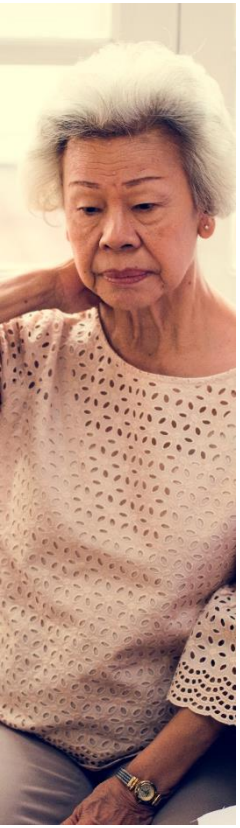
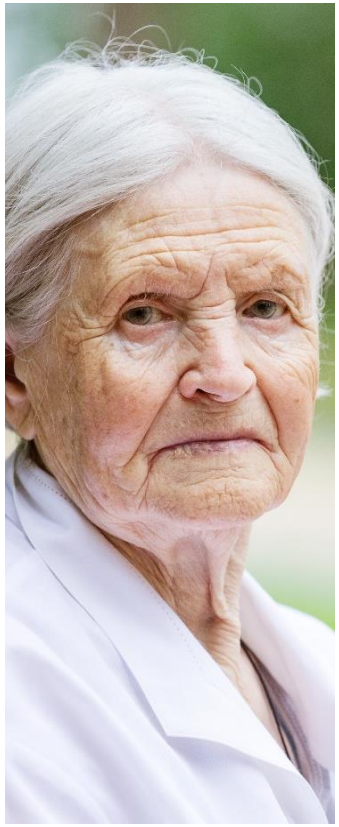
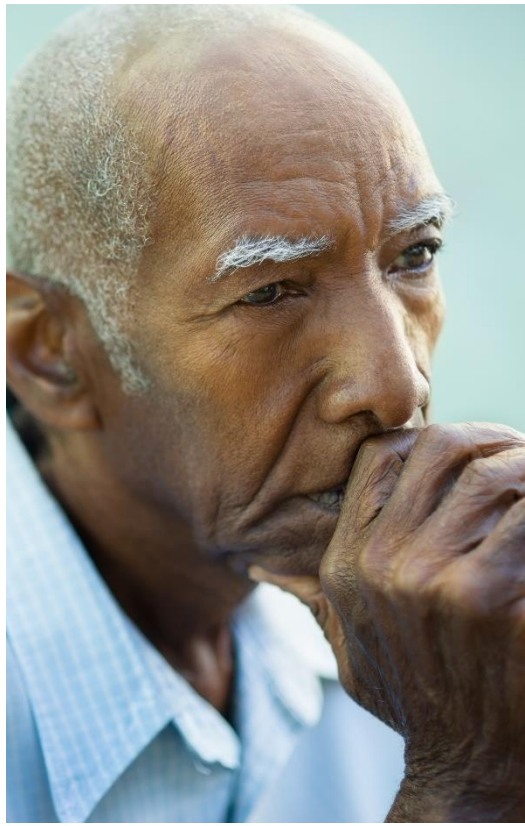


National Developments in Addressing Older Adult Malnutrition:

From Research to Policies to Programs





AGING IN AMERICA 2020
ASA CONFERENCE
March 24-27 | Atlanta, Georgia

Objectives

1. Describe where federal nutrition programs are adequate or may fall short in meeting specific older adult nutrition needs and outline 3 steps for improvement

2. Define how older adult nutrition needs (including sarcopenia) are being considered during the development process of the 2020 Dietary Guidelines for Americans and describe opportunities for public comment

3. Review opportunities for national health goals on malnutrition/ undernutrition and where there are gaps in including malnutrition/ undernutrition screening measures in national health surveys; describe the case example of how malnutrition/undernutrition screening measures are being integrated into the Medicare Current Beneficiary Survey.

Disclosures

- Support for this program was provided by Abbott and Abbott provides financial support to the Aging in Motion (AIM) and Defeat Malnutrition Today (DMT) coalitions

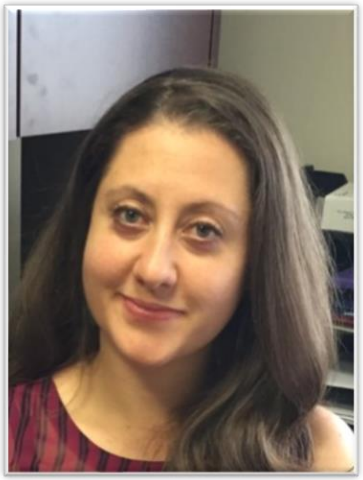
Presenters

Moderator:

Meredith Ponder Whitmire, JD

Policy Director

Defeat Malnutrition Today



Jaime Gahche, PhD, MPH

Nutritional Epidemiologist

Office of Dietary Supplements

National Institutes of Health

Ryne Carney

Public Policy Manager

Alliance for Aging Research

Samantha Koehler

Senior Policy Aide

U.S. Senate Special Committee on Aging

Introduction

- Why older adult malnutrition?
- Several key policy wins in the last year
  - FY 2020 funding
  - GAO report
  - Older Americans Act (OAA) reauthorization
- And, most recently, addition of malnutrition screening to two Qualified Clinical Data Registries (QCDRs)
- Speakers will discuss aspects of malnutrition including research, policy and practice, per the title

Progress on Quality Measures

	Premier Clinician Performance Registry	U.S. Wound Registry
Measure#1	**Measure Title:** Completion of a Screening for Malnutrition Risk and Referral to a Registered Dietitian Nutritionist for At-Risk Patients	**Measure Title:** Completion of a Screening for Malnutrition Risk and Referral to a Registered Dietitian Nutritionist for At-Risk Patients
Measure #2	**Measure Title:** Assessment of Nutritionally At-Risk Patients for Malnutrition and Development of Nutrition Recommendations/Interventions by a Registered Dietitian Nutritionist**	**Measure Title:** Assessment of Nutritionally At-Risk Patients for Malnutrition and Development of Nutrition Recommendations/Interventions by a Registered Dietitian Nutritionist**
Measure #3	**Measure Title:** Appropriate Documentation of Malnutrition Diagnosis**	**Measure Title:** Obtaining Preoperative Nutritional Recommendations from a Registered Dietitian Nutritionist (RDN) in Nutritionally At-Risk Surgical Patients**
Measure #4	**Measure Title:** Nutritional Care Plan Communicated to Post-Discharge Provider	**Measure Title:** Appropriate Documentation of Malnutrition Diagnosis

- Progress is being made on malnutrition quality measures
- Late in 2019, the Center for Medicare and Medicaid Services approved inclusion of 4 Malnutrition Quality Measures into two Qualified Clinical Data Registries
- The Premier Clinical Performance Registry and the US Wound Registry
- This is an important victory achieved through strong advocacy led by the Academy of Nutrition and Dietetics

Quality Measures Outlook

- The Academy notes that this action is a recognition that malnutrition quality measures are "vital in advancing evidence based high quality care."
- Further information on this is expected soon
- It is hoped this development may help in the larger effort to get CMS to approve either the four malnutrition measures or a composite measure for the hospital inpatient quality reporting program

COVID-19: Challenges and Opportunities

- Would be remiss if I did not briefly discuss COVID-19 and the direct impact it has had on nutrition programs and services
- Has caused real hardships in the community
- In response, Congress has provided a total of $750 million for Older Americans Act nutrition programs and added local and state flexibility
- Has also increased money for other nutrition programs
- However, gaps still remain, as our other speakers will discuss

Gaps in Malnutrition/ Undernutrition Screening Measures

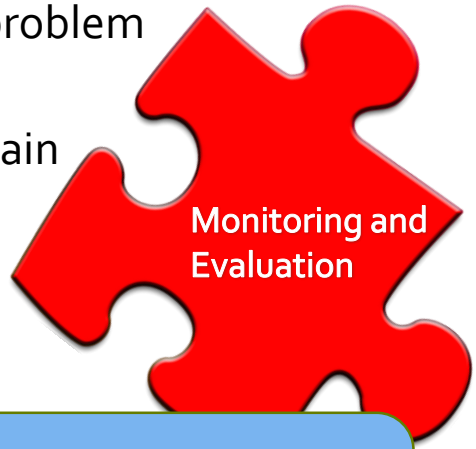
Jaime Gahche, PhD, MPH

Malnutrition / Undernutrition Screening Measures in National Health Surveys

- Opportunities for national health goals
- Gaps in measures of national health surveys
- Integration of measures into national health surveys, a case example

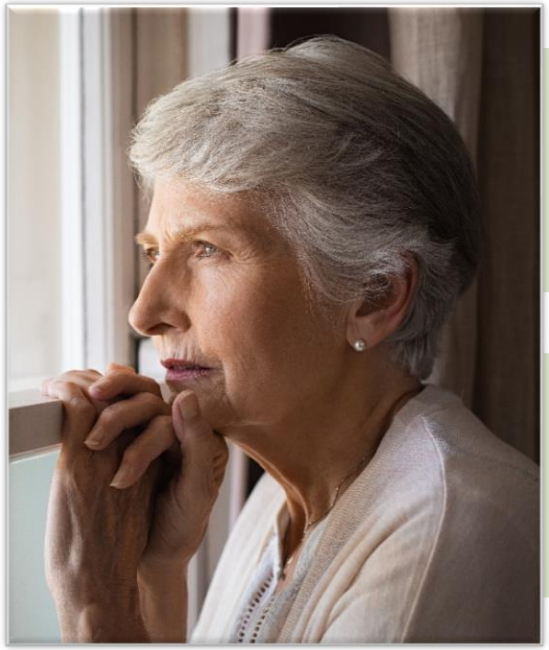
Screening in Federal Surveys

- **Screening tests or measures in population surveys aim to assess the prevalence and incidence of a condition or disease**
- **Federal surveys that collect data on health provide vital information**
  - Provide statistics to understand the magnitude of a problem
  - Provide data for policies to address the problem
  - Provide data over time to evaluate the impact of certain policies



Without appropriate data collected, moving forward by setting national goals can be extremely difficult!

Why Screen?



Detect possible presence of malnutrition in those without obvious signs and symptoms

Helps to:

- Treat more effectively with early detection
- Identify lifestyle & environmental changes to reduce risk
- **Surveillance and monitoring**

Measures Included in 9 Common Malnutrition Screeners

- BMI
- Appetite loss
- Unintentional weight loss
- Hand grip strength
- Mobility/functionality
- Chewing/swallowing
- Depression
- Cognitive function
- Recent hospitalizations
- Polypharmacy
- Comorbidities
- Food Security
- Dietary intake adequacy
- Number of daily meals
- Taste functionality
- Fluid intake/hydration status
- Bowel regularity

Malnutrition Screening Tools Identified

Body Mass Index (BMI), Council on Nutrition Appetite Questionnaire (CNAQ) and Simplified Nutritional Appetite Questionnaire (SNAQ), Malnutrition Screening Tool (MST), Malnutrition Universal Screening Tool (MUST), Mini Nutritional Assessment (MNA), Mini Nutritional Assessment Short Form (MNA-SF), SCALES, and Seniors in the Community Risk Evaluation for Eating and Nutrition (SCREEN 1 or SCREEN II)

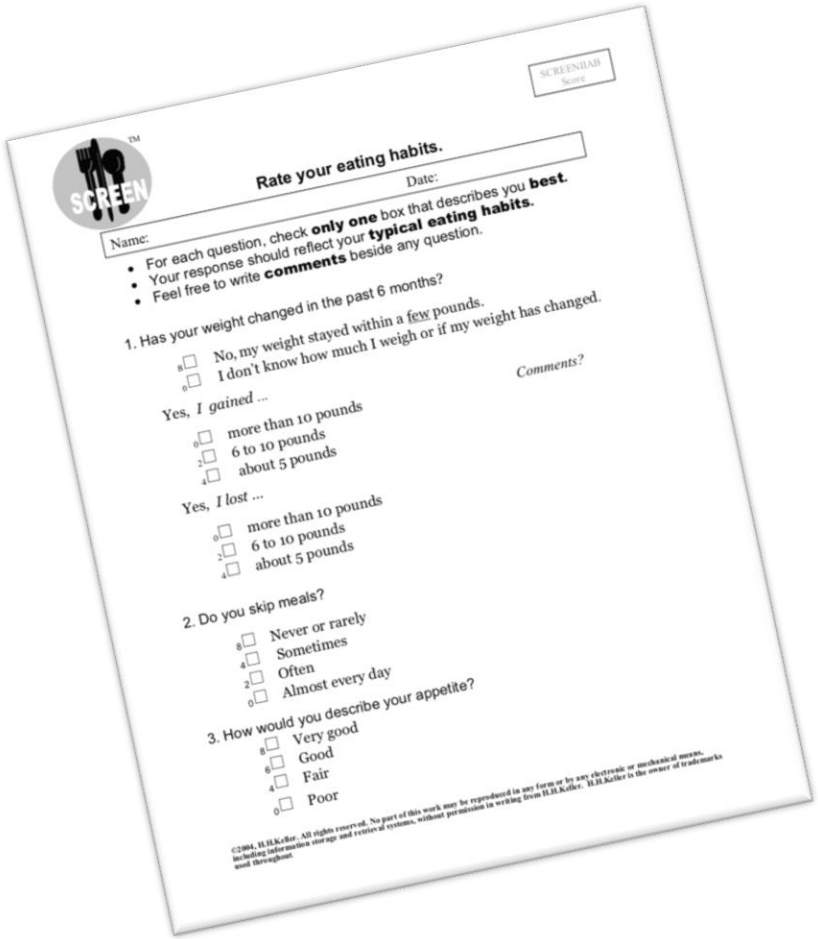
MaNuEL Study

- **Best summary: EU's MaNuEL Project**
  - 34 tools 119 studies,
  - 20 tools / 36 studies in community

Good	Fair	Poor
Sensitivity AND Specificity >80%	Sensitivity OR Specificity >80%, but both >50%	Sensitivity OR Specificity <50%
Area Under Curve >0.8	Area Under Curve 0.6-0.8	Area Under Curve <0.6
Correlation Co-efficient >0.75	Correlation Co-efficient 0.40-0.75	Correlation Co-efficient <0.40
Kappa >0.6	Kappa 0.4-0.6	Kappa <0.4
Odds Ratio/Hazard Ratio >3	Odds Ratio/Hazard Ratio 2-3	Odds Ratio/Hazard Ratio <2

Power L, et al. *Clin Nutr ESPEN*. 2018;24:1-13.

MaNueL's Best Tool for Community: SCREEN II-AB: 14 Questions



SCREENIIAB Score

SCREEN™

Rate your eating habits.

Name: Date:

- For each question, check **only one** box that describes you **best.**
- Your response should reflect your **typical eating habits.**
- Feel free to write **comments** beside any question.

1. Has your weight changed in the past 6 months?

8☐ No, my weight stayed within a few pounds.
0☐ I don't know how much I weigh or if my weight has changed.

Comments?

Yes, *I gained* ...
0☐ more than 10 pounds
2☐ 6 to 10 pounds
4☐ about 5 pounds

Yes, *I lost* ...
0☐ more than 10 pounds
2☐ 6 to 10 pounds
4☐ about 5 pounds

2. Do you skip meals?
8☐ Never or rarely
4☐ Sometimes
2☐ Often
0☐ Almost every day

3. How would you describe your appetite?
8☐ Very good
6☐ Good
4☐ Fair
0☐ Poor

- Appetite
- Chewing and swallowing
- Food intake questions
- Weight loss
- Chewing and swallowing
- Ability to shop and prepare food
- Food restrictions
- Motivation to cook
- Isolation and loneliness

Canadian Nutrition Screening Tool (CNST)

Ask the patient the following questions	Yes	No
Have you lost weight in the past 6 months without trying to lose this weight? If the patient reports a weight loss but gained it back, consider it as a NO weight loss.		
Have you been eating less than usual for more than a week?		
Two "YES" answers indicate nutrition risk		

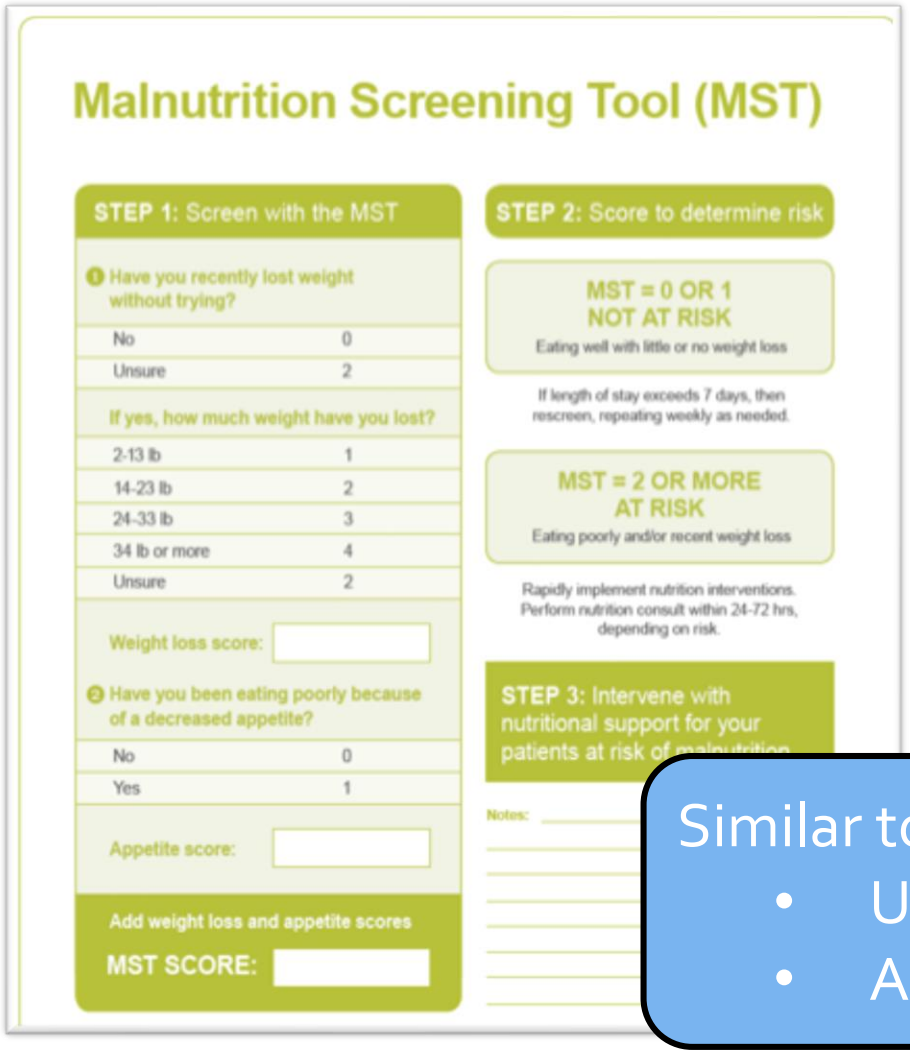
- If patient is uncertain regarding weight loss, ask if clothing is now fitting more loosely.
- If the patient is unable to answer the questions, a knowledgeable informant can be used to obtain the information

2 item short version of SCREEN focuses on weight loss and appetite

- Used in Canadian National Provincial Survey

Population-based data now available for comparison to local surveys in Canada

Malnutrition Screening Tool (MST)



Malnutrition Screening Tool (MST)

STEP 1: Screen with the MST

1. Have you recently lost weight without trying?

No	0
Unsure	2

If yes, how much weight have you lost?

2-13 lb	1
14-23 lb	2
24-33 lb	3
34 lb or more	4
Unsure	2

Weight loss score:

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

No	0
Yes	1

Appetite score:

Add weight loss and appetite scores

MST SCORE:

STEP 2: Score to determine risk

MST = 0 OR 1
NOT AT RISK
Eating well with little or no weight loss

If length of stay exceeds 7 days, then rescreen, repeating weekly as needed.

MST = 2 OR MORE
AT RISK
Eating poorly and/or recent weight loss

Rapidly implement nutrition interventions. Perform nutrition consult within 24-72 hrs, depending on risk.

STEP 3: Intervene with nutritional support for your patients at risk of malnutrition

Notes:

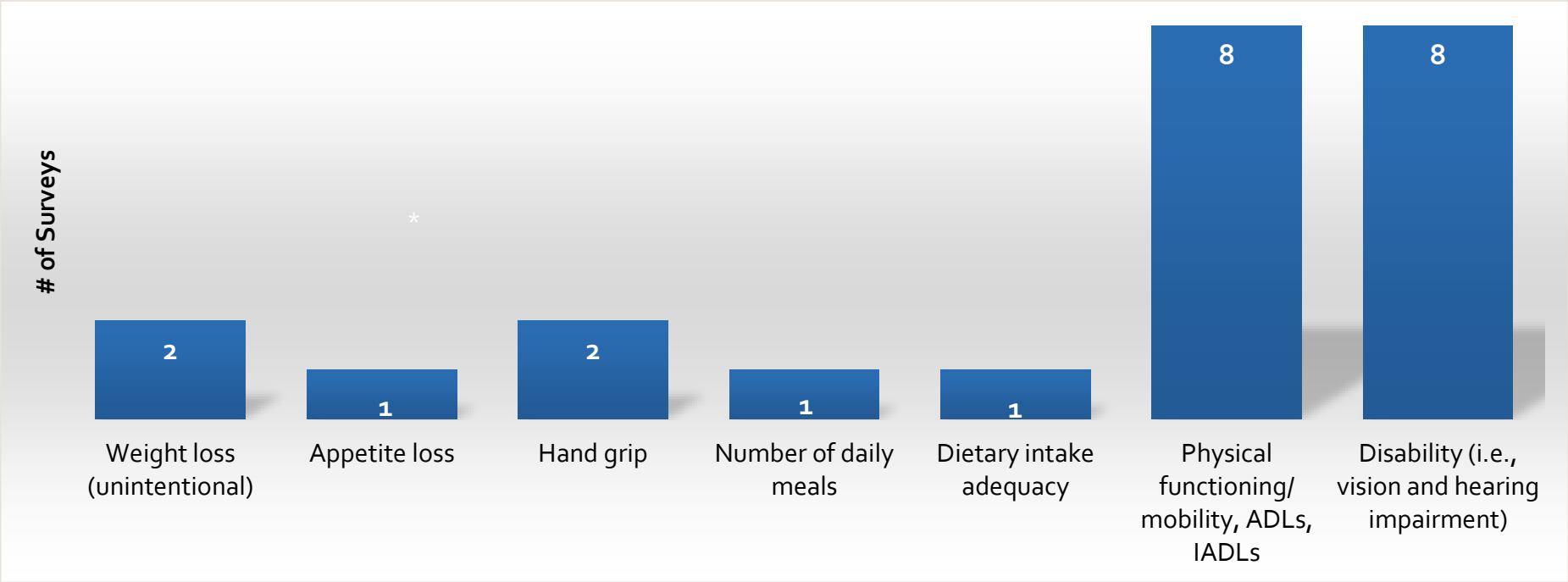
Similar to CNST

- Unintentional weight loss
- Appetite loss

Current Status of Federal Surveys

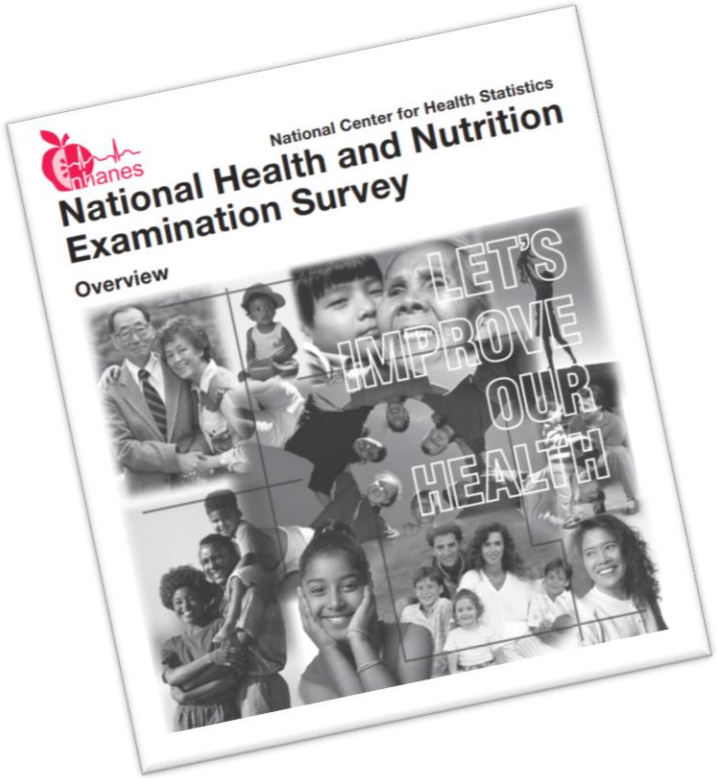
1. Identify US national surveys that include participants who are older adults (aged 60+ years)
2. Review survey data collection instruments (recent protocols)
3. Determine whether surveys collect malnutrition measures
4. Define opportunities for risk screening in those US National Surveys

Eight Surveys Identified, But How Do They Measure Up?



**Part of the depression questionnaire:* During the last 12 months, was there ever a time lasting two weeks or more when you lost interest in most things like hobbies, work, or activities that usually give you pleasure? During those same two weeks, did you lose your appetite?

National Health and Nutrition Examination Survey (NHANES)



- Measured height/weight
- Unintentional weight loss
- DEXA (body composition)
- Detailed data on dietary intake
- # meals on a given day
- Cognitive functioning
- Physical functioning (IADL, ADL)

Potential measures to help fill knowledge gaps:
- Appetite loss
- Grip strength

National Health and Nutrition Examination Survey. https://www.cdc.gov/nchs/nhanes/index.htm. Accessed March 2020.

Health and Retirement Study (HRS)

- Measured height/weight
- Grip strength and other physical functioning tests (i.e., gait speed, balance)
- Cognitive functioning
- Physical functioning (IADL, ADL)
- Appetite loss (problem with referent period)

Potential measures to help fill knowledge gaps:

- Appetite loss
- Unintentional weight loss
- Simple diet questions

Health and Retirement Study. https://hrs.isr.umich.edu/. Accessed March 2020.

National Health & Aging Trends Study (NHATS)

- Self-reported height/weight
- Unintentional weight loss
- Grip strength and other physical functioning tests (i.e., gait speed, balance)
- Cognitive functioning
- Physical functioning (IADL, ADL)
- Appetite loss (problem with referent period)

Potential measures to help fill knowledge gaps:
- Appetite loss
- Simple diet questions

National Health & Aging Trends Study. https://www.nhats.org/. Accessed March 2020.

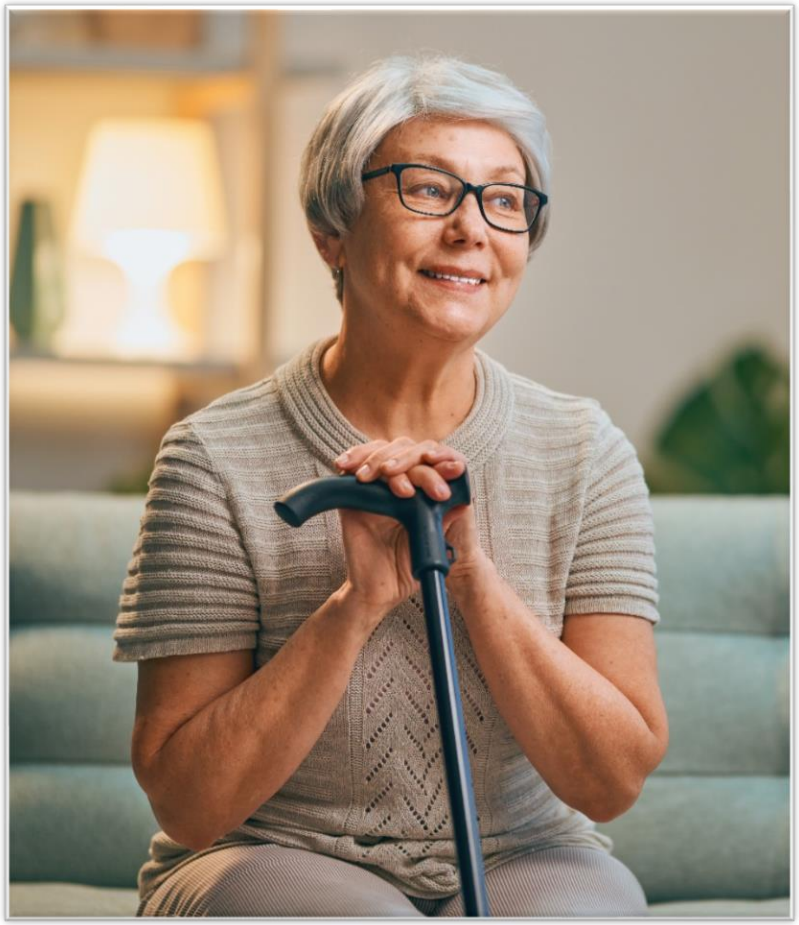
Medicare Current Beneficiary Survey (MCBS) Conducted by the Center for Medicare & Medicaid Services

MCBS examines recipients annually in their home, follows for 4 years, collects data on health, participants are linked to Medicare claims data

Additions will provide prevalence, incidence for malnutrition and links to health outcomes & mortality

- Measured hand grip strength, height and weight, balance
- Reported unintentional weight loss, appetite loss and dietary supplement use

Canada collects similar information that may be useful for comparative purposes

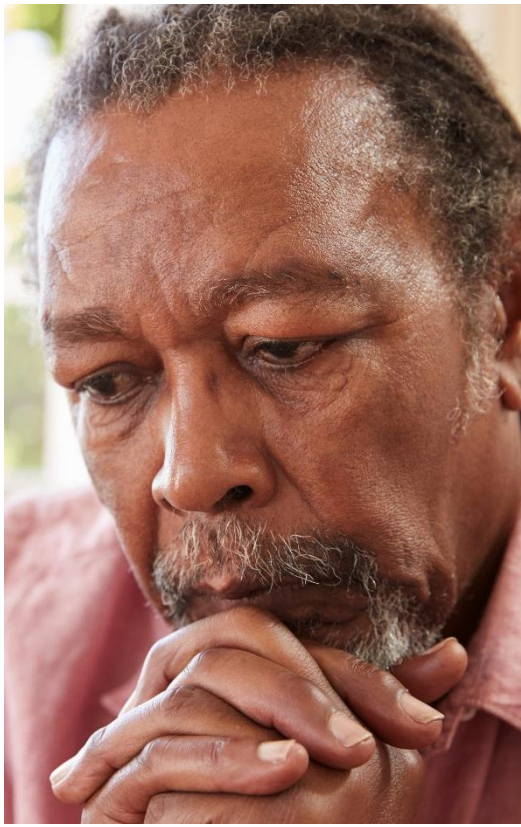


Informational Slide on the 8 Surveys Included in Study

Survey	Sample size	Target population/ type of study	Mode	Types of data collected	Year of survey reviewed
National Health and Nutrition Examination Survey (NHANES)[1]	~5,000/yr	Non-institutionalized population/cross-sectional	Home / mobile examination	Questionnaires, physical measures	2017-18, 2019
National Health Interview Survey (NHIS)[1]	35,000 households/ 87,500 persons/yr	Non-institutionalized population/ cross-sectional	Home	Questionnaires	2017, 2018, 2019
Medicare Current Beneficiary Survey (MCBS)[2]	~12,000/given time	Medicare population/ longitudinal	Home	Questionnaires	2017, 2018, 2019
National Health and Aging Trends Study (NHATS)[3]	~8,500/given time	Medicare beneficiaries ages 65+yr /longitudinal	Home	Questionnaires, physical measures	2017, 2018, 2019
National Survey of Older Americans Act Participants (NSOAAP)[4]	~6,000/given time	Area Agencies on Aging, serving those 60+yr	Telephone	Questionnaires	2016
Current Population Survey-Food Security Supplement (CPS-FSS)[5]	~37,000 households/ 90,000 persons/yr	Non-institutionalized population 15+ yr/ cross-sectional	Mixed mode, home and telephone	Questionnaires	2018
Medicare Health Outcomes Surveys (HOS)[2]	~1,200/given time	Medicare managed care/ longitudinal	Mail, phone for non-respondents	Questionnaires	2018
Health and Retirement Study (HRS)[6]	~20,000/given time	Non-institutionalized population /longitudinal	Home, follow-up conducted in person or phone	Questionnaires	2016, 2018

Dietary Guidelines and Sarcopenia

Ryne Carney



Alliance for Aging Research

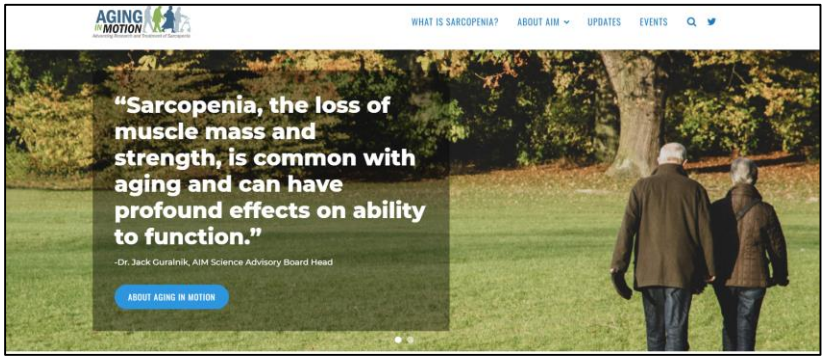
The Alliance for Aging Research is the leading nonprofit organization dedicated to accelerating the pace of scientific discoveries and their application to vastly improve the universal human experience of aging and health

- Health Education Campaign on Malnutrition
- Aging In Motion (AIM)

Aging in Motion (AIM) Coalition

A diverse group of patient, caregiver, health and aging groups working together to press for greater levels of research and innovation to develop treatments in the area of sarcopenia and age-related functional decline.

- Developed the ICD-10-CM Code for Sarcopenia
- Sought qualification of the Short Physical Performance Battery (SPPB)
- Patient Focused Drug Development Meeting on Sarcopenia
- Consulted on Sarcopenia Definitions and Outcomes Consortium (SDOC)
- "Nutritional Interventions in Sarcopenia: Report from the ICFSR Task Force"



AGING IN MOTION
Advancing Research and Treatment of Sarcopenia

Defining Sarcopenia

Broad Definition

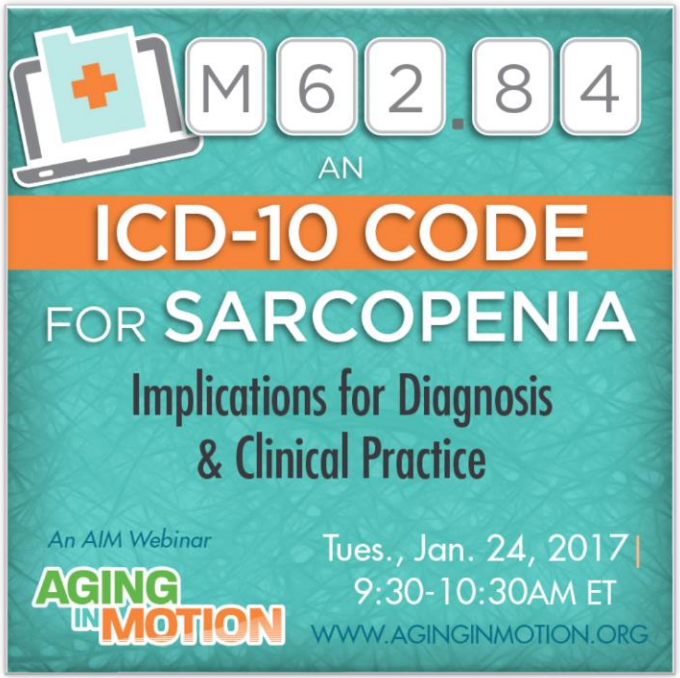
- The progressive and generalized loss of skeletal muscle which leads to an accelerated loss of muscle mass and muscle function

Definition Evolution

- Function Incorporated
- ICD-10-MC Diagnostic Code: M62.84

Competing Definitions

- European Working Group on Sarcopenia in Older People (EWGSOP)
- Foundation for the National Institutes of Health
- Asian Working Group on Sarcopenia



Issues in Sarcopenia

- Universal definition
- Treatment options
  - Currently no pharmaceutical product for the treatment of sarcopenia but some drugs in the clinical pipeline
  - Resistance training and nutritional interventions as both therapeutic and preventive measures
- Awareness
  - Poor awareness of the condition and the diagnostic tools needed to identify it
- Measuring lean muscle mass
  - Currently available tools to measure lean muscle mass such as DXA have problems
  - D_3 Creatine Dilution

Clark RV, et al. *J Appl Physiol*. 2014; 116:1605–1613.

Sarcopenia and Nutrition

- Risk of sarcopenia increases with age
  - After age 50, adults average 1-2 percent muscle mass loss annually[1]
- The National Health and Nutrition Survey III
  - In older adults sarcopenia, poor diet quality and physical inactivity are associated with higher risk of mortality
- Underlying nutritional causes
  - Low protein intake, low energy intake, micronutrient deficiency, anorexia, malabsorption and other gastrointestinal conditions
- Obesity
  - Sarcopenia can be present in obese individuals, increasing risk of disability and mortality

Serafini E, et al. JGG. 2019;67:52-61. | Frontera W, et al. *J Appl Physiol.* 2000;88:1321-6.

Nutritional Studies

- Overlap of sarcopenia and malnutrition
  - Significant overlap between malnutrition and sarcopenia[1]
- Health ABC Study
  - In well-functioning, community-dwelling older adults, low protein intake was associated with increased mobility limitations
- **S**arcopenia and **P**hysical F**R**ailty **IN** older people: multicomponent **T**reatmen**T** trial (SPRINTT)
  - Ongoing RCT testing efficacy of multicomponent interventions in the prevention of mobility disability in older adults with sarcopenia and frailty
- Needs for future studies
  - Large RCTs in heterogenous real-world populations[2]
  - Development of alternative to physical activity and nutritional interventions
  - Inclusion of more sarcopenic study participants
  - Non-protein and vitamin nutritional intervention research

Gingrich A, et al. *BMC Geriatr.* 2019;19. https://doi.org/10.1186/s12877-019-1115-1 | Sieber CC. *Aging Clin Exp Res.* 2019;31:793–798.

ESPEN Expert Group Guidelines

- European Society for Clinical Nutrition and Metabolism held a Workshop on Protein Requirements in Nov. 2013
- Key takeaway: To prevent or delay adverse consequences, encouraged increased intake of dietary protein for adults 65 and older compared to younger adults

Table 1
Practical guidance for optimal dietary protein intake and exercise for older adults above 65 years.

Recommendations
For healthy older adults, we recommend a diet that includes at least 1.0–1.2 g protein/kg body weight/day.
For certain older adults who have acute or chronic illnesses, 1.2–1.5 g protein/kg body weight/day may be indicated, with even higher intake for individuals with severe illness or injury.
We recommend daily physical activity for all older adults, as long as activity is possible. We also suggest resistance training, when possible, as part of an overall fitness regimen.

Deutz NE, et al. Clin Nutr. 2014;33(6):929-936.

International Clinical Practice Guidelines for Sarcopenia: ICFSR

Table 1
Clinical Practice Guidelines for Older People with Sarcopenia

	Guideline	Strength of Evidence†	Certainty of Evidence††
1.Screening	1A. Older adults aged 65 years and older should be screened for sarcopenia annually, or after the occurrence of major health events	Conditional	++
	1B. Screening for sarcopenia can be performed using gait speed, or with the SARC-F questionnaire	Conditional	++
	1C. Individuals screened as positive for sarcopenia should be referred for further assessment to confirm the presence of the disease	Conditional	++
2. Diagnosis	2A. It is recommended that health practitioners use an objective measurement tool for the diagnosis of Sarcopenia, utilising any of the published consensus definitions	Conditional	+++
	2B. DXA should be used to determine low lean mass when diagnosing sarcopenia	Conditional	++
	2C. Walking speed or grip strength should be used to determine low levels of muscle strength and physical performance respectively when diagnosing sarcopenia	Strong	+++
3. Physical Activity	3A. In patients with sarcopenia, prescription of resistance-based training may be effective to improve lean mass, strength and physical function	Strong	+++
4. Protein	4A. We recommend clinicians consider protein supplementation/a protein-rich diet for older adults with sarcopenia	Conditional	++
	4B. Clinicians may also consider discussing with patients the importance of adequate calorie and protein intake	Conditional	+
	4C. Nutritional (protein) intervention should be combined with a physical activity intervention	Conditional	++
5. Vitamin D	5A. Insufficient evidence exists to determine whether a Vitamin D supplementation regime by itself is effective in older adults with sarcopenia	Insufficient evidence	+
6. Anabolic Hormones	6A. The current evidence is insufficient to recommend anabolic hormones for the management of sarcopenia	Insufficient evidence	+
7. Pharmacologic Interventions	7A. Pharmacological interventions are not recommended as first-line therapy for the management of sarcopenia	Insufficient evidence	+
8. Research	8A.. Future international collaboration and large-scale RCTs focusing specifically on older people with sarcopenia are recommended	n/a	n/a

Dent E, et al. *J Nutr Health Aging.* 2018;22(10):1148-1161.

2020-2025 Dietary Guidelines for Americans

- Provide food-based recommendations to promote health, help prevent diet-related chronic diseases, and meet nutrient needs
- Timeline of activities
- "What is the relationship between dietary patterns consumed and sarcopenia"
  - Implementation phase
- The OAA requires that all meals served using OAA funds adhere to the current Dietary Guidelines for Americans, provide a minimum of one-third of the Dietary Reference Intakes, meet state and local food safety and sanitation requirements, and be appealing to older adults

Dietary Guidelines Advisory Committee. https://www.dietaryguidelines.gov/sites/default/files/2019-09/DP-SarcopeniaProtocol-09-19-19.pdf. Accessed March 2020.

Conclusion

- There is continued work to develop national malnutrition standards and goals, such as in national surveys and Healthy People 2030
- Screening provides opportunity to benchmark state and local estimates/measures
- Screening for malnutrition should be institutionalized throughout the health care system
- The 2020-2025 Dietary Guidelines for Americans will hopefully include recommendations on older adult nutrition and sarcopenia
- Through federal actions, steps have been taken to identify opportunities where they can meet the needs of older adults, and more action should be taken in the future

Take Action

- Educate colleagues and the older adults you work with on the importance of nutrition for good health
- Screen for malnutrition in your institution
- Join the Defeat Malnutrition Today (DMT) coalition: https://www.defeatmalnutrition.today/
  - Work to support the state and federal actions outlined on DMT's website
- Join the Aging in Motion (AIM) coalition: https://www.aginginmotion.org/about/join_aim/

Resources

- Defeat Malnutrition Today (DMT) COVID-19 Information
  - https://www.defeatmalnutrition.today/covid-19
- GAO Report
  - https://www.gao.gov/products/gao-20-18
- Malnutrition QCDRs
  - https://www.eatrightpro.org/practice/quality-management/quality-improvement/qualified-clinical-data-registry
- MaNuEL Study
  - https://www.ncbi.nlm.nih.gov/pubmed/29576345
- Canadian Nutrition Screening Tool (CNST)
  - https://nutritioncareincanada.ca/sites/default/uploads/files/CNST.pdf
- Malnutrition Screening Tool (MST)
  - https://static.abbottnutrition.com/cms-prod/abbottnutrition-2016.com/img/Malnutrition%20Screening%20Tool_FINAL_tcm1226-57900.pdf

This webinar was
presented on May 5, 2020
as part of the virtual
Aging in America 2020 Conference.