



# Malnutrition Care: Person-Centered Strategies to Improve Quality Outcomes

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# Speaker Disclosure:

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- **Employee:**
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- **Board Member:**
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  - *Dietitians in Business and Communications Dietetic Practice Group*
  - *Foundation for a Healthy Kentucky Community Advisory Council*
  - *International Food Manufacturers Association Healthcare Foodservice Leadership Council*



# Learning Objectives

- Understand how social isolation is associated with increased risk of malnutrition
- State examples of the impact of malnutrition on health & clinical outcomes
- Describe malnutrition intervention strategies that promote positive outcomes & enhance quality of life



# Agenda

- Malnutrition & Isolation
- Impact of Malnutrition: Older Adults & Dementia
- Nutrition Intervention Strategies & Program Planning
- Enhancing the Dining Experience



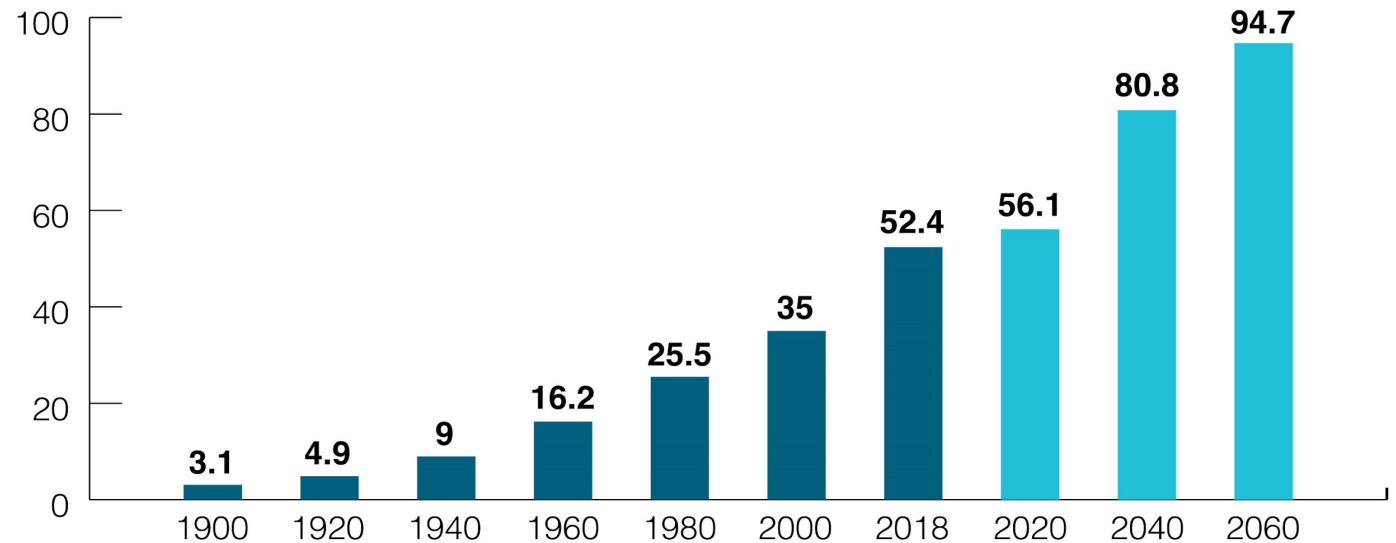
# Older Adult Malnutrition & Isolation



# Aging & the U.S. Population

The **65+** population is expected to grow significantly

Number of Persons Age 65 and Older 1900 to 2060 (numbers in millions)



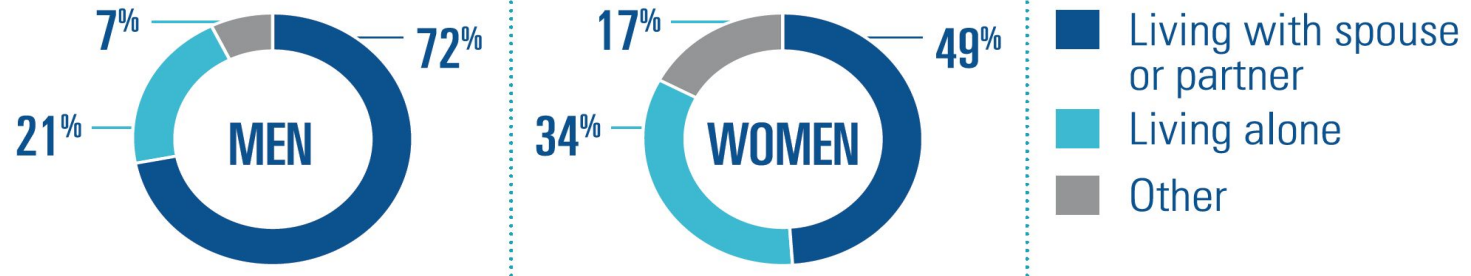
*Note: Increments in years are uneven. Lighter bars (2020, 2040, and 2060) indicate projections.*

*Source: U.S. Census Bureau, Population Estimates and Projections*

Source: Administration For Community Living Senior Profile 2019

# Growing Social Isolation

## Living Arrangements of Persons Age 65 and Older, 2019



Sources: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement 1967 to present



1 IN 5 FEELS LONELY

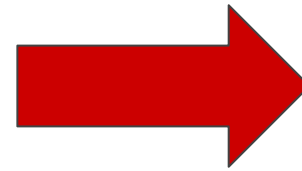
and social isolation among older adults is associated with an extra **\$6.7 BILLION** in Medicare spending each year

Source: Meals On Wheels America



# Rise in Malnutrition: Linkage with COVID-19

Isolation & loneliness are associated with a higher risk of developing malnutrition



- Appetite
- Diet & Food Quality
- Joy (or lack) of Eating





# Food Insecurity: *Feeding America* Data

## Hunger facts

**44**

million people in the  
United States are  
food insecure

**13**

million children in  
the United States  
are food insecure

**49**

million people  
turned to food  
programs in 2022

**100%**

of U.S. counties  
have food  
insecurity

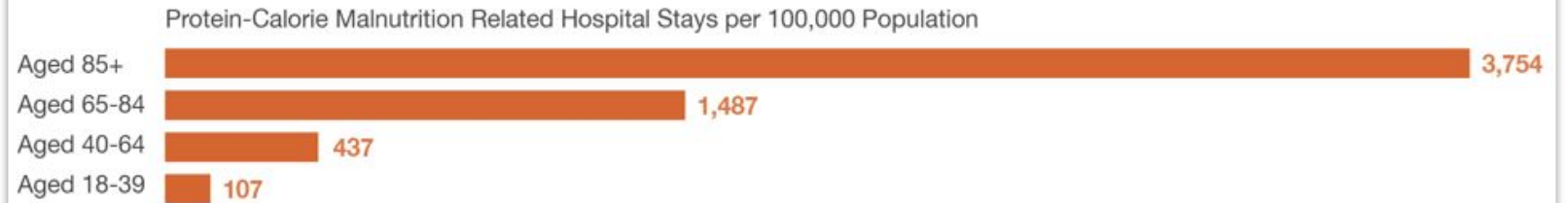


# Nutrition & the U.S. Population



Up to 1 out of 2 older adults is either at risk of becoming or is malnourished<sup>3</sup>

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



Malnutrition is intensified by the disparities and social isolation from COVID-19 pandemic.<sup>4</sup> Additionally, nutrition status is a relevant factor influencing the outcomes of patients with COVID-19.<sup>5</sup>

## Malnutrition Prevalence Across Care Settings



Acute Care<sup>6</sup>  
20–50%



Post-Acute Care<sup>7</sup>  
14–51%



Community Care<sup>8,9</sup>  
6–30%



# Prevalence of Malnutrition

## “Malnutrition in Hospitalized Old Patients: Screening and Diagnosis, Clinical Outcomes, and Management”

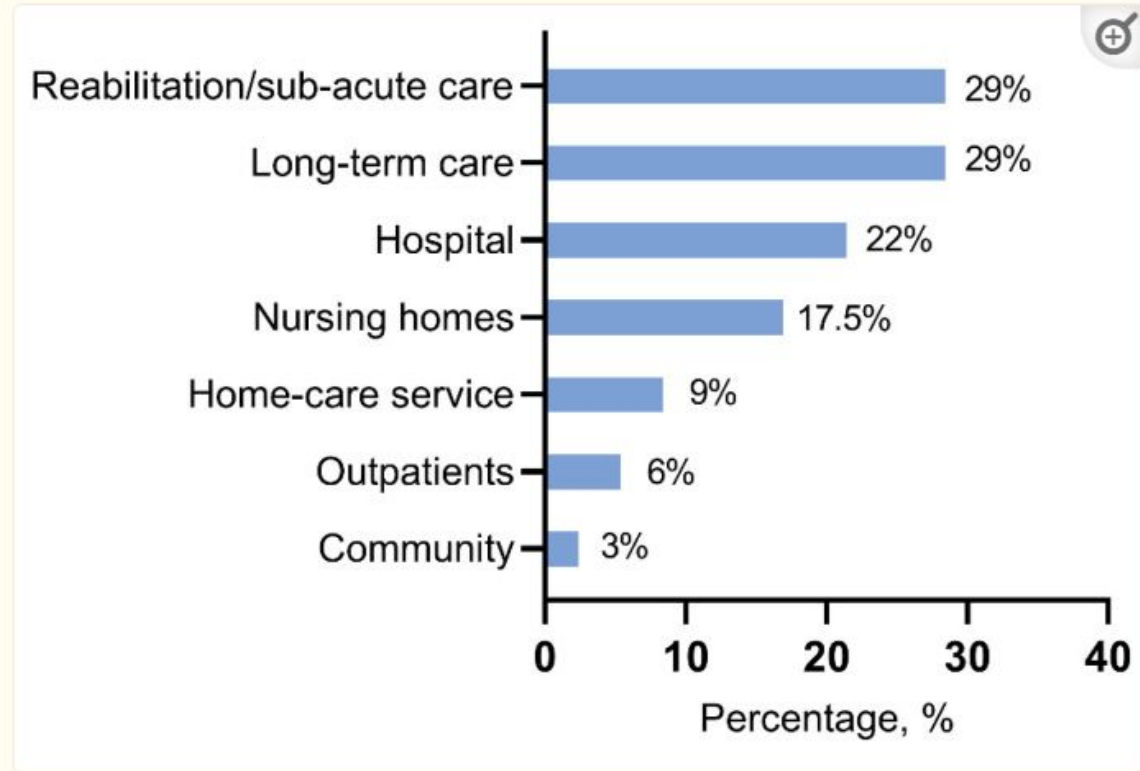


Figure 1

Prevalence of malnutrition based on the setting of care [27].

(27 Source): Volkert D., Beck A.M., Cederholm T., Cereda E., Cruz-Jentoft A., Goisser S., de Groot L., Großhauser F., Kiesswetter E., Norman K., et al. Management of malnutrition in older patients—current approaches, evidence and open questions. *J. Clin. Med.* 2019;8:974. doi: 10.3390/jcm8070974.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8880030/#:~:text=According%20to%20most%20studies%2C%20malnutrition,tools%20%5B2%2C7%5D.>



# Quality Measure: Weight Loss



<https://pixels.com/featured/red-exclamation-point-button-henrik-lehnerer.html>

- Long-stay measure: Cumulative days equal to or longer than 101 days
- Average percentage of weight loss increased during pandemic across the U.S.
- Approximate two percentage point increase
  - Approximately >7.5% nationally

<https://www.medicare.gov/care-compare/?providerType=NursingHome&redirect=true>

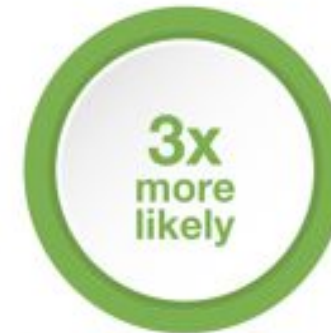


# Malnutrition Increases Risk for Negative Health Outcomes

- Increased rates of morbidity & mortality
- Immune suppression & increased infection rates
- Decreased respiratory & cardiac function
- Longer length of hospital stay
- Higher readmission rates



Protein-calorie malnutrition related hospital stays are 2x longer<sup>5</sup>



Protein-calorie malnutrition related hospital stays are 3x more likely to result in death<sup>5</sup>



Disease-associated malnutrition in older adults is estimated to cost \$51.3 billion annually<sup>4</sup>

Source: Defeat Malnutrition Today National Blueprint May 2020



# Quality of Care Concerns

## Hospital-Acquired Conditions

- Increases fall risk: Increased 2x
- Pressure sore development risk: Increased 2x

## Hospital-Acquired Infections

- SSI risk: Increased 2.5x
- UTI risk: Increased 5x

## Readmissions within 30 Days

- Increased risk of readmission by 3-4x
- Early nutrition intervention can decrease readmissions by ~25%



<https://stock.adobe.com/search?k=hospital>



# Improve Quality Care Outcomes with Better Nutrition

- THE IMPACT OF NUTRITION-FOCUSED QUALITY IMPROVEMENT INTERVENTIONS ON LENGTH OF STAY AND READMISSION RATES AMONG HOSPITALIZED MALNOURISHED PATIENTS
  - Principal Findings:
    - Decrease in LOS by almost 1 day
    - Small decrease in readmission rates
- IMPROVING MALNUTRITION IN HOSPITALIZED OLDER ADULTS: THE DEVELOPMENT, OPTIMIZATION, AND USE OF A SUPPORTIVE TOOLKIT
  - Summary:
    - Toolkit supports implementation of QI initiatives
    - Toolkit assists with identifying malnutrition care gaps



**Impact of Malnutrition**

# **Older Adults, Dementia & Nutrition**





# Dementia & Nutrition

- Memory Care residents often experience challenges maintaining proper nutrition levels
- Understanding the factors that create these challenges is critical
- Weight loss is common in individuals with advanced dementia

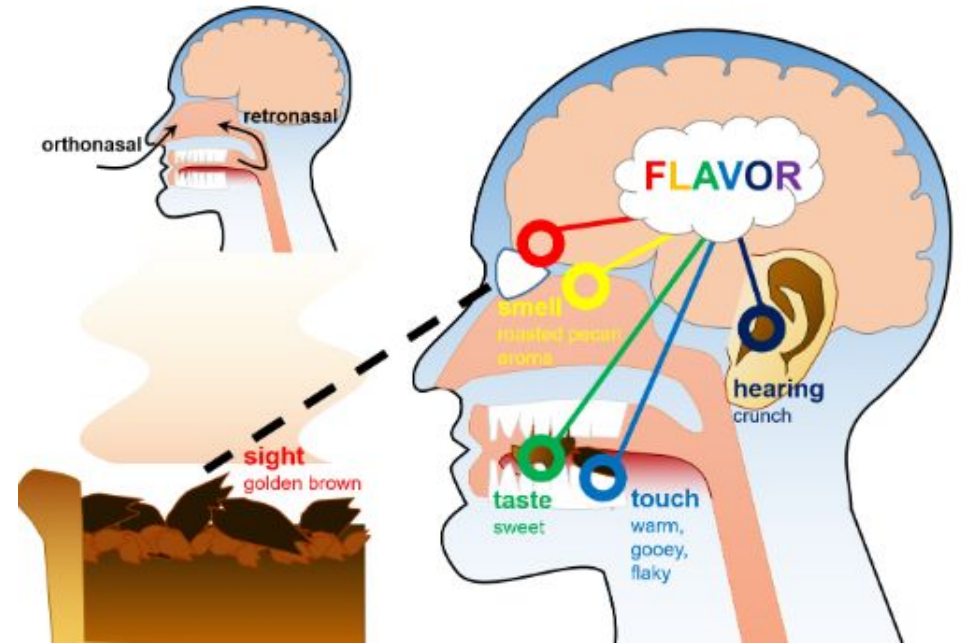


<https://www.istockphoto.com/photos/dementia>



# Changes in Food Preferences & Intake

- Damage to specific parts of the brain cause changes in sensory processing:
  - Taste perception
  - Sense of smell
- These changes may lead to:
  - Sudden change in favorite foods
  - Requests for extra salt & sugar
  - Less diet variety
- Motor difficulties
  - Change in dexterity
  - Chewing & swallowing issues
- Eating behaviors
  - Refusing to eat
  - Playing with food
  - Change in appetite (medication-related)



<https://sitn.hms.harvard.edu/flash/2016/brain-tricks-to-make-food-taste-sweeter-how-to-transform-taste-perception-and-why-it-matters/>



# Key Points



Quality Of Life

<https://www.shutterstock.com/search/quality-life>

- Malnutrition increases the risk of poor health outcomes and increases the cost of care to the overall healthcare system
- Healthcare organizations received financial incentives to improve clinical outcomes & decrease costs
- Strategic focus: Prevent and care for malnutrition to improve an individual's health and quality of life



**Nutrition Intervention Strategies**

# **Malnutrition Programs & the Interdisciplinary Team**



# Getting Started



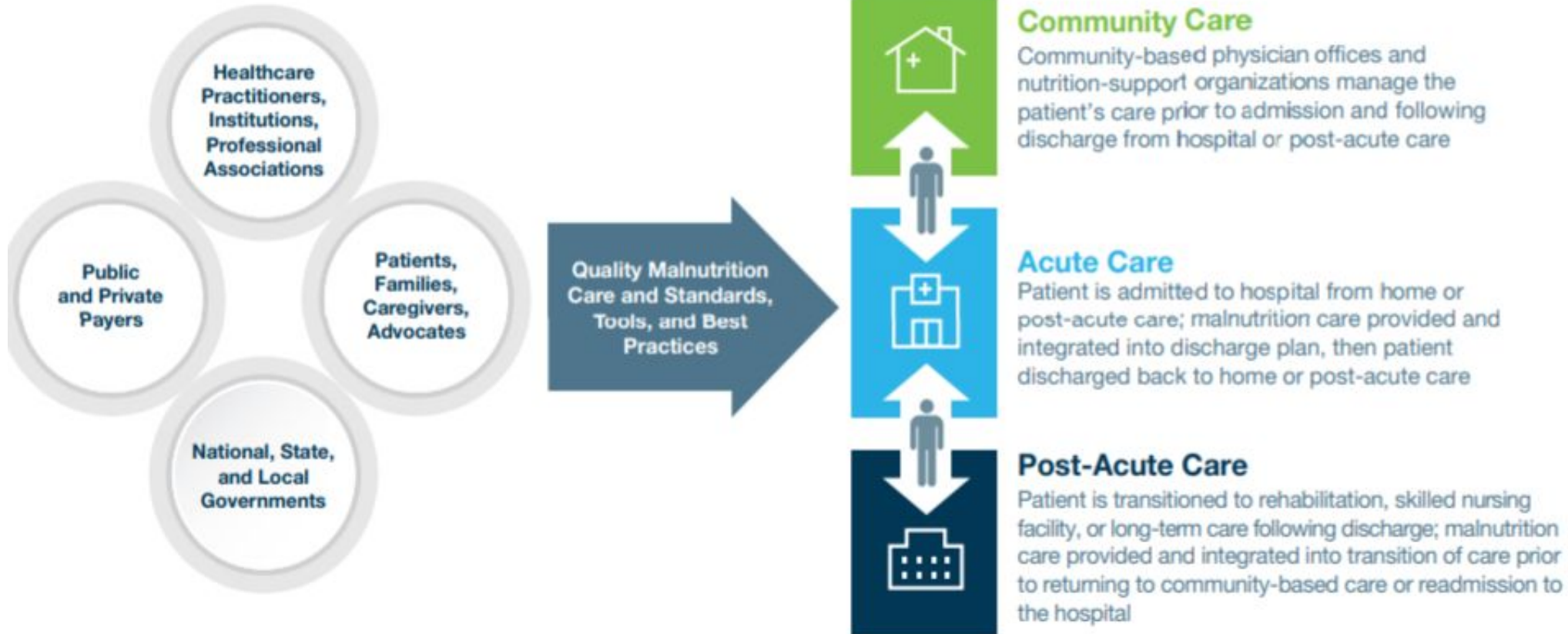
<https://stock.adobe.com/search?k=%22next+steps%22>

So you & your team  
have decided to  
implement or enhance  
a program that cares  
for those with  
malnutrition:

What is your next step?



# Nutrition Integration in Care Transitions



# Project Management & Scope



Improve quality of care by creating a program that synchronizes recognition, documentation & intervention for individuals with malnutrition:

- Identify stakeholders
- Identify process & create a flexible timeline
- Incorporate a system for monitoring & evaluation



# The Interdisciplinary Team



<https://www.pexels.com/search/project%20management/>

- Registered Dietitian
- Nursing
- Physician
- Administrative Leader
- Quality Manager
- Activities Leader
- PT/OT/SLP
- CDI/Coder
- Community Partners





# Program Effectiveness



<https://www.shutterstock.com/search/pdsa-cycle>

- Ensure training for interdisciplinary team
  - Food insecurity process (building questions into initial nursing screen, i.e. “how often do you run out of food”)
  - Nutrition screening process (RN & RD obtaining nutrition history regarding intake and weight loss)
  - NFPA (Comprehensive training for all clinical RDs on conducting NFPE correctly) & interventions (Liberalize diet, early use of ONS, SLP evaluation to ensure proper diet consistency level)
  - Clinical documentation & coding (RD note linking back to provider note - can be accomplished through EMR, notifying coders of malnutrition, utilizing team member collaboration to ensure that recommendations are followed after discharge)
- Ensure proper monitoring system
  - Audit tools
  - Consistent evaluation process
- Data usage to affect change



# Diagnostic Criteria for Malnutrition



<https://stock.adobe.com/search?k=red+checkmark>

- Unintentional Weight Loss (defining factors: how much wt loss/time period, etc.)
- Decreased Nutrient Intake (specific amount of decreased po/time period)
- Nutrition-Focused Physical Assessment
  - Subcutaneous Fat Loss
  - Lean Body Mass Loss
  - Fluid Accumulation
  - Reduced Grip Strength

Defining acute, chronic, moderate/severe, disease vs environmental

<https://aspenjournals.onlinelibrary.wiley.com/doi/10.1002/jpen.1806>

<https://aspenjournals.onlinelibrary.wiley.com/doi/full/10.1177/0148607112440285>



# Academy & ASPEN Criteria

## Academy/ASPEN Clinical Characteristics That the Registered Dietitian Nutritionist (RDN) Can Obtain and Document to Support the Diagnosis of Malnutrition in Adults

<p>Food and Nutrient Intake (<a href="#">Kondrup, 2001</a>). Malnutrition is the result of inadequate food and nutrient intake or assimilation; thus recent intake compared with estimated requirements is a primary criterion defining malnutrition. The RDN obtains or reviews the food and nutrition history, estimates optimum energy needs, compares energy needs with estimates of energy consumed, and reports inadequate intake as a percentage of estimated energy requirements over time.</p>					
<b>Malnutrition in the Context of Acute Illness or Injury</b>		<b>Malnutrition in the Context of Chronic Illness</b>		<b>Malnutrition in the Context of Social or Environmental Circumstances</b>	
<b>Nonsevere (Moderate) Malnutrition</b>	<b>Severe Malnutrition</b>	<b>Nonsevere (Moderate) Malnutrition</b>	<b>Severe Malnutrition</b>	<b>Nonsevere (Moderate) Malnutrition</b>	<b>Severe Malnutrition</b>
< 75% of estimated energy requirement for > 7 days	≤ 50% of estimated energy requirement for ≥ 5 days	< 75% of estimated energy requirement for ≥ 1 month	≤ 75% of estimated energy requirement for ≥ 1 month	< 75% of estimated energy requirement for ≥ 3 months	≤ 50% of estimated energy requirement for 1 ≥ month
<p>Interpretation of Weight Loss (<a href="#">Blackburn, 1977</a>; <a href="#">Klein, 1997</a>; <a href="#">Rosenbaum, 2000</a>; <a href="#">Keys, 1948</a>). The RDN evaluates weight in light of other clinical findings, including the presence of underhydration or overhydration. The RDN assesses weight change over time reported as a percentage of weight lost from baseline.</p>					
<b>Nonsevere (Moderate) Malnutrition</b>	<b>Severe Malnutrition</b>	<b>Nonsevere (Moderate) Malnutrition</b>	<b>Severe Malnutrition</b>	<b>Nonsevere (Moderate) Malnutrition</b>	<b>Severe Malnutrition</b>
<b>% Time</b>	<b>% Time</b>	<b>% Time</b>	<b>% Time</b>	<b>% Time</b>	<b>% Time</b>
1-2%: 1 week 5%: 1 month	> 2%: 1 week > 5%: 1 month	5%: 1 month 7.5%: 3	> 5%: 1 month > 7.5%: 3	5%: 1 month 7.5%: 3 months	> 5%: 1 month > 7.5%: 3



# Malnutrition Risk



<https://www.dreamstime.com/malnutrition-word-concept-cubes-malnutrition-word-concept-cubes-image175269786>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4863272/>

- If an individual does not meet the minimum of two criteria for a malnutrition medical diagnosis, there are other factors that may cause a resident to be at increased nutritional risk
- Such factors include:
  - Dementia
  - Poor oral health
  - Texture-modified diets/Dysphagia
  - Infection
  - Health decline



# Updated CMS Reform of LTC Regulations

## F284 Discharge Planning

- Must involve resident and/or representative and be developed by the **interdisciplinary team**

## F660-661 Discharge Planning Process

- Planning begins on admission
- Must include **nutritional status/needs**
- Include **referrals to local contact agencies** for support services such as meals or groceries



<https://stock.adobe.com/search?k=regulatory>



# PDPM and Malnutrition Reimbursement

## Patient Driven Payment Model

- Identifying and properly coding for malnutrition or at risk for malnutrition can lead to potential increased reimbursement for facilities who utilize PDPM
  - PDPM = Medicare Part A reimbursement model

*(Data provided by S & S Nutrition Network, Inc.)*



# Outcomes of Missed Opportunities

## Case Study Example

- “Mr. Smith”
  - The RDN recognized and diagnosed “Mr. Smith” with malnutrition
  - Malnutrition diagnosis was identified on the MDS for one resident
    - Under PDPM, this lead to potential increased reimbursement per day of ~ \$19 -\$57
    - Potential increased reimbursement over a 30 day period of \$587-\$1,735
    - Potential increased reimbursement over a 1 year period of \$6,935-\$20,805

*(Data provided by S & S Nutrition Network, Inc.)*



# Nutrition Intervention Strategies

## Person-Centered Strategies to Enhance the Dining Experience





# Food as Medicine: Connecting Wellness with Food



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

- Hippocrates



# Elevating the Dining Experience

- Delicious food and increasing dining satisfaction leads to decreased malnutrition risk
- Improved weight maintenance, strength and skin integrity leads to overall improved outcomes



**ANALYZE PATIENT  
OUTCOMES**

<https://www.istockphoto.com/photos/patient-outcomes>



# Nourishing Meals in Healthcare & Senior Living

## Typical Departmental Goals in Foodservice Operations:

- Manage expenses & labor
- Proper safety & sanitation
- Provide high quality meals
- Increase resident, visitor & employee satisfaction
- Build healthier communities



<https://www.istockphoto.com/photos/assisted-living-food>



# Foodservice & Clinical Leader Conversations

“We need to increase our patient satisfaction scores.”

*“I have to keep my team members and guests safe.”*

“Residents are losing weight and muscle mass.”

“I’ve had multiple Clinical Dietitian positions for a long time and they are hard to fill.”



# Dining Experience: The Mission

Person-Centered Care & a Quality Dining Experience are Fundamental Goals:

- What was the dining experience like pre-pandemic?
- Were guests or residents fully satisfied?
- What are the new long-term goals or initiatives?
- Is the dining plan flexible?
- Is your team prepared?



# Back to Basics

## Baseline

- What is your starting point?
- Are your systems & processes hard-wired?
- Are you always survey-ready?

## Align Your Goals

- Ensure departmental goals are aligned with the organization
- Determine which audit methods should be put into place

## Activate Your Plan

- Implement your strategy
- Communication & training are keys to success



# Establish a Baseline

- Patient satisfaction surveys
- Resident council
- Meal rounding
- Team member (Nursing) comments



<https://stock.adobe.com/search/images?k=hospital+food+tray>



# Dining Experience: Self-Review



<https://www.istockphoto.com/photos/checklist>

## Focus Areas:

- Production & Culinary Practices
- Meal Assembly
- Meal Presentation & Food Quality
- Meal Delivery
- Dining Room
- Employee Training
- Performance Improvement







# Culinary Tips for Individuals with Dementia

- Use unique herbs & spices to enhance flavors
- Add small amounts of sugar & honey to sauces for extra sweetness
- Offer finger foods
  - Muffins
  - Mini Quiches
  - Quesadillas
  - Chicken nuggets or tenders
  - Slider sandwiches



<https://www.istockphoto.com/photos/chef-hat>



# Optimize the Dining Environment

- Limit distractions
- Clean table/tray table
- Social interaction
- Quiet, soft music
- Adequate lighting
- Clock to orientate
- Provide adequate meal time



<https://www.mcknightsseniorliving.com/slideshow/guest-columns/dining-concepts-in-senior-living/>



# Visual Appeal

- Importance of real dinnerware
- Elevated disposables
  - Eco-friendly, reusable disposables
- “Extra” special touches
  - Scented towelettes
  - Sanitizable, re-usable, nice placemats



# Plate with Pride



<https://www.itsmadeforyou.co.uk/dysphagia/post/a-pureed-food-for-people-with-dysphagia>



<https://blog.cambro.com/2020/10/27/decor-series-trays-bring-high-performing-contemporary-look-to-hospital-meal-service/>



# Elevate the Dining Experience in Senior Living: Industry Input



Suzanne Quiring, CDM, RD  
Dietitian/Inventor SuzyQ carts  
ANFP Dining Distinction Award Winner 2020

## All hands on deck

- Protected meal hour
- Put your management team on a coffee serving schedule

## Food is only nourishing if they eat it

- Why aren't they eating?

## Shift control from pre-determined to self-determination

## Go mobile



**Helpful Information**

# **Older Adult Malnutrition Resources**



# Industry Resources

- <https://www.eatrightpro.org/search-results?keyword=malnutrition>
- [www.feedingamerica.org](http://www.feedingamerica.org)
- [Feeding America: Addressing Food Insecurity in Healthcare Settings](#)
- [www.defeatmalnutrition.today](http://www.defeatmalnutrition.today)
- [Malnutrition Quality Improvement Initiative Tool Kit](#)
- [Defeat Malnutrition Today \(2020 National Blueprint\)](#)
- [Malnutrition Quality Improvement Initiative \(MQii\)](#)
- [www.nutritioncare.org](http://www.nutritioncare.org)
- [ASPEN Resources for Clinicians caring for COVID](#)
- [Global Leadership Initiative on Malnutrition \(GLIM\)](#)
- <https://www.todaysdietitian.com/newarchives/090115p56.shtml>
- <https://www.pioneernetwork.net/>

Also presented *Malnutrition Care: Person-Centered Strategies to Improve Quality Outcomes* at DHCC Virtual Symposium 2022 (MD DHCC presentation is an adapted version)



Academy of Nutrition  
and Dietetics



defeat **malnutrition** today

...vital to healthy aging





Quote by Julia Child

***“The dinner hour is a sacred, happy time when everyone should be together & relaxed.”***



***Thank You***

