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**National Blueprint:**  
Achieving Quality  
Malnutrition Care  
for Older Adults,  
2020 Update



defeat malnutrition today

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# Foreword /

In 2017, the Malnutrition Quality Collaborative broke new ground and released the first ever *National Blueprint: Achieving Quality Malnutrition Care for Older Adults*. And within just a few short years, momentum has continued to build on the important issue of older adult malnutrition. However, as we begin what the World Health Organization has declared as the Decade of Healthy Aging, much remains to be done. The Defeat Malnutrition Today coalition and its over 100 members, including Avalere Health, are proud to have led and now present an update of the *Blueprint* for the new decade.

Older adult malnutrition persists as a growing crisis in America today and is exacerbated by global health pandemics that can intensify disparities and social isolation. The cost of disease-associated malnutrition in older adults is high—estimated to be \$51.3 billion per year. Up to one out of two older adults is at risk of becoming malnourished, yet insufficient attention is given to preventing or treating the condition. Malnutrition is a patient safety risk and can have deleterious effects on older adult health, especially when other conditions are present. But it is also preventable. With effective screening, assessment, diagnosis, and intervention, malnutrition can be identified and addressed to effectively reduce mortality rates, readmission rates, lengths of stay and costs. This can be strengthened with best practices and quality standards and measures for malnutrition adopted across the continuum of care, including through telehealth services.

A collaborative effort among key stakeholders in the public and private sectors continues to be required to reduce and prevent malnutrition among older adults across the country. As such, the *Blueprint* includes specific strategies that, when implemented, can help solve this growing problem. More importantly, the *Blueprint* focuses on the many ways stakeholder groups can effectively work together.

This *Blueprint* is not intended to be an end, but rather carried on as a guide for the new decade. Since its release in 2017, some of the recommendations in the *Blueprint* have come to fruition; for example, the *Blueprint's* ideas have been addressed in a 2019 U.S. Government Accountability Office (GAO) report on nutrition assistance programs and in the 2020 Older Americans Act (OAA) reauthorization, as well as in other achievements outlined in Appendix A. We hope the many stakeholders represented in this document will take the strategies and recommendations provided and further refine them into actionable steps. We see this as a continuing catalyst for stakeholders to innovate and to build on toward fulfilling our broader goal of achieving quality malnutrition care for older adults.

We trust you find this updated *Blueprint* valuable. It is hoped that solutions addressed today will help prevent further malnutrition among older adults in the future. Therefore, we encourage you to use it to not only raise awareness about malnutrition, but to build your own partnerships to craft and implement feasible solutions to combat this crisis affecting so many older adults and their families in America today.

**Bob Blancato**  
National Coordinator  
Defeat Malnutrition Today

**Kristi Mitchell**  
Practice Director  
Avalere Health

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# About Defeat Malnutrition Today

The Defeat Malnutrition Today coalition is a diverse alliance of over 100 national, state, and local stakeholders and organizations, including community, healthy aging, nutrition, advocacy, healthcare professional, faith-based, and private sector groups. The coalition shares the goal of achieving the recognition of malnutrition as a key indicator and vital sign of older adult health; it works to create policy change toward a greater emphasis on screening, detecting, diagnosing, treating, and preventing malnutrition.

## **Defeat Malnutrition Today**

1612 K St. NW, Suite 200  
Washington, DC 20006  
202.789.0470  
defeatmalnutrition.today

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# About Avalere

Avalere is a vibrant community of innovative thinkers dedicated to solving the challenges of the healthcare system. Avalere delivers a comprehensive perspective, compelling substance, and creative solutions to help you make better business decisions. As an Inovalon company, Avalere prizes insights and strategies driven by robust data to achieve meaningful results.

**For more information, please contact [info@avalere.com](mailto:info@avalere.com).**

## **Avalere Health**

An Inovalon Company  
1201 New York Avenue NW  
Suite 1000  
Washington, DC 20005  
202.207.1300 | Fax 202.467.4455  
avalere.com

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# Executive Summary /

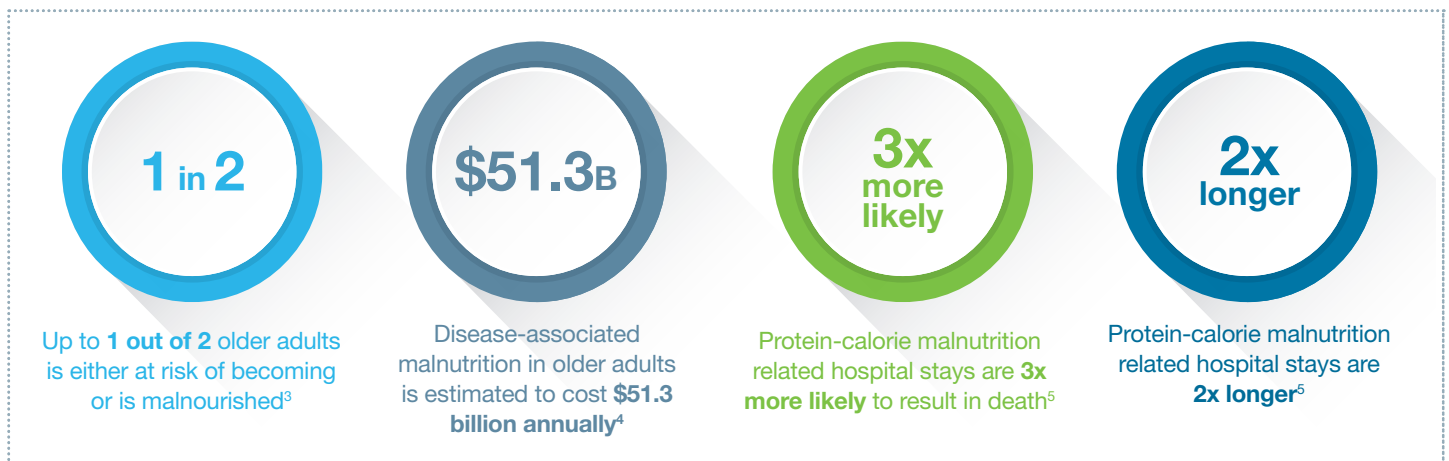
High-quality nutrition and malnutrition care for older adults should be at the top of the U.S. national agenda as we develop population health strategies to improve health and to deliver consistent quality healthcare at an affordable cost. An increasing body of statistics and health economics data continues to show the cost in human and economic terms of malnutrition among this age group. With the number of adults aged 65 years and older expected to reach 77 million by 2034,<sup>1</sup> and Medicare spending projected to rise at a higher rate than overall health spending, there is an urgency to secure the future of healthy aging, starting with nutrition. The year 2020 begins the World Health Organization's Decade of Healthy Aging,<sup>2</sup> and thus there is no better time than now to focus on improving malnutrition care.

Nutrition has been referred to as a vital sign of older adult health. Good nutrition has been shown to help support a healthy and active lifestyle, improve health outcomes, and reduce healthcare costs. In stark contrast, malnutrition, particularly the lack of adequate protein, calories, and other nutrients needed for tissue maintenance or repair, has been shown to be associated with poor health outcomes, frailty

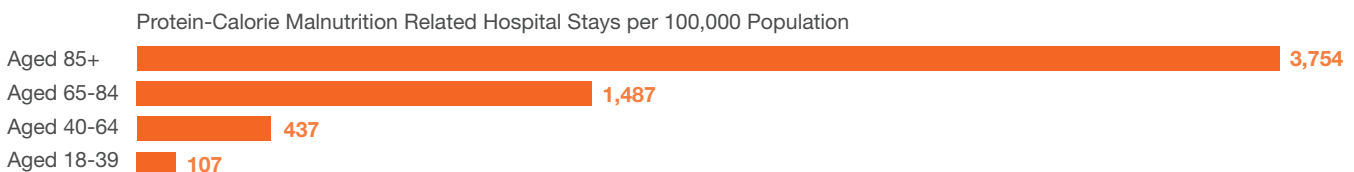
and disability, and increased healthcare costs. Importantly, malnutrition is a significant problem for both underweight and overweight or obese individuals due to loss of lean body mass. Moreover, generally when people reference malnutrition, it is protein-energy malnutrition.

The causes of malnutrition are multiple and complex, and the solutions require collaboration among many organizations, government bodies, and communities. To coalesce the key stakeholders and focus additional attention on older adult malnutrition, the Defeat Malnutrition Today coalition ([www.defeatmalnutrition.today](http://www.defeatmalnutrition.today)) has led the development and revision of this *National Blueprint: Achieving Quality Malnutrition Care for Older Adults (Blueprint)*. A multi-disciplinary group of coalition members and other interested stakeholders collaborated to produce the original and revised *Blueprint*. It continues to outline specific goals and strategies to promote and achieve high-quality malnutrition care across the continuum of acute, post-acute, and community settings.

## Malnutrition Is a Critical Public Health and Patient Safety Issue



### Malnutrition is Highest in Older Adults<sup>5</sup>



## Goals and Strategies of the National Blueprint: Achieving Quality Malnutrition Care for Older Adults

<b>Goal 1</b>	<b>Improve Quality of Malnutrition Care Practices</b>
<b>Strategies</b>	
<ol style="list-style-type: none"> <li>1. Establish Science-Based National, State, and Local Goals for Quality Malnutrition Care</li> <li>2. Identify Quality Gaps in Malnutrition Care</li> <li>3. Establish and Adopt Quality Malnutrition Care Standards</li> <li>4. Ensure High-Quality Transitions of Care</li> </ol>	
<b>Goal 2</b>	<b>Improve Access to High-Quality Malnutrition Care and Nutrition Services</b>
<b>Strategies</b>	
<ol style="list-style-type: none"> <li>1. Integrate Quality Malnutrition Care in Payment and Delivery Models and Quality Incentive Programs</li> <li>2. Reduce Barriers to Quality Malnutrition Care</li> <li>3. Strengthen Nutrition Professional Workforce</li> </ol>	
<b>Goal 3</b>	<b>Generate Clinical Research on Malnutrition Quality of Care</b>
<b>Strategies</b>	
<ol style="list-style-type: none"> <li>1. Evaluate Effectiveness and Impact of Best Practices on Patient Outcomes and Clinical Practice</li> <li>2. Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research</li> <li>3. Track Clinically Relevant Nutritional Health Data</li> </ol>	
<b>Goal 4</b>	<b>Advance Public Health Efforts to Improve Malnutrition Quality of Care</b>
<b>Strategies</b>	
<ol style="list-style-type: none"> <li>1. Train Healthcare Providers, Social Services, and Administrators on Quality Malnutrition Care</li> <li>2. Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources</li> <li>3. Educate and Raise Visibility with National, State, and Local Policymakers</li> <li>4. Integrate Malnutrition Care Goals in National, State, and Local Population Health Management Strategies</li> <li>5. Allocate Education and Financial Resources to HHS- and USDA-Administered Food and Nutrition Programs</li> </ol>	

Poverty and food insecurity significantly increase the risk of malnutrition. At the same time, there are other risk factors to consider as well. Changes commonly associated with aging, such as loss of appetite, limited ability to chew or swallow, and use of multiple medications, can impact diet and nutrition. Pandemic health measures, such as stay-at-home orders, can cause social isolation and limit access to food. Older adults are also at risk of malnutrition due to chronic illness, disease, injury, and hospitalizations. Acute conditions, like those that require surgeries or intensive care stays,

as well as chronic diseases such as cancer, diabetes, and gastrointestinal, lung, and heart disease and their treatments, can result in changes in nutrient intake that can lead to malnutrition. Further, with disease-associated malnutrition, inflammatory responses are increased, which can result in decreased appetite, gastrointestinal problems, diminished immune response, delayed wound healing, and increased infection rates. Such changes can increase risks for functional disability, frailty, and falling. Changes in functional ability can also lead to social isolation, which may cause depression and, in

turn, affect cognitive functioning. Changes in cognitive functioning for some older adults may also be risk factors for malnutrition.

But while malnutrition is pervasive, costly, and causes patients to feel worse and heal slower, it still has not been addressed by a systematic, consistent approach throughout the healthcare system. Broadly, the general lack of awareness that malnutrition is linked to acute illness, chronic disease, and poor health outcomes persists. Physicians receive limited nutrition training in medical schools. Many individuals among the public, including healthcare providers, remain unaware of malnutrition's prevalence in older adults and have limited access to resources—including adequate nutrition services and supports—to help identify and address the condition. While there are malnutrition standards of care, best practices, and validated screening tools and diagnostic tools available, these have yet to be systematically adopted into routine medical care or adopted across care settings. As our nation moves to expand telehealth services, there is an opportunity to integrate malnutrition screening in telehealth programs and other provider access initiatives. In addition, care coordination of malnourished and at-risk older adults could be less fragmented if there was greater visibility among the clinical care team of relevant malnutrition data and documentation and standardization of key malnutrition data elements in electronic health records.

Malnutrition care represents an important gap area that has been acknowledged in comments and reports by the Centers for Medicare & Medicaid Services (CMS), the Congressional Research Service (CRS), the Government Accountability Office (GAO), and the Administration for Community Living (ACL) Center for Policy and Evaluation, and in multiple Congressional letters. Yet, malnutrition has not been included in our national health objectives nor is it reported in key health indicators for older adults.

Malnutrition care has also been omitted from most prevention and wellness, patient safety and emergency preparedness, care transition, and population health strategies. And while addressing malnutrition aligns with CMS goals and those of the U.S. Department of Health and Human Services' (HHS) National Quality Strategy, to

date, malnutrition care has not been broadly integrated into public or private quality incentive programs. There has been initial movement however, with the recent CMS approval to include malnutrition quality measures in two Qualified Clinical Data Registries (QCDRs) for 2020 in the Merit-Based Incentive Payment System (MIPS). The malnutrition quality measures included in the Premier Clinician Performance Registry and the U.S. Wound Registry will help promote team collaboration with measures for physician and dietitian reporting (Appendix D). The 2020 reauthorization of the Older Americans Act also calls for malnutrition screening for participants in senior nutrition programs, such as Meals on Wheels and congregate meals.

The revised *Blueprint* offers strategies to address these gaps. Expertise and collaboration will continue to be needed by many organizations to successfully implement the recommendations in this *Blueprint*. Specifically, the recommendations persist as a call to action for: national, state, and local governments; clinicians, healthcare institutions, and professional associations; older adults, families, caregivers, patient or consumer advocacy groups, and aging organizations; and public and private payers.

The time to act is now! In a healthcare environment focused on healthy aging, preventive care, patient-centeredness, and cost efficiency, systematic malnutrition screening and appropriate multidisciplinary intervention must become a mainstay of U.S. healthcare. The COVID-19 health pandemic underscored that poor nutrition may be a relevant factor influencing the health outcomes of older adults. The value of quality malnutrition care must be realized, and our country's healthcare delivery, social services, and financial incentives must be aligned to address the epidemic of malnutrition in acute care, post-acute care, and community settings.

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# Overview /

“Let food be thy medicine and medicine thy food.”

– Hippocrates

Since the time of Hippocrates several millennia ago, healthcare professionals have recognized the important link between nutrition and medicine. Today, we continue to deepen our understanding of how nutritional status affects overall health. One area of specific concern is the malnutrition crisis affecting older adults.

## Malnutrition Disproportionately Affects Older Adults

Nutrition is particularly critical for older adults who may have different nutritional requirements than the average adult population. They also more often face barriers to choosing the right foods or eating enough of those foods.<sup>6</sup>

Malnutrition is considered a state of deficit, excess, or imbalance in protein, energy, or other nutrients that adversely impacts an individual’s own body form, function, and clinical outcomes.<sup>7</sup> For many older adults, lack of adequate protein and loss of lean body mass are particularly significant problems, including for those who may be overweight or obese. The importance of malnutrition prevention for older adults is magnified as it affects independent living, healthy aging, and the severity of chronic conditions and disabilities.<sup>8</sup>

As illustrated in Figure 1, an older adult can become at risk for and develop malnutrition in multiple ways. Aging and associated changes such as loss of appetite, more limited ability to chew or swallow, and use of multiple medications can impact diet and nutrition.<sup>9</sup> In addition, cognitive and functional decline, which may lead to social isolation or depression, may also pose risks for developing malnutrition.<sup>9</sup>

Food insecurity and access to optimal nutrition are other issues of concern. The United States Department of

Agriculture (USDA) has defined food insecurity as “a household-level economic and social condition of limited or uncertain access to adequate food.”<sup>10</sup> It can include disruptions in both the quality and quantity of food intake, generally due to financial constraints.

Feeding America released *The State of Senior Hunger in 2017: An Annual Report*, which reported 7.7% of seniors were food insecure, and 3.1% were very low food insecure. This translated into 5.5 million and 2.2 million U.S. seniors respectively facing food insecurity.<sup>11</sup> According to other studies reported by Feeding America, “Food-insecure seniors are at increased risk for chronic health conditions, even when controlling for other factors such as income.”<sup>12-13</sup> Inadequate access to food also compounds malnutrition for food-insecure older adults who “sometimes had enough money to purchase food but did not have the resources to access or prepare food due to lack of transportation, functional limitations, or health problems.”<sup>14</sup>

Additionally, older adults who live alone are more likely to experience food insecurity than those who live with others. Reports document that older adults near the poverty line who live alone have low or very low food security.<sup>15</sup> This represents a large, unmet need that can be reduced through improved education of health providers on the overlap of food insecurity and malnutrition, and engagement of older adults in programs such as the USDA Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps) that are often underutilized. For example, only 42% of eligible seniors participate in SNAP, compared to 83% of all eligible people.<sup>16</sup> Similarly, underutilization or lack of availability of home-delivered and congregate meal programs can also contribute to risks for malnutrition in older adults. Furthermore, adults with low health literacy are more likely to be older and they may also have limited understanding of the importance of nutrition or how to access



**Figure 1: Contributing Factors that Lead to Malnutrition among Older Adults**



adequate nutrition.<sup>17</sup> There are resources available to help build community capacity to better support healthy aging and older adult nutrition, such as those provided through the World Health Organization Guidelines on Integrated Care for Older People (ICOPE). This program includes addressing malnutrition as one of the core evidence-based recommendations for health care professionals and caregivers to prevent, slow, or reverse declines in older adults' physical and mental capacities.<sup>18</sup>

Chronic disease is also an important determinant for malnutrition and healthy aging. One in four Americans has multiple chronic conditions, defined as those conditions lasting a year or more and requiring ongoing medical attention or limiting activities of daily living.<sup>17</sup> That number rises to three in four Americans aged 65 and older who have multiple chronic conditions.<sup>19</sup> Chronic diseases such as cancer, diabetes, and gastrointestinal, pulmonary, and heart disease and their treatments can result in changes in nutrient intake and ability to use nutrients, which can lead to malnutrition.<sup>20</sup> Additionally, chronic diseases often disproportionately impact minority populations.<sup>21</sup> An ACL report notes "Those at greatest risk of undernutrition are

older women, minorities, and people who are poor or live in rural areas."<sup>22</sup> This may add to the burden of insufficient nutrition among those populations and contribute to increased health disparities as the percentage of minority older adults is expected to increase from 20.7% to 39.1% by 2050.<sup>17</sup>

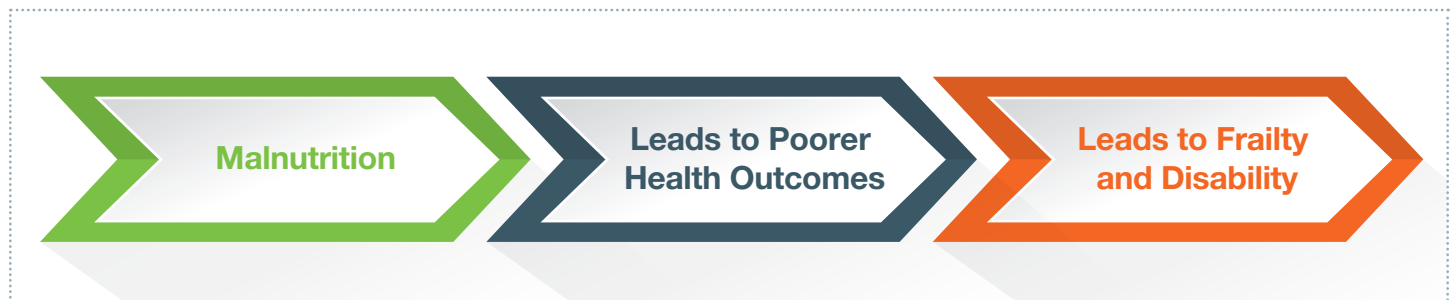
Disease-associated malnutrition is often multifactorial, including inflammatory responses, which can increase metabolic demand; decreased appetite; gastrointestinal problems; and difficulty chewing and swallowing, leading to decreased nutrient intake, which can diminish immune response and wound healing, and increase infection rates.<sup>23</sup> Such changes can increase risks for functional disability, frailty, and falling. The estimated cost for disease-associated malnutrition in older adults is \$51.3 billion per year.<sup>4</sup> Nutrition interventions have demonstrated positive outcomes in many chronic disease populations, including individuals diagnosed with diabetes, cardiovascular disease, cancer, and chronic obstructive pulmonary disease (COPD).<sup>20</sup> Therefore, solutions to address malnutrition care across the care continuum require comprehensive and collaborative efforts by many stakeholder groups.

## Nutrition in Public Health and the Current State of Addressing Malnutrition Care for Older Adults

To date, diet quality and excess body weight have been the primary areas of focus in U.S. government goals for older adult nutrition. For example, two nutrition-related indicators—eating more than five servings of fruits and vegetables daily, and obesity—are among the 15 Key Health Indicators for older adults on which CDC annually reports data at the national, state, and selected local level.<sup>24</sup> This is important because there is strong evidence that:<sup>25</sup>



Discussions surrounding health indicators have summarized: “Good nutrition, regular physical activity, and a healthy body weight are essential parts of a person’s overall health and well-being.”<sup>26</sup> Similarly, among the scientific questions being considered by the 2020 Dietary Guidelines Advisory Committee is the tracking of dietary intake across life stages through older adulthood.<sup>27</sup> However, there is also strong evidence that:<sup>28</sup>



Up to one out of every two older Americans is at risk for malnutrition,<sup>3,29</sup> yet, there is a gap in malnutrition care for older adults. Because malnutrition is not readily identified and treated today, individuals are often not aware of the problem and their potential greater risk for negative health outcomes and loss of independence. Furthermore, malnutrition care is not identified in national health objectives nor is it reported in key health indicators for older adults. Malnutrition care is also not included in required quality measures that help assess the value and effectiveness of older adults’ healthcare.

This revised *Blueprint* outlines specific strategies to close the gap and improve health outcomes for older adults by addressing malnutrition care across acute, post-acute, and community settings. Person-centered care delivery means establishing systems across the continuum of care to screen, assess, diagnose, and intervene for older adult malnutrition.<sup>30</sup>

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# The Importance of High-Quality Malnutrition Care /

## Malnutrition Is a Key Health Indicator for Older Adults

A CRS report documented “malnutrition affects 35% to 60% of older residents in long term care facilities and as many as 60% of hospitalized older adult patient in the U.S.”<sup>31</sup> Malnutrition affects approximately 20% to 50% of admitted hospital patients.<sup>32</sup> However, in an analysis by the Agency for Healthcare Research and Quality (AHRQ), malnutrition was diagnosed in only about 8% of hospital stays.<sup>5</sup> And in a similar analysis, malnutrition was diagnosed in about 1% of emergency department visits.<sup>33</sup> This important gap occurs for a number of reasons, including a lack of provider visibility into a patient’s nutritional status due to how malnutrition diagnosis is documented or coded and tracked in medical records. As a result, this low rate of diagnosis leads to many potentially untreated individuals, which can lead to adverse outcomes for older adults across all care settings.

Research findings show that malnourished older adults make more visits to physicians, hospitals, and emergency rooms.<sup>29</sup> When older adults present with a malnutrition diagnosis in the emergency department, they are over four times more likely to be hospitalized.<sup>33</sup> Malnourished patients can continue to worsen throughout an inpatient stay, which may lead to increased costs. Studies show that malnutrition, as a contributing factor to post-hospital syndrome, can increase a patient’s risk for a 30-day readmission, often for reasons other than the original diagnosis.<sup>30</sup> Malnutrition is a patient safety risk, as those who are malnourished are more likely to experience a healthcare-acquired condition. Malnutrition is linked to increased rates of mortality, increased incidence of healthcare-acquired pressure ulcers, immune

suppression and increased infection rates, delayed wound healing, decreased respiratory and cardiac function, muscle wasting and functional loss increasing the risk of falls, longer length of hospital stay, higher readmission rates, and higher treatment costs.<sup>34-38</sup>

Malnutrition is also a concern in post-acute care and community settings. In an international study aggregating data from the United States and 11 other developed countries, malnutrition prevalence for older adults was found to be 50% in rehabilitation settings, 13.8% in nursing homes, and 5.8% in the community.<sup>3</sup> However, there remains a dearth of research about the impact or burden of malnutrition in post-acute care or community settings, and few studies highlight optimal malnutrition care practices in such settings. In recent years, several states (Massachusetts, Ohio, and Florida) have released state-specific malnutrition reports to help identify areas of improvement for malnutrition care practices.

## High-Quality Malnutrition Care Assures Safe, Efficient, Person-Centered, and Coordinated Healthcare

With the number of adults aged 65 years and older expected to make up nearly one quarter of the U.S. population by 2060 and the number of adults 85 or older expected to nearly triple during this same time period,<sup>39</sup> the urgency to secure a future of healthy aging through effective malnutrition care policies and actions comes into focus. A recent GAO report summarized “Evidence shows nutrition is associated with older adults’ health outcomes, but federal nutrition guidelines do not address their varying needs.”<sup>40</sup> We need to establish clinically relevant malnutrition goals and quality measures at national, state, and local levels to evaluate how well delivery

and payment systems are functioning and whether older adults are receiving high-quality, safe, and coordinated healthcare.

Malnutrition is a prevalent and potentially costly problem in our broader healthcare system. However, it is also preventable. Effective and timely screening is essential to help providers make accurate diagnoses. Moreover, early nutrition interventions have been shown to substantially reduce readmission rates,<sup>34,41</sup> as well as complication rates, length of stay, cost of care, and, in some cases, mortality.<sup>34</sup> Additionally, best practices, such as the Global Leadership Initiative on Malnutrition (GLIM) criteria for the diagnosis of malnutrition, the 2019 standards developed by the American College of Surgeons on geriatric surgery, or those specified for Enhanced Recovery After Surgery (ERAS) techniques, include recommendations on malnutrition care.<sup>42-45</sup> However, while recent examples of such recommendations implemented by hospital systems demonstrate similar results regarding reduced readmissions and length of stays,<sup>46</sup> these types of standards of care are not routinely integrated into healthcare delivery.

Making a change to integrate malnutrition care into the broader U.S. healthcare system is a wise investment because malnutrition care (from screening and assessment to diagnosis, care plans, and interventions) is a low-risk and low-cost solution that can help improve the quality of clinical care and decrease costs associated with negative outcomes. For example, timely screening and assessment followed by intervention can significantly improve health outcomes for adults, with studies finding:

- Decrease in avoidable readmissions by about 20%,<sup>47</sup>
- 50% reduction in pressure ulcer incidence,<sup>5,48</sup>
- Reduced overall complications,<sup>34</sup>
- Reduced average length of stay of approximately two days,<sup>47</sup>
- Decreased mortality,<sup>49-50</sup> and
- Improved quality of life.<sup>51-52</sup>

U.S. Department of Health and Human Services Secretary Alex M. Azar II in discussing nutrition as a social determinant of health gives the example that “One ACO [Accountable Care Organization] in Chicago, for instance, began screening

high-risk patients for malnutrition, and then supporting them after discharge from the hospital with follow-ups, referrals, and nutrition coupons. The savings were huge: more than \$3,800 per patient.”<sup>53</sup>

For policymakers, healthcare providers, and payers, the time to act is now! In a healthcare environment emphasizing preventive care, patient-centeredness, pandemic and emergency preparedness, and cost efficiency, systematic malnutrition screening, assessment, diagnosis, and appropriate multidisciplinary intervention must become a mainstay of U.S. healthcare services. The value of malnutrition prevention and care must be realized, and our country’s healthcare and social services must include a focus on addressing the epidemic of malnutrition for older adults in acute care, post-acute care, and community settings.

## High-Quality Malnutrition Care Builds on Existing Frameworks

Policies and actions to promote high-quality malnutrition care provide the impetus needed to implement basic practices yet to be embraced by the broader U.S. healthcare system. For example, in both acute care and post-acute care settings, simple shifts in institutional training to emphasize malnutrition screening and assessment are important first steps to potentially reduce the number of untreated cases of malnutrition. This can be strengthened with best practices and quality standards and measures for malnutrition adopted across the continuum of care, including through telehealth services.

Already in the acute care setting, advances are being made for older adult care through the Malnutrition Quality Improvement Initiative (MQii)—a collaboration of the Academy of Nutrition and Dietetics, Avalere Health, and other stakeholders.<sup>54</sup> The initiative provides an innovative approach that recognizes the need to drive quality through the combined use of electronic clinical quality measures and an interdisciplinary toolkit to help hospitals achieve their performance goals for malnutrition care of older adults. CMS has approved including malnutrition quality measures in two QCDRs, supporting dietitian participation in MIPS for 2020 (Appendix D). In 2019, the MQii was highlighted in a special supplement issue of the *Journal of the Academy of Nutrition and Dietetics*, providing a guide for multidisciplinary professionals and organizations

interested in continually improving malnutrition care in their institutions.

A similar focus is needed to establish evidence-based care standards, and performance benchmarks to improve malnutrition care in post-acute care and community settings. The MQii identified potential opportunities in these care settings in its *Dialogue Proceedings/Advancing Patient-Centered Malnutrition Care Transitions*.<sup>55</sup> There is also a need to evaluate the value of specific programs such as home-delivered meal programs on patient outcomes,<sup>56-57</sup> particularly as there are now opportunities for Medicare Advantage plans to offer a home-delivered meals benefit to enrollees with chronic conditions.<sup>58</sup> Further, state and federal nutrition guidelines do not address the varying needs of older adults, yet such guidelines serve as a basis for nutrition requirements in congregate and home-delivered meal programs. The 2019 GAO report on nutrition assistance programs found that providers of congregate and home-delivered meal services face challenges meeting older adults' needs for certain meal accommodations.<sup>40</sup> While the important work of organizations such as Meals on Wheels America, Feeding America, and God's Love We Deliver is well recognized in these settings, there remains a need to establish how they can be expanded in conjunction with established care standards. The determinants of malnutrition are manifold. Thus, solutions to address malnutrition care across multiple settings require comprehensive and collaborative efforts by all stakeholders.

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# A National Blueprint for Achieving Quality Malnutrition Care /

The Malnutrition Quality Collaborative developed this *National Blueprint: Achieving Quality Malnutrition Care for Older Adults, 2020 Update* as a resource for policymakers, healthcare providers, patients and their families and caregivers, and public and private payers.

## The *Blueprint* has four primary goals:

- **Improve Quality of Malnutrition Care Practices Across All Care Settings:** High-quality prevention, identification, and treatment of malnutrition with emphasis on transitions of care will greatly reduce costs and improve malnutrition-associated outcomes. Establishing a comprehensive set of care standards to be adopted by nutrition professionals, other healthcare providers, and social services personnel in all settings of care lays the foundation to improve malnutrition care and related patient outcomes for older adults.
- **Improve Access to High-Quality Malnutrition Care and Nutrition Services:** It is important to integrate quality malnutrition care in payment and delivery models to align incentives and to reduce barriers to high-quality malnutrition care. Better education and awareness of best practices for malnutrition care are needed to ensure that older adults can access needed malnutrition care and follow-up nutrition services in a timely and efficient manner. This includes enhancing access to dietitians and other professionals trained in malnutrition care (particularly through provider referrals) and better nutrition options in all care settings.
- **Generate Clinical Research on Malnutrition Quality of Care:** Evidence generation is critical to address gaps in malnutrition prevention, identification, and treatment. A focus of this evidence generation is to determine the impact on health outcomes of older adults, clinical practices, program delivery, and healthcare

expenditures in order to establish a stronger knowledge base for malnutrition prevention, identification, and treatment across all care settings.

- **Advance Public Health Efforts to Improve Malnutrition Quality of Care:** Malnutrition is a public health issue affecting a large portion of our population. The prevalence and impact of malnutrition is not well understood by many stakeholders. Education is needed to enhance the understanding by stakeholders to prevent, identify, and treat malnutrition. Because of its prevalence as a public health issue and impact on costs, public health organizations should place a greater emphasis on malnutrition prevention, care, and treatment.

The Malnutrition Quality Collaborative also outlined specific strategies—listed in the chart on the following page—to help achieve the stated goals. These strategies, in turn, guided the recommendations presented by the Malnutrition Quality Collaborative in the detailed tables. The recommendations highlight cross-cutting actions that can be taken by various key stakeholders to improve malnutrition care across the care continuum. They represent actionable solutions, many of which can be put into place today.

## The leaders called to action in these *Blueprint* recommendations include:

- National, state, and local governments
- Healthcare practitioners and researchers, healthcare institutions, and professional associations
- Older adults, families, caregivers, patient or consumer advocacy groups, and aging organizations
- Public and private payers.

Much can be done at national, state, and local levels to raise awareness and advance high-quality malnutrition care. This *Blueprint* was developed to inform high-priority areas to improve malnutrition care and help set

the policy agenda to address malnutrition among our nation’s older adults. It is hoped that these strategies and recommendations will continue to serve as the basis of a unified effort to defeat malnutrition.

## Goals and Strategies of the *National Blueprint: Achieving Quality Malnutrition Care for Older Adults*

<b>Goal 1</b>	<b>Improve Quality of Malnutrition Care Practices</b>
<b>Strategies</b>	
<ol style="list-style-type: none"> <li>1. Establish Science-Based National, State, and Local Goals for Quality Malnutrition Care</li> <li>2. Identify Quality Gaps in Malnutrition Care</li> <li>3. Establish and Adopt Quality Malnutrition Care Standards</li> <li>4. Ensure High-Quality Transitions of Care</li> </ol>	
<b>Goal 2</b>	<b>Improve Access to High-Quality Malnutrition Care and Nutrition Services</b>
<b>Strategies</b>	
<ol style="list-style-type: none"> <li>1. Integrate Quality Malnutrition Care in Payment and Delivery Models and Quality Incentive Programs</li> <li>2. Reduce Barriers to Quality Malnutrition Care</li> <li>3. Strengthen Nutrition Professional Workforce</li> </ol>	
<b>Goal 3</b>	<b>Generate Clinical Research on Malnutrition Quality of Care</b>
<b>Strategies</b>	
<ol style="list-style-type: none"> <li>1. Evaluate Effectiveness and Impact of Best Practices on Patient Outcomes and Clinical Practice</li> <li>2. Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research</li> <li>3. Track Clinically Relevant Nutritional Health Data</li> </ol>	
<b>Goal 4</b>	<b>Advance Public Health Efforts to Improve Malnutrition Quality of Care</b>
<b>Strategies</b>	
<ol style="list-style-type: none"> <li>1. Train Healthcare Providers, Social Services, and Administrators on Quality Malnutrition Care</li> <li>2. Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources</li> <li>3. Educate and Raise Visibility with National, State, and Local Policymakers</li> <li>4. Integrate Malnutrition Care Goals in National, State, and Local Population Health Management Strategies</li> <li>5. Allocate Education and Financial Resources to U.S. Department of Health and Human Services (HHS) and USDA-Administered Food and Nutrition Programs</li> </ol>	

**Please note: following the next section, which details recommendations by stakeholder group, a series of additional recommendations are presented that target improvements for malnutrition care in three specific care settings: acute care, post-acute care, and community settings.**

# Recommendations for Key Stakeholder Sectors to Advance High-Quality Malnutrition Care /

The following tables represent specific recommendations to support each of the identified *Blueprint* strategies. There are four tables, each representing one of the four key stakeholder groups: national, state, and local governments; healthcare practitioners and researchers, healthcare institutions, and professional associations; older adults, families, caregivers, patient or consumer advocacy groups, and aging organizations; and public and private payers. For the different stakeholder tables, only recommendations for relevant strategies for each stakeholder sector are presented; thus, not every strategy is addressed under each individual goal.

**Table 1: Recommendations for National, State, and Local Governments to Improve Quality of Malnutrition Care for Older Adults**

1. Improve Quality of Malnutrition Care Practices	
Strategies	Recommendations
Establish Science-Based National, State, and Local Goals for Quality Malnutrition Care	<ul style="list-style-type: none"> <li>Recognize quality malnutrition care for older adults as a clinically relevant and cross-cutting priority in HHS’s Quality Measure Development Plan, the Surgeon General’s National Prevention Strategy, and the HHS and U.S. Department of Agriculture’s (USDA) Dietary Guidelines for Americans</li> </ul>
Identify Quality Gaps in Malnutrition Care	<ul style="list-style-type: none"> <li>Recognize impact of malnutrition and quality gaps for older adults in national, state, and local population health and chronic disease reports and action plans (e.g., malnutrition prevention, identification, and treatment needs in acute care, post-acute care, and home and community-based settings, and among priority disease-specific populations and during health pandemics)</li> </ul>
2. Improve Access to High-Quality Malnutrition Care and Nutrition Services	
Strategies	Recommendations
Integrate Quality Malnutrition Care in Payment and Delivery Models and Quality Incentive Programs	<ul style="list-style-type: none"> <li>Adopt clinically relevant malnutrition quality measures in public and private accountability programs across the care continuum</li> <li>Reduce barriers to transparency and transfer of clinically relevant malnutrition care data to downstream providers, individuals, and caregivers</li> <li>Integrate quality malnutrition care in future chronic disease and surgical care demonstrations to develop innovative models to improve outcomes for malnourished and at-risk older adults</li> <li>Engage relevant agencies or organizations (e.g., AHRQ, CMS, National Quality Forum [NQF]) to support development of quality measures and payment mechanisms for malnutrition care that apply to providers and relevant professionals across all settings</li> <li>Expand and incentivize Medicare Advantage coverage of home-delivered meals</li> <li>Services offered should be comprehensive and not limited by specific medical conditions</li> </ul>



**Table 1: Recommendations for National, State, and Local Governments to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
Reduce Barriers to Quality Malnutrition Care	<ul style="list-style-type: none"> <li>• Develop reports on access barriers to quality malnutrition care and nutrition services for older adults (e.g., gaps in public education, healthcare delivery systems, provider training and education, and resource allocation)</li> <li>• Advance national and state policies to allocate resources to support malnutrition screening of older adults at point of entry in post-acute care and community settings, including physician offices, community health centers, senior centers, in-home settings (as appropriate), and health departments</li> <li>• Appoint state-level lead agencies to disseminate policy standards that require addressing malnutrition across all state department programs and services</li> <li>• Adopt electronic data standards to assist in transfer of clinically relevant malnutrition and nutrition health information across care settings and telemedicine services (e.g., nutritional status, diet orders, other nutrition interventions)</li> <li>• Resolve state regulatory barriers to advance dietitian order-writing privileges for clinical/nutrition orders that are permitted by federal regulation</li> <li>• Expand coverage of medical nutrition therapy services to apply beyond current limited list of conditions (i.e., end-stage renal disease [ESRD], chronic kidney disease [CKD], and diabetes) and the currently limited populations</li> <li>• Provide community providers with funds and data to support maintenance and continued growth of needed services</li> </ul>
<b>3. Generate Clinical Research on Malnutrition Quality of Care</b>	
Strategies	Recommendations
Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research	<ul style="list-style-type: none"> <li>• Conduct national research to assess healthcare outcomes and expenditures related to malnutrition; explore collaborations with National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), HHS and USDA Human Nutrition Research Center on Aging</li> <li>• Engage the Office of Nutrition Research within the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) to recommend nutrition research priorities</li> <li>• Conduct national and state research on barriers and pathways to reduce barriers to malnutrition care and nutrition support</li> <li>• Establish a central, publicly available location or source where stakeholders can access fundamental, evidence-based care standards for malnutrition care and integrate new evidence as it is developed. To help establish this resource, collaboration with organizations such as the ACL, AHRQ, or CMS could be explored. Focus on the specific nutritional needs of older adults in the 2025-2030 Dietary Guidelines for Americans, including focusing on information gaps on these specific needs, as identified by the 2019 GAO report</li> <li>• Explore partnerships to disseminate research with federal agencies (e.g., ACL and AHRQ)</li> </ul>
Track Clinically Relevant Nutritional Health Data	<ul style="list-style-type: none"> <li>• Establish electronic data standards to assist in transfer of clinically relevant nutrition health information across care settings (e.g., nutritional status, diet orders, other nutrition interventions)</li> <li>• Include clinically relevant malnutrition-related data in acute care, post-acute care, and community settings in national and state initiatives</li> <li>• Support public reporting of malnutrition quality-of-care data through national or state-based reports</li> </ul>

**Table 1: Recommendations for National, State, and Local Governments to Improve Quality of Malnutrition Care for Older Adults (cont.)**

<b>4. Advance Public Health Efforts to Improve Malnutrition Quality of Care</b>	
<b>Strategies</b>	<b>Recommendations</b>
<p>Educate and Raise Visibility with National, State, and Local Policymakers</p>	<ul style="list-style-type: none"> <li>• Seek to establish a third-party campaign (including through public-private partnerships) to educate the public and providers on what “optimal nutrition” is in order to understand malnutrition, causes of malnutrition (disease, acute illness, food insecurity), and the impact on health outcomes</li> <li>• Implement and build on recommendations of the GAO report, <i>Nutrition Assistance Programs: Agencies Could Do More to Help Address the Nutritional Needs of Older Adults</i></li> </ul>
<p>Integrate Malnutrition Goals in National, State, and Local Population Health Management Strategies</p>	<ul style="list-style-type: none"> <li>• Engage clinicians, providers, and the Office of Disease Prevention and Health Promotion (ODPHP) to adopt malnutrition goals for older adults in Healthy People 2030</li> <li>• Initiate state-level Malnutrition Prevention Commissions or add malnutrition care scope to existing quality measures, or older adult commissions or committees, following the examples of Massachusetts, Ohio, Connecticut, and Virginia</li> <li>• Implement malnutrition screening standards for early identification with populations at high risk for malnutrition                             <ul style="list-style-type: none"> <li>◦ Implement malnutrition screening at State Departments of Health, Medicaid agencies, hospitals, and in national or state telehealth programs</li> <li>◦ Integrate malnutrition screening, education, and interventions into state diabetes, obesity, and falls prevention plans</li> </ul> </li> </ul>
<p>Allocate Education and Financial Resources to HHS and USDA-Administered Food and Nutrition Programs</p>	<ul style="list-style-type: none"> <li>• Conduct research and publish report on share of resources required for various malnutrition prevention, malnutrition care, or food assistance programs</li> <li>• Disseminate existing information to state and local entities to assist them in providing nutritious meals under the Older Americans Act (OAA) nutrition programs and the Child and Adult Care Food Program (CACFP)</li> <li>• Distribute resources, as needed, based on findings from evaluated data or conducted research</li> </ul>

**Table 2: Recommendations for Healthcare Practitioners, Healthcare Institutions, and Professional Associations to Improve Quality of Malnutrition Care for Older Adults**

1. Improve Quality of Malnutrition Care Practices				
Strategies	Recommendations	Healthcare Practitioners	Healthcare Institutions	Professional Associations
Establish Science- Based National, State, and Local Goals for Quality Malnutrition Care	<ul style="list-style-type: none"> <li>Establish facility, clinician, and population health level outcomes targets for malnourished and at-risk older adults</li> </ul>	X	X	X
Establish and Adopt Quality Malnutrition Care Standards	<ul style="list-style-type: none"> <li>Convene a multidisciplinary expert panel to identify quality gaps and establish evidence-based malnutrition care standards and quality measures for older adults in post-acute care and community settings</li> <li>Collaborate with accreditation organizations to include malnutrition care standards in accreditation and certification programs across the care continuum</li> <li>Review current patient admission and discharge processes for inclusion of malnutrition and food-insecurity screening</li> <li>Establish care pathways for follow-up nutrition services and non-food support services in all settings of care</li> <li>Establish care pathways for malnutrition in all care settings during health pandemics and emergencies</li> </ul>		X	X
Track and Report Malnutrition Quality Improvement Through QCDR Participation	<ul style="list-style-type: none"> <li>Adopt malnutrition quality measures available in the Wound and Premier QCDRs</li> </ul>	X		
Ensure High-Quality Transitions of Care (TOC)	<ul style="list-style-type: none"> <li>Establish evidence-based best practices for TOC based upon patient-specific risk factors and ensure available resources to carry out effective TOC</li> <li>Include text from updated Discharge Planning rule to facilitate documentation of nutritional needs as part of discharge planning</li> <li>Implement quality improvement programs to test TOC models that include quality malnutrition care best practices for malnourished and at-risk older adults</li> <li>Adopt clinically relevant malnutrition quality measures in registries and private accountability programs to support effective malnutrition prevention, identification, diagnosis, treatment, and care transitions for older adults</li> </ul>	X	X	X
		X	X	X
		X	X	X





**Table 2: Recommendations for Healthcare Practitioners, Healthcare Institutions, and Professional Associations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

3. Generate Clinical Research on Malnutrition Quality of Care				
Strategies	Recommendations	Healthcare Practitioners	Healthcare Institutions	Professional Associations
Evaluate Effectiveness and Impact of Best Practices on Patient Outcomes and Clinical Practice	<ul style="list-style-type: none"> <li>• Test effectiveness of current malnutrition care best practices in all care settings; in particular, the effectiveness of care standards for high-priority conditions where poor nutrition is a vital predictor of outcomes</li> </ul>	X	X	
	<ul style="list-style-type: none"> <li>• Identify quality measures to improve patient outcomes and fill gaps in acute care, post-acute care, and community settings</li> </ul>	X	X	X
	<ul style="list-style-type: none"> <li>• Evaluate the availability of International Statistical Classification of Diseases and Related Health Problems (ICD) coding and delivery systems to support the consistent access and delivery of evidence-based malnutrition care</li> </ul>	X	X	
Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research	<ul style="list-style-type: none"> <li>• Identify malnutrition research gap areas and prioritize research topics for evidence generation</li> </ul>		X	X
	<ul style="list-style-type: none"> <li>• Strengthen evidence base with high-quality health economic and outcomes research of malnourished and at-risk older adults across acute, post-acute, and community settings</li> </ul>		X	X
	<ul style="list-style-type: none"> <li>• Generate evidence to inform nutrition standards and best practices for high-priority conditions where comorbid malnutrition can negatively impact outcomes</li> </ul>		X	X
	<ul style="list-style-type: none"> <li>• Publish white papers and peer-reviewed manuscripts regarding care pathways and treatments that positively impact malnutrition cost and outcomes that matter for older adults</li> </ul>	X		X
Track Clinically Relevant Nutritional Health Data	<ul style="list-style-type: none"> <li>• Adopt and implement electronic data standards that assist in transfer of clinically relevant nutritional health information across care settings (e.g., nutritional status, diet orders, other nutrition interventions)                             <ul style="list-style-type: none"> <li>◦ Include clinically relevant malnutrition-related data in databases used in acute care, post-acute care, and community settings</li> </ul> </li> </ul>	X	X	

**Table 2: Recommendations for Healthcare Practitioners, Healthcare Institutions, and Professional Associations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Track Clinically Relevant Nutritional Health Data (cont.)	<ul style="list-style-type: none"> <li>• Implement electronic data practices that require effective referral mechanisms in order to maintain ethical standards for assuring that person-centered approaches for malnutrition care are provided</li> <li>• Support public reporting of malnutrition quality-of-care data through national or state-based reports</li> </ul>	X	X  X	X
<b>4. Advance Public Health Efforts to Improve Malnutrition Quality of Care</b>				
Strategies	Recommendations	Healthcare Practitioners	Healthcare Institutions	Professional Associations
Train Healthcare Providers, Social Services, and Administrators on Quality Malnutrition Care	<ul style="list-style-type: none"> <li>• Advocate for schools and universities to integrate training modules for malnutrition prevention, identification, and treatment into curriculums for physicians, nurses, dietitians, allied professionals, and physician extenders (e.g., physician assistants, occupational therapists, physical therapists, social workers, direct care workers)</li> <li>• Advocate for multidisciplinary malnutrition care training to be integrated into continuing medical education (CME) or continuing education (CE) of medical specialty, nursing, and allied health organizations, including those supporting professional workers in home health, case management, and discharge planning roles</li> <li>• Demonstrate the value (e.g., cost-quality, outcomes, patient-centered endpoints) of malnutrition care in population health management</li> </ul>	X  X	X	X  X
Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources	<ul style="list-style-type: none"> <li>• Provide incentives or tools that encourage providers to work more actively with patient engagement councils, patient advocacy groups, and consumer advisory councils to educate them on malnutrition with a focus on older adults across each care setting</li> <li>• Develop and distribute malnutrition-related educational materials for older adults and caregivers                             <ul style="list-style-type: none"> <li>◦ Examples include resources such as those listed in Appendix F</li> </ul> </li> </ul>	X	X  X	X  X

**Table 2: Recommendations for Healthcare Practitioners, Healthcare Institutions, and Professional Associations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations	Healthcare Practitioners	Healthcare Institutions	Professional Associations
Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources (cont.)	<ul style="list-style-type: none"> <li>• Conduct awareness campaigns to educate the public on key therapeutic areas known to have a high prevalence of malnutrition</li> <li>• Educate individuals and caregivers on “what is optimal nutrition” to correct misconceptions (e.g., eating means you are not malnourished) and provide resources to access nutrition services such as through the Older Americans Act Nutrition Program or USDA Food Assistance Programs</li> </ul>	X	X  X	X  X
Educate and Raise Visibility with National, State, and Local Policymakers	<ul style="list-style-type: none"> <li>• Identify national or state policy key opinion leaders to advocate for malnutrition care quality standards to be incorporated across all care settings</li> <li>• Educate legislators and regulators on priority therapeutic areas for malnutrition prevention, identification, diagnosis, and treatment               <ul style="list-style-type: none"> <li>◦ Develop materials in coordination with the National Council on Aging (NCOA) and National Falls Prevention Resource Center to connect the issue of chronic conditions and falls prevention to good nutrition for older adults</li> <li>◦ Develop materials in coordination with the National Academies of Sciences, Engineering, and Medicine’s Food and Nutrition Board to extend the findings of nutrition and optimized oncology outcomes and maximized patient quality of life to other conditions</li> </ul> </li> </ul>		X	X  X
Integrate Malnutrition Care Goals in National, State, and Local Population Health Management Strategies	<ul style="list-style-type: none"> <li>• Convene an expert panel with providers and clinicians to develop recommendations for Healthy People 2030 related to malnutrition in older adults</li> </ul>			X



**Table 2: Recommendations for Healthcare Practitioners, Healthcare Institutions, and Professional Associations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations	Healthcare Practitioners	Healthcare Institutions	Professional Associations
Integrate Malnutrition Care Goals in National, State, and Local Population Health Management Strategies (cont.)	<ul style="list-style-type: none"> <li>• Engage clinicians, providers, and the ODPHP to adopt malnutrition goals for older adults in Healthy People 2030</li> <li>• Seek to establish third-party campaign (potentially through public-private partnerships) to educate the public and providers on what “optimal nutrition” is in order to understand malnutrition, causes of malnutrition (disease, acute illness, food insecurity), and the impact on health outcomes               <ul style="list-style-type: none"> <li>◦ Participate in the nationwide Malnutrition Awareness Week™ (MAW), established by the American Society for Parenteral and Enteral Nutrition (ASPEN)</li> </ul> </li> <li>• Implement malnutrition screening standards for early identification with populations at high risk for malnutrition               <ul style="list-style-type: none"> <li>◦ Implement malnutrition screening at state Departments of Health, Medicaid agencies, hospitals, and in national or state telehealth programs</li> <li>◦ Integrate malnutrition screening, education, and interventions into state diabetes, obesity, and falls prevention plans</li> <li>◦ Incorporate malnutrition screening into state program report data collection for the Older Americans Act</li> </ul> </li> </ul>	<p style="text-align: center;">X</p> <p style="text-align: center;">X</p> <p style="text-align: center;">X</p> <p style="text-align: center;">X</p>	<p style="text-align: center;">X</p> <p style="text-align: center;">X</p> <p style="text-align: center;">X</p> <p style="text-align: center;">X</p>	<p style="text-align: center;">X</p> <p style="text-align: center;">X</p>
Allocate Education and Financial Resources to HHS and USDA-Administered Food and Nutrition Programs	<ul style="list-style-type: none"> <li>• Conduct research and publish report on share of resources required for various malnutrition prevention, malnutrition care, or food assistance programs               <ul style="list-style-type: none"> <li>◦ Distribute resources, as needed, based on findings from evaluated data or conducted research</li> </ul> </li> </ul>	<p style="text-align: center;">X</p>	<p style="text-align: center;">X</p>	<p style="text-align: center;">X</p> <p style="text-align: center;">X</p>

**Table 3: Recommendations for Older Adults, Families, Caregivers, Patient or Consumer Advocacy Groups, and Aging Organizations to Improve Quality of Malnutrition Care for Older Adults**

1. Improve Quality of Malnutrition Care Practices				
Strategies	Recommendations	Individuals, Families, and Caregivers	Patient and Caregiver Advocacy Groups	Aging Organizations
Establish Science-Based National, State, and Local Goals for Quality Malnutrition Care	<ul style="list-style-type: none"> <li>Establish population health outcomes targets for malnourished and at-risk older adults</li> </ul>		X	X
Establish and Adopt Quality Malnutrition Care Standards	<ul style="list-style-type: none"> <li>Collaborate with clinical team to customize malnutrition care plan and discharge plans to include personal health goals</li> </ul>	X		X
	<ul style="list-style-type: none"> <li>Participate in patient-specific curriculums on healthcare quality to learn how to engage in health quality discussions, such as those by the National Health Council or other organizations</li> </ul>	X	X	X
	<ul style="list-style-type: none"> <li>Participate in a technical expert panel to identify quality gaps and establish evidence-based malnutrition care standards and quality measures for older adults</li> </ul>		X	X
	<ul style="list-style-type: none"> <li>Collaborate with accreditation organizations to include malnutrition care standards in accreditation and certification programs across the care continuum</li> </ul>			X
Ensure High-Quality Transitions of Care	<ul style="list-style-type: none"> <li>Contact local AAAs, ADRCs, and other CBOs to learn about nutrition services during TOC</li> </ul>	X	X	X
	<ul style="list-style-type: none"> <li>Collaborate with clinical team to receive and share data on patients' nutritional status between clinical visits</li> </ul>	X		
2. Improve Access to High-Quality Malnutrition Care and Nutrition Services				
Strategies	Recommendations	Individuals, Families, and Caregivers	Patient and Caregiver Advocacy Groups	Aging Organizations
Reduce Barriers to Quality Malnutrition Care	<ul style="list-style-type: none"> <li>Make checklists available that can evaluate if older adults or their family members may be eligible for nutrition services (e.g., Meals on Wheels, congregate meals, or other nutrition-related community support services) through the Older Americans Act or the home-delivered meal benefit if participating in a Medicare Advantage healthplan</li> </ul>	X	X	X



**Table 3: Recommendations for Older Adults, Families, Caregivers, Patient or Consumer Advocacy Groups, and Aging Organizations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

4. Advance Public Health Efforts to Improve Malnutrition Quality of Care				
Strategies	Recommendations	Individuals, Families, and Caregivers	Patient and Caregiver Advocacy Groups	Aging Organizations
Train Healthcare Providers, Social Services, and Administrators on Quality Malnutrition Care	<ul style="list-style-type: none"> <li>Advocate for schools and universities to integrate training modules for malnutrition prevention, identification, diagnosis, and treatment into curriculums for physicians, nurses, dietitians, allied professionals, and physician extenders (e.g., physician assistants, occupational therapists, physical therapists, social workers, direct care workers)</li> </ul>		X	X
	<ul style="list-style-type: none"> <li>Advocate for multidisciplinary malnutrition care training to be integrated into CME or CE of medical specialty, nursing, and allied health organizations, including those supporting professional workers in home health, case management, and discharge planning roles</li> </ul>		X	X
	<ul style="list-style-type: none"> <li>Require state-based home care standards for training all home-based caregivers regarding nutrition, food safety, and identification of the signs and symptoms of malnutrition</li> </ul>		X	X
	<ul style="list-style-type: none"> <li>Demonstrate the value (e.g., cost-quality, outcomes, patient-centered endpoints) of malnutrition care in population health management</li> </ul>		X	X
	<ul style="list-style-type: none"> <li>Participate in professional conferences and present on malnutrition awareness and quality care</li> </ul>		X	X
Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources	<ul style="list-style-type: none"> <li>Participate in patient engagement councils, patient advocacy groups, and consumer advisory councils with a focus on older adults</li> </ul>	X	X	X
	<ul style="list-style-type: none"> <li>Develop and distribute malnutrition-related educational materials for older adults and caregivers                             <ul style="list-style-type: none"> <li>Examples may include resources such as those referenced in Appendix F</li> </ul> </li> </ul>		X	X



**Table 4: Recommendations for Public and Private Payers to Improve Quality of Malnutrition Care for Older Adults**

1. Improve Quality of Malnutrition Care Practices	
Strategies	Recommendations
Establish Science-Based National, State, and Local Goals for Quality Malnutrition Care	<ul style="list-style-type: none"> <li>Establish facility, clinician, and population health metrics to better evaluate patient outcomes for malnourished older adults or those at risk for malnutrition</li> <li>Integrate malnutrition screening, education, and interventions in diabetes, COPD, oncology, and obesity plans for older adult beneficiaries and caregivers</li> </ul>
Identify Quality Gaps in Malnutrition Care	<ul style="list-style-type: none"> <li>Recognize impact of malnutrition and quality gaps for older adults in population health and chronic disease prevention and wellness initiatives (e.g., malnutrition prevention, identification, and treatment needs in community, acute, and post-acute care settings and priority disease-specific populations)</li> </ul>
2. Improve Access to High-Quality Malnutrition Care and Nutrition Services	
Strategies	Recommendations
Integrate Quality Malnutrition Care in Payment and Delivery Models and Quality Incentive Programs	<ul style="list-style-type: none"> <li>Adopt malnutrition screening, assessment, diagnosis, intervention, and care transitions standards for beneficiaries in Patient Centered Medical Home, Medicare Advantage, Shared Savings, and other alternative payment models for older adult beneficiaries</li> <li>Adopt malnutrition standards for Medicare Advantage beneficiaries eligible for supplemental benefits</li> <li>Adopt clinically relevant malnutrition quality measures in public and private accountability programs across the care continuum</li> <li>Adopt electronic data standards to assist in transfer of clinically relevant malnutrition care or nutrition health information across care settings (e.g., nutritional status, diet orders, other nutrition interventions)</li> </ul>
Reduce Barriers to Quality Malnutrition Care	<ul style="list-style-type: none"> <li>Integrate malnutrition screening in telehealth programs and other provider access initiatives</li> <li>Reduce barriers to transparency and transfer of clinically relevant malnutrition care data to downstream providers, individuals, and caregivers</li> <li>Expand coverage of medical nutrition therapy services to apply beyond ESRD, CKD, and diabetes and the currently limited populations</li> <li>Include malnutrition care in patient assistance and patient navigator programs to help ensure older adults' access to physician-ordered medical nutrition and services (e.g., medical nutrition therapy, oral nutritional supplements, medically tailored home-delivered meals, Meals on Wheels, and/or other community-based services and supports)</li> </ul>
3. Generate Clinical Research on Malnutrition Quality of Care	
Strategies	Recommendations
Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research	<ul style="list-style-type: none"> <li>Conduct research on beneficiary barriers and pathways to reduce barriers to quality malnutrition care and nutrition support</li> <li>Provide incentives for healthcare institutions and systems to publicly report available data on malnutrition care or patient outcomes related to malnutrition care</li> <li>Request that organizations conducting research through quality improvement pilots addressing malnutrition care disseminate their study results in a timely manner</li> </ul>

**Table 4: Recommendations for Public and Private Payers to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
Track Clinically Relevant Nutritional Health Data	<ul style="list-style-type: none"> <li>• Include clinically relevant malnutrition-related data in acute care, post-acute care, and community settings in beneficiary outcomes' benchmarking</li> <li>• Use electronic data to assist in transfer of clinically relevant malnutrition care or nutrition health information across care settings (e.g., nutritional status, diet orders, other nutrition interventions)</li> </ul>
<b>4. Advance Public Health Efforts to Improve Malnutrition Quality of Care</b>	
Strategies	Recommendations
Integrate Malnutrition Care Goals in National, State, and Local Population Health Management Strategies	<ul style="list-style-type: none"> <li>• Educate beneficiaries on what “optimal nutrition” is in order to understand malnutrition, causes of malnutrition (disease, acute illness, food insecurity), and the impact on health outcomes</li> <li>• Establish a central, publicly available location or source where older adult beneficiaries and caregivers can access education resources on nutrition and malnutrition care (e.g., patient portals, employee assistance websites)</li> </ul>

# Recommendations to Advance Malnutrition Care and Services in Specific Settings /

The remainder of this *Blueprint* highlights recommendations to be carried out to advance quality malnutrition care in specific care settings. The Malnutrition Quality Collaborative specifies these actions for different settings, in addition to the more universal strategies and recommendations previously presented, to help optimize the advancement of malnutrition care throughout the U.S. healthcare system. Therefore, recommendations are presented for acute care, post-acute care, and community settings.

**Table 5. Acute Care Recommendations to Improve Quality of Malnutrition Care for Older Adults**

1. Improve Quality of Malnutrition Care Practices	
Strategies	Recommendations
Establish and Adopt Quality Malnutrition Care Standards	<ul style="list-style-type: none"> <li>• Identify and adopt evidence-based malnutrition care standards and best practices to support early identification of malnutrition and access to quality malnutrition care and nutrition interventions for hospitalized older adults</li> <li>• Establish care pathways for follow-up nutrition services and non-food support services for hospitalized older adults</li> <li>• Address gaps and update evidence-based malnutrition care standards and best practices for hospitalized older adults as warranted (e.g., perioperative and postoperative care standards and best practices for older adults published by ASPEN or AND)</li> <li>• Include malnutrition care standards in institutional health pandemic and emergency preparedness pathways</li> </ul>
Ensure High-Quality Transitions of Care	<ul style="list-style-type: none"> <li>• Establish evidence-based best practices for TOC specific to patient risk factors and ensure available resources to carry out effective care transitions</li> <li>• Collaborate with multidisciplinary stakeholders to develop a protocol or care pathway for referral processes to post-acute care or community services for those who screen positive for malnutrition risk in acute care settings</li> <li>• Urge organizations such as local AAAs, ADRCs, and other CBOs to educate older adults, caregivers, and providers on the availability of malnutrition care and nutrition services during TOC, including medically tailored home-delivered meal providers and Older Americans Act nutrition providers</li> <li>• Identify resource and infrastructure needs to support demand for home-delivered meals and other nutrition services for at-risk and malnourished older adults transitioning from acute care settings back into their community/home; explore collaborations with AAAs, Meals on Wheels programs, and other organizations providing community-based services and support to older adults</li> </ul>



**Table 5. Acute Care Recommendations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

2. Improve Access to High-Quality Malnutrition Care and Nutrition Services	
Strategies	Recommendations
Integrate Quality Malnutrition Care in Payment and Delivery Models and Quality Incentive Programs	<ul style="list-style-type: none"> <li>Recognize quality malnutrition care for older adults as a clinically relevant and cross-cutting priority in the HHS Quality Measure Development Plan</li> <li>Adopt clinically relevant malnutrition quality measures in public and private accountability programs (e.g., CMS’s Inpatient Quality Reporting, the Merit-based Incentive Payment System’s [MIPS] Clinical Practice Improvement Activities, or commercial plans’ quality improvement programs)</li> <li>Integrate quality malnutrition care into future chronic disease and surgical care demonstration projects to develop innovative models that improve outcomes for malnourished and at-risk older adults</li> </ul>
Reduce Barriers to Quality Malnutrition Care	<ul style="list-style-type: none"> <li>Adopt clinically relevant quality measures or outcome targets to help evaluate success in meeting malnutrition standards of care for older adults (i.e., care team coordination of screening, assessment, diagnosis, treatment, and care transition upon discharge)</li> <li>If a state or hospital does not recognize dietitian order-writing privileges, update regulations to align with federal regulation that allows dietitian order-writing privileges in acute care hospitals</li> <li>Educate hospital leaders on the importance/value of adopting dietitian order-writing policies in reducing barriers to quality care</li> <li>Reduce barriers to transparency and transfer of clinically relevant malnutrition care data to downstream providers and individuals/caregivers</li> <li>Identify gaps and resources needed to provide or maintain older adult access to quality malnutrition care and nutrition services at the institutional, regional, and national levels</li> </ul>
Strengthen Nutrition Professional Workforce	<ul style="list-style-type: none"> <li>Evaluate human resource barriers (e.g., staffing, education curriculum, training) to support individual access to quality malnutrition care, nutrition intervention, and community support services</li> <li>Establish projections for future demand in 2030 or beyond for nutrition workforce and other professionals who have responsibility for providing and maintaining older adult access to quality malnutrition care</li> </ul>
3. Generate Clinical Research on Malnutrition Quality of Care	
Strategies	Recommendations
Evaluate Effectiveness and Impact of Best Practices on Patient Outcomes and Clinical Practice	<ul style="list-style-type: none"> <li>Quantify impact of malnutrition care standards and best practices on outcomes such as: 30-day readmission rates, intensive care unit admission, and discharge to community/home versus discharge to post-acute care from acute care settings</li> <li>Demonstrate the value (e.g., cost and quality, outcomes, patient-centered endpoints) of malnutrition care in population health management</li> <li>Evaluate the availability of ICD coding to support the consistent access and delivery of evidence-based malnutrition care</li> </ul>
Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research	<ul style="list-style-type: none"> <li>Generate evidence to inform standards and best practices for high-priority conditions where comorbid malnutrition can negatively impact hospitalized older adult outcomes</li> <li>Access and publish in evidence-based programming literature for older adults to inform educational and quality improvement efforts (e.g., Frontiers publishing)</li> <li>Publish white papers and peer-reviewed manuscripts regarding care pathways and treatments that positively impact malnutrition costs and outcomes that matter for hospitalized older adults</li> </ul>

**Table 5. Acute Care Recommendations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research (cont.)	<ul style="list-style-type: none"> <li>Establish a central, publicly available location or source where stakeholders can access current fundamental, evidence-based care standards for malnutrition care and integrate new evidence as it is developed</li> </ul>
Track Clinically Relevant Nutritional Health Data	<ul style="list-style-type: none"> <li>Adopt electronic data standards to assist in transfer of clinically relevant malnutrition care or nutrition health information (i.e., nutritional status, diet orders, diagnoses, nutrition interventions, discharge plans)</li> <li>For organizations with relevant clinical registries, partner with federal agencies to incorporate malnutrition-related data collection modules in their registries, particularly those for high-priority comorbid conditions or therapeutic areas in acute care settings such as stroke, heart failure, and oncology               <ul style="list-style-type: none"> <li>This could include registries such as the National Cardiovascular Data Registry, Diabetes Collaborative Registry, National Cancer Institute’s SEER, American College of Surgeons National Surgical Quality Improvement Program</li> </ul> </li> <li>Collaborate with AHRQ to regularly track malnutrition screening in Healthcare Cost and Utilization Project reports</li> <li>Include clinically relevant malnutrition-related data in national and state information technology initiatives</li> <li>Advocate that acute care administrators and providers establish long-term institutional outcomes for malnutrition in their facilities (e.g., tracking results and improving performance on the MQii electronic clinical quality measures [eCQMs] for malnutrition screening, assessment, diagnosis, and care plan documentation)</li> </ul>

**4. Advance Public Health Efforts to Improve Malnutrition Quality of Care**

Strategies	Recommendations
Train Healthcare Providers, Social Services, and Administrators on Quality Malnutrition Care	<ul style="list-style-type: none"> <li>Develop core materials and integrate malnutrition care training modules (such as those developed by ASPEN) into school and university curriculums for physicians, nurses, allied professionals, and physician extenders (e.g., physician assistants, occupational therapists, physical therapists, social workers, direct care workers)</li> <li>Advocate for the Accreditation Council for Graduate Medical Education (ACGME) to incorporate requirements for modules on the effect of malnutrition on patient outcomes in its accreditation standards for healthcare professionals               <ul style="list-style-type: none"> <li>To the extent possible, ACGME modules should also incorporate requirements for multidisciplinary acute care training to prevent, identify, and treat malnutrition for all medical specialties</li> </ul> </li> <li>Encourage the American Board of Medical Specialties (ABMS) to integrate interdisciplinary malnutrition training into CME modules for maintenance of certification</li> <li>Similar training should extend to medical, nursing, and allied health schools so that they integrate malnutrition training into CE modules offered to alumni</li> <li>Identify gaps in provider knowledge of evidence-based nutrition standards and malnutrition care best practices</li> </ul>
Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources	<ul style="list-style-type: none"> <li>Establish and work with hospital patient and family engagement councils (with a focus on older adults) and conduct provider-led awareness campaigns to educate hospitalized older adults and caregivers on specific diseases and conditions known to have a high prevalence of malnutrition</li> <li>Identify gaps in older adult and caregiver knowledge about malnutrition care and how to access appropriate nutrition services in the acute care setting and when transitioning to other care settings</li> </ul>

**Table 5. Acute Care Recommendations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
<p>Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources (cont.)</p>	<ul style="list-style-type: none"> <li>• Develop and distribute malnutrition-related educational materials for older adults and caregivers such as those referenced in Appendix F</li> <li>• Develop culturally sensitive training and linguistically appropriate materials to improve older adults’ and caregivers’ understanding of “what is optimal nutrition” and address misconceptions (e.g., eating means you are not malnourished)               <ul style="list-style-type: none"> <li>◦ Examples include the Spanish translation of “Nutrition Tips for Seniors with Chronic Conditions,” produced by the NCOA<sup>59</sup> and the Spanish translation of “Ask About Your Nutrition” produced by ASPEN<sup>60</sup></li> <li>◦ Provide resources to individuals that link discharged patients to culturally and linguistically appropriate community-based nutrition services, such as through Older Americans Act Nutrition Programs</li> </ul> </li> </ul>
<p>Educate and Raise Visibility with National, State, and Local Policymakers</p>	<ul style="list-style-type: none"> <li>• Identify congressional, gubernatorial, and other national or state key opinion leader policy champions to advocate for malnutrition care quality policies</li> <li>• Educate legislators and regulators on priority areas for malnutrition prevention, identification, diagnosis, and treatment</li> </ul>

**Table 6: Post-Acute Care Recommendations to Improve Quality of Malnutrition Care for Older Adults**

1. Improve Quality of Malnutrition Care Practices	
Strategies	Recommendations
Establish and Adopt Quality Malnutrition Care Standards	<ul style="list-style-type: none"> <li>Identify and adopt evidence-based malnutrition standards and best practices (e.g., malnutrition screening on admission, adoption of New Dining Practice Standards established by Pioneer Network for nursing homes) to support early identification and access to quality malnutrition care and nutrition interventions for older adults in post-acute care settings                             <ul style="list-style-type: none"> <li>This should include the establishment of malnutrition screening and assessment standards of care in patient-centered medical home networks, health homes, assisted-living facilities, and other post-acute care settings</li> </ul> </li> <li>Address gaps and update evidence-based malnutrition care standards for older adults in each post-acute care setting as warranted</li> <li>Include malnutrition care standards in health pandemic and emergency preparedness pathways</li> </ul>
Ensure High-Quality Transitions of Care	<ul style="list-style-type: none"> <li>Establish evidence-based best practices for TOC specific to patient risk factors and clinical conditions, and ensure available resources to carry out effective care transitions</li> <li>Collaborate with acute care providers to develop a protocol or care pathway that directly links malnutrition patient data and discharge plans to the post-acute care setting</li> <li>Expand post-acute care provider education on the importance of malnutrition care during care transitions, potentially working through non-governmental organizations such as the National Post-Acute Care Continuum (NPACC) and specialty organizations such as the American Hospital Association</li> <li>Identify resource and infrastructure needs to support demand for home-delivered meals and other nutrition services for at-risk and malnourished older adults transitioning from post-acute care settings back into their community or home setting; explore collaborations with AAAs and other organizations providing community-based services and supports to older adults (e.g., Meals on Wheels affiliates)</li> </ul>
2. Improve Access to High-Quality Malnutrition Care and Nutrition Services	
Strategies	Recommendations
Integrate Quality Malnutrition Care in Payment and Delivery Models and Quality Incentive Programs	<ul style="list-style-type: none"> <li>Recognize quality malnutrition care for older adults as a clinically relevant and cross-cutting priority in the HHS Quality Measure Development Plan</li> <li>Adopt clinically relevant malnutrition quality measures in public and private accountability programs (e.g., CMS’s Inpatient Quality Reporting and the MIPS Clinical Practice Improvement Activities)</li> <li>Recommend that CMS require nutrition screening and admissions protocol for post-acute care settings under the Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014 and extend such requirements to assisted-living facilities</li> <li>Align financial incentives in post-acute care settings so that older adults have access to malnutrition care and nutrition services recommended by their physician or clinical care team</li> <li>Partner with national organizations to incorporate malnutrition care into their award program requirements (e.g., American Health Care Association and National Center for Assisted Living (AHCA/NCAL) National Quality Award Program<sup>61</sup>)</li> <li>Include quality malnutrition care in post-acute state licensure programs; demonstrate health and economic burden of malnutrition and the effect on readmissions</li> </ul>

**Table 6: Post-Acute Care Recommendations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
Reduce Barriers to Quality Malnutrition Care	<ul style="list-style-type: none"> <li>• Develop clinically relevant quality measures or outcome targets to help evaluate success in meeting malnutrition standards of care for older adults in post-acute care settings including long-term care, inpatient rehabilitation, nursing homes, skilled nursing homes, and home health</li> <li>• Partner with post-acute care facility accreditation organizations to adopt quality malnutrition care quality measures</li> <li>• Identify gaps (i.e., partner with the National Institute on Aging and the National Institute of Nursing Research to identify barriers) and resources needed to maintain older adult access to quality malnutrition care and nutrition services in post-acute care at the institutional, regional, and national levels</li> <li>• Reduce barriers to transparency and transfer of clinically relevant malnutrition care data to downstream providers, individuals, and caregivers</li> </ul>
Strengthen Nutrition Professional Workforce	<ul style="list-style-type: none"> <li>• Evaluate human resource barriers (e.g., staffing, education curriculum, training) to support individual access to quality malnutrition care, nutrition intervention, and community support services</li> <li>• Establish projections for future demand in 2030 or beyond for nutrition workforce and other professionals who have responsibility for providing and maintaining older adult access to quality malnutrition care</li> <li>• Identify certified providers to support malnutrition screening, assessment, and follow-up in post-acute care settings when a dietitian is not available</li> <li>• Define care pathways and staff responsibilities to ensure that individuals who are malnourished or screen at risk for malnutrition upon arrival to post-acute care settings receive optimal malnutrition care and care planning</li> </ul>
3. Generate Clinical Research on Malnutrition Quality of Care	
Strategies	Recommendations
Evaluate Effectiveness and Impact of Best Practices on Patient Outcomes and Clinical Practice	<ul style="list-style-type: none"> <li>• Quantify impact of malnutrition care standards and best practices on outcomes such as acute care readmission, discharge to community and home care settings, falls, wound healing, and infection rates</li> </ul>
Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research	<ul style="list-style-type: none"> <li>• Generate evidence to inform standards and best practices for high-priority conditions where comorbid malnutrition can negatively impact hospitalized older adult outcomes</li> <li>• Access and publish in evidence-based programming literature for older adults to inform educational and quality improvement efforts (e.g., Frontiers publishing)</li> <li>• Publish white papers and peer-reviewed manuscripts regarding care pathways and treatments that positively impact malnutrition costs and outcomes that matter for hospitalized older adults</li> <li>• Establish a central, publicly available location or source where stakeholders can access current fundamental, evidence-based care standards for malnutrition care and integrate new evidence as it is developed</li> </ul>

**Table 6: Post-Acute Care Recommendations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
Track Clinically Relevant Nutritional Health Data	<ul style="list-style-type: none"> <li>• Invite post-acute care health information technology stakeholders to develop electronic data standards in support of malnutrition screening and management services (e.g., PointClickCare)</li> <li>• Adopt electronic data standards to assist in transfer of clinically relevant malnutrition care or nutrition health information (e.g., nutritional status, diet orders, other nutrition interventions)</li> <li>• Partner with post-acute care registry stewards to integrate malnutrition-related data collection modules</li> <li>• Include clinically relevant, malnutrition-related post-acute care data in national and state information technology initiatives</li> </ul>
4. Advance Public Health Efforts to Improve Malnutrition Quality of Care	
Strategies	Recommendations
Train Healthcare Providers, Social Services, and Administrators on Quality Malnutrition Care	<ul style="list-style-type: none"> <li>• Develop core materials and integrate malnutrition care training modules (such as those developed by ASPEN and the malnutrition care resource hub available through NCOA into school and university curriculums for physicians, nurses, allied professionals, and physician extenders (e.g., physician assistants, occupational therapists, physical therapists, social workers, direct care workers)</li> <li>• Develop core materials and integrate malnutrition care training into CME and maintenance of certification for all medical specialties, nursing, and allied health organizations; partner with the ACGME and ABMS</li> <li>• Establish competencies in malnutrition prevention and management for post-acute care professionals through licensure programs, training, credentialing, and certification programs (e.g., the Certified Medical Director and Attending Physician certification programs developed by the Society for Post-Acute and Long-Term Care Medicine,<sup>58</sup> or other post-acute care administrator organizations)</li> <li>• Identify gaps in provider knowledge of evidence-based nutrition standards and malnutrition care best practices for older adults in post-acute care</li> </ul>
Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources	<ul style="list-style-type: none"> <li>• Engage the Society for Post-Acute and Long-Term Care Medicine to help establish roles for healthcare professionals and patient family advisory councils in post-acute care settings for malnutrition education to older adults</li> <li>• Develop and distribute malnutrition-related educational materials for older adults and caregivers such as those referenced in Appendix F</li> <li>• Develop culturally sensitive training and linguistically appropriate materials to improve older adults' and caregivers' understanding of "what is optimal nutrition" and address misconceptions (e.g., eating means you are not malnourished) <ul style="list-style-type: none"> <li>◦ An example of such a resource may be the Spanish translation of "Nutrition Tips for Seniors with Chronic Conditions," produced by the NCOA<sup>59</sup> and the Spanish translation of "Ask About Your Nutrition" produced by ASPEN<sup>60</sup></li> </ul> </li> <li>• Engage post-acute care patient/nutrition advocacy groups, such as NCAL, to develop and distribute educational materials for older adults and caregivers that show how malnutrition care is linked to rehabilitation and self-management outcomes, and to raise awareness of opportunities to access nutrition services to combat food insecurity</li> <li>• Promote education through home health agencies among older adults and caregivers to complete a nutrition screening with a primary care provider or caregiver, to receive services through the Older Americans Act Nutrition Program such as home-delivered meals and congregate meals</li> </ul>

**Table 6: Post-Acute Care Recommendations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
<p>Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources (cont.)</p>	<ul style="list-style-type: none"> <li>• Urge organizations such as local AAAs, ADRCs, and other CBOs to educate older adults, caregivers, and providers on the availability of nutrition services during TOC, including medically tailored home-delivered meal providers like those in the Food is Medicine Coalition</li> <li>• Identify gaps in older adult and caregiver knowledge about malnutrition care and how to access appropriate nutrition services in post-acute care settings and when transitioning to other care settings</li> </ul>
<p>Educate and Raise Visibility with National, State, and Local Policymakers</p>	<ul style="list-style-type: none"> <li>• Identify congressional, gubernatorial, and other national or state key opinion leader policy champions to advocate for malnutrition care quality policies</li> <li>• Educate legislators and regulators on priority areas for malnutrition prevention, identification, diagnosis, and treatment               <ul style="list-style-type: none"> <li>◦ Develop materials in coordination with the NCOA and National Falls Prevention Resource Center to connect the issue of chronic conditions/falls prevention and good nutrition for older adults</li> <li>◦ Develop materials in coordination with the National Academies of Sciences, Engineering, and Medicine’s Food and Nutrition Board to extend the findings on nutrition and optimized oncology outcomes and maximized patient quality of life to other conditions</li> <li>◦ Develop materials to demonstrate the impact of poor malnutrition care in post-acute care settings, such as for increased rate of readmission to acute care settings</li> </ul> </li> <li>• Engage Departments of Health, Medicaid agencies, and Departments of Aging in conjunction with AAAs to improve state and local screening for malnutrition upon admission to post-acute care settings</li> </ul>

**Table 7: Community Setting Recommendations to Improve Quality of Malnutrition Care for Older Adults**

1. Improve Quality of Malnutrition Care Practices	
Strategies	Recommendations
Establish and Adopt Quality Malnutrition Care Standards	<ul style="list-style-type: none"> <li>• Establish and adopt evidence-based malnutrition standards and best practices to support early identification and access to quality malnutrition care and nutrition interventions for older adults in patient-centered medical home networks, home health, assisted-living facilities, and other community and home-based care settings                             <ul style="list-style-type: none"> <li>◦ Promote standardization of a validated national community nutritional screening tool, such as the Malnutrition Screening Tool (MST)</li> <li>◦ Adopt, at national level, a validated screening tool for food insecurity (e.g., Hunger Vital Sign) and partner with organizations such as the NCOA or Meals on Wheels America for best practices to engage older adults and help them access needed support services</li> </ul> </li> <li>• Include malnutrition care standards in health pandemic and emergency preparedness pathways</li> </ul>
Ensure High-Quality Transitions of Care	<ul style="list-style-type: none"> <li>• Establish evidence-based best practices for TOC specific to patient risk factors and clinical conditions, and ensure available resources to carry out effective transitions into home and community settings</li> <li>• Collaborate with acute and post-acute care providers to develop a protocol or care pathway that directly links malnutrition patient data and discharge plans to the community and home-based care setting, while also tracking reductions in healthcare expenditures related to community and home-based care service delivery</li> <li>• Educate providers, individuals, and caregivers on the importance of malnutrition care during care transitions and the availability of community nutrition services during TOC (e.g., local AAAs and ADRCs)</li> <li>• Identify resource and infrastructure needs to support demand for home-delivered meals and other nutrition and health promotion services for at-risk and malnourished older adults transitioning from acute and post-acute care settings back into their community or home setting; explore collaborations with AAAs, local Meals on Wheels programs, and other organizations providing community-based services and supports to older adults</li> </ul>
2. Improve Access to High-Quality Malnutrition Care and Nutrition Services	
Strategies	Recommendations
Integrate Quality Malnutrition Care in Payment and Delivery Models and Quality Incentive Programs	<ul style="list-style-type: none"> <li>• Recognize quality malnutrition care for older adults as a clinically relevant and cross-cutting priority in HHS' Quality Measure Development Plan</li> <li>• Adopt clinically relevant malnutrition quality measures in public and private accountability programs (e.g., patient-centered medical homes, accountable care organizations, home health agencies, and MIPS Clinical Practice Improvement Activities)</li> <li>• Align financial incentives in community settings so that individuals have access to nutrition and health promotion services recommended by their physician or clinical team</li> <li>• Partner with national organizations to incorporate malnutrition care into award programs requirements (e.g., the Accreditation Commission for Health Care's awards program for in-home care services, the AHCA/NCAL National Quality Award Program)</li> </ul>



**Table 7: Community Setting Recommendations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
Reduce Barriers to Quality Malnutrition Care	<ul style="list-style-type: none"> <li>• Develop clinically relevant quality measures or outcome targets to help evaluate success in meeting nutrition standards of care for older adults in community and home-based care settings                             <ul style="list-style-type: none"> <li>◦ Example of one outcome target could be improving referral rate of eligible older adults to community nutrition services such as USDA’s SNAP or Commodity Supplemental Food Program</li> </ul> </li> <li>• Identify resources (e.g., Program of All-Inclusive Care for the Elderly [PACE], Chronic Disease Self-Management Education) needed to maintain older adult access to quality malnutrition care and nutrition services in community and home-based care at the national, state, and local levels                             <ul style="list-style-type: none"> <li>◦ Gaps may include inadequate staffing, poor training on documentation practices, or financial resources for accessing sufficient malnutrition care or nutrition services (e.g., programs and home-delivered or congregate meals for older adults living in high-priority communities)</li> </ul> </li> <li>• Reduce barriers to transparency and transfer of clinically relevant malnutrition care data to downstream providers, individuals, and caregivers</li> <li>• Give community providers funds and data to support maintenance and continued growth of needed services</li> </ul>
Strengthen Nutrition Professional Workforce	<ul style="list-style-type: none"> <li>• Evaluate human resource barriers (e.g., staffing, education curriculum, training) to support individual access to quality malnutrition care, nutrition intervention, and community support services</li> <li>• Establish projections for future demand in 2030 or beyond for nutrition workforce and other professionals who have responsibility for providing and maintaining older adult access to quality malnutrition care</li> <li>• Identify certified providers to support malnutrition screening, assessment, and follow-up in post-acute care settings when a dietitian is not available</li> <li>• Define care pathways and staff responsibilities to ensure that individuals who are malnourished or screen at risk for malnutrition upon arrival to post-acute care settings receive optimal malnutrition care and care planning</li> </ul>
<b>3. Generate Clinical Research on Malnutrition Quality of Care</b>	
Strategies	Recommendations
Evaluate Effectiveness and Impact of Best Practices on Patient Outcomes and Clinical Practice	<ul style="list-style-type: none"> <li>• Collaborate with healthcare and academic partners to quantify impact of malnutrition care standards and best practices on outcomes such as acute care readmission, falls, wound healing, and infection rates</li> </ul>
Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research	<ul style="list-style-type: none"> <li>• Generate evidence to inform best practices for high-priority conditions in community and home-based settings where comorbid malnutrition can negatively impact outcomes (i.e., chronic pain, depression, functional impairment, cognitive impairment, falls)</li> <li>• Convene expert panel to identify and prioritize research topics for community and home-based care settings, including:                             <ul style="list-style-type: none"> <li>◦ Clinically relevant outcomes associated with home-delivered meal programs</li> <li>◦ Health and economic outcomes of malnutrition and access to nutrition providers and services (e.g., functional impairment, cognitive impairment, falls, and mental or behavioral health effects)</li> <li>◦ Malnutrition and food-insecurity screening on access to malnutrition interventions and outcomes</li> <li>◦ Impact of multidisciplinary team approaches on the success of malnutrition screening, treatment, and prevention approaches</li> </ul> </li> </ul>

**Table 7: Community Setting Recommendations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
Identify and Fill Research Gaps by Conducting and Disseminating Relevant Research (cont.)	<ul style="list-style-type: none"> <li>• Access and publish literature on evidence-based programming literature on older adults to inform educational or quality improvement efforts (e.g., Frontiers publishing)</li> <li>• Establish a central, publicly available location or source (e.g., establish as permanent the Aging and Disability Resource Center Initiative or the National Resource Center on Nutrition and Aging through the Administration on Community Living) where stakeholders can access current fundamental, evidence-based care standards for malnutrition care and integrate new evidence as it is developed</li> </ul>
Track Clinically Relevant Nutritional Health Data	<ul style="list-style-type: none"> <li>• Adopt electronic data standards to assist in transfer of clinically relevant malnutrition or nutrition health information (e.g., nutritional status, diet orders, other nutrition interventions)</li> <li>• Enhance infrastructure, either through increased investments or by supporting investments to enhance infrastructure, among community organizations addressing malnutrition to support tracking and monitoring of services received by older adults identified as at risk for malnutrition or malnourished               <ul style="list-style-type: none"> <li>◦ Partner with registry stewards to integrate malnutrition-related data collection modules</li> </ul> </li> <li>• Engage the CDC’s surveillance program to track and monitor malnutrition and food insecurity in community and home-based settings               <ul style="list-style-type: none"> <li>◦ In addition to body mass index (BMI) and fruit/vegetable intake, include malnutrition in CDC key indicators of older adult health</li> <li>◦ Include malnutrition screening and services data through the CDC National Health and Nutrition Examination Survey (NHANES)</li> </ul> </li> <li>• Include clinically relevant malnutrition-related community and home-based care data in national and state information technology initiatives</li> </ul>

**4. Advance Public Health Efforts to Improve Malnutrition Quality of Care**

Strategies	Recommendations
Train Healthcare Providers, Social Services, and Administrators on Quality Malnutrition Care	<ul style="list-style-type: none"> <li>• Develop core materials and integrate malnutrition care training modules (such as those developed by ASPEN) into school and university curriculums for physicians, nurses, dietitians, and allied professionals or physician extenders (e.g., physician assistants, occupational therapists, physical therapists, social workers, direct care workers)</li> <li>• Develop core materials and integrate malnutrition care training into CME and maintenance of certification for all medical specialties, nursing, and allied health organizations; partner with ACGME and ABMS</li> <li>• Raise awareness of individuals who constitute a community interdisciplinary care team, and establish competencies in malnutrition prevention and management for community and home-based care professionals through licensure programs, training, credentialing, and certification programs</li> <li>• Engage in educational partnerships (such as through Argentum, the National Association of States United for Aging and Disabilities, or the Retail Dietitians Business Alliance) to provide support for professionals working in independent living, assisted living, and memory care services</li> <li>• Identify gaps in provider knowledge of evidence-based nutrition standards and malnutrition care best practices for older adults in community and home-based care settings</li> </ul>

**Table 7: Community Setting Recommendations to Improve Quality of Malnutrition Care for Older Adults (cont.)**

Strategies	Recommendations
<p>Educate Older Adults and Caregivers on Malnutrition Impact, Prevention, Treatment, and Available Resources</p>	<ul style="list-style-type: none"> <li>• Develop and distribute malnutrition-related educational materials for older adults and caregivers on how malnutrition care impacts rehabilitation and self-management (see example resources in Appendix F)               <ul style="list-style-type: none"> <li>◦ Explore partnerships with NCAL and the National Academies of Sciences, Engineering, and Medicine to develop education materials or initiatives</li> </ul> </li> <li>• Educate older adults and caregivers on community resources to access malnutrition care and nutrition services, including Older Americans Act Nutrition Programs, SNAP, Commodity Supplemental Food Program, and other USDA food assistance programs, home care and meal-delivery services, and ADRCs</li> <li>• Integrate malnutrition education into existing events and forums, e.g., Active Aging Week, Malnutrition Awareness Week™, National Nutrition Month, Older Americans Month, National Family Caregivers Month</li> </ul>
<p>Educate and Raise Visibility with National, State, and Local Policymakers</p>	<ul style="list-style-type: none"> <li>• Identify congressional, gubernatorial, and other national or state key opinion leader policy champions to advocate for malnutrition care quality policies</li> <li>• Educate legislators and regulators on priority areas for malnutrition prevention, identification, diagnosis, and treatment               <ul style="list-style-type: none"> <li>◦ Develop materials in coordination with the NCOA and National Falls Prevention Resource Center to connect the issue of chronic conditions and falls prevention to good nutrition for older adults</li> <li>◦ Develop materials in coordination with the National Academies of Sciences, Engineering, and Medicine’s Food and Nutrition Board to extend the findings of nutrition and optimized oncology outcomes and maximized patient quality of life to other conditions</li> </ul> </li> <li>• Establish broad-based collaboration with CBOs to ensure food and nutrition services are in place across the care continuum that respond to risk factors and mobility issues of older adults</li> </ul>
<p>Integrate Malnutrition Care Goals in National, State, and Local Population Health Management Strategies</p>	<ul style="list-style-type: none"> <li>• Improve malnutrition screening rates in community and home-based settings               <ul style="list-style-type: none"> <li>◦ Partner with Departments of Health, Medicaid agencies, State Units on Aging (SUA), AAAs, Association of State Public Health Nutritionists (ASPHN), and AND Healthy Aging Dietetic Practice Group</li> <li>◦ Include malnutrition screening and education in mobile health clinic programs and telehealth programs</li> <li>◦ Disseminate malnutrition pilot results with community service professionals and nutrition networks via Administration for Community Living</li> </ul> </li> <li>• Advocate for incentives, continued inclusion/possible expansion of home-delivered meals benefit for Medicare Advantage participants who have chronic disease</li> <li>• Include nutrition screening questions in CMS annual wellness and Welcome to Medicare exams</li> <li>• Appoint state-level lead agency to disseminate policy standards for addressing malnutrition in the community</li> </ul>

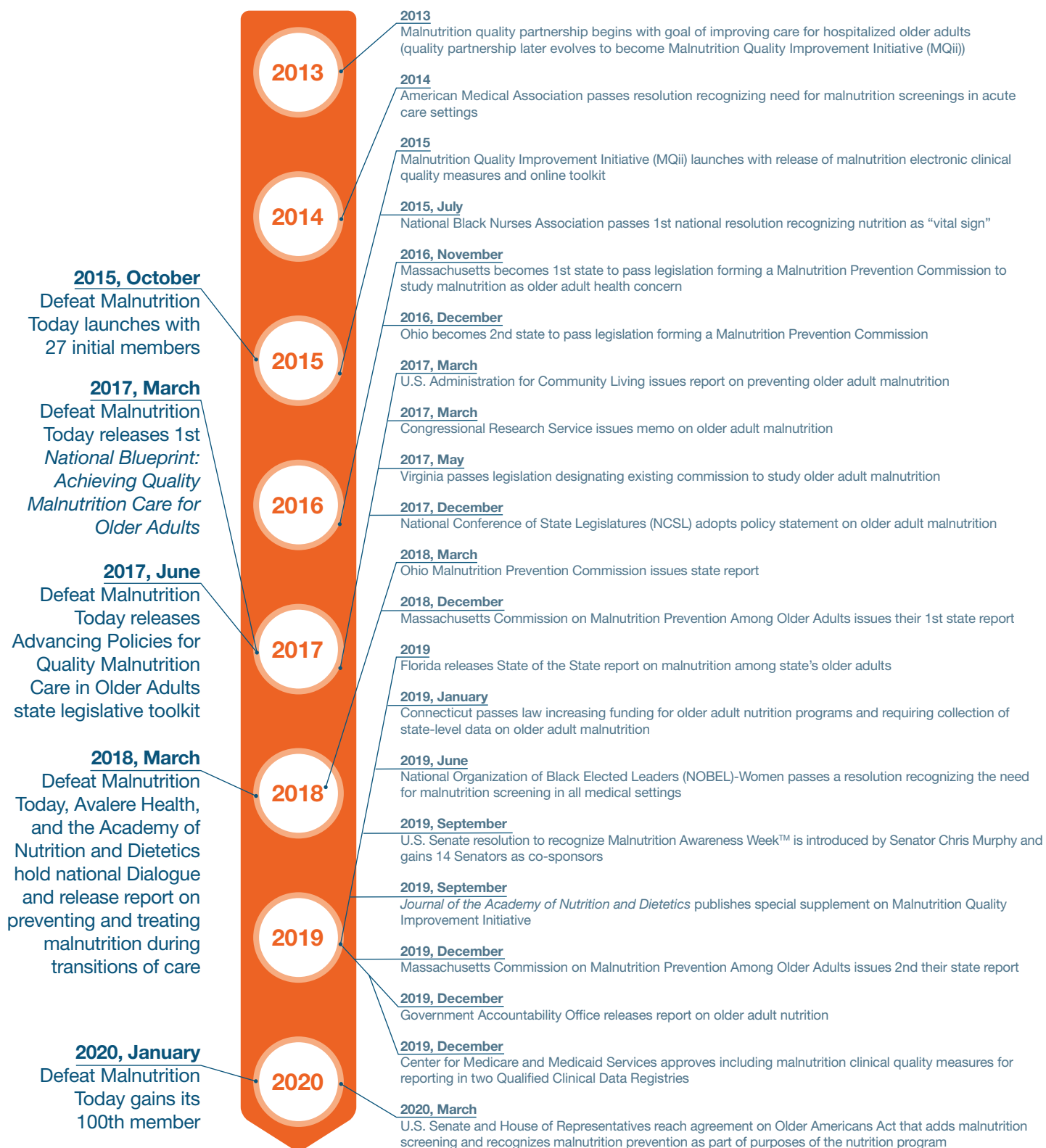
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# Conclusion and Call to Action /

In summary, improving the quality of malnutrition care aligns with our national healthcare priorities focused on prevention and wellness, patient safety and emergency preparedness, care transitions, population health, and patient-centered strategies. Furthermore, it supports the improvement of long-term health outcomes for all individuals, particularly older adults—a growing and more prominent population placing increasing demands on the U.S. healthcare system. Therefore, the time for enacting these changes is now. Much can be done at national, state, and local levels to drive quality improvement and raise awareness to advance high-quality malnutrition care.

This updated *Blueprint* outlines the strategies and recommendations for establishing a consistent, high-quality standard of malnutrition care in the United States. Multi-stakeholder collaborations and partnerships continue to be needed to bring these recommendations to life and to secure our future for the Decade of Healthy Aging through good nutrition and high-quality, safe, coordinated malnutrition care.

# Appendix A: Malnutrition Policy Achievements in the Last Decade /



# Appendix B: Malnutrition – An Older Adult Crisis /

## MALNUTRITION: AN OLDER ADULT CRISIS



**UP TO 1 OUT OF 2 OLDER ADULTS** are at risk for malnutrition<sup>1</sup>



**\$51.3 BILLION** Estimated annual cost of disease-associated malnutrition in older adults in the US<sup>2</sup>



Protein-calorie malnutrition related hospital stays are **2X LONGER**<sup>3</sup>

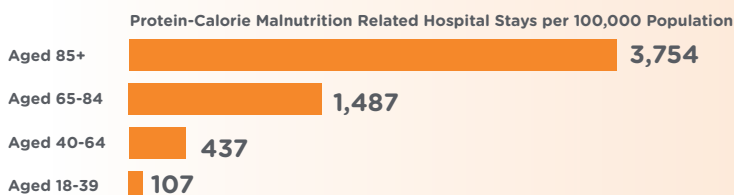


**MALNUTRITION LEADS TO** more complications, falls, and 30-day readmissions<sup>3,4</sup>



Protein-calorie malnutrition related hospital stays are **3X MORE LIKELY** to result in death<sup>3</sup>

### MALNUTRITION IS HIGHEST IN OLDER ADULTS<sup>3</sup>



## JUST 4 STEPS CAN HELP IMPROVE OLDER ADULT MALNUTRITION CARE



**SCREEN** all patients



**ASSESS** nutritional status



**DIAGNOSE** malnutrition



**INTERVENE** with appropriate nutrition

### FOCUSING ON MALNUTRITION IN HEALTHCARE HELPS:

- ✓ Decrease healthcare costs<sup>5</sup>
- ✓ Improve patient outcomes<sup>5</sup>
- ✓ Reduce readmissions
- ✓ Support healthy aging
- ✓ Improve quality of healthcare

Support policies across the healthcare system that defeat older adult malnutrition.

**Learn more at [www.DefeatMalnutrition.Today](http://www.DefeatMalnutrition.Today)**

References: 1. Kaiser MJ, et al. *J Am Geriatr Soc.* 2010;58(9):1734-1738. 2. Snider JT, et al. *JPEN J Parenter Enteral Nutr.* 2014;38(2 suppl):775-855. 3. Barrett ML, Bailey MK, Owens PL. U.S. Agency for Healthcare Research and Quality. [www.hcup-us.ahrq.gov/reports.jsp](http://www.hcup-us.ahrq.gov/reports.jsp). Published 2018. 4. Norman K, et al. *Clin Nutr.* 2008;27(1):5-15. 5. Philipson TJ, et al. *Am J Manag Care.* 2013;19(2):121-128. © Copyright 2019

# Appendix C: Quality Measure Domain Table /

The quality domains and sub-domains listed below align with the National Quality Strategy priorities.<sup>62</sup> Malnutrition-related quality measures are cross-cutting and should be integrated into public and private accountability programs to help:

- Advance health and quality-of-life outcomes for older adults
- Prevent, identify, diagnose, and treat malnutrition
- Align provider incentives across acute, post-acute, and community care settings

Quality Measure Domains	
Domains	Sub-Domains
Patient Safety	<ul style="list-style-type: none"> <li>• Malnutrition Screening</li> <li>• Nutrition Assessment</li> <li>• Dehydration</li> <li>• Pressure Ulcers</li> <li>• Falls Risk</li> <li>• Healthcare Associated Infections</li> <li>• Improving Diagnostic Accuracy and Timeliness</li> </ul>
Care Coordination	<ul style="list-style-type: none"> <li>• Transitions of Care</li> <li>• Integrated Care</li> <li>• Implementation of Nutrition Care Plan</li> <li>• Improving Diagnostic Accuracy and Timeliness</li> <li>• Access to Community Services</li> </ul>
Population Health Management	<ul style="list-style-type: none"> <li>• Malnutrition Screening</li> <li>• Nutrition Assessment</li> <li>• Implementation of Nutrition Care Plan</li> <li>• Chronic Disease</li> <li>• Prevention</li> <li>• Social Determinants of Health</li> <li>• Vulnerable Populations</li> </ul>
Functional Status	<ul style="list-style-type: none"> <li>• Malnutrition Screening</li> <li>• Nutrition Assessment</li> <li>• Activities of Daily Living</li> <li>• Sarcopenia</li> </ul>
Patient and Caregiver Experience of Care	<ul style="list-style-type: none"> <li>• Patient Satisfaction</li> <li>• Patient-Reported Outcomes</li> <li>• Patient Engagement</li> <li>• Quality of Life</li> </ul>
Infrastructure	<ul style="list-style-type: none"> <li>• Care Models (Alternative Payment Models)</li> <li>• Health Information Exchange</li> <li>• Transfer of Necessary Medical Information</li> <li>• Workforce</li> </ul>

# Appendix D: Qualified Clinical Data Registries (QCDRs) /

A Qualified Clinical Data Registry (QCDR) is a Centers for Medicare & Medicaid Services (CMS) approved registry that collects data from reporting clinicians with the goal of improving health care quality. QCDR organizations may include specialty societies, regional health collaboratives, large health systems or software vendors working in collaboration with one of these medical entities. QCDRs can be used to report quality measure data, practice improvement, and EHR use that is more specific to the quality care goals of the organization or Society. CMS may also approve measures in a QCDR for MIPS (Merit-based Incentive Payment System) reporting by eligible clinicians to receive credit for quality of care. This credit is a core determining factor for performance-based payment adjustments to Medicare reimbursement as part of MIPS participation, which is mandatory for most Medicare providers who meet minimum criteria.

Effective January 1, 2020 the following malnutrition-related measures, stewarded by the Academy of Nutrition and Dietetics (Academy), were adopted by the Premier Clinical Performance Registry and the US Wound Registry. In each respective QCDR, 2 measures were approved by CMS for MIPS reporting, while 2 other measures are also reportable for quality improvement but do not grant MIPS credit. The Academy has published a guide for orienting providers to MIPS participation and reporting of the malnutrition quality measures to each respective QCDR.

Visit this link for the Academy’s guide: <https://bit.ly/and-qcdr>

	Premier Clinician Performance Registry	U.S. Wound Registry
Measure #1	<b>Measure Title:</b> Completion of a Screening for Malnutrition Risk and Referral to a Registered Dietitian Nutritionist (RDN) for At-Risk Patients	<b>Measure Title:</b> Completion of a Screening for Malnutrition Risk and Referral to a RDN for At-Risk Patients
Measure #2	<b>Measure Title:</b> Assessment of Nutritionally At-Risk Patients for Malnutrition and Development of Nutrition Recommendations/ Interventions by a RDN	<b>Measure Title:</b> Assessment of Nutritionally At-Risk Patients for Malnutrition and Development of Nutrition Recommendations/ Interventions by a RDN
Measure #3	<b>Measure Title:</b> Appropriate Documentation of Malnutrition Diagnosis	<b>Measure Title:</b> Obtaining Preoperative Nutritional Recommendations from a RDN in Nutritionally At-Risk Surgical Patients
Measure #4	<b>Measure Title:</b> Nutritional Care Plan Communicated to Post-Discharge Provider	<b>Measure Title:</b> Appropriate Documentation of Malnutrition Diagnosis
<b>Key</b>	Measures Approved for MIPS Reporting	Measures Adopted by Registry, Not Approved for MIPS Reporting



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# Appendix E: Glossary of Terms and List of Acronyms /

**Acute Care** Refers to treatment for a patient that is usually brief but for a severe episode of illness or conditions that result from disease or trauma. Hospitals are generally the setting where acute care is provided and include community, rural, and critical access hospitals.

**Community-Based Services and Supports** The blend of health and social services provided to an individual, caregiver, or family member for the purpose of promoting, maintaining, or restoring health or minimizing the effects of illness and disability. These person-centered services are usually designed to maximize an older person's independence at home or participation in the community. Such services and supports can include senior centers, transportation, home-delivered meals or congregate meal sites, visiting nurses or home health aides, adult day health services, and homemaker services.

**Data Tools or Sources**<sup>55</sup> Mechanisms that support data collection and provide information regarding patient care throughout the clinical workflow. Data sources may or may not be applicable depending on the stage in the clinical workflow. Examples of where this type of information may come from include:

- Validated screening tools, such as the Malnutrition Screening Tool (MST)
- Medical or health records
- Physician referral form
- Standardized nutrition assessment tools such as the Subjective Global Assessment (SGA)
- Patient/family caregiver interviews
- Community-based surveys and focus groups
- Statistical reports and epidemiologic studies
- Relevant clinical guidelines
- Current literature evidence base
- Results from documented quality improvement initiatives
- Reminder and communications tools embedded within electronic health records
- Patient self-monitoring data
- Anthropometric measures
- Biochemical data and medical tests
- Remote follow-up, including telephone and electronic health record (EHR) messaging systems
- Patient and family caregiver surveys

**Food Insecurity**<sup>10</sup> “A household-level economic and social condition of limited or uncertain access to adequate food.” Ranges of food insecurity as defined by the USDA are as follows:

- **Low food security** Reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.
- **Very low food security** Reports of multiple indications of disrupted eating patterns and reduced food intake.

**Food Security**<sup>10</sup> “Access at all times to enough food for an active, healthy life for all household members.” Ranges of food security as defined by the USDA are as follows:

- **High food security** No reported indications of food-access problems or limitations.
- **Marginal food security** One or two reported indications—typically of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diet or food intake.

**Hunger**<sup>10</sup> “Is an individual-level physiological condition that may result from food insecurity.” More generally, it is a sensation resulting from lack of food or nutrients, characterized by a dull or acute pain in the lower chest. Hunger is distinguished from appetite in that hunger is the physical drive to eat, while appetite is the psychological drive to eat affected by habits, culture, and other factors.

**Malnutrition**<sup>7</sup> A state of deficit, excess, or imbalance in energy, protein, or nutrients that adversely impacts an individual’s own body form, function, and clinical outcomes.

**Malnutrition Care Plan**<sup>55</sup> The development of a document outlining comprehensive planned actions with the intention of impacting malnutrition-related factors affecting patient health status.

**Malnutrition Diagnosis**<sup>55</sup> The identification of and labeling of a patient’s malnutrition problem that requires independent treatment that may be unrelated to the patient’s index hospital admission.

**Malnutrition-Risk Diet Order**<sup>55</sup> An interim diet order that is initiated for patients identified as at risk based on malnutrition screening upon admission and pending a dietitian consult and nutrition assessment. Various diet orders utilized by facilities for patients at malnutrition risk are as follows:

- High-Calorie, High-Protein Nutrition Therapy
  - High-Calorie Nutrition Therapy
- Underweight Nutrition Therapy
- Nutrient Dense
- High Nutrient
- Three small meals with snacks high in complex carbohydrates and low in simple sugars (fewer than 10g/serving); small amounts of rehydration solution between meals
- Small portions and frequent feedings of calorie-dense foods and drinks containing fat and sugar
- Soft diet with nutritional supplements to meet energy requirements

**Malnutrition Intervention Implementation** The implementation of specific actions to address malnutrition outlined in the care plan.

**Malnutrition Screening**<sup>63</sup> The systematic process of identifying an individual with poor dietary or nutrition characteristics who is at risk for malnutrition and requires follow-up assessment or intervention.

**Medical Nutrition Therapy**<sup>64</sup> Nutritional diagnostic therapy and counseling services provided by a dietitian or nutritional professional for the purpose of managing disease following a referral by a physician.

**Monitoring and Evaluation**<sup>65</sup> The systematic process to identify the amount of progress made since patient diagnosis and assessment of whether outcomes relevant to the malnutrition diagnosis and treatment goals are being met.

**Nutrition Assessment**<sup>65</sup> The systematic approach to collect and interpret relevant data from patients, family caregivers, and patient family members to determine a patient's malnutrition severity and establish a malnutrition diagnosis.

**Patient-Centered**<sup>65</sup> Healthcare that establishes a partnership among practitioners, patients, and their families (when appropriate) to ensure that decisions respect patients' wants, needs, and preferences and that patients have the education and support they need to make decisions and participate in their own care.

**Patient-Driven**<sup>66</sup> When the patient is a responsible driver of their own healthcare services and is encouraged by the provider to act as a full partner in decision making.

**Patient Engagement**<sup>67</sup> An ongoing process in which patients take an active role in their own healthcare.

**Post-Acute Care (PAC)** Care that takes place in long-term care hospitals, inpatient rehabilitation facilities, skilled nursing facilities, and home health agencies. PAC services focus on improving quality of life and functional status of patients.

**Quality Care**<sup>68</sup> A direct correlation between the level of improved health services and the desired health outcomes of individuals and populations.

**Qualified Clinical Data Registry (QCDR)**<sup>69</sup> A CMS-approved vendor that collects clinical data from practitioners and reports this data to CMS on their behalf for payment model requirements as well as quality reporting purposes. QCDR organizations can include specialty societies, regional health collaboratives, large health systems, or software vendors that collaborate with one of these medical entities.

**Quality Improvement**<sup>70</sup> Systematic activities that are organized and implemented by an organization to monitor, assess, and improve its healthcare with the goal of seeking continuous improvement in the care delivered to the patients the organization serves.

**Quality Indicator**<sup>71</sup> "Measurable element of practice performance for which there is evidence or consensus that it can be used to assess the quality, and hence change in the quality, of care provided."

**Quality Measures**<sup>72</sup> Tools that help measure or quantify healthcare processes, outcomes, patient perceptions, and organizational structure and/or systems that are associated with the ability to provide high-quality healthcare and/or that relate to one or more quality goals for healthcare.

**Shared Decision Making**<sup>73</sup> The process of communication, deliberation, and decision making during which:

- One or more clinicians share with the patient information about relevant testing or treatment options, including the severity and probability of potential harms and benefits, and alternatives of these options given the specific nature of the patient's situation;
- The patient explores and shares with the clinician(s) his or her preferences regarding these harms, benefits, and potential outcomes; and
- Through an interactive process of reflection and discussion, the clinician(s) and patient reach a mutual decision about the subsequent treatment or testing plan.

**Social Determinants of Health**<sup>74</sup> The environmental conditions in which individuals are born, live, learn, work, and age that affect their health, functioning, and quality-of-life outcomes and risks. Resources that enhance quality of life, including access to good nutrition and availability of healthy foods, can have a significant influence on population health outcomes.

**Transitions of Care (TOC, or Care Transitions)**<sup>75</sup> Processes to provide the patients a safe, successful transition from one provider care setting to the next.

## List of Acronyms

<b>AAA</b>	Area Agency on Aging
<b>ABMS</b>	American Board of Medical Specialties
<b>ADRC</b>	Aging and Disability Resource Center
<b>AHRQ</b>	Agency for Healthcare Research and Quality
<b>AND</b>	Academy of Nutrition and Dietetics
<b>ASPEN</b>	American Society for Parenteral and Enteral Nutrition
<b>CBO</b>	Community-Based Organization
<b>CDC</b>	Centers for Disease Control and Prevention
<b>CE</b>	Continuing Education
<b>CKD</b>	Chronic Kidney Disease
<b>CME</b>	Continuing Medical Education
<b>CMS</b>	Centers for Medicare & Medicaid Services
<b>CSFP</b>	Commodity Supplemental Food Program
<b>ESRD</b>	End-Stage Renal Disease
<b>HHS</b>	U.S. Department of Health and Human Services
<b>MNA</b>	Mini Nutritional Assessment
<b>MNT</b>	Medical Nutrition Therapy
<b>MST</b>	Malnutrition Screening Tool
<b>MUST</b>	Malnutrition Universal Screening Tool
<b>NCOA</b>	National Council on Aging
<b>NIDDK</b>	National Institute of Diabetes and Digestive and Kidney Disease
<b>NIH</b>	National Institutes of Health
<b>NQF</b>	National Quality Forum
<b>NRS</b>	National Risk Screening
<b>OAA</b>	Older Americans Act
<b>ODPHP</b>	Office of Disease Prevention and Health Promotion
<b>QCDR</b>	Qualified Clinical Data Registry
<b>SNAP</b>	Supplemental Nutrition Assistance Program
<b>SNAQ</b>	Short Nutritional Assessment Questionnaire
<b>TOC</b>	Transitions of Care (or Care Transitions)
<b>USDA</b>	United States Department of Agriculture

# Appendix F: Resources for Improving Malnutrition Care /

## Recognizing Malnutrition

Gerontological Society of America's "What Is Malnutrition," available at: <https://bit.ly/GSA-infog>

The National Council on Aging's "5 Facts about Malnutrition," available at: <https://bit.ly/NCOA-infog>

American Society for Parenteral and Enteral Nutrition's "Malnourished hospitalized patients are associated with higher costs, longer stays & increased mortality," available at: <https://bit.ly/ASPEN-infog>

American Society for Parenteral and Enteral Nutrition's "The impact of malnutrition in the US and UK," available at: <https://bit.ly/ASPEN-infog2>

## Tools for Enhancing Malnutrition Care Practices

To help with screening procedures across care settings, below is a list of validated screening tools for identifying malnutrition. These can be incorporated within a facility's care workflow or practices.

### List of Validated Malnutrition Screening Tools

- Birmingham Nutrition Risk (BNR)
- Malnutrition Screening Tool (MST)
- Malnutrition Universal Screening Tool (MUST)
- Mini Nutritional Assessment (MNA)
- Global Leadership Initiative on Malnutrition (GLIM) Criteria
- Nutrition Risk Classification (NRC)
- Nutritional Risk Index (NRI)
- National Risk Screening (NRS) 2002
- Short Nutritional Assessment Questionnaire (SNAQ)

*Note, it is the position of the Academy of Nutrition and Dietetics that the MST should be used to screen adults for malnutrition (undernutrition) regardless of age, medical history, or setting.*

### Other tools to enhance malnutrition care include the following:

MQii Toolkit, available at: <http://malnutritionquality.org/>

Saint Louis University Rapid Geriatric Assessment, available at: <https://bit.ly/SLU-RGA>

## Resources for Educating Patients, Families, and Caregivers on How to Address Malnutrition

National Council on Aging's "Nutrition Tips for Seniors with Chronic Conditions," available at: <https://bit.ly/NCOA-tips>

National Council on Aging's "Healthy Eating Tips for Seniors," available at: <https://bit.ly/NCOA-tips2>

Alliance for Aging Research Malnutrition Tip Sheet, available at: <https://bit.ly/AAR-tips>

Meals on Wheels America's "Hunger in Older Adults: Challenges and Opportunities for the Aging Services Network," available at: <https://bit.ly/MOWA-report>

## Access to Adequate Food and Nutrition

Implementing Food Security Screening and Referral for Older Patients in Primary Care, available at: <https://bit.ly/AARP-screen>

Combating Food Insecurity: Tools for Helping Older Adults Access SNAP, available at: <https://bit.ly/FRAC-SNAP>

Food Distribution Program on Indian Reservations (FDPIR), available at: <https://bit.ly/FDPIRfacts>

U.S. Department of Agriculture Fact Sheet: USDA Support for Older Americans, available at: <https://bit.ly/USDA-seniors>

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# References /

- <sup>1</sup>U.S. Census Bureau. Older People Projected to Outnumber Children for First Time in U.S. History. Available at: <https://www.census.gov/newsroom/press-releases/2018/cb18-41-population-projections.html>. Updated October 8, 2018. Accessed March 30, 2020.
- <sup>2</sup>World Health Organization. Decade of Healthy Ageing. Available at: <https://www.who.int/ageing/decade-of-healthy-ageing>. Accessed March 30, 2020.
- <sup>3</sup>Kaiser MJ, Bauer JM, Ramsch C, et al. Frequency of malnutrition in older adults: a multinational perspective using the mini nutritional assessment. *J Am Geriatr Soc*. 2010;58(9):1734-1738.
- <sup>4</sup>Snider JT, Linthicum MT, Wu Y, et al. Economic burden of community-based disease-associated malnutrition in the United States. *JPEN*. 2014;38(2 Suppl):77s-85s.
- <sup>5</sup>Barrett ML, Bailey MK, Owens PL. Non-maternal and Non-neonatal Inpatient Stays in the United States Involving Malnutrition, 2016. U.S. Agency for Healthcare Research and Quality. Available at: [www.hcupus.ahrq.gov/reports.jsp](http://www.hcupus.ahrq.gov/reports.jsp). Published August 30, 2018. Accessed March 29, 2020.
- <sup>6</sup>National Academies of Sciences, Engineering, and Medicine. Meeting the dietary needs of older adults: exploring the impact of physical, social, and cultural environment: workshop summary. Washington, DC: The National Academies Press; 2016.
- <sup>7</sup>Soeters PB, Schols AM. Advances in understanding and assessing malnutrition. *Curr Opin Clin Nutr Metab Care*. 2009;12(5):487-494.
- <sup>8</sup>Hickson M. Malnutrition and ageing. *Postgrad Med J*. 2006;82(963):2-8.
- <sup>9</sup>Posner BM, Jette AM, Smith KW, Miller DR. Nutrition and health risks in the elderly: the nutrition screening initiative. *American J Public Health*. 1993;83(7):972-978.
- <sup>10</sup>U.S. Department of Agriculture. Definitions of Food Security. Available at: <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security/>. Updated September 4, 2019. Accessed March 31, 2020.
- <sup>11</sup>Feeding America. The State of Senior Hunger in America in 2017: An Annual Report. Available at: [https://www.feedingamerica.org/sites/default/files/2019-05/state-of-senior-hunger-2017\\_full-report.pdf](https://www.feedingamerica.org/sites/default/files/2019-05/state-of-senior-hunger-2017_full-report.pdf). Published May 14, 2019. Accessed March 27, 2020.
- <sup>12</sup>Feeding America, National Foundation to End Senior Hunger. Spotlight on Senior Health: Adverse Health Outcomes of Food Insecure Older Americans. Washington, DC: Feeding America; 2014.
- <sup>13</sup>Feeding America. Senior Hunger in the United States. Available at: [https://www.feedingamerica.org/sites/default/files/2019-05/Senior%20Hunger%20Infographic\\_2019.pdf](https://www.feedingamerica.org/sites/default/files/2019-05/Senior%20Hunger%20Infographic_2019.pdf). Published May 2019. Accessed March 27, 2020.
- <sup>14</sup>Wolfe WS, Frongillo EA, Valois P. Understanding the experience of food insecurity by elders suggests ways to improve its measurement. *J Nutr*. 2003;133(9):2762-2769.

- <sup>15</sup>Coleman-Jensen A, Rabbitt MP, Gregory CA, Singh A. Statistical supplement to household food security in the United States in 2015. Administrative Publication Number 0722016.
- <sup>16</sup>U.S. Department of Agriculture. Fact Sheet: USDA Support for Older Americans. Available at: <https://www.fns.usda.gov/pressrelease/2015/020215>. Accessed March 27, 2020.
- <sup>17</sup>U.S. Department of Health and Human Services. Multiple Chronic Conditions—A Strategic Framework: Optimum Health and Quality of Life for Individuals with Multiple Chronic Conditions. 2010. Washington, DC: U.S. Department of Health and Human Services.
- <sup>18</sup>World Health Organization. Integrated care for older people: Guidelines on community-level interventions to manage declines in intrinsic capacity. Geneva: World Health Organization; 2017.
- <sup>19</sup>Gerteis J, Izrael D, Deitz D, LeRoy L, Ricciardi R, Miller T, Basu J. Multiple Chronic Conditions Chartbook. Rockville, MD: Agency for Healthcare Research and Quality; 2014.
- <sup>20</sup>Wells JL, Dumbrell AC. Nutrition and aging: assessment and treatment of compromised nutritional status in frail elderly patients. *Clin Interv Aging*. 2006;1(1):67-79.
- <sup>21</sup>Agency for Healthcare Research and Quality. 2014 National Healthcare Quality and Disparities Report. Rockville, MD: Agency for Healthcare Research and Quality; 2014.
- <sup>22</sup>Tilly J. Opportunities to Improve Nutrition for Older Adults and Reduce Risk of Poor Health Outcomes. Available at: <https://nutritionandaging.org/wp-content/uploads/2017/03/Malnutrition-Issue-Brief-final-3-2017.pdf>. Published March 2017. Accessed March 29, 2020.
- <sup>23</sup>Goates S, Du K, Braunschweig CA, Arensberg MB. Economic Burden of Disease-Associated Malnutrition at the State Level. *PLoS One*. 2016;11(9):e0161833-e0161833.
- <sup>24</sup>Centers for Disease Control and Prevention. The State of Aging & Health in America 2013. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services; 2013.
- <sup>25</sup>Institute of Medicine. Nutrition and Healthy Aging in the Community: Workshop Summary. Washington, DC: The National Academies Press; 2012.
- <sup>26</sup>Office of Disease Prevention and Health Promotion. Nutrition, Physical Activity, and Obesity. Available at: <https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Nutrition-Physical-Activity-and-Obesity>. Published 2016. Accessed March 23, 2020.
- <sup>27</sup>Dietary Guidelines for Americans. Work Under Way: Topics and Questions Under Review by the Committee. Available at: <https://www.dietaryguidelines.gov/work-under-way/review-science/topics-and-questions-under-review>. Accessed March 27, 2020.
- <sup>28</sup>Wilkinson R, Arensberg ME, Hickson M, Dwyer JT. Frailty Prevention and Treatment: Why Registered Dietitian Nutritionists Need to Take Charge. *J Acad Nutr Diet*. 2017;117(7):1001-1009.
- <sup>29</sup>Izawa S, Kuzuya M, Okada K, et al. The nutritional status of frail elderly with care needs according to the mini-nutritional assessment. *Clin Nutr*. 2006;25(6):962-967.
- <sup>30</sup>National Quality Forum. NQF-Endorsed Measures for Person-and Family-Centered Care: Phase 2. Washington, DC: The National Quality Forum; 2016.
- <sup>31</sup>Dabrowska A. Malnutrition in Older Adults. Available at: [https://www.defeatmalnutrition.today/sites/default/files/documents/CRS\\_Memo\\_Malnutrition\\_in\\_Older\\_Adults.pdf](https://www.defeatmalnutrition.today/sites/default/files/documents/CRS_Memo_Malnutrition_in_Older_Adults.pdf). Published March 8, 2017. Accessed March 29, 2020.

- <sup>32</sup>Barker LA, Gout BS, Crowe TC. Hospital malnutrition: prevalence, identification and impact on patients and the healthcare system. *Int J Environ Res Public Health*. 2011;8(2):514-527.
- <sup>33</sup>Lanctin DP, Merced-Nieves F, Mallett RM, et al. Prevalence and Economic Burden of Malnutrition Diagnosis among Patients Presenting to United States Emergency Departments. *Acad Emerg Med*. 2019.
- <sup>34</sup>Tappenden KA, Quatrara B, Parkhurst ML, Malone AM, Fanjiang G, Ziegler TR. Critical Role of Nutrition in Improving Quality of Care: An Interdisciplinary Call to Action to Address Adult Hospital Malnutrition. *J Acad Nutr Diet*. 2013;113(9):1219-1237.
- <sup>35</sup>Ishida Y, Maeda K, Nonogaki T, et al. Malnutrition at Admission Predicts In-Hospital Falls in Hospitalized Older Adults. *Nutrients*. 2020;12(2).
- <sup>36</sup>Sharma Y, Miller M, Kaambwa B, et al. Malnutrition and its association with readmission and death within 7 days and 8–180 days postdischarge in older patients: a prospective observational study. *BMJ Open*. 2017;7.
- <sup>37</sup>Lee JH, Hutzler LH, Shulman BS, Karia RJ, Egol KA. Does Risk for Malnutrition in Patients Presenting With Fractures Predict Lower Quality Measures? *J Orthop Trauma*. 2015;29(8):373-378.
- <sup>38</sup>Zellner HK, Moss OA, Peterson SJ, et al. Differences in Respiratory Muscle Strength Measures in Well-Nourished and Malnourished Hospitalized Patients. *J Acad Nutr Diet*. 2019;119(5):831-839.
- <sup>39</sup>U.S. Census Bureau. U.S. Census Bureau Projections Show a Slower Growing, Older, More Diverse Nation a Half Century from Now. Available at: <https://www.census.gov/newsroom/releases/archives/population/cb12-243.html>. Published December 12, 2012. Accessed March 30, 2020.
- <sup>40</sup>U.S. Government Accountability Office. Nutrition Assistance Programs: Agencies Could Do More to Help Address the Nutritional Needs of Older Adults. Washington, DC: U.S. Government Accountability Office; 2019.
- <sup>41</sup>Philipson TJ, Snider JT, Lakdawalla DN, Stryckman B, Goldman DP. Impact of oral nutritional supplementation on hospital outcomes. *The Am J Manag Care*. 2013;19(2):121-128.
- <sup>42</sup>Chow WB, Ko KY, Rosenthal RA, Esnaola NF. ACS NSQIP/AGS Best Practice Guidelines: Optimal Preoperative Assessment of the Geriatric Surgical Patient. Chicago, IL: American College of Surgeons; 2012.
- <sup>43</sup>American College of Surgeons. Optimal Resources for Geriatric Surgery: 2019 Standards. 2019. Chicago, IL: American College of Surgeons.
- <sup>44</sup>Ljungqvist O, Scott M, Fearon KC. Enhanced Recovery After Surgery: A Review. *JAMA surgery*. 2017;152(3):292-298.
- <sup>45</sup>Cederholm T, Jensen GL, Correia MITD, et al. GLIM criteria for the diagnosis of malnutrition - A consensus report from the global clinical nutrition community. *Clin Nutr*. 2019;38(1):1-9.
- <sup>46</sup>Sulo S, Goates S, Partridge J, et al. A cost-benefit analysis of a rapid, comprehensive oral nutritional supplement quality-improvement program for malnourished hospitalized patients. Paper presented at: ISPOR 21st Annual International Meeting, 2016. Washington, DC.
- <sup>47</sup>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*. 2017;41(3):384-391.
- <sup>48</sup>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):217-223.



- <sup>49</sup>Gomes F, Baumgartner A, Bounoure L, et al. Association of Nutritional Support With Clinical Outcomes Among Medical Inpatients Who Are Malnourished or at Nutritional Risk: An Updated Systematic Review and Meta-analysis. *JAMA Network Open*. 2019;2(11):e1915138-e1915138.
- <sup>50</sup>Deutz NE, Matheson EM, Matarese LE, et al. Readmission and mortality in malnourished, older, hospitalized adults treated with a specialized oral nutritional supplement: A randomized clinical trial. *Clin Nutr*. 2016;35(1):18-26.
- <sup>51</sup>Sharma Y, Thompson C, Miller M, et al. Economic evaluation of an extended nutritional intervention in older Australian hospitalized patients: a randomized controlled trial. *BMC Geriatrics*. 2018;18(1):41.
- <sup>52</sup>Ha L, Hauge T, Spenning AB, Iversen PO. Individual, nutritional support prevents undernutrition, increases muscle strength and improves QoL among elderly at nutritional risk hospitalized for acute stroke: a randomized, controlled trial. *Clin Nutr*. 2010;29(5):567-573.
- <sup>53</sup>Azar AM. The Root of the Problem: America's Social Determinants of Health. Available at: <https://www.hhs.gov/about/leadership/secretary/speeches/2018-speeches/the-root-of-the-problem-americas-social-determinants-of-health.html>. Published November 14, 2018. Accessed March 30, 2020.
- <sup>54</sup>Malnutrition Quality Improvement Initiative. Available at: <http://malnutritionquality.org/>. Accessed March 25, 2020.
- <sup>55</sup>Avalere Health. Dialogue Proceedings / Launching the Malnutrition Quality Improvement Initiative. 2014. Washington, DC: Avalere Health.
- <sup>56</sup>Campbell AD, Godfryd A, Buys DR, Locher JL. Does Participation in Home-Delivered Meals Programs Improve Outcomes for Older Adults? Results of a Systematic Review. *J Nutr Gerontol Geriatr*. 2015;34(2):124-167.
- <sup>57</sup>Thomas KS. Outcomes Matter: The Need for Improved Data Collection and Measurement in Our Nation's Home-Delivered Meals Programs. *J Nutr Gerontol Geriatr*. 2015;34(2):85-89.
- <sup>58</sup>Announcement of Calendar Year (CY) 2020 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies and Final Call Letter. Available at: <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2020.pdf>. Published April 1, 2019. Accessed March 30, 2020.
- <sup>59</sup>National Council on Aging. Nutrition Tips for Seniors with Chronic Conditions. Available at: <https://www.ncoa.org/healthy-aging/chronic-disease/nutrition-chronic-conditions/nutrition-tips-chronic-diseases/nutrition-tips-for-people-with-chronic-conditions/>. Accessed March 30, 2020.
- <sup>60</sup>American Society for Parenteral and Enteral Nutrition. Malnutrition Solution Center. [https://www.nutritioncare.org/guidelines\\_and\\_clinical\\_resources/Malnutrition\\_Solution\\_Center/#Consumers](https://www.nutritioncare.org/guidelines_and_clinical_resources/Malnutrition_Solution_Center/#Consumers). Accessed March 30, 2020.
- <sup>61</sup>American Health Care Association. National quality award program. [https://www.ahcancal.org/quality\\_improvement/quality\\_award/Pages/default.aspx](https://www.ahcancal.org/quality_improvement/quality_award/Pages/default.aspx). Accessed March 26, 2020.
- <sup>62</sup>Agency for Healthcare Research and Quality. About the National Quality Strategy. Available at: <https://www.ahrq.gov/workingforquality/about/index.html>. Published March 2017. Accessed March 26, 2020.
- <sup>63</sup>Alliance to Advance Patient Nutrition. Malnutrition Screening Tool (MST). [http://static.abbottnutrition.com/cms-prod/malnutrition.com/img/Alliance\\_Malnutrition\\_Screening\\_Tool\\_2014\\_v1.pdf](http://static.abbottnutrition.com/cms-prod/malnutrition.com/img/Alliance_Malnutrition_Screening_Tool_2014_v1.pdf). Published 2014. Accessed March 26, 2020.
- <sup>64</sup>Centers for Medicare & Medicaid Services. Is my test, item, or service covered? Available at: <https://www.medicare.gov/coverage/nutrition-therapy-services>. Accessed March 26, 2020.
- <sup>65</sup>Institute of Medicine. *Envisioning the National Health Care Quality Report*. 2001. Washington, DC: National Academies Press.

- <sup>66</sup>Swan M. Emerging patient-driven health care models: an examination of health social networks, consumer personalized medicine and quantified self-tracking. *Int J Environ Res Public Health*. 2009;6(2):492-525.
- <sup>67</sup>Agency for Healthcare Research and Quality. Guide to Patient and Family Engagement in Hospital Quality and Safety. <https://www.ahrq.gov/professionals/systems/hospital/engagingfamilies/index.html>. Accessed March 30, 2020.
- <sup>68</sup>Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. 2001. Washington, DC: National Academies Press.
- <sup>69</sup>Centers for Medicare & Medicaid Services. Measures Management System: A Brief Overview of Qualified Clinical Data Registries (QCDRs). Available at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/MMS/Downloads/A-Brief-Overview-of-Qualified-Clinical-Data-Registries.pdf>. Published October 2018. Accessed March 30, 2020.
- <sup>70</sup>Agency for Healthcare Research and Quality. Practice Facilitation Handbook. <https://www.ahrq.gov/ncepcr/tools/pf-handbook/mod4.html>. Published May 2013. Accessed March 31, 2020.
- <sup>71</sup>Lawrence M, Olesen F. Indicators of Quality in Health Care. *Eur J Gen Pract*. 1997;3(3):103-108.
- <sup>72</sup>Centers for Medicare & Medicaid Services. Quality Measures. Available at: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures>. Updated February 11, 2020. Accessed March 26, 2020.
- <sup>73</sup>Alston C, Berger Z, Brownlee S, et al. *Shared Decision-making Strategies for Best Care: Patient decision aids*. Washington, DC: The National Academies Press; 2014.
- <sup>74</sup>U.S. Office of Disease Prevention and Health Promotion. Social Determinants of Health. Available at: <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>. Accessed March 30, 2020.
- <sup>75</sup>The Joint Commission. *Transitions of Care: The need for a more effective approach to continuing patient care*. Available at: [https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/hot\\_topics\\_transitions\\_of\\_carepdf.pdf?db=web&hash=CEFB254D5EC36E4FFE30ABB20A5550E0](https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/topics-library/hot_topics_transitions_of_carepdf.pdf?db=web&hash=CEFB254D5EC36E4FFE30ABB20A5550E0). Published June 2012. Accessed March 30, 2020.

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# Acknowledgments /

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## 2016 Malnutrition Quality Collaborative Workgroup Members

### Staff

**Bob Blancato**, MPA, National Coordinator, Defeat Malnutrition Today

**JoHannah K. Torkelson**, JD, MPH, Defeat Malnutrition Today

**Meredith Ponder Whitmire**, JD, Policy Director, Defeat Malnutrition Today

**Kristi Mitchell**, MPH, Senior Vice President, Avalere Health

**Michelle Bruno**, MPP, Director, Avalere Health

### Members

**Anne Montgomery**, MS, Deputy Director, Altarum Institute Center for Elder Care and Advanced Illness

**Chris Herman**, MSW, LICSW, Senior Practice Associate, National Association of Social Workers

**Craig Gundersen**, PhD, Professor, University of Illinois, Department of Agricultural and Consumer Economics

**Cynthia Bens**, Vice President, Public Policy, Alliance for Aging Research

**Eleni Towns**, Policy Analyst, Feeding America

**Emily Basten**, MBA, Senior Manager of Program Development, Feeding America

**Erika Kelly**, Chief Advocacy and Government Affairs Officer, Meals on Wheels America

**Erin Kee**, LLM, MELP, JD, Senior Program Manager, Hunger Initiatives, National Council on Aging

**Heidi J. Silver**, PhD, RDN, Director, Vanderbilt Diet, Body Composition, and Human Metabolism CORE, Vanderbilt University Medical Center

**Jeanne Blankenship**, MS, RDN, Vice President, Policy Initiatives and Advocacy, Academy of Nutrition and Dietetics

**Judy R. Simon**, MS, RDN, LDN, Program Manager, Nutrition and Health Promotion Programs, Maryland Department of Aging; Chair, Healthy Aging Dietetic Practice Group, Academy of Nutrition and Dietetics

**Karim Godamunne**, MD, MBA, SFHM, Hospital Chief Medical Officer, Internist, Wellstar Health System

**Lisa Zullig**, MS, RDN, CSG, CDN, Director, Nutrition Services, God's Love We Deliver

**Mary Beth Arensberg**, PhD, RDN, Director, Health Policy and Programs, Abbott Nutrition

**Patricia M. D'Antonio**, RPh, MS, MBA, BCGP, Senior Director, Professional Affairs and Membership, The Gerontological Society of America

**Peggy Guenter**, PhD, RN, FAAN, Senior Director, Clinical Practice, Quality, and Advocacy, American Society for Parenteral and Enteral Nutrition

**Sarah Ohlhorst**, MS, RDN, Senior Director, Advocacy and Science Policy, American Society for Nutrition

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# Acknowledgments /

## 2016 Reviewers

**Alexandra Ashbrook**, Director, Special Projects and Initiatives, Food Research & Action Center

**Heather Hartline-Grafton**, DrPH, RDN, Senior Nutrition Policy and Research Analyst, Food Research & Action Center

**Hilary Seligman**, MD, MAS, Senior Medical Advisor and Lead Scientist, Feeding America; Associate Professor of Medicine and of Epidemiology and Biostatistics, University of California San Francisco

**Mary Ann Johnson**, PhD, President-Elect, American Society for Nutrition; Flatt Professor of Foods and Nutrition, Associate Director, Institute of Gerontology, University of Georgia

## 2020 Reviewers for the Updated Blueprint

**Ainsley Malone**, MS, RDN, LD, CNSC, FAND, FASPEN, Clinical Practice Specialist, The American Society for Parenteral and Enteral Nutrition

**Jeanne Blankenship**, MS, RDN, Vice President, Policy Initiatives and Advocacy, Academy of Nutrition and Dietetics

**Julie Richards**, MS, RDN, Consultant, Health Policy and Programs, Abbott Nutrition

**Katie Jantzi**, LCSW, Director, Government Affairs, Meals on Wheels America

**Mary Beth Arensberg**, PhD, RDN, Director, Health Policy and Programs, Abbott Nutrition

**Meredith Ponder Whitmire**, JD, Policy Director, Defeat Malnutrition Today

**Sarah Ohlhorst**, MS, RDN, Senior Director, Advocacy and Science Policy, American Society for Nutrition

**Uche Akobundu**, PhD, RDN, Senior Director, Nutrition Strategy and Impact, Meals on Wheels America

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