

Begin Implementation

Train Your Team and Take Action



MALNUTRITION QUALITY
IMPROVEMENT INITIATIVE

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.

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Section Take Aways

Following your completion of this section you will be ready to:

- Train all team members
- Implement the selected clinical improvement
- Begin to collect and analyze data

Step 1: Train the Care team

In order to launch implementation of the MQii, it will be necessary to ensure that all Care Teams are aware of the activities selected for quality improvement as part of the MQii. This includes their education of the processes needed to implement changes or modifications to the current clinical workflow and awareness of care standards associated with high-quality malnutrition care, namely those outlined in the recommended clinical workflow.

To provide context for implementing the MQii improvement activities, all members of the Care Team should receive education on malnutrition burden (please see [The Case for the MQii](#) section for examples of information to share). To the extent that such burden information can be made specific to your hospital's performance on malnutrition care (e.g., statistics highlighting the impact of under- or untreated malnourished patients on hospital length of stay or readmission rates) 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 the details and best practices associated with an optimal clinical workflow.

With this background and education provided, 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. **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.**

Training sessions need to occur prior to implementation of the selected improvement activities. 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 can be found at mqii.today:

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 the following resources from the Alliance to Advance Patient Nutrition:

- [Role of the Dietitian](#)¹⁸
- [Role of the Physician](#)¹⁷
- [Role of the Nurse](#)²¹
- [Role of the Hospital Administrator](#)⁴⁴

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 their application is most suitable. Each of these are also available at mqii.today.

Table 8: Care team Tools to Support Clinical Improvement Implementation

Implementation Tool	Clinical Workflow Stage
Recognizing Malnutrition: A visual guide for diagnosis and assessment	<ul style="list-style-type: none"> • Malnutrition Screening • Diagnosis & Assessment
Sample Validated Screening Tool: The Malnutrition Screening Tool ²²	<ul style="list-style-type: none"> • Malnutrition Screening
Malnutrition Assessment Template: The Subjective Global Assessment Tool ⁴⁵	<ul style="list-style-type: none"> • Diagnosis & Assessment
Sample Patient Discharge Template for Continued Malnutrition Care ⁴⁶	<ul style="list-style-type: none"> • Discharge Planning

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)⁴⁷
- [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.)⁴⁸
- [Nutrition Care Process \(NCP\) Tutorial Videos](#) (Series of videos on NCP overview, assessment, diagnosis, intervention, and monitoring & evaluation)⁴⁹

Step 2: Implement the Selected Clinical Improvement(s)

Once the Care team has been educated on the importance of malnutrition and how it can affect patient outcomes, and trained on how to implement the clinical improvement activities, you can then begin implementing the targeted changes to your clinical workflow. The following implementation steps are complemented by additional resources made available through this MQii Toolkit.

Define Your Plan of Action

To formally kick-off the implementation phase, hold an “action planning” meeting with the Care team and 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.

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.**⁵⁰ This involves first implementing only one change (or perhaps two very closely related 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 that align more closely with the recommended standards of care (e.g., ensuring that once patients age 65+ years receive a malnutrition screening, that they also receive 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 particular clinical improvement at a time allows the Project Team to communicate any implementation facilitators across Care teams. And 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.

Aim to answer the following questions with for each implemented clinical improvement:

- What are we trying to accomplish?
 - The Care team should set achievable, measurable and time-bound aims for each phase of work flow implementation. To do so, the Care team should collect baseline data on quality 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?
 - The specific indicators identified by the Project Team are what will help the teams know when an improvement has occurred. By collecting data on these indicators, analyzing them frequently (e.g., biweekly or 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 Indicator: ^{iv} Percentage of patients identified as at risk for malnutrition using a malnutrition screening who also had a completed nutrition assessment
- 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 work flow. 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 Project section and the Additional Resources section may provide useful tools as the team determines how best to continue effecting change and achieve targets. This can be accomplished using the recommended clinical workflow in combination with the best practices provided as well as your observations during mapping of your current clinical workflow.

Example Additional Activity: Ensure that malnutrition assessment questions from a standard tool are included in the electronic intake form used by the intake nurse

Test Change

Once targets, indicators, and additional or refined changes are defined, you can test the changes for each phase of the clinical workflow. The PDSA cycle is a simple method for completing these tests. You can find sample PDSA cycle worksheets at mqii.today (and in the Select Your Quality Improvement Project section of this document) 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 introduce at your hospital to improve malnutrition care.

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. nutrition documentation template) that will be used to facilitate data collection during each cycle to analyze the quality measures and/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 a next phase of implementation.

Test Implementation of the Selected Improvement Activities

Assuming a fixed implementation timeline of 3 to 6 months, the goal should be to complete tests for at least one clinical improvement by the end of the first month. During the following months, the Care team may either focus on continuing to refine performance on the clinical improvement until performance goals for a given indicator(s) is met, or move on to testing another clinical improvement activity that addresses another aspect of the recommended clinical workflow.

Refining a selected clinical improvement activity may involve identifying barriers to optimal practices and feasible solutions. 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 3: Collect Data

Proper documentation in the patient's medical record will support effective care transitions, as many patients are seen by multiple providers and often across multiple care settings. In addition, proper documentation is essential to support the collection and analysis of the selected quality indicators to demonstrate improvement in care processes.

All data collected should be recorded in the patient's medical record (electronic medical records or paper medical records, as applicable) and use a standardized template or process where possible and appropriate. Regular review of collected data is encouraged, for which accurate and consistent data recording and collection is critical.

While it is encouraged that data for the identified quality indicators be collected and analyzed for each PDSA cycle, it is also important to track and display any improvement over time across all quality indicators. More frequent collection will enable the Care team to determine where there are gaps in care or where additional improvement is needed along the clinical workflow. The MQii suggested quality

indicators inform the type and level of data you will need. (Please see the [MQii Data Management Guide](#) for technical specifications for each suggested quality indicator.) Ideally, these data would be collected using your nutrition documentation template in the EHR. As such, much of the data may come through routine clinical documentation as part of the workflow implementation. In the event that some data are not available in the EHR, the Care team may need to collect data using spreadsheets or paper data collection forms.

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

Data collection permits the individual care team members to gain an objective perspective on the processes and outcomes of care. The quality indicators are the key to generating that perspective. For example, in the case of MQii Suggested Quality Indicator 1, for screening patients with a validated tool, it permits the care team to specifically identify the patients who move through the units being evaluated. The variables to calculate this indicator can be extracted directly from an EHR, abstracted from a medical record and recorded on paper, or captured using some other data collection tool. The variables collected in this indicator are very likely to have a very high reliability rating and are probably routinely collected and reported in patient demographic records. An example of the variables needed to calculate MQii Quality Indicator 1 and the accompanying calculations steps are provided in the callout box below.

To see needed variables and calculation instructions for all other MQii quality indicators, please refer to the Quality Indicators Guide in the [MQii Data Management Guide](#). The Quality Indicators Guide includes 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 (and later analysis) for each indicator. The MQii Data Management Guide also includes the MQii Data Dictionary that provides a detailed description of the complete set of variables that are to be abstracted from each patient medical record and collected for this initiative. All of these resources are available at mqii.today.

Step 4: Interpret and Analyze the Data

Results from data collected on the quality indicators you choose to measure 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 as well as to pinpoint specific events and tie change, or lack of change, in the measurement over time as it relates to the clinical improvement activity.

In Figure 4 below, a sample run chart displays data that suggest the quality improvement has been very successful in increasing malnutrition screening rates 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. Signal detection in a run chart can be determined with the application of one of several sets of rules. 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.⁵¹

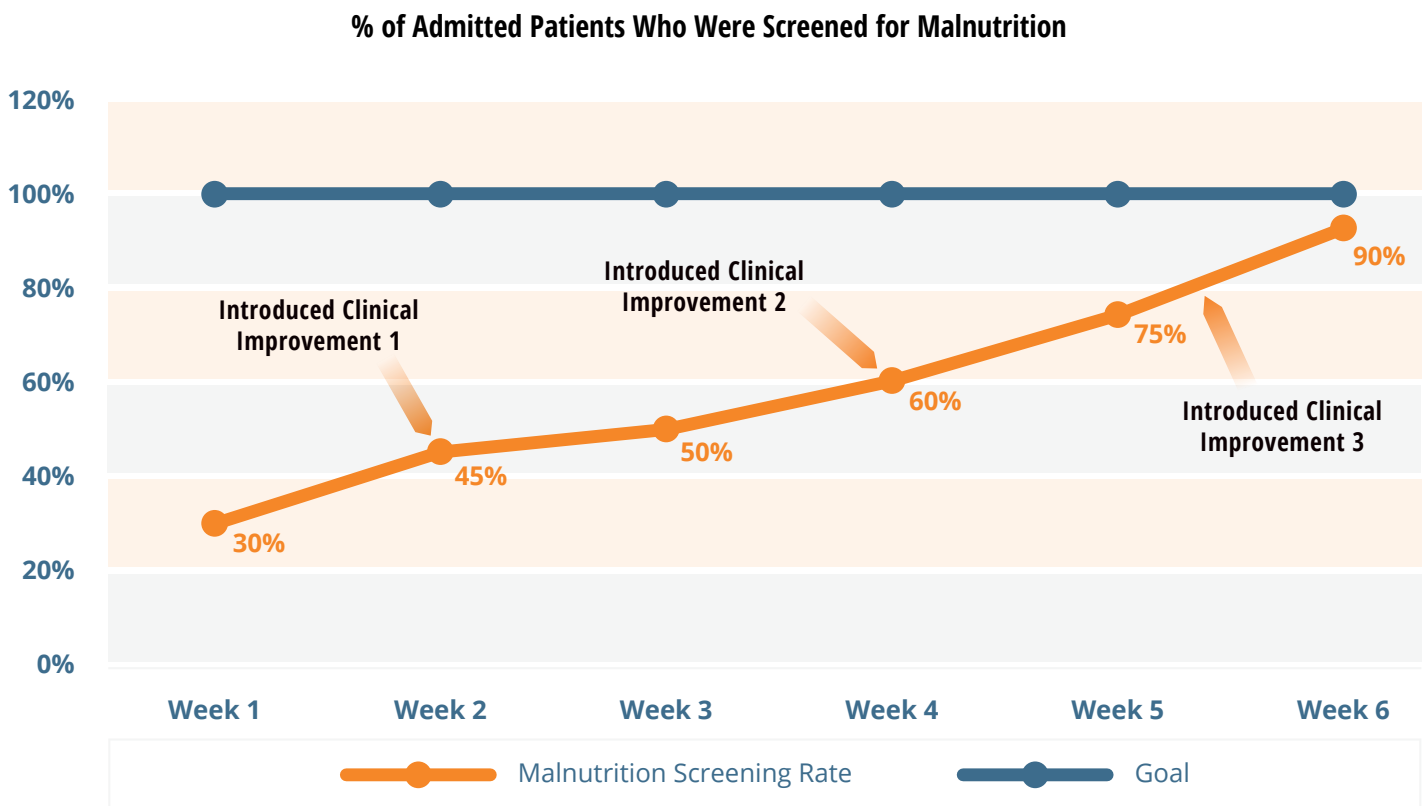


Figure 4: Sample Run Chart to Track Initiative Data

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 5), 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 Care team collaborate on interpretation, you will ensure that perspectives of the different Care team members are included in the problem solving process.

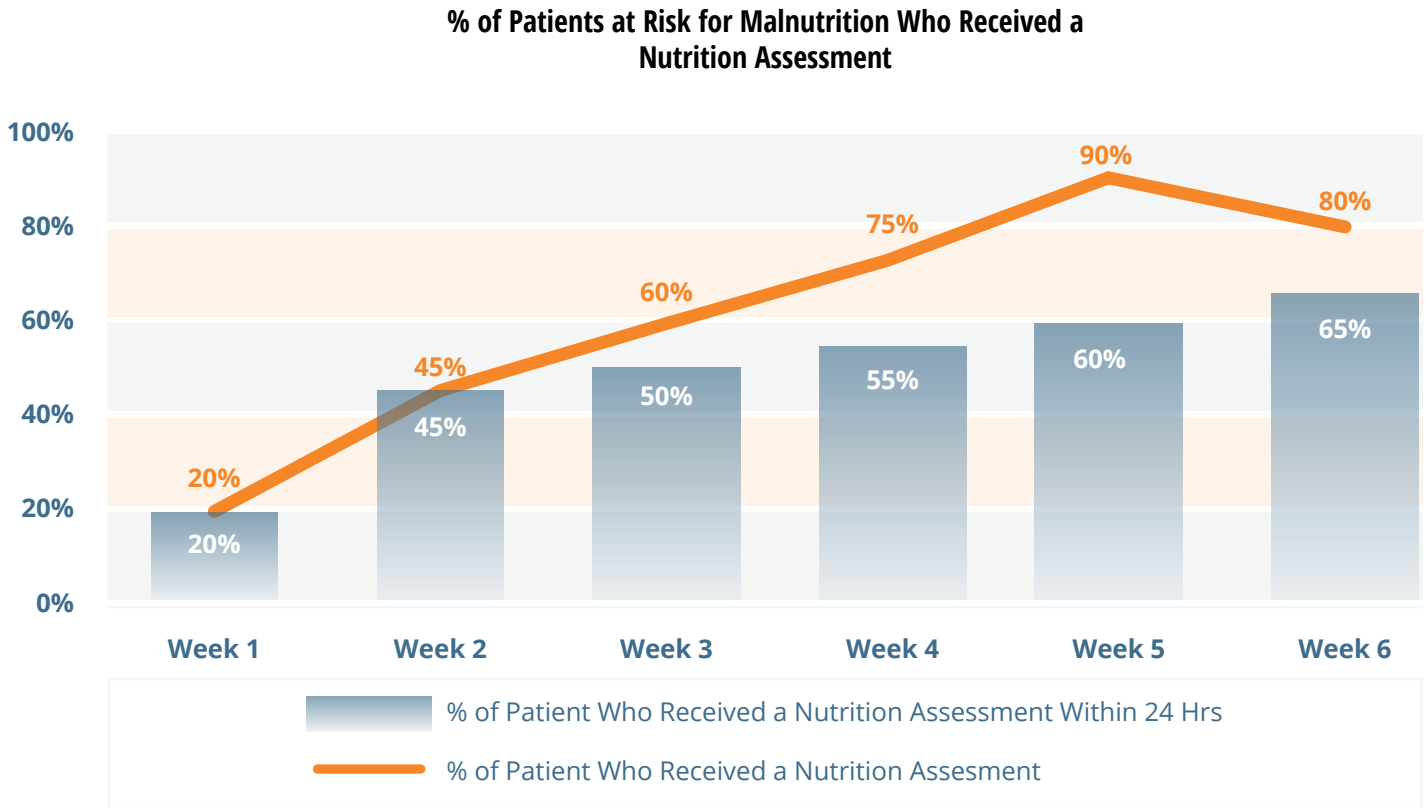


Figure 5: Sample Bar Chart to Track Initiative Data

The Care team can use these results to identify specific aspects of the process of care 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 are 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 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.⁵²