

**HIT Policy Committee
Quality Measures Workgroup**

EFFICIENCY TIGER TEAM

October 28, 2010

The Quality Measures Workgroup is one of seven workgroups within the HIT Policy Committee that will provide initial recommendations on quality measure prioritization and the quality measure convergence process pertaining to measure gaps and opportunities for Meaningful Use Stage 2.

The workgroup was divided into six tiger teams, each focused on a different measure domain. These tiger teams were charged with identifying a set of sub-domains, prioritizing these sub-domains, and identifying key measure concepts within each sub-domain.

The Efficiency Tiger Team members include Charles Kennedy, Robert Kocher, Richard Bankowitz, Niall Brennan, Kate Goodrich, Robert A. Greene, and Karen Kmetik.

The Efficiency Tiger Team followed three guiding principles in identifying and prioritizing measure concepts:

1. *Maximize impact.* Prioritize based on the opportunity to significantly improve outcomes and reduce errors and/or to impact and benefit a large number of patients. Be purposeful about recommending measures that relate to largest areas of clinical activity.
2. *Be parsimonious.* Identify measures where performance is likely to have large beneficial corollary effects on how other patients receive care and attain optimal outcomes.
3. *Be practical.* Whenever possible, highlight current metrics in widespread use that are endorsed and positively improve efficiency, while highlighting promising areas and priorities for future measures.

The recommended measure concepts cross multiple specialties and care delivery settings, align with existing National Quality Forum (NQF) measures or industry quality goals, and will enable creation of measures that will lay the groundwork for long-term measure goals. This enables measures, to different degrees, to reflect health information technology sensitivity, parsimony, preventable burdens, longitudinal measurement goals, and the ability to perform health risk assessments.

The group first focused on identifying a set of sub-domains and then narrowed down measure concepts to the list of 15 below.

The next section contains detailed discussions of the six sub-domains and 15 recommended measure concepts. Appendix A includes a list of all of the measure concepts discussed by this group.

<ul style="list-style-type: none"> • All-cause readmissions and length of stay. • Ambulatory care sensitive preventable admissions. • Preventable emergency department visits. • Appropriate use of diagnostic imaging procedures, with measures for redundancy, cumulative exposure, and appropriateness. • Appropriate use of invasive testing (examples: cardiac catheterization, endoscopy). • The number of adverse events and sub-optimal outcomes caused by a chronic condition (examples: hypertension, strokes, heart attacks, amputations). • Patients with a treatment plan for a chronic condition and whether that treatment plan has been followed across care settings/multiple specialists (example: diabetes). • Combined quality and cost measures at each level and site of care reflecting potential defects in care (examples: missing transition information, lack of follow up). 	<ul style="list-style-type: none"> • Usage rates for generic versus brand name medications/ • Appropriate medication treatments, including overuse and/or underuse (examples: antihypertensives, aspirin/anti-platelet, statins, ACE inhibitors/ARBs, antibiotics) • Medication use linked to outcomes (examples: antihypertensives and control of blood pressure, statins and control of lipids, diabetic care, and glycemic control). • Hospital-acquired conditions/infections. • Use/availability of services that promote healthy lifestyles (smoking cessation, obesity management, patient health literacy). • Appropriate cardiac treatments (example: Percutaneous Transluminal Coronary Angioplasty and stents, implanted cardiac defibrillator [ICD] implantation). • Appropriate cancer treatment (examples: prostate radiation, standard versus intensity-modulated radiotherapy versus proton therapy).
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1. Efficient Use of Facilities—Measures that evaluate facility utilization and frequency of patient visits and admissions.

The group selected Efficient Use of Facilities as a prioritized sub-domain because it enables measures that focus on the cause of frequent visits and impacts on facility utilization.

The group sees an opportunity to further improve care efficiency by creating measures that look at how long patients are treated, how often they return for treatment, and how many of those visits were preventable.

Recommended Measure Concept 1.1: All-cause readmissions and length of stay.

This measure concept was selected because frequency of visits and length of stay are indicators that care is not being administered effectively to a patient. Combining these measures addresses the correlation between lowering the length of stay at the cost of more readmissions or lowering readmissions but increasing the length of stay. It is intended to address a fundamental necessity that organizations measure this information and will enable the ability to drill down in a report to focus on a subset of the patient population, such as all patients with a like diagnosis or all patients with a particular physician as their primary care physician.

The group discussed using the NQF-endorsed measure for all-cause readmissions as an example, although it may need to be evaluated to determine whether the output accommodates the ability to narrow the report to focus on specific demographics information.

Recommended Measure Concept 1.2: Ambulatory care-sensitive preventable admissions.

This measure concept was selected because another efficiency gain is the cost savings from preventable inpatient admissions that could have been affected by effective care in the ambulatory setting. Its intent is to measure what ambulatory care activities could be conducted to prevent admissions and therefore improve efficiency.

The group discussed measures similar to those proposed for the Accountable Care Organization (ACO) pilot sites, which include hospital admissions per ambulatory sensitive conditions per thousand patients, but any existing measures may still need to be refined so they are e-specified, validated, and tested.

Recommended Measure Concept 1.3: Preventable emergency department visits.

This measure concept addresses the actions that could prevent emergency department visits in addition to the ambulatory care-sensitive preventable admissions (see Measure Concept 1.2). It focuses attention on the conditions that most affect the emergency department setting, as opposed to other measures that focus more on primary care physicians and/or hospital settings.

The discussed ACO pilot site proposed measures also include emergency room visits per thousand patients. Any reference measures may, however, need to be refined so they are e-specified, validated, and tested.

2. Efficient Use of Diagnostic Tests—Measures that evaluate usage and appropriateness of diagnostic testing procedures.

The group selected Efficient Use of Diagnostic Tests as a prioritized sub-domain because it enables measures that focus on the cause and impacts of unnecessary diagnostic procedures, which are a high-cost area of medical care.

The group sees an opportunity to further improve care efficiency by creating measures that look at how frequently patients receive key tests and the appropriateness of those procedures.

Recommended Measure Concept 2.1: Appropriate use of diagnostic imaging procedures, with measures for redundancy, cumulative exposure, and appropriateness.

This measure concept addresses diagnostic imaging procedures, which are a high-cost area. Studies have shown risks associated with excessive exposure to radiation from computed tomography (CT) scans. This concept is intended to address three problem areas related to diagnostic imaging: redundant tests, such as ordering a head CT scan without contrast after a head CT scan with contrast; cumulative exposure to radiation; and appropriateness of an ordered test for the patient's condition, such as ordering a head CT scan on a patient with an arm injury.

The group discussed numerous measures within this concept, such as the NQF-endorsed measure for use of contrast for thorax CT scans. While some measures may exist, they may still need to be refined so they are e-specified, validated, and tested.

Recommended Measure Concept 2.2: Appropriate use of invasive testing (examples: cardiac catheterization, endoscopy).

The group selected this measure concept to address diagnostic imaging procedures beyond radiology, with a particular focus on invasive procedures.

Two priority areas include cardiac catheterizations and gastrointestinal endoscopies. While some measures may exist for these areas, they may still need to be refined so that they are e-specified, validated, and tested.

3. Efficient Treatment of Chronic Disease across Multiple Sites of Care—Measures that select key chronic diseases, look at the creation of treatment plans and evaluate how well care providers follow those treatment plans across care settings

The group selected Efficient Treatment of Chronic Disease across Multiple Sites of Care as a prioritized sub-domain because many current measures focus on a single provider and do not address the efficiency gains to be made (for instance, through reduction of duplicate services) by following the entire patient care experience.

The group sees an opportunity to further improve care efficiency by creating measure sets that follow the downstream costs of unmanaged chronic diseases and how well providers follow established treatment plans.

Recommended Measure Concept 3.1: The number of adverse events and sub-optimal outcomes caused by a chronic condition (examples: hypertension, strokes, heart attacks, amputations).

This measure concept was selected because, while other proposed concepts measure the direct costs of treating a condition, none focus on the downstream costs, which would ultimately become savings if more conditions were identified and resolved more quickly.

The group discussed, in the context of hypertension, how controlling blood pressure prevents downstream costs. This requires measures for a patient's blood pressure and treatments over time. Some measures for this may exist but will need to be refined so they are e-specified, validated, and tested.

Recommended Measure Concept 3.2: Patients with a treatment plan for a chronic condition and whether that treatment plan has been followed across care settings/multiple specialists (example: diabetes).

This measure concept focuses on effective care across multiple providers and includes treatments as well as other services, such as patient education. In addition to determining whether patients have defined treatment plans, it addresses concerns that as patients meet with various providers, they may receive inconsistent care.

As an example, for diabetes, the group discussed developing a bundle of measures that looks across care settings (an endocrinologist visit, a nutritionist visit, etc.) and determining whether each provider complied with the evidence to improve H1C levels. Some measures may exist but will need to be refined so they are e-specified, validated, and tested.

Recommended Measure Concept 3.2: Combined quality and cost measures at each level and site of care reflecting potential defects in care (examples: missing transition information, lack of follow-up).

This measure concept encompasses important missed steps in managing a patient's chronic conditions across all care settings.

As examples, the team mentioned missing patient hand-off documentation and lack of follow-up. Some measures may exist for these areas but will need to be refined so that they are e-specified, validated, and tested.

4. Efficient Use of Medications—Measures that evaluate usage and appropriateness of medications.

The group selected Efficient Use of Medications as a prioritized sub-domain because it shifts the focus of measures to look specifically at medication usage.

The group sees an opportunity to further improve care efficiency by creating measures that look at how physicians prescribe medications and evaluating the effectiveness of ePrescription.

Recommended Measure Concept 4.1: Usage rates for generic versus brand name medications.

The group selected this measure concept because generic medications are often less expensive to the patient, and physician prescription rates can be audited through an electronic health record. It evaluates the cost differential between generic and brand name medications as a potential measure of savings.

The Gretskey report noted that the Joint Commission measures the number of patient prescriptions that were filled as generic. Measures for this may exist but will need to be refined so they are e-specified, validated, and tested.

Recommended Measure Concept 4.2: Appropriate medication treatments, including overuse and/or underuse (examples: antihypertensives, aspirin/anti-platelet, statins, ACE inhibitors/ARBs, antibiotics).

This measure concept addresses clinical studies that point to the harm that can be caused by the overuse or underuse of many types of medications. Addressing these situations would lead to gains in both patient safety and efficient care. This concept focuses on the efficiencies to be gained by tracking frequency and appropriateness of drug treatments.

The group discussed multiple scenarios, including antihypertensives, aspirin, statins, ACE inhibitors, ARBs, antibiotics, prophylactics for pediatric patients with migraines, and antidepressants. Depending on the condition, some measures may exist but may also still need to be refined so they are e-specified, validated, and tested.

Recommended Measure Concept 4.3: Medication use linked to outcomes (examples: antihypertensives and control of blood pressure, statins and control of lipids, diabetic care, and glycemic control).

This measure concept combines medications and outcomes to identify areas in which efficiency gains could be made through effective treatments.

The group identified a few areas in which efficiency gains are achievable and that focused measures would support. Some measures may exist but may also still need to be refined so they are e-specified, validated, and tested.

5. Efficient Use of Treatments—Measures that evaluate usage and appropriateness of other treatments, outside of medications and diagnostic testing

The group selected Efficient Use of Medications as a prioritized sub-domain because it addresses a gap between two other sub-domains, which cover medications and diagnostic testing. This allows measures that look at general treatments for conditions.

The group sees an opportunity to further improve care efficiency by creating measures that look at the appropriateness and effectiveness of non-medication treatments.

Recommended Measure Concept 5.1: Appropriate cardiac treatments (examples: Percutaneous Transluminal Coronary Angioplasty and stents, ICD implantation).

The group selected this measure concept to focus on cardiac-related conditions, such as Percutaneous Transluminal Coronary Angioplasty, which other measures do not cover.

Measures for this may exist but will need to be refined so they are e-specified, validated, and tested.

Recommended Measure Concept 5.2: Appropriate cancer treatment (examples: prostate radiation, standard versus intensity-modulated radiotherapy versus proton therapy).

The group selected this measure concept to focus on oncology, a specialty that other measures do not directly address, and on appropriate procedure selection.

Measures for this may exist but will need to be refined so they are e-specified, validated, and tested.

6. Preventive Care/Wellness Promotion—Measures focused on effective use of preventative health measures and preventable conditions

The group selected value-based population and preventative health as a prioritized sub-domain to address efficiencies associated with preventable conditions, public health, and healthy lifestyles.

The group sees an opportunity to further improve care efficiency by ensuring efficiency measures address public health concerns and by decreasing costs associated with preventable conditions.

Recommended Measure Concept 6.1: Hospital-acquired conditions/infections.

This measure concept, while related to patient safety, it also an important efficiency measure because preventing hospital-acquired infections can reduce length of stay and associated downstream costs. It provides information about care and cost efficiencies that result from effective infection prevention.

Some measures may exist but will need to be refined so they are e-specified, validated, and tested.

Recommended Measure Concept 6.2: Use/availability of services that promote healthy lifestyles (examples: smoking cessation, obesity management, patient health literacy)

This measure concept evaluates how and where preventive health services are used. It could indicate populations who do not receive the same level of access to these services, which leads to long-term higher costs. It also addresses inefficiencies of care resulting from preventable conditions and population disparities associated with care access.

The team suggested efficiency measures related to smoking cessation, body mass index management, and patient health literacy. Depending on the area, some measures may exist but may also still need to be refined so they are e-specified, validated, and tested.

Appendix A: List of All Proposed Efficiency Measure Concepts

<ul style="list-style-type: none"> • All-cause readmissions and length of stay • Ambulatory care-sensitive preventable admissions • Preventable emergency department visits • Inappropriate site of service for a surgery performed inpatient, which could have been performed in an outpatient setting • Appropriate use of diagnostic imaging procedures, with measures for redundancy, cumulative exposure, and appropriateness • Patients with a chronic condition and the drug regimen used to treat it (examples: hypertension, hypercholesterolemia) • The number of adverse effects caused by a chronic condition (example: hypertension) • Patients with multiple chronic conditions and drug regimen(s) used to treat them (example: congestive heart failure, diabetes, and hypertension) • Patients with a treatment plan for a chronic condition and whether that treatment plan has been followed across care settings/multiple specialists (example: diabetes) • The number of clinicians who have seen a patient within a 6-month period • Patients who have not been diagnosed with a particular condition but who have documentation in their chart that indicates they are at risk for it • Usage rates for generic versus brand name medications • Appropriate medication treatments, including overuse and/or underuse (examples: antihypertensives, aspirin, statins, ACE inhibitors, ARBs, antibiotics, prophylactics) • Formulary adherence rates, actions taken by physicians when presented with ePrescription alerts • Combined quality and cost measures at each level and site of care reflecting potential defects in care (examples: missing transition information, lack of follow-up) 	<ul style="list-style-type: none"> • Dispense rates for prescribed medications • Post-operative pain scores (example: orthopedic) • Hospital-acquired conditions/infections • Composite measure sets that check for key action items for leading conditions across the continuum of care (examples: congestive heart failure, pneumonia, acute myocardial infarction, diabetes, coronary artery disease, heart failure) • Use/availability of services that promote healthy lifestyles (smoking cessation, body mass index management, patient health literacy) • Age- and gender-appropriate cancer screening rates • Patients receiving influenza immunizations • Sub-population data disaggregation (by race, ethnicity, and gender), which would lead to the ability to identify and report on target interventions • Efficient use/availability of prenatal care (by evaluating APGAR scores and birth weight) • Palliative care documentation and compliance with patient preferences • Measures that evaluate whether patients receive everything for which they are eligible, as a means of looking ahead toward composite measures • Appropriate cardiac treatments (example: PTCA and stents) • Appropriate cancer treatment (examples: prostate radiation, standard versus intensity-modulated radiotherapy versus proton therapy) • Appropriate use of invasive testing (examples: cardiac catheterization, GI endoscopy) • Medication use linked to outcomes (examples: antihypertensives and control of blood pressure, statins and control of lipids, diabetic care and glycemic control)
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