NUTRITION STATUS AND MALNUTRITION

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2 OBJECTIVES

• Identify the association between poor nutrition/malnutrition and quality of life.
• Improve knowledge of the DETERMINE nutrition screening tool/questions.
• Describe the steps to follow when someone is at high nutritional risk.
• Learn about the benefits of using a malnutrition screening tool and resources available to help address malnutrition.
OCTOBER 4TH – 8TH
MALNUTRITION AWARENESS WEEK

- Malnutrition can affect anyone, not just individuals with low income or those that are homeless.
- It can affect individuals that have a great support system and family caring for them.
- Even active and independent seniors, that have plenty of food in their home can still be at risk for malnutrition.
- Having enough money and eating three balanced meals every day does not prevent someone from becoming malnourished.
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.¹
5 WHAT IS MALNUTRITION?

- Malnutrition is defined as **too little or too much** energy, protein, and nutrients that can cause adverse effects on a person’s body and its function, and clinical outcomes (Agarwal, et al., 2013).²

- A physical state of **unbalanced nutrition**.
  - It can result from undernutrition or overnutrition.
  - It can affect anyone, but the elderly are at an increased risk.
  - Malnutrition negatively impacts a person’s weight, functions, and/or ultimate clinical outcomes.³
6 MALNUTRITION IS NOT ALWAYS OBVIOUS

- *Undernutrition* is caused by not consuming enough calories, protein, or other nutrients.
  - This occurs frequently in parts of the world that do not provide adequate access to food and clean drinking water.
  - Often people think of malnutrition as undernutrition, but this is not always the case.
MALNUTRITION IS NOT ALWAYS OBVIOUS

- **Overnutrition** is caused by consuming more calories than a person needs.
  - A person can eat more calories than their body needs and be malnourished at the same time.
  - Consuming too many calories and not enough variety of nutritious foods like fruits, vegetables, whole grains, lean protein, beans, low-fat dairy, nuts, and seeds can lead to vitamin, mineral, or protein deficiencies.
TWO OR MORE OF THE FOLLOWING MAY INDICATE MALNUTRITION

- Suboptimal energy intake
- Weight loss (without trying)
- Loss of muscle mass
- Loss of subcutaneous fat
- Localized or generalized fluid accumulation
- Diminished functional status

4
5 FACTS ABOUT OLDER ADULT MALNUTRITION
FACTORS THAT MAY INCREASE MALNUTRITION RISK

- Alcoholism
- Changes in taste, smell, or appetite caused by age or illness
- Dementia
- Depression
- Illness
- Impairment in the ability to eat
- Limited access to food
- Limited income
- Medications
- Reduced social contact
- Restricted diets
**Healthy U.S. Style Eating Pattern Recommendations for Seniors**

<table>
<thead>
<tr>
<th>Vegetable &amp; Protein Foods Subgroup</th>
<th>1,600</th>
<th>1,800</th>
<th>2,000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vegetables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 c-eq</td>
<td>2 c-eq</td>
<td>2 ½ c-eq</td>
<td>2 ½ c-eq</td>
</tr>
<tr>
<td><strong>Dark-green vegetables (c-eq/wk)</strong></td>
<td>1 ½</td>
<td>1 ½</td>
<td>1 ½</td>
</tr>
<tr>
<td><strong>Red &amp; Orange vegetables (c-eq/wk)</strong></td>
<td>4</td>
<td>5 ½</td>
<td>5 ½</td>
</tr>
<tr>
<td><strong>Beans, Peas, Lentils (c-eq/wk)</strong></td>
<td>1</td>
<td>1 ½</td>
<td>1 ½</td>
</tr>
<tr>
<td><strong>Starchy vegetables (c-eq/wk)</strong></td>
<td>4</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Other vegetables (c-eq/wk)</strong></td>
<td>3 ½</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Fruits</strong></td>
<td>1 ½ c-eq</td>
<td>1 ½ c-eq</td>
<td>2</td>
</tr>
<tr>
<td><strong>Grains</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 oz-eq</td>
<td>6 oz-eq</td>
<td>6 oz-eq</td>
<td></td>
</tr>
<tr>
<td><strong>Whole grains (oz-eq/day)</strong></td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Refined grains (oz-eq/day)</strong></td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Dairy</strong></td>
<td>3 c-eq</td>
<td>3 c-eq</td>
<td>3 c-eq</td>
</tr>
<tr>
<td><strong>Protein Foods</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 oz-eq</td>
<td>5 oz-eq</td>
<td>5 oz-eq</td>
<td>5 ½ oz-eq</td>
</tr>
<tr>
<td><strong>Seafood (oz-eq/wk)</strong></td>
<td>8</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td><strong>Meats, poultry, eggs (oz-eq/wk)</strong></td>
<td>23</td>
<td>23</td>
<td>26</td>
</tr>
<tr>
<td><strong>Nuts, seeds, soy products (oz-eq/wk)</strong></td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td><strong>Oils</strong></td>
<td>22 gm</td>
<td>24 gm</td>
<td>27 gm</td>
</tr>
</tbody>
</table>
DO YOU SEE EVIDENCE OF MALNUTRITION IN YOUR PARTICIPANTS?

Physical indications of possible malnutrition:

- Visible clavicle
- Appearance of weight loss
- Poor-fitting dentures
- Visible muscle loss (for example around triceps)
- Temporalis (pitting at the temples)
- Interosseous (loss of muscle on hands)
- Sunken cheeks
DO YOU SEE EVIDENCE OF MALNUTRITION IN YOUR PARTICIPANTS?

Functional indications of possible malnutrition:

- Poor grip strength
- Tires easily
- Unable to stand for long periods
- Decline in ability to rise from a chair
NUTRITION SCREENING VS. NUTRITION ASSESSMENT

- **Nutrition Screening** – The purpose of doing a nutrition screening is to **determine whether an assessment** is needed.
  - Used to identify characteristics associated with dietary or nutrition problems and distinguish those at high nutrition risk that should be referred for further assessment or nutrition counseling.
  - Does not need to be conducted by a Registered Dietitian.
NUTRITION SCREENING VS. NUTRITION ASSESSMENT

• Nutrition Assessment – The purpose of doing a nutrition assessment is to gather all detailed information needed for a treatment plan that meets the individuals needs.
  • It is a measurement of nutrition-related or dietary indicators (e.g. BMI, nutrient intake, lab values), which is used to identify the presence, type, and degree to which their nutritional status are impaired.
  • Registered Dietitian’s are licensed and qualified to perform comprehensive Nutrition Assessments.
THE NUTRITION SCREENING INITIATIVE’S DETERMINE CHECKLIST IS A SCREENING TOOL

• The current federally mandated nutrition screen is the (NSI) DETERMINE nutrition checklist.
  • It is used to identify the nutritional risk for our participants.
• Developed by the American Academy of Family Physicians and the Academy of Nutrition and Dietetics.
• It is required by the Illinois Department on Aging’s (IDoA) Community Care Program (CCP).
• It is required by the U.S. Administration on Aging/ACL and IDoA for all senior nutrition programs funded by the Older Americans Act within the Area Agencies on Aging (AAA).

Source: DETERMINE Your Nutritional Health screening tool developed by the Nutrition Screening Initiative, a project of the American Academy of Family Physicians, American Dietetic Association, and The National Council on the Aging, INC.
THE NUTRITION SCREENING INITIATIVE’S DETERMINE CHECKLIST IS A SCREENING TOOL

- Used to help increase older adults’ awareness about nutrition and health.
- A screening tool that can assess the risk for poor nutritional status.
- It can measure an individual’s level of nutrition risk over time.
- There are times when a participant may not be screened at nutritional risk but might be at risk for malnutrition.
DETERMINE IS A NUTRITION SCREENING TOOL

- It is NOT considered an assessment or re-assessment tool.
- It suggests risk but does not represent a diagnosis of a condition.
- It does not assess risk for malnutrition.
NUTRITION RISK SCREEN

• Federally required nutrition risk screening questions from the validated DETERMINE Your Nutritional Health screening tool.

• Choose Yes or No on the fillable PDF or circle the points Yes or No based on the client’s response to the 10 questions on the print version.

• Total will automatically calculate on the fillable PDF.

• 6 or more points suggests “High Nutritional Risk.”
NUTRITION RISK SCREEN

- **CHECK BOX**: Nutritional Risk was explained to client.
  - CCUs/MCOs/Nutrition Providers: This box must be checked after explaining their score/risk for all participants.

- **CHECK BOX**: Client is considered at High Nutritional Risk. A recommendation was made to follow-up with a healthcare provider.
  - CCUs/MCOs/Nutrition Providers: This box should be checked for individuals that screen at “High Nutritional Risk” and a recommendation to follow-up with a healthcare provider should be made.

**Note**: Nutrition Providers are to give the client the IDoA Nutritional Risk and Your Health brochure upon starting HDMs to reiterate the Nutrition Risk Screening and their risk level (see brochure on next 2 slides).
Use the word **DETERMINE** to remind you of the warning signs.

**Disease**
- Eating Poorly
- Tooth Loss/Mouth Pain
- Economic Hardship
- Reduced Social Contact
- Multiple Medicines
- Unwarranted Weight Loss/Gain
- Needs Assistance in Self Care
- Elder Years Above Age 80

**Talk to Your Healthcare Provider About Your Nutritional Status**

Share this brochure and review the DETERMINE questions. Ask about your specific health conditions and nutrition. Discuss other services that you might be eligible for.

**Nutritional Risk and Your Health**

Reducing nutritional risk among older adults

**Contact Information**

One Natural Resources Way, Suite 100
Springfield, IL 62702-1271
www.illinois.gov/aging

Contact your local Area Agency on Aging or the Senior HelpLine at 1-800-252-8966 (1-888-206-1327 TTY) for more information about available services and programs in your community.

The Illinois Department on Aging does not discriminate in admission to programs or treatment of employment in programs or activities in compliance with applicable State and Federal statutes. If you feel you have been discriminated against, call the Senior HelpLine at 1-800-252-8966, 1-888-206-1327 (TTY).

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<table>
<thead>
<tr>
<th>DETERMINE Your Nutritional Health Questionnaire</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have an illness or condition that made me change the kind and/or amount of food I eat.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I eat fewer than 2 meals per day.</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>I eat few fruits or vegetables or milk products.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I have 3 or more drinks of beer, liquor, or wine almost every day.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I have tooth or mouth problems that make it hard for me to eat.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I don’t always have enough money to buy the food I need.</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>I eat alone most of the time.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>I take 3 or more different prescribed or over-the-counter drugs a day.</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Without wanting to, I have lost or gained 10 pounds in the last 6 months.</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>I am not always physically able to shop, cook, and/or feed myself.</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

**TOTAL**

**WHAT DOES YOUR SCORE MEAN?**

**SCORE**

**0-2:** **GOOD**
Recheck your nutritional score in 6 months or annually.

**3-5:** **MODERATE NUTRITIONAL RISK**
Lifestyle changes may be necessary. Recheck your score in 3 to 6 months.

**6-21:** **HIGH NUTRITIONAL RISK**
Bring this questionnaire to your healthcare provider, registered dietitian, or social service professional to help improve your nutritional health.

*Remember that warning signs suggest risk, but do not represent a diagnosis of any condition.*

**YOUR HEALTH AND NUTRITION RISK**

Your nutritional status can impact your overall health. If your score is a 6 or more on the Questionnaire (High Nutritional Risk), you should talk with your healthcare provider and other professionals to further understand your nutritional status.

**MALNUTRITION IS A CONCERN**

Signs of poor nutritional health are often overlooked. It is estimated that up to half of older adults are at risk of malnutrition. Being malnourished can lengthen hospital stays by 4 to 6 days and poor nutritional status can increase healthcare costs by 300%. Chronic health conditions can increase the risk for malnutrition and being malnourished leads to further complications, falls, and readmissions to the hospital.
MST Tool (Malnutrition Screening Tool)
- **Data Needed**: Recent weight loss (within last 3-6 months), recent poor intake.
- **Appropriate Use**: For inpatients or outpatients and can 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 and staff will need to administer.

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 and can be administered by self or staff.
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.\(^6\)
WHAT ELSE CAN YOU DO TO HELP?

• Encourage individuals to come to a meal site to eat each day (or virtually attend, if possible).
• If they are a home delivered meal client, encourage them to call someone each day, this can help reduce feelings of isolation, which can help improve mood and appetite.
• Talk to them about the prescription assistance program if available.
• They may need help with grocery shopping, grocery delivery, or transportation.
WHAT ELSE CAN YOU DO TO HELP?

• See if they are interested in the Seniors Farmers’ Market Nutrition Program (SFMNP), which normally runs July 10th - October 31st.

• Plan a reassessment (nutrition screen) sooner than the required annual assessment, especially if they are at “high nutritional risk.”

• Provide nutrition education to older adults and caregivers on a variety of nutrition related topics such as malnutrition, osteoporosis, low sodium, etc.

• Provide information on nutrition assistance programs they may be eligible for such as the Supplemental Nutrition Assistance Program (SNAP), The Emergency Food Assistance Program (TEFAP), Commodity Supplemental Food Program, etc.
WHAT IS OUR GOAL?

We should do more than ask the nutrition screening questions to fulfill a requirement.

Use the information from the nutrition screen as a starting point to know what additional services they may benefit from.

We should use the information we obtain to reduce their nutritional risk over time.

Connect them with resources, refer to a healthcare professional, provide information on additional nutrition assistance programs they are eligible for to help reduce their risk, and/or screen for malnutrition.

We should re-screen individuals at High Nutritional Risk sooner than on an annual basis to improve their outcomes.

If there is a decrease in risk category, then we know the individual’s needs are being met and they have taken steps to improve their health and wellbeing.
ADDITIONAL RESOURCES

- Commodity Supplemental Food Program (CSFP)
- Supplemental Nutrition Assistance Program (SNAP)
- The Emergency Food Assistance Program (TEFAP)
- Senior Farmers Market Nutrition Program (SFMNP)
  - IL SFMNP
- Malnutrition Screening Tool (MST)
REFERENCES

QUESTIONS?

- CCUs should contact: aging.occs@illinois.gov.
- AAAs should contact: Melanie.Kluzek@illinois.gov or their Regional Coordinator.
- Nutrition Providers should contact: their AAA.