NATIONAL QUALITY FORUM

Memo

November 12, 2019

To: Consensus Standards Approval Committee (CSAC)

From: All-Cause Admissions and Readmissions Project Team

Re: All-Cause Admissions and Readmissions CDP Spring 2019 Request for Reconsideration NQF 3443 and 3445

CSAC Action Required

The CSAC will review recommendations from the All-Cause Admissions and Readmissions Standing Committee at their November 12 web meeting and vote on whether to uphold the recommendations from the Committee.

This memo includes a summary of the project and the measure recommendations. No comments were received on the two measures under review. The following documents accompany this memo:

1. All-Cause Admissions and Readmissions Spring 2019 Draft Report. The draft report has been updated to reflect the changes made following the Standing Committee's discussion of the developer's request for reconsideration.

Background

Avoidable admissions and readmissions to acute care facilities are an important area for healthcare quality improvement. These avoidable admissions and readmissions often represent an opportunity to improve care transitions and prevent the unnecessary exposure of patients to adverse events in an acute care setting. To drive improvement in admissions and readmissions, performance measures have continued to be a key element of value-based purchasing programs to incentivize collaboration in the healthcare delivery system.

The 21-member All-Cause Admissions and Readmissions Standing Committee has been charged with overseeing the NQF All-Cause Admissions and Readmission portfolio, evaluating both newly submitted and previously endorsed measures against NQF's measure evaluation criteria, identifying gaps in the measurement portfolio, providing feedback on how the portfolio should evolve, and serving on any ad hoc or expedited projects in its designated topic areas. The All-Cause Admissions and Readmissions portfolio includes measures for various care settings or points of care.

In the Fall 2018 review cycle, the Readmissions Committee did not recommend two measures, NQF 3443 *All-cause emergency department utilization rate for Medicaid beneficiaries with complex care needs and high costs (BCNs)* (Mathematica Policy Research) and 3445 *All-cause inpatient admission rate for Medicaid beneficiaries with complex care needs and high costs (BCNs)* (Mathematica Policy Research). During the public commenting period for the Fall 2018 cycle, NQF received a request for reconsideration from the developers/stewards (MPR/CMS) of 3443 and 3445. Requests for reconsideration are typically discussed either during the post-

comment call or during the next cycle. Since the Committee was unable to achieve quorum during the Fall 2018 post-comment call on May 16, 2019, votes were not taken on any of the measures under review for endorsement consideration. The Committee deferred the discussion to the then-upcoming Spring 2019 measure evaluation webinars, which were held on June 20 and 21, 2019. The Standing Committee reviewed the additional information submitted by the developer. Since quorum was also not achieved during the spring cycle webinars, the Committee voted on whether or not to reconsider the measures via an online SurveyMonkey and elected not to reconsider either of the measures (Y-4; N-14). The Committee generally agreed that the additional information did not adequately address their concerns. Committee members noted challenges with the data variability and said that a more standardized data collection approach was required for the measure to be ready for endorsement.

Draft Report

The All-Cause Admissions and Readmissions Spring 2019 draft report presents the results of the evaluation of four measures considered under the Consensus Development Process (CDP). CSAC has already ratified the recommendation for NQF 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (MIPS)* at the Individual Clinician level of analysis and acknowledged the withdrawal of NQF 2539 *Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy*, and acknowledged the deferral of NQF 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate* at the Group Clinician/Practice level of analysis to the Fall 2019 review cycle. This memo includes only the details for the two remaining deferred measures, 3443 and 3445 that originated in the Fall 2018 review cycle. Both of these measures are not recommended.

The measures were evaluated against the 2018 version of the measure evaluation criteria.

	New	Total
Measures not recommended for endorsement	2	2
Reasons for not recommending	Importance - Meets Criteria Scientific Acceptability – Does not meet criteria (2) Use – n/a Overall – n/a Competing Measure – n/a	

CSAC Action Required

Pursuant to the CDP, the CSAC is asked to review the Committee's decision not to recommend two measures.

Measures Not Recommended for Endorsement

(See Appendix B for the Committee's votes and rationale)

- 3443 All-Cause Emergency Department Utilization Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs) (CMS)
- 3445 All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs) (MPR/CMS)

Comments and Their Disposition

No NQF member or public comments were received for these two measures.

Member Expression of Support

Throughout the 16-week continuous fall 2018 public commenting period, NQF members had the opportunity to express their support ('support' or 'do not support') for NQF 3443 and 3445. No NQF members expressed support or non-support of NQF 3443 and 3445.

Appendix A: CSAC Checklist

The table below lists the key considerations to inform the CSAC's review of the measures submitted for endorsement consideration.

Key Consideration	Yes/No	Notes
Were there any process concerns raised during the CDP project? If so, briefly explain.	Yes	The Committee did not have quorum during the measure evaluation web meetings. Standard process for evaluation without quorum was followed: votes were taken via voting survey from a quorum of members, and Committee members who missed the discussion were asked to review the call transcript/recording and summary prior to voting.
Did the Standing Committee receive requests for reconsideration? If so, briefly explain.	Yes	The Committee received two requests for reconsideration on measures reviewed in the Fall 2018 cycle, 3443 *All-Cause Emergency Department Utilization Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs* and 3445 *All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs*. These measures were reconsidered during the Spring 2019 cycle evaluation period. The Standing Committee reviewed the additional information submitted by the developer but elected not to reconsider (Y-4; N-14). The Committee generally agreed that the additional information did not adequately address their concerns. Committee members noted challenges with the data variability and need for a more standardized data collection approach for the measure to be ready for endorsement.
Did the Standing Committee overturn any of the Scientific Methods Panel's ratings of Scientific Acceptability? If so, state the measure and why the measure was overturned.	No	The Scientific Methods Panel did not reach consensus on the validity of both measures.

If a recommended measure is a related and/or competing measure, was a rationale provided for the Standing Committee's recommendation? If not, briefly explain.	No	
Were any measurement gap areas addressed? If so, identify the areas.	No	
Are there additional concerns that require CSAC discussion? If so, briefly explain.	No	

Appendix B: Measures Not Recommended for Endorsement

The table below lists the Committee's vote and rationale for measures not recommended for endorsement.

Legend: H = High; M = Moderate; L = Low; I = Insufficient

Measure	Voting Results	Standing Committee Rationale
3443 All-Cause Emergency Department Utilization Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs) (CMS/Mathematica Policy Research)	**Evidence**: Y-17; N-0 **Performance Gap**: H-4; M-13; L-0; I-0 **Reliability**: H-3; M-11; L-1; I-0 **Validity**: H-0; M-3; L-8; I-4 **Feasibility:** H-X; M-X; L- X; I- X The Standing Committee did not vote on this criterion since the measure did not pass Scientific Acceptability **Usability and Use** **Use:** Pass-X; No Pass-X The Standing Committee did not vote on this criterion since the measure did not pass Scientific Acceptability **Usability:** H-X; M-X; L-X; I-X The Standing Committee did not vote on this criterion since the measure did not pass Scientific Acceptability	The Committee raised several concerns under the validity sub-criterion. The Committee noted that the developer tested the validity of the measure using a face validity test. The Committee was concerned that only 11 out of the 17 TEP members responded to whether the measure was a good indicator of quality. The risk-adjustment approach was developed using data from 10 states. The risk-adjustment model included 69 risk factors. While the measure demonstrated adequate discrimination and calibration of the risk adjustment model, the Committee expressed concerns that the variability of the underlying patient population could present a threat to validity. Committee members raised concerns about the measure's generalizability to all 50 states, given the representativeness of the data used in testing. The data set used to develop the measure is not necessarily representative of the country or the population that the measure is intended to be applied. Of the 50 states, 34 were excluded due to data issues. Further, the Committee noted significant variation in the eligible population for this measure due to the differences in the Medicaid populations between states. Thus, applying this measure to the heterogeneous Medicaid populations across states makes differences in measure performance across states

Measure	Voting Results	Standing Committee Rationale
		difficult to interpret. Are the differences due to actual health system performance differences or are the differences due to underlying differences in the Medicaid populations? The inability for the developer to distinguish this brought into question the validity of the measure as currently constructed.
3445 All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs) (CMS/Mathematica Policy Research)	**Evidence**: Y-17; N-0 **Performance Gap**: H-4; M-13; L-0; I-0 **Reliability**: H-3; M-11; L-1; I-0 **Validity**: H-0; M-3; L-8; I-4 **Feasibility**: H-X; M-X; L- X; I- X The Standing Committee did not vote on this criterion since the measure did not pass Scientific Acceptability **Usability and Use** **Use**: Pass-X; No Pass-X The Standing Committee did not vote on this criterion since the measure did not pass Scientific Acceptability **Usability**: H-X; M-X; L-X; I-X The Standing Committee did not vote on this criterion since the measure did not pass Scientific Acceptability	The Committee raised several points about the validity of this measure. The data set used to develop the measure is not necessarily representative of the country or the population that the measure is intended to be applied. Of the 50 states, 34 were excluded due to data issues. Further, the Committee discussed the significant variation in the eligible population for this measure between states – due to the differences in the Medicaid populations between states. Thus, applying this measure to the heterogeneous Medicaid populations across states makes differences in measure performance across states difficult to interpret. Are the differences due to actual health system performance differences or are the differences due to underlying differences in the Medicaid populations? The inability for the developer to distinguish this brought into question the validity of the measure as currently constructed.

Appendix C: NQF Member Expression of Support Results

No NQF members provided expressions of support or non-support on the measures under consideration.

Appendix D: Details of Measure Evaluation

Rating Scale: H=High; **M**=Moderate; **L**=Low; **I**=Insufficient; **NA**=Not Applicable

Measures Not Recommended[b]

3443 All-Cause Emergency Department Utilization Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs)

Submission

Description: All-cause emergency department (ED) utilization rate for adult Medicaid beneficiaries who meet BCN population eligibility criteria. The measure is calculated as the number of ED visits per 1,000 beneficiary months and is intended to be reported at the state level.

For the purpose of this measure, the BCN population is defined as Medicaid beneficiaries who are age 18 to 64 during the lookback year (the 12 months prior to the measurement year) and the measurement year and have at least one inpatient admission and at least two chronic conditions, as defined by the Chronic Conditions Data Warehouse (CCW), during the lookback year. Beneficiaries dually enrolled in Medicaid and Medicare and beneficiaries who had fewer than 10 months of Medicaid eligibility in the lookback year are not included in the analytic sample because we did not have enough utilization data to include them in testing. We further limited the analytic file to beneficiaries that met the BCN definition criteria described above.

Numerator Statement: The number of ED visits in the measurement year among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

Denominator Statement: Number of Medicaid-eligible months ("beneficiary months") among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

Exclusions: N/A

Adjustment/Stratification: Statistical risk model

Level of Analysis: Population : Regional and State

Setting of Care: Emergency Department and Services

Type of Measure: Outcome

Data Source: Claims

Measure Steward: Centers for Medicare & Medicaid Services, Centers for Medicaid & CHIP Services

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STANDING COMMITTEE MEETING [2/7/2019]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence: 1b. Performance Gap)

1a. Evidence: **Y-17; N-0** 1b. Performance Gap: **H-4; M-13; L-0; I-0**

Rationale:

- This measure of emergency department utilization for Medicaid beneficiaries with complex care needs and high costs (BCNs) assesses a heterogeneous population with disproportionately high use of inpatient and ED use.

- The developer noted that improvement on this outcome may involve strengthening beneficiaries' relationships with health care providers in the community, improved care coordination, and chronic disease management.
- The developer demonstrates an adjusted performance range of 109.5 admissions per 1,000 beneficiary months to 322.0 admissions per 1,000 beneficiary months.
- The Committee agreed there was evidence that the measured entity could influence the outcome. Specifically, the developer cited several studies demonstrating that emergency department visits in complex patients could be reduced through improved care management and agreed there was variation in performance. The Committee also noted that emergency department use at the population or plan level is directly related to the inability to access care in the community.
- The Committee generally agreed that there was a performance gap in the focus area of this measure.

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2. Scientific Acceptability of Measure Properties: <u>The measure does not meet the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity

2a. Reliability: **H-3; M-11; L-1; I-0** 2b. Validity: **H-0; M-3; L-8; I-4**

<u>Rationale</u>:

- The developer conducted signal-to-noise (SNR) reliability testing for this measure using MAX data from 10 states. Average signal-to-noise reliability estimate was 0.92 (ranging between 0.59 to 0.99 across the ten states in the sample).
- Committee members raise concerns about the measure's generalizability to all 50 states, given the representativeness of the data used in testing.
- The Committee raised several concerns under the validity sub-criterion. The Committee noted that the developer tested the validity of the measure using a face validity test. The Committee was concerned that only 11 out of the 17 TEP members responded to whether the measure was a good indicator of quality.
- The risk-adjustment approach was developed using data from 10 states. The risk-adjustment model included 69 risk factors. While the measure demonstrated adequate discrimination and calibration of the risk adjustment model, the Committee expressed concerns that the variability of the underlying patient population could present a threat to validity.
- The developer noted that they included all predictors that were theoretically associated with the measure, including those that were not statistically significant or "protective" in nature. The developer stated that in general, the risk factors associated with a lower adjusted risk of ED utilization reflected more serious conditions (e.g. colorectal cancer). This lower risk likely reflects higher substitution away from ED care towards inpatient care. Because BCN-1 will ultimately be paired with a measure of inpatient care, the developer believed it was important to include the "protective" risk factors in the BCN-1 risk adjustment model.
- The data set used to develop the measure is not necessarily representative of the country or the population that the measure is intended to be applied. Of the 50 states, 34 were excluded due to data issues.

- Further, the Committee discussed that there is significant variation in the eligible population for this measure due to the differences in the Medicaid populations between states. Thus, applying this measure to the heterogeneous Medicaid populations across states makes differences in measure performance across states difficult to interpret. Are the differences due to actual health system performance differences or are the differences due to underlying differences in the Medicaid populations? The inability for the developer to distinguish this brought into question the validity of the measure as currently constructed.
- Committee members did agree there are real differences in both performance and quality between states, but ultimately believed that the threats to validity were too strong and the measure did not pass this criterion.

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3. Feasibility: H-X; M-X; L-X; I-X

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

Summary of Committee's Discussion:

- The Committee agreed the measure is feasible to report given that it is a claims-based measure. The Committee did note concerns with Medicaid churn since the measure is constructed to include patients who had coverage for ten months, and that may exclude a large number of people in some states.

4. Use and Usability *(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)*

4a. Use: **Y-X; N-X** 4b. Usability: **H-X; M-X; L-X; I-X**

Summary of Committee's Discussion

- During the Use and Usability discussion, the Committee members raised concerns about the generalizability of the data and the impact that may have on the usefulness of the measure.

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5. Related and Competing Measures

- No related or competing measures noted.

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6. Standing Committee Recommendation for Endorsement: **Y-X**; **N-X**

Rationale

- The Standing Committee does not recommend this measure for endorsement due to concerns about the measure's validity. Because quorum was not reached during the meeting, each criterion was discussed, and voting was completed later. Validity is a must-pass criterion; therefore, subsequent votes for remaining criteria are not captured.

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7. Public and Member Comment

The steward and developer of this measure submitted a request for reconsideration based on an inappropriate application of the validity subcriterion.

- The measure steward and developer responded to the Committee's concerns about the measures' validity. Specifically, they commented on the Committee's concern about differences in Medicaid populations across states, whether the measure was tested with a representative data sample, and the data quality.

- The measure steward and developer provided several clarifications regarding the differences in Medicaid populations across states. They recognized that state Medicaid programs vary substantially both in the covered populations and the quality of data reported to CMS. However, these variations are due to the design of Medicaid of federal-state partnership, and the developer raised concerns that the Committee's emphasis on state variation in Medicaid program created an unrealistic standard for validity.

- The steward and developer noted that they believe the measure was tested using a robust data sample for assessing measure performance. They noted the states providing data varied in location, geography, size, and delivery system (fee-for-service or managed care) while still providing high-quality data. Additionally, they commented that the differences across Medicaid programs due to eligibility policies, mix of delivery models, payment rates, and other features, make it challenging for any sample to be representative of all 50 states. The steward and developer commented that the goal of measure testing is to select a diverse group of states that have high-quality data and whose populations capture, for the key variables in question, the majority of the variation that also occurs within other states. They also clarified that the measure specifications were designed to maximize the likelihood that states could define the denominator population consistently.

- Finally, the steward and developer responded to the Committee's concerns about data quality. The developer worked to evaluate the quality of relevant data in all the states and selected those states whose data met our quality standards. Specifically, the states chosen for testing had indicators that aligned with national inpatient and emergency utilization benchmarks and did not have data anomalies that would raise analytic problems (such as high levels of missing data). Further, NQF has endorsed measures in the past that were tested with Medicaid data from the same data source. The measure steward and developer noted that they do not believe that state variation in data quality should be a key factor in determining suitability of Medicaid measures for endorsement as long as the data used for development is of sufficient quality. Additionally, they noted that even perfect data from all states will not change the fact that state Medicaid programs have differences in design and operational features.

- The Standing Committee reviewed the additional information submitted by the developer but elected not to reconsider (Y-4; N-14). The Committee generally agreed that the additional information did not adequately address their concerns. Committee

members noted challenges with the data variability and need for a more standardized data collection approach for the measure to be ready for endorsement.

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8. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

3445 All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs)

Submission

Description: All-cause inpatient admission rate for adult Medicaid beneficiaries who meet BCN population eligibility criteria. The measure is calculated as the number of inpatient admissions per 1,000 beneficiary months and is intended to be reported at the state level.

For the purpose of this measure, the BCN population is defined as Medicaid beneficiaries who are age 18 to 64 during the lookback year (the 12 months prior to the measurement year) and the measurement year and have at least one inpatient admission and at least two chronic conditions, as defined by the Chronic Conditions Data Warehouse (CCW), during the lookback year. Beneficiaries dually enrolled in Medicaid and Medicare and beneficiaries who had fewer than 10 months of Medicaid eligibility in the lookback year are not included in the analytic sample because we did not have enough utilization data to include them in testing. We further limited the analytic file to beneficiaries that met the BCN definition criteria described above.

Numerator Statement: The sum of unique inpatient admissions and observation stays in the measurement year among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

Denominator Statement: Number of Medicaid-eligible months ("beneficiary months") among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

Exclusions: Not applicable

Adjustment/Stratification: Statistical risk model

Level of Analysis: Population: Regional and State

Setting of Care: Inpatient/Hospital

Type of Measure: Outcome

Data Source: Claims

Measure Steward: Centers for Medicare & Medicaid Services, Centers for Medicaid & CHIP Services

STANDING COMMITTEE MEETING [2/7/2019]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence: 1b. Performance Gap)

1a. Evidence: **Y-17; N-0** 1b. Performance Gap: **H-4; M-13; L-0; I-0**

Rationale:

- The Committee agreed that the issues raised for #3443 are similar to those of #3445.
- The Committee agreed there was evidence the measure entity could influence the outcome, citing evidence showing multiple interventions that could decrease inpatient utilization of complex patients with appropriate managed care.
- To support the evidence of a performance gap, the developers cited both disparities in terms of race and ethnicity in performance for admission rates.
- The Committee also noted variation in performance across states.

2. Scientific Acceptability of Measure Properties: <u>The measure does not meet the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity

2a. Reliability: **H-3; M-12; L-0; I-0** 2b. Validity: **H-0; M-6; L-7; I-2**

<u>Rationale</u>:

- The developer conducted signal-to-noise (SNR) reliability testing using MAX data from 10 states. Committee members noted the scores ranged from 0.95 to 0.99 and agreed that the measure demonstrated adequate reliability testing.
- The developer conducted convergent validity testing by examining the correlation between this measure and the HEDIS inpatient hospital utilization measure (IHU).
- The Committee raised a number of points about the validity of this measure. The data set used to develop the measure is not necessarily representative of the country or the population that the measure is intended to be applied. Of the 50 states, 34 were excluded due to data issues.
- Further, the Committee discussed the significant variation in the eligible population for this measure between states – due to the differences in the Medicaid populations between states. Thus, applying this measure to the heterogeneous Medicaid populations across states makes differences in measure performance across states difficult to interpret. Are the differences due to actual health system performance differences or are the differences due to underlying differences in the Medicaid populations? The inability for the developer to distinguish this brought into question the validity of the measure as currently constructed.
- Committee members did agree there are real differences in both performance and quality between states, but ultimately believed that the threats to validity were too strong and the measure did not pass this criterion.

3. Feasibility: H-X; M-X; L-X; I-X

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

<u>Summary of Committee's Discussion</u>:

- The Committee agreed the measure is highly feasible to report, given that it is a claims-based measure.

4. Use and Usability

(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)

4a. Use: **Y-X; N-X** 4b. Usability: **H-X; M-X; L-X; I-X**

<u>Summary of Committee's Discussion</u>:

- During the Use and Usability discussion, the Committee members again raised concerns about the generalizability of the data and noted the potential for negative unintended consequences.

5. Related and Competing Measures

- No related or competing measures noted.

6. Standing Committee Recommendation for Endorsement: **Y-X**; **N-X**

Summary of Committee's Discussion

- The Standing Committee does not recommend this measure for endorsement due to concerns about the measure's validity. Because quorum was not reached during the meeting, each criterion was discussed, and voting was completed later. Validity is a must-pass criterion; therefore, subsequent votes for remaining criteria are not captured.

7. Public and Member Comment

- The steward and developer of this measure submitted a request for reconsideration based on an inappropriate application of the validity subcriterion.
- The measure steward and developer responded to the Committee's concerns about the measures' validity. Specifically, they commented on the Committee's concern about differences in Medicaid populations across states, whether the measure was tested with a representative data sample, and the data quality.
- The measure steward and developer provided several clarifications regarding the differences in Medicaid populations across states. They recognized that state Medicaid programs vary substantially both in the covered populations and the quality of data reported to CMS. However, these variations are due to the design of Medicaid of federal-state partnership, and the developer raised concerns that the Committee's emphasis on state variation in Medicaid program created an unrealistic standard for validity.
- The steward and developer noted that they believe the measure was tested using a robust data sample for assessing measure performance. They noted the states providing data varied in location, geography, size, and delivery system (fee-for-service or managed care) while still providing high-quality data. Additionally, they commented that the differences across Medicaid programs due to eligibility policies, mix of delivery models, payment rates, and other features, make it challenging for any sample to be representative of all 50 states. The steward and developer commented that the goal of measure testing is to select a diverse group of states that have high-quality data and whose populations capture, for the key variables in question, the majority of the variation that also occurs within other states. They also clarified that the measure specifications were designed to maximize the likelihood that states could define the denominator population consistently.
- Finally, the steward and developer responded to the Committee's concerns about data quality. The developer worked to evaluate the quality of relevant data in all the states and selected those states whose data met our quality standards. Specifically, the states chosen for testing had indicators that aligned with national inpatient and emergency

utilization benchmarks and did not have data anomalies that would raise analytic problems (such as high levels of missing data). Further, NQF has endorsed measures in the past that were tested with Medicaid data from the same data source. The measure steward and developer noted that they do not believe that state variation in data quality should be a key factor in determining suitability of Medicaid measures for endorsement as long as the data used for development is of sufficient quality. Additionally, they noted that even perfect data from all states will not change the fact that state Medicaid programs have differences in design and operational features.

The Standing Committee reviewed the additional information submitted by the developer but elected not to reconsider (Y-4; N-14). The Committee generally agreed that the additional information did not adequately address their concerns. Committee members noted challenges with the data variability and need for a more standardized data collection approach for the measure to be ready for endorsement.

8. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X

All Cause Admissions and Readmissions Fall 2018 Submission/ Reconsideration Request Deferred to Spring 2019 Review Cycle

CSAC Review and Endorsement

November 12, 2019

All-Cause Admissions and Readmissions Measures Portfolio

- 51 endorsed measures
  - » Assessing different sites of care

	All-Cause	Condition-Specific
Hospital	5	14
Home health	4	0
Skilled nursing facility	4	0
Long-term care facility	1	0
Inpatient rehab facility	1	0
Inpatient psychiatric facility	1	0
Dialysis facility	2	0
Health plan	1	0
Population-based	4	11
Hospital outpatient/ambulatory surgery center	0	1
Integrated delivery system	1	0
Accountable care organizations (ACO)	1	0
Total	25	26

Standing Committee Recommendations

2 Measures Not Recommended by Committee

- **3443** All-Cause Emergency Department Utilization Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs
- **3445** All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs
  - *Both reviewed by the Scientific Methods Panel (SMP)*

Overarching Issues

- Request for Reconsideration - Fall 2018 Measures (Reconsideration considered during Spring 2019 cycle)
  - *The Standing Committee did not recommend measures NQF #3443* All-Cause Emergency Department Utilization Rate for Medicaid Beneficiaries with Complex Care Needs *and High Costs and NQF #3445* All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs *due to a number of concerns about the validity of the measures.*
  - *The Standing Committee received requests for reconsideration from the developer on these two measures during the Fall 2018 cycle.*
  - *This reconsideration discussion was held during the Spring 2019 cycle evaluation period. The Standing Committee reviewed the additional information submitted by the developer but elected not to reconsider (Y-4; N-14). The Committee generally agreed that the additional information did not adequately address their concerns. Committee members noted challenges with the data variability and noted that a more standardized data collection approach was required for the measure to be ready for endorsement.*

Overarching Issues

- Standing Committee Quorum and CDP Process
  - *The Standing Committee did not have quorum during the measure evaluation web meetings. Standard process for evaluation without quorum was followed: votes were taken via voting survey from a quorum of members, and Committee members who missed the discussion were asked to review the call transcript/recording and summary prior to voting.*

Public and Member Comment and Member Expressions of Support

- No NQF member expressed nonsupport of the measures under consideration. No NQF member expressions of support were received.

Timeline and Next Steps

Meeting	Date/Time
CSAC Review	November 12, 2019
Appeals Period	October 30 – November 28, 2019

Questions?

- Project team:
  - *Andrew Lyzenga, MPP, NQF Senior Director*
  - *Suzanne Theberge, MPH, Senior Project Manager*
  - *Oroma Igwe, MPH, Project Manager*
  - *Asaba Nguafor, RN, MSN/MPH, Project Analyst*
  - *Taroon Amin, PhD, Consultant*
- Project webpage: http://www.qualityforum.org/All_Cause_Admissions_and_Readmissions.aspx
- Project email address: readmissions@qualityforum.org

All-Cause Admissions and Readmissions, Spring 2019 Review Cycle: CDP Report

DRAFT REPORT FOR CSAC REVIEW

November 12, 2019

NATIONAL QUALITY FORUM

This report is funded by the Department of Health and Human Services under contract HHSM-500-2017-00060I Task Order HHSM-500-T0001.

Contents

All-Cause Admissions and Readmissions, Spring 2019 Review Cycle

DRAFT REPORT FOR COMMENT

Executive Summary

Avoidable hospital admissions and readmissions are an important focus for healthcare quality improvement. These avoidable admissions and readmissions often represent an opportunity to improve patient care transitions and prevent the unnecessary exposure of patients to adverse events in an acute care setting. NQF currently has 51 endorsed all-cause and condition-specific admissions and readmissions measures for various settings. Several federal quality improvement programs have adopted these measures to reduce unnecessary admissions and readmissions to improve communication and care transitions.

For this project, the Standing Committee evaluated one newly submitted measure and one measure undergoing maintenance review against NQF's standard evaluation criteria. Newly submitted measure 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission Rate (HWR) for the Merit-Based Incentive Payment System (MIPS) Eligible Clinician Groups*, was originally submitted as one measure but was later split and evaluated by the Standing Committee into two levels of analyses i.e. Clinician Group/Practice level of analysis and Individual Clinician level of analysis, due to concerns related to attribution.

The Committee recommended for endorsement 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (MIPS)* at the Clinician Group/Practice level of analysis. The Committee did not recommend for endorsement *3495 Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (MIPS)* at the Individual Clinician level of analysis, based on validity concerns.

During the Committee's post-comment call on October 2, 2019, in response to comments received during the public comment period and questions addressed by the committee concerning testing, the developer accidently reported incorrect measure score reliability results during the live call, influencing the Committee's deliberation and eventual decision to vote to reconsider their recommendation for endorsement of 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (MIPS)* at the Clinician: Group/Practice level of analysis. While the Committee voted to uphold their recommendation for endorsement, the votes were narrowly divided. After the call, the developer provided the correct reliability results in writing (which had also been provided in their original submission). In consultation with the developers and the Committee co-chairs, NQF staff decided to return measure 3495 to the Committee for re-evaluation at the Clinician: Group/Practice level of analysis, during the Fall 2019 cycle, due to concerns that the incorrect information provided may have significantly influenced the Committee's vote.

Measure 2539 *Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy* was withdrawn from consideration pending alignment of measure testing and specifications.

The Consensus Standards Approval Committee upheld the All-Cause Admissions and Readmissions Standing Committee's recommendation not to endorse 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate at the* individual clinician level of analysis and agreed with the Committee's rationale to send 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate* at the Group Clinician/Practice level of analysis back to the Standing Committee.

Additionally, two measures from the Fall 2018 review cycle are included in this report. NQF 3443 *All-Cause Emergency Department Utilization Rate for Medicaid beneficiaries with Complex Care Needs and High Costs (BCNs)* and NQF 3445 *All-Cause Inpatient Admission rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs)*. During the Fall 2018 cycle, the Readmissions Committee did not recommend these measures for endorsement.

The measure developer for measures 3443 and 3445 submitted requests for reconsideration to the Committee; the Committee reconsidered the developer's requests during the Spring 2019 review cycle and ultimately decided to uphold its initial decision not to recommend the measures for endorsement.

Brief summaries of the measures currently under review are included in the body of the report; detailed summaries of the Committee's discussion and ratings of the criteria for each measure are in Appendix A.

Introduction

Avoidable admissions and readmissions to acute care facilities are an important area for healthcare quality improvement. These avoidable admissions and readmissions often represent an opportunity to improve care transitions and prevent the unnecessary exposure of patients to adverse events in an acute care setting. To drive improvement in admissions and readmissions, performance measures have continued to be a key element of value-based purchasing programs to incentivize collaboration in the healthcare delivery system. Shared accountability is required to improve this health outcome, as many healthcare providers have a role in ensuring a safe patient transition between care settings. While a wide variety of healthcare stakeholders support the goal of reducing unnecessary hospitalizations, debates remain on the target rate of readmissions, appropriate methods for attribution, and if these performance measures should be linked to provider payment.

While admissions and readmissions are important patient outcomes, systematic reviews have found that less than a third of readmissions are preventable.[1] Many factors influence the rate of admissions and readmissions including the resources available in the community to support a safe transition between care settings and the social support available to patients. While these factors have a role, poor care coordination and low-quality care also led to higher rates of readmission. Evidence demonstrates that provider interventions can improve these important patient outcomes, such as improved communication of patient discharge instructions, coordination with post-acute care providers and primary care physicians, and the reduction of complications such as hospital-acquired conditions.[2–4]

To incentivize reductions in inappropriate hospitalizations, CMS expanded accountability for avoidable readmissions throughout its quality reporting and payment programs. The Hospital Readmissions Reduction (HRRP) program reduces payment rates to hospitals with higher-than-expected readmission rates. The Improving Medicare Post-Acute Care Transformation Act of 2014 (IMPACT Act) required CMS to implement quality measures for potentially preventable readmissions to long-term care hospitals, inpatient rehabilitation facilities, skilled nursing facilities, and home health agencies. Finally, CMS' Merit-Based Incentive Payment System (MIPS), which adjusts Medicare payments at the physician level, includes an option of an all-cause hospital readmission measure for groups with at least 16 clinicians and a sufficient number of cases.[5] Groups that report on the readmission measure are eligible for higher payment rates than clinician groups that do not. Given the increased use of readmission measures across settings of care, ensuring their scientific merit is more important than ever.

In this project, the All-Cause Admissions and Readmissions Standing Committee considered NQF 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (MIPS)* at the Clinician Group/Practice level of analysis for endorsement. The Committee did not consider NQF 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (MIPS)* at the Individual Clinician level of analysis for endorsement. The Committee also considered NQF 2539 *Facility 7-Day Risk Standardized Hospital Visit Rate after Outpatient Colonoscopy,* but the measure was withdrawn by the developer prior to its full review. Additionally, the Committee received reconsideration requests from the measure developer for NQF 3443 and NQF *3445 All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with complex care needs and high costs (BCNS).* Measures 3443 and 3445 were not recommended for endorsement in

the fall 2018 review cycle and reconsidered by the Committee during the spring 2019 review cycle; ultimately the Committee uphold its initial decision not to recommend the measures.

NQF Portfolio of Measures for All-Cause and Condition-Specific Admissions and Readmissions

The All-Cause Admissions and Readmissions Standing Committee (Appendix C) oversees NQF's portfolio of admissions and readmissions measures (Appendix B) that includes measures for a number of different sites of care. This portfolio contains 51 measures:

Table 1. NQF Admissions and Readmissions Portfolio of Measures

	All-Cause	Condition-Specific
Hospital	5	14
Home health	4	0
Skilled nursing facility	4	0
Long-term care facility	1	0
Inpatient rehab facility	1	0
Inpatient psychiatric facility	1	0
Dialysis facility	2	0
Health plan	1	0
Population-based	4	11
Hospital outpatient/ambulatory surgery center	0	1
Integrated delivery system	1	0
Accountable care organizations (ACO)	1	0
Total	25	26

Additional measures are assigned to other portfolios. These include patient-reported outcome and transition-of-care measures (Patient Experience and Function), and a variety of condition-specific readmission measures (Surgery and Perinatal).

Readmissions Measure Evaluation

On June 20 and 21, 2019, the Readmissions Standing Committee evaluated three new measures and one measure undergoing maintenance review against NQF's standard measure evaluation criteria.

Table 2. All-Cause Admissions and Readmissions Measure Evaluation Summary

	Maintenance	New	Total
Measures under consideration	2	2	4
Measures recommended for endorsement	0	1	1
Measures not recommended for endorsement		3*	3
Measures withdrawn from consideration	1	0	1

*includes two deferred measures from the Fall 2018 review cycle.

Comments Received Prior to Committee Evaluation

NQF solicits comments on endorsed measures on an ongoing basis through the Quality Positioning System (QPS). In addition, NQF solicits comments for a continuous 16-week period during each evaluation cycle via an online tool located on the project webpage. For this evaluation cycle, the commenting period opened on May 1, 2019 and will close on August 30, 2019. As of July 16, 2019, two comments were submitted and shared with the Committee prior to the measure evaluation meetings (Appendix F).

All submitted comments were provided to the Committee prior to its initial deliberations during the Committee webinars.

Overarching Issues

During the Standing Committee's discussion of the measures, several overarching issues emerged that were factored into the Committee's ratings and recommendations for multiple measures.

Shared Accountability

Improvement of avoidable admissions and readmissions requires shared accountability among multiple healthcare providers. In this project, the Committee reviewed two readmissions measures that attribute the outcome to individual physicians, physician groups, along with hospital outpatient departments (HOPD) or ambulatory surgical centers (ASC) following a colonoscopy procedure. While the Committee agreed that these providers and settings have a role, the readmission of one patient can be counted in several measures, assessing quality for multiple providers. For example, a readmission could count in the numerator of a measure assessing a hospital's readmission rate as well as a physician group's readmissions performance rate.

While shared accountability is required to improve this outcome, the Committee struggled with attribution to an individual clinician. Attribution of readmission rates should consider the locus of control of the accountable entity. While multiple factors influence this outcome, individual physicians often rely on peers, office and hospital-based support staff for important care transition roles and may have limited direct influence on the social risk and the community social supports available to their patients. The Committee noted that shared accountability should be balanced with the locus of control of the accountable unit.

Social Risk

The use of readmission measures for payment has raised questions about how much control a healthcare provider can have over a patient's outcomes, as healthcare outcomes are influenced by both the care received and patient factors. In particular, stakeholders have raised concerns about the potential impact of social risk factors, as there is growing evidence demonstrating how these factors can influence health outcomes. The Committee recognized this evidence and reiterated the need to consider the potential influence of social risk factors on the results of admission and readmission measures. The Committee noted the need to ensure that healthcare providers disproportionately serving communities with increased social risk factors are not penalized unfairly, especially when readmission measures are publicly reported or used to determine payment. The Committee emphasized the need to maximize the predictive value of a risk-adjustment model and noted its expectation that developers will continue testing the risk-adjustment model with additional social risk factors to better understand unmeasured patient risk. The Committee noted that the conceptual rationale for adjusting for social risk should be considered on a case-by-case basis.

Unintended Consequences

The Committee reiterated the concern that readmission measures should account for a potential increase in observation stays and emergency department holding as an unintended negative consequence to patients. Some argue that patients may prefer treatment in these settings if possible,[6] while others note that patients may experience negative consequences from observation stays such as less timely and less coordinated care.[7] Observation stays can occur in the emergency department, in a dedicated unit, or in a setting similar to being admitted as an inpatient, leading to varying patient experience and time in the hospital.[8] Finally, patients may incur financial hardship if they require post-acute care after an observation stay, as Medicare will not cover a skilled nursing facility stay after an observation stay.[9] Because of the potential consequences to patients, the Committee recognized the need to continue to monitor for increased use of ED visits and observation stays as potential consequences of the use of readmission measures.

Summary of Measure Evaluation

The following brief summaries of the measure evaluation highlight the major issues that the Committee considered. Details of the Committee's discussion and ratings of the criteria for each measure are included in Appendix A.

3443 All-Cause Emergency Department Utilization Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs) (Mathematica Policy Research): Not Recommended

Description: All-cause emergency department (ED) utilization rate for adult Medicaid beneficiaries who meet BCN population eligibility criteria. The measure is calculated as the number of ED visits per 1,000 beneficiary months and is intended to be reported at the state level. For the purpose of this measure, the BCN population is defined as Medicaid beneficiaries who are age 18 to 64 during the lookback year (the 12 months prior to the measurement year) and the measurement year and have at least one inpatient admission and at least two chronic conditions, as defined by the Chronic Conditions Data Warehouse (CCW), during the lookback year. Beneficiaries dually enrolled in Medicaid and Medicare and beneficiaries who had fewer than 10 months of Medicaid eligibility in the lookback year are not included

in the analytic sample because we did not have enough utilization data to include them in testing. We further limited the analytic file to beneficiaries that met the BCN definition criteria described above. **Measure Type**: Outcome; **Level of Analysis**: Population: Regional and State; **Setting of Care**: Emergency Department and Services; **Data Source**: Claims

NQF 3443 assesses all-cause emergency department utilization for Medicaid beneficiaries between 18 and 64 years old who meet the criteria of presenting complex care needs and high costs. This measure was developed with the intention of pairing it with NQF 3445. The Committee agreed there was sufficient evidence that the measured entity could influence the outcome. Specifically, the Committee noted that the developer cited several studies demonstrating that emergency department visits in complex patients could be reduced through improved care management and agreed that performance varied. The developer conducted signal-to-noise (SNR) reliability testing for this measure using MAX data from 10 states. Committee members did not have any concerns about the reliability of the measure. However, the Committee raised a number of points under the validity subcriterion. The Committee noted that the developer assessed face validity systematically which met the testing requirement for a new measure and noted that the risk-adjustment model demonstrated adequate discrimination and calibration. However, the Committee expressed concerns that the variability of the underlying population could present a threat to validity. The Committee agreed that the measure is highly feasible to report, given that it is a claims-based measure. During the Use and Usability discussion, the Committee members raised concerns about the generalizability of the data and the impact that may have on the usefulness of the measure. During the public comment period, the measure developer submitted a request for reconsideration of the Standing Committee's decision not to recommend this measure for endorsement due to concerns about the measure's validity. As the Standing Committee did not have quorum on its post comment call it was unable to discuss this request, an endorsement decision on the measure was deferred until the Spring 2019 cycle. During the spring 2019 review cycle, the Committee considered the request, but ultimately upheld its initial decision not to recommend the measure.

3445 All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs) (Mathematica Policy Research): Not Recommended by the Standing Committee

Description: All-cause inpatient admission rate for adult Medicaid beneficiaries who meet BCN population eligibility criteria. The measure is calculated as the number of inpatient admissions per 1,000 beneficiary months and is intended to be reported at the state level. For the purpose of this measure, the BCN population is defined as Medicaid beneficiaries who are age 18 to 64 during the lookback year (the 12 months prior to the measurement year) and the measurement year and have at least one inpatient admission and at least two chronic conditions, as defined by the Chronic Conditions Data Warehouse (CCW), during the lookback year. Beneficiaries dually enrolled in Medicaid and Medicare and beneficiaries who had fewer than 10 months of Medicaid eligibility in the lookback year are not included in the analytic sample because we did not have enough utilization data to include them in testing. We further limited the analytic file to beneficiaries that met the BCN definition criteria described above. **Measure Type**: Outcome; **Level of Analysis**: Population: Regional and State; **Setting of Care**: Inpatient/Hospital; **Data Source**: Claims

NQF 3445 measures an all-cause inpatient admissions rate for Medicaid beneficiaries between 18 and 64 years old who meet the criteria of presenting complex care needs and high costs. It was developed with the intention of pairing it with NQF 3443. The Committee agreed there was evidence that the measured entity could influence outcomes, citing evidence showing multiple interventions that could decrease inpatient utilization of complex patients. To demonstrate a performance gap, the developer cited both disparities in terms of race and ethnicity in performance for admission rates. The Committee also noted variation in performance across states. The developer provided conducted signal-to-noise (SNR) reliability testing using MAX data from 10 states. Committee members noted that the scores ranged from 0.95 to 0.99 and agreed that the measure was adequately reliable. The developer conducted convergent validity testing by examining the correlation between this measure and the HEDIS inpatient hospital utilization measure (IHU). However, the Committee raised concerns that the generalizability of the testing data threatened validity. The Committee agreed that the measure is highly feasible to report given that it is a claims-based measure. During the Use and Usability discussion, Committee members again raised concerns about the generalizability of the sample population to the larger Medicaid population and noted the potential for negative unintended consequences. During the public comment period, the measure developer submitted a request for reconsideration of the Standing Committee's decision not to recommend this measure for endorsement due to concerns about the measure's validity. As the Standing Committee did not have quorum on its post comment call it was unable to discuss this request, an endorsement decision on the measure was deferred until the spring 2019 cycle. During the spring 2019 review cycle, the Committee considered the request, but ultimately upheld its initial decision not to recommend the measure.

3495 Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (Centers for Medicare & Medicaid Services/Yale New Haven Health Services Corporation Center for Outcomes Research and Evaluation):

> The Standing Committee recommended 3495 at the Clinician Group/Practice level of analysis for endorsement but did not recommend for endorsement 3495 at the Individual Clinician level of analysis. During its October 20-21, 2019 meeting, the CSAC returned measure 3495 at the Group Clinician/Practice level of analysis to the Standing Committee for reevaluation and review in Fall 2019 and voted unanimously to uphold the Committee's recommendation for non-endorsement of measure 3495 at the Individual Clinician level of analysis.

Description: This measure is a re-specified version of the hospital-level measure, "Hospital-Wide All-Cause, Unplanned Readmission Measure" (NQF 1789), which was developed for patients who are 65 years or older, are enrolled in fee-for-service (FFS) Medicare and are hospitalized in non-federal hospitals. This re-specified measure attributes hospital-wide index admissions to up to three participating MIPS Eligible Clinicians or Eligible Clinician Groups ("providers"), rather than to hospitals. It assesses each provider's rate of 30-day readmission, which is defined as unplanned, all-cause readmission within 30 days of hospital discharge for any eligible condition. The measure reports a single summary risk adjusted readmission rate (RARR), derived from the volume-weighted results of five different models, one for each of the following specialty cohorts based on groups of discharge condition categories or procedure categories: surgery/gynecology; general medicine; cardiorespiratory; cardiovascular; and neurology.

Measure Type: Outcome; **Level of Analysis**: Clinician : Group/Practice, Clinician : Individual; **Setting of Care**: Inpatient/Hospital; **Data Source**: Claims, Enrollment Data

CLINICIAN: GROUP/PRACTICE LEVEL OF ANALYSIS

The Standing Committee reviewed the logic model presented by the developer demonstrating physician group interventions that can reduce the risk of unplanned hospital visits. Several Standing Committee members agreed that physician groups and ACOs should have the infrastructure to improve admissions and readmissions.

The Standing Committee reviewed the input provided by the NQF Scientific Methods Panel (SMP). The Standing Committee generally agreed with the input from the SMP that the reliability testing methodology was appropriate and that results demonstrated moderate reliability. The Standing Committee noted the SMP's concerns that social risk factors are excluded from the risk model given the effect size and the potential for negative consequences on access to care if this measure is not adequately risk adjusted.

The Standing Committee agreed that the developer should examine other clinical variables such as frailty or functional status. The Standing Committee reviewed the measure score empirical validity testing and face validity testing submitted at the individual physician and physician group levels. The Standing Committee noted that the evidence and validity testing must be evaluated separately for the two levels of analysis. The Committee agreed to vote individually on the two levels of analysis. The Standing Committee noted that eligible clinician groups' risk-adjusted readmission rates go down with increasing Overall Hospital Quality Star Rating and with increasing quintile of the Star Rating readmission quality score. The Committee reviewed the face validity testing and results, the approach to risk adjustment, and the conceptual model for sociodemographic risk adjustment. Committee members had differing views of the face validity of the measure with respect to the role that physician groups have in improving this outcome.

The Standing Committee agreed that the measure uses claims data that can be operationalized; however, the measure is not yet in use. There are no fees, licensing, or requirements to use the measure. The Standing Committee acknowledged that this measure is planned for use in the CMS MIPS program. The Standing Committee noted that this is a new measure and there is no information available on performance improvement. The Standing Committee agreed that the clinician group level of analysis of this measure generally met the NQF criteria of endorsement.

INDIVIDUAL CLINICIAN LEVEL OF ANALYSIS

The Standing Committee reviewed the distribution of risk-adjusted readmission ratios (RARRs) for eligible clinicians' ranges from a mean of 11.4 in the first decile to 19.5 in the tenth decile. Similar to the review of the physician-group specification of this measure, the Standing Committee reviewed the input provided by the NQF Scientific Methods Panel. The Standing Committee generally agreed with the SMP subgroup members that the approach to reliability testing was appropriate. The Standing Committee members generally found the results of reliability testing to be reasonable. The Standing Committee reviewed the validity testing provided by the developer, the risk-adjustment methodology, and the calibration statistics.

The Standing Committee raised several concerns about the individual clinician specifications and testing. Specifically, the Committee was concerned about the attribution approach. The face validity of holding an individual clinician accountable for all-cause hospital readmission raised concern. The Committee was not clear how an individual physician could directly influence these outcomes without collaboration of other physicians and hospital partnerships. There was general agreement that the measure uses claims data that can be operationalized, however, the measure is not yet in use. There are no fees, licensing, or requirements to use the measure. The Standing Committee acknowledged that this measure is planned for use in the CMS MIPS program. The Standing Committee had concerns about the usability of a clinician-level readmission measure and the extent to which it would provide the information necessary to implement targeted quality improvement efforts. The Standing Committee noted that the benefits of the performance measure may not outweigh evidence of unintended negative consequences to individuals or populations given the limited ability of an individual clinician to influence the outcome. The Standing Committee generally agreed that the clinician level of analysis of this measure does not meet the NQF criteria for endorsement.

Measure Withdrawn from Consideration

2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy (Centers for Medicare & Medicaid Services/Yale New Haven Health Services Corporation Center for Outcomes Research and Evaluation): Withdrawn following Committee Discussion

Description: Facility-level risk-standardized rate of acute, unplanned hospital visits within 7 days of a colonoscopy procedure performed at a hospital outpatient department (HOPD) or ambulatory surgical center (ASC) among Medicare Fee-For-Service (FFS) patients aged 65 years and older. An unplanned hospital visit is defined as an emergency department (ED) visit, observation stay, or unplanned inpatient admission. The measure is calculated separately for ASCs, and HOPDs. **Measure Type**: Outcome; **Level of Analysis**: Facility; **Setting of Care**: Outpatient Services; **Data Source**: Claims, Other

The Standing Committee reviewed this measure of hospital visits within 7 days of a colonoscopy procedure performed at a hospital outpatient department (HOPD) or ambulatory surgical center (ASC) among Medicare Fee-For-Service (FFS) patients aged 65 years and older. The measure captures adverse patient outcomes associated with HOPD and ASC care, an important area for quality improvement. The Standing Committee agreed that the measure provides a logic model demonstrating provider-level and facility-level interventions that can to reduce the risk of unplanned hospital visits. These provider-level factors include a protocol for a patient's colonoscopy prep and technical quality of the procedure. The facility-level factors include anesthesia, discharge, and follow-up protocols.

The Standing Committee reviewed the overall 25th to 75th percentile performance range of risk-standardized hospital visit rates per 1000 colonoscopies from 11.8 percent to 12.8 percent, with mean performance of 12.3 percent and generally agreed that there is a narrow performance gap. The Standing Committee reviewed the reliability testing and noted differences in the measure specifications (one year of data) and the three years of simulated signal-to-noise testing data. The Standing Committee requested that the developer consider aligning the testing with the measure specifications and resubmitting the measure using a three-year time frame for consideration in a future review. The Standing Committee noted that this alignment would help facilitate transparency and understanding

among stakeholders and those being measured. The developer agreed to withdraw the measure from consideration and resubmit in a future cycle with testing data and measure specifications using a three-year time frame. Given the withdrawal from the process, voting on the measure was suspended.

The measure was withdrawn from consideration and will be updated and submitted in a future measure review cycle.

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Appendix A: Details of Measure Evaluation

Rating Scale: H=High; **M**=Moderate; **L**=Low; **I**=Insufficient; **NA**=Not Applicable

Measure Recommended – for Clinician Group/Practice Specification Only

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3495 Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System [Clinician Group/Practice LOA]

Submission | Specifications

Description: This measure is a re-specified version of the hospital-level measure, "Hospital-Wide All-Cause, Unplanned Readmission Measure" (NQF 1789), which was developed for patients who are 65 years or older, are enrolled in fee-for-service (FFS) Medicare and are hospitalized in non-federal hospitals.

This re-specified measure attributes hospital-wide index admissions to up to three participating MIPS Eligible Clinicians or Eligible Clinician Groups ("providers"), rather than to hospitals. It assesses each provider's rate of 30-day readmission, which is defined as unplanned, all-cause readmission within 30 days of hospital discharge for any eligible condition.

The measure reports a single summary risk adjusted readmission rate (RARR), derived from the volume-weighted results of five different models, one for each of the following specialty cohorts based on groups of discharge condition categories or procedure categories: surgery/gynecology; general medicine; cardiorespiratory; cardiovascular; and neurology, each of which will be described in greater detail below.

Numerator Statement: The outcome for this measure is readmission within 30-days of a hospital discharge. We define readmission as an inpatient admission for any cause, except for certain planned readmissions, within 30 days from the date of discharge from an eligible index admission.

Denominator Statement: The measure includes admissions for Medicare beneficiaries who are 65 years and older and are discharged from any non-federal, acute care inpatient US hospitals (including territories) with Medicare part A enrollment for the 12 months prior to admission and part A enrollment for the 30 days after discharge. These are called 'index admissions'

Outcome attribution:

Each index admission is attributed to up to 3 eligible clinicians or eligible clinician groups.

1) One is the eligible clinician who filed a claim for the 'discharge procedure' (CPT code 99238 or 99239) for the patient; conceptually, this clinician is measured because, having billed for the discharge of the patient, they have some responsibility for the transition of the patient to non-acute settings.

2) Second is the eligible clinician who, during the inpatient stay, billed the most patient-facing charges; conceptually, this clinician has the most responsibility for the care of patients during their stay and may also be the Discharge Clinician.

3) Third is the eligible clinician that provides the plurality of outpatient primary care during the 12 months prior to the admission, as measured by plurality of primary care services; conceptually, a primary care provider may manage the transition from acute to non-acute care and participate in decisions to return to acute care.

Index admissions are attributed to a clinician by each of these rules; two or all three rules may attribute the index admission to the same clinician. Then, all admissions assigned to an eligible clinician are used

to construct a single measure score for that clinician, regardless of the reason the admission was attributed. The measure has also been tested for eligible clinician groups, implemented here by grouping eligible clinicians who use the same Taxpayer Identification Number (TIN).

Exclusions: From the cohort, we exclude admissions if:

1. The patient is discharged against medical advice (AMA)
2. The patient is discharged from a PPS-exempt cancer hospital
3. The patient is admitted primarily for the medical treatment of cancer
4. The patient is admitted primarily for the treatment of psychiatric disease
5. The patient is admitted primarily for "rehabilitation care; fitting of prostheses and adjustment devices" (CCS 254)
6. Admissions without 30 Days of Post-Discharge Enrollment are excluded
7. Admissions cannot be identified in IDR database
8. The admission cannot be attributed to an eligible clinician.

Further exclusion details can be found in S.9 Denominator Exclusion Details

Adjustment/Stratification: Statistical risk model

Level of Analysis: Clinician: Group/Practice

Setting of Care: Inpatient/Hospital

Type of Measure: Outcome

Data Source: Claims, Enrollment Data

Measure Steward: Centers for Medicare & Medicaid Services (CMS)

STANDING COMMITTEE MEETING [June 21, 2019]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-14**; **N-2**; 1b. Performance Gap: **H-0**; **M-15**; **L-1**; **I-0**

Rationale:

- This is a re-specified version of the hospital-level measure, "Hospital-Wide All-Cause, Unplanned Readmission Measure" (NQF 1789). NQF 1789 was developed for patients who are 65 years or older, are enrolled in fee-for-service (FFS) Medicare and are hospitalized in non-federal hospitals. This specified measure attributes admissions to up to three participating MIPS eligible clinicians.
- The Standing Committee reviewed the logic model presented by the developer demonstrating physician group interventions that can reduce the risk of unplanned hospital visits.
- The Standing Committee reviewed the range of performance for clinician groups from 13.1 in the first decile to 18.0 in the tenth decile.

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2. Scientific Acceptability of Measure Properties: The measure meets the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-0**; **M-13**; **L-2**; **I-1**; 2b. Validity: **H-0**; **M-10**; **L-6**; **I-0**

Rationale:

- The Standing Committee reviewed the input provided by the NQF Scientific Methods Panel (SMP).
- The Standing Committee generally agreed with the input from the SMP that the reliability testing methodology was appropriate and that results demonstrated moderate reliability. The Standing Committee noted SMP concerns that social risk factors are excluded from the risk model given the effect size and the potential for negative consequences on access to care if this measure is not adequately risk adjusted. The Standing Committee agreed that the developer should examine other clinical variables that could underlie disparities such as frailty or functional status.
- The Standing Committee reviewed the measure score empirical validity testing and face validity testing submitted at the individual physician and physician group level. The Standing Committee noted that the evidence and validity testing must be evaluated separately for the two levels of analysis. The Committee agreed to vote individually on the two levels of analysis.
- The Standing Committee noted that eligible clinician groups' risk adjusted readmission rates go down with increasing Overall Hospital Quality Star Rating and with increasing quintile of the Star Rating readmission quality score.
- The Committee reviewed the Face Validity testing and results, the approach to risk adjustment and the conceptual model for socio-demographic risk adjustment.
- The Standing Committee had a mixed review of the face validity of the measure, specifically, the role physician groups have in improving this outcome.

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3. Feasibility: H-6; M-9; L-1; I-0

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/ unintended consequences identified; 3d. Data collection strategy can be implemented)

Rationale:

- The Standing Committee agreed that the measure uses claims data that can be operationalized; however, the measure is not yet in use. There are no fees, licensing, or requirements to use the measure.

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4. Usability and Use:

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

4a. Use**: Pass-14; No Pass-2**; 4b. Usability: **H-1; M-11; L-4; I-0**

Rationale:

- The Standing Committee acknowledged that this measure is planned for use in the CMS MIPS program.
- The Standing Committee noted that this is a new measure and there is no information available on performance improvement. This measure is not currently used in a program, but a primary goal of the measure is to provide information necessary to implement focused quality improvement efforts. Once the measure is implemented, the developer plans to examine trends in improvements by comparing RSRR over time.

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5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Yes-11**; **No-5**

Rationale

- The Committee noted that the measure passed each of the criteria and is suitable for continued endorsement.

6. Public and Member Comment

7. Consensus Standards Approval Committee (CSAC) Endorsement Decision: N/A (October, 21, 2019: [Endorsed or Not Endorsed – N/A])

Measure 3495 *Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate* was recommended at the Clinician: Group level of analysis. During the Committee's post-comment call on October 2, 2019 in response to questions concerning the testing and comments provided during the public comment period, the developer accidently provided incorrect information on the reliability results as the Committee was preparing to vote on whether to reconsider the measure. While the Committee did vote to uphold their recommendation for endorsement, the vote was extremely close. After the call, the developer provided the correct reliability results in writing (which had also been provided in their original submission). In consultation with the developers and the Committee co-chairs, NQF staff decided to return measure 3495 to the Committee for re-evaluation at the Clinician: Group level of analysis, during the Fall 2019 cycle, due to concerns that the incorrect information provided may have influenced the Committee's vote.

Though not required to vote on the decision to return the measure for evaluation, the CSAC agreed with the rationale to send 3495 back to the Standing Committee during the Fall 2019 cycle at the Clinician Group/practice level of analysis only and noted no concerns with the non-recommendation of 3495 at the individual clinician level of analysis.

8. Appeals

Measure Not Recommended – for Individual Clinician Specification only

3495 Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System [Individual Clinician LOA]

Submission | Specifications

Description: This measure is a re-specified version of the hospital-level measure, "Hospital-Wide All-Cause, Unplanned Readmission Measure" (NQF 1789), which was developed for patients who are 65 years or older, are enrolled in fee-for-service (FFS) Medicare and are hospitalized in non-federal hospitals.

This re-specified measure attributes hospital-wide index admissions to up to three participating MIPS Eligible Clinicians or Eligible Clinician Groups ("providers"), rather than to hospitals. It assesses each

provider's rate of 30-day readmission, which is defined as unplanned, all-cause readmission within 30 days of hospital discharge for any eligible condition.

The measure reports a single summary risk adjusted readmission rate (RARR), derived from the volume-weighted results of five different models, one for each of the following specialty cohorts based on groups of discharge condition categories or procedure categories: surgery/gynecology; general medicine; cardiorespiratory; cardiovascular; and neurology, each of which will be described in greater detail below.

Numerator Statement: The outcome for this measure is readmission within 30-days of a hospital discharge. We define readmission as an inpatient admission for any cause, except for certain planned readmissions, within 30 days from the date of discharge from an eligible index admission.

Denominator Statement: The measure includes admissions for Medicare beneficiaries who are 65 years and older and are discharged from any non-federal, acute care inpatient US hospitals (including territories) with Medicare part A enrollment for the 12 months prior to admission and part A enrollment for the 30 days after discharge. These are called 'index admissions'

Outcome attribution:

Each index admission is attributed to up to 3 eligible clinicians or eligible clinician groups.

1) One is the eligible clinician who filed a claim for the 'discharge procedure' (CPT code 99238 or 99239) for the patient; conceptually, this clinician is measured because, having billed for the discharge of the patient, they have some responsibility for the transition of the patient to non-acute settings.

2) Second is the eligible clinician who, during the inpatient stay, billed the most patient-facing charges; conceptually, this clinician has the most responsibility for the care of patients during their stay and may also be the Discharge Clinician.

3) Third is the eligible clinician that provides the plurality of outpatient primary care during the 12 months prior to the admission, as measured by plurality of primary care services; conceptually, a primary care provider may manage the transition from acute to non-acute care and participate in decisions to return to acute care.

Index admissions are attributed to a clinician by each of these rules; two or all three rules may attribute the index admission to the same clinician. Then, all admissions assigned to an eligible clinician are used to construct a single measure score for that clinician, regardless of the reason the admission was attributed. The measure has also been tested for eligible clinician groups, implemented here by grouping eligible clinicians who use the same Taxpayer Identification Number (TIN).

Exclusions: From the cohort, we exclude admissions if:

1. The patient is discharged against medical advice (AMA)
2. The patient is discharged from a PPS-exempt cancer hospital
3. The patient is admitted primarily for the medical treatment of cancer
4. The patient is admitted primarily for the treatment of psychiatric disease
5. The patient is admitted primarily for "rehabilitation care; fitting of prostheses and adjustment devices" (CCS 254)
6. Admissions without 30 Days of Post-Discharge Enrollment are excluded
7. Admissions cannot be identified in IDR database
8. The admission cannot be attributed to an eligible clinician.

Further exclusion details can be found in S.9 Denominator Exclusion Details

Adjustment/Stratification: Statistical risk model

Level of Analysis: Clinician: Individual

Setting of Care: Inpatient/Hospital

Type of Measure: Outcome

Data Source: Claims, Enrollment Data

Measure Steward: Centers for Medicare & Medicaid Services (CMS)

STANDING COMMITTEE MEETING [June 21, 2019]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-11**; **N-5**; 1b. Performance Gap: **H-0**; **M-11**; **L-4**; **I-1**;

Rationale:

- The Standing Committee reviewed the distribution of risk adjusted readmission ratios (RARRs) for eligible clinician's ranges from a mean of 11.4 in the first decile to 19.5 in the tenth decile

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2. Scientific Acceptability of Measure Properties: The measure does not meet the Scientific Acceptability criteria

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-0**; **M-8**; **L-5**; **I-3**; 2b. Validity: **H-0**; **M-5**; **L-10**; **I-1**

Rationale:

- Similar to the review of the physician-group specification of this measure, the Standing Committee reviewed the input provided by the NQF Scientific Methods Panel (SMP).
- The Standing Committee generally agreed with the SMP subgroup members that the approach to reliability testing was appropriate. The Standing Committee members generally found the results of reliability testing to be reasonable.
- Similar to the Validity summary provided above the Standing Committee reviewed the validity testing provided by the developer, the risk adjustment methodology, and the calibration statistics.
- The Standing Committee raised several concerns about the individual clinician specifications and testing. Specifically, the Committee was concerned about the attribution approach. The face validity of holding an individual clinician accountable for all-cause hospital readmission raised concern with the Standing Committee. The Committee was not clear how an individual physician could directly influence these outcomes without collaboration of other physicians and hospital partnerships.

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3. Feasibility: H-X; M-X; L-X; I-X: The Standing Committee did not vote on this criteria since the measure did not pass Scientific Acceptability

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c. Susceptibility to inaccuracies/ unintended consequences identified; 3d. Data collection strategy can be implemented)

Rationale:

- The Standing Committee generally agreed that the measure uses claims data that can be operationalized; however, the measure is not yet in use. There are no fees, licensing, or requirements to use the measure.

4. Usability and Use: <u>The Standing Committee did not vote on this criteria since the measure did not pass Scientific Acceptability</u>

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

4a. Use**: Pass-X; No Pass-X**; 4b. Usability: **H-X; M-X; L-X; I-X**

<u>Rationale</u>:

- The Standing Committee acknowledged that this measure is planned for use in the CMS MIPS program.
- The Standing Committee had concerns about the usability of a clinician-level readmission measure to information necessary to implement focused quality improvement efforts. The Standing Committee noted that the benefits of the performance measure may not outweigh evidence of unintended negative consequences to individuals or populations given the locus of control of an individual clinician to the outcome.

5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Yes-X**; **No-X**

<u>Rationale</u>

6. Public and Member Comment

7. Consensus Standards Approval Committee (CSAC) Endorsement Decision: Yes-12; No-0 (October 21, 2019: [Not Endorsed])

The CSAC voted unanimously to uphold the Committee's recommendation not to endorse 3495 at the individual clinician level of analysis and noted no concerns with the non-recommendation of 3495 at the individual clinician level of analysis.

8. Appeals

Measure Withdrawn

2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy

Submission

Description: Facility-level risk-standardized rate of acute, unplanned hospital visits within 7 days of a colonoscopy procedure performed at a hospital outpatient department (HOPD) or ambulatory surgical center (ASC) among Medicare Fee-For-Service (FFS) patients aged 65 years and older. An unplanned hospital visit is defined as an emergency department (ED) visit, observation stay, or unplanned inpatient admission. The measure is calculated separately for ASCs, and HOPDs.

Numerator Statement: Unplanned hospital visits within 7 days of a qualifying colonoscopy.

Denominator Statement: Colonoscopies performed at hospital outpatient departments (HOPDs) and ambulatory surgical centers (ASCs) for Medicare FFS patients aged 65 years and older.

Exclusions: S.4. Numerator Statement: Unplanned hospital visits within 7 days of a qualifying colonoscopy.

S.6. Denominator Statement: Colonoscopies performed at hospital outpatient departments (HOPDs) and ambulatory surgical centers (ASCs) for Medicare FFS patients aged 65 years and older.

S.8. Denominator Exclusions: We established the following exclusion criteria after reviewing the literature, examining existing measures, discussing alternatives with the working group and technical expert panel (TEP) members, and reviewing feedback from the national dry run held in July 2015. The goal was to be as inclusive as possible; we excluded only those high-risk procedures and patient groups for which risk adjustment would not be adequate or for which hospital visits were not typically a quality signal. The exclusions, based on clinical rationales, prevent unfair distortion of performance results.

1) Colonoscopies for patients who lack continuous enrollment in Medicare FFS Parts A and B in the 7 days after the procedure.

Rationale: We exclude these patients to ensure full data availability for outcome assessment.

2) Colonoscopies that occur concurrently with high-risk upper gastrointestinal (GI) endoscopy procedures.

Rationale: Patients undergoing concurrent high-risk upper GI endoscopy procedures, such as upper GI endoscopy procedures for the control of bleeding or treatment of esophageal varices, and have a higher risk profile than typical colonoscopy patients. Therefore, these patients have a disproportionally higher risk for the outcome.

3) Colonoscopies for patients with a history of inflammatory bowel disease (IBD) or diagnosis of IBD at time of index colonoscopy or on the subsequent hospital visit outcome claim.

Rationale: We exclude these patients because:

-IBD is a chronic condition; patients with IBD undergo colonoscopy both for surveillance due to increased cancer risk and for evaluation of acute symptoms. IBD is likely to be coded as the primary diagnosis prompting the procedure irrespective of whether the patients are undergoing a screening procedure or a diagnostic procedure in the setting of an acute exacerbation of IBD. Therefore, we may not be able to adequately risk adjust for these patients, as we cannot identify relatively well versus acutely unwell patients among visits coded as IBD.

-Our aim is to capture hospital visits which reflect the quality of care. Admissions for acutely ill IBD patients who are evaluated with an outpatient colonoscopy and are subsequently admitted for medical treatment of an IBD flare do not reflect the quality of the colonoscopy. In our 2010 Medicare 20% FFS

Full Development Sample (see the 2014 Facility 7-day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy Measure Technical Report posted at https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier3&cid=1228775197506) for full description of the dataset), more than one-third of IBD patients admitted to the hospital with colonoscopy had a discharge diagnosis of IBD, indicating their admission was for medical treatment of their IBD. We therefore excluded this group so that providers who treat a disproportionate number of IBD patients will not be disadvantaged in the measure.

-A post-index diagnosis of IBD, which represents a very small fraction of cases (less than 0.5% of the cohort) in the measure population, indicates that the condition was likely present at the time of the index colonoscopy but not coded.

4) Colonoscopies for patients with a history of diverticulitis or diagnosis of diverticulitis at time of index colonoscopy or on the subsequent hospital visit outcome claim.

Rationale: We exclude these patients because:

-It is unclear what the health status is of patients coded with a history or current diagnosis of diverticulitis, making it difficult to fully risk adjust for patients' health. Colonoscopies performed on patients with a history or current diagnosis of diverticulitis are likely to be coded as diverticulitis as the primary diagnosis irrespective of whether the patients are undergoing a screening procedure or a diagnostic procedure (i.e., are acutely unwell with active disease). Furthermore, the codes for diverticulitis and diverticulosis may not be consistently used; patients with diverticulosis may be erroneously coded as diverticulitis. Therefore, we may not be able to adequately risk adjust as we cannot identify relatively well versus acutely unwell patients among visits coded as diverticulitis.

-Admissions for acutely ill patients with a history or current diagnosis of diverticulitis who are evaluated with an outpatient colonoscopy and are subsequently admitted for medical treatment of do not reflect the quality of the colonoscopy. In our 2010 Medicare 20% FFS Full Development Sample (see the Facility 7-day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy Measure Technical Report posted on the web page provided in data field S.1) more than one-quarter of patients with a history or current diagnosis of diverticulitis admitted to the hospital post colonoscopy had a discharge diagnosis of diverticulitis, indicating they were admitted for medical treatment of the condition. These admissions are likely unrelated to the quality of the colonoscopy. We therefore excluded this group so that providers who treat a disproportionate number of diverticulitis patients will not be disadvantaged in the measure.

-A post-index diagnosis of diverticulitis, which represents a very small fraction of cases (less than 0.5% of the cohort) in the measure population, indicates that the condition was likely present at the time of the index colonoscopy but not coded.

5) Colonoscopies that occur on the same hospital claim as an ED visit, unless the ED visit has a diagnosis indicative of a complication of care (applies to colonoscopies at HOPDs only).

Rationale: We exclude these patients because:

-The sequence of events in these cases is not clear. It is not possible to use claims data to determine whether the colonoscopy was the cause of, subsequent to, or during the ED visit.

6) Colonoscopies that occur on the same day and at the same hospital as an ED visit that is billed on a separate claim than the index colonoscopy, unless the ED visit has a diagnosis indicative of a complication of care (applies to colonoscopies at HOPDs only).

Rationale: We exclude these patients because:

-It is unclear whether the same-day ED visit occurred before or after the colonoscopy. However, for ED visits billed on the same day but at a different facility, it is unlikely that a patient would experience an ED

visit for an acute diagnosis at one facility and then travel to another facility for a routine colonoscopy on the same day. Therefore, these colonoscopies are not excluded because they likely represent a routine procedure followed by a complication of care.

7) Colonoscopies that occur on the same hospital outpatient claim as an observation stay (applies to colonoscopies at HOPDs only).

Rationale: We exclude these patients because:

-The sequence of events in these cases is not clear. It is not possible to use claims data to determine whether the colonoscopy was the cause of, subsequent to, or during the observation stay.

8) Colonoscopies followed by a subsequent outpatient colonoscopy procedure within 7 days.

Rationale: We exclude these patients because:

-The two colonoscopies are considered part of a single episode of care, for which the subsequent colonoscopy is considered the index procedure.

Adjustment/Stratification: Statistical risk model

Level of Analysis: Facility

Setting of Care: Outpatient Services

Type of Measure: Outcome

Data Source: Claims, Other

Measure Steward: Centers for Medicare & Medicaid Services

STANDING COMMITTEE MEETING [June 20, 2019]

1. Importance to Measure and Report: <u>The Standing Committee did not vote as the measure was withdrawn</u>

(1a. Evidence, 1b. Performance Gap)

1a. Evidence: **Y-X; N-X**; 1b. Performance Gap: **H-X**; **M-X**; **L-X**; **I-X;**

<u>Rationale</u>:

- The Standing Committee reviewed this measure of hospital visits within 7 days of a colonoscopy procedure performed at a hospital outpatient department (HOPD) or ambulatory surgical center (ASC) among Medicare Fee-For-Service (FFS) patients aged 65 years and older captures adverse patient outcomes associated with HOPD and ASC care and an important area for quality improvement.
- The Standing Committee agreed that the measure provides a logic model demonstrating provider-level and facility-level interventions that can reduce the risk of unplanned hospital visits.
- These provider-level factors include protocol for patient's colonoscopy prep, and technical quality of the procedure. The facility-level factors include anesthesia, discharge, and follow-up protocols.
- The Standing Committee reviewed the overall 25th to 75th percentile performance range of risk-standardized hospital visit rates per 1000 colonoscopies from 11.8% to 12.8%, with mean performance of 12.3% and agreed that there is a narrow performance gap.

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2. Scientific Acceptability of Measure Properties: <u>The Standing Committee did not vote as the measure was withdrawn</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity)

2a. Reliability: **H-X**; **M-X**; **L-X**; **I-X**; 2b. Validity: **H-X**; **M-X**; **L-X**; **I-X**

Rationale:

- The Standing Committee reviewed the reliability testing and noted differences in the measure specifications (one year of data) and the three years of simulated signal-to-noise testing data. The Standing Committee requested that the developer consider aligning the testing with the measure specifications and resubmit the measure using a three year time frame for consideration in a future cycle of measure review.
- The Standing Committee noted that this alignment would help facilitate transparency and understanding among stakeholders and those being measured.
- The developer agreed to withdraw the measure from consideration and resubmit in a future cycle with testing data and measure specifications using a three year time frame. Given the withdrawal from the process, voting on the measure was suspended.
- The measure was withdrawn from consideration and will be updated and submitted in a future measure review cycle.

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3. Feasibility: H-X; M-X; L-X; I-X: The Standing Committee did not vote as the measure was withdrawn

(3a. Clinical data generated during care delivery; 3b. Electronic sources; 3c.Susceptibility to inaccuracies/ unintended consequences identified; 3d. Data collection strategy can be implemented)

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4. Usability and Use: The Standing Committee did not vote as the measure was withdrawn

(Used and useful to the intended audiences for 4a. Accountability and Transparency; 4b. Improvement; and 4c. Benefits outweigh evidence of unintended consequences)

4a. Use**: Pass-X; No Pass-**X; 4b. Usability: **H-X; M-X; L-X; I-X**

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5. Related and Competing Measures

- No related or competing measures noted.

Standing Committee Recommendation for Endorsement: **Yes-X**; **No-X**

Rationale:

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6. Public and Member Comment

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7. Consensus Standards Approval Committee (CSAC) Endorsement Decision: N/A

The CSAC did not vote as measure 2539 was withdrawn by the developer during the Committee evaluation period prior to an endorsement decision. CSAC members did have questions about 2539, noting that it is currently one of the only measures in use in the ASCs and outpatient quality reporting programs, and that it's being used at the one-year reporting level, which is valuable to consumers. The CSAC member asked why the Committee did not ask the developer to update the specifications to match the testing, rather than not recommending it. Committee co-chair Dr. Bulger noted that the measure was withdrawn by the developer before they could make a decision. The developer was on the

line and explained that during the time they were submitting the measure to NQF, CMS changed the specification to a three-year measure. The reliability results are much stronger at a three-year level and that is the version that will be reported publicly in the near future, so the developer elected to withdraw the measure until they can update it. CSAC agreed with this rationale but noted the importance of more frequent reporting for consumers. CSAC members encouraged CMS to consider this in the future, noting the extremely limited information about safety and quality in outpatient settings; further, they noted that annual results are much more helpful for facilities themselves to help improve quality more rapidly.

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8. Appeals

3443 All-Cause Emergency Department Utilization Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs)

Submission

Description: All-cause emergency department (ED) utilization rate for adult Medicaid beneficiaries who meet BCN population eligibility criteria. The measure is calculated as the number of ED visits per 1,000 beneficiary months and is intended to be reported at the state level.

For the purpose of this measure, the BCN population is defined as Medicaid beneficiaries who are age 18 to 64 during the lookback year (the 12 months prior to the measurement year) and the measurement year and have at least one inpatient admission and at least two chronic conditions, as defined by the Chronic Conditions Data Warehouse (CCW), during the lookback year. Beneficiaries dually enrolled in Medicaid and Medicare and beneficiaries who had fewer than 10 months of Medicaid eligibility in the lookback year are not included in the analytic sample because we did not have enough utilization data to include them in testing. We further limited the analytic file to beneficiaries that met the BCN definition criteria described above.

Numerator Statement: The number of ED visits in the measurement year among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

Denominator Statement: Number of Medicaid-eligible months ("beneficiary months") among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

Exclusions: N/A

Adjustment/Stratification: Statistical risk model

Level of Analysis: Population : Regional and State

Setting of Care: Emergency Department and Services

Type of Measure: Outcome

Data Source: Claims

Measure Steward: Centers for Medicare & Medicaid Services, Centers for Medicaid & CHIP Services

STANDING COMMITTEE MEETING [2/7/2019]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence: 1b. Performance Gap)

1a. Evidence: **Y-17; N-0** 1b. Performance Gap: **H-4; M-13; L-0; I-0**

Rationale:

- This measure of emergency department utilization for Medicaid beneficiaries with complex care needs and high costs (BCNs) assesses a heterogeneous population with disproportionately high use of inpatient and ED use.
- The developer noted that improvement on this outcome may involve strengthening beneficiaries' relationships with health care providers in the community, improved care coordination, and chronic disease management.

- The developer demonstrates an adjusted performance range of 109.5 admissions per 1,000 beneficiary months to 322.0 admissions per 1,000 beneficiary months.
- The Committee agreed there was evidence that the measured entity could influence the outcome. Specifically, the developer cited several studies demonstrating that emergency department visits in complex patients could be reduced through improved care management and agreed there was variation in performance. The Committee also noted that emergency department use at the population or plan level is directly related to the inability to access care in the community.
- The Committee generally agreed that there was a performance gap in the focus area of this measure.

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2. Scientific Acceptability of Measure Properties: <u>The measure does not meet the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity

2a. Reliability: **H-3; M-11; L-1; I-0** 2b. Validity: **H-0; M-3; L-8; I-4**

<u>Rationale</u>:

- The developer conducted signal-to-noise (SNR) reliability testing for this measure using MAX data from 10 states. Average signal-to-noise reliability estimate was 0.92 (ranging between 0.59 to 0.99 across the ten states in the sample).
- Committee members raise concerns about the measure's generalizability to all 50 states, given the representativeness of the data used in testing.
- The Committee raised several concerns under the validity sub-criterion. The Committee noted that the developer tested the validity of the measure using a face validity test. The Committee was concerned that only 11 out of the 17 TEP members responded to whether the measure was a good indicator of quality.
- The risk-adjustment approach was developed using data from 10 states. The risk-adjustment model included 69 risk factors. While the measure demonstrated adequate discrimination and calibration of the risk adjustment model, the Committee expressed concerns that the variability of the underlying patient population could present a threat to validity.
- The developer noted that they included all predictors that were theoretically associated with the measure, including those that were not statistically significant or "protective" in nature. The developer stated that in general, the risk factors associated with a lower adjusted risk of ED utilization reflected more serious conditions (e.g. colorectal cancer). This lower risk likely reflects higher substitution away from ED care towards inpatient care. Because BCN-1 will ultimately be paired with a measure of inpatient care, the developer believed it was important to include the "protective" risk factors in the BCN-1 risk adjustment model.
- The data set used to develop the measure is not necessarily representative of the country or the population that the measure is intended to be applied. Of the 50 states, 34 were excluded due to data issues.
- Further, the Committee discussed that there is significant variation in the eligible population for this measure due to the differences in the Medicaid populations between states. Thus, applying this measure to the heterogeneous Medicaid populations across states makes differences in measure performance across states difficult to interpret. Are the differences due to actual health system performance differences or are the differences due to underlying differences in the Medicaid populations? The inability for the developer to distinguish this brought into question the validity of the measure as currently constructed.

- Committee members did agree there are real differences in both performance and quality between states, but ultimately believed that the threats to validity were too strong and the measure did not pass this criterion.

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3. Feasibility: H-X; M-X; L-X; I-X

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

Rationale:

- The Committee agreed the measure is feasible to report given that it is a claims-based measure. The Committee did note concerns with Medicaid churn since the measure is constructed to include patients who had coverage for ten months, and that may exclude a large number of people in some states.

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4. Use and Usability

(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)

4a. Use: **Y-X; N-X** 4b. Usability: **H-X; M-X; L-X; I-X**

Rationale:

- During the Use and Usability discussion, the Committee members raised concerns about the generalizability of the data and the impact that may have on the usefulness of the measure.

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5. Related and Competing Measures

- No related or competing measures noted.

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6. Standing Committee Recommendation for Endorsement: **Y-X**; **N-X**

Rationale

- The Standing Committee does not recommend this measure for endorsement due to concerns about the measure's validity. Because quorum was not reached during the meeting, each criterion was discussed and voting was completed later. Validity is a must-pass criterion; therefore, subsequent votes for remaining criteria are not captured.

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7. Public and Member Comment

- The steward and developer of this measure submitted a request for reconsideration based on an inappropriate application of the validity subcriterion.
- The measure steward and developer responded to the Committee's concerns about the measures' validity. Specifically, they commented on the Committee's concern about differences in Medicaid populations across states, whether the measure was tested with a representative data sample, and the data quality.

- The measure steward and developer provided several clarifications regarding the differences in Medicaid populations across states. They recognized that state Medicaid programs vary substantially both in the covered populations and the quality of data reported to CMS. However, these variations are due to the design of Medicaid of federal-state partnership, and the developer raised concerns that the Committee's emphasis on state variation in Medicaid program created an unrealistic standard for validity.
- The steward and developer noted that they believe the measure was tested using a robust data sample for assessing measure performance. They noted the states providing data varied in location, geography, size, and delivery system (fee-for-service or managed care) while still providing high-quality data. Additionally, they commented that the differences across Medicaid programs due to eligibility policies, mix of delivery models, payment rates, and other features, make it challenging for any sample to be representative of all 50 states. The steward and developer commented that the goal of measure testing is to select a diverse group of states that have high-quality data and whose populations capture, for the key variables in question, the majority of the variation that also occurs within other states. They also clarified that the measure specifications were designed to maximize the likelihood that states could define the denominator population consistently.
- Finally, the steward and developer responded to the Committee's concerns about data quality. The developer worked to evaluate the quality of relevant data in all the states and selected those states whose data met our quality standards. Specifically, the states chosen for testing had indicators that aligned with national inpatient and emergency utilization benchmarks and did not have data anomalies that would raise analytic problems (such as high levels of missing data). Further, NQF has endorsed measures in the past that were tested with Medicaid data from the same data source. The measure steward and developer noted that they do not believe that state variation in data quality should be a key factor in determining suitability of Medicaid measures for endorsement as long as the data used for development is of sufficient quality. Additionally, they noted that even perfect data from all states will not change the fact that state Medicaid programs have differences in design and operational features.
- The Standing Committee did not have quorum on the post comment call and was unable to discuss the request for reconsideration.
- To allow the Standing Committee time to consider the request for reconsideration, an endorsement decision on the measure has been deferred until the Spring 2019 review cycle.
- During the Spring 2019 measure evaluation webinars, which were held on June 20 and 21, 2019, quorum was not achieved. As a result, the Committee voted on whether or not to reconsider the measures via an online SurveyMonkey. After a review of the submitted materials, the Committee generally agreed that the additional information did not adequately address their concerns. Committee members noted challenges with the data variability and a more standardized data collection approach was required for the measures to be ready for endorsement. The Committee voted not to reconsider (Y-4; N-14).

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8. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X (Month, Day, Year): [Endorsed or Not Endorsed])

3445 All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs)

Submission

Description: All-cause inpatient admission rate for adult Medicaid beneficiaries who meet BCN population eligibility criteria. The measure is calculated as the number of inpatient admissions per 1,000 beneficiary months and is intended to be reported at the state level.

For the purpose of this measure, the BCN population is defined as Medicaid beneficiaries who are age 18 to 64 during the lookback year (the 12 months prior to the measurement year) and the measurement year and have at least one inpatient admission and at least two chronic conditions, as defined by the Chronic Conditions Data Warehouse (CCW), during the lookback year. Beneficiaries dually enrolled in Medicaid and Medicare and beneficiaries who had fewer than 10 months of Medicaid eligibility in the lookback year are not included in the analytic sample because we did not have enough utilization data to include them in testing. We further limited the analytic file to beneficiaries that met the BCN definition criteria described above.

Numerator Statement: The sum of unique inpatient admissions and observation stays in the measurement year among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

Denominator Statement: Number of Medicaid-eligible months ("beneficiary months") among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

Exclusions: Not applicable

Adjustment/Stratification: Statistical risk model

Level of Analysis: Population: Regional and State

Setting of Care: Inpatient/Hospital

Type of Measure: Outcome

Data Source: Claims

Measure Steward: Centers for Medicare & Medicaid Services, Centers for Medicaid & CHIP Services

STANDING COMMITTEE MEETING [2/7/2019]

1. Importance to Measure and Report: The measure meets the Importance criteria

(1a. Evidence: 1b. Performance Gap)

1a. Evidence: **Y-17; N-0** 1b. Performance Gap: **H-4; M-13; L-0; I-0**

Rationale:

- The Committee agreed that the issues raised for #3443 are similar to the issues for #3445.
- The Committee agreed there was evidence the measure entity could influence the outcome, citing evidence showing multiple interventions that could decrease inpatient utilization of complex patients with appropriate managed care.
- To support the evidence of a performance gap, the developers cited both disparities in terms of race and ethnicity in performance for admission rates.
- The Committee also noted variation in performance across states.

2. Scientific Acceptability of Measure Properties: <u>The measure does not meet the Scientific Acceptability criteria</u>

(2a. Reliability - precise specifications, testing; 2b. Validity - testing, threats to validity

2a. Reliability: **H-3; M-12; L-0; I-0** 2b. Validity: **H-0; M-6; L-7; I-2**

<u>Rationale</u>:

- The developer conducted signal-to-noise (SNR) reliability testing using MAX data from 10 states. Committee members noted the scores ranged from 0.95 to 0.99 and agreed that the measure demonstrated adequate reliability testing.
- The developer conducted convergent validity testing by examining the correlation between this measure and the HEDIS inpatient hospital utilization measure (IHU).
- The Committee raised a number of points about the validity of this measure. The data set used to develop the measure is not necessarily representative of the country or the population that the measure is intended to be applied. Of the 50 states, 34 were excluded due to data issues.
- Further, the Committee discussed the significant variation in the eligible population for this measure between states – due to the differences in the Medicaid populations between states. Thus, applying this measure to the heterogeneous Medicaid populations across states makes differences in measure performance across states difficult to interpret. Are the differences due to actual health system performance differences or are the differences due to underlying differences in the Medicaid populations? The inability for the developer to distinguish this brought into question the validity of the measure as currently constructed.
- Committee members did agree there are real differences in both performance and quality between states, but ultimately believed that the threats to validity were too strong and the measure did not pass this criterion.

3. Feasibility: H-X; M-X; L-X; I-X

(3a. Data generated during care; 3b. Electronic sources; and 3c. Data collection can be implemented (eMeasure feasibility assessment of data elements and logic)

<u>Rationale</u>:

- The Committee agreed the measure is highly feasible to report, given that it is a claims-based measure.

4. Use and Usability

(4a. Use; 4a1. Accountability and transparency; 4a2. Feedback on the measure by those being measured and others; 4b. Usability; 4b1. Improvement; 4b2. The benefits to patients outweigh evidence of unintended negative consequences to patients)

4a. Use: **Y-X; N-X** 4b. Usability: **H-X; M-X; L-X; I-X**

<u>Rationale</u>:

- During the Use and Usability discussion, the Committee members again raised concerns about the generalizability of the data and noted the potential for negative unintended consequences.

5. Related and Competing Measures

- No related or competing measures noted.

6. Standing Committee Recommendation for Endorsement: **Y-X**; **N-X**

Rationale

- The Standing Committee does not recommend this measure for endorsement due to concerns about the measure's validity. Because quorum was not reached during the meeting, each criterion was discussed, and voting was completed later. Validity is a must-pass criterion; therefore, subsequent votes for remaining criteria are not captured.

7. Public and Member Comment

- The steward and developer of this measure submitted a request for reconsideration based on an inappropriate application of the validity subcriterion.
- The measure steward and developer responded to the Committee's concerns about the measures' validity. Specifically, they commented on the Committee's concern about differences in Medicaid populations across states, whether the measure was tested with a representative data sample, and the data quality.
- The measure steward and developer provided several clarifications regarding the differences in Medicaid populations across states. They recognized that state Medicaid programs vary substantially both in the covered populations and the quality of data reported to CMS. However, these variations are due to the design of Medicaid of federal-state partnership, and the developer raised concerns that the Committee's emphasis on state variation in Medicaid program created an unrealistic standard for validity.
- The steward and developer noted that they believe the measure was tested using a robust data sample for assessing measure performance. They noted the states providing data varied in location, geography, size, and delivery system (fee-for-service or managed care) while still providing high-quality data. Additionally, they commented that the differences across Medicaid programs due to eligibility policies, mix of delivery models, payment rates, and other features, make it challenging for any sample to be representative of all 50 states. The steward and developer commented that the goal of measure testing is to select a diverse group of states that have high-quality data and whose populations capture, for the key variables in question, the majority of the variation that also occurs within other states. They also clarified that the measure specifications were designed to maximize the likelihood that states could define the denominator population consistently.
- Finally, the steward and developer responded to the Committee's concerns about data quality. The developer worked to evaluate the quality of relevant data in all the states and selected those states whose data met our quality standards. Specifically, the states chosen for testing had indicators that aligned with national inpatient and emergency utilization benchmarks and did not have data anomalies that would raise analytic problems (such as high levels of missing data). Further, NQF has endorsed measures in the past that were tested with Medicaid data from the same data source. The measure steward and developer noted that they do not believe that state variation in data quality should be a key factor in determining suitability of Medicaid measures for endorsement as long as the data used for development is of sufficient quality.

Additionally, they noted that even perfect data from all states will not change the fact that state Medicaid programs have differences in design and operational features.

- The Standing Committee did not have quorum on the post comment call and was unable to discuss the request for reconsideration.
- To allow the Standing Committee time to consider the request for reconsideration, an endorsement decision on the measure has been deferred until the Spring 2019 review cycle.
- During the Spring 2019 measure evaluation webinars, which were held on June 20 an 21, 2019, quorum was not achieved. As a result, the Committee voted on whether or not to reconsider the measures via an online SurveyMonkey. After a review of the submitted materials, the Committee generally agreed that the additional information did not adequately address their concerns. Committee members noted challenges with the data variability and a more standardized data collection approach was required for the measures to be ready for endorsement. The Committee voted not to reconsider (Y-4; N-14).

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8. Consensus Standards Approval Committee (CSAC) Vote: Y-X; N-X (Month, Day, Year): [Endorsed or Not Endorsed])

Appendix B: All-Cause Admissions and Readmissions Portfolio—Use in Federal Programs[a]

NQF #	Title	Federal Programs: Finalized or Implemented as of July 16, 2019
2539	Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy	• Ambulatory Surgical Center Quality Reporting (Implemented) • Hospital Compare (Implemented) • Hospital Outpatient Quality Reporting (Implemented)
3495	Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (MIPS) Eligible Clinicians and Eligible Clinician Groups	Merit-Based Incentive Payment System (MIPS) Program (Finalized)

[a] Per CMS Measures Inventory Tool as of 07/16/2019

Appendix C: All-Cause Admissions and Readmissions Standing Committee and NQF Staff

STANDING COMMITTEE

John Bulger, DO, MBA (Co-chair)
Chief Quality Officer, Geisinger Health System
Danville, Pennsylvania

Cristie Travis, MSHHA (Co-chair)
Chief Executive Officer, Memphis Business Group on Health
Memphis, Tennessee

Katherine Auger, MD, MSc
Assistant Professor of Pediatrics, Cincinnati Children's Hospital Medical Center
Cincinnati, Ohio

Jo Ann Brooks, PhD, RN
Vice President of Safety and Quality, Indiana University Health System
Indianapolis, Indiana

Helen Chen, MD
Chief Medical Officer, Hebrew SeniorLife
Boston, Massachusetts

Susan Craft, RN
Director, Care Coordination Initiatives - Office of Clinical Quality & Safety, Henry Ford Health System
Detroit, Michigan

William Wesley Fields, MD, FACEP
Assistant Clinical Professor, UC Irvine Medical Center; Board of Directors, CEP America
Laguna Niguel, California

Steven Fishbane, MD
Chief Division of Kidney Diseases and Hypertension and Vice President, North Shore-LIJ Health System for Network Dialysis Services
Commack, New York

Laurent Glance, MD
Vice-Chair for Research, University of Rochester School of Medicine
Rochester, New York

Anthony Grigonis, PhD
Vice President, Quality Improvement, Select Medical
Mechanicsburg, Pennsylvania

Bruce Hall, MD, PhD, MBA
Professor, Surgeon, Washington University; Vice President for Patient Outcomes, BJC Healthcare
Saint Louis, Missouri

Leslie Kelly Hall
SVP Policy, Healthwise
Boise, Idaho

Paul Heidenreich, MD, MS, FACC, FAHA
Professor and Vice-Chair for Clinical, Quality, and Analytics, Stanford University School of Medicine, and VA Palo Alto Health Care System
Palo Alto, California

Karen Joynt Maddox, MD, MPH
Assistant Professor of Medicine, Washington University School of Medicine
St. Louis, MO

Keith Lind, JD, MS, BSN
Senior Policy Advisor, AARP Public Policy Institute
Washington, DC

Paulette Niewczyk, PhD, MPH
Director of Research, Uniform Data System for Medical Rehabilitation
Amherst, New York

Carol Raphael, MPA
Senior Advisor, Manatt Health Solutions
New York, New York

Mathew Reidhead, MA
Vice President of Research and Analytics, Missouri Hospital Association, Hospital Industry Data Institute
Jefferson City, Missouri

Pamela Roberts, PhD, MSHA, ORT/L, SCFES, FAOTA, CPHQ
Manager for Inpatient Rehabilitation; Quality, Education, and Research; and Neuropsychology, Cedars-Sinai Medical Center
Los Angeles, California

Derek Robinson, MD, MBA, FACEP, CHCQM
Vice President for Quality and Accreditation, Health Care Service Corporation
Chicago, Illinois

Thomas Smith, MD, FAPA
Medical Director, Division of Managed Care, NYS Office of Mental Health, Special Lecturer, Columbia University Medical Center
New York, New York

NQF STAFF

Elisa Munthali, MPH
Senior Vice President, Quality Measurement

Andrew Lyzenga, MPP
Senior Vice President, Quality Measurement

Suzanne Theberge, MPH
Senior Project Manager

Oroma Igwe, MPH
Project Manager

Asaba Mbenwoh Nguafor, RN, MSN/MPH
Project Analyst

Taroon Amin, PhD, MPH
NQF Consultant

Appendix D: Measure Specifications

3443 All-Cause Emergency Department Utilization Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNs)

STEWARD

Centers for Medicare & Medicaid Services, Centers for Medicaid & CHIP Services

DESCRIPTION

All-cause emergency department (ED) utilization rate for adult Medicaid beneficiaries who meet BCN population eligibility criteria. The measure is calculated as the number of ED visits per 1,000 beneficiary months and is intended to be reported at the state level.

For the purpose of this measure, the BCN population is defined as Medicaid beneficiaries who are age 18 to 64 during the lookback year (the 12 months prior to the measurement year) and the measurement year and have at least one inpatient admission and at least two chronic conditions, as defined by the Chronic Conditions Data Warehouse (CCW), during the lookback year. Beneficiaries dually enrolled in Medicaid and Medicare and beneficiaries who had fewer than 10 months of Medicaid eligibility in the lookback year are not included in the analytic sample because we did not have enough utilization data to include them in testing. We further limited the analytic file to beneficiaries that met the BCN definition criteria described above.

TYPE

Outcome

DATA SOURCE

Claims Medicaid claims data: person-summary (PS), inpatient (IP), other services (OT), and long-term care (LTC) files

LEVEL

Population: Regional and State

SETTING

Emergency Department and Services

NUMERATOR STATEMENT

The number of ED visits in the measurement year among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

NUMERATOR DETAILS

The numerator is calculated as the sum of ED visits in the measurement year. ED visits contribute to the monthly count only if they do not result in an inpatient admission or observation stay (of any length). ED visits and observation stays are identified using Healthcare Effectiveness Data and Information Set (HEDIS) value sets, which are trademarked by the National Committee for Quality Assurance. Specifically, ED visits are identified using any of the following claim type, revenue code, and procedure code combinations:

1. Outpatient claims with revenue codes in the ED Value Set (HEDIS 2015)
2. Professional claims with CPT codes in the ED Value Set (HEDIS 2015)
3. Professional claims with Place of Service code in the ED POS Value Set (HEDIS 2015) and CPT codes in the ED Procedure Code Value Set (HEDIS 2015)

If an ED visit's dates of service overlap with or are within one calendar day of an inpatient admission date, we do not include it in the numerator count.

Inpatient admissions are identified by using institutional claims for inpatient hospital services.

Observation stays are identified in two ways:

1. Procedure codes in the Observation Value Set (HEDIS 2015)
2. Revenue and procedure codes created by the Centers for Medicare & Medicaid Services (CMS) to identify observation stays. We identify observation stays of any length.

Claims are deduplicated to ensure there is no more than one ED visit per beneficiary per day.

DENOMINATOR STATEMENT

Number of Medicaid-eligible months ("beneficiary months") among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

DENOMINATOR DETAILS

The denominator is calculated as the number of Medicaid-eligible months during the measurement year among adult beneficiaries who meet BCN population eligibility criteria. The measurement period is 12 months. An additional 12 months of lookback data is needed to identify the BCN population, for a total of 24 months of data.

BCNs are defined as Medicaid beneficiaries who are age 18 to 64 during the lookback and measurement years and who have at least one inpatient admission and at least two chronic conditions (as defined by the CCW) in the lookback year. Inpatient admissions are identified by using institutional claims where type of service = 01 (for "inpatient"). Observation stays are not included in the sum of inpatient admissions used to identify the denominator population.

Beneficiaries dually enrolled in Medicaid and Medicare and beneficiaries who had fewer than 10 months of Medicaid eligibility in the lookback year are not in the analytic sample because we did not have enough utilization data to include them in testing.

EXCLUSIONS

N/A.

EXCLUSION DETAILS

N/A.

RISK ADJUSTMENT

Statistical risk model

STRATIFICATION

N/A

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

UNADJUSTED RATE

Step 1: Determine eligible denominator population and number of eligible beneficiary months among BCNs.

BCNs are defined as Medicaid beneficiaries who are age 18 to 64 during the lookback and measurement years and who have at least one inpatient admission and at least two chronic conditions (defined by the CCW), in the lookback year.

Inpatient admissions are identified by using institutional claims where type of service = "01" (for "inpatient"). Observation stays are not included in the sum of inpatient admissions used to identify the denominator population. CCW condition algorithms are publicly available at https://www.ccwdata.org; they are also available in the BCN-1 Value Set Attachment.

An eligible beneficiary month is one in which the beneficiary is enrolled in Medicaid fee-for-service (FFS) or managed care. Sum eligible months across all beneficiaries.

Step 2: Determine the number of ED visits among BCNs.

The numerator is calculated as the sum of ED visits that did not result in an inpatient admission or observation stay in the measurement year.

ED visits are identified using any of the following claim type, revenue code, and procedure code combinations:

1. Outpatient claims with revenue codes in the ED Value Set (HEDIS 2015)
2. Professional claims with CPT codes in the ED Value Set (HEDIS 2015)
3. Professional claims with Place of Service code in the ED POS Value Set (HEDIS 2015) and CPT codes in the ED Procedure Code Value Set (HEDIS 2015)

If an ED visit's dates of service overlap with or are within one calendar day of an inpatient admission date, we do not include it in the numerator count.

Inpatient admissions are identified by using institutional claims where type of service = 01 (for "inpatient").

Observation stays are identified in two ways:

(1) Procedure codes in the Observation Value Set (HEDIS 2015)

(2) Revenue and procedure codes created by CMS to identify observation stays.

Deduplicate ED visits to ensure there is no more than one ED visit counted per beneficiary per day. Sum unique ED visits across all beneficiaries.

Step 3: Calculate the ED visit rate among BCNs.

Divide the number of ED visits (from Step 2) by the number of enrollee months (from Step 1), and multiply the resulting ratio by 1,000, as follows:

(Number of ED visits/Number of enrollee months) x 1,000 = Unadjusted ED utilization rate

RISK-ADJUSTED RATE

Step 1: Calculate the observed number of ED visits.

Calculate the observed number of ED visits (as described in Unadjusted Rate Step 2) for each beneficiary identified as a BCN. Sum the observed number of inpatient admissions across beneficiaries. This "observed" value will be used as the numerator in the observed-to-expected (O/E) calculation in Step 3.

Step 2: Calculate the expected number of ED visits.

For each beneficiary identified as a BCN,

a) Determine the value of each of the 69 risk factors as described in the BCN-1 Value Set attached to question S.2b.

NOTE: The weights were based on the BCN population used during testing: adult, non-dual Medicaid beneficiaries with FFS or managed care claims data from 10 states in 2013 and 2014 (i.e., the development population). These coefficients will be revised using updated Medicaid claims data at the time of NQF endorsement maintenance review.

b) Multiply each nonzero risk factor value by the weight provided in the BCN-1 Value Set Attachment.

NOTE: The reference category for each factor has a value of zero. For example, beneficiaries who are female (the reference category for sex) would have a beneficiary value of zero for sex when computing the sum of coefficient estimates. Beneficiaries who are male (the included category for sex) have a beneficiary value of one for sex.

c) Sum the products that resulted from multiplying risk factor values and coefficients.

d) Exponentiate the resulting sum (from Step 2.c) and multiply it by the number of enrolled months as follows:

[# months] x e^([sum from Step 2.c]) = # of expected ED visits

Sum the expected number of ED visits (from Step 2.d) across all beneficiaries in the population. This "expected" value will be used as the denominator in the O/E ratio calculation in Step 3.

Step 3: Calculate the state's O/E ratio.

Divide the state's observed number of ED visits (from Step 1) by the state's expected number of ED visits (from Step 2) to obtain this state's O/E ratio.

NOTE: The O/E ratio calculation does not require dividing the observed (numerator) or expected (denominator) counts by the total number of enrolled months because these terms would cancel out in the division.

Step 4: Calculate the state's risk-adjusted ED utilization rate.

Multiply the state's O/E ratio by the national benchmark rate of 234.2 ED visits per 1,000 beneficiary months:

(O/E for state) x (national benchmark rate) = Risk-adjusted ED utilization rate for state

NOTE: The national benchmark BCN-1 rate is equivalent to the unadjusted national BCN-1 rate. This value will change over time and as the BCN population characteristics change. 120752| 114481| 141015.

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3445 All-Cause Inpatient Admission Rate for Medicaid Beneficiaries with Complex Care Needs and High Costs (BCNS)

STEWARD

CENTERS FOR MEDICARE & MEDICAID SERVICES, CENTERS FOR MEDICAID & CHIP SERVICES DESCRIPTION

All-cause inpatient admission rate for adult Medicaid beneficiaries who meet BCN population eligibility criteria. The measure is calculated as the number of inpatient admissions per 1,000 beneficiary months and is intended to be reported at the state level.

FOR THE PURPOSE OF THIS MEASURE, THE BCN POPULATION IS DEFINED AS MEDICAID BENEFICIARIES WHO ARE AGE 18 TO 64 DURING THE LOOKBACK YEAR (THE 12 MONTHS PRIOR TO THE MEASUREMENT YEAR) AND THE MEASUREMENT YEAR AND HAVE AT LEAST ONE INPATIENT ADMISSION AND AT LEAST TWO CHRONIC CONDITIONS, AS DEFINED BY THE CHRONIC CONDITIONS DATA WAREHOUSE (CCW), DURING THE LOOKBACK YEAR. BENEFICIARIES DUALLY ENROLLED IN MEDICAID AND MEDICARE AND BENEFICIARIES WHO HAD FEWER THAN 10 MONTHS OF MEDICAID ELIGIBILITY IN THE LOOKBACK YEAR ARE NOT INCLUDED IN THE ANALYTIC SAMPLE BECAUSE WE DID NOT HAVE ENOUGH UTILIZATION DATA TO INCLUDE THEM IN TESTING. WE FURTHER LIMITED THE ANALYTIC FILE TO BENEFICIARIES THAT MET THE BCN DEFINITION CRITERIA DESCRIBED ABOVE.TYPE

Outcome

DATA SOURCE

CLAIMS MEDICAID CLAIMS DATA: PERSON-SUMMARY (PS), INPATIENT (IP), OTHER SERVICES (OT), AND LONG-TERM CARE (LTC) FILESLEVEL

POPULATION : REGIONAL AND STATE SETTING

Inpatient/Hospital

NUMERATOR STATEMENT

THE SUM OF UNIQUE INPATIENT ADMISSIONS AND OBSERVATION STAYS IN THE MEASUREMENT YEAR AMONG ADULT MEDICAID BENEFICIARIES WHO MEET BCN POPULATION ELIGIBILITY CRITERIA.NUMERATOR DETAILS

The measure counts readmissions to any acute care hospital for any cause within 30 days of the

The numerator is calculated as the sum of inpatient admissions and observation stays (of any length) in the measurement year. All events that resulted in an inpatient admission were counted in the numerator (even if they began as ED visits or observation stays). Observation stays contribute to the monthly count only if they did not result in an inpatient admission (and therefore not already counted as an inpatient admission).

Inpatient admissions are identified by using institutional claims for inpatient hospital services.

Observation stays are identified in two ways:

1. Procedure codes in the 2015 Healthcare Effectiveness Data and Information Set (HEDIS) Observation Value Set. HEDIS value sets are trademarked by the National Committee for Quality Assurance.
2. Revenue and procedure codes created by the Centers for Medicare & Medicaid Services (CMS) to identify observation stays. We identify observation stays of any length.

CLAIMS ARE DEDUPLICATED TO ENSURE THERE IS NO MORE THAN ONE INPATIENT ADMISSION OR OBSERVATION STAY PER BENEFICIARY PER DAY.DENOMINATOR STATEMENT

Number of Medicaid-eligible months ("beneficiary months") among adult Medicaid beneficiaries who meet BCN population eligibility criteria.

DENOMINATOR DETAILS

The denominator is calculated as the number of Medicaid-eligible months during the measurement year among adult beneficiaries who meet BCN population eligibility criteria. The measurement period is 12 months. An additional 12 months of lookback data is needed to identify the BCN population, for a total of 24 months of data.

BCNs are defined as Medicaid beneficiaries who are age 18 to 64 during the lookback and measurement years and who have at least one inpatient admission and at least two chronic conditions (as defined by the CCW) in the lookback year. Inpatient admissions are identified by using institutional claims where type of service = 01 (for “inpatient”). Observation stays are not included in the sum of inpatient admissions used to identify the denominator population.

Beneficiaries dually enrolled in Medicaid and Medicare and beneficiaries who had fewer than 10 months of Medicaid eligibility in the lookback year are not in the analytic sample because we did not have enough utilization data to include them in testing.

EXCLUSIONS

N/A

EXCLUSION DETAILS

N/A

RISK ADJUSTMENT

Statistical risk model

STRATIFICATION

N/A

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

UNADJUSTED RATE

Step 1: Determine eligible denominator population and number of eligible beneficiary months among BCNs.

BCNs are defined as Medicaid beneficiaries who are age 18 to 64 during the lookback and measurement years and who have at least one inpatient admission and at least two chronic conditions (defined by the CCW), in the lookback year.

Inpatient admissions are identified by using institutional claims where type of service = “01” (for “inpatient”). Observation stays are not included in the sum of inpatient admissions used to identify the denominator population. CCW condition algorithms are publicly available at https://www.ccwdata.org; they are also available in the BCN-2 Value Sets Attachment.

An eligible beneficiary month is one in which the beneficiary is enrolled in Medicaid fee-for-service (FFS) or managed care. Sum eligible months across all beneficiaries.

Step 2: Determine the number of inpatient admissions and observation stays among BCNs.

The numerator is calculated as the sum of inpatient admissions and observation stays in the measurement year. All events that resulted in an inpatient admission are counted in the numerator (even if they began as ED visits or observation stays). Observation stays contribute to the monthly count only if they did not result in an inpatient admission (and are therefore not already counted as an inpatient admission).

Inpatient admissions are identified by using institutional claims where type of service = 01 (for "inpatient").

Observation stays are identified in inpatient or outpatient claims in two ways:

(1) Procedure codes in the Observation Value Set (HEDIS 2015)

(2) Revenue and procedure codes created by CMS to identify observation stays.

Deduplicate inpatient admissions and observation stays to ensure there is no more than one inpatient admission or observation stay counted per beneficiary per day. Sum unique inpatient admissions and observation stays across all beneficiaries.

Step 3: Calculate the inpatient admission rate among BCNs.

Divide the number of inpatient admissions and observation stays (from Step 2) by the number of enrollee months (from Step 1), and multiply the resulting ratio by 1,000, as follows:

(Number of inpatient admissions and observation stays/Number of enrollee months) x 1,000 = Unadjusted inpatient admission rate

RISK-ADJUSTED RATE

Step 1: Calculate the observed number of inpatient admissions. Calculate the observed number of inpatient admissions (as described in Unadjusted Rate Step 2) for each beneficiary identified as a BCN. Sum the observed number of inpatient admissions across beneficiaries. This "observed" value will be used as the numerator in the observed-to-expected (O/E) calculation in Step 3.

Step 2: Calculate the expected number of inpatient admissions.

For each beneficiary identified as a BCN,

a) Determine the value of each of the 69 risk factors as described in the BCN-2 Value Set attached to question S.2b.

NOTE: The weights were based on the BCN population used during testing: adult, non-dual Medicaid beneficiaries with FFS or managed care claims data from 10 states in 2013 and 2014 (i.e., the development population). These coefficients will be revised using updated Medicaid claims data at the time of NQF endorsement maintenance review.

b) Multiply each nonzero risk factor value by the weight provided in the BCN-2 Value Set Attachment.

NOTE: The reference category for each factor has a value of zero. For example, beneficiaries who are female (the reference category for sex) would have a beneficiary value of zero for sex when computing the sum of coefficient estimates. Beneficiaries who are male (the included category for sex) have a beneficiary value of one for sex.

c) Sum the products that resulted from multiplying risk factor values and coefficients.

d) Exponentiate the resulting sum (from Step 2.c) and multiply it by the number of enrolled months as follows:

[# months] x e^([sum from Step 2.c]) = # of expected inpatient admissions

Sum the expected inpatient admission rate (from Step 2.d) across all beneficiaries in the population. This "expected" value will be used as the denominator in the O/E ratio calculation in Step 3.

Step 3: Calculate the state's O/E ratio.

Divide the state's observed number of inpatient admissions (from Step 1) by the state's expected number of inpatient admissions (from Step 2) to obtain this state's O/E ratio.

NOTE: The O/E ratio calculation does not require dividing the observed (numerator) or expected (denominator) counts by the total number of enrolled months because these terms would cancel out in the division.

Step 4: Calculate the state's risk-adjusted inpatient admission rate.

Multiply the state's O/E ratio by the national benchmark rate of 100.5 inpatient admissions per 1,000 beneficiary months:

(O/E for state) x (national benchmark rate) = Risk-adjusted inpatient admission rate for state

NOTE: The national benchmark BCN-2 rate is equivalent to the unadjusted national BCN-2 rate. This value will change over time and as the BCN population characteristics change. 120752

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3495 Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (MIPS) Eligible Clinicians and Eligible Clinician Groups

STEWARD

Centers for Medicare & Medicaid Services (CMS)

DESCRIPTION

This measure is a re-specified version of the hospital-level measure, "Hospital-Wide All-Cause, Unplanned Readmission Measure" (NQF 1789), which was developed for patients who are 65 years or older, are enrolled in fee-for-service (FFS) Medicare and are hospitalized in non-federal hospitals.

This re-specified measure attributes hospital-wide index admissions to up to three participating MIPS Eligible Clinicians or Eligible Clinician Groups ("providers"), rather than to hospitals. It

assesses each provider's rate of 30-day readmission, which is defined as unplanned, all-cause readmission within 30 days of hospital discharge for any eligible condition.

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The measure reports a single summary risk adjusted readmission rate (RARR), derived from the volume-weighted results of five different models, one for each of the following specialty cohorts based on groups of discharge condition categories or procedure categories: surgery/gynecology; general medicine; cardiorespiratory; cardiovascular; and neurology, each of which will be described in greater detail below.

The measure reports a single summary risk adjusted readmission rate (RARR), derived from the volume-weighted results of five different models, one for each of the following specialty cohorts based on groups of discharge condition categories or procedure categories: surgery/gynecology; general medicine; cardiorespiratory; cardiovascular; and neurology, each of which will be described in greater detail below.

TYPE

Outcome

Outcome

DATA SOURCE

Claims, Enrollment Data Medicare administrative claims and enrollment data

Claims, Enrollment Data

No data collection instrument provided Attachment Del18dHOP5MIPSHWRDataDictionary12172018.xlsx

LEVEL

Clinician : Group/Practice, Clinician : Individual

Clinician : Group/Practice, Clinician : Individual

SETTING

Inpatient/Hospital

Inpatient/Hospital

NUMERATOR STATEMENT

The outcome for this measure is readmission within 30-days of a hospital discharge. We define readmission as an inpatient admission for any cause, except for certain planned readmissions, within 30 days from the date of discharge from an eligible index admission.

Additional details are provided in S.5 Numerator Details

NUMERATOR DETAILS

The measure counts readmissions to any acute care hospital for any cause within 30 days of the date of discharge of the index admission, excluding planned readmissions as defined below. The measure outcome is a dichotomous yes or no of whether each discharged patient has an unplanned readmission within 30 days. However, if the first readmission after discharge is considered planned, any subsequent unplanned readmission is not counted as an outcome for that index admission because the unplanned readmission could be related to care provided during the intervening planned readmission rather than during the index admission.

Numerator Time Window: The outcome is defined as an unplanned readmission within 30 days of discharge from an index admission.

Planned Readmission Algorithm (Version 4.0)

The Planned Readmission Algorithm is a set of criteria for classifying readmissions as planned among the general Medicare population using Medicare administrative claims data. The algorithm identifies admissions that are typically planned and may occur within 30 days of discharge from the hospital.

The Planned Readmission Algorithm has three fundamental principles:

1. A few specific, limited types of care are always considered planned (obstetric delivery, transplant surgery, maintenance chemotherapy/immunotherapy, rehabilitation);

2. Otherwise, a non-acute readmission for a procedure that is typically scheduled in advance is considered planned; and

3. Admissions for acute illness or for complications of care are never planned.

The algorithm was developed in 2011 as part of the Hospital-Wide Readmission measure. In 2013, CMS applied the algorithm to its other readmission measures.

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The Planned Readmission Algorithm and associated code tables are attached in data field S.2b (Data Dictionary or Code Table).

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DENOMINATOR STATEMENT

The measure includes admissions for Medicare beneficiaries who are 65 years and older and are discharged from any non-federal, acute care inpatient US hospitals (including territories) with Medicare part A enrollment for the 12 months prior to admission and part A enrollment for the 30 days after discharge. These are called 'index admissions'

Outcome attribution:

Each index admission is attributed to up to 3 eligible clinicians or eligible clinician groups.

1) One is the eligible clinician who filed a claim for the 'discharge procedure' (CPT code 99238 or 99239) for the patient; conceptually, this clinician is measured because, having billed for the discharge of the patient, they have some responsibility for the transition of the patient to non-acute settings.

2) Second is the eligible clinician who, during the inpatient stay, billed the most patient-facing charges; conceptually, this clinician has the most responsibility for the care of patients during their stay and may also be the Discharge Clinician.

3) Third is the eligible clinician that provides the plurality of outpatient primary care during the 12 months prior to the admission, as measured by plurality of primary care services; conceptually, a primary care provider may manage the transition from acute to non-acute care and participate in decisions to return to acute care.

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3) Third is the eligible clinician that provides the plurality of outpatient primary care during the 12 months prior to the admission, as measured by plurality of primary care services; conceptually, a primary care provider may manage the transition from acute to non-acute care and participate in decisions to return to acute care.

Index admissions are attributed to a clinician by each of these rules; two or all three rules may attribute the index admission to the same clinician. Then, all admissions assigned to an eligible clinician are used to construct a single measure score for that clinician, regardless of the reason

the admission was attributed. The measure has also been tested for eligible clinician groups, implemented here by grouping eligible clinicians who use the same Taxpayer Identification Number (TIN).

Additional details are provided in S.7 Denominator Details.

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DENOMINATOR DETAILS

Admissions are eligible for inclusion in the measure if:

1. Patient is 65 or older

Rationale: Younger Medicare patients represent a distinct population with dissimilar characteristics and outcomes.

2. Patient survives admission

Rationale: Patients who die during the initial admission cannot be readmitted.

3. Patient is not transferred to another hospital

Rationale: In an episode of care in which the patient is transferred between hospitals, responsibility for the readmission is assigned to the final discharging hospital. Therefore, intermediate admissions within a single episode of care are not eligible for inclusion.

4. Patient is continuously enrolled in FFS Medicare Part A for the 12 months prior to the index admission and Part A for 30 days after discharge; FFS Medicare Part B for 12 months prior to index admission.

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1. Patient is 65 or older

Rationale: Younger Medicare patients represent a distinct population with dissimilar characteristics and outcomes.

2. Patient survives admission

Rationale: Patients who die during the initial admission cannot be readmitted.

3. Patient is not transferred to another hospital

Rationale: In an episode of care in which the patient is transferred between hospitals, responsibility for the readmission is assigned to the final discharging hospital. Therefore, intermediate admissions within a single episode of care are not eligible for inclusion.

4. Patient is continuously enrolled in FFS Medicare Part A for the 12 months prior to the index admission and Part A for 30 days after discharge; FFS Medicare Part B for 12 months prior to index admission.

Rationale: This is necessary to ensure complete data for risk adjustment, attribution, and outcome determination.

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EXCLUSIONS

From the cohort, we exclude admissions if:

1. The patient is discharged against medical advice (AMA)
2. The patient is discharged from a PPS-exempt cancer hospital
3. The patient is admitted primarily for the medical treatment of cancer
4. The patient is admitted primarily for the treatment of psychiatric disease
5. The patient is admitted primarily for "rehabilitation care; fitting of prostheses and adjustment devices" (CCS 254)
6. Admissions without 30 Days of Post-Discharge Enrollment are excluded
7. Admissions cannot be identified in IDR database

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4. The patient is admitted primarily for the treatment of psychiatric disease
5. The patient is admitted primarily for "rehabilitation care; fitting of prostheses and adjustment devices" (CCS 254)
6. Admissions without 30 Days of Post-Discharge Enrollment are excluded
7. Admissions cannot be identified in IDR database
8. The admission cannot be attributed to an eligible clinician.

Further exclusion details can be found in S.9 Denominator Exclusion Details

8. The admission cannot be attributed to an eligible clinician.

EXCLUSION DETAILS

From the cohort, we exclude admissions for which:

1. Patients discharged against medical advice (AMA)

Rationale: Clinicians have limited opportunity to implement high quality care

2. Admissions for patients to a PPS-exempt cancer hospital

Rationale: These hospitals care for a unique population of patients that cannot reasonably be compared to the patients admitted to other hospitals.

3. Admissions primarily for medical treatment of cancer are excluded

Rationale: These admissions have a very different mortality and readmission profile compared to the rest of the Medicare population (higher rates of planned readmissions and higher rates of competing mortality), and outcomes for these admissions do not correlate well with outcomes for other admissions. Patients with cancer who are admitted for other diagnoses or for surgical treatment of their cancer remain in the measure.

4. Admissions primarily for psychiatric disease are excluded

Rationale: Patients admitted principally for psychiatric treatment are typically cared for in separate psychiatric centers which are not comparable to acute care hospitals. See Data Dictionary for excluded CCSs.

5. Admissions for "rehabilitation care; fitting of prostheses and adjustment devices" (CCS 254) are excluded

Rationale: These admissions are not typically admitted to an acute care hospital for acute care.

6. Admissions without 30 Days of Post-Discharge Enrollment are excluded

Rationale: The 30-day readmission outcome cannot be assessed in patients who do not maintain enrollment for at least 30 days following discharge.

7. Admissions cannot be identified in IDR database

Rationale: Information from the attribution cannot be applied for patients without data of physician information, which we extracted from IDR database.

8. Patient cannot be attributed to a clinician.

Rationale: Only patients assigned to eligible clinicians or eligible clinician groups should be included in the measure.

Note that a readmission within 30-days will also be eligible as an index admission if it meets all other eligibility criteria. This allows our measure to capture repeated admissions for the same patient, whether with the same clinician(s) or not. Since there are few patients with multiple admissions in the same year and in the same specialty cohort, we chose to treat multiple admissions as statistically independent.

RISK ADJUSTMENT

Statistical risk model

146637| 110639| 141015

146637| 110639| 141015

STRATIFICATION

N/A

TYPE SCORE

Rate/proportion better quality = lower score

ALGORITHM

The index admissions are identified as described above in S.5-S.9.

Specialty Cohorts

The measure uses an algorithm identical to that of the hospital level measure (NQF #1789) to group index admissions into subgroups for risk adjustment. The measure aggregates the ICD-9 and ICD-10 principal diagnosis and all procedure codes of the index admission into clinically coherent groups of conditions and procedures (condition categories or procedure categories) using the AHRQ CCS. There is a total of 285 mutually exclusive AHRQ condition categories, most of which are single, homogenous diseases such as pneumonia or acute myocardial infarction. Some are aggregates of conditions, such as “other bacterial infections.” There is a total of 231 mutually exclusive procedure categories. Using these AHRQ CCS procedure and condition categories, the measure assigns each index hospitalization to one of five mutually exclusive specialty cohorts: surgery/gynecology, cardiorespiratory, cardiovascular, neurology, and medicine. The rationale behind this organization is that conditions typically cared for by the same team of clinicians are expected to experience similar added (or reduced) levels of readmission risk.

Step 1. The measure first assigns admissions with qualifying AHRQ procedure categories to the Surgery/Gynecology Cohort. This cohort includes admissions likely cared for by surgical or gynecological teams.

Step 2. The measure then sorts admissions into one of the four remaining specialty cohorts based on the AHRQ diagnosis category of the principal discharge diagnosis:

The Cardiorespiratory Cohort: includes several condition categories with very high readmission rates such as pneumonia, chronic obstructive pulmonary disease, and heart failure. These admissions are combined into a single cohort because they are often clinically indistinguishable and patients are often simultaneously treated for several of these diagnoses.

The Cardiovascular Cohort: includes condition categories such as acute myocardial infarction that in large hospitals might be cared for by a separate cardiac or cardiovascular team.

The Neurology Cohort: includes neurologic condition categories such as stroke that in large hospitals might be cared for by a separate neurology team.

The Medicine Cohort: includes all non-surgical patients who were not assigned to any of the other cohorts.

The full list of the specific diagnosis and procedure AHRQ CCS categories used to define the specialty cohorts are attached in data field S.2b (Data Dictionary or Code Table).

Risk adjustment

Risk adjustment is done separately for each specialty cohort using a logistic regression model with 30-day readmission as the outcome. Risk adjusters in each model are identical to those used in the specialty cohorts for the hospital level measure (NQF #1789) and include the CCS for the principle diagnosis. The full list of risk adjusters can be found in the Data Dictionary.

Measure Score

Because the same admission may be attributed to more than one unique Eligible Clinician or unique Eligible Clinician group, we could not apply the method used by the existing hospital-level HWR measure (NQF#1789) to construct risk standardized readmission rates. Instead, we adopted a method that, while requiring an assumption of independence across entities, allowed us to account for correlation within entity. The measure uses an approach similar to that used by the Patient Safety and Adverse Events Composite measure (NQF #0531).

Let

Y_i be the observed (0, 1) outcome for patient i

$\bar{Y}$ be the observed rate for all discharges in the reference population

H be the total number of providers

E ^_i be the expected (predicted) patient level probability;

n_h be the number of discharges at provider h

We define the observed rate at provider h as

The expected rate at provider h as

The Standardized Readmission Ratio (SRR) as

Then the formula for the smoothed rate is:

Where

Note that t ^^2 appears on both sides of the signal variance equation and is solved by iteration.

For calculating the provider RARR using SR scores from 5 specialty cohorts, we combined the SRs using volume-weighted logarithmic mean as following:

where $\bar{Y}$ = overall national observed readmission rate for all index admissions in all cohort, mcj = the number of discharges for provider j in cohort c, SRcj = the calculated smoothed rate score for provider j in cohort c.

Creating Credible Interval Estimates

For purposes of estimating confidence intervals, we used bootstrapping. Because of overlapping assignment of patients, bootstrapping was at the specialty cohort level. Specifically, we select m=1,…,M random samples of discharges with replacement from each specialty cohort. Using the existing attribution, we calculated (1), (2) and (3) above for each provider. The 95% credible interval estimate of the RARRj for each provider was used as the estimated 95% confidence interval. 146637| 110639| 141015. .

Appendix E: Pre-Evaluation Comments

Comments received as of June 12, 2019.

2539 Facility 7-Day Risk-Standardized Hospital Visit Rate after Outpatient Colonoscopy

Submitted by American Medical Association (AMA)

The American Medical Association (AMA) appreciates the opportunity to comment on this measure. We are writing to express our concerns on the evidence and testing provided in support of this measure.

While the AMA agrees that it is useful to understand the rate of complications following outpatient colonoscopies for quality improvement, we did not see explicit information outlining how these facilities can implement structures or processes that can lead to improved outcomes for these patients. Rather, most of the cited references focused on incidence rates and prevalence of specific risk factors and did not address what factors or processes leveraged by a facility can reduce the occurrence of complications.

Regarding the validity of the measure and specifically the risk adjustment approach, we do not believe that the measure is adequately tested and adjusted for social risk factors. The conceptual basis for the selection of the social risk factors was inadequately described in section 2.b.3. Risk Adjustment/Stratification and it is unclear to us why the developer would test social risk factors after adjusting for clinical risk factors rather than assessing the impact of both clinical and social risk factors in the model at the same time. These variations in how risk adjustment factors are examined could also impact how each variable (clinical or social) perform in the model and remain unanswered questions.

In addition, the AMA questions whether the information provided as a result of this measure is truly useful for accountability and informing patients of the quality of care provided by hospital outpatient departments (HOPDs) or ambulatory surgical centers (ASCs). Specifically, our concern relates to the relatively limited amount of variation across applicable facilities. Only two HOPDs out of the 3,908 facilities were identified as performing “Better than the National Rate” or “Worse than the National Rate” and of 2,061 ASCs, none were identified as performing “Better than the National Rate” and four performed “Worse than the National Rate.” Endorsing a measure that currently only identifies a small number of outliers does not enable users to distinguish meaningful differences in performance and is inconsistent with the validity subcriterion and usability/use criterion.

We ask the Standing Committee to carefully consider these concerns during their evaluation.

3495 Hospital-Wide 30-Day, All-Cause, Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System (MIPS) Eligible Clinicians and Eligible Clinician Groups

Submitted by American Medical Association (AMA)

The American Medication Association (AMA) appreciates the opportunity to comment on this measure. Below we outline our concerns on whether this measure meets the NQF Measure Evaluation Criteria, particularly for evidence and scientific acceptability.

The AMA believes that attribution must be determined based on evidence that the accountable unit is able to meaningfully influence the outcome, which aligns with the most recent National Quality Forum (NQF) report, Improving Attribution Models (NQF, 2018). This principle is also aligned with the evidence requirements for outcome measures in the NQF Measure Evaluation Criteria, which requires that there be at least one structure or process that can influence the outcome and this relationship must be

demonstrated through empirical evidence. CMS must begin to demonstrate these relationships with the accountable unit prior to implementing this measure in MIPS and we do not believe that CMS has adequately demonstrated this link.

While the AMA agrees that there is evidence to demonstrate that improved care coordination and programs focused on discharge planning can lead to reductions in hospital readmissions, most of the cited evidence involved multiple partners and clinicians such as the health system, hospital, nurse, and/or pharmacist. Therefore, we do not believe that sufficient evidence was provided to support that physicians or practices using the proposed attribution approach in the absence of some coordinated program or targeted intervention led by the health system or hospital can implement structures or processes leading to improved outcomes for these patients.

In addition, continuity of care requires smooth transitions to prepare for patients' changing clinical and social needs, but the Stark law often impedes the continuity and care transitions. Specifically, in certain circumstances, physicians are prohibited from employing promising care coordination strategies on behalf of their patients, e.g., an arrangement that pays for a nurse coordinator to coordinate a recently discharged patient's care among a hospital, physician specialists, or a primary care physician due to concerns that this may induce future referrals to their own office to avoid an unnecessary readmission to the hospital. As a result, we do not believe that assignment of responsibility of the reduction of readmissions to multiple physicians and practices in MIPS is appropriate nor has the developer provided sufficient information to support the attribution of this measure to up to three physicians or practices.

The AMA is disappointed to see the low measure score reliability results based on the minimum case number of 25 patients. We believe that measures must meet minimum acceptable thresholds of 0.7 for reliability and during the public comment period in December 2018, the data provided when using at least 100 patients yielded mean signal-to-noise results of 0.991 for eligible clinicians and 0.997 for eligible clinician groups (CMS, 2018). We request that the Standing Committee evaluate whether the case minimum of 25 patients is acceptable given the low reliability results.

The AMA is also troubled to see that no evidence or testing has been provided to support the attribution of this measure to the three distinct groups (discharge physician, primary inpatient care provider, and outpatient primary care provider). While correlations to the hospital's overall star ratings and readmission score from the star ratings are useful, we do not believe that the developer has provided sufficient information as it relates to the measure's application to each of the accountable units to which the measure is attributed.

In addition, we noted that the conceptual basis used to explain which social risk factors were tested in Section 2b3.3a solely focused on the hospital and was not specific to physicians or practices. It is difficult to determine whether additional factors should be considered without this information and we do not believe that it is responsive to NQF criteria requirements.

We also remain concerned that CMS continues to test social risk factors after assessment of clinical and demographic risk factors and it is unclear why this multi-step approach is preferable. On review of the Evaluation of the NQF Trial period for Risk Adjustment for Social Risk Factors report, it is clear that the approaches to testing these data should be revised to strategies such as multi-level models or testing of social factors prior to clinical factors and that as access to new data becomes available, it may elucidate more differences that are unrelated to factors within a hospital's or physician's control (NQF, 2017). Additional testing is needed to evaluate clinical factors in-conjunction with social risk factors; as opposed to the current approach that prioritizes clinical factors. Even though the c-statistics for each cohort were not improved, it would be useful to understand further the impact that the inclusion of these factors had on the absolute change of the rates since the differences ranged from a minimum of -1.13% to a maximum of 3.99% for eligible clinicians and a minimum of -2.88% to a maximum of 4.24%

for eligible clinician groups. These shifts could potentially impact the points physicians score in the Quality Category in MIPS and as a result, either positively or negatively impact the overall penalty or incentive they receive and the resources available for those individuals and groups who serve larger numbers of disadvantaged patients.

Given the measure is specifically developed for MIPS, the developer must perform testing that demonstrates how the measure would perform under the MIPS benchmark methodology and Physician Compare Star Ratings since CMS utilizes two different methodologies for ranking and profiling physicians.

In conclusion, CMS must balance the desire to apply these measures to the broadest number of clinicians possible with the unintended consequences of inappropriately attributing measures to physicians for which they cannot meaningfully influence patient outcomes. The AMA requests that the Standing Committee carefully consider the potential misinformation that could be provided to patients and caregivers if the measures do not have a clear evidence base to support attribution of the outcome to a specific physician and could potentially produce scores that are invalid and unreliable.

References:

Centers for Medicare and Medicaid Services. Development and Reevaluation of Outpatient Outcome Measures for the Merit-based Incentive Payment System. Public Comment Page: Currently Accepting Comments. Available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/Downloads/Outpatient-MIPS-MCC-Measure-Development.zip. Last accessed June 11, 2019.

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National Quality Forum
1030 15th St NW, Suite 800
Washington, DC 20005
http://www.qualityforum.org

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