Malnutrition Screening

Guidance 2021

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BACKGROUND AND PURPOSE

What is Malnutrition?
- Malnutrition is defined as a state of deficit, excess, or imbalance in protein, energy, or other nutrients that adversely affect an individual's body composition, function, and clinical outcomes.
- The imbalance occurs in both under-nutrition and over-nutrition.
- Malnutrition negatively impacts a person's weight, functions, and/or ultimate clinical outcomes.[1]

Factors that may increase an individual's risk of malnutrition include:[2]
- Alcoholism
- Changes in taste, smell, or appetite caused by age or illness
- Dementia
- Depression
- Illness
- Impairment in ability to eat
- Limited access to food
- Limited income
- Medications
- Reduced social contact
- Restricted diets

2020 Older Americans Act Reauthorization[3]
The 2020 Reauthorization of the OAA revised the Purpose of Title III-C Nutrition Services to (OAA Section 330):
1. Reduce hunger, food insecurity, and ***malnutrition***;
2. Promote socialization of older individuals; and
3. Promote the health and well-being of older individuals by assisting such individuals to gain access to nutrition and other disease prevention and health promotion services to delay the onset of adverse health conditions resulting from poor nutritional health or sedentary behavior.

Malnutrition screening was also added to the reauthorization (OAA Section 102(14)(B)):
Routine health screening, which may include hypertension, glaucoma, cholesterol, cancer, vision, hearing, diabetes, bone density, oral health, immunization status, and nutrition screening (*including screening for malnutrition*).

1. Russell, Carlene. *Addressing Malnutrition in Older Adults during Care Transition: Current State of Assessment*. 1 Nov. 2019, www.mealsonwheelsamerica.org/docs/default-source/research/nourishing-transitions/addressing-malnutrition-web-final.pdf?sfvrsn=f045ba3b_2.
2. "Senior Health: How to Prevent and Detect Malnutrition." *Mayo Clinic*, Mayo Foundation for Medical Education and Research, 17 Sept. 2019, www.mayoclinic.org/healthy-lifestyle/caregivers/in-depth/senior-health/art-20044699.
3. "Older Americans Act." ACL Administration for Community Living, U.S. Administration of Health and Human Services, 8 July 2021, acl.gov/about-acl/authorizing-statutes/older-americans-act.

MALNUTRITION IN OLDER ADULTS

Why focus on malnutrition?[4]
Approximately 75% of older Americans aged 65 or older perceive their health as good to excellent.

Despite having a healthy self-image, many older adults are at risk for malnutrition, a condition that can occur in frail, underweight older adults as well as in overweight and obese older adults whose nutritional needs are unmet. Therefore, older adults are at a higher risk for malnutrition.

- Up to one out of every two older adults are at risk of becoming malnourished.
- Malnutrition can lead to increased fall risk, slower recovery times, re-hospitalizations and readmissions, and death.
- Malnutrition increases health care costs, negatively affects quality of life, and increases the risk of short-term mortality.
- Due to physical changes associated with aging, older adults are at risk for compromised nutritional status due to cognitive, psychological, and social factors such as isolation, dementia, limited income, and depression.
- Malnutrition is very preventable. Through screening, assessment, diagnosis, and intervention, malnutrition can be stopped and treated.

With the Older Americans Act Reauthorization, malnutrition is an area of increasing interest for various types of grants. Data may be beneficial for grant applications to show increased needs or higher prevalence of malnutrition in certain areas.

The Cost of Malnutrition

$51.3 Billion — The annual cost of disease-associated malnutrition for older adult patients in the United States.[4]

$157 Billion — Direct medical, morbidity, and mortality costs associated with disease-related malnutrition.[5]

4. Whitmire, Meredith Ponder. "Malnutrition in Older Adults." Public Health Post, Boston University School of Public Health, 23 Aug. 2017, www.publichealthpost.org/viewpoints/malnutrition-in-older-adults/.
5. Snider JT, Linthicum MT, Wu Y, LaVallee C, Lakdawalla DN, Hegazi R, Matarese L. Economic burden of community-based disease-associated malnutrition in the United States. JPEN J Parenter Enteral Nutr. 2014 Nov;38(2 Suppl):77S-85S. doi: 10.1177/0148607114550000. Epub 2014 Sep 23. PMID: 25249028.

5 MALNUTRITION MYTHS[6]

1. **Myth**: Only older adults are malnourished.

   Fact: Malnutrition affects people of all ages. While it does affect older adults disproportionately, malnutrition can be a significant issue for everyone.

2. **Myth**: Only thin people are malnourished.

   Fact: Malnourished individuals can come in all sizes. People with malnutrition can be either underweight or overweight. Obese individuals often miss out on important nutrients, which can lead to malnutrition.

3. **Myth**: To treat malnutrition, just eat more food.

   Fact: Malnutrition cannot be prevented or treated by just eating more food. Malnourished individuals must carefully adjust their diet's macronutrients and micronutrients to ensure they are getting the proper balance of all the nutrients their body requires.

4. **Myth**: There are no warning signs for malnutrition besides appearance.

   Fact: Malnutrition has many warning signs. It can include fatigue, muscle weakness, and increased illness/infection. Often, appearance alone does not mean someone is malnourished.

5. **Myth**: Weight loss is the only sign for malnutrition.

   Fact: Malnutrition can be caused by several factors besides weight loss. Additional factors may include acute illness, poor dentition, depression, lack of mobility, and dementia.

6. "5 Malnutrition Facts You Probably Didn't Know." NCOA, National Council on Aging, 11 Sept. 2017, www.ncoa.org/healthy-aging/chronic-disease/nutrition-chronic-conditions/why-malnutrition-matters/5-malnutrition-facts-older-adults/.

MALNUTRITION SCREENING TOOLS

Choosing a Screening Tool[7]
There are several validated malnutrition screening tools available to choose from. When choosing a screening tool that is suitable for your organization, it is important to consider the following:

- *Complexity*: Does the tool require special calculations (i.e., BMI, percentage weight loss), or is it lengthy? The more complex the tool, the more likely it will be time consuming and subject to higher user error, which in turn can result in low compliance with screening.
- *Sensitivity*: Does it have a high sensitivity rate? Screening is only the first step in identifying those who may be malnourished. A screening tool needs to have a high sensitivity rate so a professional will be able to use other tools to verify whether that person is malnourished or not.
- *Validity*: Is the tool validated for your target population?

Note: These screening tools measure the risk for malnutrition. They **do not** diagnose malnutrition. Further assessment by a trained clinician should diagnose malnutrition. The following tools also **do not** replace the **DETERMINE checklist** that measures nutrition risk.

Based upon current evidence, it is the position of the Academy of Nutrition and Dietetics that the **Malnutrition Screening Tool (MST)** should be used to screen adults for malnutrition (undernutrition) regardless of their age, medical history, or setting.[8]

MST Tool (Malnutrition Screening Tool)
Data Needed:
- Recent weight loss (within last 3-6 months)
- Recent poor intake

Appropriate Use:
- For inpatients or outpatients.
- Able to be administered by self or staff.

Self-MNA (Self Mini Nutritional Assessment)
Data Needed:
- Recent intake
- Recent weight loss
- Recent acute disease or psychological stress
- Dementia or Depression
- BMI

Appropriate Use:
- In community settings.
- Able to be administered by self or staff.

MUST (Malnutrition Universal Screening Tool)
Data Needed:
- BMI
- Weight loss (%) in last 3-6 months
- Acute disease

Appropriate Use:
- In acute and community settings.
- Staff will need to administer.

Nutrition Risk Screening (NRS-2002)
Data Needed:
- BMI
- Weight Loss (%)
- Food Intake (%)
- Severity of Illness
- Age

Appropriate Use:
- **Not recommended** for community living adults.
- For hospital patients.
- This includes pre-screening questions and once one is positively indicated, there are additional screening questions to be asked.

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7. "Malnutrition Screening Tools: Comparison Guide." The State of Queensland, Queensland Government, May 2017, www.health.qld.gov.au/__data/assets/pdf_file/0021/152454/hphe_scrn_tools.pdf.
8. Skipper A, Coltman A, Tomesko J, *et al*. Position of the Academy of Nutrition and Dietetics: Malnutrition (Undernutrition) Screening Tools for All Adults. J Acad Nutr Diet. 2020 Apr;120(4):709-713. doi: 10.1016/j.jand.2019.09.011. Epub 2019 Dec 19. PMID: 31866359.

BEST PRACTICES FAQ

Who should be screened?
All participants involved in nutrition services that have screened at "High Nutritional Risk" on the 10 federally required nutrition screening questions (i.e. DETERMINE Your Nutritional Health) should be screened for malnutrition. Involve your registered dietitian(s) in the implementation process as she/he is the expert on malnutrition and a good resource.

How to screen for malnutrition?
Screening for malnutrition can be completed in a few different ways:
- Include the malnutrition screening along with the IDoA Congregate Registration or the Nutrition Referral/Assessment for Home Delivered Meals forms initially (for those screened at "High" risk) and again annually or sooner based on resources available.
- Have a process for case managers or others who directly interact with consumers to screen for malnutrition.
- Educate caregivers to screen for malnutrition.

What are the steps to take to begin screening for malnutrition?
1. Choose which screening tool to implement.
2. Determine how the screening will be added to the intake process and tracked to ensure follow up. It will need to be completed upon initial registration and annually.
3. Discuss with data administration staff how the data will be tracked.
4. Set up training for staff about the screening tool and provide information for staff to assist participants in completing.

What should I do after someone screens positive for malnutrition?
If the screening tool suggests risk of malnutrition, refer to a registered dietitian to complete a comprehensive assessment and Nutrition Counseling session. A referral process should be created when screening for malnutrition. Referrals can also be made to:
- Dental services (to assess oral health)
- A speech and language pathologist (to assess swallowing capability)
- Medical doctor or primary care physician
- Social worker
- SNAP programs for those who are low income

Do local hospitals screen for malnutrition?
Many hospitals screen patients for malnutrition. There is a strong focus on malnutrition in the health care system and Area Agencies on Aging can play an important role in malnutrition discharge planning.

Do I need any equipment for malnutrition screening?
The recommended MST screening tool does not require any additional equipment. Other screening tools and/or assessments require BMI or calf circumference. If one of those are chosen, BMI calculators and/or charts and measuring tape could be purchased.

How can we increase awareness about malnutrition?
Using a malnutrition screening tool, referring people to registered dietitians for nutrition counseling, and including malnutrition in nutrition education are all ways you could increase malnutrition awareness.

SUPPLEMENTAL NUTRITION ASSISSTANCE PROGRAM

The Supplement Nutrition Assistance Program (SNAP) (formerly known as the Food Stamp program) is an important program for lower income older individuals, families, and people with disabilities, who often live on fixed budgets, which can lead them to make difficult trade-offs that affect their health.

Food insecurity is defined as a lack of consistent access to sufficient food to lead a healthy and active life.[9] Research shows, food-insecure older adults that participate in SNAP are 46% less likely to become hospitalized compared to those who do not participate and are also low-income.[10]

Older adults that have five or more chronic health conditions such as diabetes and high blood pressure are 3.6 times as likely to be food insecure compared to older adults with only one or no chronic health conditions. [11] Food insecurities are associated with adverse health outcomes in seniors.

While the importance of the SNAP program for lower income older adults is clear, individuals over 60 years old have the lowest use of SNAP compared to all age groups.

5 SNAP MYTHS:

1. **Myth**: Other people need SNAP more than I do.

   Fact: Everyone who enrolls in SNAP will get help. By applying, you are not taking benefits away from others.

2. **Myth**: SNAP is only for families with children.

   Fact: SNAP is for everyone who qualifies, including seniors. However, 3 out of 5 older adults who qualify are currently not participating in the program.

3. **Myth**: It is too hard to apply for SNAP.

   Fact: You can apply online, by mail, or in person and get one-on-one help if you need it.

4. **Myth**: There are not any stores near me that accept SNAP.

   Fact: Over 250,000 grocery stores and farmers markets accept SNAP to pay for food.

5. **Myth**: You will only get $15 a month, so it is not worth applying.

   Fact: The average national SNAP benefit for a senior living alone is $108 a month.

9. US Department of Agriculture, (2019). Definitions of Food Security. Retrieved from https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx
10. J. Kim, "Are Older Adults Who Participate in the Supplemental Nutrition Assistance Program Healthier Than Eligible Nonparticipants? Evidence from the Health and Retirement Study," *The Gerontologist*, 55 (Supplement Issue 2):672, November 1, 2015, https://academic.oup.com/gerontologist/article/55/Suppl_2/672/2489236.
11. Food Research & Action Center (FRAC)(2019). *Hunger is a Health Issue for Older Adults: Food Security, Health, and the Federal Nutrition Programs.* Retrieved from: hunger-is-a-health-issue-for-older-adults-1.pdf

ADDITIONAL MALNUTRITION AND NUTRITION RESOURCES

Academy of Nutrition and Dietetics – An organization of food and nutrition professionals representing more than 100,000 credentialed practitioners. Members of the Academy play a key role in shaping the public's food choices, improving nutritional status, and in treating persons with illnesses or injuries. The website includes many resources relating to nutrition education, current recommendations, and contacts for nutrition professionals.

Commodity Supplemental Food Program – A USDA program that works to improve the health of low-income, older adults of at least 60 years of age by supplementing their diets with nutritional foods.

Defeat Malnutrition Today – A coalition of over 60 national, state, and local groups that advocates on behalf of older adult malnutrition as a serious health risk.

Malnutrition Comparison Guide – A comparison guide of validated malnutrition screening tools.

Malnutrition Quality Improvement Initiative – Initiative designed to help organizations improve malnutrition care and subsequently achieve better outcomes. The website includes a toolkit and other resources related to malnutrition care.

National Council on Aging – A council that partners with non-profit organizations, government, and businesses to provide innovative community programs and services, online help, and advocacy. The website includes resources, webinars, blogs, advocacy alerts, etc.

NCOA Malnutrition Facts – Resources regarding malnutrition from the National Council on Aging.

NCOA Senior Hunger – Initiative with goal to find and enroll eligible older adults in SNAP.

Supplemental Nutrition Assistance Program – Information about the SNAP program including eligibility, application process, and frequently asked questions.

The Emergency Food Assistance Program – A USDA program the helps to supplement to the diets of low-income older adults, by providing emergency food assistance.