



HEALTHCARE AND HUMAN SERVICES POLICY, RESEARCH, AND CONSULTING—WITH REAL-WORLD PERSPECTIVE.

2012 Non-mandated SQMS Measure Evaluations

Draft Report

Prepared for: Center for Health Information and Analysis

Submitted by: The Lewin Group, Inc.

September 26, 2013

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2012 Measures: A Brief Discussion of Differences in Scoring Outcomes

Overall, there were very few differences between the original recommendations for these 35 2012 non-mandated measures and our re-evaluation, and largely the differences in scoring are marginal. In cases where there were differences, they tended to fall into one of two categories:

1. we found substantial evidence that convinced us the measure should be given a strong rating; 6 measure recommendations were revised to strong;
2. mixed evidence compelled us to be conservative and give a low score on one or more evaluation dimensions, resulting in an overall moderate score for the measure; 8 measure recommendations were revised to moderate.

There was no change in the recommendation for 21 of the 35 non-mandated measures. The results appear in the following tables, and a brief discussion of each of the measures follows.

Summary of Results

Table 1: Measures that were strongly recommended in 2013 and moderately recommended in 2012

| Measure | Ease of Measurement | Reliability and Validity | Field Implementation | Amenable to Improvement | 2013 Recommendation | 2012 Recommendation |
|---|---------------------|--------------------------|----------------------|-------------------------|---------------------|---------------------|
| <p>1. Tobacco Use Assessment and Tobacco Cessation Intervention</p> <p>The measure is endorsed by NQF. There is strong evidence of ease of measurement, and because it is part of the widely-used Adult Core Set, many entities are moving toward reporting this measure. Thus, we gave it a strong endorsement on each of the four dimensions.</p> | 3 | 3 | 4 | 2 | Strong | Moderate |
| <p>26. Home Management Plan of Care Document Given to Patient/Caregiver (CAC-3)</p> <p>There is strong evidence for ease of measurement, reliability and validity, and field implementation of this increasingly common measure. Additionally, there is a clear connection between the measure and comparison and performance, indicating that it is amenable to targeted improvement. Thus, we gave it a strong endorsement on each of the four dimensions.</p> | 4 | 3 | 4 | 3 | Strong | Moderate |
| <p>27. Timely Transmission of Transition Record (CCM-3)</p> <p>There is strong evidence for ease of measurement, reliability and validity, and field implementation of this increasingly common measure. Additionally, there is a clear connection between the measure and comparison and performance, indicating that it is amenable to targeted improvement. Thus, we gave it a strong endorsement on each of the four dimensions.</p> | 3 | 3 | 3 | 3 | Strong | Moderate |

| | | | | | | |
|--|---|---|---|---|--------|----------|
| <p>31. Postoperative Hip Fracture Rate (PSI 8) There is strong evidence for ease of measurement, reliability and validity, and field implementation. Additionally, there is strong evidence that the measure is amenable to targeted improvement. Thus, we gave it a strong endorsement on each of the four dimensions.</p> | 3 | 3 | 3 | 3 | Strong | Moderate |
| <p>32. Obstetric Trauma: Vaginal Delivery without Instrument (PSI 19) There is strong evidence for ease of measurement, reliability and validity, and field implementation. Additionally, there is strong evidence that the measure is amenable to targeted improvement. Thus, we gave it a strong endorsement on each of the four dimensions.</p> | 3 | 3 | 3 | 3 | Strong | Moderate |
| <p>35. Unhealthy Alcohol Use: Screening & Brief Counseling The measure is commonly collected and easily captured using existing administrative data. There is strong evidence for reliability and validity and the measure is currently implemented and being used for process improvement. There is also evidence of effective targeted interventions. Thus, we gave it a strong endorsement on each of the four dimensions.</p> | 3 | 4 | 3 | 4 | Strong | Moderate |

Table 2: Measures that were moderately recommended in 2013 and strongly recommended in 2012

| Measure | Ease of Measurement | Reliability and Validity | Field Implementation | Amenable to Improvement | 2013 Recommendation | 2012 Recommendation |
|--|---------------------|--------------------------|----------------------|-------------------------|---------------------|---------------------|
| <p>6. Diabetes Short-Term Complications Admission Rate (PQI 1)</p> <p>The measure is endorsed by NQF and has been implemented in the field. Additionally, it is readily acknowledged that short-term diabetes complications are linked to avoidable hospitalizations, indicating that the measure is amenable to targeted improvement. However, it is acknowledged that there are signal to noise issues that affect the reliability of the measure. Thus, we gave it a moderate endorsement on this dimension.</p> | 3 | 2 | 3 | 3 | Moderate | Strong |
| <p>7. Chronic Obstructive Pulmonary Disease (PQI 5)</p> <p>The measure is endorsed by NQF and can be found in the Medicare Shared Savings Program and the widely-used Adult Core Measure Set. However, there is mixed evidence on both the reliability and validity of the measure. Additionally there is no evidence that better management affects COPD admissions at the population level, suggesting that the measure may not be amenable to targeted improvement. Thus, we gave it a moderate endorsement on these two dimensions.</p> | 3 | 2 | 3 | 2 | Moderate | Strong |

| | | | | | | |
|--|---|---|---|---|----------|--------|
| <p>11. Accidental Puncture or Laceration Rate (PSI 15)</p> <p>The measure is commonly collected and reported. However, there is mixed evidence on both reliability and validity and inconsistent results on evaluation (too many false positives). There is also mixed evidence that the measure is amenable to targeted improvement. Thus, we gave it moderate endorsements on Reliability and Validity, and Amenable to Targeted Improvement and weak endorsements on Field Implementation.</p> | 3 | 2 | 1 | 2 | Moderate | Strong |
| <p>12. Iatrogenic Pneumothorax Rate (PSI 6)</p> <p>There is some collection and reporting of this measure and some evidence that the measure is amenable to targeted improvements. However, evidence of the validity and reliability of the measure is mixed and there is scant evidence of implementation. Thus, we gave it a moderate endorsement.</p> | 2 | 2 | 1 | 3 | Moderate | Strong |
| <p>16. Postoperative Respiratory Failure Rate (PSI 11)</p> <p>The measure is longstanding and the collection of data can be carried out with relative ease. However, there is mixed evidence on both the reliability and validity of measurement. The lower score on Reliability and Validity meant a moderate endorsement overall.</p> | 3 | 2 | 3 | 3 | Moderate | Strong |
| <p>22. Asthma Emergency Department Visits</p> <p>The measure is NQF endorsed. However, because this is a relatively new measure, introduced in 2012, there is not much readily available data on ease of measurement, field implementation, and whether the measure is amenable to targeted improvement. There are also several alternatives to the measure. Thus, we gave it a moderate endorsement on each of the four dimensions.</p> | 2 | 2 | 2 | 2 | Moderate | Strong |

| | | | | | | |
|--|---|---|---|---|----------|--------|
| <p>28. Birth Trauma Rate: Injury to Neonates (PSI 17) There is some evidence that the measure is amenable to targeted improvements. However, there is insufficient evidence of field implementation. Because of definitional issues around the term "birth trauma", there is mixed evidence of ease of measurement and the reliability and validity of measure. There is an alternative to the measure: NQF 0716 - Healthy Term Newborn. Thus, we gave it a moderate endorsement on each of the four dimensions.</p> | 2 | 2 | 2 | 3 | Moderate | Strong |
| <p>29. Central Venous Catheter-Related Blood Stream Infection Rate (PSI 7) There is some evidence that the measure is amenable to targeted improvements. However, definitional issues raise concerns of measurement validity and reliability. There is insufficient evidence of field implementation. Because the measure is not yet fully specified, ease of measurement cannot be evaluated. Thus, we gave it a moderate endorsement on each of the four dimensions.</p> | 2 | 2 | 2 | 2 | Moderate | Strong |

Measure 1: a) Tobacco use assessment and b) Tobacco cessation intervention

Description: a) Percentage of patients who were queried about tobacco use one or more times during the two-year measurement period. B) Percentage of patients identified as tobacco users who received cessation intervention during the two-year measurement period

Developer: American Medical Association - Physician Consortium for Performance Improvement

SQAC Priority Areas: Substance Abuse

Standard Measure Set: CMS Adult Core

Measure Evaluation

- **Reliability and Validity:** 3

This measure is endorsed by the National Quality Forum (NQF).

- **Ease of Measurement:** 3

The measure uses administrative data and is part of the Adult Core Set (as a result, entities are moving towards reporting this measure).

- **Field Implementation:** 4

The measure is in the Adult Core Measure Set, which is widely used. Additionally, it is widely used in a number of initiatives, including Million Hearts.

- **Amenable to Targeted Improvement:** 2

There are evaluated interventions that target tobacco cessation, but aren't associated with this measure.

Overall Recommendation

a) Tobacco use assessment and b) Tobacco cessation intervention: STRONG

- Average Score: 3
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 6: Diabetes Short-Term Complications Admission Rate (PQI 1)

Description: The number of discharges for diabetes short-term complications per 100,000 age 18 years and older population in a Metro Area or county in a one year period.

Developer: Agency for Healthcare Research and Quality

SQAC Priority Areas: Chronic Disease Management

Standard Measure Set: AHRQ PQI

Measure Evaluation

- **Reliability and Validity:** 2

The measure is endorsed by NQF. However, there are acknowledged issues with signal to noise issues affect reliability.

- **Ease of Measurement:** 3

The measure relies on administrative claims data.

- **Field Implementation:** 3

The measure has been implemented in the field. We have found examples of it being used in Maine, Iowa, and Kentucky.

- **Amenable to Targeted Improvement:** 3

The measure is readily acknowledged to have a connection to avoidable hospitalizations.

Overall Recommendation

Diabetes Short-Term Complications Admission Rate (PQI 1): MODERATE

- Average Score: 2.75
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES (NQF #0272)
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 7: Chronic Obstructive Pulmonary Disease (PQI 5)

Description: This measure is used to assess the number of admissions for chronic obstructive pulmonary disease (COPD) per 100,000 population.

Developer: Agency for Healthcare Research and Quality

SQAC Priority Areas: Chronic Disease Management

Standard Measure Set: CMS Adult Core

Measure Evaluation

- **Reliability and Validity:** 2

There is mixed evidence on both reliability and validity.

- **Ease of Measurement:** 3

The measure relies on administrative claims data and is part of the Adult Core Set (as a result, entities are moving towards reporting this measure).

- **Field Implementation:** 3

The measure is used in the Medicare Shared Savings Program and the Adult Core Measure Set.

- **Amenable to Targeted Improvement:** 2

No evidence that better management affects COPD admissions at the population level.

Overall Recommendation

Chronic Obstructive Pulmonary Disease (PQI 5): MODERATE

- Average Score: 2.5
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES (NQF #0275)
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 11: Accidental Puncture or Laceration Rate (PSI 15)

Description: Percent of medical and surgical discharges, 18 years and older, with ICD-9-CM code denoting accidental cut, puncture, perforation, or laceration in any secondary diagnosis field.

Developer: Agency for Healthcare Research and Quality

SQAC Priority Areas: Patient Safety

Standard Measure Set: AHRQ PSI

Measure Evaluation

- **Reliability and Validity:** 2

There is mixed evidence on both reliability and validity.

- **Ease of Measurement:** 3

The measure is commonly collected and reported. There is relative ease in collection.

- **Field Implementation:** 1

There is evidence of inconsistent results on evaluation with too many false positives.

- **Amenable to Targeted Improvement:** 2

The measure is amenable to, and some mixed evidence for interventions

Overall Recommendation

Accidental Puncture or Laceration Rate (PSI 15): MODERATE

- Average Score: 2
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES (NQF# 0345)
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 12: Iatrogenic Pneumothorax Rate (PSI 6)

Description: Percent of medical and surgical discharges, 18 years and older, with ICD-9-CM code of iatrogenic pneumothorax in any secondary diagnosis field.

Developer: Agency for Healthcare Research and Quality

SQAC Priority Areas: Patient Safety

Standard Measure Set: AHRQ PSI

Measure Evaluation

- **Reliability and Validity:** 2

There is mixed evidence on both reliability and validity

- **Ease of Measurement:** 2

There is evidence of some collection and reporting.

- **Field Implementation:** 1

There is mixed or scant evidence on implementation.

- **Amenable to Targeted Improvement:** 3

The measure is amenable to, and there is some mixed evidence for interventions

Overall Recommendation

Iatrogenic Pneumothorax Rate (PSI 6): MODERATE

- Average Score: 2
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES (NQF# 0346)
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 16: Postoperative Respiratory Failure Rate (PSI 11)

Description: Percentage of postoperative respiratory failure discharges among adult, elective surgical discharges in a one year time period.

Developer: Agency for Healthcare Research and Quality

SQAC Priority Areas: Patient Safety

Standard Measure Set: AHRQ PSI

Measure Evaluation

- **Reliability and Validity:** 2

There is mixed evidence on both reliability and validity.

- **Ease of Measurement:** 3

This is a longstanding measure and relative ease in data collection has been reported.

- **Field Implementation:** 3

This is a longstanding measure.

- **Amenable to Targeted Improvement:** 3

Overall Recommendation

Postoperative Respiratory Failure Rate (PSI 11): MODERATE

- Average Score: 2.75
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES (NQF# 0533)
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 22: Asthma Emergency Department Visits

Description: Percentage of patients with asthma who have greater than or equal to one visit to the emergency room for asthma during the measurement period.

Developer: Alabama Medicaid Agency

SQAC Priority Areas: Chronic Disease Management

Standard Measure Set: N/A

Measure Evaluation

- **Reliability and Validity: 2**

The measure is NQF endorsement and there is some evidence of reliability and validity.

- **Ease of Measurement: 2**

There is little evidence

- **Field Implementation: 2**

There is insufficient evidence.

- **Amenable to Targeted Improvement: 2**

There is insufficient evidence.

Overall Recommendation

Asthma Emergency Department Visits: MODERATE

- Average Score: 2
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES (NQF# 1381)
- Several alternative measures
- Met minimum scores on each evaluation dimension: YES

Additional Comments

This is a relatively new measure (introduced in 2012) and so there is not much readily available data on the measure

Measure 26: Home Management Plan of Care Document Given to Patient/Caregiver (CAC-3)

Description: Documentation exists that the Home Management Plan of Care (HMPC) as a separate document, specific to the patient, was given to the patient/caregiver, prior to or upon discharge.

Developer: The Joint Commission

SQAC Priority Areas: Care Transitions

Standard Measure Set: CAC

Measure Evaluation

- **Reliability and Validity:** 3

There is good evidence.

- **Ease of Measurement:** 4

The measure is becoming increasingly common and there is evidence for ease of collection. Data for this measure is already collected by CMS and publicly reported on Hospital Compare.

- **Field Implementation:** 4

There is good evidence.

- **Amenable to Targeted Improvement:** 3

There is a clear connection between measure and comparison and performance improvement.

Overall Recommendation

Home Management Plan of Care Document Given to Patient/Caregiver (CAC-3): STRONG

- Average Score: 3.5
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES – CAC
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 27: Timely Transmission of Transition Record (CCM-3)

Description: The percentage of patients, > 2 years, discharged from an inpatient facility to home or any other site of care for whom a transition record was transmitted to the facility or primary physician or other health care professional designated for follow-up care within 2 days of discharge

Developer: Mass Health

SQAC Priority Areas: Care Transitions

Standard Measure Set: CCM

Measure Evaluation

- **Reliability and Validity:** 3

There is good evidence.

- **Ease of Measurement:** 3

The measure is becoming increasingly common, and there is evidence for ease of collection.

- **Field Implementation:** 3

There is good evidence.

- **Amenable to Targeted Improvement:** 3

There is a clear connection between measure and comparison and performance improvement

Overall Recommendation

Timely Transmission of Transition Record: STRONG

- Average Score: 3
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 28: Birth Trauma Rate: Injury to Neonates (PSI 17)

Description: Percentage of neonates with specific birth trauma per 1000 births. Exclude infants with injury to skeleton and osteogenesis imperfecta, subdural or cerebral hemorrhage in preterm infant.

Developer: Agency for Healthcare Research and Quality

SQAC Priority Areas: Maternal & Neonatal Care

Standard Measure Set: AHRQ PSI

Measure Evaluation

- **Reliability and Validity: 2**

Definitional issues raise issues for validity and reliability.

- **Ease of Measurement: 2**

There is mixed evidence based on definition of birth trauma.

- **Field Implementation: 2**

There is insufficient evidence.

- **Amenable to Targeted Improvement: 3**

There is some connection between the measure and performance.

Overall Recommendation

Birth Trauma Rate: Injury to Neonates (PSI 17): MODERATE

- Average Score: 2.25
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES
 - Alternative measures: Healthy Term Newborn - NQF 0716
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 29: Central Venous Catheter-Related Blood Stream Infection Rate (PSI 7)

Description: Rate per 1,000 discharges

Developer: Agency for Healthcare Research and Quality

SQAC Priority Areas: Patient Safety

Standard Measure Set: [AHRQ](#) PSI

Measure Evaluation

- **Reliability and Validity: 2**

Definitional issues raise issues for validity and reliability.

- **Ease of Measurement: 2**

The measure not fully specified yet.

- **Field Implementation: 2**

There is insufficient evidence.

- **Amenable to Targeted Improvement: 2**

There is some evidence and strong logic and significance.

Overall Recommendation

Central Venous Catheter-Related Blood Stream Infection Rate (PSI 7): MODERATE

- Average Score: 2
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES
No alternative measures
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 31: Postoperative Hip Fracture Rate (PSI 8)

Description: Rate per 1,000 discharges

Developer: Agency for Healthcare Research and Quality

SQAC Priority Areas: Patient Safety

Standard Measure Set: AHRQ PSI

Measure Evaluation

- **Reliability and Validity:** 3

There is good evidence.

- **Ease of Measurement:** 3

There is good evidence.

- **Field Implementation:** 3

There is good evidence.

- **Amenable to Targeted Improvement:** 3

There is good evidence.

Overall Recommendation

Postoperative Hip Fracture Rate: STRONG

- Average Score: 3
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 32: Obstetric Trauma - Vaginal Delivery without Instrument (PSI 19)

Description: The rate per 1,000 vaginal deliveries without instrument assistance (3rd or 4th degree lacerations)

Developer: Agency for Healthcare Research and Quality

SQAC Priority Areas: Maternal & Neonatal Care

Standard Measure Set: AHRQ PSI

Measure Evaluation

- **Reliability and Validity:** 3
There is good evidence.
- **Ease of Measurement:** 3
There is good evidence.
- **Field Implementation:** 3
- **Amenable to Targeted Improvement:** 3

Overall Recommendation

Obstetric Trauma - Vaginal Delivery without Instrument (PSI 19): STRONG

- Average Score: 3
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments

Measure 35: Unhealthy Alcohol Use: Screening & Brief Counseling

Description: This measure is used to assess the percentage of patients aged 18 years and older who were screened for unhealthy alcohol use at least once during the two-year measurement period using a systematic screening method AND who received brief counseling if identified as an unhealthy alcohol user.

Developer: American Medical Association - Physician Consortium for Performance Improvement

SQAC Priority Areas: Preventative Health

Standard Measure Set: AMA-PCPI

Measure Evaluation

- **Reliability and Validity:** 4

There is strong evidence for reliability and validity.

- **Ease of Measurement:** 3

The measure is commonly collected and easily captured using existing administrative data.

- **Field Implementation:** 3

The measure is implemented, and currently used for process improvement.

- **Amenable to Targeted Improvement:** 4

There is evidence of effective targeted interventions.

Overall Recommendation

Unhealthy Alcohol Use: Screening & Brief Counseling: STRONG

- Average Score: 3.5
- Meets SQAC Priority: YES
- Endorsed by NQF or included in nationally recognized measure set: YES
No alternative measure
- Met minimum scores on each evaluation dimension: YES

Additional Comments
