MAP "Working" Measure Selection Criteria

1. Measures within the program measure set are NQF-endorsed or meet the requirements for expedited review

Measures within the program measure set are NQF-endorsed, indicating that they have met the following criteria: important to measure and report, scientifically acceptable measure properties, usable, and feasible. Measures within the program measure set that are not NQF-endorsed but meet requirements for expedited review, including measures in widespread use and/or tested, may be recommended by MAP, contingent on subsequent endorsement. These measures will be submitted for expedited review.

Response option: Strongly Agree / Agree / Disagree / Strongly Disagree Measures within the program measure set are NQF-endorsed or meet requirements for expedited review (including measures in widespread use and/or tested)

Additional Implementation Consideration: Individual endorsed measures may require additional discussion and may be excluded from the program measure set if there is evidence that implementing the measure would result in undesirable unintended consequences.

2. Program measure set adequately addresses each of the National Quality Strategy (NQS) priorities

Demonstrated by measures addressing each of the National Quality Strategy (NQS) priorities:

Response option for each subcriterion: Strongly Agree / Agree / Disagree / Strongly Disagree:

NQS priority is adequately addressed in the program measure set

Subcriterion 2.1 Safer care

Subcriterion 2.2 Effective care coordination

Subcriterion 2.3 Preventing and treating leading causes of mortality and morbidity

Subcriterion 2.4 Person- and family-centered care

Subcriterion 2.5 Supporting better health in communities

Subcriterion 2.6 Making care more affordable

3. Program measure set adequately addresses high-impact conditions relevant to the program's intended population(s) (e.g., children, adult non-Medicare, older adults, dual eligible beneficiaries)

Demonstrated by the program measure set addressing Medicare High-Impact Conditions; Child Health Conditions and risks; or conditions of high prevalence, high disease burden, and high cost relevant to the program's intended population(s). (Refer to tables 1 and 2 for Medicare High-Impact Conditions and Child Health Conditions determined by the NQF Measure Prioritization Advisory Committee.)

Response option: Strongly Agree / Agree / Disagree / Strongly Disagree: Program measure set adequately addresses high-impact conditions relevant to the program.

4. Program measure set promotes alignment with specific program attributes, as well as alignment across programs

Demonstrated by a program measure set that is applicable to the intended care setting(s), level(s) of analysis, and population(s) relevant to the program.

Response option for each subcriterion: Strongly Agree / Agree / Disagree / Strongly Disagree Subcriterion 4.1 Program measure set is applicable to the program's intended care setting(s) Subcriterion 4.2 Program measure set is applicable to the program's intended level(s) of analysis Subcriterion 4.3 Program measure set is applicable to the program's population(s)

5. Program measure set includes an appropriate mix of measure types

Demonstrated by a program measure set that includes an appropriate mix of process, outcome, experience of care, cost/resource use/appropriateness, and structural measures necessary for the specific program attributes.

Response option for each subcriterion: Strongly Agree / Agree / Disagree / Strongly Disagree Subcriterion 5.1 Outcome measures are adequately represented in the program measure set Subcriterion 5.2 Process measures are adequately represented in the program measure set Subcriterion 5.3 Experience of care measures are adequately represented in the program measure set (e.g. patient, family, caregiver)

Subcriterion 5.4 Cost/resource use/appropriateness measures are adequately represented in the program measure set

Subcriterion 5.5 Structural measures and measures of access are represented in the program measure set when appropriate

6. Program measure set enables measurement across the person-centered episode of care¹

Demonstrated by assessment of the person's trajectory across providers, settings, and time.

Response option for each subcriterion: Strongly Agree / Agree / Disagree / Strongly Disagree **Subcriterion 6.1** Measures within the program measure set are applicable across relevant providers

Subcriterion 6.2 Measures within the program measure set are applicable across relevant settings

Subcriterion 6.3 Program measure set adequately measures patient care across time

¹ National Quality Forum (NQF), Measurement Framework: Evaluating Efficiency Across Patient-Focused Episodes of Care, Washington, DC: NQF; 2010.

7. Program measure set includes considerations for healthcare disparities²

Demonstrated by a program measure set that promotes equitable access and treatment by considering healthcare disparities. Factors include addressing race, ethnicity, socioeconomic status, language, gender, age disparities, or geographical considerations considerations (e.g., urban vs.rural). Program measure set also can address populations at risk for healthcare disparities (e.g., people with behavioral/mental illness).

Response option for each subcriterion: Strongly Agree / Agree / Disagree / Strongly Disagree **Subcriterion 7.1** Program measure set includes measures that directly assess healthcare disparities (e.g., interpreter services)

Subcriterion 7.2 Program measure set includes measures that are sensitive to disparities measurement (e.g., beta blocker treatment after a heart attack)

8. Program measure set promotes parsimony

Demonstrated by a program measure set that supports efficient (i.e., minimum number of measures and the least effort) use of resources for data collection and reporting and supports multiple programs and measurement applications. The program measure set should balance the degree of effort associated with measurement and its opportunity to improve quality.

Response option for each subcriterion: Strongly Agree / Agree / Disagree / Strongly Disagree **Subcriterion 8.1** Program measure set demonstrates efficiency (i.e., minimum number of measures and the least burdensome)

Subcriterion 8.2 Program measure set can be used across multiple programs or applications (e.g., Meaningful Use, Physician Quality Reporting System [PQRS])

NATIONAL QUALITY FORUM

² NQF, *Healthcare Disparities Measurement*, Washington, DC: NQF; 2011.

Table 1: National Quality Strategy Priorities

- 1. Making care safer by reducing harm caused in the delivery of care.
- 2. Ensuring that each person and family is engaged as partners in their care.
- 3. Promoting effective communication and coordination of care.
- 4. Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.
- 5. Working with communities to promote wide use of best practices to enable healthy living.
- 6. Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new healthcare delivery models.

Table 2: High-Impact Conditions

Medicare High-Impact Conditions

- 1. Major Depression
- 2. Congestive Heart Failure
- 3. Ischemic Heart Disease
- 4. Diabetes
- 5. Stroke/Transient Ischemic Attack
- 6. Alzheimer's Disease
- 7. Breast Cancer
- 8. Chronic Obstructive Pulmonary Disease
- 9. Acute Myocardial Infarction
- 10. Colorectal Cancer
- 11. Hip/Pelvic Fracture
- 12. Chronic Renal Disease
- 13. Prostate Cancer
- 14. Rheumatoid Arthritis/Osteoarthritis
- 15. Atrial Fibrillation
- 16. Lung Cancer
- 17. Cataract
- 18. Osteoporosis
- 19. Glaucoma
- 20. Endometrial Cancer

Child Health Conditions and Risks

- 1. Tobacco Use
- 2. Overweight/Obese (≥85th percentile BMI for age)
- 3. Risk of Developmental Delays or Behavioral Problems
- 4. Oral Health
- 5. Diabetes
- 6. Asthma
- 7. Depression
- 8. Behavior or Conduct Problems
- 9. Chronic Ear Infections (3 or more in the past year)
- 10. Autism, Asperger's, PDD, ASD
- 11. Developmental Delay (diag.)
- 12. Environmental Allergies (hay fever, respiratory or skin allergies)
- 13. Learning Disability
- 14. Anxiety Problems
- 15. ADD/ADHD
- 16. Vision Problems not Corrected by Glasses
- 17. Bone, Joint, or Muscle Problems
- 18. Migraine Headaches
- 19. Food or Digestive Allergy
- 20. Hearing Problems
- 21. Stuttering, Stammering, or Other Speech Problems
- 22. Brain Injury or Concussion
- 23. Epilepsy or Seizure Disorder
- 24. Tourette Syndrome

MAP "Working" Measure Selection Criteria Interpretive Guide

Instructions for applying the measure selection criteria:

The measure selection criteria are designed to assist MAP Coordinating Committee and workgroup members in assessing measure sets used in payment and public reporting programs. The criteria have been developed with feedback from the MAP Coordinating Committee, workgroups, and public comment. The criteria are intended to facilitate a structured thought process that results in generating discussion. A rating scale of Strongly Agree, Agree, Disagree, Strongly Disagree is offered for each criterion or sub-criterion. An open text box is included in the response tool to capture reflections on the rationale for ratings.

The eight criteria areas are designed to assist in determining whether a measure set is aligned with its intended use and whether the set best reflects 'quality' health and healthcare. The term "measure set" can refer to a collection of measures--for a program, condition, procedure, topic, or population. For the purposes of MAP moving forward, we will qualify all uses of the term measure set to refer to either a "program measure set," a "core measure set" for a setting, or a "condition measure set." The following eight criteria apply to the evaluation of program measure sets; a subset of the criteria apply to condition measure sets.

For criterion 1 – NQF endorsement:

The optimal option is for all measures in the program measure set to be NQF endorsed or ready for NQF expedited review. The endorsement process evaluates individual measures against four main criteria:

- 1. 'Importance to measure and report'—how well the measure addresses a specific national health goal/ priority, addresses an area where a performance gap exists, and demonstrates evidence to support the measure focus;
- **2.** 'Scientific acceptability of the measurement properties' evaluates the extent to which each measure produces consistent (reliable) and credible (valid) results about the quality of care.
- **3.** 'Usability'- the extent to which intended audiences (e.g., consumers, purchasers, providers, and policy makers) can understand the results of the measure and are likely to find the measure results useful for decision making.
- **4. 'Feasibility'** the extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measures.

To be recommended by MAP, a measure that is not NQF-endorsed must meet the following requirements, so that it can be submitted for expedited review:

- the extent to which the measure(s) under consideration has been sufficiently tested and/or in widespread use
- whether the scope of the project/measure set is relatively narrow
- time-sensitive legislative/regulatory mandate for the measure(s)
- Measures that are NQF-endorsed are broadly available for quality improvement and public
 accountability programs. In some instances, there may be evidence that implementation
 challenges and/or unintended negative consequences of measurement to individuals or
 populations may outweigh benefits associated with the use of the performance measure.
 Additional consideration and discussion by the MAP workgroup or Coordinating Committee may
 be appropriate prior to selection. To raise concerns on particular measures, please make a note
 in the included text box under this criterion.

For criterion 2 – Program Measure set addresses the National Quality Strategy priorities:

The program's set of measures is expected to adequately address each of the NQS priorities as described in criterion 2.1-2.6. The definition of "adequate" rests on the expert judgment of the Coordinating Committee or workgroup member using the selection criteria. This assessment should consider the current landscape of NQF-endorsed measures available for selection within each of the priority areas.

For criterion 3 – Program Measure set addresses high-impact conditions:

When evaluating the program measure set, measures that adequately capture information on high-impact conditions should be included based on their relevance to the program's intended population. High-priority Medicare and child health conditions have been determined by NQF's Measure Prioritization Advisory Committee and are included to provide guidance. For programs intended to address high-impact conditions for populations other than Medicare beneficiaries and children (e.g., adult non-Medicare and dual eligible beneficiaries), high-impact conditions can be demonstrated by their high prevalence, high disease burden, and high costs relevant to the program. Examples of other on-going efforts may include research or literature on the adult Medicaid population or other common populations. The definition of "adequate" rests on the expert judgment of the Coordinating Committee or workgroup member using the selection criteria.

For criterion 4 – Program Measure set promotes alignment with specific program attributes, as well as alignment across programs:

The program measure sets should align with the attributes of the specific program for which they intend to be used. Background material on the program being evaluated and its intended purpose are provided to help with applying the criteria. This should assist with making discernments about the intended care setting(s), level(s) of analysis, and population(s). While the program measure set should address the unique aims of a given program, the overall goal is to harmonize measurement across programs, settings, and between the public and private sectors.

- Care settings include: Ambulatory Care, Ambulatory Surgery Center, Clinician Office,
 Clinic/Urgent Care, Behavioral Health/Psychiatric, Dialysis Facility, Emergency Medical Services Ambulance, Home Health, Hospice, Hospital- Acute Care Facility, Imaging Facility, Laboratory,
 Pharmacy, Post-Acute/Long Term Care, Facility, Nursing Home/Skilled Nursing Facility,
 Rehabilitation.
- Level of analysis includes: Clinicians/Individual, Group/Practice, Team, Facility, Health Plan, Integrated Delivery System.
- **Populations include:** Community, County/City, National, Regional, or States. Population includes: Adult/Elderly Care, Children's Health, Disparities Sensitive, Maternal Care, and Special Healthcare Needs.

For criterion 5 – Program Measure set includes an appropriate mix of measure types:

The program measure set should be evaluated for an appropriate mix of measure types. The definition of "appropriate" rests on the expert judgment of the Coordinating Committee or workgroup member using the selection criteria. The evaluated measure types include:

- 1. Outcome measures Clinical outcome measures reflect the actual results of care. Patient reported measures assess outcomes and effectiveness of care as experienced by patients and their families. Patient reported measures include measures of patients' understanding of treatment options and care plans, and their feedback on whether care made a difference.
- 2. Process measures Process denotes what is actually done in giving and receiving care. NQF-endorsement seeks to ensure that process measures have a systematic assessment of the quantity, quality, and consistency of the body of evidence that the measure focus leads to the desired health outcome. Experience of care measures—Defined as patients' perspective on their care.
- 3. Cost/resource use/appropriateness measures
 - a. Cost measures Total cost of care.
 - b. Resource use measures Resource use measures are defined as broadly applicable and comparable measures of health services counts (in terms of units or dollars) that are applied to a population or event (broadly defined to include diagnoses, procedures, or encounters).⁸
 - c. Appropriateness measures Measures that examine the significant clinical, systems, and care coordination aspects involved in the efficient delivery of high-quality services and thereby effectively improve the care of patients and reduce excessive healthcare costs. 9
- 4. Structure measures Reflect the conditions in which providers care for patients. ¹⁰ This includes the attributes of material resources (such as facilities, equipment, and money), of human resources (such as the number and qualifications of personnel), and of organizational structure (such as medical staff organizations, methods of peer review, and methods of reimbursement). ¹¹ In this case, structural measures should be used only when appropriate for the program attributes and the intended population.

³ National Quality Forum. (2011). The right tools for the job. Retrieved from http://www.qualityforum.org/Measuring_Performance/ABCs/The_Right_Tools_for_the_Job.aspx

⁴ Consumer-Purchases Disclosure Project. (2011). Ten Criteria for Meaningful and Usable Measures of Performance

⁵ Donabedian, A. (1988) The quality of care. JAMA, 260, 1743-1748.

⁶ National Quality Forum. (2011). Consensus development process. Retrieved from http://www.qualityforum.org/Measuring_ Performance/Consensus_Development_Process.aspx

⁷ National Quality Forum. (2011). The right tools for the job. Retrieved from http://www.qualityforum.org/Measuring_ Performance/ABCs/The_Right_Tools_for_the_Job.aspx

⁸ National Quality Forum (2009). National voluntary consensus standards for outpatient imaging efficiency. Retrieved from http://www.qualityforum.org/Publications/2009/08/National_Voluntary_Consensus_Standards_for_Outpatient_Imaging_ Efficiency__A_Consensus_Report.aspx

⁹ National Quality Forum. (2011). The right tools for the job. Retrieved from http://www.qualityforum.org/Measuring_ Performance/ABCs/The_Right_Tools_for_the_Job.aspx

¹⁰ National Quality Forum. (2011). The right tools for the job. Retrieved from http://www.qualityforum.org/Measuring_ Performance/ABCs/The_Right_Tools_for_the_Job.aspx

¹¹ Donabedian, A. (1988) The quality of care. *JAMA*, 260, 1743-1748.

For criterion 6 – program measure set enables measurement across the person-centered episode of care:

The optimal option is for the program measure set to approach measurement in such a way as to capture a person's natural trajectory through the health and healthcare system over a period of time. Additionally, driving to longitudinal measures that address patients throughout their lifespan, from health, to chronic conditions, and when acutely ill should be emphasized. Evaluating performance in this way can provide insight into how effectively services are coordinated across multiple settings and during critical transition points.

When evaluating subcriteria 6.1-6.3, it is important to note whether the program measure set captures this trajectory (across providers, settings or time). This can be done through the inclusion of individual measures (e.g., 30-day readmission post-hospitalization measure) or multiple measures in concert (e.g., aspirin at arrival for AMI, statins at discharge, AMI 30-day mortality, referral for cardiac rehabilitation).

For criterion 7 – program measure set includes considerations for healthcare disparities:

Measures sets should be able to detect differences in quality among populations or social groupings. Measures should be stratified by demographic information (e.g., race, ethnicity, language, gender, disability, and socioeconomic status, rural vs. urban), which will provide important information to help identify and address disparities.¹²

Subcriterion 7.1 seeks to include measures that are known to assess healthcare disparities (e.g., use of interpreter services to prevent disparities for non-English speaking patients). **Subcriterion 7.2** seeks to include disparities-sensitive measures; these are measures that serve

to detect not only differences in quality across institutions or in relation to certain benchmarks, but also differences in quality among populations or social groupings (e.g., race/ethnicity, language).

For criterion 8 – program measure set promotes parsimony:

The optimal option is for the program measure set to support an efficient use of resources in regard to data collection and reporting for accountable entitles, while also measuring the patient's health and healthcare comprehensively.

Subcriterion 8.1 can be evaluated by examining whether the program measure set includes the least number of measures required to capture the program's objectives and data submission that requires the least burden on the part of the accountable entitles.

Subcriterion 8.2 can be evaluated by examining whether the program measure set includes measures that are used across multiple programs (e.g., PQRS, MU, CHIPRA, etc.) and applications (e.g., payment, public reporting, and quality improvement).

NATIONAL QUALITY FORUM

¹² Consumer-Purchases Disclosure Project. (2011). Ten Criteria for Meaningful and Usable Measures of Performance.

Hospital Workgroup's Guiding Principles for Applying Measures to Hospital Programs

The MAP Hospital Workgroup developed these principles to serve as guidance for applying performance measures to specific hospital measurement programs. The principles are not absolute rules; rather, they are meant to guide measure selection decisions. The principles are intended to complement program-specific statutory and regulatory requirements and the MAP Measure Selection Criteria. These principles will inform future revisions to the MAP Measure Selection Criteria.

Pay for Reporting

Inpatient Quality Reporting Program

- Gain experience collecting and publicly reporting measures, prior to application in pay-for-performance programs, unless compelling evidence suggests a measure should be applied to a pay-for-performance program more rapidly
- Particularly salient points from the MAP Measure Selection Criteria:
 - NQF-endorsed measures are preferred over measures that are not endorsed or are in reserve status (i.e., topped out); measures that are not NQF-endorsed should be submitted for endorsement or removed
 - Include measures that are meaningful to consumers, purchasers, and providers to fulfill the program's public reporting purpose
 - To minimize burden and confusion, keep the program measure set parsimonious, focusing on measures that address the NQS priorities and high-impact conditions

Pay for Performance

Hospital Value-Based Purchasing Program

- Include measures that address areas of variation in quality with opportunities for improvement
- Certain measures are more appropriate for the Hospital Value-Based Purchasing program than for payment adjustment programs without an improvement component:
 - o Topics where hospitals are earlier in their improvement efforts
 - There is evidence of potential unintended consequences; include balancing measures when unintended consequences are anticipated
 - o Benchmark for the topic is yet to be determined—may not be zero
- Particularly salient points from the MAP Measure Selection Criteria:
 - NQF-endorsed measures are strongly preferred for pay-for-performance programs;
 measures that are not NQF-endorsed should be submitted for endorsement or removed
 - Include outcome measures, ideally linked with cost measures to capture value
 - To avoid diluting the incentive, keep the program measure set parsimonious, focusing on areas of performance that need improvement or are important to reward for high attainment

Readmission Reduction and HAC Reduction Programs

• Include measures that address high incidence, severity, or cost areas where there is variation in quality with opportunities for improvement

- Consider potential unintended consequences related to overlapping incentives when applying measures to more than one pay-for-performance program (e.g., overuse of antibiotics to avoid any healthcare-acquired infection)
- Particularly salient points from the MAP Measure Selection Criteria:
 - NQF-endorsed measures are strongly preferred for pay-for-performance programs;
 measures that are not NQF-endorsed should be submitted for endorsement or removed
 - o Include measures that address high-impact conditions
 - o Include measures of preventable harm to fulfill the program's purpose
 - o Include measures that cross the patient-centered episode of care
- Particularly salient points from MAP's prior Guidance for the Selection of Readmission Measures:
 - Readmission measures should be part of a suite of measures to promote a system of patient-centered care coordination
 - o Readmission measures should exclude planned readmissions
 - Program implementers should consider stratifying readmission measures by factors such as race, gender, and socioeconomic status to enable fair comparisons

General Considerations

- If a composite is selected for a program, then individual measures that are part of the composite should not be included in the program.
- Prior to application, measures under consideration for a program should be tested for reliability and validity with data from the relevant population.
- Program implementers should be sensitive to hospitals with low patient volumes when applying program structures and measure sets.
- Program implementers should monitor to identify and mitigate potential unintended consequences.

Hospital Inpatient Quality Reporting Program

Program Type:

Pay for Reporting – Information is reported on the Hospital Compare website.¹

Incentive Structure:

Hospitals receive a reduction of 2.0 percentage points of their annual market basket (the measure of inflation in costs of goods and services used by hospitals in treating Medicare patients) payment update for non-participation.²

Care Settings Included:

Hospitals paid under the Inpatient Prospective Payment System (IPPS).

Statutory Mandate:

The Hospital Inpatient Quality Reporting Program (IQR) was originally mandated by Section 501(b) of the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003 and subsequently updated in the Deficit Reduction Act of 2005.

Statutory Requirements for Measures:

The program was required to begin with the baseline set of performance measures set forth in the November 2005 report by the Institute of Medicine of the National Academy of Sciences under section 238(b) of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003.

The program measure set should include process, structure, outcome, patients' perspectives on care, efficiency, and costs of care measures.

The Secretary of HHS may:

- Add measures reflecting consensus among the affected parties, and to the extent feasible, include measures set forth by one or more national consensus building entities.
- Replace any measures in appropriate cases (e.g., where all hospitals are effectively in compliance or measures do not represent best practice).

Additional Program Considerations:

- Measures should align with the National Quality Strategy³ and promote the health and wellbeing of Medicare beneficiaries^{4,5}
- Measures should align with the Meaningful Use program when possible ^{6,7}

MAP 2013 Pre-Rulemaking Program-Specific Input:

- NQF-endorsed measures are preferred over measures that are not endorsed or endorsed in reserve status. Similarly, measures that are not NQF-endorsed, are topped out, or no longer represent the standard of care should be removed or suspended from IQR reporting.
- Measures selected should be meaningful to consumers, purchasers, and providers and address
 the NQS aims and priorities, as well as high-impact conditions. The program measure set should
 be parsimonious, balancing conciseness and comprehensiveness.
- MAP supported including updated methodologies for the readmissions measures in IQR to better exclude planned readmissions.
- MAP supported updated Centers for Disease Control and Prevention (CDC)—National Healthcare Safety Network (NHSN) measures under consideration with additional risk adjustment for volume of exposure within a facility, contingent on NQF endorsement of the new methodology.

• MAP highlighted priority gaps in the IQR program measure set. To expand the populations covered by the IQR program, MAP supported additional pediatric and maternal/child health measures for this set. MAP also suggested including cancer and behavioral health measures from the PPS-Exempt Cancer Hospital Quality Reporting Program (PCHQR) and the Inpatient Psychiatric Facility Quality Reporting Program (IPFQR) in the IQR program to better align measurement for these populations. MAP stressed the need for additional safety measures, especially in the areas of medication reconciliation and culture of patient safety.

Program Measure Set Evaluation Using MAP Measure Selection Criteria

M	AP Measure Selection Criteria	Evaluation
1.	Measures within the program measure set are NQF-endorsed or meet the requirements for expedited review	The majority (46) of measures in the set are NQF- endorsed. Two measures in the set are in reserve status and four measures in the set have lost endorsement.
2.	Program measure set adequately addresses each of the National Quality Strategy (NQS) priorities	All NQS priorities are addressed by the program measure set.
3.	Program measure set adequately addresses high-impact conditions relevant to the program's intended population(s)	The measure set addresses four high-impact conditions.
4.	Program measure set promotes alignment with specific program <u>attributes</u> as well as <u>alignment across programs</u>	Measures in the program align with VBP, Meaningful Use, Hospital Readmissions Reduction Program, HAC Payment Reduction Program, and the PPS-Exempt Cancer Hospital Quality Reporting Program.
5.	Program measure set includes an appropriate mix of measure types	The program includes process, structure, outcome, patient experience of care, and cost measures.
6.	Program measure set enables measurement across the person-centered episode of care	The measure set addresses care within the hospital setting. Two measures are patient-reported outcome measures (PRO).
7.	Program measure set includes considerations for healthcare disparities	Three measures are disparities-sensitive.
8.	Program measure set promotes parsimony	While the set was reduced in size during the 2012 and 2013 rulemaking cycles, 57 measures remain in the program measure set for FY 2016.

Hospital Value-Based Purchasing Program

Program Type:

Pay for Performance – Payments are based on information publicly reported on the Hospital Compare website.⁸

Incentive Structure:

Starting on October 1, 2012, Medicare began basing a portion of hospital reimbursement on performance through the Hospital Value-Based Purchasing Program (VBP). Medicare began withholding 1 percent of its regular hospital reimbursements from all hospitals paid under its inpatient prospective payment system (IPPS) to fund a pool of VBP incentive payments. The amount withheld from reimbursements increases over time:

FY 2014: 1.25%FY 2015: 1.5%FY 2016: 1.75%

FY 2017 and succeeding fiscal years: 2%

Hospitals are scored based on their performance on each measure within the program relative to other hospitals as well as on how their performance on each measure has improved over time. The higher of these scores on each measure is used in determining incentive payments.

Care Settings Included:

Hospitals paid under the IPPS.

Statutory Mandate:

Hospital VBP was mandated by section 3001 of the Patient Protection and Affordable Care Act.

Statutory Requirements for Measures:

Measures selected for the VBP program must be included in IQR and reported on the Hospital Compare website for at least 1 year prior to use in the VBP program.

The program was required to begin with a baseline set of performance measures for FY 2013 that included measures addressing AMI, heart failure, pneumonia, surgeries as measured by the Surgical Care Improvement Project, healthcare-associated infections as measured by the prevention metrics and targets established in the HHS Action Plan to Prevent Healthcare-Associated Infections (or any successor plan), and HCAHPS. For FY 2014 or a subsequent fiscal year, the program set should include efficiency measures including measures of "Medicare Spending per Beneficiary."

The Secretary of HHS can replace any measures in appropriate cases (e.g., where all hospitals are effectively in compliance or measures do not represent best practice). Measures of readmissions are statutorily excluded and cannot be included in the Hospital VBP program⁹.

MAP 2013 Pre-Rulemaking Program-Specific Input:

- Measures within this program should emphasize areas of critical importance for high
 performance and quality improvement, and ideally, link clinical quality and cost measures to
 capture value. For the HVBP program, NQF-endorsed measures are strongly preferred and the
 program measure set should be parsimonious to avoid diluting the payment incentives.
- MAP supported including outcome measures and process measures strongly tied to positive outcomes for the HVBP program measure set. Measures under consideration for the HVBP

- program and supported by MAP addressed safety, prevention, affordability, and care transitions.
- MAP strongly supported the direction of emergency department (ED) throughput measures, recognizing the significance of ED overcrowding and improving wait times, but noting validity concerns regarding the ED measures under consideration.
- MAP identified a number of key gap areas that should be addressed within the HVBP program measure set, including medication errors, mental and behavioral health, and patient and family engagement.

Program Measure Set Evaluation Using MAP Measure Selection Criteria

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IVIA	AP Measure Selection Criteria	Evaluation
1.	Measures within the program measure set are NQF-endorsed or meet the requirements for expedited review	The majority (17) of measures in the program set are NQF-endorsed.
2.	Program measure set adequately addresses each of the National Quality Strategy (NQS) priorities	The program set does not address the NQS priority of care coordination.
3.	Program measure set adequately addresses high-impact conditions relevant to the program's intended population(s)	Two high-impact conditions are addressed by the program measure set.
4.	Program measure set promotes alignment with specific program <u>attributes</u> as well as <u>alignment across programs</u>	The measure set addresses the statutory requirements set forth by the ACA. All measures in VBP are included in IQR.
5.	Program measure set includes an appropriate mix of measure types	The set includes process, outcome, patient experience of care, and cost measures.
6.	Program measure set enables measurement across the person-centered episode of care	One patient-reported outcome (PRO) measure is included.
7.	Program measure set includes considerations for healthcare disparities	Three measures are disparities-sensitive.
8.	Program measure set promotes parsimony	The measure set addresses many of the MAP Measure Selection Criteria with 18 measures. Measures are included in the IQR program and therefore align across programs.

¹ http://www.gpo.gov/fdsys/pkg/FR-2011-05-06/pdf/2011-10568.pdf

² https://www.cms.gov/HospitalQualityInits/08_HospitalRHQDAPU.asp

³ https://www.federalregister.gov/articles/2012/08/31/2012-19079/medicare-program-hospital-inpatient-prospective-payment-systems-for-acute-care-hospitals-and-the#h-345

⁴ Institute of Medicine, "Performance Measurement: Accelerating Improvement," December 1, 2005, available at: http://www.iom.edu/CMS/3809/19805/31310.aspx.

⁵ http://www.gpo.gov/fdsys/pkg/PLAW-108publ173/html/PLAW-108publ173.htm

 $^{^6}$ https://www.federalregister.gov/articles/2010/08/16/2010-19092/medicare-program-hospital-inpatient-prospective-payment-systems-for-acute-care-hospitals-and-the#h-181

⁷ http://www.gpo.gov/fdsys/pkg/FR-2012-09-04/pdf/2012-21050.pdf

⁸ http://www.gpo.gov/fdsys/pkg/FR-2011-05-06/pdf/2011-10568.pdf

⁹ http://www.gpo.gov/fdsys/pkg/FR-2011-05-06/html/2011-10568.htm

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
<u>113</u>	Endorsed – Reserve	Participation in a Systematic Database for Cardiac Surgery	Structure	Effective Prevention & Treatment; Making Care Safer				
135	Endorsed – Reserve	HF-2 Evaluation of LVS Function	Process	Effective Prevention & Treatment; Making Care Safer	X		IQR: Phased Removal	99%
138	Endorsed	Catheter-Associated Urinary Tract Infection.	Outcome	Making Care Safer			Cancer Family, Safety Family; PCHQR: Support, VBP: Support, HAC Reduction Program: Support	
139	Endorsed	Central Line Associated Bloodstream Infection.	Outcome	Making Care Safer			Cancer Family, Safety Family; VBP: Support, PCHQR: Support, HAC Reduction Program: Support	

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
147	Endorsed	PN-6 Appropriate initial antibiotic selection	Process	Effective Prevention & Treatment			MU-Stage 2 (Hospital): Support, IQR: Phased Removal, VBP: Phased Removal	95%
<u>163</u>	Endorsed	AMI–8a Timing of Receipt of Primary Percutaneous Coronary Intervention (PCI).	Process	Effective Prevention & Treatment	х		Cardiovascular Disease Family; Care Coordination Family; MU- Stage 2 (Hospital): Support	95%
164	Endorsed	AMI-7a Fibrinolytic (thrombolytic) agent received within 30 minutes of hospital arrival.	Process	Effective Prevention & Treatment	х	Х	Care Coordination Family; MU- Stage 2 (Hospital): Support	61%

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
<u>166</u>	Endorsed	HCAHPS	Outcome	Patient & Family Engagement			Care Coordination Family, Dual Eligible Beneficiaries Family; PCHQR: Support Direction, LTCHQR: Support Direction	
218	Endorsed	SCIP-VTE-2: Surgery patients who received appropriate VTE prophylaxis within 24 hours pre/post surgery	Process	Making Care Safer			MU-Stage 2 (Hospital): Support, PCHQR: Support	98%
229	Endorsed	Heart Failure (HF) 30-day mortality rate	Outcome	Making Care Safer	х		Cardiovascular Disease Family	11.70%
230	Endorsed	Acute Myocardial Infarction (AMI) 30- day mortality rate	Outcome	Making Care Safer	х	х	Cardiovascular Disease Family	15.20%

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
284	Endorsed	SCIP Cardiovascular- 2: Surgery Patients on a Beta Blocker prior to arrival who received a Beta Blocker during the perioperative period	Process	Effective Prevention & Treatment			MU-Stage 2 (Hospital): Support, PCHQR: Support	97%
300	Endorsed	SCIP INF-4: Cardiac surgery patients with controlled 6AM postoperative serum glucose	Process	Making Care Safer			MU-Stage 2 (Hospital): Support, PCHQR: Support	96%
330	Endorsed	Heart Failure (HF) 30-day Risk Standardized Readmission Measure	Outcome	Making Care Safer	X		IQR: Support, HRRP: Support	Not available
351	Endorsed	PSI-4 Death among surgical inpatients with serious treatable complications	Outcome	Making Care Safer			Safety Family; HAC Reduction Program: Support Direction	113.43 per 1,000 patient discharges
<u>371</u>	Endorsed	VTE-1 VTE prophylaxis	Process	Making Care Safer			LTCHQR: Support Direction	

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
<u>372</u>	Endorsed	VTE–2 ICU VTE prophylaxis	Process	Making Care Safer				
<u>373</u>	Endorsed	VTE-3 VTE patients with anticoagulation overlaptherapy	Process	Making Care Safer				
<u>431</u>	Endorsed	Healthcare Personnel Influenza Vaccination	Process	Making Care Safer			VBP: Support, IRFQR: Support	
434	Endorsed	STK-1 VTE prophylaxis.	Process	Making Care Safer	х		MU-Stage 2 (Hospital): Support	
435	Endorsed	STK–2 Discharged on Antithrombotic Therapy	Process	Effective Prevention & Treatment	Х			
<u>436</u>	Endorsed	STK-3 Anticoagulation therapy for Afib/flutter	Process	Effective Prevention & Treatment	X			
437	Endorsed	STK-4 Thrombolytic therapy for acute ischemic stroke	Process	Effective Prevention & Treatment	X		Cardiovascular Disease Family	

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
438	Endorsed	STK–5 Antithrombotic therapy by the end of hospital day 2	Process	Effective Prevention & Treatment	Х			
439	Endorsed	STK–6 Discharged on Statin	Process	Effective Prevention & Treatment	X			
441	Endorsed	STK-10 Assessed for rehab	Process	Effective Prevention & Treatment	X		Cardiovascular Disease Family	
<u>453</u>	Endorsed	SCIP INF—9: Postoperative urinary catheter removal on post operative day 1 or 2 with day of surgery being day zero	Process	Making Care Safer			MU-Stage 2 (Hospital): Support, PCHQR: Support	96%
<u>468</u>	Endorsed	Pneumonia (PN) 30- day mortality rate	Outcome	Making Care Safer				11.90%

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
469	Endorsed	Elective delivery prior to 39 completed weeks of gestation	Process	Making Care Affordable; Making Care Safer			Safety Family; IQR: Support, MU-Stage 2 (Hospital): Support, VBP: Support	
495	Endorsed – Time-Limited	ED-1 Median time from emergency department arrival to time of departure from the emergency room for patients admitted to the hospital		Effective Communication and Care Coordination			VBP: Support Direction	274 minutes
497	Endorsed – Time-Limited	ED-2 Median time from admit decision to time of departure from the emergency department for emergency department patients admitted to the inpatient status		Effective Communication and Care Coordination			VBP: Support Direction	96 minutes

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
505	Endorsed	Acute Myocardial Infarction (AMI) 30- day Risk Standardized Readmission Measure	Outcome	Making Care Safer	X		IQR: Support, HRRP: Support	Not available
<u>506</u>	Endorsed	Pneumonia (PN) 30- day Risk Standardized Readmission Measure	Outcome	Making Care Safer			IQR: Support, HRRP: Support	Not available
527	Endorsed	SCIP INF-1 Prophylactic antibiotic received within 1 hour prior to surgical incision	Process	Making Care Safer			MU-Stage 2 (Hospital): Support, PCHQR: Support	98%
<u>528</u>	Endorsed	SCIP INF-2: Prophylactic antibiotic selection for surgical patients	Process	Making Care Safer			MU-Stage 2 (Hospital): Support, PCHQR: Support	99%

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
529	Endorsed	SCIP INF—3 Prophylactic antibiotics discontinued within 24 hours after surgery end time (48 hours for cardiac surgery)	Process	Making Care Safer			Safety Family; MU-Stage 2 (Hospital): Support, PCHQR: Support	97%
531	Endorsed	PSI-90 Complication/patie nt safety for selected indicators (composite)	Outcome	Making Care Safer			IQR: Support, VBP: Do Not Support, HAC Reduction Program: Support Direction	
<u>753</u>	Endorsed	Surgical Site Infection.	Outcome	Making Care Safer			Safety Family; VBP: Support, PCHQR: Support, HAC Reduction Program: Support	

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
1550	Endorsed	Hip/Knee Complication: Hospital-level Risk- Standardized Complication Rate (RSCR) following Elective Primary Total Hip Arthroplasty	Outcome	Making Care Safer			IQR: Support, VBP: Support	
<u>1551</u>	Endorsed	30-day Risk Standardized Readmission following Total Hip/Total Knee Arthroplasty	Outcome	Making Care Safer			IQR: Support	Not available
<u>1659</u>	Endorsed	IMM-2 Immunization for Influenza.	Process	Health and Well- Being		х	Dual Eligible Beneficiaries Family; MU- Stage 2 (Hospital): Support, VBP: Support	86%

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
<u>1716</u>	Endorsed	National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital- onset Methicillin- resistant Staphylococcus aureus (MRSA) Bacteremia Outcome Measure		Making Care Safer			Safety Family; VBP: Support, LTCHQR: Support Direction, HAC Reduction Program: Support Direction	
1717	Endorsed	National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital- onset Clostridium difficile Infection (CDI) Outcome Measure		Making Care Safer			Safety Family, VBP: Support, LTCHQR: Support Direction, HAC Reduction Program: Support Direction	
1789	Endorsed	Hospital-Wide All- Cause Unplanned Readmission (HWR)	Outcome	Making Care Safer			Care Coordination Family, Dual Eligible Beneficiaries Family; IQR: Support	Not available

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
<u>1891</u>	Endorsed	COPD 30-day Risk Standardized Readmission	Outcome	Making Care Safer	Х		IQR: Support, HRRP: Support Direction	
<u>1893</u>	Endorsed	COPD 30-day mortality rate	Outcome	Making Care Safer	X		IQR: Support	
N/A (formerly 374)	Not Endorsed	VTE-4 Patients receiving un- fractionated Heparin with doses/labs monitored by protocol	Process	Making Care Safer				
N/A (formerly 375)	Not Endorsed	VTE-5 VTE discharge instructions	Process	Making Care Safer			LTCHQR: Do Not Support	
N/A (formerly 376)	Not Endorsed	VTE–6 Incidence of potentially preventable VTE	Process	Making Care Safer			Safety Family; IRFQR: Support direction, IQR: Phased Removal, Meaningful Use (EHR Incentive Program) - Hospitals, CAHs: Phased Removal	

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
<u>N/A</u>	Not Endorsed	Stroke 30-day Risk Standardized Readmission	Outcome	Making Care Safer	х		IQR: Do Not Support, HRRP: Do Not Support	
N/A	Not Endorsed	Stroke 30-day mortality rate	Outcome	Making Care Safer	X		IQR: Do Not Support	
N/A	Not Endorsed	Participation in a Systematic Clinical Database Registry for Nursing Sensitive Care	Structure	Effective Prevention & Treatment				
N/A	Not Endorsed	Participation in a Systematic Clinical Database Registry for General Surgery	Structure	Effective Prevention & Treatment				
N/A	Not Endorsed	Safe Surgery Checklist Use	Process	Making Care Safer				
N/A (formerly 440)	Not Endorsed	STK–8 Stroke education	Process	Communication & Care Coordination	х			

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
N/A	Not Endorsed	Medicare Spending per Beneficiary	Efficiency	Making Care Affordable			Value-Based Payment Modifier Program: Support direction, IQR: Support, VBP: Support, LTCHQR: Support Direction, PCHQR: Support	0.98
<u>N/A</u>	Not Endorsed	AMI Payment per Episode of Care	Efficiency	Making Care Affordable	х		IQR: Support Direction	

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
138	Endorsed	Catheter-Associated Urinary Tract Infection.	Outcome	Making Care Safer			Cancer Family, Safety Family; PCHQR: Support, VBP: Support, HAC Reduction Program: Support	
139	Endorsed	Central Line Associated Bloodstream Infection.	Outcome	Making Care Safer			Cancer Family, Safety Family; VBP: Support, PCHQR: Support, HAC Reduction Program: Support	
147	Endorsed	PN-6 Appropriate initial antibiotic selection	Process	Effective Prevention & Treatment			MU-Stage 2 (Hospital): Support, IQR: Phased Removal, VBP: Phased Removal	95%
<u>164</u>	Endorsed	AMI-7a Fibrinolytic (thrombolytic) agent received within 30 minutes of hospital arrival.	Process	Effective Prevention & Treatment	X	Х	Care Coordination Family; MU-Stage 2 (Hospital): Support	61%
166	Endorsed	HCAHPS	Outcome	Patient & Family Engagement			Care Coordination Family, Dual Eligible Beneficiaries Family; PCHQR: Support Direction, LTCHQR: Support Direction	

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
218	Endorsed	SCIP-VTE-2: Surgery patients who received appropriate VTE prophylaxis within 24 hours pre/post surgery	Process	Making Care Safer			MU-Stage 2 (Hospital): Support, PCHQR: Support	98%
229	Endorsed	Heart Failure (HF) 30-day mortality rate	Outcome	Making Care Safer	Х		Cardiovascular Disease Family	11.70%
230	Endorsed	Acute Myocardial Infarction (AMI) 30-day mortality rate	Outcome	Making Care Safer	Х	Х	Cardiovascular Disease Family	15.20%
284	Endorsed	SCIP Cardiovascular-2: Surgery Patients on a Beta Blocker prior to arrival who received a Beta Blocker during the perioperative period	Process	Effective Prevention & Treatment			MU-Stage 2 (Hospital): Support, PCHQR: Support	97%
<u>453</u>	Endorsed	SCIP INF-9: Postoperative urinary catheter removal on post operative day 1 or 2 with day of surgery being day zero	Process	Making Care Safer			MU-Stage 2 (Hospital): Support, PCHQR: Support	96%

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
468	Endorsed	Pneumonia (PN) 30-day mortality rate	Outcome	Making Care Safer				11.90%
<u>528</u>	Endorsed	SCIP INF–2: Prophylactic antibiotic selection for surgical patients	Process	Making Care Safer			MU-Stage 2 (Hospital): Support, PCHQR: Support	99%
<u>529</u>	Endorsed	SCIP INF–3 Prophylactic antibiotics discontinued within 24 hours after surgery end time (48 hours for cardiac surgery)	Process	Making Care Safer			Safety Family; MU-Stage 2 (Hospital): Support, PCHQR: Support	97%
531	Endorsed	PSI-90 Complication/patient safety for selected indicators (composite)	Outcome	Making Care Safer			IQR: Support, VBP: Do Not Support, HAC Reduction Program: Support Direction	
<u>753</u>	Endorsed	Surgical Site Infection.	Outcome	Making Care Safer			Safety Family; VBP: Support, PCHQR: Support, HAC Reduction Program: Support	
<u>1659</u>	Endorsed	IMM-2 Immunization for Influenza.	Process	Health and Well-Being		Х	Dual Eligible Beneficiaries Family; MU-Stage 2 (Hospital): Support, VBP: Support	86%

NQF Measure Number	NQF Status	Measure Title	Measure Type	NQS Priority	High Impact Condition	Dispartites Sensitive	MAP Prior Input	Hospital Compare Score (if available)
N/A	Not Endorsed	Medicare Spending per Beneficiary	•	Making Care Affordable			Value-Based Payment Modifier Program: Support direction, IQR: Support, VBP: Support, LTCHQR: Support Direction, PCHQR: Support	0.98



MAP Previously Identified Measure Gaps

This document provides a synthesis of previously identified measure gaps compiled from all prior MAP reports. The gaps are grouped by NQS priority.

Safety

• Composite measure of most significant Serious Reportable Events

Healthcare-Associated Infections

- Ventilator-associated events for acute care, post-acute care, long-term care hospitals and home health settings
- Pediatric population: special considerations for ventilator-associated events and C. difficile
- Infection measures reported as rates, rather than ratios (more meaningful to consumers)
- Sepsis (healthcare-acquired and community-acquired) incidence, early detection, monitoring, and failure to rescue related to sepsis
- Post-discharge follow-up on infections in ambulatory settings
- Vancomycin Resistant Enterococci (VRE) measures (e.g., positive blood cultures, appropriate antibiotic use)

Medication and Infusion Safety

- Adverse drug events
 - o Injury/mortality related to inappropriate drug management
 - Total number of adverse drug events that occur within all settings (including administration of wrong medication or wrong dosage and drug-allergy or drug-drug interactions)
- Inappropriate medication use
 - Polypharmacy and use of unnecessary medications for all ages, especially high-risk medications
 - o Antibiotic use for sinusitis
 - Use of sedatives, hypnotics, atypical-antipsychotics, pain medications (consideration for individuals with dementia, Alzheimer's, or residing in long-term care settings)
- Medication management
 - o Patient-reported measures of understanding medications (purpose, dosage, side effects, etc.)
 - Medication documentation, including appropriate prescribing and comprehensive medication review
 - Persistence of medications (patients taking medications) for secondary prevention of cardiovascular conditions
 - o Role of community pharmacist or home health provider in medication reconciliation
- Blood incompatibility

Perioperative/Procedural Safety

- Air embolism
- Anesthesia events (inter-operative myocardial infarction, corneal abrasion, broken tooth, etc.)
- Perioperative respiratory events, blood loss, and unnecessary transfusion
- Altered mental status in perioperative period

Venous Thromboembolism

VTE outcome measures for ambulatory surgical centers and post-acute care/long-term care settings

• Adherence to VTE medications, monitoring of therapeutic levels, medication side effects, and recurrence

Falls and Immobility

- Standard definition of falls across settings to avoid potential confusion related to two different fall rates
- Structural measures of staff availability to ambulate and reposition patients, including home care providers and home health aides

Obstetrical Adverse Events

- Obstetrical adverse event index
- Measures using National Health Safety Network (NHSN) definitions for infections in newborns

Pain Management

- Effectiveness of pain management paired with patient experience and balanced by overuse/misuse monitoring
- Assessment of depression with pain

Patient & Family Engagement

Person-Centered Communication

- Information provided at appropriate times
- Information is aligned with patient preferences
- Patient understanding of information, not just receiving information (considerations for cultural sensitivity, ethnicity, language, religion, multiple chronic conditions, frailty, disability, medical complexity)
- Outreach to non-compliant patients

Shared Decision-Making and Care Planning

- Person-centered care plan, created early in the care process, with identified goals for all people
- Integration of patient/family values in care planning
- Plan agreed to by the patient and provider and given to patient, including advanced care plan
- Plan shared among all providers seeing the patient (integrated); multidisciplinary
- Identified primary provider responsible for the care plan
- Fidelity to care plan and attainment of goals
 - Treatment consistent with advanced care plan
- Social care planning addressing social, practical, and legal needs of patient and caregivers
- Grief and bereavement care planning

Advanced Illness Care

- Symptom management (nausea, shortness of breath, nutrition)
- Comfort at end of life

Patient-Reported Measures

- Functional status
 - Particularly for individuals with multiple chronic conditions
 - Optimal functioning (e.g., improving when possible, maintaining, managing decline)
- Pain and symptom management
- Health-related quality of life
- Patient activation/engagement

Healthy Living

- Life enjoyment
- Community inclusion/participation for people with long-term services and supports needs
- Sense of control/autonomy/self-determination
- Safety risk assessment

Care Coordination

Communication

- Sharing information across settings
 - Address both the sending and receiving of adequate information
 - o Sharing medical records (including advance directives) across all providers
 - o Documented consent for care coordination
 - o Coordination between inpatient psychiatric care and alcohol/substance abuse treatment
- Effective and timely communication (e.g., provider-to-patient/family, provider-to-provider)
 - o Survey/composite measure of provider perspective of care coordination
- Comprehensive care coordination survey that looks across episode and settings (includes all ages; recognizes
 accountability of the multidisciplinary team)

Care Transitions

- Measures of patient transition to next provider/site of care across all settings, beyond hospital transitions (e.g., primary care to specialty care, clinician to community pharmacist, nursing home to home health) as well as transitions to community services
- Timely communication of discharge information to all parties (e.g., caregiver, primary care physician)
- Transition planning
 - o Outcome measures for after care
 - o Primary care follow-up after discharge measures (e.g., patients keeping follow-up appointments)
 - Access to needed social supports

System and Infrastructure Support

- Interoperability of EHRs to enhance communication
- Measures of "systemness," including accountable care organizations and patient-centered medical homes
- Structures to connect health systems and benefits (e.g., coordinating Medicare and Medicaid benefits, connecting to long-term supports and services)

Avoidable Admissions and Readmissions

- Shared accountability and attribution across the continuum
- Community role; patient's ability to connect to available resources

Affordability

- Ability to obtain follow-up care
- Utilization benchmarking (e.g., outpatient/ED/nursing facility)
- Consideration of total cost of care, including patient out of pocket cost
- Appropriateness for admissions, treatment, over-diagnosis, under-diagnosis, misdiagnosis, imaging, procedures
- Chemotherapy appropriateness, including dosing
- Avoiding unnecessary end-of-life care
- Use of radiographic imaging in the pediatric population

Prevention and Treatment for the Leading Causes of Mortality

Primary and Secondary Prevention

- Lipid control
- Outcomes of smoking cessation interventions
- Lifestyle management (e.g., physical activity/exercise, diet/nutrition)
- Cardiometabolic risk
- Modify Prevention Quality Indicators (PQI) measures to assess accountable care organizations; modify population to include all patients with the disease (if applicable)

Cancer

- Cancer- and stage-specific survival as well as patient-reported measures
- Complications such as febrile neutropenia and surgical site infection
- Transplants: bone marrow and peripheral stem cells
- Staging measures for lung, prostate, and gynecological cancers
- Marker/drug combination measures for marker-specific therapies, performance status of patients undergoing oncologic therapy/pre-therapy assessment
- Disparities measures, such as risk-stratified process and outcome measures, as well as access measures
- Pediatric measures, including hematologic cancers and transitions to adult care

Cardiovascular Conditions

- Appropriateness of coronary artery bypass graft and PCI at the provider and system levels of analysis
- Early identification of heart failure decompensation
- ACE/ARB, beta blocker, statin persistence (patients taking medications) for ischemic heart disease

Depression

- Suicide risk assessment for any type of depression diagnosis
- Assessment and referral for substance use
- Medication adherence and persistence for all behavioral health conditions

Diabetes

- Measures addressing glycemic control for complex patients (e.g., geriatric population, multiple chronic conditions) at the clinician, facility, and system levels of analysis
- Pediatric glycemic control
- Seguelae of diabetes

Musculoskeletal

Evaluating bone density, and prevention and treatment of osteoporosis in ambulatory settings