



NATIONAL
QUALITY FORUM

Measure Applications Partnership

MAP 2018 Considerations for Implementing Measures in Federal Programs: Post-Acute Care and Long-Term Care

DRAFT REPORT FOR COMMENT

December 21, 2017

*This report is funded by the Department of Health and Human Services under contract HHSM-500-2012-000091
Task Order HHSM-500-T0018.*

Contents

Guidance on Cross-Cutting Issues.....	3
Summary	3
Overarching Themes	Error! Bookmark not defined.
Implementation of the Improving Medicare Post-Acute Care Transformation (IMPACT) Act	Error! Bookmark not defined.
Continued Opportunities to Address Quality.....	Error! Bookmark not defined.
Considerations for Specific Programs	8
Inpatient Rehabilitation Facility Quality Reporting Program	8
Long-Term Care Hospital Quality Reporting Program.....	8
Skilled Nursing Facility Quality Reporting Program	8
Skilled Nursing Facility Value-Based Purchasing Program	Error! Bookmark not defined.
Home Health Quality Reporting Program	9
Hospice Quality Reporting Program.....	10
Appendix A: Program Summaries	12
Appendix B: MAP PAC/LTC Workgroup Roster and NQF Staff	15

Guidance on Cross-Cutting Issues

Summary

- **Significant progress has been made to align measures across Post-Acute Care/Long-term Care (PAC/LTC) settings. Aligned measures allow better comparability across settings and can improve consumer choice.**
- **However, crucial measurement gaps remain in PAC/LTC programs, particularly in care coordination and transfer of information across settings.**
- **Measurement should provide necessary information to consumers while being actionable to providers. MAP provided guidance on criteria to remove measures and improve attribution models in PAC/LTC settings.**

The Measure Applications Partnership (MAP) reviewed one measure under consideration for one setting-specific federal program addressing post-acute care (PAC) and long-term care (LTC) and input on potential measure gaps for four other programs listed below.

- Inpatient Rehabilitation Facility Quality Reporting Program (IRF QRP)
- Long-Term Care Hospital Quality Reporting Program (LTCH QRP)
- Skilled Nursing Facility Quality Reporting Program (SNF QRP) (Measure Under Consideration)
- Home Health Quality Reporting Program (HH QRP)
- Hospice Quality Reporting Program (Hospice QRP)

MAP's pre-rulemaking recommendations reflect the MAP Measure Selection Criteria and how well a measure under consideration addresses the identified program goals. To inform deliberations, MAP was provided with a preliminary analysis and draft recommendation on the Measure Under Consideration (MUC). MAP also drew upon its [Coordination Strategy for Post-Acute Care and Long-Term Care Performance Measurement](#) as a guide to inform pre-rulemaking review of measures for the PAC/LTC programs. In the PAC/LTC coordination strategy, MAP defined high-leverage areas for performance measurement and identified 13 core measure concepts to address each of the high-leverage areas.

Overarching Themes

Performance measurement is an essential tool for reforming healthcare payment and driving improvements in quality. Patients seen in PAC and LTC settings are often clinically complex, making them particularly vulnerable to quality concerns. In recent years, post-acute and long-term care has been a focus of efforts to improve quality while reducing costs. The Affordable Care Act of 2010 expanded quality measurement to a number of new settings such as long-term care hospitals and inpatient rehabilitation facilities. In its [Coordination Strategy for Post-Acute Care and Long-Term Care Performance Measurement](#), MAP highlighted that patients who receive care from PAC and LTC providers frequently transition between sites of care. A patient may move among his home, the hospital and PAC or LTC facilities as his health and functional status changes. However, measurement has been fragmented across settings due to differing standards, reporting requirements, and assessment tools. To address these challenges, MAP developed a set of core measurement concepts, designed to promote common measurement goals across PAC/LTC providers.

Aligning Measures to Address Critical Quality Issues

The Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014 standardized measurement across settings to increase comparability across settings and promote more effective communication. The IMPACT Act requires PAC providers to report standardized patient assessment data as well as data on quality, resource use, and other measures. The standardized measures address several domains including functional status, skin integrity, medication reconciliation, incidence of major falls, and the accurate communication of health information and care preferences when a patient is transferred. Additionally, the IMPACT Act requires the implementation of measures to address resource use and efficiency such as total Medicare spending per beneficiary, successful discharge to community, and risk-adjusted hospitalization rates of potentially preventable admissions and readmissions. PAC programs affected by the IMPACT Act include the HH QRP, SNF QRP, IRF QRP, and LTCH QRP. Measures implemented to meet the requirements of the IMPACT Act are mandated to go through the MAP pre-rulemaking process.

MAP is encouraged by the progress towards measure alignment across PAC/LTC settings. The following tables highlight MAP PAC/LTC Core Concepts and IMPACT Act Domains addressed by measures currently in the programs.

Table 1: Current Program Measures by PAC/LTC Core Concepts

PAC/LTC Core Concepts	IRF QRP	LTCH QRP	HH QRP	SNF QRP
Falls	X	X	X	X
Functional and Cognitive Status Assessment	X	X	X	X
Inappropriate Medicine Use		X		X
Infection Rates	X	X	X	

Pressure Ulcers	X	X	X	X
Shared Decision-Making				
Effective Transitions of Care	X		X	X
Mental Health			X	
Achievement of Patient/family/caregiver Goals				
Advance Care Planning and Treatment				
Experience of Care				
Adverse Drug Events	X	X	X	X
Avoidable Admissions	X	X	X	X
Patient and Family Education			X	
Accurate Transitions of Information			X	
Symptom Management			X	
Social Determinants of Health				
Autonomy and Control			X	
Access to Lower Levels of Care				

Table 2: Current Program Measures by IMPACT Act Domains

IMPACT Act Domains	IRF QRP	LTCH QRP	HH QRP	SNF QRP
Skin integrity and changes in skin integrity	X	X	X	X
Functional status, cognitive function, and changes in function and cognitive function	X	X	X	X
Medication reconciliation	X	X		X
Incidence of major falls	X	X	X	X
Transfer of health information and care preferences when an individual transitions				
Resource use measures, including total estimated Medicare spending per beneficiary	X	X		X
Discharge to community	X	X		X

All-condition risk-adjusted potentially preventable hospital readmissions rates	X	X		X
---	---	---	--	---

Addressing Crucial Measurement Gaps

CMS shared information about its new [Meaningful Measures framework](#) designed to provide consumers with the information they need to make informed choices about their healthcare while reducing the burden of measurement on providers and ensuring measurement addresses high priority, actionable areas. MAP sought to understand how the framework was developed and provided guidance on how it could be applied to PAC/LTC settings. MAP recognized the value in developing more composite measures as they can address numerous facets of a quality problem and provide understandable information to patients. However, MAP noted that facilities and clinicians are still responsible for providing data on the underlying measures and recommended that CMS continue to ensure measures in the program are driving improvements in quality.

MAP supports the adoption of measures that can address these critical quality issues and provide consumers the information they need to make informed decisions about their care. However, critical measurement gaps remain and the PAC/LTC workgroup focused this year on identifying areas that require additional development. MAP built on the domains established by the IMPACT Act, the MAP PAC/LTC Core Concepts and the CMS Meaningful Measures framework to prioritize measurement gaps. MAP recognized the challenges in developing measures that could address outstanding gaps and provided guidance on areas where measure development efforts could focus. In particular, MAP emphasized the importance of care coordination in post-acute and long-term care as patients may frequently transition between sites of care. MAP recommended that measure developers focus their efforts on care coordination measures, specifically:

- the timeliness of information transfer
- the electronic exchange of clinical information
- advanced care planning, particularly for patients with chronic disease
- bi-directional measures of information exchange that note if information was both sent and received and if the receiving provider had any follow up questions

The PAC/LTC Workgroup also provided guidance to the Coordinating Committee on additional potential gaps in the Merit-Based Incentive Payment System, noting that it can be challenging for post-acute and long-term care clinicians to report measures that allow them to participate in the program. The Workgroup suggested the development and use of measures that address the IMPACT Act domains and MAP's PAC/LTC Core Concepts. The Workgroup emphasized the team-based nature of post-acute and long-term care and recommended the inclusion of additional types of clinicians such as physical therapists and occupational therapists. Finally, the Workgroup noted the design of the program could allow clinicians to choose measures to report under the quality domain, and also lead clinicians to choose measures where they already perform well rather than address areas for improvement giving an incomplete picture of a practitioner's quality.

MAP continues to emphasize the importance of performance measures based on patient-reported outcome-based performance measures (PRO-PMs). PRO-PMs highlight the patient's voice and address the areas of healthcare quality most important to consumers. MAP was encouraged about progress to address measurement needs in this area. In this year's pre-rulemaking work, MAP considered one PRO-PM under consideration for the SNF QRP and supported its implementation. MAP also heard an update on the use of the Patient-Reported Outcomes Measurement Information System (PROMIS). MAP was encouraged by the testing results and noted the potential the PROMIS measures had to address outcomes that are critical to patients in a standardized way across post-acute and long-term care settings.

Finally, MAP emphasized the need to improve quality for all Americans and to ensure the transition to value-based purchasing and alternative payment models improves care and access, while reducing costs for all. This year MAP recognized opportunities to improve care for people living in rural settings and Medicaid recipients, while promoting health equity and reducing healthcare disparities. MAP noted that access is a critical challenge to some patients, especially those living in rural areas or unable to afford transportation. MAP noted that rural patients may have limited choices in where to receive post-acute care, especially if they want to remain in their community rather than traveling a long distance to receive care. MAP noted that rural providers may currently be excluded from quality reporting programs, but and anticipates the work of the MAP Rural Health Workgroup will help provide residents of rural areas more information about the quality of their healthcare.

Improving the Impact of Measurement

In addition to addressing critical measure gaps, MAP is also cognizant of the burden of measurement. Measurement can require substantial investment in data collection and reporting. Developing measures also requires significant time and can be costly. Recent CMS initiatives such as Patients over Paperwork and Meaningful Measures attempt to reduce regulatory burden while ensuring measurement is patient-centered and addresses the highest-impact areas. MAP leveraged its unique partnership: across stakeholder groups and the public and private sectors to provide input on ways to best leverage measurement to improve quality and reduce costs in the post-acute and long-term care settings. CMS shared information about potential criteria to remove measures from the program. MAP agreed with the direction of these criteria.

MAP also provided guidance on issues of attribution. Attribution is the methodology used to assign a patient and the outcomes of their care to a healthcare provider. MAP noted a number of attribution challenges in PAC/LTC settings. First, MAP reiterated the challenges to advancing team-based care and shared accountability when not all practitioners are qualified providers and not attributed results. This can leave some clinicians (such as physical therapists or occupational therapists) without the ability to receive information about the quality of care they provide or participate in value-based purchasing programs that can drive improvements in care. MAP emphasized that attribution must be fair and actionable and noted that testing can demonstrate the valid and reliable of an attribution model. MAP noted that attribution must have face validity to clinicians and other stakeholders. MAP also noted the current lack of a gold standard in attribution but recommended the development of a multi-stakeholder

evaluation process that could allow for the review of attribution models. MAP noted the ongoing work of NQF's [Attribution Expert Panel](#) could provide clarity on these issues.

Considerations for Specific Programs

Skilled Nursing Facility Quality Reporting Program

The Skilled Nursing Facility Quality Reporting Program (SNF QRP) is a penalty for failure to report program established under section 1899B of the IMPACT Act. This program requires all facilities that submit data under the SNF PPS to participate in the SNF QRP with the exception of units affiliated with critical access hospitals. SNFs are required to submit quality data to CMS through Medicare FFS Claims, the Minimum Data Set (MDS) assessment data and other sources. As of fiscal year 2018, SNFs that fail to report quality data will receive a 2.0 percent reduction in their annual payment updates.

The measure under consideration for the SNF QRP was MUC17-258 CoreQ: Short Stay Discharge Measure. MUC17-258 is a patient-reported outcome measure that calculates the percentage of short-stay patients who are satisfied upon SNF discharge. MAP supported this measure for rulemaking. MAP previously identified patient satisfaction as a gap area for the SNF QRP. MAP reiterated the value of patient-reported outcomes and noted this measure could reflect quality of care from the patient's perspective. This measure was reviewed by the NQF Person and Family-Centered Care Standing Committee and endorsed in 2017. MAP did note the potential burden of collecting patient-reported data and cautioned that the implementation of a new data collection requirement should be done with the least possible burden to facilities. MAP also requested that CMS and the NQF Person and Family-Centered Care Standing Committee pay special attention to the performance gap of this measure, to ensure it continues to determine meaningful differences in quality. MAP also reiterated that CMS should implement the measure in a way that allows as many patients to be included as possible. Finally, MAP noted the need to continue development of patient experience measures.

MAP identified several gaps in the SNF QRP measure set including the need for bidirectional measures that hold hospitals and SNFs equally accountable for the provision of care. Workgroup members recommended including the 2016-2017 gap related to the efficacy of transfers from acute care hospitals to SNFs but with additional specifications. This year, MAP focused on the appropriateness of transfers and indicated a need for measures that address the patient/caregiver transfer experience. MAP also highlighted the need for measures focusing on detailed advance directives that outline the patient's preference for interventions, not merely limited to Do Not Resuscitate (DNR) orders.

Long-Term Care Hospital Quality Reporting Program

The Long-Term Care Hospital Quality Reporting Program (LTCH QRP) is a penalty for failure to report program established under section 3004 of the ACA. Under this program, LTCH providers must submit quality reporting data from sources such as Medicare FFS Claims, CDC NHSN data submissions, and the LTCH Continuity Assessment Record and Evaluation Data Sets (LCDS). LTCHs that fail to report quality data will receive a 2.0 percent reduction in the applicable annual payment update.

MAP identified a number of potential gaps in the LTCH QRP measure set, including the need for measures addressing mental and behavioral health. LTCH facilities typically see a higher incidence of depression compared to their short-stay PAC counterparts, given the lengthy duration of patient stays. Therefore, Workgroup members identified measures centered on mental health care provision as meaningful additions to LTCH QRP measure set.

Inpatient Rehabilitation Facility Quality Reporting Program

The Inpatient Rehabilitation Facility Quality Reporting Program (IRF QRP) is a penalty for failure to report program established under section 3004 of the ACA. This program specifically applies to all IRF settings that receive payment under the IRF prospective payment system (PPS) including IRF hospitals, IRF units that are co-located with affiliated acute care facilities, and IRF units affiliated with critical care access hospitals (CAHs). Data sources for quality measures include Medicare Fee for Service (FFS) Claims, Centers for Disease Control and Prevention (CDC) National Health Safety Network (NHSN) data, and the IRF-Patient Assessment Instrument records. Failure to submit quality data results in a 2.0 percent reduction in the annual applicable IRF-PPS payment update.

MAP noted measure gaps in the IRF QRP measure set. For example, MAP recognized the need for measures addressing the transfer of patient information. Unlike LTCH facilities, IRF transfers are more common and process measures related information transfers could add significant value to the patient care experience. MAP additionally identified the need for measures addressing appropriate clinical uses of opioids in IRF facilities. Finally, MAP highlighted the need for refinements to the infection measures currently included in the measure set given the low incidence in IRF facilities as an additional gap.

Home Health Quality Reporting Program

The Home Health Quality Reporting Program (HH QRP) is a penalty for failure to report program established in accordance with Section 1885 of the Social Security Act and aims to improve the quality of care provided to HH patients. The incentive structure is designed to require all HH agencies (HHA) to submit quality data from the Outcome and Assessment Information Set (OASIS) and Medicare FFS Claims. HHAs that do not comply with this incentive structure are subject to a 2.0 percent reduction in the annual PPS increase factor.

MAP identified a number of potential gaps in the HH QRP measure set. Workgroup members noted that social determinants of health could have a stronger impact on a person's outcomes in home health than in other settings and recommended the development of measures addressing social determinants of health. MAP recognized the importance of stabilizing a patient's ability to perform activities of daily living as part of home health; however, the majority of measures assessing stabilization in the home health setting have topped out and been removed from the program. MAP suggested the need for new measures that can assess a home health agency's success in stabilizing a patient's ability to perform activities. MAP noted that not all patients may be able to improve and that measures focusing on improvement may be inappropriate metrics for the home health patient population. Instead, MAP emphasized the importance of maintenance or stabilization measures.

Hospice Quality Reporting Program

The Hospice Quality Reporting Program (HQRP) is a pay-for-reporting program by section 3004 of the ACA. The HQRP applies to all hospices, regardless of setting. Under the program, hospice providers are required to submit quality data from proposed sources such as the Hospice Item Set and the Hospice Consumer Assessment of Healthcare Providers and Systems (CAHPS) questionnaire through which future HQRP measures can be developed. Failure to submit quality data will result in a 2.0 percent reduction to hospices' annual payment update.

MAP reviewed the Hospice QRP measure set, noting several measurement gaps to be addressed in future rulemaking cycles. These gaps include measures of medication management at the end of life, specifically focusing on the responsibility to manage changing needs for pain medication, and coordinate existing treatments. MAP also emphasized the need for measures of the effectiveness of bereavement services. Measures of effective service delivery to caregivers were also cited, with particular emphasis on the effectiveness of care instruction and staff accessibility. MAP called for measures used routinely in other programs, such as safety and functional status measures, that remain important to patients at the end of life. However, MAP recognized that patient safety may address different concepts in the hospice setting than in other care settings. MAP also noted the need to include additional symptom management outcome measures in the Hospice QRP set, including new measures of pain-related outcomes. These outcome measures would capture quality of care after admission, as the current measure set is primarily oriented towards successful admissions. Finally, MAP recommended measures that assess the positive elements of hospice care, including helping patients address their psychological, social, and spiritual needs.

Measure Removal Criteria

As part of the pre-rulemaking process, CMS reviewed the current criteria and considerations for measure removal that guide decision-making on which existing measures in federal programs to propose for removal. The presented criteria are meant to be broadly applicable across programs and settings, and are not intended to enumerate specific measures for removal. Criteria include:

- Emphasis on patient-centered high-priority quality measures meaningful to patients and providers
- Preference for outcome measures & measures with a significant performance gap
- Consideration for measures with limited burden to providers, and measures without unintended consequences
- Consideration for the operational needs of the program measure set, and internal alignment

MAP recommended other criteria for CMS to consider as it considers program measure sets for items to remove. Suggested criteria include:

- Consider alignment not just within program measure sets, but across program measure sets. For example, measures that have been removed from one program due to a low performance gap should be considered for removal in other programs.

- A caveat for the possible removal of process measures: consider using valuable process measures where outcomes can be challenging to capture, particularly in settings such as hospice.
- Measures reporting the incidence of infections with very low incidence rates should be evaluated for their cost relative to their expected benefit
- Measures with a specific application to a unique setting, such as home health, should remain in the set

Appendix A: Program Summaries

Inpatient Rehabilitation Facility Quality Reporting Program

Program Type

Penalty for failure to report

Incentive Structure

The IRF QRP was established under the Affordable Care Act. Beginning in FY 2014, IRFs that fail to submit data will be subject to a 2.0 percentage point reduction of the applicable IRF Prospective Payment System (PPS) payment update.

Program Goals

Address the rehabilitation needs of the individual including improved functional status and achievement of successful return to the community post-discharge.

CMS identified the following two domains as high-priority for future measure consideration:

- Making care safer: Modifications to current pressure ulcer measure
- Communication and care coordination: discharge to the community, potentially preventable readmissions, and medication reconciliation

Long-Term Care Hospital Quality Reporting Program

Program Type

Penalty for failure to report

Incentive Structure

The LTCH QRP was established under the Affordable Care Act. Beginning in FY 2014, LTCHs that fail to submit data will be subject to a 2.0 percentage point reduction of the applicable annual payment update (APU).

Program Goals

Furnishing extended medical care to individuals with clinically complex problems (e.g., multiple acute or chronic conditions needing hospital-level care for periods of greater than 25 days).

CMS identified the following three domains as high-priority for future measure consideration:

- Effective prevention and treatment: ventilator use, ventilator-associated event and ventilator weaning rate and mental health status
- Making care safer: modifications to existing pressure ulcer measure
- Communication and care coordination: transitions and rehospitalizations and medication reconciliation

Skilled Nursing Facility Quality Reporting Program

Program Type

Penalty for failure to report

Incentive Structure

The IMPACT Act added Section 1899 B to the Social Security Act establishing the SNF QRP. Beginning in FY 2018, providers [SNFs] that do not submit required quality reporting data to CMS will have their annual update reduced by 2.0 percentage points.

Program Goals

CMS identified the following two domains as high-priority for future measure consideration:

- Making care affordable: efficiency-based measures, such as Medicare Spending per Beneficiary
- Communication and care coordination: discharge to community, potentially preventable readmissions, and medication reconciliation

Skilled Nursing Facility Value-Based Purchasing Program

Program Type

Pay for Performance

Incentive Structure

Section 215 of the Protecting Access to Medicare Act of 2014 (PAMA) authorizes establishing a SNF VBP Program beginning with FY 2019 under which value-based incentive payments are made to SNFs in a fiscal year based on performance.

CMS identified the following domain as high-priority for future measure consideration:

- The PAMA legislation mandates that CMS specify:
 - An SNF all-cause, all-condition hospital readmission measure by no later than October 1, 2015
 - A resource use measure that reflects resource use by measuring all-condition, risk-adjusted potentially preventable hospital readmission rates for SNFs by no later than October 1, 2016 (This measure will replace the all-cause, all-condition measure)

Home Health Quality Reporting Program

Program Type

Pay for Reporting

Incentive Structure

The HH QRP was established in accordance with section 1895 of the Social Security Act. Home health agencies (HHAs) that do not submit data receive a 2.0 percentage point reduction in their annual HH market basket percentage increase.

Program Goals

Alignment with the mission of the IOM which has defined quality as having the following properties or domains: effectiveness, efficiency, equity, patient centeredness, safety, and timeliness.

CMS identified the following four domains as high-priority for future measure consideration:

- Patient and family engagement: functional status
- Making care safer: major injury due to falls and new or worsened pressure ulcers, pain, and functional decline
- Making care affordable: efficiency-based measures, such as Medicare Spending per Beneficiary
- Communication and care coordination: discharge to the community, potentially preventable readmissions, medication reconciliation

Hospice Quality Reporting Program

Program Type

Pay for Reporting

Incentive Structure

The Hospice QRP was established under the Affordable Care Act. Beginning in FY 2014, hospices that fail to submit quality data will be subject to a 2.0 percentage point reduction to their annual payment update.

Program Goals

Make the hospice patient as physically and emotionally comfortable as possible, with minimal disruption to normal activities, while remaining primarily in the home environment.

CMS identified the following three domains as high-priority for future measure consideration:

- Overall goal: symptom management outcome measures
- Patient and family engagement: patient and family goal attainment
- Making care safer: timeliness/responsiveness of care
- Communication and care coordination: incorporate patient preferences into measurement, align care coordination measures across settings

Appendix B: MAP PAC/LTC Workgroup Roster and NQF Staff

CO-CHAIRS (VOTING)

Gerri Lamb, RN, PhD

Paul Mulhausen, MD, MHS

ORGANIZATIONAL MEMBERS (VOTING)

AMDA – The Society for Post-Acute and Long-Term Care Medicine

Dheeraj Mahajan, MD, FACP, CMD, CIC, CHCQM

American Academy of Physical Medicine & Rehabilitation

Kurt Hoppe, MD

American Geriatrics Society

Debra Saliba, MD, MPH

American Occupational Therapy Association

Pamela Roberts, PhD, OTR/L, SCFES, CPHQ, FAOTA

American Physical Therapy Association

Heather Smith, PT, MPH

Centene Corporation

Michael Monson

Compassus

Kurt Merkelz, MD

HealthSouth Corporation

Mary Ellen DeBardeleben, MBA, MPH, CJCP

Families USA

Frederick Isasi, JD, MPH

Kindred Healthcare

Sean Muldoon, MD

National Association of Area Agencies on Aging

Amy Gotwals

The National Consumer Voice for Quality Long-Term Care

Robyn Grant, MSW

National Hospice and Palliative Care Organization

Carol Spence, PhD

National Partnership for Hospice Innovation

Theresa Schmidt, MA

National Pressure Ulcer Advisory Panel

Arthur Stone, MD, CMD

National Transitions of Care Coalition

James Lett, II, MD, CMD

Visiting Nurses Association of America

Danielle Pierottie, RN, PhD, CENP, AOCN, CHPN

FEDERAL GOVERNMENT LIAISONS (NON-VOTING)

Centers for Medicare & Medicaid Services (CMS)

Alan Levitt, MD

Office of the National Coordinator for Health Information Technology (ONC)

Elizabeth Palena Hall, MIS, MBA, RN

INDIVIDUAL SUBJECT MATTER EXPERTS (VOTING)

Constance Dahlin, MSN, ANP-BC, ACHPN, FPCN, FAAN

Kim Elliott, PhD, CPHQ

Caroline Fife, PhD, CPH

Eugene Nuccio, PhD

Ashish Trivedi, Pharm. D.

Thomas Von Sternberg, MD

NATIONAL QUALITY FORUM STAFF

Elisa Munthali, MPH

Acting Senior Vice President, Quality Measurement

Erin O'Rourke

Senior Director

Jean-Luc Tilly

Senior Manager, Data Analytics

Miranda Kuwahara, MPH

Project Analyst

Taroon Amin, PhD

Consultant