Introduction to the Malnutrition Quality Improvement Initiative (MQii)

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.

Presentation Outline

- Business Case for the Malnutrition Quality Improvement Initiative (MQii)
- Background on the MQii and Learning Collaborative
- The Malnutrition eCQMs & MQii Toolkit
- Opportunities for Engagement in the MQii
- MQii Tools and Resources to Support Your QI Project

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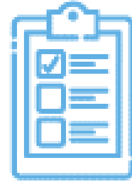
Business Case for the MQii

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.

Malnutrition Poses a Significant Burden to Hospitals

Associated with a 5x higher likelihood of in-hospital death[1]



Associated with a 54% higher likelihood of 30-day readmissions[4]

Affects 20-50% of patients, who are at risk of or malnourished upon hospital admission[2,3]

Creates greater risk of hospital-acquired infections, falls, pressure ulcers, and slower wound healing[5]

Is typically diagnosed in only 7% of hospitalized patients, leaving many potentially undiagnosed and untreated[1]

1. Weiss AJ, Fingar KR, Barrett ML, Elixhauser A, Steiner CA , Guenter P, Brown MH. Characteristics of hospital stays involving malnutrition, 2013. HCUP Statistical Brief #210. September 2016. Agency for Healthcare Research and Quality, Rockville, MD. http://www.hcup-us.ahrq.gov/reports/statbriefs/sb210-Malnutrition-Hospital-Stays-2013.pdf.
2. Barker LA, Gout BS, and Crowe TC. Hospital malnutrition: prevalence, identification, and impact on patients and the healthcare system. Int J Environ Res and Public Health. 2011;8:514-527.
3. Pereira GF, Bulik CM, Weaver MA, Holland WC, Platts-mills TF. Malnutrition among cognitively intact, noncritically ill older adults in the emergency department. Ann Emerg Med. 2015;65(1):85-91.
4. Fingar KR, et al. Statistical Brief #281: All-cause readmissions following hospital stays for patients with malnutrition, 2013. Agency for Healthcare Research and Quality, Healthcare Cost and Utilization Project. September 2016.
5. Isabel M and Correia TD. The impact of malnutrition on morbidity, mortality, length of hospital stay and costs evaluated through a multivariate model analysis. Cli Nutr. 2003;22(3):235–239.

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Malnutrition Contributes to High Healthcare Costs

$157 Billion

Morbidity, mortality, and direct medical costs associated with disease-related malnutrition

$51.3 Billion

Annual costs of disease-associated malnutrition attributable to older adult patients

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1. Snider JT, Linthicum MT, Wu Y, et al. Economic burden of community-based disease-associated malnutrition in the United States. JPEN J Parenter Enteral Nutr. 2014;38(2 Suppl):77S-85S.

Addressing Malnutrition Can Improve Patient Outcomes and Lower Costs

RECENT STUDIES DEMONSTRATE THAT PROVIDING OPTIMAL MALNUTRITION CARE IS ASSOCIATED WITH IMPROVED OUTCOMES

Optimizing nutrition care in an Accountable Care Organization (ACO) with multiple hospitals reduced readmission rates by 27%[1]

Supporting early nutritional care can reduce pressure ulcer incidence, length of stay, 30-day readmissions, and costs of care[2]

Implementation of a nutrition-focused quality improvement program resulted in over $4.8M in cost savings across four hospitals[3]

1. Sriram K, Sulo S, VanDerBosch G, et al. A comprehensive nutrition-focused quality improvement program reduces 30-day readmissions and length of stay in hospitalized patients. JPEN J Parenter Enteral Nutr. 2017;41(3):384-391.
2. Meehan A, Loose C, Bell J, Partridge J, Nelson J, Goates S. health system quality improvement: impact of prompt nutrition care on patient outcomes and health care costs. J Nurs Care Qual. 2016;31(3):217-23.
3. Sulo S, Feldstein J, Partridge J, et al. Budget impact of a comprehensive nutrition-focused quality improvement program for malnourished hospitalized patients. Am Health Drug Benefits. 2017;10(5):262-270.

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Malnutrition Care Aligns with National Priorities for to Improve Healthcare Value

Optimal malnutrition care reduces adverse patient outcomes for which hospitals increasingly face penalties from the Centers for Medicare & Medicaid Services (CMS):

Hospital Readmissions Reduction Program:
3% penalty

Hospital-Acquired Conditions Reduction Program:
1% penalty

Hospital Inpatient Quality Reporting Program:
1/4 reduction to market basket update

Hospital Outpatient Reporting Program:
1/4 reduction to market basket update

Hospital Value-Based Purchasing Program:
2% penalty

Private payers have established similar efforts to incentivize better care and outcomes.

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Background on the MQii

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MQii was Developed to Address the Burden of Malnutrition

The Malnutrition Quality Improvement Initiative (MQii) is a project of the **Academy of Nutrition and Dietetics, Avalere Health, and other stakeholders** who provided expert input through a collaborative partnership.

This initiative aims to advance evidence-based, high-quality, patient-driven care for hospitalized older adults who are malnourished or at-risk for malnutrition.

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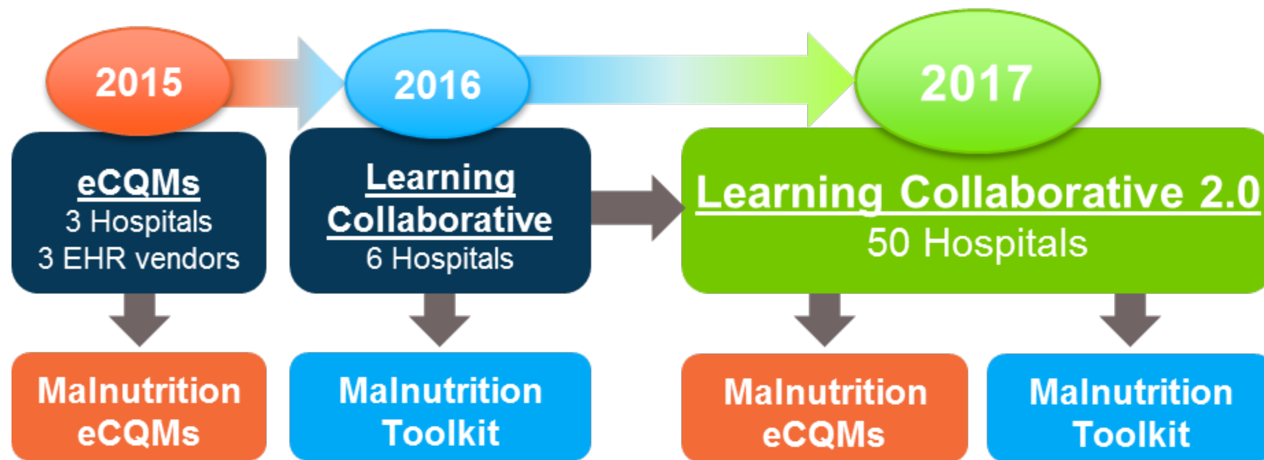
The MQii Has Focused on Disseminating Best Practices for Malnutrition Care

ADVANCEMENT OF MALNUTRITION QUALITY OF CARE HAS BEEN SPEARHEADED BY AN INITIAL GROUP OF PIONEER INSTITUTIONS



- In 2015-2016, pioneering acute care facilities implemented and tested new MQii tools: (1) a standardized malnutrition quality improvement toolkit and (2) a set of four de novo malnutrition electronic clinical quality measures (eCQMs)
- In 2017, the MQii Learning Collaborative 2.0 is generating further evidence on the use of the eCQMs in combination with the Toolkit by assessing the impact and scalability of implementing these complementary tools to advance malnutrition care quality in 50 hospitals nationwide*

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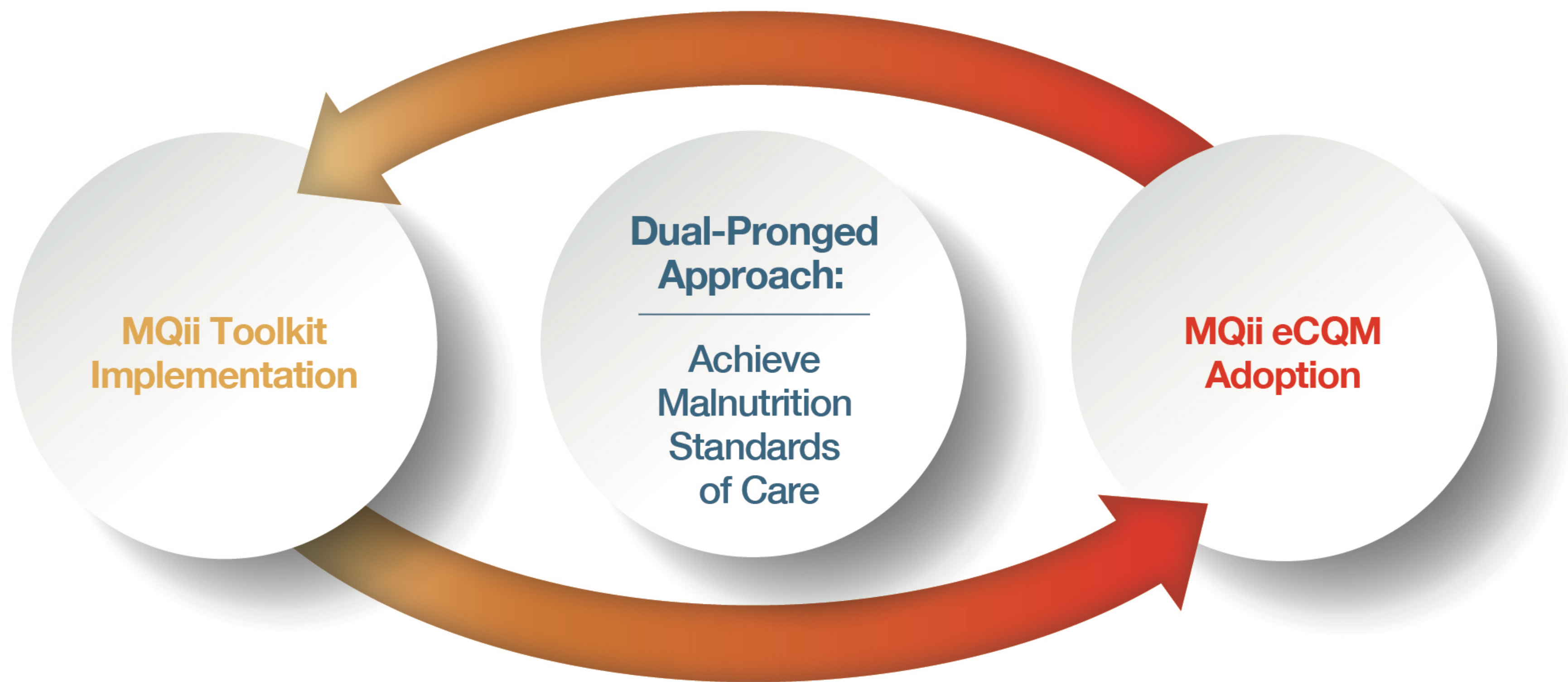
*A description and overview of the 50 hospitals who participated in the Learning Collaborative 2.0 are included in the Appendix

The MQii Provides a Dual-Pronged Approach to Achieve Malnutrition Standards of Care

The MQii Toolkit provides practical resources to enable hospitals to achieve optimal nutrition standards of care



Data reported from eCQMs will help hospitals demonstrate their success in meeting the standards of care

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**Both tools are available for free and public use at: http://www.MQii.Today

The Malnutrition eCQMs Were Developed to Reflect Best Practices

MALNUTRITION ECQMS ALIGN WITH THE MALNUTRITION CARE WORKFLOW

Screening	Assessment	Diagnosis	Care Plan Development	Intervention Implementation*	Monitoring / Evaluation & Discharge Planning*
Completion of a Malnutrition Screening within 24 hours of Admission (patients age 18+) - *MUC16-294*	Completion of a Nutrition Assessment for Patients Identified as At-Risk for Malnutrition within 24 hours of a Malnutrition Screening (patients age 65+) - *MUC16-296*	Appropriate Documentation of a (Medical) Malnutrition Diagnosis (patients age 65+) -*MUC16-344*	Nutrition Care Plan for Patients Identified as Malnourished after a Completed Nutrition Assessment (patients age 65+) - *MUC16-372*	Implementation of a nutrition care plan including treatment for all patients identified as malnourished or at-risk for malnutrition	Implementation of processes, including discharge planning, that support ongoing monitoring and support the care of patients identified as malnourished or at-risk for malnutrition

Clinician Typically Responsible for Each Step

Screening	Assessment	Diagnosis	Care Plan Development	Intervention Implementation*	Monitoring / Evaluation & Discharge Planning*
• Nurse	• Dietitian	• Physician • Dietitian	• Physician • Dietitian • Nurse	• Physician • Dietitian • Nurse	• Physician • Dietitian • Nurse

= Measure developed to address this step in the malnutrition care workflow

***Measures for monitoring and evaluation, and discharge planning were not technically feasible due to limitations in availability of measure data.**

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The Toolkit Provides Start-to-Finish Guidance for Your Entire Interdisciplinary Care Team

USE OF THE TOOLKIT WILL HELP YOU IDENTIFY AND ADDRESS OPPORTUNITIES FOR QUALITY IMPROVEMENT

- Includes implementation resources:
  - Soliciting leadership buy-in
  - Identifying a quality improvement project based on your hospital's existing care practices
  - Understanding best practices for optimal malnutrition care
  - Using tools to support education and training
  - Tracking changes in care with data management information
- May potentially improve patient and economic outcomes of interest, such as readmissions and length of stay

Toolkit Components:

The Importance of Malnutrition Care

Assess Your Readiness

Identify Malnutrition QI Opportunities

Access the Toolkit

- **Training Materials**
- **Clinical Workflow**
- **Best Practice Recommendations**
- **Data Collection Tools**

Appendix: Principles and Models of Quality Improvement

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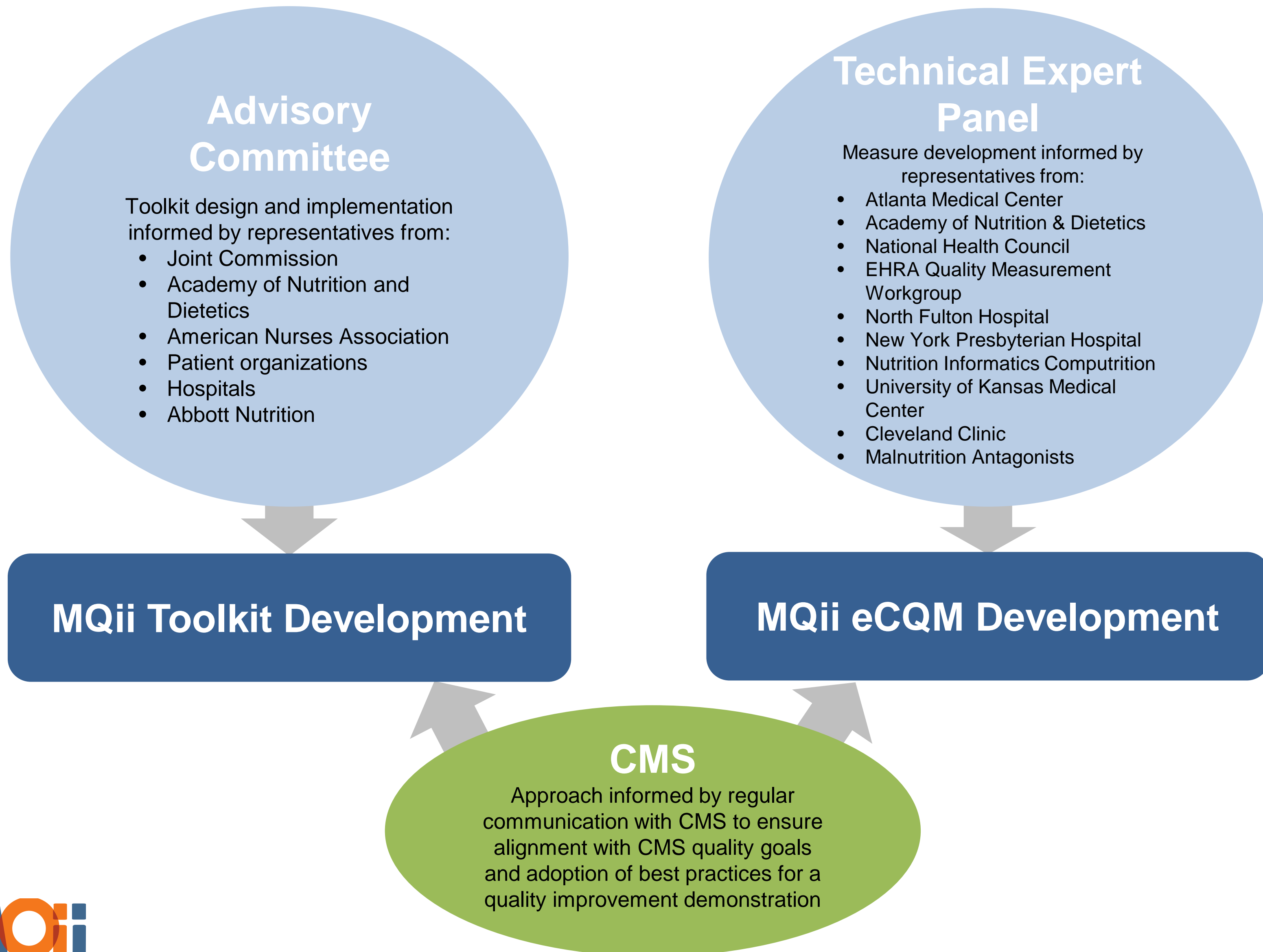
Both Components of the Initiative are Grounded in Multi-Stakeholder Support



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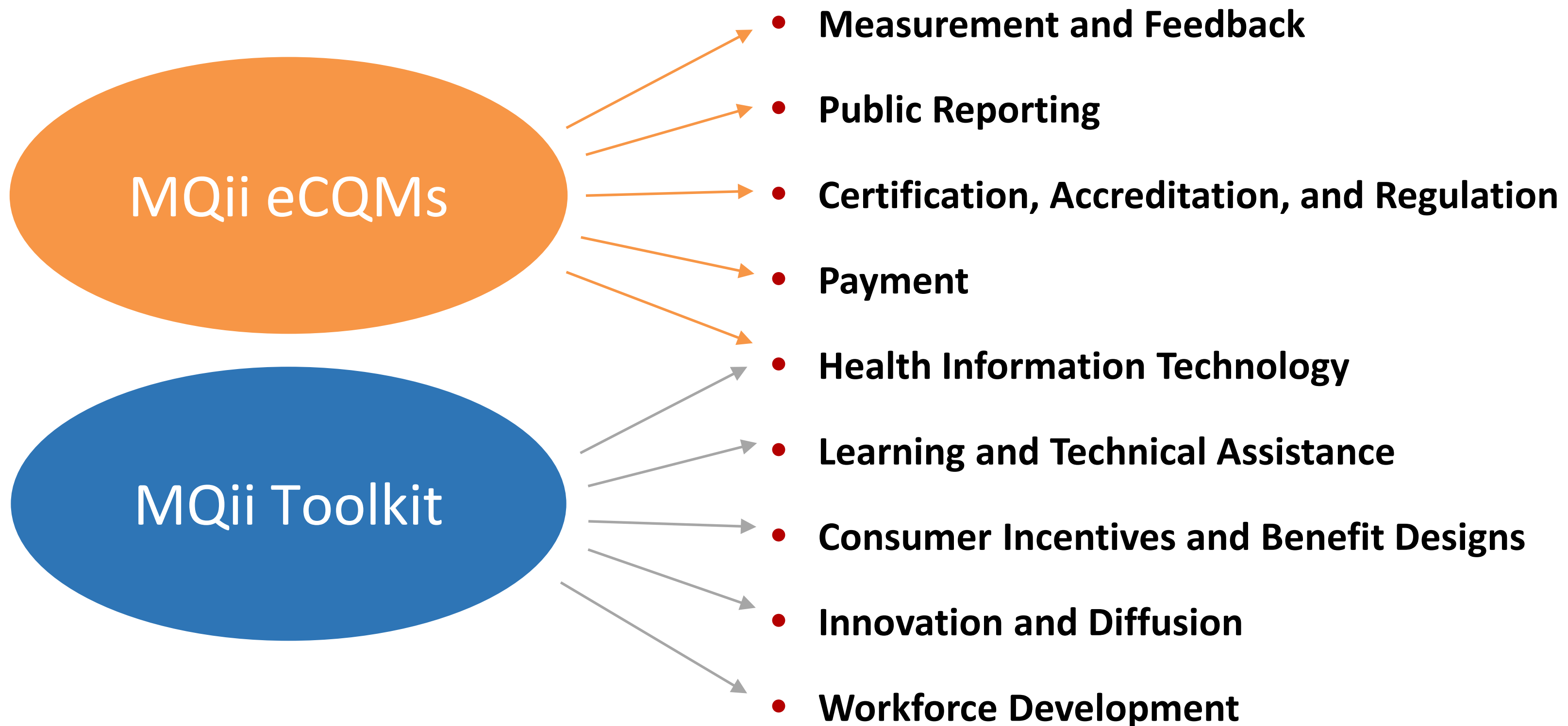
MQii Aligns with HHS' National Quality Strategy "Levers"

THE NATIONAL QUALITY STRATEGY STRIVES TO MAKE CARE SAFER AND MORE AFFORDABLE WHILE ENSURING PATIENT ENGAGEMENT, CARE COORDINATION, AND THE USE OF BEST PRACTICES



Opportunities to Engage in the MQii

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.

If Your Hospital Chooses to Pursue a MQii Project, You Will Have the Opportunity to:

1. **Pursue malnutrition-focused quality improvement** using an online multi-disciplinary toolkit and first-of their-kind malnutrition eCQMs

2. **Transform quality and performance** of malnutrition care delivery through shared learning of real-world approaches, best practices, and data

3. **Implement evidence-based, high-quality, patient-driven malnutrition care** that reduces clinical variation, improves patient safety, and reduces costs and other negative patient outcomes

Appendix: Getting Started with Your Malnutrition Quality Improvement Project

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.

Appendix Outline

- Assembling Your Team
- Getting Started: Identify Your Opportunities and Select a QI Focus
- Using a PDSA Approach to QI

Assembling Your Team: Recommended Roles and Responsibilities for Your Core Team

Member	Role	Suggestions	Est Time
Executive Sponsor	Hospital Leader to champion the effort from a leadership perspective, works to maintain executive leadership buy-in	Recommend Executive Sponsor and Project Champion establish regular meetings (i.e., monthly) to receive progress updates	**30 mins. per month to review progress and approach**
Project Champion	*Dietitian* who generates support and buy-in for project by all relevant parties. Leads day-to-day efforts for this initiative. Develops processes for this project at site and spreads enthusiasm across hospital about the effort. Attends all educational webinars, participates in discussion boards and leads Toolkit implementation (e.g., leads clinician training). A nurse and/or physician may serve as a Co-champion.	Recommend Project Champion establish a team of champions (see next slide) and lead weekly "huddles" throughout this effort to discuss barriers and next steps. It might be useful to hold meetings twice a week.	**10 - 15 hours per month *(depends on QI focus and resources)***
IT/Informatics Representative	Assist with collecting and analyzing data elements required for eCQMs, length-of-stay, readmissions, and any other necessary data	Recommend maintaining regular communications with the Project Champion to ensure timely transmission of data	**10 - 15 hours total to build eCQM report**

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Assembling Your Team: Value of Including Champions for Each Role in the Care Team

Recommended	Value-Add	Est Time
Dietitian Champion	If the Project Champion is not a dietitian, we recommend engaging a dietitian leader who will champion this effort across dietitians and make sure targeted QI changes are adopted. It is also ideal to include a dietitian staff member on the team in addition to the dietitian project champion	**4 – 8 hours per month (Depends on QI focus)**
Nurse Champion	Nurses are the first line of defense to identify malnourished patients. They also play a critical role in implementing interventions and discharge planning. It can be useful to have a nurse champion the value of this effort across nursing staff and make sure their nutrition care responsibilities are implemented effectively.	**4 – 8 hours per month (Depends on QI focus)**
Physician Champion	Physicians play a critical role in implementing interventions, particularly when establishing a diagnosis and support optimal care coordination amongst members of the care team. We recommend securing support from a physician leader who will champion this effort and make sure targeted QI changes are adopted.	**4 – 8 hours per month (Depends on QI focus)**

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Assembling Your Team: Suggested Additional Team Member

Recommended	Value-Add	Est Time
Quality Improvement Team Representative	A representative from your institution's Quality Improvement Department/Committee should be identified to serve as a liaison responsible for the identification of existing quality improvement tools and resources within your institution to support implementation.	**1 hour a month to attend huddles**

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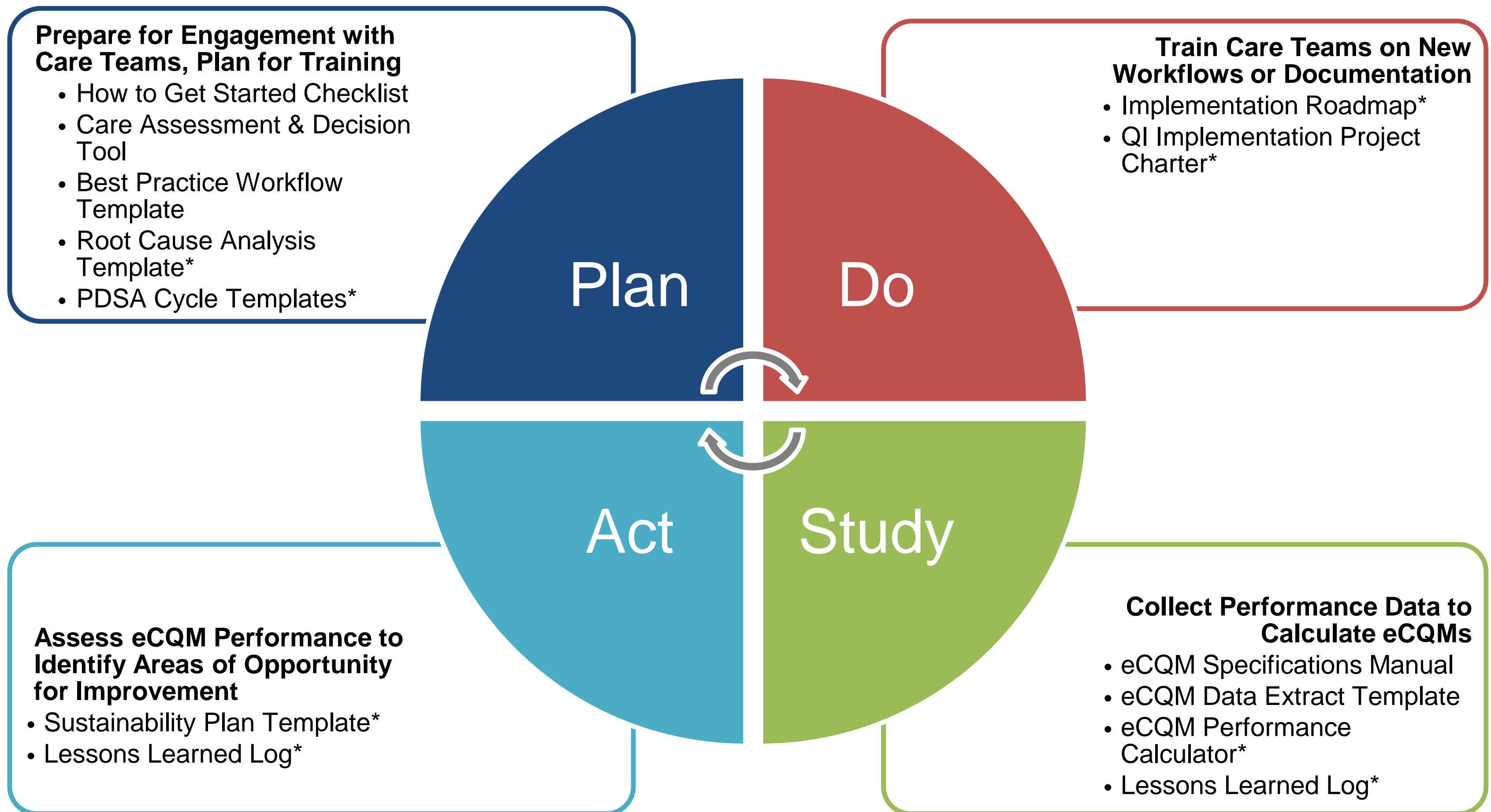
Getting Started: Identify Your Opportunities and Select a Quality Improvement Focus

Plan Your Implementation and Introduce the Changes

Using a PDSA Approach to QI Allows You to Pursue Improvements with Guidance from eCQM Data



Each tool includes guidance on how and when your team is recommended to use it to support QI decision-making and/or your QI implementation approach

QI: Quality Improvement

***Tools referenced can be found on the MQii website at: http://www.MQii.Today**

MQii Tools To Support Participants' QI Initiatives (1/2)

PROJECT MANAGEMENT TOOLS IN THE PLAN & DO STEPS OF THE PDSA CYCLE FOCUS ON SETTING UP YOUR QI INITIATIVE AND PROJECT TEAM

Each tool includes guidance on how and when it can be used to support you with managing your QI intervention

"Plan" Resources

How to Get Started Checklist

Outlines critical steps for beginning a malnutrition QI project

Best Practice Workflow Template

Allows you to map your current workflow and compare it to the recommended best practice workflow

Care Assessment & Decision Tool

Guides your team's understanding of the current state of malnutrition care

Root Cause Analysis Template*

This will facilitate and allow you and your team to drill down to the root cause and find optimal solutions

PDSA Cycle Templates*

After you assess your progress the PDSA cycle will help you prepare and take any next steps

"Do" Resources

Implementation Roadmap*

Recommends actions for your implementation period, including expected outcomes and suggested timing

QI Implementation Project Charter*

Planning tool to be completed with your team as you work through the Implementation Roadmap

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QI: Quality Improvement

***Tools referenced can be found on the MQii website at: http://www.MQii.Today**

MQii Tools To Support Participants' QI Initiatives

PROJECT MANAGEMENT TOOLS IN THE STUDY & ACT STEPS OF THE PDSA CYCLE FOCUS ON IMPLEMENTATION, COLLECTING AND ANALYZING DATA

Each tool includes guidance on how and when it can be used to support you with managing your QI intervention

"Study" Resources

eCQM Specifications Manual

Provides you with guidance for how to implement the four malnutrition eCQMs

eCQM Data Extract Template

Guides your IT team / analyst in development of an EHR extract to collect eCQM data

eCQM Performance Calculator*

Allows you to use your extracted EHR data to calculate your hospital's eCQM performance

Lessons Learned Log*

Provides a template for documenting the lessons learned over the course of your QI implementation

"Act" Resources

Sustainability Plan Template *

Guides you with development of a plan for short- and long-term strategies for sustaining improvements

Lessons Learned Log*

Allows you to use those lessons logged during implementation to extract insights and identify potential modifications that may be made to your project

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QI: Quality Improvement

***Tools referenced can be found on the MQii website at: http://www.MQii.Today**

Data Collection Will be Critical to Implementation

Engage Your IT Team and Secure their Commitment

Identify and Map Data Elements & Build eCQM report

Run Report and Evaluate Performance

Use the Report to Measure Progress

Refine the Report as Needed to Align with Your MQii Goals

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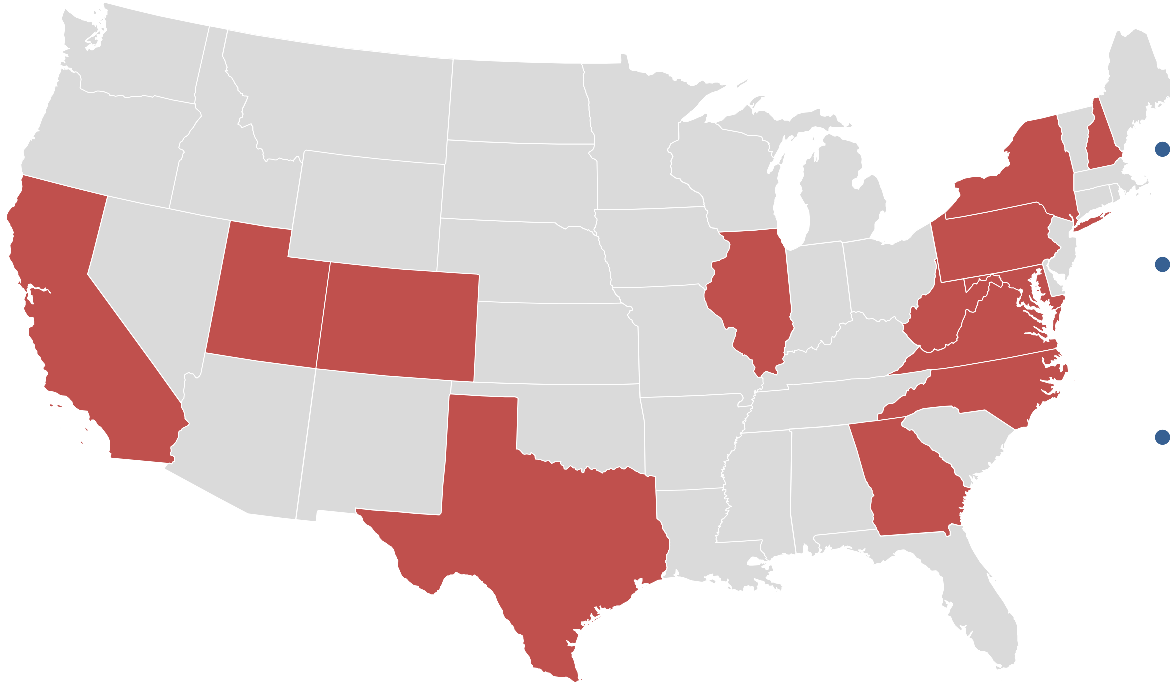
Appendix: Overview of MQii Learning Collaborative 2.0

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.

MQii Learning Collaborative 2.0: An Overview of Participating Sites

- 50 Learning Collaborative 2.0 sites participated across 14 states in 2017
- Hospitals represented both public and private institutions, academic medical centers, community hospitals and small to large facilities

U.S Distribution of Recruited Sites



Demographics

- **Bed size:** 25 – 1,371
- **Number of Dietitians on Staff:** 3 – 26
- **Geographic Distribution:**
  - Urban: 80%
  - Rural: 20%
- **EHR Platforms:**
  - Epic: 70%
  - Cerner: 28%
  - AllScripts: 2%

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