Plan for Data Collection

These materials were developed by the Malnutrition Quality Improvement Initiative (MQii), a project of the Academy of Nutrition and Dietetics, Avalere Health, and other stakeholders who provided guidance and expertise through a collaborative partnership. Support provided by Abbott.

Section Takeaways

Following your completion of this section, you will know how to:

- Identify indicators or metrics to track the impact of your improvement activities
- Evaluate and prepare sources for data capture
- Be familiar with the suggested MQii electronic clinical quality measures (eCQMs) and quality indicators

Consider Opportunities to Track Improvement

Throughout your project, you will want to assess the effectiveness of your quality improvement activities. Malnutrition quality measures and/or indicators offer one ideal way to evaluate your progress toward your malnutrition care goals. **The Project Champion / Lead and IT Developer / Report Analyst should identify quality measures and/or indicators that best align with your project objectives, fit the needs of your organization and Project Team, and capture changes to the clinical workflow.**

Determine a Data Capture Mechanism

To help inform your selection of quality measures or indicators, you will want to consider the method you will use for collecting performance data. A standardized and consistent method of data collection should be used to collect data during the pre-, during, and post-implementation period for your quality improvement activities. Data collected during and following implementation will be used for comparison against any baseline data (collected prior to implementation) and help determine whether any change in malnutrition quality resulted from implementation of the MQii. A standardized method of data collection will make it easier to compare results and will alleviate questions or concerns regarding data capture.

It is recommended that data be collected using a hospital's electronic health record (EHR) system when possible. Using the EHR system typically allows for quicker and lower cost data abstraction compared with paper-based methods. As this varies by EHR system, work with your IT Developer / Report Analyst to **explore what data your system has available to collect on the selected malnutrition quality measures or indicators and your ability to run custom reports.** You may determine that you want or need to revise the way that nutrition data is captured in your EHR to enable more standardized capture of structured information. While this may require additional work in the beginning, most facilities find this initial work helpful to support easier implementation and data analysis during and following implementation.

Review the Suggested MQii eCQMs and Quality Indicators

Depending on the improvement activities you have selected to implement in your hospital, you may choose to use the electronic clinical quality measures (eCQMs) and/or quality indicators in Table 7: Suggested MQii eCQMs and Quality Indicators. Collecting data on these suggested eCQMs or indicators will provide evidence that can be used to assess where you may have existing care gaps, track progress against quality improvement activities over time, and evaluate and communicate the benefits of improved malnutrition care both within and outside of your facility.

If you are able to extract nutrition care data from the EHR, you are strongly encouraged to collect data to calculate the malnutrition eCQMs. These measures are being used at a national level to evaluate

malnutrition care quality and will enable you to consider your performance compared to that of other hospitals across the United States. The four malnutrition eCQMs are:

- **NQF #3087/MUC16-294:** Completion of a Malnutrition Screening within 24 hours of Admission
- **NQF #3088/MUC16-296:** Completion of a Nutrition Assessment for Patients Identified as At-Risk for Malnutrition within 24 hours of a Malnutrition Screening
- **NQF #3089/MUC16-372:** Nutrition Care Plan for Patients Identified as Malnourished after a Completed Nutrition Assessment
- **NQF #3090/MUC16-344:** Appropriate Documentation of a Malnutrition Diagnosis

In addition to the eCQMs, you may also consider collecting data on some of the MQii quality indicators outlined in Table 7, or you may identify other indicators that meet your specific quality improvement goal(s). You may collect data on as many measures or indicators as are relevant to your improvement goals. Quality measures or indicators should be identified prior to implementation of the selected improvement activity, along with the mechanism for their data capture, and communicated to the Care Team.

Please note: These suggested eCQMs and indicators are specified for use with patients age 65+ years in alignment with the MQii Toolkit ("the Toolkit"). However, the first listed eCQM ("Completion of a Malnutrition Screening within 24-hours of Admission") is specified for patients ages 18+ years due to align with previous Joint Commission nutrition screening standards. In addition, the MQii eCQM Technical Expert Panel recommended focusing the screening measure on patients ages 18+ years to enhance ease of patient screening upon admission. A full set of specifications for the eCQMs can be found in the eCQMs Specifications Manual, while indicator specifications can be found in the MQii Data Management Guide. The Data Management Guide also provides tools for performance feedback on the indicators, while the MQii Performance Calculator offers a way to evaluate your performance on the malnutrition eCQMs.

Should your facility wish to focus on and collect data for all hospitalized adults who are malnourished or at-risk of malnutrition, you can refine the population for the measure or indicators to encompass all hospitalized adults ages 18+.

Table 7: Suggested MQii eCQMs and Quality Indicators

Recommended Clinical Workflow Stage	Recommended eCQMs	Other Potential MQii Quality Indicators
Malnutrition Screening	Completion of a Malnutrition Screening within 24 hours of Admission	1. Percentage of patients age 65+ years admitted to hospital who received a malnutrition screening with a validated screening tool 2. Percentage of patients age 65+ years admitted to hospital who received a malnutrition screening 3. Percentage of patients age 65+ years identified as "at risk" through a malnutrition screening who had a malnutrition-risk diet order 4. Length of time between hospital admission and completion of malnutrition screening 5. Length of time between identification of a patient age 65+ years as "at risk" based on a malnutrition screening and implementation of a malnutrition-risk diet order, but before a nutrition assessment with a standardized tool 6. Length of time between admission and implementation of a malnutrition-risk diet order in patients age 65+ years identified as "at risk" based on a malnutrition screening, but before a nutrition assessment with a standardized tool
Malnutrition Assessment	Completion of a Nutrition Assessment for Patients Identified as At-Risk for Malnutrition within 24 hours of a Malnutrition Screening	1. Percentage of patients age 65+ years identified as "at risk" for malnutrition based on a malnutrition screening who also had a completed nutrition assessment with a standardized tool 2. Length of time between patients age 65+ years identified as "at risk" for malnutrition based on a malnutrition screening and completion of a nutrition assessment using a standardized tool 3. Length of time between admission and completion of a nutrition assessment with a standardized tool for patients age 65+ years identified as "at risk" for malnutrition based on a malnutrition screening
Malnutrition Diagnosis	Appropriate Documentation of a Malnutrition Diagnosis	1. Percentage of patients age 65+ years identified as malnourished with a nutrition assessment using a standardized tool who have a documented dietitian-based malnutrition diagnosis 2. Percentage of patients age 65+ who have a documented provider medical diagnosis of malnutrition 3. Percentage of patients age 65+ years identified as malnourished with a nutrition assessment using a standardized tool who have a documented dietician-based malnutrition diagnosis and a provider medical diagnosis of malnutrition

Malnutrition Care Plan Development	Nutrition Care Plan for Patients Identified as Malnourished after a Completed Nutrition Assessment	1. Percentage of patients age 65+ years with a completed nutrition assessment and a documented malnutrition diagnosis who have a documented malnutrition care plan
Intervention Implementation		1. Percentage of patients age 65+ years with a documented malnutrition diagnosis who had a nutrition intervention implemented 2. Length of time between documented malnutrition diagnosis and implementation of a nutrition intervention for patients age 65+ years diagnosed as malnourished 3. Length of time between admission and implementation of a nutrition intervention for patients age 65+ years diagnosed as malnourished
Discharge Planning		1. Percentage of patients age 65+ years with a malnutrition diagnosis as a result of a nutrition assessment with a standardized tool who have a malnutrition care plan included as part of their post-discharge care plan

In addition to these MQii eCQMs and quality indicators, you may also find quality indicators from the American Society for Parenteral and Enteral Nutrition (ASPEN) useful to implement as well. They are well-aligned with the MQii indicators and may provide additional areas for performance measurement.

Other quality indicators that your organization may wish to track as a part of this initiative are listed below. These quality indicator concepts assess aspects of patient-centered care and high-priority clinical outcomes anticipated to be affected by MQii implementation. Although these concepts may not be directly related to MQii outcomes, improvements in malnutrition care may impact them.

Suggested Patient-Centered Quality Indicators

- Consideration of patient preference in initiating a malnutrition-risk diet order
- Confirmation of malnutrition screening by the patient at discharge
- Confirmation of receipt of malnutrition education by patient and/or family caregiver at discharge
- Consideration of patient or family preference initiating a feeding tube during end-of-life care

Suggested Outcome Quality Indicators

- Length of Stay
    - Year-over-year comparison of average length of stay for patients receiving malnutrition care (e.g., screening, assessment, diagnosis, and care plan development) for the three months during/following MQii implementation and the same three months the year prior
    - Average length of stay for malnourished patients between pre-implementation and post-implementation of the MQii
- Readmissions Rates
    - Year-over-year comparison of 30-day all-cause readmission rates for patients receiving malnutrition care (e.g., screening, assessment, diagnosis, and care plan development) for the three months during/following MQii implementation and the same three months the year prior
    - Readmission rate for malnourished patients between pre-implementation and post-implementation of the MQii
- Pressure Ulcer Rates
    - Year-over-year comparison of hospital-acquired pressure ulcer rates for patients receiving malnutrition care (e.g., screening, assessment, diagnosis, and care plan development) for the three months during/following MQii implementation and the same three months the year prior
    - Pressure ulcer rate for malnourished patients between pre-implementation and post-implementation of the MQii
- Infection Rates
    - Year-over-year comparison of hospital-acquired infection rates for patients receiving malnutrition care (e.g., screening, assessment, diagnosis, and care plan development) for the three months during/following MQii implementation and the same three months the year prior
    - Hospital-acquired infection rate for malnourished patients between pre-implementation and post-implementation of the MQii