The Ask

• The QMWG previously made recommendations on MU3 policy in January 2014. The HITPC approved these recommendations.
• Subsequently, the QMWG was asked to make recommendations about specific measures for MU3.
• In parallel, the Accountable Care CQM (ACQM) Subgroup developed a framework for quality measurement to support accountable care and future quality measurement.
• The HITPC requested the QMWG collate and clarify these recommendations, as well as aggregate specific measures in a package to show how these recommendations are related.
Overview of Presentation

• Present the “package” of MU3 recommendations
  – Core measure policy
  – Number of measure EHR developers certify to
  – Key measure concepts
  – Next stage of measures
  – Updated Innovation Pathway
OVERALL MEASURES

Expenditures
- Healthcare Expenditures
- Public Health Expenditures
- Patient Expenditures
- Enabling Service Expenditures

Experience
- Patient Activation
- Access to Care and Information
- Communication with Healthcare
- Shared Decision-making
- Access to Enabling Services

Outcomes
- Functional Health
- Health Risk
- Disease/condition
- Site of Care
# The Relationship Between Domains, Measures, and HIT Infrastructure Needs

<table>
<thead>
<tr>
<th>ACO Domain</th>
<th>National Quality Strategy Priorities</th>
<th>Specific Improvement Concepts for ACOs</th>
<th>Concept Metric (Num/Den) Example</th>
<th>Data Elements Required for Metrics</th>
<th>Data Source(s) for Concept Metrics</th>
<th>Potential HIT Infrastructure to Operationalize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Coordination</td>
<td>3</td>
<td>Improve care transitions after acute hospital discharge</td>
<td>% Patients with contact with outpatient services within 7 days of discharge</td>
<td>Hospital discharge event</td>
<td>EHR Claims ADT</td>
<td>Capability for cohort identification and aggregation to support static and on the fly cohort identification (e.g. case management registry for all discharged patients to include discharge diagnosis as well as disposition)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Contact with outpatient services</td>
<td>EHR Claims</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>% Patients with medication reconciliation within 7 days of discharge</td>
<td>Hospital discharge event</td>
<td>EHR Claims ADT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medical reconciliation documentation</td>
<td>EHR</td>
<td></td>
</tr>
</tbody>
</table>

[1] Seventh cross-cutting domain: health equity/disparities. Be able to stratify measures in each of the six domains by variables of importance for the particular population (e.g., age, gender, language).

[2] For the “Data Sources for Concept Metrics” and “Potential HIT Infrastructure to Operationalize” columns, data could come from the individual provider and/or at the group/ACO level. These specifics depend on the measure construct/specifications and the method used to calculate the measure itself.
TYING THE PIECES TOGETHER: A PACKAGE OF RECOMMENDATIONS
Guiding Principles

• Quality measures have evolved over the Stages of MU with many new measures under development built on previous versions. These measures have evolved in a step-wise fashion from process toward outcomes measures.
• The ACQM’s framework can be more broadly applied as a vision for measurement in the near-future.
• Assumption that providers have implemented the baseline infrastructure for MU 1 and MU2 measurement, and want to promote more forward thinking options in Stage 3.
• The QMWG considered the opportunities to develop HIT infrastructure to support outcomes measurement.
• The development of this enhanced HIT infrastructure to support outcomes measurement for advanced care models and a more interconnected health system is an essential component for future work.
MU3 Vision

Track 1
Continue the “traditional” MU eCQM reporting pathway

- Align measures
- Move to e-specified measures
- Adhere to standards

Track 2
At the same time, promote innovative measurement and infrastructure building

- Promote pathway to test, share, and implement new and innovative measures
- Build HIT infrastructure for advanced care models and multi-source measures
TRACK 1 RECOMMENDATIONS
Continue the “traditional” MU eCQM reporting pathway

- Align measures
- Move to e-specified measures
- Adhere to standards
Prioritized Domains

- Functional Status and Well-Being
- Shared Decision-Making
- Coordination of Care
- Efficiency
- Safety
- Prevention and Population Health
Recommendations for Specific Measures

• The QMWG used the measure criteria previously recommended and evaluated each measure under development against the measure criteria through an individual exercise

• Measures Under Development by CMS:
  – These measures will be fully e-specified by Fall 2014
  – Some will be going through the feasibility and validity testing process
  – Potential for NQF approval for trial use or endorsement
As a reminder: Previous Measure Criteria Recommendations

The HITPC recommends that measures are developed using the following set of evaluation criteria:

1. Preference for eCQMs or measures that leverage data from HIT systems (e.g., clinical decision support)
2. Enables patient-focused and patient-centered view of longitudinal care
3. Supports health risk status assessment and outcomes
4. Preference for reporting once across programs that aggregate data reporting
5. Measurement is beneficial and meaningful to multiple stakeholders
6. Promotes shared responsibility
7. Promotes efficiency
8. Measures can be used for population health reporting
### Recommended Key Measurement Concepts for MU3

**Patient and Family Engagement**

<table>
<thead>
<tr>
<th>Concept</th>
<th>Description</th>
</tr>
</thead>
</table>
| Functional status assessment and patient goal setting for patients with specific health conditions (e.g., congestive heart failure, chronic pain, rheumatoid arthritis, chronic obstructive pulmonary disease, asthma, total knee replacement); | | **Patient and Family Engagement**

| Improvement in symptoms among specific conditions (e.g., children with ADHD, rheumatoid arthritis) | Improvement in symptoms among specific conditions (e.g., children with ADHD, rheumatoid arthritis) | **Population and Public Health**

| Condition-specific overall outcome measure (e.g., pediatric ADHD) | Condition-specific overall outcome measure (e.g., pediatric ADHD) | **Population and Public Health**

| Annual wellness assessment – Assessment, management, and reduction of health risks (focused on specific domain (e.g., cancer) and/ or specific population group (e.g., based on age/gender/disease, etc.)) | Annual wellness assessment – Assessment, management, and reduction of health risks (focused on specific domain (e.g., cancer) and/ or specific population group (e.g., based on age/gender/disease, etc.)) | **Population and Public Health**

| Closing the Referral Loop - Critical information communicated with request for referral; integration of critical information in decision making process | Closing the Referral Loop - Critical information communicated with request for referral; integration of critical information in decision making process | **Care Coordination**

| Specific settings/conditions (e.g., rate of readmission to the ICU within 48 hours) | Specific settings/conditions (e.g., rate of readmission to the ICU within 48 hours) | **Patient Safety**
The QMWG also recommends development of:

- Functional status measures (delta over time for patient)
  - Functional status assessment and patient goal setting with next step of individual goal achievement
- Measures that allow evaluation of delta over time for providers
  - e.g., percentage of patients with improved hypertension control
- Focus on more generic functionality that can be applied to multiple conditions
  - As opposed to developing additional condition-specific measures.
Key Measures Recommendations for MU3

• The QMWG recommends that there should be a subset of key measures identified in MU3 (e.g., address priority health conditions).
  – However, the QMWG recommends not designating these as “core” as this term could confuse EP/EHs on whether “core” measures are required or recommended.

• Given the types of measures that are developed or in development today, there are only a few measures that could be applicable to all providers.
  – If there are a subset of required measures, there should be a small number applicable to all or most providers. Some WG members did not feel any measures should be required, only recommended.
Certification Policy Recommendation for MU3

• The majority of WG members recommend that providers be able to report on as many measures as applicable, and therefore vendors should be required to certify the measures applicable to those providers.
  – However, WG members were concerned about the development costs and burden to EHR developers. Measure specifications and certification and development tools should assist EHR developers in creating high-quality e-measures efficiently and avoid rework.
INNOVATION PATHWAY
RECOMMENDATIONS
At the same time, promote innovative measurement and infrastructure building

- Promote pathway to test, share, and implement new and innovative measures
- Build HIT infrastructure for advanced care models and multi-source measures
ONC and CMS should consider an optional “innovation pathway” whereby MU participants would be able to waive one or more objectives by demonstrating that they are collecting data for innovative or locally-developed CQMs.

Two possible approaches for implementing an innovation pathway include:

1. One approach might allow “Certified Development Organizations” to develop, release and report proprietary CQMs for MU.

2. An alternate approach might open the process to any EP/EH but constrain allowable eCQMs expressed in national data, expression, and e-processing standards.

Health care organizations and providers would be required to provide evidence that the measure can help to improve care in their organization.
Previous Recommendation: Key Measure Dependencies

• Interoperable systems
  – Start with a subset of key data before working on making all data interoperable;
• Data sharing across providers;
• Tools for population health as well as for patient encounters;
• Measures built using multiple data sources (e.g., hybrid measures);
• Measures and data accessible by all providers;
• Consistently capturing variables required for stratification.
Summary of Key Recommendations

• Key measure concepts
• Next stages of measures
• Key measures policy
• Measures EHR developers certify to
• Updated Innovation Pathway
• We continue to recommend use of the measure criteria to evaluate measures
• Need for health IT infrastructure
  – Support interoperable systems
  – Support cohort identification and usage (static and dynamic)
  – Support display/ integration of transactional and analytical data at the point of care
Discussion
Supplemental: Characteristics of Existing Measures that Could be Improved (1 of 2)

- Those that limit numerator and denominators should be expanded to apply to all age groups unless contraindicated by evidence-based guidelines.
- Fewer inclusion/exclusion criteria would facilitate ease of implementation and maintenance.
- Improve quality of value sets by adding intentional definitions systematically and harmonizing existing value sets.
- Ensure that measures are:
  - Clinically important to a broad segment of the population receiving care;
  - Have a significant gap between current performance and desired performance, which is addressable using health IT;
  - Derived from clinical data in EHRs that have standard definitions.
- Being able to track change over time on key measures and intermediate outcomes that are markers (e.g., blood sugar, progression of disease state).
• Reducing process measures and moving to more outcome measures.
• Concern about caregiver burden as the number of screening measures increase, and the balance trade-off between screening and assessing vs. identifying patient-centered and shared decision making.
• Concern about “check the box measures” that are not linked to diagnostic and intervention decisions shared between the provider and the patient.
• Because of the regulation cycle for the MU program, some MU measures that are no longer relevant because of updated practice-based guidelines cannot be removed from the program on a frequent enough basis.
• Outcomes measures should include both rates and actual outcomes (e.g., average functional status assessment scores at baseline and follow-up along with the percentage of patients who completed a baseline and follow-up assessment).
Supplemental Slides

PREVIOUS MU3 RECOMMENDATIONS (APPROVED AT JANUARY 2014 HITPC)
OVERALL MEASURES

Expenditures
- Healthcare Expenditures
- Public Health Expenditures
- Patient Expenditures
- Enabling Service Expenditures

Experience
- Patient Activation
- Access to Care and Information
- Communication with Healthcare
- Shared Decision-making
- Access to Enabling Services

Outcomes
- Functional Health
- Health Risk
- Disease/condition
- Site of Care
• Certain Domains Fit in Certain Levels of the Hierarchy

• All Domains Should have metrics that span across all levels of the hierarchy
Domain Framework (II)

Desired future state

Population (Total Patient Population)
- Broad Sub Population Frail Elderly
- Broad Sub Population Disabled Under 65 years

Generic Health Outcomes
1. Outcomes
   - PRO MIS-10
   - Healthy Days
2. Experience
   - Care Coordination
     (Uber-CAHPS)
3. Expenditures
   - TCOC

Generic Healthcare Outcomes
1. Outcomes
   - Re-Admission Rate
   - Safety Event
2. Experience
   - Care Coordination
   - PAMS care
3. Expenditures
   - Total PMPM
   - ED PMPM

Generic Intermediate Outcomes
1. Outcomes
   - Age Approp CA Screening
2. Experience
   - Care Coordination
   - FTF Visit in 12months
3. Expenditures
   - Admit/1000
   - ED/1000

Current state

7/8/2014
Office of the National Coordinator for Health Information Technology
The HITPC recommends a review of the key measure dependencies below to determine what progress has been made in these areas, whether additional dependencies should be added to this list, and what additional work needs to be done to further progress in these areas. The key measure dependencies include:

- Interoperable systems
  - Start with a subset of key data before working on making all data interoperable;
- Data sharing across providers;
- Tools for population health as well as for patient encounters;
- Measures built using multiple data sources (e.g., hybrid measures);
- Measures and data accessible by all providers;
- Consistently capturing variables required for stratification.
The HITPC recommends the development of measures that address falls prevention, health care associated infections, and EHR safety.

**ACO sub-recommendation:** Develop measures combining claims, EHR, and ADT (admission, discharge, transfer) data that focus on reducing medical errors.

**Example measures:** Avoidable hospital readmission rate, drug/drug interaction rates, falls rates.

**HIT infrastructure needs:** EHR decision support tools to prevent errors (e.g., drug-drug interactions), reports to proactively notify clinicians of high risk patients (e.g., re-admission risk, risk of falls, etc.), interoperable systems across settings of care, data across electronic and claims-based systems.
• The HITPC recommends development of measures that address population health and health equity.

• **ACO sub-recommendation**: Develop measures combining EHR and patient-reported data that focus on improving the health of communities and populations.

• **Example measures**: Prevention of pre-diabetic progressing to diabetes, mammograms, colorectal cancer screening, influenza vaccination, reduction of disparities.

• **HIT infrastructure needs**: Access to race, ethnicity, and language data for stratification.
• The HITPC recommends development of measures that address appropriateness of care and efficient use of facilities.

• **Data sources**: claims, EHR, and pharmacy data.

• **Example measures**: total cost of care (PMPM), duplicate tests, avoidable ED visits per 1000.

• **HIT infrastructure needs**: Comprehensive and complete medical expense data for aligned accountable population, interoperable systems across settings of care, data across electronic and claims-based systems.
Domain #4: Patient and Family Engagement

• The HITPC recommends development of measures that address patient health outcomes, experiences, and self-management/activation; honor patient preferences; and include shared-decision making.

• **ACO sub-recommendation:** Develop measures combining EHR and patient-reported data that focus on 1) improving the quality of medical decision-making, 2) improving patient involvement in his/her health care, and 3) improving health care provider awareness of the importance of shared decision-making.

• **Example measures:** Included in/collaborated decision making, patients with personal goals aligned with clinical goals for care, patients with longitudinal care plan, patient experience.

• **HIT infrastructure needs:** Electronic shared care plan, patient portals, mobile devices, and other ways of capturing patient-generated health data.
• The HITPC recommends development of measures that address post-procedure functional status and recovery times.

• **ACO sub-recommendation**: Develop measures combining EHR and patient-reported data that focus on optimizing wellness and functional status of patients and communities.

• **Example measures**: Healthy days, PROMIS 10.

• **HIT infrastructure needs**: Patient portals, mobile devices, and other ways of capturing patient-generated health data.
Domain #6: Care Coordination

• The HITPC recommends development of measures that improve longitudinal care coordination and care transitions after acute hospital discharge.
• **Data sources:** EHR, claims, ADT.
• **Example measures:** % patients with contact with outpatient services within 7 days of discharge, % patients with medication reconciliation within 7 days of discharge, effective partnering with community resources, degree to which care plan is shared across providers.
• **HIT infrastructure needs:** Case management registry for all discharged patients including discharge diagnosis and disposition.
The HITPC recommends that measures are developed using the following set of evaluation criteria:

1. **Preference for eCQMs or measures that leverage data from HIT systems (e.g., clinical decision support)**
   - Includes “HIT sensitivity” – EHR systems that help improve quality of care (e.g., CDS, CPOE for accuracy and content of order, structured referral documentation).

2. **Enables patient-focused and patient-centered view of longitudinal care**
   - Across eligible providers (EPs) or eligible hospitals (EHs)
   - Across groups of providers
   - With non-eligible providers (e.g., behavioral health)
   - Broadest possible experience of the patient/population is reflected in measurement (e.g., require interoperable systems) – longitudinal view, continuum of care.

3. **Supports health risk status assessment and outcomes**
   - Supports assessment of patient health risks that can be used for risk adjusting other measures and assessing change in outcomes to drive improvement.

4. **Preference for reporting once across programs that aggregate data reporting**
   - e.g., PCMH, MSSP, HRRP, CAHPS.
5. Measurement is beneficial and meaningful to multiple stakeholders
   – Benefits of measuring & improving population health outweighs the burden of organizational data collection and implementation
   – Ensure measures are usable and meaningful for consumers and purchasers as well as providers.

6. Promotes shared responsibility
   – Measure as designed requires collaboration and/or interoperability across settings and providers
   – Interoperability – systems need to be able to communicate to receive longitudinal care.

7. Promotes efficiency
   – Reduces high cost and overuse, and promotes proper utilization

8. Measures can be used for population health reporting
   – Use existing measures or build measures where the denominator can be adjusted for population health reporting
   – Group reporting options in all reporting programs (e.g., in CMS reporting programs).
Innovation Pathway Recommendations

- ONC and CMS should consider an optional “innovation pathway” whereby MU participants would be able to waive one or more objectives by demonstrating that they are collecting data for innovative or locally-developed CQMs.
- ONC and CMS should specify the gaps that an innovation pathway should help close, including identifying measure gaps for specialty providers. For example, these gaps can include the measure domains identified above, which are also appropriate for specialty providers.
- Health care organizations choosing this optional track should be required to use a brief submission form that describes some of the evidence that supports their measure and how the measure was used in their organization to improve care. This will allow providers and organizations to disseminate information that others and CMS can consider for future quality measurement.
- Two possible approaches for implementing an innovation pathway include:
  1. A conservative approach might allow “Certified Development Organizations” to develop, release and report proprietary CQMs for MU.
  2. An alternate approach might open the process to any EP/EH but constrain allowable eCQMs via measure design software (e.g., Measure Authoring Tool).
- The Vendor Tiger Team commented that an innovation pathway would be costly to create, maintain, and build into systems. Validating data would also be costly. They recommended that this approach should not be required for certification.
Patient-Reported Outcomes

- ONC and CMS should include patient-reported outcomes (PROs) as MU objective measures. This supports the development flexible EHR technology to broadly incorporate PROs. It also allows for PROs for many more specialties and conditions than are currently covered.
- This objective measure could function like the clinical decision support objective from MU Stage 2 by allowing attestation rather than reporting of the use of PROs.
- As discussed by other working groups (WGs) and the HITPC, there is a need to develop HIT infrastructure and guidance for supporting PROs and data generated by external providers.
- The QM WG supports the recommendations on patient-generated health data (PGHD) from the Consumer Empowerment WG that the HITPC approved on December 4, 2013. The QM WG also supports the ongoing work of the Consumer Technology WG of the HIT Standards Committee on standards for PGHD.
- The QMWG endorses the extension of standards into additional domains that include the non-traditional determinants of health.
ACCOUNTABLE CARE CLINICAL QUALITY MEASURE SUBGROUP FRAMEWORK
Charge to ACQM Subgroup

• Asked to develop recommendations for measures that would be applicable at the Accountable Care Organization (ACO) level
  – Patient-centered, longitudinal, cross settings of care where appropriate and address efficiency of care delivery.
  – Focus on the domains, concepts, and infrastructure that can be applied to Accountable Care Organizations (ACOs).
Domain Framework

Accountable Care Population (Total Patient Population)

- Desired future state
- Current state

Generic Health Outcomes
1. Outcomes
   - PRO MIS-10
   - Healthy Days
2. Experience
   - Care Coordination
   (Uber-CAHPS)
3. Expenditures
   - TCOC

Generic Healthcare Outcomes
1. Outcomes
   - Re-Admission Rate
   - Safety Event
2. Experience
   - Care Coordination
   - PAMS care
3. Expenditures
   - Total PMPM
   - ED PMPM

Generic Intermediate Outcomes
1. Outcomes
   - Age Approp CA Screening
2. Experience
   - Care Coordination
   - FTF Visit in 12 months
3. Expenditures
   - Admit/1000
   - ED/1000

Office of the National Coordinator for Health Information Technology
### The Relationship Between Domains, Measures, and HIT Infrastructure Needs

<table>
<thead>
<tr>
<th>ACO Domain</th>
<th>National Quality Strategy Priorities</th>
<th>Specific Improvement Concepts for ACOs</th>
<th>Concept Metric (Num/Den) Examples</th>
<th>Data Elements Required for Metric</th>
<th>Data Source(s) for Concepts</th>
<th>Potential HIT Infrastructure to Operationalize</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Coordination</td>
<td>3</td>
<td>Improve care transitions after acute hospital discharge</td>
<td>% Patients with contact with outpatient services within 7 days of discharge</td>
<td>Hospital discharge event</td>
<td>EHR, Claims ADT</td>
<td>Case management registry for all discharged patients including discharge diagnosis and disposition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>% Patients with medication reconciliation within 7 days of discharge</td>
<td>Hospital discharge event</td>
<td>EHR, Claims ADT</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Medical reconciliation documentation</td>
<td>EHR</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

1. Seventh cross-cutting domain: health equity/disparities. Be able to stratify measures in each of the six domains by variables of importance for the particular population (e.g., age, gender, language).
2. For the “Data Sources for Concept Metrics” and “Potential HIT Infrastructure to Operationalize” columns, data could come from the individual provider and/or at the group/ACO level. These specifics depend on the measure construct/specifications and the method used to calculate the measure itself.
Previous Recommendation: Key Measure Dependencies

- The HITPC recommends a review of the key measure dependencies below to determine what progress has been made in these areas, whether additional dependencies should be added to this list, and what additional work needs to be done to further progress in these areas. The key measure dependencies include:
  - Interoperable systems
    - Start with a subset of key data before working on making all data interoperable;
  - Data sharing across providers;
  - Tools for population health as well as for patient encounters;
  - Measures built using multiple data sources (e.g., hybrid measures);
  - Measures and data accessible by all providers;
  - Consistently capturing variables required for stratification.
• In order to develop “innovative” measures, you have to develop the infrastructure to support the Innovation Pathway

• On the next few slides, you will see the WG’s ideas for infrastructure that would support more innovative measurement
# Suggested Infrastructure to Promote Innovation Pathway Measures: Functional Status/Well-Being

### National Quality Strategy Priorities

<table>
<thead>
<tr>
<th>Specific Improvement Concept</th>
<th>Concept Metric (Num/Den) Examples</th>
<th>Data Elements Required for Metric</th>
<th>Data Source(s) for Concept Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Optimize wellness and functional status of patients and communities</td>
<td>Healthy Days</td>
<td>Data field for healthy days</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>PROMIS 10</td>
<td>Mobility, anxiety, anger, depression, fatigue, sleep, pain behavior, pain interference, satisfaction with discretionary social activities, satisfaction with social roles, sexual function, overall health</td>
</tr>
</tbody>
</table>

### Potential HIT Infrastructure to Operationalize

- Infrastructure to collect patient-generated health data (e.g., patient portals linked to EHR, and other patient-facing infrastructure)
  - Note: need to strike a balance between those that have electronic access and those that do not
- HIT infrastructure to get an overview of all measures for a patient to get a global measure of overall patient health
- Infrastructure that can bring in non-EHR data (e.g., ADT, registries, claims)
- EHRs can track changes in function over time and link to CDS tools for managing care
- Link to PROMIS tool – EHRs trigger PRO measure, query PRO for score
- EHRs can query other EHRs and build a population-based statistic
- Infrastructure to build in CAHPS data into EHRs
## Suggested Infrastructure to Promote Innovation Pathway

### Measures: Care Coordination

<table>
<thead>
<tr>
<th>National Quality Strategy Priorities</th>
<th>Specific Improvement Concept</th>
<th>Concept Metric (Num/Den) Examples</th>
<th>Data Elements Required for Metric</th>
<th>Data Source(s) for Concept Metrics</th>
<th>Potential HIT Infrastructure to Operationalize</th>
</tr>
</thead>
</table>
| 3                                   | Improve care transitions after acute hospital discharge | % Patients with contact with outpatient services within 7 days of discharge | Hospital discharge event | EHR Claims ADT | • Case management registry for all discharged patients including discharge diagnosis and disposition  
• EHRs can factor input from the patient and family  
• EHRs can merge inpatient, outpatient, and other “transitional” setting data (e.g., LTPAC, home care) |
<p>|                                     |                              | % Patients with medication reconciliation within 7 days of discharge | Hospital discharge event | EHR Claims ADT | |
|                                     |                              | Medical reconciliation documentation | EHR | | |</p>
<table>
<thead>
<tr>
<th>National Quality Strategy Priorities</th>
<th>Specific Improvement Concept</th>
<th>Concept Metric (Num/Den) Examples</th>
<th>Data Elements Required for Metric</th>
<th>Data Source(s) for Concept Metrics</th>
<th>Potential HIT Infrastructure to Operationalize</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Reduce waste, Appropriate use of health care resources</td>
<td>Total cost of care (PMPM)</td>
<td>Medical and pharmacy costs</td>
<td>Claims, EHR, Pharmacy data</td>
<td>• Need consistent collection of claims data (agreed-upon data format and common data element definitions) across payers and claims warehouses</td>
</tr>
<tr>
<td>Reduction of duplicate tests</td>
<td></td>
<td>Tests (historical and current)</td>
<td>ADT, EHR, Claims</td>
<td></td>
<td>• Linking claims and clinical data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tests (historical and current) – algorithms to determine whether tests were needed</td>
<td>ADT, EHR, Claims</td>
<td></td>
<td>• Decision support tools to help with appropriateness of care</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Linkages between clinical/public health registries, pharmacy data, HIEs, and EHRs</td>
</tr>
</tbody>
</table>