Begin Implementation

Section Takeaways

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

-   Plan for your quality improvement activities
-   Train team members and implement the selected clinical improvement
-   Begin to collect and analyze data to assess your impact

Step 1: Define Your Plan of Action

To formally kick-off the implementation phase, hold an "action planning" meeting with the Project Team to revisit the project goals, desired results, and expectations for sustaining those results. This initial meeting can be used to develop action plans that will serve as day-to-day guides for the project. You will also want to develop a set timeline for your project. For example, you may want to implement the change over a three-month period, with retrospective data collection for one or two months prior to implementation (to serve as your baseline) and continued data collection for one or two months following implementation to assess whether the Care Team is able to maintain the change.

Depending on the clinical improvement selected for the MQii, **the teams should consider the feasibility of tackling multiple activities at once. It is often helpful to first focus on small, rapid cycles of change.**[41] This involves first implementing one or two changes to the existing clinical workflow that align with the recommended care workflow (e.g., ensuring all admitted patients age 65+ years receive a malnutrition screening).

Once that first modification is sufficiently established in your clinical workflow, the teams can then build upon it as the Care Team becomes more comfortable with implementing changes to align more closely with the recommended standards of care (e.g., ensuring that once patients age 65+ years receive a malnutrition screening, as well as a malnutrition-risk diet order, a dietitian consult, and a nutrition assessment, if identified as "at risk" of malnutrition). This will allow the Care Team to focus on one particular aspect of the clinical workflow at a time and more easily identify and address any barriers to effective implementation.

Additionally, implementing one or two clinical improvements at a time allows the Project Team to communicate any implementation facilitators across Care Teams and address any barriers that arise. While a gradual implementation approach is recommended, it is important to note that addressing all components of the recommended workflow is optimal for achieving high-quality malnutrition care.

Throughout project implementation, you should test, monitor, and evaluate changes for each phase of the clinical workflow. To do so, **you may wish to follow a Plan-Do-Study-Act or similar quality improvement approach.** You can find sample PDSA cycle worksheets at www.MQii.today in the MQii Tools & Resources section (and in the Select Your Quality Improvement Focus section of this Toolkit) that may help guide how to structure your tests of change. The sample PDSA cycles are for illustrative purposes only. You will need to create your own PDSA cycle to reflect the changes you plan to introduce at your hospital to improve malnutrition care.

Aim to answer the following questions for each clinical improvement:

What are we trying to accomplish?

- The Project and Care Teams should work together to set achievable, measurable and time-bound aims for each phase of work flow implementation. To do so, you may wish to collect baseline data on quality measures or indicators (prior to implementation of improvement activities and review malnutrition care best practices to identify targets for quality improvement.

- **Example Target: In the next 3 months, achieve a 30% increase in the percentage of patients who are at risk for malnutrition who receive a nutrition assessment within 24-hours of screening**

How will we know that a change is an improvement?

- Performance improvements on specific measures or indicators identified will help the teams know when an improvement has occurred. By collecting data on these indicators, analyzing them frequently (e.g., monthly), and sharing feedback with the Care Team, project participants will be able to track progress towards the target(s) for each phase. (Please refer to the Plan for Data Collection section to support this step).

- **Example Measure: Percentage of patients identified as at risk for malnutrition based on a malnutrition screening who have a nutrition assessment documented in the medical record within 24 hours of the most recent malnutrition screening**

What additional changes to current practices can we make that will result in improvement?

- As changes are introduced to the existing clinical workflow, the Care Team may identify additional actions or changes that may be needed to achieve the targets for each phase of the clinical workflow. This might include defining barriers to optimal care and outlining ways to overcome these challenges. Best practices outlined for each stage of the clinical workflow in the Select Your QI Focus section and the resources on the MQii Tools and Resources page may provide useful tools as the team determines how best to continue effecting change and achieve targets.

- **Example Additional Activity: Revise the EHR to automatically generate a dietitian consult if the result of a malnutrition screening determines that a patient is "at risk."**

Plan for Data Collection

During Step 1, if you have not already done so, you will want to select the measures/indicators you will track throughout and following implementation, as well as your targets for each of these measures/indicators following your quality improvement activity (see Table 7 for recommended measures/indicators). To help achieve the targets and monitor progress on selected quality measures and/or indicators, you will need to establish:

- Who is responsible for each action and within what time frame

- The data capture mechanism (e.g., EHR) that will be used for data collection during each cycle to analyze the inform calculation of the quality measures or indicators

- The baseline data for each quality measure/indicator of interest

  o Note: If data are not available, such as in the case of new clinical actions, you may need to collect data from your first test of change to establish a baseline rate

Remember to monitor your progress and determine if sufficient improvement has been achieved before adding another improvement activity or moving on to the next phase of implementation.

Step 2: Train the Care Team and Implement the Change

In order to implement your malnutrition quality improvement activities as part of the MQii, it will be necessary to make all Care Teams aware of the nutrition care focus areas selected for quality improvement. Your Project Team should also inform them of current gaps in nutrition care processes and necessary changes or modifications to the clinical workflow to better align with best practices (including where barriers exist and training on how to address them).

To provide context for implementing the MQii improvement activities, all members of the Care Team should receive education on the prevalence and impact of malnutrition (please see Briefing: The Value of Quality Malnutrition Care). To the extent that such information can be made specific to your hospital's performance on malnutrition care (e.g., if you can pull statistics highlighting the prevalence of malnutrition in your facility and rates of readmissions or hospital length of stay in these patients compared to non-malnourished patients), the more impactful it will be.

Similarly, it is beneficial to share the MQii recommended clinical workflow and related best practices with the Care Team prior to implementation so that they understand the extent of potential improvement that can be made to your existing workflow. The goal is to ensure the Care Team's knowledge attainment around the importance of evaluating patients for malnutrition, as well as best practices associated with an optimal clinical workflow.

The Project Team can then formally train the Care Team on the quality improvement activities that were identified as the implementation focus for the MQii at your facility. When possible, the Care Team should be trained as a group during grand rounds or lunch-and-learn sessions to allow for a greater appreciation of how individual members will work together. Adopt the approach to information sharing that best fits your organization – this may include sharing videos or PowerPoint presentations at group meetings, using pocket cards, posting flyers in break rooms, or other tools to raise awareness of malnutrition and optimal care practices. **All team members should understand their role within the Care Team, how data are being collected, and the quality measures and/or quality indicators that the data collection is assessing.**

Below is a list of recommended training presentations for the Project Team to use with the Care Team to prepare them for implementation. These presentations and other helpful resources can be found on the MQii Tools & Resources page:

1. MQii Overview Presentation**:** Outlines the main goals and approach of the MQii and includes education on the burden of malnutrition on hospitals and patients. Can also be shared with other staff beyond the Care Team (e.g., executive leadership, administrative staff)

2. Project Teams and Workflow Mapping Presentation**:** A review of team roles and responsibilities and instructions for mapping and comparing your Care Team's current malnutrition care practices to the recommended care workflow

3. Implementation Training Presentation**:** Training for Care Team leaders and members on how to support MQii goals and implement the recommended clinical workflow

To help highlight key aspects of malnutrition care that should be expected of individual Care Team members, refer to Table 2: MQii Care Team Roles and Responsibilities. You may also find the following resources from the Alliance to Advance Patient Nutrition helpful to share with various Care Team members:

- Role of the Dietitian[17]
- Role of the Physician[16]

- Role of the Nurse[18]
- Role of the Hospital Administrator[19]

Depending on the improvement activities chosen for this initiative, the implementation tools in Table 8 may also be helpful for training the clinical Care Team on specific activities. Each tool is labeled and categorized according to the stage of the clinical workflow for which its application is most suitable. Each of these is also available at www.MQii.today in the MQii Tools & Resources section.

Table 8: Care Team Tools to Support Clinical Improvement Implementation

Implementation Tool	Clinical Workflow Stage
Recognizing Malnutrition: A visual guide for diagnosis and assessment	• Malnutrition Screening • Assessment & Diagnosis
Sample Validated Screening Tool: The Malnutrition Screening Tool	• Malnutrition Screening
Nutrition Focused Physical Exam * Nutrition Focused Physical Exam Mini-Session webinar recording available to MQii Learning Collaborative participating organizations	• Assessment & Diagnosis
Nutrition Care Process Tutorial Videos	• Assessment, Diagnosis, Intervention, & Monitoring and Evaluation
Sample Patient Discharge Template for Continued Malnutrition Care Planning[42]	• Discharge

Additional online resources to help educate your Care Team members on key aspects of malnutrition care include:

- Alliance Nutrition Care Model and Toolkit (Nutrition Care Model, Toolkit Resources, and Nursing Educational Models Videos)[43]
- Academy of Nutrition and Dietetics Standards of Excellence Metric Tool (A self-assessment tool to measure and evaluate an organization's program, services and initiatives that identify areas of improvement to enhance food and nutrition quality)[44]

Once the Care Team has been educated on the importance of malnutrition and how it can affect patient outcomes, and how to implement the clinical improvement activities, the Care Team can then begin implementing the targeted changes to your clinical workflow. Please refer to the MQii Tools & Resources for additional materials to help support your MQii implementation efforts.

Please note that not all sites may focus on clinician education and training for their quality improvement activities. For example, some may choose to change how data is captured in the EHR to improve documentation and care coordination. Others may include "hard stops" or reminders in the EHR to ensure certain steps in the recommended clinical workflow take place. These actions are also important mechanisms to ensure the provision of high-quality care and meet the goals of quality improvement-focused changes.

Step 3: Collect Data and Study Your Progress

Proper documentation of nutrition care is critical to support high quality data collection and to assess changes that take place as a result of your quality improvement activities. It also benefits the patient, as it helps enable effective care coordination within the hospital as well as transitions when the patient leaves the hospital. All nutrition data collected should be recorded in the patient's medical record (electronic medical records or paper medical records, as applicable) and use a standardized data collection template or process, where possible and appropriate.

You should aim to regularly collect data and evaluate your progress throughout implementation, as well as assess whether your change is maintained following implementation. For example, assuming an implementation timeline of 3 to 6 months, you may wish to collect data and evaluate your change following the first one or two months of implementation to see whether you have made progress, or if additional education, training, or other changes to support your quality improvement activities are necessary.

The MQii suggested quality measures and indicators inform the type and level of data you will need. To see needed data elements and calculation instructions for the eCQMs, see the Malnutrition Measures Specifications Manual and the Performance Calculator; to see the data elements and calculation instructions for the indicators, see the MQii Data Management Guide. These resources provide a description of all of denominator and numerator criteria and a description of how to use each of the variables gathered for calculating performance rates. All of these resources are available at www.MQii.today in the MQii Tools & Resources section.

Ideally, the data needed to calculate the measures/indicators would be collected in the EHR (this is necessary to calculate the eCQMs). As such, much of the data may come through routine clinical documentation as part of the workflow implementation. If some data are not available in the EHR, the Care Team may need to abstract the data from a paper medical record/chart, or capture it using some other data collection tool. An example of the data collection necessary for MQii Quality Indicator 1 is provided below.

Variables and Calculation for MQii Quality Indicator 1

MQii Quality Indicator 1: Percentage of patients age 65+ years admitted to hospital who received a malnutrition screening with a validated screening tool

   The data captured (variables needed to collect) for MQii Quality Indicator 1 are:
   1. A unique patient identifier
   2. Patient gender (optional)
   3. Patient age on admission (calculated using admission date - birthdate = age on admission)
   4. Presence of a completed malnutrition screening tool record (date and time)

   To then calculate the performance rate for this indicator:
   1. Count the number of patients admitted to each participating clinical unit who are age 65+ years at the time of admission
   2. Count the number of patients in step 1 who also have a malnutrition screening record
   3. Divide the number of patients in Step 2 by the number of patients in Step 1

If a specific activity has been attempted for 3 months without any success or sign of improvement, it may be an opportunity to reassess the implementation approach or identify a different root cause that would be more beneficial to address. As implementation of selected activities are tested, there should also be consideration for suggested best practices for patient engagement, staffing, and care coordination.

Step 4: Interpret and Analyze the Data

Results from data collected on the quality measures/indicators should be interpreted by the Care Team on a continuous basis to inform further improvements in the clinical workflow. Displaying the data graphically (e.g., using run charts) makes it easy to discuss the process of care and to pinpoint specific events and tie change, or lack of change, in the measurement over time as it relates to clinical improvement activities.

In **Figure 5** below, a sample run chart displays data that suggest the targeted quality improvement – increasing rates of malnutrition screening – has been very successful towards a stated goal of 100%. The record also shows the point in time where specific clinical improvements were performed to permit the Care Team to make decisions around the effectiveness of the selected clinical improvements in creating or sustaining improvement. The Care Team is able to track progress on a weekly basis and determine that the changes introduced have been effective.

To ensure a level of validity to your findings (i.e., confirm that the results represent what is really taking place), you may wish to follow a set of signal rules.[45] Signal detection rules are used to show that the changes that are identified in a chart are non-random. Most of the rules require at least 6 and as many as 12 data points on either side of the median to be considered a signal.[45]
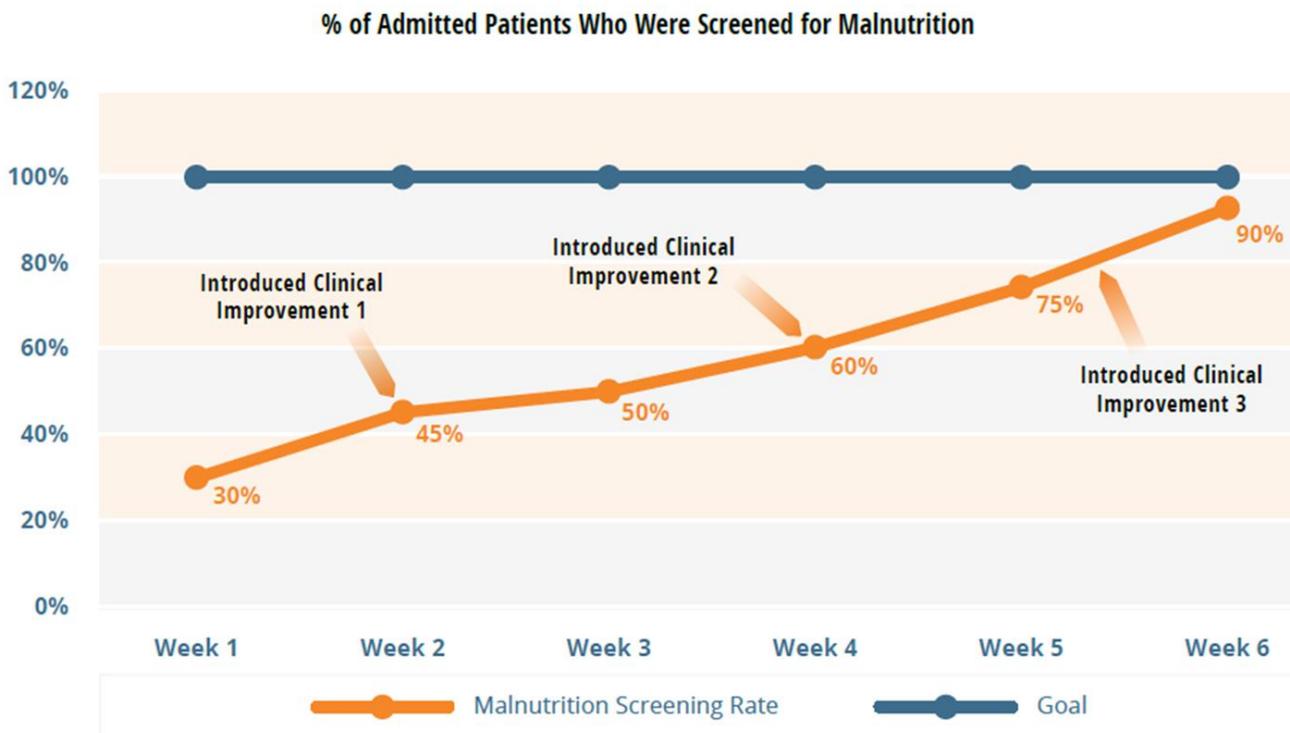
Figure 5: Sample Run Chart to Track Initiative Data

Run charts also enable comparison of performance against a specific standard and may help the Care Team identify problem areas. In the second sample chart on the next page (**Figure 6**), the same team has seen an overall increase in the number of eligible patients who receive a nutrition assessment. However, the assessments are not being completed within their desired time frame of 24-hours. By comparing the two charts, the team may choose to explore the reasons why, despite higher screening rates, the nutrition assessments are not completed in a timely fashion. The Care Team should review data as a group to gain these types of insights and work on problems and potential solutions together. By having the Project and

Care Teams collaborate on interpretation, you will ensure that perspectives of the different Care Team members are included in the problem-solving process.

% of Patients at Risk for Malnutrition Who Received a Nutrition Assessment
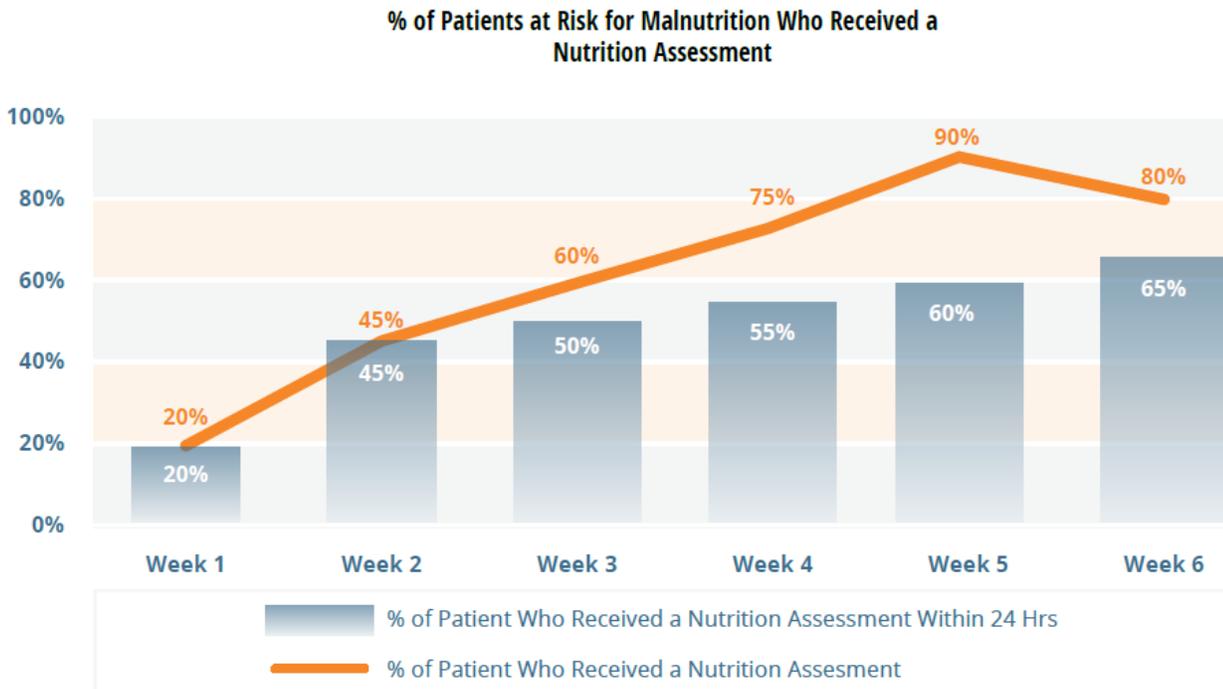
Figure 5: Sample Bar Chart to Track Initiative Data

The Care Team can use these results to identify specific aspects of the care process that might be adjusted to help bring about the desired outcome. It can be something as simple as a reminder pop-up on an intake assessment to additional training for the intake and transport staff. Ideally, the changes should be individual and incremental to be able to isolate and measure the effect of the change. Once the change is shown to be beneficial, that act of improvement should be shared with the broader Care Team.

Step 5: Spread the Change

Once the recommended clinical workflow is fully established and a high level of performance is attained across the targeted quality measures/indicators, you may benefit from further spreading the changes to other units within your hospital or other hospitals within your health system. It is important to share lessons learned from your implementation to avoid duplication of effort or challenges for which you have identified a solution. Encouraging the spread of best practices across the Care Teams and focusing on other patient populations is another way of promoting ongoing rigor in the quality of malnutrition care.[46]