

Learning Collaborative Learning Event: Establishing Your Data Collection Process & Use of the eCQM Performance Calculator

> The Malnutrition Quality Improvement Initiative (MQii) is 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.





Todav's Presenter:

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Today's Learning Objectives

After this presentation you should be able to:

- Understand tools that are available to support your data collection efforts to inform your quality improvement project(s) and monitor your results:
 - The eCQM Performance Calculator
 - The MQii Data Management Guide
- Understand who from your Project Team you should engage to help you use data collection and management tools
- Identify when in your project lifecycle you should have a data collection process established
- Hear from a previous Learning Collaborative participant's experience on how data informed their malnutrition quality improvement



Webinar Terms & Definitions

- QI Focus: The specific area(s) of improvement your organization is focused on such as Screening, Assessment, Diagnosis, Care Plan, Intervention Implementation, or Discharge Planning
- Intervention: A strategy to bring about desired change (e.g., education of staff, changes to EHR components, a workflow change, a documentation change, etc.)
- Quality Indicators: Targeted measures or metrics, available in the MQii Toolkit or developed by your team (ideally in partnership with your QI department) to monitor the impact of your intervention implementation that makes use of readily available hospital inpatient administrative data
- Quality Measures: Tools that help us measure or quantify healthcare processes, outcomes, patient perceptions, and organizational structure and/or systems that are associated with the ability to provide high-quality health care
- Electronic Clinical Quality Measures (eCQMs): Quality measures that use data electronically extracted from electronic health records (EHRs) and/or health information technology systems to measure the quality of health care provided.
- MQii eCQM Data Export: Data file extracted from your EHR that is generated by your IT department according to the MQii eCQM specifications







Todav's Presenter:

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Data Collection Provides the Ability to Monitor Improvements in Malnutrition Care Practices

Data Collection is Critical Regardless of Collaborative Participation Tier

TIER 1: COLLECTION & REPORTING

- Collect eCQM, quality indicator and outcomes data to:
 - Identify where gaps exist in your malnutrition care processes
 - Monitor improvements in malnutrition care best practices
 - Demonstrate the impact and value of malnutrition care on the facility
- Report data to MQii Team for performance feedback and benchmarking

TIER 2: COLLECTION ONLY

- Collect eCQM, quality indicator and outcomes data to:
 - Identify where gaps exist in your malnutrition care processes
 - Monitor improvements in malnutrition care best practices
 - Demonstrate the impact and value of malnutrition care on the facility



Along with the Four eCQMs, Data Collection May Include Intervention, D/C Planning and Outcomes Data

CRITICAL ECQM & ADDITIONAL INDICATOR(S) DATA ELEMENTS:

Measure or Indicator	Critical Measure Data Elements
Completion of a Malnutrition Screening within 24 hours of Admission	Completed malnutrition screeningTime interval between screening and admission
Completion of a Nutrition Assessment for Patients Identified as At-Risk for Malnutrition within 24 hours of a Malnutrition Screening	 Malnutrition screening result (at-risk/not at-risk) Completed nutrition assessment Time interval between assessment and screening
Nutrition Care Plan for Patients Identified as Malnourished after a Completed Nutrition Assessment	Nutrition assessment result (findings)Documentation of a nutrition care plan
Appropriate Documentation of a Malnutrition Diagnosis	Nutrition assessment result (findings)Medical diagnosis of malnutrition on problem list
Nutrition Intervention Implementation	 Delivery/Advancement of nutrition intervention Completion of nutrition intervention
Nutrition Care Plan is Included in Discharge Planning	Output of nutrition care plan in discharge plan

MAJOR PATIENT OUTCOMES FOR ASSESSMENT:

Patient Outcome	Description
Hospital Length of Stay (LOS)	 Collected as part of measure exclusion criteria, LOS data will be collected to track and monitor improvements over the course of the QI
Readmission Rate	After QI completion, 30-day readmission across intervention period as well as comparable timeframe in previous year to assess improvement



Scenarios for Determining Data Collection Approach





Successful QI is driven by review and analysis of patient data that is actionable and supports refinements to quality improvement approaches

Using Non-Patient-Level Data (e.g., Tracking Tools)

EXAMPLE CASE STUDY:



Educational Training for Care Team

- Intervention: Conducting training sessions with staff regarding the burden of malnutrition and the importance of referring at-risk patients to dietitians for assessment
- **Objective:** Increase care team awareness of malnutrition and the need to address malnutrition risk in a timely manner
- What to Measure: Change in care team knowledge regarding best practices and knowledge of malnutrition burden

Key Recommendations:

- For team members unable to make scheduled training sessions, arrange for one-on-one reviews of the information
- Provide one-page handouts and posters in unit selected for the intervention to allow for easy reference by care teams

Data Involved:

- Tracking of care team training attendance
- Care team members' scores on a knowledge test

The Appendix lists recommendations for sites choosing to host a staff training for their intervention



Scenario 1

QI Focus: Assessment

Measuring Success: Using Non Patient-Level Data (e.g., Tracking Tools)

Scenario 1

QI Focus: Assessment

SURVEYS AND TRACKING TOOLS CAN BE USED TO MEASURE EDUCATIONAL TRAINING AND / OR AWARENESS SPREADING

- This type of intervention is well informed by surveys or tracking tools that allow you to measure the extent to which you are spreading awareness or training staff
- The MQii has provided a Knowledge Attainment Test used to assess care team knowledge of disease burden and each stage of the recommended clinical workflow
 - Monitor attendance at training sessions to ensure that only those who attend receive knowledge tracking surveys
 - This tool can be accessed on the MQii Toolkit (link)

Use scores on the tracking tools such as the Knowledge Attainment Test to measure change over time and to identify areas of continued weakness

practio and res before mainut answer	at lated to assess your knowledge of the importance of mahunities and optimal mahunition care is sponficially as raised o underwrition. Please answere the bast of your ability poonses will not be shared; rather, they will be used to help identify your responses over time (i.e., sing the tookit and the completion of the demonstration) to understand changes in your rition knowledge attainment. The questions are multiple choice. Please review all provided to before responding, and then select the answer that you feel is most acounte based on your dige of mathunition.
	Contact Information
Name	
2.	a. Insufficient food intake Fluid accountation C. Loss of muscle mass fluid accountation C. Loss of muscle mass fluid accountation fluid account grave of older adult patients should receive a mainutrition screening?
	 a. All patients 65 years and older b. All patients 65 years and older exclusing surgical patients c. Patients 65 years and older at high risk of mainutrition d. Patients 65 years and older with an mainutrition-related index admission
3.	Which of the following does the Joint Commission recommend as part of its accreditation for hospitals?
	a. Documentation of all platent nutrition interventions in care plan b. Nutrition exceeding within 2 A toxol a diamission c. Nutrition assessment for at-tick patients within 24-48 hours of admission Shared decision making between provider and platent when developing nutrition care plans inclusion of nutrition recommendations in patient discharge plan
4.	Which of the following is not a recommended type of data to be collected during a malnutrition screening or assessment to inform whether a patient is diagnosed as mainourshed or at risk of malnutriton. a. Gastrointestinal symptoms b. Sarum albumin level c. Body mass index d. Functional capabity e. Dietary index
5.	Approximately what percentage of all adult patients admitted to hospital are at risk for malnutrition or are already malnourished?



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QI Focus:

Assessment

Using eCQM Data to Measure Success **EXAMPLE CASE STUDY**:

Key Recommendations:

- Ensure interdisciplinary representation in your project team to support collaboration between nurses and dietitians
- Look at your data frequently to assess whether the feature is working properly and iron out problems with care flow

Data Involved:

• Patient-level process data elements which are already being collected as part of the eCQM performance report





- Intervention: Piloting automated referral to dietitian feature in the EHR (i.e., a best practice alert)
- **Objective:** Increase referrals to dietitians for nutrition assessment to properly assess at-risk patients
- What to Measure: eCQM #2: Completion of a nutrition assessment for those identified as at-risk by a malnutrition screening within 24 hours

Measuring Success: Use of Data that is Used to Inform eCQM Reporting

Scenario 2

QI Focus: Assessment

eCQM-ALIGNED INTERVENTIONS CAN BE INFORMED BY USE OF COMPONENTS IN YOUR MEASURE PERFORMANCE REPORTS

Enter relevant data elements that correspond to your intervention into the eCQM Performance Calculator* to monitor and track your performance on a recurring basis:

IMPROVEMENT INITIATIVE										
Malnutrition eCQM Pe	rformance	Data								
Learning Collaborative 2.0 - Co	hort #1									
Participating Hospital Name										
May 3, 2017										
			Baseli	ne Performanc	e Period					
Quality Measure	Measure	Population		Denom	inator			Numerator		
Completion of a Malnutrition Screening within 24 hours of Admission (Patients Age 18+	Measure Population (All Patients 18+)		Denominator Exclusions Length of Stay <24 hrs		Denominator	Numerato # Screening Completed	r Elements # Completed w/in 24hrs	Numerator	Performance Score	
Years)	20	000	5		1995	750	700	700	35.09%	
Completion of a Nutrition Assessment for Patients (Age 65+ Years) Identified as At-	Measure Population (All Patients 65+)	Measure Population- # Found At-Risk	Denominator Exclusions Length of Stay <24 hrs		Denominator	Numerator Elements #Assessment #Completed Complete w/in 24hrs		Numerator	Performance Score	
Risk for Malnutrition within 24 hours of a Malnutrition Screening	1000	450	5			445	375	350	350	78.65%
	Measure	Measure	0	ominator Exclusi						
Nutrition Care Plan for Patients (Age 65+	Population (All Population- # Patients 65+) Sev/Mod	Length of Stay <24 hrs	Discharge to Hospice	Left AMA	Denominator	# w/ Care Plan	r Elements	Numerator	Performance Score	
Years) Identified as Malnourished after a Completed Nutrition Assessment	1000	325	<24 nrs	5	5	314	200		200	63.69%
		weasure	_							
Appropriate Documentation of a Malnutrition Diagnosis for Patients (Age 65+ Years)	Measure Population (All Patients 65+) Malpourisbed	Denominator Exclusions			Denominator	Numerator Elements		Numerator	Performance	
			<24 hrs	Hospice	Left AMA		# w/ MN Diagnosis			Score
	1000	325	1	5	5	314	125		125	39.81%
	Raw MN Diagnosis Rate*, **	*Raw Malnutrition (MN **For this facility, # pal								
	10.00%									

Using the eCQM Performance Calculator

- After finalizing your initial data extract for calculating your performance scores, you can work with your IT department to generate the report on a recurring basis
- 2. The eCQM Performance Calculator* allows you to use your measure data extract to continuously monitor intervention progress
- Continue to generate the report and enter your data into the eCQM Performance Calculator on a frequent basis (i.e., weekly) to assess how your intervention is going



What is the eCQM Performance Calculator?

THE ECQM PERFORMANCE CALCULATOR ALLOWS YOU TO CALCULATE ECQM PERFORMANCE SCORES USING DATA FROM THE MQII DATA EXPORT

- The purpose of this tool is for sites to calculate and review eCQM performance data more frequently at their facility during implementation and beyond
- To support sites in using the MQii Performance Calculator, the MQii Team has included a "How-To Guide" within a separate tab in the MQii Performance Calculator to walk sites through the steps of calculating the eCQMs using data from your MQii Data Export
- On the next few slides, we will provide an overview of the performance calculator, and will provide a live demonstration of how to calculate one of the eCQM performance scores using the Malnutrition eCQM Performance Calculator



Overview of the "How-To Guide" For Calculating Your eCQM Performance Scores

The guide includes all required steps to extract the necessary components from your MQii Data Extract report developed by your IT and calculate the measures:



Malnutrition eCQM Performance Calculator How-To Guide

	Overview: Inputting Data into the	Performance Calcu	lator	Term	s & Definitions	Table	1: MQ ii Data Extrac	t Variables
Calculator (secon	tions guide below will allow you to input the or d tab) which calculates your facility's perform			Pseudocode	Steps that indicate what transformations of data element values need to be implemented	Data Element in Transmission Template	Format	Sequence Num
	ch you are reporting.				in order to calculate specific measure components.	Unique ID	alpha-numeric persistant variable	
						Age (Calculated)	Years	
the Performance	easure data extract, follow the calculation instructions below for each measure and enter them in the cells included in e Performance Calculator for each of the four mainutrition eCGMs. Detailed definitions of the data elements ted in Table I are available on the Data Dictionary tab.			Sequence Number	Identification numbers assigned to each data element on the	Length of Stay (Calculated)	Hours	
For each step in the on nput, to identify the v Instruction step. Eaol	calculation algorithm there is a corresponding alue to enter into each cell in the Performa h instruction is a transformation of an data el	nce Calculator tab, fo	llow the corresponding		eCQM Data Transmission Template for measure reporting	Sex	Ambiguous=0; Male=1; Female=2; Not Applicable=3; Other=4; Unknown=5	130-0, 1, 2, 3,
sequence number for		tructions for eCQN	1 #1			Race	White=0; Black or A frican American=1; American Indian or Alaska Native=2;	140-0. 1. 2. 3. 4. 5.
Measure Name			within 24 hours of Ad				Asian=3; Native Hawaiian orPacific	1100, 1, 2, 0, 1, 0,
Description	Completion of a malnutrition screening	g to determine if a patient hospital admiss		thin 24 hours of inpatient			Islander=4; Other Race=5; UTD=7	
	Component in the Performance	Instruction	Calculation Pseudocode w/	Inputting into the Performance				141
	Calculator (Corresponding Cell)	Instruction	Sequence Numbers	Calculator		Primary Diagnosis	(CD)	
			Sequence reambers	Enter remaining number of		Primary Diagnosis	Diagnosis Name	
	Step One - Entering Measure Population (C14)	Limit patient age to≥18 Years	Age (110) ≥18	patients after filtering into C14		Comorbidity Index	Charlson=0; Charlson Deyo=1;	160-0, 1, 2,
				Enter the resulting difference between the #		Score	Elixhauser=2; Other=3; None=4	100-0, 1, 2,
				of patients in C14 and those remaining in the		Comorbidity Index Result	0-25	
	Step Two - Identify Patients Meeting Denominator Exclusion Criteria (E14)	Limit patients to those with LOS≥24 hours	LOS (120) ≥24 Hours	total after applying the LOS filter	-	Malnutrition Screening Performed	Yes=0, No=1	200
Calculation Algorithm	Automated Step - Denominator	(HI4) = Patients in Ste Filter patients from	p.One (C14) - Patients il	o Step Two (E14)	-	Nutrition Screen Result	At-risk=0; Not-at- risk, Average Risk,	201
	Step Three - Identify Patients Meeting First Numerator Criteria (114)	denominator for those with completed malnutrition screening	Malnutrition Screening Performed (200) = 0	Enter remaining number of patients after applying filter into I14		Time from admission	or No Risk=1	
		Filter patients from denominator for this	Time from admission to]	(Screening time minus admission)	Hours	
	Step Four - Identify Patients Meeting Second Numerator Criteria (J14)	measure with Admission to Screening Time ≤24hrs	screening (Screening time minus admission) (202) ≤ 24 hours	Enter remaining number of patients after applying filter into J14		Nutrition Assessment Performed	Yes=0, No=1	210
		-Numerator (KH) =	Patients in Step Four (J)	9			Severely Malnourished=0.	

Using the How-to-Guide

- For each eCQM measure, follow the calculation process outlined, which includes steps for each specific columns of data in your MQii eCQM Data Export (below)
- 2. Input each step in the relevant cell in the performance calculator tab to generate your performance score for each measure.





Work with your IT to generate the report on a recurring basis appropriate for monitoring your intervention

Using Other Quality Indicators to Measure Improvement

EXAMPLE CASE STUDY*:



Reducing Time Interval between Screening & Assessment

- Intervention: Educating dietitian team on process to ensure patients are assessed within 48 hours of screen
- **Objective:** Increase proportion of assessments that occur within 48 hours of screening completion
- What to Measure: Quality indicator for length of time between completion of malnutrition screening and nutrition assessment for those found at-risk**

Key Recommendations:

- Identify process barriers / obstacles that may be impacting your care team's ability to achieve the objective
- Incorporate a feature that alerts clinicians when a patient may be overdue on a nutrition assessment

Data Involved:

- Documentation of completed nutrition assessment [included in measure performance report]
- Timestamps for completed malnutrition screening and nutrition assessment respectively [included in measure performance report]



*This example is for a hospital that is seeking to tackle improved timing assessment in a longer timeframe than the relevant eCQM currently requires. **Quality indicators that do not fully align with the eCQMs may still leverage data from the eCQM performance report generated to inform the measures, but could require you to calculate them independently of the performance calculator

QI Focus:

Assessment

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Measuring Success: Using Other Quality Indicators to Measure Improvement

Scenario 3



THE eCQM PERFORMANCE CALCULATOR CAN INFORM PROJECTS RELATED TO THE eCQMS BUT YOU WILL NEED TO USE OTHER INDICATORS IF YOUR PROJECT DOES NOT ALIGN WITH THE eCQMS

- Successful QI is driven by review and analysis of patient data that is actionable and supports refinements to quality improvement approaches
- Refer to the quality indicators provided in the MQii Toolkit or generate your own organization's indicators to track and monitor QI outside the scope of the eCQMs
- The data management guide* (provided in the Toolkit) allows you to track and monitor your indicators on a frequent basis regardless of QI focus

Additional MQii quality indicators and the data management guide can be found in the MQii Toolkit (link)





*More information on the Data Management Guide, including a walkthrough of the tools, will be provided in an upcoming Coffee Break webinar

The Data Management Guide* Can Help You Monitor Progress on Key Indicators of Malnutrition Quality

Scenario 3



THIS GUIDE IS A HELPFUL TOOL FOR TRACKING AND MONITORING YOUR PROGRESS WITH YOUR QUALITY IMPROVEMENT PROJECT

MQii Data Management Process

1	Assess Data Availability Use the Data Dictionary included in the guide to identify the right indicators to track based on your quality improvement project (e.g., screening, assessment, etc.)
2	Collect Data Leverage the performance report you are using to report on the eCQMs (if applicable) to identify the data points needed to track indicators
3	Calculate Measure and/or Indicator Results Calculate indicators using the Quality Indicator Calculations available in the guide
4	Populate Feedback Report Generate output report on a recurring basis using the Feedback Report Data tab
5	Review Results Select a recurring period to meet with your project team and review results and look for gaps and areas of improvement to focus on



*More information on the Data Management Guide, including a walkthrough of the tools, will be provided in an upcoming Coffee Break webinar

eCQM Performance Calculator Demo



Suggested Next Steps for Establishing A Monitoring Strategy – *All Scenarios* (1 of 2)

GOAL: IDENTIFY AN INTERVENTION MONITORING STRATEGY THAT INCLUDES METRICS TO MEASURE THE IMPLEMENTATION PROCESS AND OUTCOME, A DATA COLLECTION PROCESS, AND A TIMELINE FOR REGULAR DATA REVIEW

- Step 1: Engage your QI department to determine what data needs to be used to monitor both the implementation process as well as the outcome of implementation
 - Review <u>MQii suggested quality indicators</u> with your QI department, as applicable

Suggested Next Steps for Establishing A Monitoring Strategy – *All Scenarios* (2 of 2)

- Step 2: Determine whether data can be captured using existing tools or if data needs to be captured de novo:
 - Existing tools may include administrative claims and/or EHR data
 - If your QI Intervention aligns with data, you may consider using the MQii eCQM Data Export prepared for the MQii Team to assess your progress
 - De novo data collection may be necessary for interventions requiring monitoring using non-patient level data and quality indicators not using eCQM data elements
- Step 3: Establish a timeline for review of identified metrics to assess progress, include a list of stakeholders who should be part of the data review meeting
- Step 4: Document metrics identified and your data collection process in your MQii QI Implementation Project Charter

Data Collection and Feedback Should Occur Throughout Your Project

REVIEW OF YOUR DATA CAN PROVIDE YOU WITH MEANINGFUL INFORMATION ON WHERE YOU NEED TO IMPROVE AND HOW YOU ARE PROGRESSING

- Before starting your project to inform project focus and to establish a baseline to monitor progress
- 2 Through the duration of the project to gather real-time feedback
- 3 At the conclusion of the project to evaluate change over time



Malnutrition Diagnosis during Adult Inpatient Hospitalizations: Analysis of a Multi-Institutional Collaborative Database of Academic Medical Centers

Conrad M. Tobert, MD; Sarah L. Mott, MS; Kenneth G. Nepple, MD, FACS

- UIHC inpatient baseline malnutrition documentation rate of 4.4%
- Similar to national rates

Results A total of 5,896,792 hospitalizations were identified from 105 institutions during the 2-year period. It was found that 292,754 patients (5.0%) had a malnutrition diagnosis during their hospital stay. By institution, median rate of malnutrition diagnosis during hospitalization was 4.0%, whereas the rate of severe malnutrition diagnosis was 0.9%. There was a statistically significant increase in malnutrition diagnosis from 4.0% to 4.9% between 2014 and 2015 (P<0.01). Institutional factors associated with increased diagnosis of malnutrition were higher hospital volume, hospital ranking, and patient satisfaction scores (P<0.01).

Conclusions Missing a malnutrition diagnosis appears to be a universal issue because the rate of malnutrition diagnosis was consistently low across academic medical centers. Institutional variables were associated with the prevalence of malnutrition diagnosis, which suggests that institutional culture influences malnutrition diagnosis. Quality improvement efforts aimed at improved structure and process appear to be needed to improve the identification of malnutrition.

J Acad Nutr Diet. 2017;∎:∎-■.



All Malnutrition

Figure 1. Distribution of rates of any malnutrition diagnosis during adult inpatient hospitalization at 105 academic medical centers during 2014 and 2015 in the University Health System Consortium (Vizient) database.





Improvement in Hospital Malnutrition Diagnosis





eCQM Performance Calculator (link)

Data management guide (link)



Have Questions



Please reach out to a member of the MQii Team at <u>MalnutritionQuality@avalere.com</u>

