Multiple Chronic Conditions Measurement Framework
This project seeks to achieve consensus through NQF’s Consensus Development Process (CDP) on a measurement framework for assessing the efficiency of care—defined as quality and cost—provided to individuals with multiple chronic conditions (MCCs).
Establish definitions, domains, and guiding principles that are instrumental for measuring and reporting the efficiency care for patients with MCCs;

Adapt the NQF-endorsed Patient-focused Episodes of Care Measurement Framework for patients with MCCs;

Build upon the National Quality Strategy, HHS’s Multiple Chronic Conditions Framework and the work of other private sector initiatives; and

Support the development and application of measures.
Department of Health and Human Services (HHS) Frameworks

National Quality Strategy
Partnership for Patients
National Prevention Strategy
HHS Multiple Chronic Conditions Framework

INPUTS

Public Private-Sector Frameworks/Models

National Priorities Partnership
NQF-Endorsed Patient-Focused Episode of Care Framework
NQF measure endorsement ongoing projects
Coordinated Care Models for Targeted Populations

INPUTS

NQF-Endorsed Multiple Chronic Conditions Framework

Definitions
Domains
Key methodological issues
Guiding principles

USES

Intended Uses of the NQF-Endorsed Multiple Chronic Conditions Framework

Provide input to HHS
Identify measure gaps
Guide endorsement decisions for assessing & improving the quality of care
Guide selection of measures for public reporting and payment
Suggest roadmap for new delivery models (ACOs, PCMH)
Inform research
Intended Uses of the Measurement Framework for MCCs

- Provide input to HHS to guide and help align programmatic initiatives targeting individuals with MCCs.

- Support standardization of measures by signaling to measure developers gaps in performance measurement for individuals with MCCs—specifically, signaling the need for cross-cutting measures that are highly important to individuals with MCCs, such as measures that assess the care provided across settings during a care transition.
Intended Uses of the Measurement Framework for MCCs

- Guide the endorsement of measures that various public and private stakeholders can use to assess and improve the quality of care provided to individuals with MCCs. The framework will be used by NQF steering committees charged with evaluating measures to shape and inform their decision-making in conjunction with the endorsement criteria.
Intended Uses of the Measurement Framework for MCCs

- Encourage the alignment of incentives by guiding the selection of measures for public reporting and performance-based payment programs. This framework will inform how the Measure Applications Partnership (MAP), particularly the MAP Dual Eligible Beneficiaries and Post-Acute Care/Long-Term Care Workgroups, gives guidance to public and private payers and purchasers on selecting measures for specific uses.
Intended Uses of the Measurement Framework for MCCs

 Suggest a roadmap for new delivery models (e.g., accountable care organizations, patient-centered medical homes) that aim to provide patient-centered care across multiple settings.

 Inform and stimulate future research on the quality of care provided to individuals with MCCs.
Measurement Framework
Member and Public Comments: Definition of Multiple Chronic Conditions

Revisions in Response to Public Comment

- Adding further clarifying language indicating the definition builds upon the AHRQ definition for complex patients and HHS definition for multiple chronic conditions

- Changing ‘patients’ to ‘persons’
Definition of Multiple Chronic Conditions

Persons with multiple chronic conditions are defined as having two or more concurrent chronic conditions that collectively have an adverse effect on health status, function, or quality of life and that require complex healthcare management, decision-making, or coordination. \(^{a,b}\)

\(^a\) In the context of this definition, chronic conditions encompass a spectrum of disease and other clinical (e.g., obesity), behavioral (e.g., problem drinking), and developmental (e.g., learning disabilities) conditions. Additionally, the social context in which a person lives (e.g., homelessness) also is considered an important influencing factor.

\(^b\) A complication associated with a primary diagnosis also would meet the requirement of two or more concurrent conditions (e.g., cystic fibrosis in children with an associated complication such as pancreatic insufficiency).
Definition of Multiple Chronic Conditions

Assessment of the quality of care provided to the MCCs population should consider persons with two or more concurrent chronic conditions that require ongoing clinical, behavioral, or developmental care from members of the healthcare team and act together to significantly increase the complexity of management and coordination of care—including but not limited to potential interactions between conditions and treatments.

Importantly, from an individual’s perspective the presence of MCCs would:

- affect functional roles and health outcomes across the lifespan;
- compromise life expectancy; or
- hinder a person’s ability to self-manage or a family or caregiver’s capacity to assist in that individual’s care.

\(^c\) Quality of care is defined by the Institute of Medicine (IOM) six aims: safe, timely, effective, efficient, equitable, and patient-centered.

\(^d\) Behavioral includes mental health and substance use illness.
Comments suggested refinements to the priority measure concepts

- HIT infrastructure/readiness: EHRs and PHRs are essential to support transfer of information across providers and settings
  - Revised report highlights the important role of EHRs/PHRs in coordinating care across settings and that the complex needs of people with MCCs should be considered as HIT infrastructure is built and further evolves

- Expand ‘Avoid inappropriate, non-beneficial end-of life care’ to all stages of care
  - Revised concept area to ‘Avoid inappropriate, non-beneficial care, particularly at the end of life’ noting that appropriateness of care is important across the continuum of care while recognizing end of life care is particularly salient for people with MCCs
# Key Measurement Priorities and Concepts

<table>
<thead>
<tr>
<th>MCC Measurement Priorities</th>
<th>Key Measurement Areas</th>
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<tbody>
<tr>
<td>Enable healthy living; optimize function</td>
<td>• <strong>Optimize function, maintain function, or preventing further decline in function</strong></td>
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<td>• Patient/family perceived challenge in managing illness or pain</td>
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<td>• Social support/connectedness</td>
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<td>• Productivity, absenteeism/presenteeism</td>
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<td>• Community/social factors</td>
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<td>• Healthy lifestyle behaviors</td>
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<td>• Depression/substance abuse/mental health</td>
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<td>• Primary prevention</td>
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<td>Effective communication and coordination of care</td>
<td>• <strong>Seamless transitions between multiple providers and sites of care</strong></td>
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<td></td>
<td>• <strong>Access to usual source of care</strong></td>
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<td></td>
<td>• <strong>Shared accountability across patients, families, and providers</strong></td>
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<td>• Care plans in use</td>
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<td>• Advance care planning</td>
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<td>• Clear instructions/simplification of regimen</td>
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<td></td>
<td>• Integration between community and healthcare system</td>
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<td>• Health literacy</td>
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## MCC Measurement Priorities and Key Concepts

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<tr>
<td>Prevention and treatment of leading causes of mortality</td>
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  - *Patient important outcomes (includes patient-reported outcomes and relevant disease-specific outcomes)*  
  - Patient reported outcomes (e.g., quality of life, functional status)  
  - Missed prevention opportunities – secondary and tertiary |
| Make care safer |  
  - *Avoiding inappropriate, non-beneficial care, particularly at the end of life*  
  - Reduce harm from unnecessary services  
  - Preventable admissions and readmissions  
  - Inappropriate medications, proper medication protocol, and adherence |
| Making quality care more affordable |  
  - *Transparency of cost (total cost)*  
  - Reasonable patient out of pocket medical costs and premiums  
  - Healthcare system costs as a result of inefficiently delivered services (e.g. ER visits, polypharmacy, hospital admissions)  
  - Efficiency of care |
| Person- and family-centered care |  
  - *Shared decision-making*  
  - Patient experience of care  
  - Family/caregiver experience of care  
  - Self-management of chronic conditions, especially multiple conditions |
Concerns with structure as a domain of measurement

- Comments expressed a preference for outcomes measures and process measures that are proximal to outcomes
  - Steering committee recognized the model contains a mix of constructs: domains of measurement (e.g. safety, cost & resource use) and types of measures (e.g. process, structure)
  - Steering committee revised the domains of measurement to align with NQS priorities noting that each domain of measurement may be addressed by multiple measure types.
  - Further emphasis was placed on stating a preference for outcomes measures as available.
Conceptual Model for Measuring Care Provided to Individuals with MCCs

*Each priority domain of measurement may be addressed using several types of measures, including structure, process, outcome, efficiency, cost/resource use, and composite measures. The use of outcomes measures, when available, and process measures that are most closely linked to outcomes is preferable.*
Member and Public Comments: Guiding Principles for Measuring Care Provided to Individuals with MCCs

- Comments requested additional details around methodological issues and operationalizing the framework

  - Comments requested further discussion on risk adjustment methodologies; recognizing the complexity of measurement methodologies the committee recommends further exploration in future work
  - A case study, highlighting the link between the conceptual model and the guiding principles, is incorporated into the report
Guiding Principles for Measuring Care Provided to Individuals with MCCs

To evaluate the full spectrum of care for individuals with MCCs, measurement should:

1. Promote collaborative care among providers and across settings at all levels of the system,\(^a\) while aligning across various public- and private-sector applications (e.g., public reporting, payment).

\(^a\) The system includes, but is not limited to, individual patients, individual healthcare professionals, group practices, hospitals, health systems and other provider organizations, and health plans.
Guiding Principles for Measuring Care Provided to Individuals with MCCs

To evaluate the full spectrum of care for individuals with MCCs, measurement should:

2. Assess the quality of care\(^b\) and incorporate several types of measures including cross-cutting,\(^c\) condition-specific, structure,\(^d\) process, outcomes, efficiency, cost/resource use, composites, behavioral,\(^e\) and that address appropriateness of care.\(^f\)

\(^b\) Quality of care is defined by the IOM six aims: safe, timely, effective, efficient, equitable, and patient-centered.

\(^c\) Cross-cutting measures apply to a variety of conditions at the same time or a single disease with multi-organ system ramifications (e.g., cystic fibrosis). Example measure concepts include: care coordination and integration, shared decision-making, medication reconciliation, functional status, health-related quality of life, and screening and assessment.

\(^d\) Structural measures assess if essential infrastructure (e.g., team-based care, registries, EHRs) is in place to support integrated approaches to care management.

\(^e\) Behavioral measures targeting major behavioral health risk factors such as obesity, smoking, alcohol and substance abuse, poor diet/nutrition, and physical inactivity.

\(^f\) Appropriateness of care includes measures of overuse, underuse, and misuse, for example, measures that assess overuse of services such as imaging. Evidence-based guidelines for people with MCCs are not well developed in this area.
Guiding Principles for Measuring Care Provided to Individuals with MCCs

To evaluate the full spectrum of care for individuals with MCCs, measurement should:

3. Be prioritized based on the best available evidence of links to optimum outcomes and consider patient preferences jointly established through care planning.

4. Assess if a shared decision-making process was undertaken as part of initial and ongoing care planning and ultimately that the care provided was in concordance with patient preferences or, as appropriate, family or caregiver preferences on behalf of the patient.

5. Assess care longitudinally (i.e., provided over extended periods of time) and changes in care over time (i.e., delta measures of improvement or maintenance rather than attainment).
Guiding Principles for Measuring Care Provided to Individuals with MCCs

6. Be as inclusive as possible, as opposed to excluding individuals with MCCs from measure denominators. Where exclusions are appropriate, either existing measures should be modified or new measures developed.

7. Include methodological approaches, such as stratification, to illuminate and track disparities and other variances in care for individuals with MCCs. In addition to stratifying the MCC population in measurement (which is particularly important to understanding application of disease-specific measures to the MCC population), bases for stratification include disability, cognitive impairments, life expectancy, illness burden, dominant conditions, socioeconomic status, and race/ethnicity.
8. Use risk adjustment for comparability with caution, as risk adjustment may result in the unintended consequence of obscuring serious gaps in care for the MCC population. Risk adjustment should be applied only to outcomes measures and not process measures.

9. Capture inputs in a standardized fashion from multiple data sources, particularly patient-reported data, to ensure key outcomes of care (e.g., functional status) are assessed and monitored over time.

*Data sources include, but are not limited to: claims, EHRs, PHRs, HIEs, registries, and patient-reported data.*
Applying the MCC Framework: A Case Study
Javier

A 59-year-old smoker diagnosed with COPD, diabetes, major depression

- Resides in a suburban community outside of a major metropolitan area with his wife
- Has an employer-sponsored health plan, with rising co-pays and premiums. Javier is worried about using retirement savings to cover health care costs
- Sees multiple providers: general internist, pulmonologist, endocrinologist, consultations from local pharmacist
- Takes an active role in supporting his wife Flora’s care
  - Flora, a 65-year-old woman with CKD due to diabetes
  - Flora’s care is covered by Medicare
Patient-centered, evidence-based health and healthcare services

- Javier and his PCP design a plan of care incorporating his goals
- Javier’s providers share information to ensure the care plan is integrated and updated
- Javier receives assistance in obtaining access to needed community supports
Application of the MCC Conceptual Model to Javier

6 Month
Episode of care
Application of the MCC Conceptual Model to Javier: Measurement Opportunities

PRIORITY DOMAINS OF MEASUREMENT

TYPES OF CARE

SITES & PROVIDERS

Person- and Family-Centered Care Measures
- Patient Experience of Care (CG-CAHPS)
- Advanced Care Planning
- Diabetes Management: HbA1c Control
- COPD: Use of Long-acting Bronchodilator Therapy
- Antidepressant Medication Management

Affordable Care Measures
- Total Resource Use Population-based PMPM Index
- Total Cost of Care Population-based PMPM Index
- Relative Resource Use for People with COPD

Effective Communication & Care Coordination

Effective Prevention & Treatment

Social and Environmental Context

6 Month Episode of care
Application of the MCC Conceptual Model to Javier: Measurement Opportunities when Care Changes

**Priority Domains of Measurement**

**Types of Care**

**Sites & Providers**

**Effective Communication & Care Coordination**

**Screening**

**Diagnosis**

**Prevention**

**Primary Care**

**Hospital/Inpatient**

**Treatment & Management**

**Safer Care Measures**

- Adverse Drug Events
- Readmissions

**Affordable Care Measures**

- Total Resource Use Population-based PMPM Index
- Total Cost of Care Population-based PMPM Index
- Relative Resource Use for People with COPD

**Javier**

**Depression**

**COPD**

**Diabetes**

**Health Policy Context**

**Patient Safety**

**Affordable Care**

**Well Being & Social & Family Care**

**Acute Exacerbation**

Episode of care
Path Forward
Strategic Opportunities for Implementing the MCC Framework

Identifying and Filling Measure Gaps

- Key measure gaps persist across multiple populations (MCC, post-acute care, long-term care, dual-eligible beneficiaries)
  - Cross-cutting measures that incorporate patient-reported data
- Measures that address children with MCC
- Iterative processes needed to inform measurement approaches
  - Core elements of this framework should be considered in the development of clinical practice guidelines (CPGs) and measures
  - Need systematic capture of implementation experiences to improve framework, CPGs, measures, and to monitor for unintended consequences
Strategic Opportunities for Implementing the MCC Framework

Standardizing Data Collection, Measurement, and Reporting

- Common data platform to capture the multiple data sources necessary to comprehensively assess care
- Data platform that enables gathering of patient-reported information
- Standardized data elements
- HIT infrastructure that promotes use of PHRs and EHRs to transfer information is necessary
  - As HIT infrastructure is built, the complex needs of people with MCCs should be considered
Strategic Opportunities for Implementing the MCC Framework

Payment and Delivery System Reform

- Cultural shift for organizations operating in provider-centric models of care
- Accountable care organizations and medical homes are promising delivery systems for providing coordinated, integrated care to individuals with MCC
- Evidence-based benefit design
- Public reporting to ensure transparency and help inform choices of patients and their caregivers
- Payment incentives to address the underlying cost drivers for the MCC population
Member Voting
SAMPLE BALLOT

FRAMEWORK REPORT

Multiple Chronic Conditions Measurement Framework

_____ I approve of the framework

_____ I disapprove of the framework as currently specified or for other reasons.
(Note: At your option, you may wish to consider additional explanation in an accompanying letter.)

_____ I abstain from voting on this framework

ELECTRONIC VOTING ONLY-VOTING OPENS TUESDAY, MARCH 6, 2012, at 9:00 am ET

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## Timelines and Deliverables

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<td>Member Voting on Final Framework Report</td>
<td>March 6, 2012- March 20, 2012</td>
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<tr>
<td>CSAC Consideration</td>
<td>April 9, 2012</td>
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<tr>
<td>Board Endorsement</td>
<td>May 10, 2012</td>
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Thank You

Caroline S. Blaum, MCC Co-Chair
University of Michigan Health System – Institute of Gerontology

Barbara McCann, MCC Co-Chair
Interim HealthCare