Malnutrition in Older Adults

Nutrition and Aging Resource Center

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Nutrition and Aging
Resource Center

Agenda

Guiding Questions

- What is malnutrition?
- Why does it matter?
- Who is at risk?
- What can be done about malnutrition?
- Where to find tools and resources to learn more!

Terms

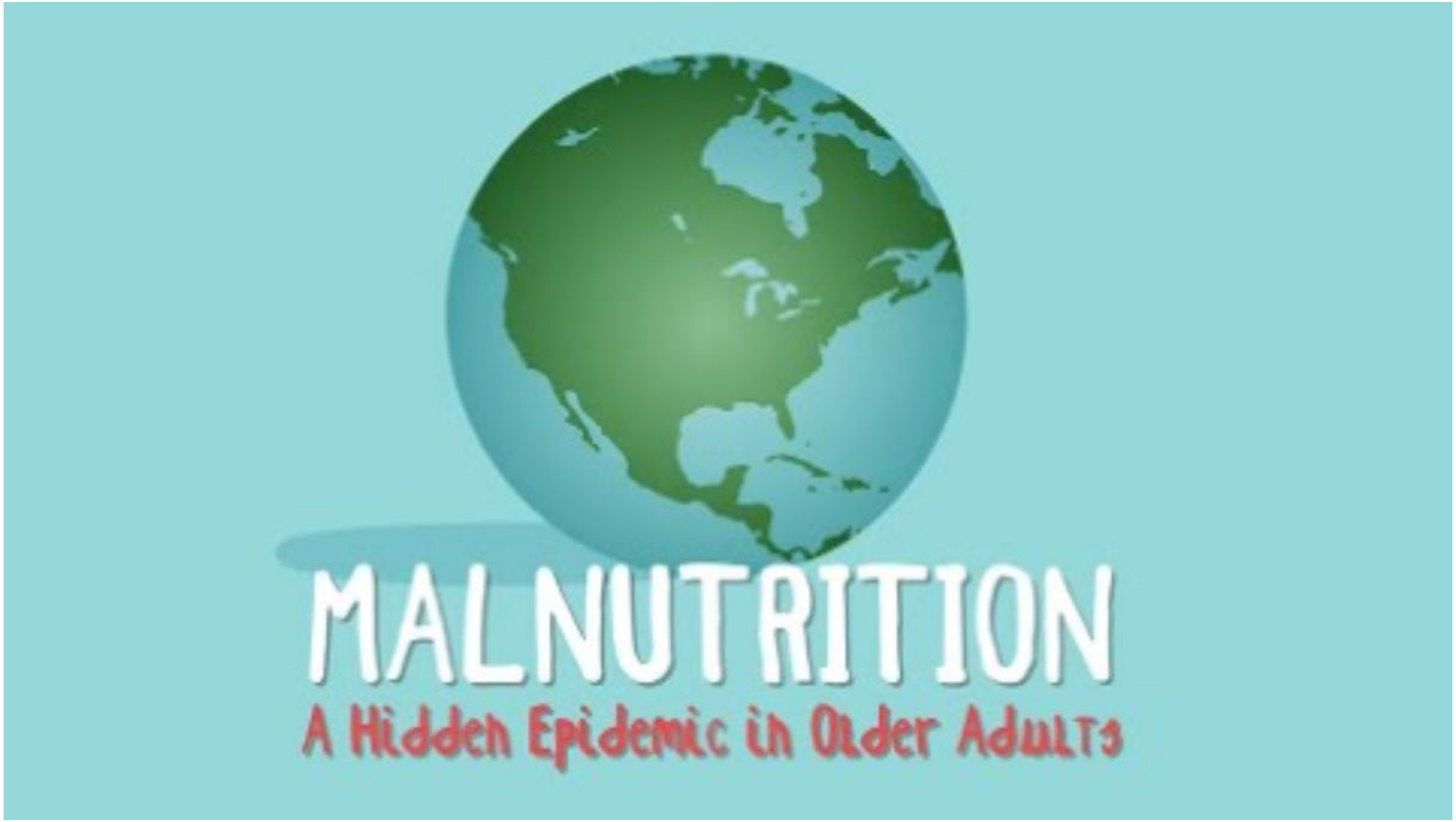
	Definition
Malnutrition The physical state related to someone's intake	Deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients
Nutrition security The Right Food	Consistent access, availability, and affordability of foods and beverages that promote well-being, prevent disease, and, if needed, treat disease, particularly among underserved populations, lower income populations, and rural and remote populations including Tribal communities and Insular areas
Food security Enough Food	All members of a household, at all times, can access enough food for an active, healthy life

What is Malnutrition?

Malnutrition is a physical state of unbalanced nutrition.

- It can mean undernutrition or overnutrition
- A person may have any body shape or size and still be at risk for malnutrition

https://www.mass.gov/lists/be-a-nutrition-neighbor-malnutrition-awareness-week-october-4-8-2021



Malnutrition: A Hidden Epidemic in Older Adults (youtube.com)

Why does it matter?

Malnutrition can mean serious consequences for a person's quality of life and health outcomes

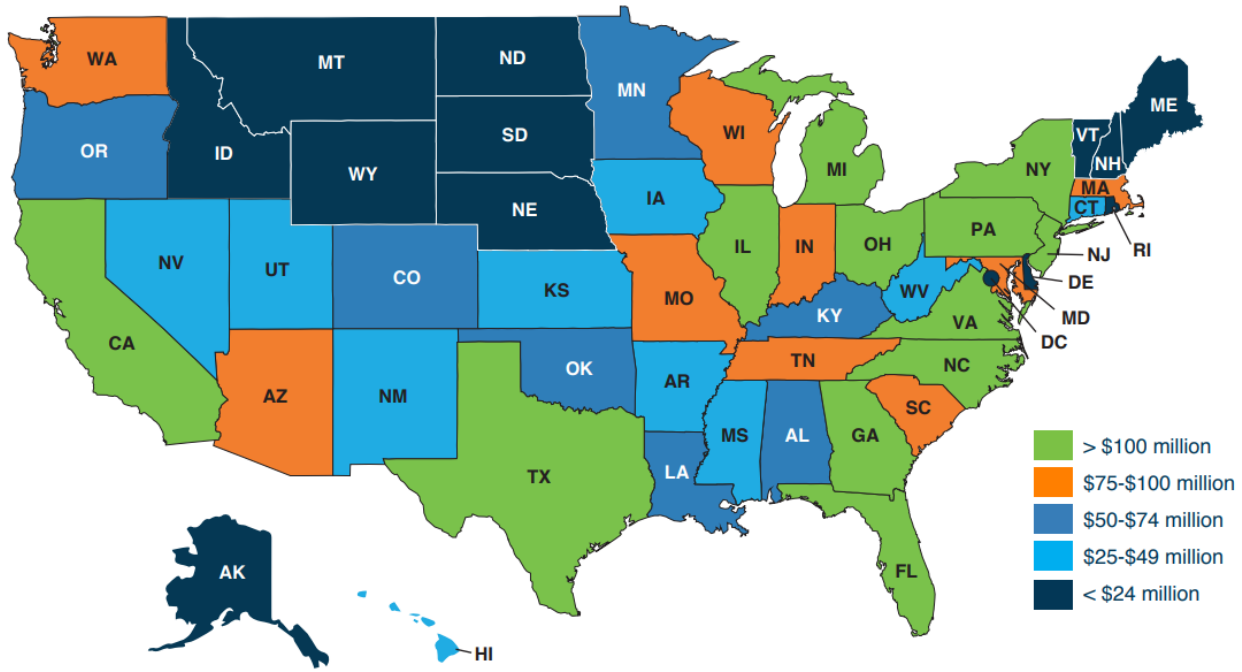
Malnutrition impacts the healthcare system in a big way

Cost

Disease-associated malnutrition in older adults is estimated to cost $51.3 billion annually.

The estimated burden of Disease-Associated Malnutrition in Older Adults in Michigan is more than $100 million.

Figure 4: State Economic Burden of Disease-Associated Malnutrition in Older Adults[22]



Economic Burden of Disease-Associated Malnutrition at the State Level.

Who is at risk for malnutrition?

Malnutrition can affect anyone.

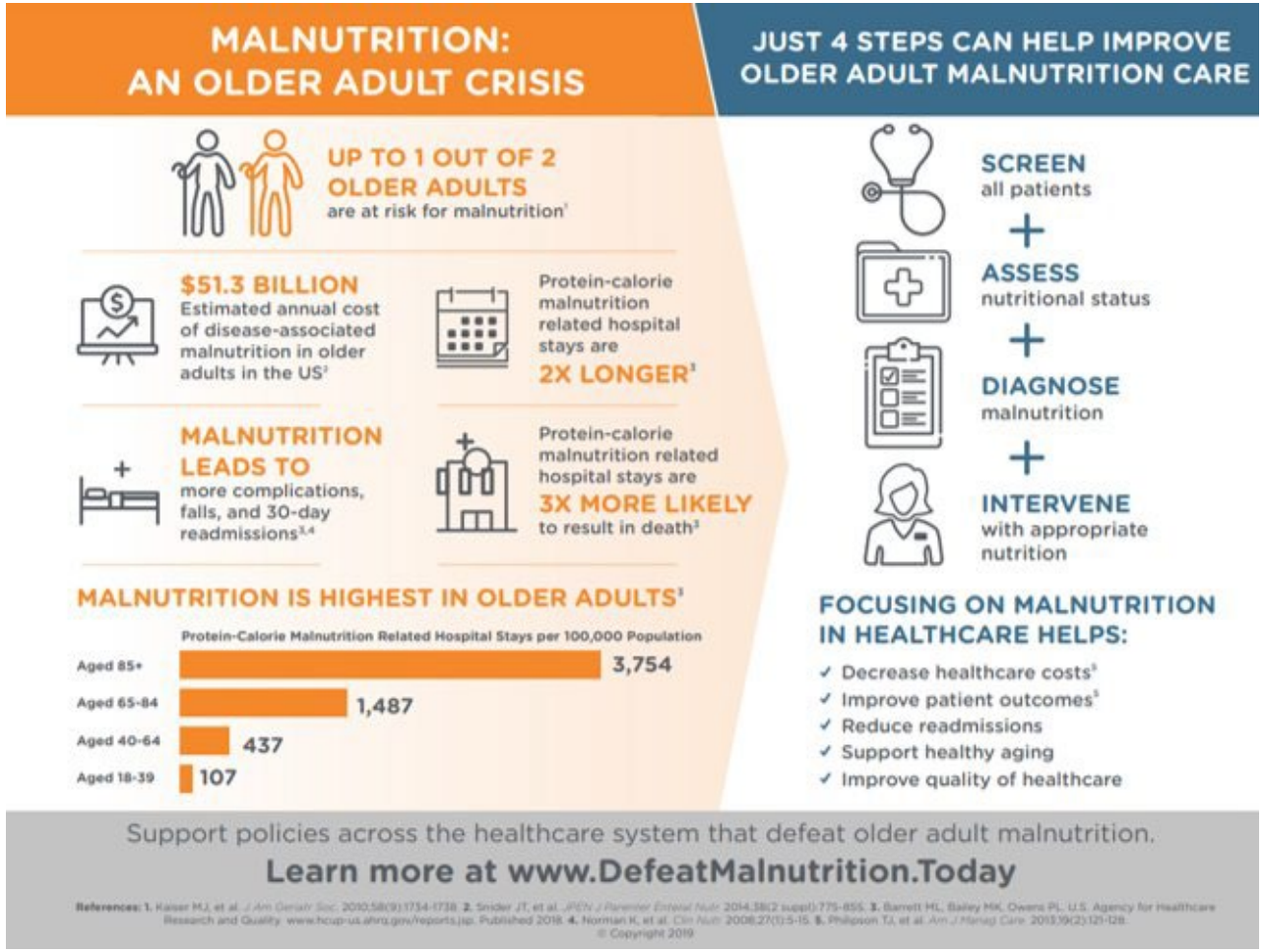
Certain populations are more at risk of malnutrition.

Populations more at risk include:

- low income
- Chronically ill
- Older adults
- Sedentary

Malnutrition: An Older Adult Crisis

- Up to 1 out of 2 older adults is either at risk of becoming or is malnourished
- Malnutrition is highest in older adults



Professional Resources – Defeat Malnutrition Today

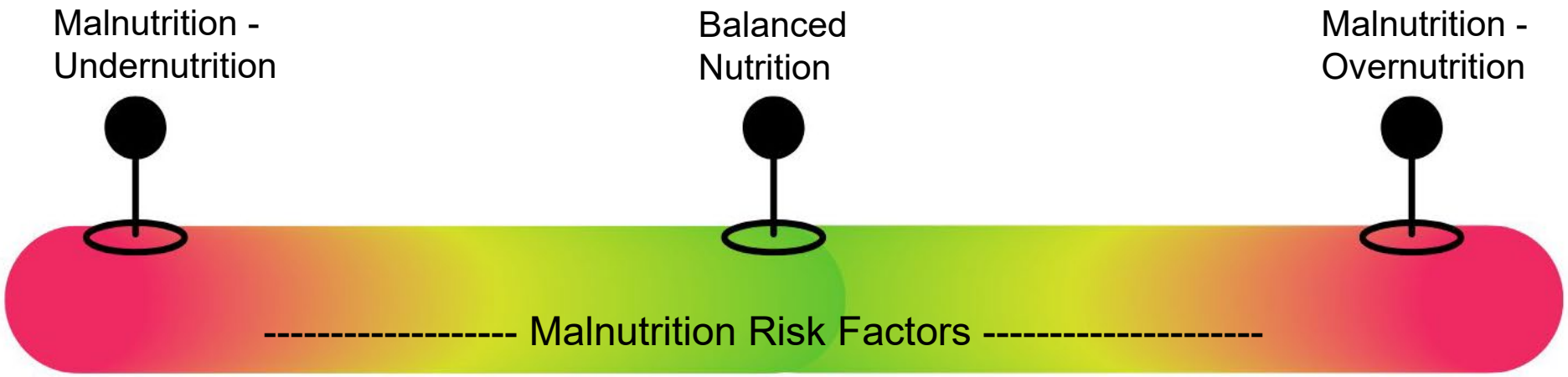
What causes Malnutrition?

Malnutrition in older adults is a complex issue.

- Sometimes there is a single cause, but most of the time there are multiple interconnected issues that contribute to malnutrition.
- The etiology of malnutrition in older adults has been attributed to physical, psychological, social, oral health-related, eating-related and environmental factors.

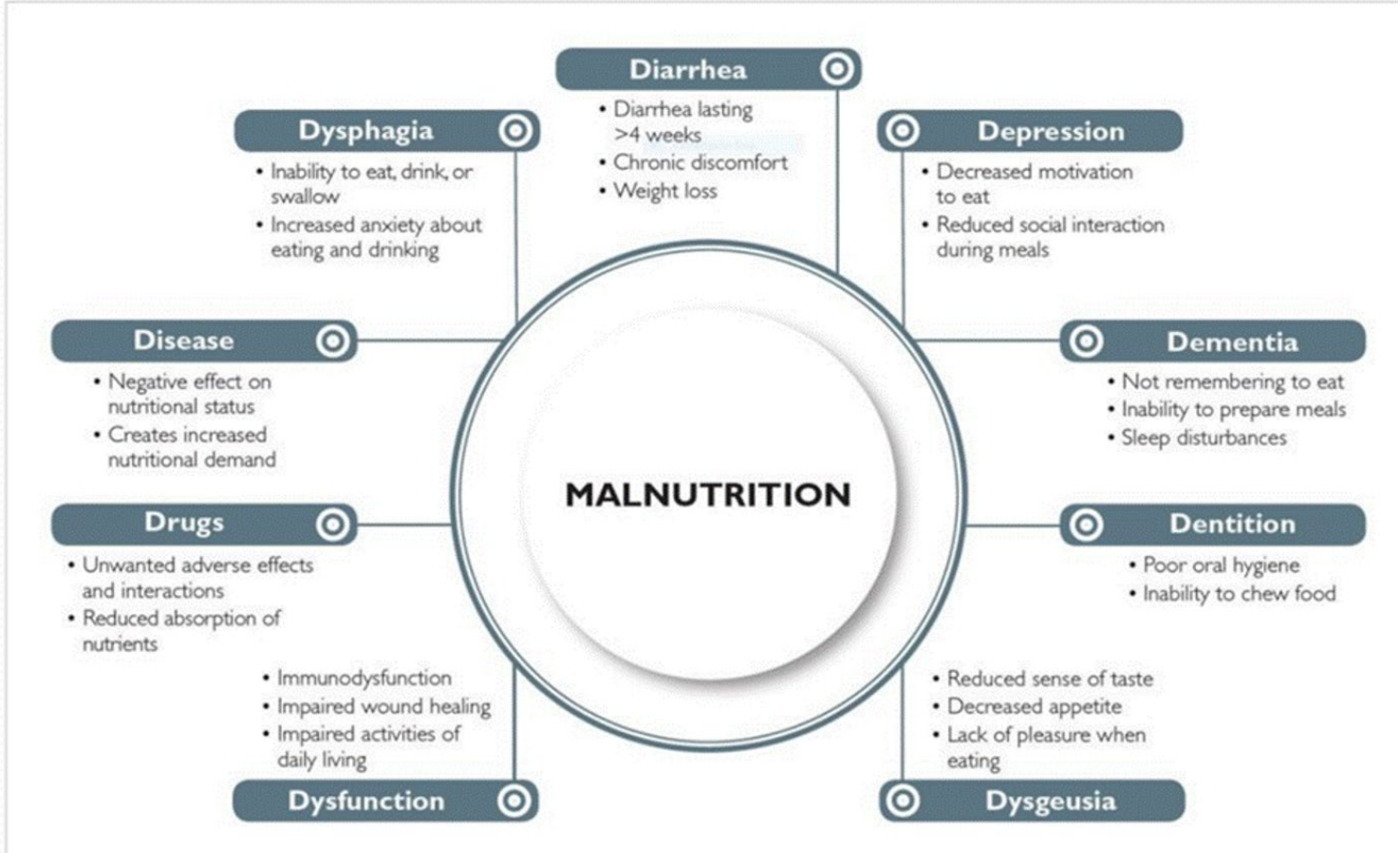
Malnutrition & Malnutrition Risk Factors

Malnutrition risk factors can be present with or without the presence of Malnutrition.



Malnutrition Risk Factors

9 Ds of Malnutrition in Older Adults



Malnutrition in the Elderly: Underrecognized and Increasing in Prevalence - Clinical Advisor

- Poor appetite
- Poor dental health
- Trouble chewing or swallowing
- Changing taste buds
- Chronic diseases
- Medication side effects
- Dementia
- Depression
- **Social isolation**
- **Limited income**

How can you address malnutrition?

Identify the Root Cause and Meaningful Interventions

- Congregate Meals
- Home delivered meals
- Nutrition Counseling
- Nutrition education
- Falls prevention resources
- Information and Assistance
- Options Counseling
- Transportation services
- Help with federal assistance applications (SNAP, Medicaid, etc.)
- Personal care
- Case management
- Social supports
- Food pantries

Screening for Malnutrition

Screening identifies risk for a specific outcome like undernutrition or functional decline.

Nutrition screening is a supportive task, which relies on tools that are quick and easy-to-use (<10 minutes to complete) and that requires minimal training.

Use of valid and reliable tools are important to avoid under referral of patients or clients with malnutrition or over referral of patients or clients without malnutrition.

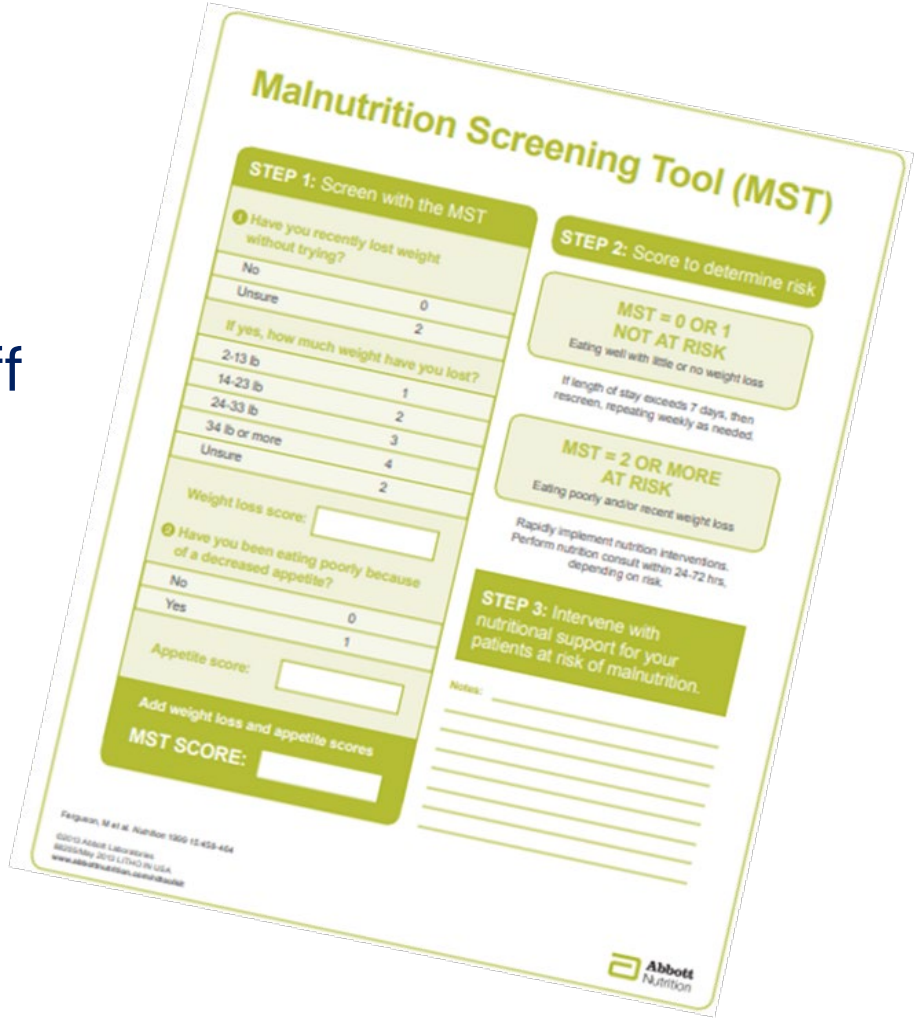
Malnutrition Screening - Validated Tools

Name of Screening Tool	**Malnutrition Universal Screening Tool (MUST)**	**Malnutrition Screening Tool (MST)**	**Mini Nutrition Assessment – Short Form (MNA-SF)**	**Simplified Nutritional Appetite Questionaire (SNAQ)**	**Nutrition Risk Screening (NRS-2002)**
Number of Questions	5 Steps	2 Questions	6 Questions	4 Questions	4 Questions
Population	All Adults	All Adults	Older Adults (65+)	Older Adults	All Adults
Applicable Settings	hospital, Community or other care settings	All care settings	community dwelling, long-term care, rehabilitation & hospital settings	Community dwelling	Hospital & critical care settings
Screening Outcomes	"Low Risk", "Medium Risk", "High Risk"	Screening Score: Positive or Negative	Screening Score: "Normal", "At Risk" or "Malnourished"	"Not Undernourished", "At Risk of Undernutrition", "Undernourished"	"Mild", "Moderate", "Severe"
Other Considerations			Includes Calf Circumference measurement or BMI	Includes mid-upper arm circumference	

Academy of Nutrition and Dietetics FAQs – Validity, Reliability and Agreement

Malnutrition Screening Tool (MST)

- Validated tool
- Recommended by the Academy of Nutrition and Dietetics for adults
- Can be easily administered by program staff



Two Questions:
1. Have you recently lost weight without trying?
    - If yes, how much weight have you lost?

2. Have you been eating poorly because of a decreased appetite?

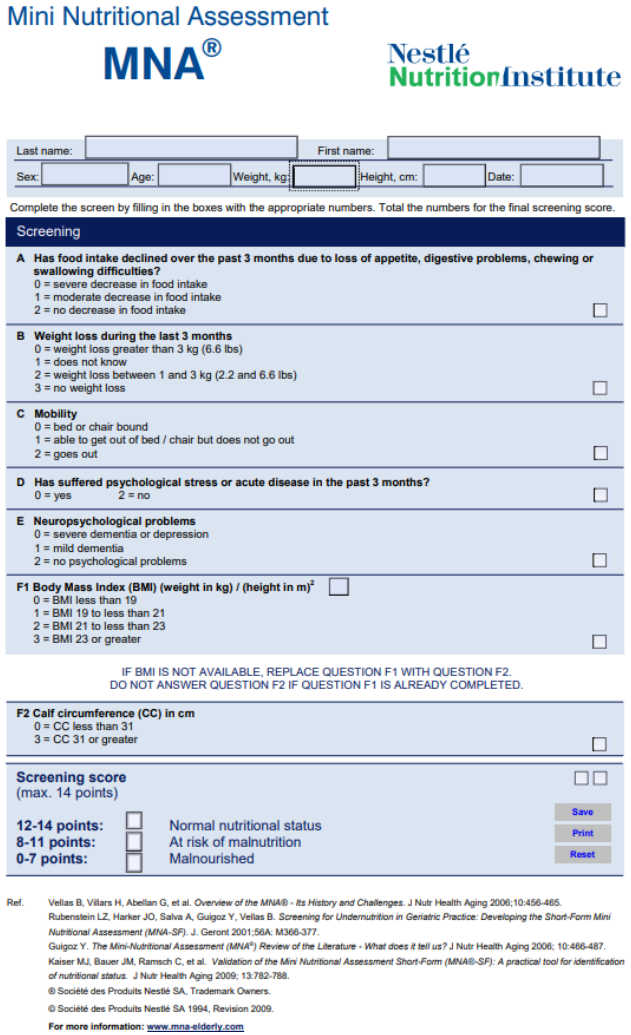
Mini Nutritional Assessment – Short Form (MNA-SF)

- Validated tool
- 5 questions + BMI or calf circumference measurement

Placing the 'Value' in Evaluation: Practical Tips for Measuring Impact (06.2023)

Aging Nutrition • 191 views • 1 year ago

"Placing the 'Value' in Evaluation: Practical Tips for Measuring Impact": a 1 hour webinar with Seanna Marceaux from Meals on Wheels of Central Texas. She shares their malnutrition work utilizing the MNA-SF.



Mini Nutritional Assessment

MNA®

Nestlé Nutrition Institute

Last name: First name:

Sex: Age: Weight, kg: Height, cm: Date:

Complete the screen by filling in the boxes with the appropriate numbers. Total the numbers for the final screening score.

Screening

A **Has food intake declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties?**
0 = severe decrease in food intake
1 = moderate decrease in food intake
2 = no decrease in food intake

B **Weight loss during the last 3 months**
0 = weight loss greater than 3 kg (6.6 lbs)
1 = does not know
2 = weight loss between 1 and 3 kg (2.2 and 6.6 lbs)
3 = no weight loss

C **Mobility**
0 = bed or chair bound
1 = able to get out of bed / chair but does not go out
2 = goes out

D **Has suffered psychological stress or acute disease in the past 3 months?**
0 = yes 2 = no

E **Neuropsychological problems**
0 = severe dementia or depression
1 = mild dementia
2 = no psychological problems

F1 **Body Mass Index (BMI) (weight in kg) / (height in m)²**
0 = BMI less than 19
1 = BMI 19 to less than 21
2 = BMI 21 to less than 23
3 = BMI 23 or greater

IF BMI IS NOT AVAILABLE, REPLACE QUESTION F1 WITH QUESTION F2.
DO NOT ANSWER QUESTION F2 IF QUESTION F1 IS ALREADY COMPLETED.

F2 **Calf circumference (CC) in cm**
0 = CC less than 31
3 = CC 31 or greater

Screening score (max. 14 points)

12-14 points: Normal nutritional status
8-11 points: At risk of malnutrition
0-7 points: Malnourished

Save Print Reset

Ref. Vellas B, Villars H, Abellan G, et al. *Overview of the MNA® - Its History and Challenges.* J Nutr Health Aging 2006;10:456-465.
Rubenstein LZ, Harker JO, Salva A, Guigoz Y, Vellas B. *Screening for Undernutrition in Geriatric Practice: Developing the Short-Form Mini Nutritional Assessment (MNA-SF).* J. Geront 2001;56A: M366-377.
Guigoz Y. *The Mini-Nutritional Assessment (MNA®) Review of the Literature - What does it tell us?* J Nutr Health Aging 2006; 10:466-487.
Kaiser MJ, Bauer JM, Ramsch C, et al. *Validation of the Mini Nutritional Assessment Short-Form (MNA®-SF): A practical tool for identification of nutritional status.* J Nutr Health Aging 2009; 13:782-788.

For more information: www.mna-elderly.com

Malnutrition – Summary

- Malnutrition occurs when we don't get enough of the nutrients our body needs.
- Loss of appetite, strict diets, problems chewing and swallowing, and chronic illnesses can lead to malnutrition.
- Those who are unable to purchase or prepare healthy food may also be at risk for malnutrition.

- Malnutrition can cause older adults to have problems with:
  - Weakness and being tired
  - Difficulty healing and weakened immune systems
  - Loss of muscle and strength
  - More falls and fractures
  - More hospital admissions and higher medical costs
  - Being unable to age in their community of choice

Extension and SNAP-Ed staff can help by

1. Screening for malnutrition
2. Identifying malnutrition risk factors and connecting participants with meaningful interventions
3. Expanding partnerships to increase access to services

Malnutrition Resources

[Malnutrition | ACL Administration for Community Living]

Reducing Malnutrition through Senior Meal Programs

How ACL's Senior Nutrition Program helps address malnutrition among older adults

Older adults are at high risk of malnutrition.[1] Malnutrition occurs when a person is not eating enough food or meeting their nutritional needs. As we age, changes occur in how our brain and body work. These changes can affect body weight, increase risk of health conditions and disease, and lead to use of medications that impact the way we absorb nutrients – all of which put us at higher risk of malnutrition.[2]

ACL's Senior Nutrition Program works to address malnutrition among older adults by providing access to nutritious food through local home-delivered and congregate meal programs.

These programs make an impact! A systematic review of 20 studies by the Community Preventative Services Task Force recommended home-delivered and congregate meal services to reduce malnutrition among older adults living independently.[3]

Evidence also showed that senior nutrition meal services like the Senior Nutrition Program are likely to:

- Reduce food insecurity among participants.
- Increased the percentage of participants who met the recommended daily allowances for energy intake.
- Improve intake of protein, fiber, vitamins, and minerals.
- Improve Health Related Quality of Life (HRQoL) and well-being.

Home-delivered meal participants were **15.5%** less likely to be malnourished.

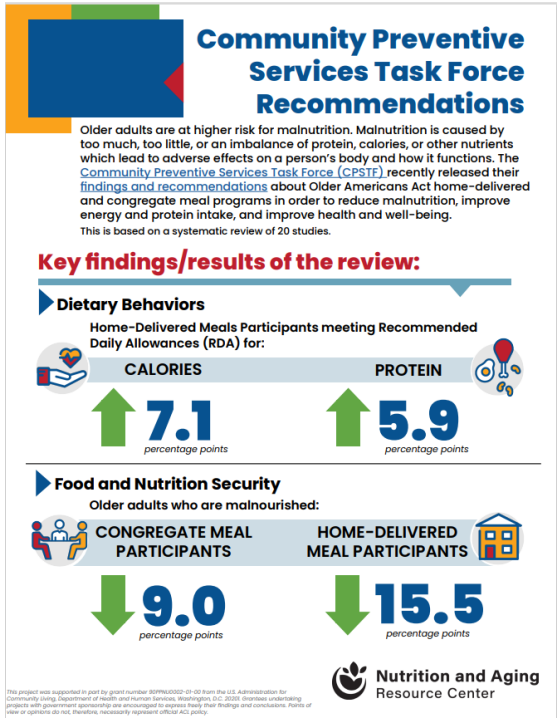
Congregate meal participants were **9%** less likely to be malnourished.

To learn more about the Senior Nutrition Program and its impact on older adults, visit acl.gov/snp.

References:
1. Norman K, Haß U, Pirlich, M. Malnutrition in older adults—recent advances and remaining challenges. Nutrients 2021;13:2764.
2. Krondl M, Coleman P, Lau D. Helping older adults meet nutritional challenges. Journal of Nutrition for the Elderly 2008; 27(3/4), 205-220.
3. CPSTF considers older adults living independently as those who are not residents of senior living or retirement community centers.

The Community Preventative Services Task Force (CPSTF) is an independent, nonfederal panel of public health and prevention experts who provide evidence-based recommendations and finding on programs to protect and improve the population health.

[Reducing Malnutrition through Senior Meal Programs (acl.gov)]



Community Preventive Services Task Force Recommendations

Older adults are at higher risk for malnutrition. Malnutrition is caused by too much, too little, or an imbalance of protein, calories, or other nutrients which lead to adverse effects on a person's body and how it functions. The Community Preventive Services Task Force (CPSTF) recently released their findings and recommendations about Older Americans Act home-delivered and congregate meal programs in order to reduce malnutrition, improve energy and protein intake, and improve health and well-being.

This is based on a systematic review of 20 studies.

Key findings/results of the review:

Dietary Behaviors

Home-Delivered Meals Participants meeting Recommended Daily Allowances (RDA) for:

CALORIES	PROTEIN
↑ 7.1 percentage points	↑ 5.9 percentage points

Food and Nutrition Security

Older adults who are malnourished:

CONGREGATE MEAL PARTICIPANTS	HOME-DELIVERED MEAL PARTICIPANTS
↓ 9.0 percentage points	↓ 15.5 percentage points

Nutrition and Aging Resource Center

This project was supported in part by grant number 90PPNU0002-01-00 from the U.S. Administration for Community Living, Department of Health and Human Services, Washington, D.C. 20201. Grantees undertaking projects with government sponsorship are encouraged to express freely their findings and conclusions. Points of view or opinions do not, therefore, necessarily represent official ACL policy.

[Community Preventative Services Task Force Recommendations (acl.gov)]

02-2023

Nutrition and Aging Resource Center

Malnutrition Screening Practices for OAA Nutrition Programs:

The Who, What, Why, and How

What is Malnutrition?

Malnutrition occurs when we don't get enough of the nutrients our body needs. Not feeling hungry, strict diets, problems chewing and swallowing, and chronic illnesses can often lead to malnutrition. Those who are unable to purchase or prepare healthy food may also be at risk for malnutrition. Malnutrition can cause older adults to have problems with:

- Weakness and being tired
- Problem healing wounds
- Loss of muscle and strength
- More falls and fractures
- More infections
- Having to be admitted to a hospital
- More medical cost
- Being unable to stay in the home (Hogan, 2019)

Who May Benefit from Malnutrition Screening?

Participants in the Older Americans Act (OAA) Senior Nutrition Programs (SNP), such as congregate meals and home-delivered meals, will benefit from the addition of malnutrition screenings.

Why Does Malnutrition Matter to SNPs?

In the 2020 reauthorization of the OAA:

"Reduce malnutrition" was added as an additional purpose of the SNP and malnutrition screening was added to the OAA nutrition screening requirements (Whitmire, 2022). Additionally, individuals aged 60+ are at a higher risk for malnutrition and SNPs are able to effectively identify, prevent, and address malnutrition. Area Agencies on Aging (AAAs) can refer participants to additional community and medical resources.

How Can Malnutrition be Addressed by SNPs?

1. Perform malnutrition screenings.

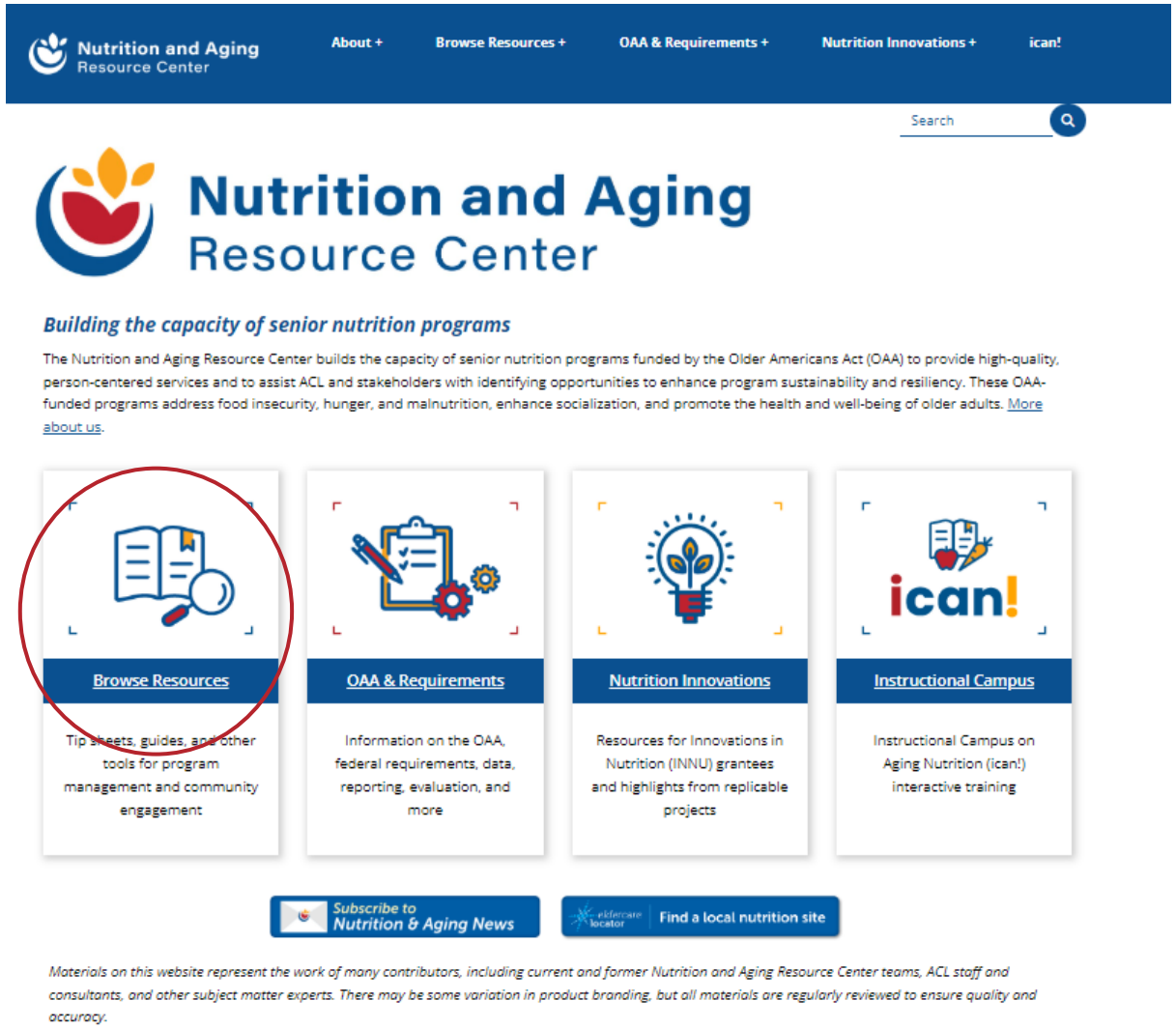
There are no federal requirements about how screenings should be performed, providing lots of flexibility (Whitmire, 2022).

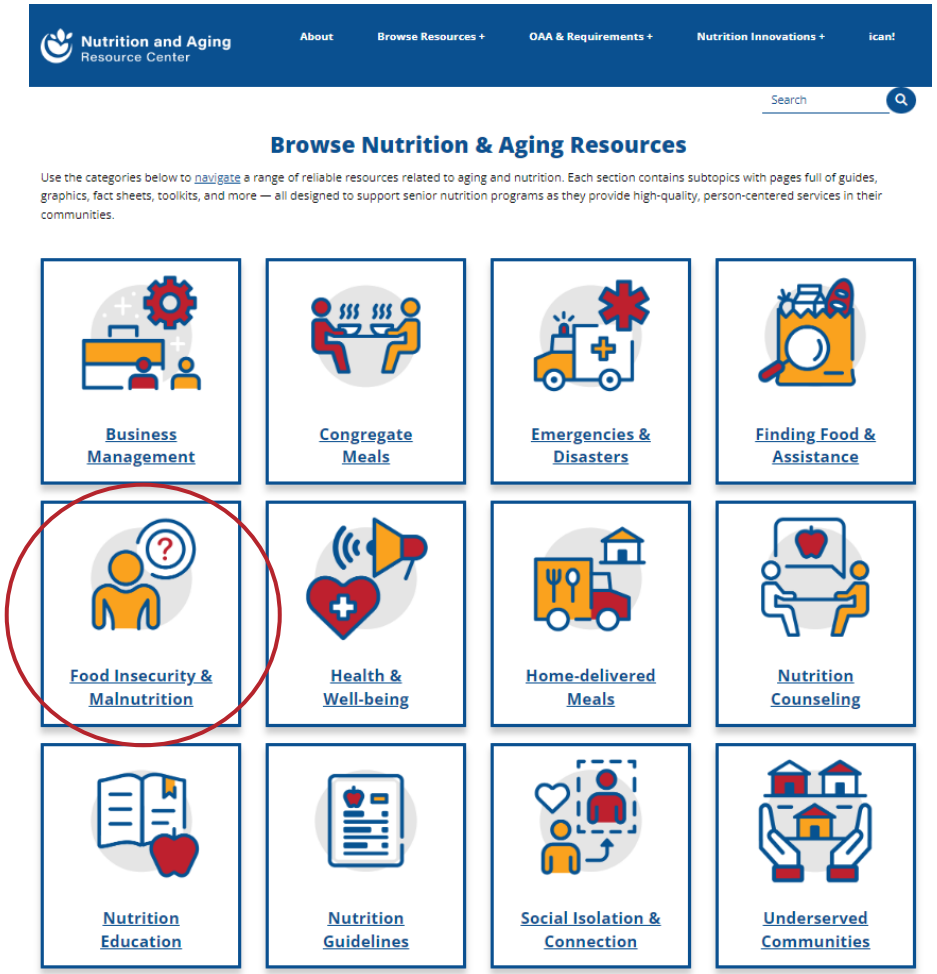
- The Malnutrition Screening Tool (MST) is the chosen tool of the Academy of Nutrition and Dietetics and can be performed by nutrition program staff. The MST consists of the following questions:
  1. Have you lost weight recently without trying?
  2. If so, how much?
- The participants who are identified as high risk by the required nutrition screening questions should be assessed for malnutrition and referred to appropriate intervention services.
- Risk for malnutrition can also be assessed by screening for social determinants of health.
- Additionally, AAA staff and volunteers can identify risk factors and potential signs of malnutrition in participants they serve. Inform staff and volunteers of these risk factors and potential signs for malnutrition, including:
  - Poor appetite
  - Chronic disease
  - Side effects from medications
  - Poor dental health
  - Trouble with chewing or swallowing
  - Social isolation
  - Dementia
  - Low income
  - Changes in participants' behavior
  - Changes in living situation
  - Medical changes
  - Other changes in conditions
- Screening can occur as part of the registration process for congregate meals or home-delivered meals.

[Malnutrition Screening Practices for OAA Nutrition Programs (acl.gov)]

..... And More!

www.acl.gov/senior-nutrition





Malnutrition

About 1 in every 2 older adults is at risk for malnutrition, and local senior nutrition providers may be the first to recognize the warning signs of malnutrition among the older adults they serve. Programs should be proactive in identifying and providing services and referrals to address malnutrition.

Infographics

- Malnutrition — Data on malnutrition in older adults and four steps to screen and intervene from Defeat Malnutrition Today
- Community Preventive Services Task Force (CPSTF) Basic Findings — Key findings and results of the review
- ACL's CPSTF Fact Sheet — Systematic review of 20 studies recommends congregate and home-delivered meals to reduce malnutrition, improve energy and protein intake, and improve health

Quick Guides

- Aging Network's Role in Identifying Malnutrition and Abuse — Overview of malnutrition and how it might indicate elder abuse
- Malnutrition Screening Practices Quick Guide — Covers the who, what, why, and how of malnutrition screening practices for OAA nutrition programs

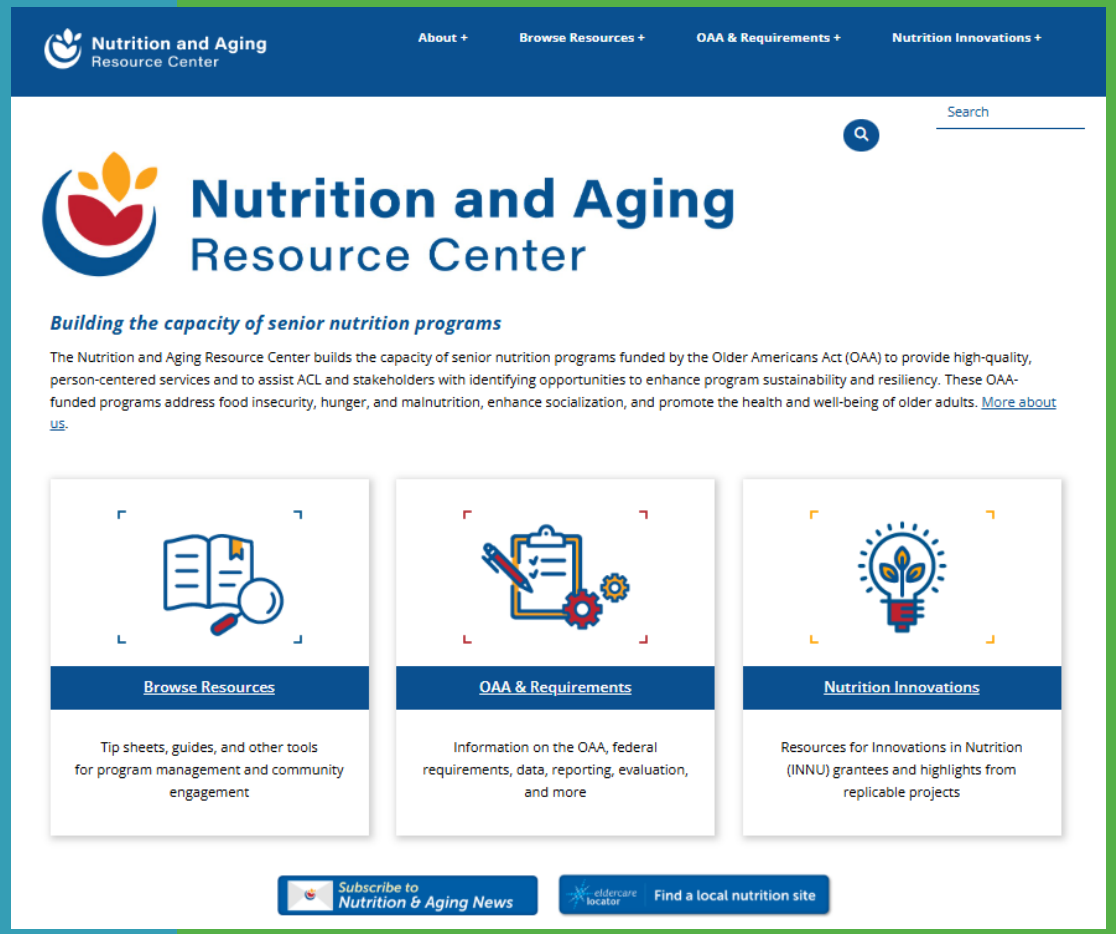
Tools & Toolkits

- Consumer Resource Hub — Infographics, videos, and resources for older adults and caregivers from Defeat Malnutrition Today
- Professional Resource Hub — Studies, webinars, infographics, toolkits, and articles from Defeat Malnutrition Today
- Malnutrition Learning Collaborative State Resources — Guide with a set of steps for incorporating malnutrition into your state plan on aging
- Addressing Malnutrition in Community Living Older Adults — Toolkit for area agencies on aging to identify and address
- Malnutrition Policy Advocacy Toolkits — Resources for state and federal legislators and advocates from Defeat Malnutrition Today

Presentations

- Nourishing Older Adults: Insights from SUAs on Combating Malnutrition Through OAA State Plans (YouTube) — One-hour webinar on how SUAs take proactive steps to combat malnutrition by addressing it in their state plans on aging, with accompanying presentation Nourishing Older Adults (Slides)
- Food Insecurity and Malnutrition (YouTube) — One-hour webinar that defines malnutrition and food insecurity, identifies root causes of malnutrition, and provides innovative approaches to combating malnutrition, with accompanying presentation Food Insecurity and Malnutrition (Slides), Food Insecurity and Malnutrition (Takeaway Sheet), and Food Insecurity and Malnutrition (Tip Sheet)
- Advocating for Older Adult Nutrition & Quality Measurement — 40-minute ICAA webinar, with accompanying presentation Advocating for Older Adult Nutrition & Quality Measurement (Slides)
- Enhanced DETERMINE Tool (YouTube) — 50-minute presentation on Wisconsin's Enhanced DETERMINE tool, used to screen and intervene for malnutrition in older adults
- Congregate and Home Delivered Meals (YouTube) — Two-minute video from Virginia's Commonwealth Council on Aging and No Wrong Door explains how Older Americans Act funded senior nutrition programs can help combat malnutrition and food insecurity

www.acl.gov/senior-nutrition



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