http://hcp-lan.org/workproducts/ds- whitepaper-final.pdf
A systematic review of the literature on value-based care, identifying spending reduction incentives, quality incentives, and infrastructure supports and three key components. Includes interviews and case studies from provider organizations.	https://newsroom.uhc.com/content/dam/ newsroom/Harvard%20Report_FINAL_0923.pdf
CMS 2020 Part B Claims Reporting Quick Start Guide contains guidance and frequently asked questions on the use of Quality Data Codes in MIPS QPP measure reporting.	https://qpp-cm-prod-content.s3.amazonaws. com/uploads/820/2020%20Part%20B%20 Claims%20Reporting%20Quick%20Start%20Guide. pdf
Data Use and Reciprocal Support Agreement (DURSA): a comprehensive, multi-party trust agreement for entities that wish to exchange data. The full text is available online and it may be freely adopted and adapted by other entities.	https://ehealthexchange.org/onboarding/dursa/

Resource	Address
Da Vinci stakeholders are industry leaders and health IT technical experts who are working together to accelerate the adoption of HL7 Fast Healthcare Interoperability Resources (HL7® FHIR®) as the standard to support and integrate value-based care (VBC) data exchange across communities.	https://www.hl7.org/about/davinci/
The Centers for Medicare & Medicaid Services: Data and Report Sharing	https://www.cms.gov/Medicare/Medicare-Fee- for-Service-Payment/sharedsavingsprogram/ program-guidance-and-specifications

Taking Action

Use the checklists in the Health Care Payment Learning & Action Network Guide to Implementing Data Sharing in the **Tools and Resources** section above to assess current capabilities and gaps and develop strategies for moving forward. For each area below, each approach has benefits and challenges. Determining the best approach will be part of the discussions during relationship building and stakeholder engagement.

Consider measure-calculation options:

- Measure results may be calculated by the plan, using claims and/or raw data supplied by providers.
- Measure results may be calculated by providers, with measure components (numerator, denominator, etc.) provided to the plan.
- Measure results may be calculated by a third-party (registry, data analytics partner, regional collaborative, etc.) or vendor.
- Consider these options both in the context of starting points and for long-term measurement goals.

Consider data sharing options²⁰

- Data can be physically exchanged and move among data sharing partners. Each partner would maintain a copy of the data.
- Data can stay with the original organization and other organizations may be granted access to the data.
- Examples include application programming interfaces (APIs) and health information exchanges (HIEs).
- Data may be submitted to a third-party organization, such as a regional collaborative or data analytics partner.

Consider these infrastructure supports, which may be critical to the success of value-based care arrangements:21

- Raw data Data that have not been analyzed, for example, claims data
- Analyzed data Data or reports that have been analyzed or transformed, for example, care spending
- Technical assistance Technical resources to build new capacities, for example, training materials or webinars
- Access to care management and tools Services and tools that help manage care, even across providers and care settings
- Risk management support Strategies to limit exposure to large losses, for example an absolute dollar claims cap
- Infrastructure payments Financial resources to build new capacities

Technical Considerations for Implementation

While technical considerations for measure implementation support key success factors. These considerations may impact strategic decisions and can jeopardize program success. Technical considerations may dictate which core measures and sets are feasible for implementation. We found limited public information on some topics for VBP; however, we were able to draw on resources created to support public reporting of quality measures.

Benchmarking/Performance Targets

Choosing benchmarks and performance targets wisely is important for VBP success. Benchmark and target specifics should be discussed with stakeholders. Here we focus on strategies and considerations for benchmarking or setting performance targets.

IMPLEMENTATION STRATEGIES

- Consider benchmarking that will reward both good performance and performance improvement.²² If only top performers are rewarded, there is little motivation for improvement.
- Consider starting with incentives for sharing data or results and progressing to performance-based incentives.
- Strive for program designs that reward all performance improvement and that encourage sharing of best practices. Avoid creating winners at the expense of losers.²³
- Set realistic benchmarks that providers can achieve.
 Choose benchmarks relevant to the group or individual being evaluated.
- Consider baseline room for improvement when setting targets.²⁴
- Performance targets should be set in absolute terms and established prior to the measurement period. All providers who achieve the target should receive an incentive payment.²⁵ ²⁶

- Setting relative targets, that is, rewarding provider performance in direct comparison to other providers, may stifle sharing of best practices and cooperative improvement.
- Absolute benchmarks (setting a specific target performance goal) may need to be adjusted if specifications change, for instance, if the target blood pressure in a measure is raised or lowered. Have a plan for addressing this if it occurs.
- Keeping the same targets for a longer period, ideally the length of the contract, creates stability and may make it easier for providers to justify investments related to quality improvement.
- Results may need to be grouped and evaluated by data source if different submission methods are used (for instance, registry and electronic clinical quality measures).

Patient Attribution

Patient attribution is a methodology used to assign patients, and their quality outcomes, to providers or clinicians²⁷ It is important that providers and plans agree on the patient attribution methodology. The methodology must be data-driven and evidence-based so that all parties find it fair and trustworthy.

IMPLEMENTATION STRATEGIES

- Patients may be attributed to providers prospectively or based on visits during the performance year. The timing of the attribution should be discussed and agreed upon by the plan and provider. The discussion should take the year-to-year stability of the patient population and plan enrollment into account.
 - Prospective attribution (attribution that happens prior to the performance year) allows providers to know their patient population prior to being measured on treatment of that population.
 - Performance year attribution (attribution that happens based on the performance year) may capture actual population and performance more accurately than prospective attribution²⁸
- The 2018 NQF Report on Attribution makes the following recommendations for patient attribution²⁹
- Use the Attribution Model Selection Guide to evaluate factors to consider in the choice of an attribution model.
- Attribution models should be tested.
- Attribution models should be subject to regular

multistakeholder review.

- Attribution models should attribute care to entities who can influence care and outcomes.
- Attribution models used in mandatory public reporting or payment programs should meet minimum criteria:
 - use transparent, clearly articulated methods that produce consistent and reproducible results;
 - ensure that accountable units can meaningfully influence measured outcomes;
 - use adequate sample sizes, outlier exclusion, and/or risk adjustment to fairly compare the performance of attributed units;
 - undergo sufficient testing with scientific rigor at the level of accountability being measured;
 - demonstrate that the data sources are sufficiently robust to support the model in fairly attributing patients/cases to entities; and
 - be implemented with an open and transparent adjudication process that allows for timely and meaningful appeals by measured entities.

Addressing Small Numbers and Measure Reliability

Performance measures generally require a minimum amount of data to reliably calculate provider performance. Poor reliability may result in misclassifying performance, resulting in incorrect VBP incentives. Ground rules and parameters for reliability requirements should be part of the VBP design discussion.³⁰ Plans should monitor VBP programs for results that do not meet the agreed-upon reliability threshold.

IMPLEMENTATION STRATEGIES

- Choose area-specific measures that cover a large proportion of care delivered by a provider.
- Choose cross-cutting measures that apply to a large percentage of providers.
- Increase the percentage of care captured by including more patients (for example, using all-payer data)

- Increase data points by extending the measurement period (for example, measuring over a three-year period instead of one year).
- Consider using group-level results instead of clinician-level, or system-level instead of group-level if unable to achieve sufficient reliability at the more granular level.31
- Increase the signal by combining individual measure
- scores into a composite score. Combining scores is an advanced strategy that carries the risk of obscuring quality signal if done incorrectly.
- Sophisticated statistical approaches, such as hierarchical modeling and partial pooling, may be used to address small numbers. These approaches require robust statistical and computational capabilities.32

Suggested Tools and Resources

Resource	Address
Center for Healthcare Quality & Payment Reform: How to Create an Alternative Payment Model: Designing Value- Based Payments That Support Affordable, High-Quality Healthcare Services	http://www.chqpr.org/downloads/How_to_ Create_an_Alternative_Payment_Model.pdf
In Table 11 (pages 108-109) of Dr. Harold Miller's guide to creating alternative payments models, he presents an overview of possible ways of setting performance targets, providing strengths, weaknesses, and use case examples.	
National Quality Forum report on Attribution Principles and Approaches	https://www.qualityforum.org/ Publications/2016/12/AttributionPrinciples_ and_Approaches.aspx
National Quality Forum report on Improving Attribution Models	http://www.qualityforum.org/ Publications/2018/08/ Improving_Attribution_Models_Final_Report.aspx
The Agency for Healthcare Research and Quality (AHRQ) Talking Quality website. While the focus of this Guide is VBP applications of core measure sets, the technical issues of performance measurement overlap for VBP and public reporting.	https://www.ahrq.gov/talkingquality/index.html
National Quality Forum report on Addressing Low Case- Volume in Healthcare Performance Measurement of Rural Providers	http://www.qualityforum.org/ Publications/2019/04/ MAP_2019_Recommendations_from_the_Rural_ Health _Technical_Expert_Panel_Final_Report.aspx

Using Data to Identify and Address Disparities

Sound quality measurement approaches can help to identify targeted opportunities to improve care for populations that experience marked disparities in health outcomes. While multiple strategies are required to fully address social determinants of health (SDOH) and reduce disparities, the accurate and timely collection of race, ethnicity, and language data in all healthcare settings is a key first step. Currently, most data collected on race, ethnicity, and language preference are incomplete and unstandardized across or within systems. There are current efforts to support standardizing and sharing these data so that it can be used for quality measurement. This section highlights insights from organizations working in this area; the lessons learned from these organizations can inform future implementation of the Core Quality Measures Collaborative (CQMC) core sets.

Insights From Minnesota Community Measurement (MNCM)

Minnesota Community Measurement (MNCM) has been tracking how to collect race, ethnicity, and language data and documented this information in the **Handbook in the Collection of Race/Ethnicity/Language Data in Medical Groups** published in 2009. This handbook:

- defines and standardizes the data elements to be collected by healthcare entities;
- identifies and recommends additional data elements for collection to improve care given within the medical group setting;
- provides insights and lessons learned from several medical groups with experience in collecting these data; and
- serves as a resource and provides support to those who will lead these initiatives in medical groups across the state.

Since the publication of its Handbook, MNCM has been working across the state to support standardized data collection at the medical-group level. MNCM has identified a set of best practices for data collection and the use of these data in quality measurement to help providers better understand patient populations and identify disparities.

MNCM'S BEST PRACTICE STRATEGIES FOR COLLECTING RACE, ETHNICITY, AND LANGUAGE PREFERENCE DATA INCLUDE THE FOLLOWING:

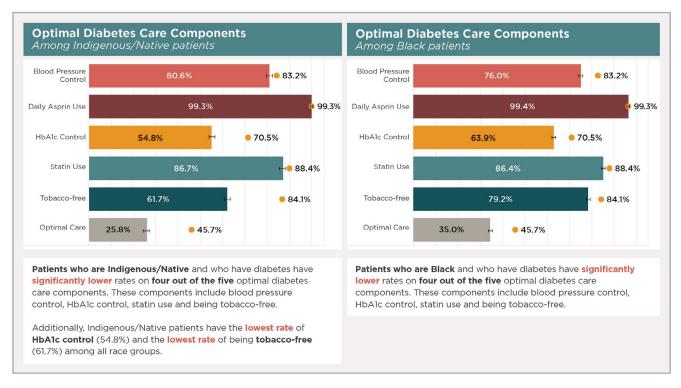
- Collect data directly from the patient
- Include distinct race categories that can be combined into a multiracial category instead of
- including a multiracial standalone option
- Strive for completeness as much as possible

MNCM's use of race, Hispanic ethnicity, preferred language, and country of origin (RELC) was initially reported privately to medical groups with a plan to incorporate it into public reporting when at least 60 percent of practices were demonstrating best practice in the collection of RELC data from the patient. This threshold was met after several reporting cycles. Since then, MNCM has been stratifying results for clinical quality measures to understand gaps in care and potential opportunities within race/ethnicity categories.

Future Direction

MNCM has utilized its data to stratify quality measurement reporting, supporting the identification of opportunities for improvement and resource allocation. Figure 1 demonstrates disparities among several components of a composite measure for diabetes care in which Indigenous/Native American and Black patients have significantly lower rates of achieving component goals when compared to the general population. MNCM hopes to expand this approach to other measurement areas in the future.

Figure 1: Minnesota Community Measurement Optimal Diabetes Care Components Among Indigenous/Native and Black Patients



Promising Practices from Aetna

Aetna has collected race, language preference, and ethnicity data from over six million members for over a decade and uses this data to identify opportunities to address inequities. Aetna has started to use this data to address disparities on asthma emergency room (ER) utilization, ethnic disparities in breast health, and to develop a racial and ethnic equity dashboard. Aetna believes that collecting this data and using it to improve outcomes will help the organization advance health equity.

AETNA'S DATA COLLECTION BEST PRACTICES INCLUDE:

- Collecting the data transparently, consistently and broadly at the provider level, when possible
- Using the data to understand the needs and challenges of member populations
- Understanding how this data can support a deeper knowledge of culture and the role culture plays in care and treatment of members
- Working with providers to use the information where it matters - at the member level, when permissible
- Payer understanding that not all providers have the capabilities and may need support to apply analytics at the patient level

Future Direction

Aetna believes that using race, ethnicity, and language preference is an important step to understanding members better and achieving improved health outcomes. The next step in the journey is to utilize a similar process with SDOH. Aetna has begun to explore population health through a SDOH index. The table below correlates socioeconomic status (SES) risk by six indices (Figure 2). Aetna uses this index to stratify population groups for planning and identifying health outcomes improvement opportunities.

Figure 2: Socioeconomic Status (SES) Risk by Six Indices

Neighborhood SES risk levels	Income*	Poverty (Food Stamps)*	Disability	Education*	Family structure (Widowed – Divorced)	Employment
Very high	Very low	Very high	Very high	Very low	Very high	Very low
High	Low	High	High	Low	High	Low
Medium	Medium	Medium	Medium	Medium	Medium	Medium
Low	High	Low	Low	High	Low	High
Very low	Very high	Very low	Very low	Very high	Very low	Very high

^{*}top contributing features

Neighborhood SES risk levels are based on six indices:

- · Income: median household income
- Poverty (Food Stamp): percentage receiving food stamps
- Disability: percentage with a disability ambulatory, self-care, hearing, vision, etc.
- Education: percentage with Bachelor's degree or above
- Family structure (widowed divorced): percentage of widowed and divorced
- · Employment: percentage of employed

Insights From Humana

Humana's focus on health equity and SDOH uses a comprehensive approach to identify factors related to disparities and equitable care. In addition to evaluating factors such as race and ethnicity, Humana has prioritized the collection and analysis of data on member SDOH and health-related social needs (HRSNs). This includes using both aggregated, geographic-level SDOH data, such as data from the United States (U.S.) Census Bureau or the Robert Wood Johnson Foundation's County Health Rankings, and member self-reported HRSNs, such as food insecurity and loneliness.

By incorporating HRSN screenings into member outreach and care models, Humana is able to include social health in the member longitudinal health record. In addition, with the greater breadth of SDOH and HRSN data incorporated into the organization's data lake (i.e., centralized data repository), Humana has leveraged artificial intelligence to develop new predictive models and segmentation in order to better identify and address member needs and health disparities. A social risk index, generated for each member utilizing a combination of neighborhood- and patient-level social risk data, is also used to identify members at high social risk and to prioritize them for screening and interventions. It may also be the basis of new, innovative payment models to align incentives to focus care and resources on socially fragile populations.

HUMANA'S APPROACH TO DATA COLLECTION INCLUDES THE FOLLOWING:

- Alignment on data standards to ensure interoperability and validity
- Ensuring appropriate data governance policies and secure storage are in place to protect member
- privacy and ensure ethical use of data
- Refinement of data collection methodology and use that is member-centric, builds trust, and provides a positive member experience

Future Direction

Humana is continuing to refine and improve the process for race and ethnicity data collection and storage and intends to use these data to better understand the areas in which disparities exist for current clinical quality measures, patient experience measures, and member outcomes. In addition, Humana will work to identify the contributing factors that play a role in these disparities. Humana's future data collection, in collaboration with regulatory, quality, and accreditation entities, will focus on sexual orientation and gender identification while continuing to improve current data collection for factors such as preferred language and disability status.

Lessons Learned and Promising Practices

To gather real-world examples of CQMC core set measure implementation, a series of key informant interviews (KIIs) and use case interviews were conducted. A multistakeholder approach was taken to ensure well-rounded perspectives, including input from public and private payers, purchasers, and regional collaboratives. Additional information about the KIIs and case study interviews is included in **Appendix G**.

Key Informant Insights

KIIs are a direct source of knowledge in the selection and implementation of measures, as well as the expected returned value of using those measures. To explore these topics, KIIs focused on the current and future use of the CQMC core sets, adoption barriers and successes, decision making process for measure selection and implementation, perceived value of the CQMC core sets, and future measurement goals. The following insights from interviews are intended to support payers, providers, and others in adopting the CQMC core sets.

Best Practices

While they are specific to each perspective, KIIs shared the importance of identifying and implementing key measures that **promote alignment**, **reduce burden**, **and improve the quality of care provided to patients**. The following were specified as best practices to encourage these goals:

- Identify measures that focus on greatest disease burden and/or identify what makes a population healthy (e.g., screenings); these are meaningful measures for which improvement will make a significant impact on populations
- Align measures across commercial, Medicare, and Medicaid populations
- Analyze preliminary data to make informed measure selection decisions
- Consider population attributes when selecting measures

- Understand data limitations
- Understand the population that needs to be measured, recognizing that some measures will not align with the entire population
- Align with the core sets, making exceptions only when necessary
- Strong stakeholder engagement to drive the process from beginning to end
- Recognize that all organizations are unique in their approach to measure selection and implementation

Challenges

KIIs also provided insight into the challenges associated with measure selection and adoption. Common themes included the lack of consistency and alignment across programs, cost and burden of measurement, and internal challenges to get the work done. Specific comments are listed below:

- Lack of consistency, cooperation, and alignment across payers
- Lack of funding for sustainable quality measurement solutions
- Too many measures across programs from which to choose
- Cost and burden to providers
- State measure mandates conflicting with national measures

- State level measurement does not always lend itself to national measures unless payment is involved
- Competing priorities that slow down the process
- For many payers, data source is a challenge if measures rely on data beyond claims
- Lack of openness to share best practices and successes

Addressing Disparities

In addition to the best practices previously shared in the **Using Data to Identify and Address Disparities** section, KIIs also shared their perspective on the use of data to identify disparities as part of the wider quality measurement enterprise. While all agreed using data to address disparities is essential, many also agreed that there are challenges to both collecting and using the data that would help identify the areas in which disparities exist. Specific observations are identified below:

- Most collected data regarding potential disparities are incomplete and inconsistent
- Currently, proxies such as race are used, but SDOH data should be the focus in the future
- Start with data already being collected by clinicians

Future Direction

The future of measurement is advancing as organizations continue to identify measures to support quality. Key informants intend to continue work in this space in areas of **alignment**, **support**, **and education** regarding CQMC core sets. Specific opportunities identified to advance implementation and use of the CQMC core sets include the following:

- A focus on population-based payment programs combined with accountability through the adoption of meaningful measures
- Broad outreach and education regarding the CQMC core sets
- Creating a decision tree to objectively guide measure selection for organizations new to the process
- Focusing on specialty care measures
- Quality measure alignment across stakeholder groups

Promising Practice Examples

The case studies below provide details on how specific organizations approach and execute quality measure implementation, especially as it relates to the CQMC core set measures. Each case study explores the organization's measurement priorities, measure selection process, lessons learned in implementation, and data capture process. These insights can be used to support broader adoption of the CQMC core sets.

Kentuckiana Health Collaborative (KHC) - Regional Collaborative

The Kentuckiana Health Collaborative (KHC) is a nonprofit, purchaser-led, multistakeholder coalition spanning Southern Indiana (IN) and Kentucky (KY). Member organizations include a variety of stakeholders, such as health systems, providers, hospitals, health plans, employers, public health and government, labor unions, consumer advocacy groups, pharmaceutical companies, and others. KHC works with members to gather data from health plans, such as Healthcare Effectiveness Data and Information Set (HEDIS) indicators, to populate annual quality measurement reports to share with providers, group practices, and the community. In order to encourage alignment between both the private and public sectors, KHC has coordinated and aligned with both the state Medicaid (both KN and IN) office and private payers since 2017 to create a core measures set.

KHC's measurement work is focused in two areas: measure alignment/prioritization and quality reporting. The quality reporting is completed through the dissemination of Consolidated Measurement Reports, which allow members to compare local averages, state averages, and benchmarked quality scores on a variety of ambulatory measures. These reports combine commercial, Medicaid, and Medicare Advantage data.

MEASURE SELECTION INSIGHTS AND EXPERIENCES

The 42 measures in the KY Core Healthcare Measures Set (KCHMS), first developed in 2017 and updated every other year, closely align with the CQMC core set measures. The process for evaluating and selecting measures is a multistakeholder and consensus-driven process organized by subcommittee and aligned by measure area. Each subcommittee uses tools during its measure selection process, including a crosswalk of measures for measure alignment, a rubric for scoring and prioritizing, and a set of measure selection criteria for initial selection. The measure selection criteria are as follows:

- The measure set is of manageable size.
- Measures are based on readily available data in KY (we must identify the data source), such as HEDIS measures.
- Preference is given to nationally vetted measures (e.g., National Quality Forum [NQF]-endorsed) and aligned to Medicaid and Merit-Based Incentive Payment System (MIPS) measurement sets.
- Each measure should be both valid and reliable and produce sufficient numerator and denominator size to support credible public reporting.
- Measures target issues that we believe have significant potential to improve health system performance in a way that will positively affect health outcomes and reduce costs without unintended harm.
- If the unit of analysis includes healthcare providers, the measure should be amenable to influence by providers.
- The measure set is usable by multiple parties (e.g., payers, provider organizations, public health, communities, and/or policymakers).

Measures are deemed "high priority" if the subcommittee concludes that a measure area is a high driver of health and/or cost and there is overall support for the measure.

Lessons Learned

- Set expectations and allow the process to work. The process itself can be lengthy, but it is worth the time and effort.
- Be realistic and manage stakeholder expectations.
 Stakeholders may have unrealistic expectations regarding measures that may impede the process.
- Acknowledge the challenge of reporting early on.
 Data availability and resource constraints lead to reporting challenges that must be addressed during the measure selection process.
- A multistakeholder, consensus-based process will achieve the greatest results and lead to a high level of engagement from subcommittee members.
- Include the right partners at the table and broad stakeholder representation. To achieve successful alignment and a low level of burden, all stakeholders must be present and engaged.
- State partners are key to alignment success. At the state level, partners such as Medicaid often take a leadership role among the payer community.

Future Direction

- Continue to review the recommended measures and work towards a smaller, more parsimonious measure list.
- Strive to report on all recommended measures in the core sets.
- Achieve stakeholder alignment to use measures for value-based contracting.

Wisconsin Collaborative for Healthcare Quality (WCHQ) - Regional Collaborative

The Wisconsin Collaborative for Healthcare Quality (WCHQ) was founded in 2003, with the goal of improving the health of individuals and communities through meaningful performance measurement that improves the quality and affordability of healthcare in Wisconsin. WCHQ is a membership organization and includes stakeholders such as health systems and providers, dental practices, and payers. WCHQ develops, collects, and publicly reports quality information across the state. In addition to public reporting, WCHQ creates and disseminates quality improvement strategies, reports, and best practices across member organizations.

MEASURE SELECTION INSIGHTS AND EXPERIENCES

WCHQ's improvement model is to collect patient-level data, compare measurements, work with members to identify best practices, disseminate these best practices, and create or adopt new measures. WCHQ publicly reports measurement results at the health system and clinic levels, providing statewide benchmarks. WCHQ measures can be used to create incentive programs but are designed primarily for transparency and quality improvement purposes. WCHQ and member organizations look to NQF, CQMC, and the National Committee for Quality Assurance (NCQA) for opportunities to align while also considering unique, regional aspects of care. Strategies for success include the following:

- Identify a champion who can lead the effort.
- Strong support for the measure/measure category in the form of evidence and stakeholder support is necessary.
- The measure goal must be clear.

Lessons Learned

- Time is a key factor. The processes of selection and implementation take time and should not be rushed.
- Do not underestimate measure burden. Stakeholders will challenge measures if there is a perception that documentation and data collection are time consuming and the information does not inform improvements in patient care.
- The involvement of motivated members who participate in the measure selection process are important to success.
- It is important to identify experts early in the process. Experts who have experience with the measure are assets in the selection and implementation processes.
- Recognize the amount of work necessary and address competing priorities. Selecting and implementing measures is a lengthy and resourceintensive process. As the work unfolds, competing priorities may become a challenge for team members.

Future Direction

- Addressing state-level disparities through partnerships and expanded data collection
- Looking at the role of both quality and cost to measure value across organizations

The Alliance - Employer/Purchaser

The Alliance is a not-for-profit cooperative of self-funded employers in Wisconsin focused on shared health purchasing. The Alliance provides resources for plan, design, and analysis through a variety of tools, including measure recommendations and implementation support. The Alliance's QualityPath program (Figure 2) identifies doctors and hospitals that—when working together—meet national quality measures and adopt processes that are better for patients.

Figure 3. The Alliance - Quality Path Key Concepts & Requirements for Provider Participation

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MEASURE SELECTION INSIGHTS AND EXPERIENCES

The Alliance began quality and measure assessment work over a decade ago, with the goal of approaching measurement from a payer perspective and to ultimately drive patients to high quality providers through measurement reporting.

Early on, the measurement selection process focused on identifying measures associated with high-cost conditions and procedures as well as measures that could result in a care shift to high quality providers or facilities.

Lessons Learned

- Measure implementers should be flexible to adapt to industry changes. As an increasing number of patients shifted to outpatient settings, the Alliance realized the original measures selected with an inpatient focus were not adaptable to the outpatient setting and needed to be retired or modified.
- Original selection criteria were not applicable to all settings. The early measure selection criteria were focused on measures that would encourage patients to seek care at high quality settings. However, the Alliance found that in certain instances, patients were unwilling to change locations or providers.

- Distance-to-travel and specialty were factors that affected some patients' desire to change.
- Measure at both the provider and facility levels. Both analysis levels matter and have an impact on quality and outcomes.
- Prioritize selecting measures reported at the provider level to align with how patients make care decisions (e.g., patients often choose a preferred physician when seeking care).

Future Direction

- Leverage new data sources to support measurement scalability.
- Move from voluntary to mandatory participation.
- Identify new measures in gap areas, such as primary care and elective musculoskeletal areas.
- Better measures are needed to assess the appropriateness of care.

Cigna - Health Plan

Cigna is a leader in utilizing comprehensive measure sets to better understand value for its populations. Cigna uses nationally recognized measures from those endorsed by NQF, NCQA HEDIS, and CQMC.

MEASURE SELECTION INSIGHTS AND EXPERIENCES

Cigna utilizes measures to build and expand its programs with aligned incentives for network providers. Currently, the majority of measures included in Cigna's Accountable Care Organization (ACO) measure set are from the ACO/Patient-Centered Medical Home (PCMH)/Primary Care CQMC core set. These measures are organized into two buckets: evidence-based measures and patient experience.

Lessons Learned

- Avoid changing measures unless there is a clinical reason.
- Be aware of barriers to operationalizing measures.
- Focus on measures that have an opportunity for high success and can be tied to financial incentives for clinicians.
- Recognize there is a trade-off between uniformity and burden.
- Policy has a role to play in moving measurement forward.

Future Direction

- Continue to work toward a small measure set.
- Move toward digital measures by engaging vendors and addressing data source challenges.
- Focus on alignment between insurance carriers,
- medical specialty societies, and providers to reduce noise.
- Work toward measures that meaningfully improve quality and affordability for patients.

Path Forward

As the U.S. healthcare system continues to move away from fee-for-service (FFS) towards innovative, value-based purchasing (VBP) models, quality measurement and the systems that support it will need to continue to evolve. It is difficult to move to bolder performance measurement when capabilities for measure implementation are limited. At the same time, it is difficult to build the required capabilities and reporting systems absent from clear and applicable cases of successful measurement strategies.

The key considerations, promising practices, and expert insights included in this guide are intended to support stakeholders seeking to implement or report CQMC core measure sets as part of VBP models. With lessons learned from payers, ACOs, purchasers, and regional collaboratives included, this guide points to opportunities for future CQMC work that will support VBP models and measure implementation. These opportunities include a need to find ways to reduce burden for clinicians and payers through better alignment and reducing measure set size. Additional areas for the CQMC to explore exploration include using data to better identify and address population disparities, creating tools to support measure selection, and collaborating to share best practices with one another. Stakeholders can learn from examples of successful measure implementation, and feasible solutions can be scaled to achieve broader measure alignment.

The CQMC continues to convene stakeholders to provide guidance on measurement alignment across public and private payers and to drive improvement in the quality of healthcare provided to all Americans. To support successful core set adoption, the CQMC is prioritizing efforts to advance a digital measure-reporting infrastructure and provide guidance on identifying and reducing health disparities. Working together, healthcare stakeholders can strengthen and align quality measurement to advance value-based care and achieve favorable population health outcomes.

Appendix A: Overarching Tools and Resources

Resource	Address
Health Care Payment Learning & Action Network website	https://hcp-lan.org/
Health Care Payment Learning & Action Network YouTube Channel	https://www.youtube.com/channel/ UCdmTX6ut7JCHUebuyRpBJ4g
The Center for Healthcare Quality & Payment Reform's (CHQPR) guide to creating an alternative payment model contains step-by-step instructions on how to create an alternative payment model. It includes recommendations for all stakeholders and examples of how APMs might be designed for different use cases.	http://www.chqpr.org/downloads/How_to_ Create_an_Alternative_Payment_Model.pdf

Appendix B: Core Set Development and Maintenance Process

To develop the initial core sets, the CQMC split into workgroups. Each workgroup reviewed measures currently in use by CMS and health plans, measures endorsed by the National Quality Forum (NQF), and measures recommended for discussion by CQMC members. Based on this review and discussion, the workgroups identified a consensus core set for the selected clinical areas. The consensus core sets were then discussed by the CQMC Steering Committee and the full CQMC before being finalized.

In 2018, NQF reconvened the CQMC Workgroups to update the existing eight core sets. Core set maintenance involves members with different perspectives engaging in meaningful dialogue and coming to consensus around sets of measures that reflect the best opportunities to improve patient care and clinical outcomes. CQMC Workgroups reviewed new measures that could be added to the core sets to address high-priority areas. Workgroups also reviewed measures in the existing sets and removed measures if necessary, for example, if they no longer have an opportunity for improvement, no longer align with clinical guidelines, or have implementation challenges. The Workgroups also discussed measurement gaps and adoption successes and challenges.

Each Workgroup comprises representatives from medical associations, health plans, and other (purchaser, patient, and quality collaborative) organizations. Voting and non-voting members, along with expert guests, discuss relevant measures for each topic area, coming to consensus on which measures should be put forward for a formal vote. Voting members of the Workgroup then receive an electronic ballot and vote on measures for inclusion and measures for removal. Measure changes require a super-majority of votes: 60% of all votes and at least one vote from each category (association, plan, and other). The voting results and proposed core sets are then reviewed by the CQMC Steering Committee and finalized by the full CQMC.

Appendix C: Principles for the CQMC Core Measure Sets

The core set principles outline the CQMC's vision for a comprehensive core set. Ideally, each core set as a whole should encompass all core measure set principles.

- Provide a person-centered and holistic view of quality, including consideration of Social Determinants of Health (SDOH) and experience of care.
- Provide meaningful and usable information to all stakeholders.
- Promote parsimony, alignment, and efficiency of measurement (only as many measures as necessary, and the least burdensome measure options).
- Include an appropriate mix of measure types while emphasizing outcome measures and measures that address cross-cutting domains of quality.
- Promote the use of innovative measures (for example, eMeasures, measures intended to address disparities in care, or patient-reported outcome measures).
- Include measures relevant to the medical condition of focus.

Appendix D: Principles for Measures Included in the CQMC Core Measure Sets

The selection principles guide the updating of the core sets and serve as a reference when determining whether a measure should be included in a core set. The selection principles consider various stakeholder priorities and aim to balance valued concepts. The principles for measures describe the attributes a measure should possess for inclusion in a CQMC core set. Individual measures should reasonably align with all principles for measures. Measures in a core set that no longer meet the selection principles should be considered for potential removal and discussed by the appropriate Workgroup. The selection principles allow CQMC members to weigh the merits of an individual measure and to determine if a set is promoting the values and goals of the Collaborative.

- Advance health and healthcare improvement goals and align with stakeholder priorities.
 - Address a high-impact aspect of healthcare where a variation in clinical care and opportunity for improvement exist.
- Are unlikely to promote unintended adverse consequences.
- Are scientifically sound (NQF-endorsed or otherwise proven to be evidence-based, reliable, and valid in

diverse populations).

- The source of the evidence used to form the basis of the measure is clearly defined.
- There is high quality, quantity, and consistency of evidence.
- Measure specifications are clearly defined.
- Represent a meaningful balance between measurement burden and innovation.

Appendix E: Reviewing Measure Specifications

This section is based on the CMS Measure Management System Blueprint.33

Measure specifications are technical instructions for how to build and calculate a measure. Measure specifications are available from the measure steward. The measure steward creates and maintains the measure. Measure stewards are included in the measure information published for CQMC core sets. Review the measure specifications early in the project to determine where and how to obtain the data and information to calculate the measure. Include the multistakeholder team in the review to surface any concerns or questions.

Data Source

What data are used to calculate the measure? It may be possible to calculate a measure from more than one source. For instance, a measure might be calculated using a registry or using medical records. Results from different data sources may not be directly comparable.

Examples of data sources include:

- Administrative data
- Claims data
- Patient medical records paper and electronic
- Electronic clinical data such as device data
- Registries
- Standardized patient assessments
- Patient-reported data and surveys.

Denominator

What population will be evaluated by the measure? The denominator statement includes parameters such as:

- Age ranges
- Setting
- Diagnosis
- Procedures
- Time interval
- Other qualifying events.

Format—Patients, age [age or age range], with [condition] in [setting] during [time frame]

Example: Patients 18-75 years of age by the end of the measurement year, who had a diagnosis of diabetes (type 1 or type 2) during the measurement year or the year prior to the measurement year (NQF 0062).

Denominator Exclusion

Denominator exclusions define patients that should be removed from the denominator prior to calculating the measure.

Format of the exclusion statement—Denominatoreligible patients who [have some additional characteristic, condition, procedure]

Exclusions

Are there patients to whom the measure does not apply?

Format of the exclusion statement—Denominatoreligible patients who [have some additional characteristic, condition, procedurel

One example of an exclusion is a screening mammography for a woman who had a bilateral mastectomy.

Numerator

What population meets the intent of the measure? The numerator statement includes parameters such as:

- The event or events that will satisfy the numerator requirement
- The performance period or time interval in which the numerator event must occur, if it is different from

that used for identifying the denominator.

Format—Patients who received/had [measure focus] [during [time frame] if different than for target population]

Example: Patients receiving a nephropathy screening or monitoring test or having evidence of nephropathy during the measurement year (NQF 0062).

Exceptions

Are there patients for whom clinical judgement might reasonably result in not meeting the intent of the measure? When calculating the measure, logic needs to be implemented for when to search for exceptions, as outlined in the example below.

Example: Asthma is an allowable denominator exception for the performance measure of the use of beta blockers for patients with heart failure. Thus, physician judgment may determine there is greater benefit for the patient to receive this treatment for heart failure than the risk of a problem occurring due to the patient's coexisting condition of asthma. Because the medication was given, the measure implementer does not search for exceptions, and the patient remains in the denominator. If the medication is not given, the implementer looks for exceptions and removes the patient, in this example a patient with asthma, from the denominator. If the medication was not given and the patient does not have any exceptions, the patient remains in the denominator and the provider fails the measure.

Level of Analysis

What entity or entities is the measure intended to measure? Unless otherwise noted, all measures in the CQMC core sets are at the clinician group and/or individual clinician level of analysis. This means they are specified and tested for use only at these levels of analysis.

Risk Adjustment Methodology

Some measures need to be adjusted for factors outside the control of the measured entity to ensure measure differences reflect differences in care. The risk adjustment model and methodology should be fully described in the measure documents.

Calculation Algorithm

How are the measure elements used to calculate the measure? In what order are steps performed? If the team has any questions or this is not clear, reach out to the measure steward for clarification.

Appendix F: Implementation Guide Workgroup Members

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Appendix G: Use Case and Key Informant Interviews

Between July 8 and August 4, 2021, NQF conducted 12 interviews with various stakeholders with expertise in CQMC core set measure implementation and/or collecting data related to health disparities. These interviews were audio recorded for note-taking purposes. In advance of each interview, NQF provided an outline of topics to be covered based on the individual's knowledge area and expertise.

Key Informant Interviews (KIIs)

KIIs provide knowledge related to the selection of core measures, as well as the expected value of using core set measures. KIIs represent stakeholder groups engaged in the CQMC, including payers, employers, and regional collaboratives. NQF synthesized information gathered during interviews to identify common themes, strategies, and insights. Interviews focused on the following areas:

- Current and future use of CQMC core sets
- Decision process for identifying which measures to implement
- Perceived measure value, usefulness, and expectations for CQMC core sets
- Overall perceptions of the CQMC core sets (e.g., Are the right measures included? Are measures missing in key areas? Are there low-value measures?)
- Challenges, lessons learned, and successes
- Long-term goals for using data/measures to identify and address disparities
- Are there standalone measurement activities that use the CQMC core sets? Are there measures that you would encourage health plans to use?

List of KIIs:

- Bob Rauner, chief medical officer, One Health Nebraska (regional ACO)
- Matt Gigot, director, Performance Measurement and Analysis, WCHQ (regional collaborative)
- Rose Baez, director, Provider Measurement, Blue Cross Blue Shield Association (BCBSA) (payer)
- John Smith, lead medical director, Blue Cross Blue Shield North Carolina (payer)
- Virginia Raney, Medicaid (public payer)

Case Studies

Case studies offer insight into CQMC core set measure identification, implementation, and deployment from the regional collaborative, employer group, and payer perspectives. Areas of particular focus include the following:

- Background or origin stories
- Priority measurement areas
- Decision making process and contributing factors for including or excluding CQMC core set measures in their programs
- Measure implementation processes related to specific CQMC core sets
- Clinical data capture
- Lessons learned, including successes and challenges

Case Study Interviews:

- KHC (regional collaborative)
- WCHQ (regional collaborative)

- The Alliance (employer/purchaser)
- Cigna (payer)

Disparities Interviews

A series of interviews related to the collection of race, ethnicity, and language data were conducted. These data can complement measure performance results and support efforts to identify and reduce disparities in health outcomes. Organizations leading work in this area that provided information include the following:

- MNCM (regional collaborative)
- Aetna (payer)

Humana (payer)

References

- 1 Health Care Payment Learning & Action Network.

 Accelerating and Aligning Population-Based Payment Models:

 Data sharing; 2016. http://hcp-lan.org/workproducts/
 ds-whitepaper-final.pdf. Last accessed May 2020.
- 2 Conrad DA. The Theory of Value-Based Payment Incentives and Their Application to Health Care. *Health Serv Res.* 2016;50:S2, *Part II:2057-2089*.
- 3 Damberg CL, Sorbero ME, Lovejoy SL, et al. *Measuring Success in Health Care Value-Based Purchasing Programs: Summary and Recommendations. Rand Corporation; 2014.* https://www.rand.org/pubs/research_reports/RR306z1.html. Last accessed May 2020.
- 4 Chien AT, Rosenthal, MB. A 3D Model for value-based care: The next frontier in financial incentives and relationship support.A UnitedHealthcare. https://newsroom.uhc.com/content/dam/newsroom/Harvard%20Report_FINAL_0923.pdf. Last accessed May 2020.
- 5 Damberg CL, Sorbero ME, Lovejoy SL, et al. *Measuring Success in Health Care Value-Based Purchasing Programs: Summary and Recommendations. Rand Corporation; 2014.* https://www.rand.org/pubs/research_reports/RR306z1.html. Last accessed May 2020.
- 6 Health Care Payment Learning & Action Network. Accelerating and Aligning Population-Based Payment Models: Performance Measurement; 2016. http://hcp-lan.org/workproducts/pm-whitepaper-final.pdf. Last accessed May 2020.
- 7 Centers for Medicare and Medicaid Services. *Blueprint* for the CMS Measures Management System. September 2019. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/Downloads/Blueprint.pdf. Last accessed June 2020.

- 8 Health Care Payment Learning & Action Network. Accelerating and Aligning Population-Based Payment Models: Performance Measurement; 2016. http://hcp-lan.org/ workproducts/pm-whitepaper-final.pdf. Last accessed May 2020.
- 9 Damberg CL, Sorbero ME, Lovejoy SL, et al. *Measuring Success in Health Care Value-Based Purchasing Programs: Summary and Recommendations. Rand Corporation; 2014.* https://www.rand.org/pubs/research_reports/RR306z1.html. Last accessed May 2020.
- 10 Chien AT, Rosenthal, MB. A 3D Model for value-based care: The next frontier in financial incentives and relationship support.A UnitedHealthcare. https://newsroom.uhc.com/content/dam/newsroom/Harvard%20Report_FINAL_0923.pdf. Last accessed May 2020.
- 11 Health Care Payment Learning & Action Network. *Data Sharing Requirements Initiative: Collaborative Approaches to Advance Data Sharing*; 2017. http://hcp-lan.org/workproducts/dsri-report.pdf. Last accessed May 2020.
- 12 Chien AT, Rosenthal, MB. A 3D Model for value-based care: The next frontier in financial incentives and relationship support. A UnitedHealthcare. https://newsroom.uhc.com/content/dam/newsroom/Harvard%20Report_FINAL_0923.pdf. Last accessed May 2020.
- 13 Miller HD. How to Create an Alternative Payment Model: Designing Value-Based Payments That Support Affordable, A High-Quality Healthcare Services. Center for Healthcare Quality & Payment Reform; 2018. http://www.chqpr.org/downloads/How_to_Create_an_Alternative_Payment_Model.pdf. Last accessed May 2020.

- 14 HHS. Report to Congress: Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Programs. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation; 2016. https://aspe.hhs.gov/system/files/pdf/253971/ASPESESRTCfull.pdf. Last accessed June 2020.
- 15 Health Care Payment Learning & Action Network. Accelerating and Aligning Population-Based Payment Models: Data sharing; 2016. http://hcp-lan.org/workproducts/ds-whitepaper-final.pdf. Last accessed May 2020.
- 16 National Quality Forum (NQF). A Measurement Framework to Assess Nationwide Progress Related to Interoperable Health Information Exchange to Support the National Quality Strategy: Key Informant Interview Summary Report. Washington, DC: NQF; 2017. http://www.qualityforum.org/Publications/2017/03/Interoperability_Key_Informant_Interview_Summary_Report. aspx. Last accessed May 2020.
- 17 Health Care Payment Learning & Action Network. *Data Sharing Requirements Initiative: Collaborative Approaches to Advance Data Sharing*; 2017. http://hcp-lan.org/workproducts/dsri-report.pdf. Last accessed May 2020.
- 18 Health Care Payment Learning & Action Network. *Data Sharing Requirements Initiative: Collaborative Approaches to Advance Data Sharing*; 2017. http://hcp-lan.org/workproducts/dsri-report.pdf. Last accessed May 2020.
- 19 Health Care Payment Learning & Action Network. *Data Sharing Requirements Initiative: Collaborative Approaches to Advance Data Sharing*; 2017. http://hcp-lan.org/workproducts/dsri-report.pdf. Last accessed May 2020.
- 20 Health Care Payment Learning & Action Network. *Data Sharing Requirements Initiative: Collaborative Approaches to Advance Data Sharing; 2017.* http://hcp-lan.org/workproducts/dsri-report.pdf. Last accessed May 2020.
- 21 Chien AT, Rosenthal, MB. *A 3D Model for value-based care:* The next frontier in financial incentives and relationship support. A UnitedHealthcare. https://newsroom.uhc.com/content/dam/newsroom/Harvard%20Report_FINAL_0923.pdf. Last accessed May 2020.
- 22 Damberg CL, Sorbero ME, Lovejoy SL, et al. *Measuring Success in Health Care Value-Based Purchasing Programs: Summary and Recommendations. Rand Corporation; 2014.* https://www.rand.org/pubs/research_reports/RR306z1.html. Last accessed May 2020.
- 23 Health Care Payment Learning & Action Network. Accelerating and Aligning Population-Based Payment Models: Performance Measurement; 2016. http://hcp-lan.org/workproducts/pm-whitepaper-final.pdf. Last accessed May 2020.
- 24 Van Herck P, De Smedt D, Annemans L, et al. Systematic review: Effects, design choices, and context of pay-for-performance in health care. *BMC Health Services Research*. 2010; 10:247. http://www.biomedcentral.com/1472-6963/10/247. Last accessed May 2020.

- 25 Health Care Payment Learning & Action Network. Accelerating and Aligning Population-Based Payment Models: Performance Measurement. 2016. http://hcp-lan.org/workproducts/pm-whitepaper-final.pdf. Last accessed May 2020.
- 26 Damberg CL, Sorbero ME, Lovejoy SL, et al. *Measuring Success in Health Care Value-Based Purchasing Programs: Summary and Recommendations. Rand Corporation; 2014.* https://www.rand.org/pubs/research_reports/RR306z1.html. Last accessed May 2020.
- 27 National Quality Forum (NQF). *Attribution: Principles and Approaches*. Washington, DC: NQF; 2016. https://www.qualityforum.org/Publications/2016/12/Attribution_-_Principles_and_Approaches.aspx. Last accessed June 2020.
- 28 Lewis VA, McClurg AB, Smith, J. Attributing Patients
 To Accountable Care Organizations: Performance Year
 Approach Aligns Stakeholders' Interests. *Health Aff.* 2013
 March;32(3):587–595. https://www.healthaffairs.org/doi/10.1377/hlthaff.2012.0489. Last accessed May 2020.
- 29 National Quality Forum (NQF). *Improving Attribution Models*. Washington, DC: NQF; 2018. http://www.qualityforum.org/Publications/2018/08/Improving_Attribution_Models_Final_Report.aspx. Last accessed May 2020.
- 30 Friedberg MW, Damberg CL. Methodological considerations in generating provider performance scores for use in public reporting: a guide for community quality collaboratives. Rockville, MD: Agency for Healthcare Research and Quality; 2011. AHRQ Pub. No. 11-0093.
- 31 Romano PS, Hussey P, Ritley D. Selecting Quality and Resource Use Measures: A Decision Guide for Community Quality Collaboratives. Rockville, MD: Agency for Healthcare Research and Quality; May 2010. https://www.ahrq.gov/sites/default/files/publications/files/perfmeas.pdf. Last accessed May 2020.
- 32 National Quality Forum (NQF). Addressing Low Case-Volume in Healthcare Performance Measurement of Rural Providers. Washington, DC: NQF; 2019. http://www.qualityforum.org/Publications/2019/04/MAP_2019_Recommendations_from_the_Rural_Health_Technical_Expert_Panel_Final_Report.aspx. Last accessed July 2020.

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Centers for Medicare and Medicaid Services. Blueprint for the CMS Measures Management System. September 2019. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/Downloads/Blueprint.pdf. Last accessed June 2020

