TO: NQF Board of Directors
FR: Helen Burstin, Chief Scientific Officer
Marcia Wilson, Senior Vice President, Quality Measurement
RE: Cost and Resource Use Appeals
DA: October 19, 2016

ACTION REQUIRED

The Board of Directors will discuss the two appeals received for three Cost and Resource Use measures and determine whether to ratify the Consensus Standards Approval Committee's (CSAC's) decision to uphold endorsement for the following measures:

- **#2431:** Hospital-level, risk-standardized payment associated with a 30-day episode-of-care for Acute Myocardial Infarction (AMI) (CMS/Yale);
- **#2436**: Hospital-level, risk-standardized payment associated with a 30-day episode-of-care for Heart Failure (HF) (CMS/Yale); and
- **#2579**: Hospital-level, risk-standardized payment associated with a 30-day episode of care pneumonia (CMS/Yale).

BACKGROUND

In December 2014, to address concerns that arose during the consensus process, the NQF Board of Directors Executive Committee ratified the CSAC's recommendation to endorse Measures #2431, #2436, and #2579 with three conditions:

1. Consideration for inclusion in the upcoming trial period for risk adjustment for sociodemographic (SDS) factors;
2. NQF to pursue future work on developing guidance for attribution; and
3. One-year look-back assessment of unintended consequences.

The evaluation of the three measures listed above began and ended prior to the start of the NQF two-year sociodemographic status (SDS) trial period. Consequently, the Cost and Resource Use Standing Committee did not consider SDS factors as part of the risk-adjustment approach during its initial evaluation. To address the conditions of endorsement set by the Executive Committee, the Cost and Resource Use Standing Committee met through a series of webinars (May-October 2015) to review the conceptual basis and empiric evidence for including SDS factors in the risk adjustment models of the three measures. Ultimately, the Committee voted to continue endorsement of the measures without inclusion of SDS factors in the risk-adjustment approach. This recommendation was approved by the CSAC (January 2016) and ratified by the Executive Committee (February 2016).

APPEAL OF THE DECISION TO CONTINUE ENDORSEMENT

During the 30-day appeals period, which closed on April 5, 2016, NQF received two letters of appeal, one from the American Medical Association (AMA), and one from four hospital

associations, the American Hospital Association (AHA), the Federation of American Hospitals (FAH), the Association of American Medical Colleges (AAMC), and America's Essential Hospitals (AEH). The following documents are appended to this memo:

- Appendix A – Appeal Letter from the AMA
- Appendix B – Appeal Letter from the AHA, FAH, AAMC, and AEH
- Appendix C – NQF Response to the Appeal Letters
- Appendix D – CMS Response to the Appeal Letters including CORE Payment Measures: Using 9-digit Zip Code

The appellants outlined two reasons for their appeals:

- Insufficient Resolution of all Conditions of Endorsement in 2015
- Implementation of the SDS Trial

NQF's responses to the appellants' concerns are outlined below:

<u>Insufficient Resolution of all Conditions of Endorsement in 2015</u>

The appellants raised concerns that NQF has not sufficiently addressed the three conditions of endorsement set by the Board of Directors:

1. Consideration for inclusion in the SDS trial period

The three cost measures were entered in the SDS Trial. The Cost and Resource Use Standing Committee met through a series of webinars to review the conceptual basis and empiric evidence for including SDS factors in the risk adjustment models of the three measures. The Cost and Resource Use Standing Committee was charged with evaluating the measure specifications and testing as submitted by the measure developer. Given the constraints on the current data elements available, the Committee relied on the methods used by the measure developer to test the conceptual and empiric relationship between SDS factors and readmissions. The Committee recognized the limitations in available data elements to consider sociodemographic risk and reiterated that their focus was on the adjustments the developer was able to put forward at this time given the data currently available. The social risk adjustments put forward for these measures did not reach a threshold of significance. The Committee expressed their willingness to reassess the measures as additional SDS factors, such as community factors, when they become available in the future.

Ultimately, the Committee voted to continue endorsement of the measures without inclusion of SDS factors in the risk-adjustment approach. This recommendation was approved by the CSAC and ratified by the Executive Committee.

In June 2016, NQF convened the appellants, CMS, Yale/CORE, the CSAC co-chairs, and one of the chairs of the Cost and Resource Use Standing Committee to foster a dialogue between the

parties and to lay out potential options as the appeal is considered. During the call, the appellants asked for clarification for the conceptual basis for the expected effect of adjustment. Yale/CORE agreed to provide their conceptual model and to perform additional empirical analyses to examine the impact of SDS factors at the nine-digit zip code level to address the concerns raised by the appellants. These analyses are included in the table in the CMS response memo in Appendix D.

On July 28, 2016, the Cost and Resource Use Standing Committee met via webinar to review the new analysis provided by the measure developer using the Agency for Healthcare Research and Quality (AHRQ) SDS Index linked to nine-digit ZIP code to obtain data at census block group level for measures #2431, #2436 and #2579. The developer found slightly lower 30-day total payment for AMI, heart failure, and pneumonia for low SDS patients. The Committee noted that the difference was statistically significant but did not substantially affect hospital distribution. Overall, the Committee believed the new analyses reinforced their decision and the measures should remain endorsed while methods to adjust for SDS are improved. However, one Committee member believed the lack of differences could be due to the lack of available data and that the measures should not be endorsed until SDS issues can be better addressed.

The CSAC considered the appeals during its call on August 9, 2016, and ultimately voted to recommend upholding endorsement of the three measures. The CSAC concurred with the Standing Committee's review of the empiric analyses. The CSAC recognized the concerns regarding the need for better data about SDS factors but believed that the evidence presented by the developer supported upholding endorsement while the field continues to evolve to better data and methodologies for SDS adjustment.

At its meeting on September 15, 2016, the NQF Executive Committee recommended that the full Board of Directors review the Cost and Resource Use appeals given that the measures being appealed were endorsed with conditions based on a discussion by the full Board.

2. NQF to pursue future work on developing guidance for attribution

For the second endorsement condition, NQF agreed to consider opportunities to address attribution issues. In October 2015, with funding from CMS, NQF convened a multistakeholder committee, including representation from hospitals and the AMA, to identify key challenges in attribution and to make recommendations for developing, selecting and implementing an attribution model. NQF commissioned an environmental scan of current attribution models. In the draft report, the Committee put forward guiding principles to address attribution challenges and a set of recommendations for the field. The Committee also developed an Attribution Model Selection Guide that should aid measure developers, measure evaluation committees, and program implementers on the necessary elements of an attribution model that should be specified. The draft report from the Attribution Committee is now available for public comment until November 7, 2016.

3. One-year look-back assessment of unintended consequences

For the third endorsement condition, NQF agreed to conduct a one-year look-back assessment of unintended consequences for the measures in use. On August 22, 2016, the fiscal year (FY) 2017 Inpatient Prospective Payment System rule finalized the cost measures for AMI and CHF (#2431 and #2436) for use in the Hospital Value-Based Purchasing Program beginning in fiscal year (FY) 2021. The cost measure for pneumonia (#2579) has previously been adopted for the Hospital Inpatient Quality Reporting Program.

NQF plans to collect feedback from end-users, including those being measured, through existing NQF commenting tools. NQF will work with the appellants to solicit feedback and will do outreach to engage other relevant NQF stakeholders. NQF will review and synthesize feedback from end-users and share the findings with the Cost and Resource Use Standing Committee, the CSAC, the NQF Board, and/or the Measure Applications Partnership (MAP) committees, as applicable.

This initial effort to collect feedback on these select measures will serve as a pilot for NQF's strategic efforts on measure feedback. NQF will use this initial feedback experience to refine and improve commenting tools and methods for stakeholder engagement.

Implementation of the SDS Trial

The second concern raised in the appeal focused on the implementation of the SDS trial period, specifically around the guidance provided to Standing Committees and measure developers on how to consider SDS factors. NQF staff has provided guidance to measure developers, Standing Committees, and the public to educate them on the input of the SDS expert panel and on how measures should be reviewed during the trial period. In particular, web meetings have been held with measure developers and Standing Committees are briefed on the changes during their orientation and Question and Answer calls.

NQF has maintained a non-prescriptive approach to the selection and testing of variables included in risk adjustment models. NQF has not required that certain SDS variables be tested and does not set requirements around the inclusion of any specific variables. Similarly, NQF does not set certain "cut-points" for the statistical testing of a risk adjustment model. The evaluation of the model is left to the Standing Committee reviewing the measure. This approach applies to both clinical and SDS variables.

Updates to the NQF criteria for endorsing performance measures used in accountability applications (e.g., public reporting, pay-for-performance) were revised to allow for the inclusion of SDS factors in the SDS Expert Panel's recommendations (specifically Recommendation 4 modified measure evaluation criteria 2b4.) The CSAC approved the Expert Panel's recommendations during its July 9-10, 2014, meeting.

The Disparities Standing Committee has been supporting NQF's trial period. NQF has presented periodic trial results during three different web meetings. The Disparities Standing Committee has been available as a resource to provide input on key questions, such as the inappropriate use of race as a proxy for socioeconomic status. The Disparities Standing Committee has highlighted the ongoing challenges to risk adjustment for SDS factors. The Committee recently reviewed the newly released National Academy of Medicine report, "Accounting for Social Risk Factors in Medicare Payment: Data" that examined the availability of data on social risk factors. The report found that there are a few factors currently available for use (e.g., dual eligibility, nativity, urbanicity/rurality) while other factors need additional research for improved use or are not sufficiently available now (Table 1). The availability of social risk factor data will continue to evolve and warrants ongoing monitoring.

Table 1: Summary of Data Availability for Social Risk Factor Indicators*

SOCIAL RISK FACTOR	DATA AVAILABILITY			
Indicator	1	2	3	4
SEP				
Income		■		
Education		■		
Dual Eligibility	■			
Wealth			■	
Race, Ethnicity, and Cultural Context				
Race and Ethnicity		■		
Language		■		
Nativity	■			
Acculturation				■
Gender				
Gender identity				■
Sexual orientation				■
Social Relationships				
Marital/partnership status		■		
Living alone			■	
Social Support			■	
Residential and Community context				
Neighborhood deprivation		■		
Urbanicity/Rurality	■			
Housing		■		
Other environmental measures				■

1. Available for use now
2. Available for use now for some outcomes, but research needed for improved, future use
3. Not sufficiently available now; research needed for improved, future use
4. Research needed to better understand relationship with health care outcomes and on how to best collect data

* National Academies of Sciences, Engineering, and Medicine. 2016. *Accounting for social risk factors in Medicare payment: Data.* Washington, DC: The National Academies Press. doi: 10.17226/23605.