

Collecting Data on Older Adults: Opportunities to Learn About Nutrition Status

Defeat Malnutrition
Today

Webinar

September 15, 2021

defeat **malnutrition** today

Who Are We?

Coalition of over 100 national, state, and local stakeholders and organizations, including community, healthy aging, nutrition, advocacy, healthcare professional, faith-based, and private sector groups



Share the goal of achieving the recognition of malnutrition as a key indicator and vital sign of older adult health risk; work to create policy change toward a greater emphasis on screening, detecting, treating and preventing malnutrition

Speakers

- Jaime Gahche, National Institutes of Health (NIH)
- Debra Reed-Gillette, Centers for Medicare and Medicaid Services (CMS)
- Kristen Robinson, Administration for Community Living (ACL)

Collecting Data on Older Adults: Opportunities to Learn About Nutrition Status

Opportunities for Adding Undernutrition and Frailty Screening
Measures in US National Surveys

Jaime Gahche, PhD MPH



National Institutes of Health
Office of Dietary Supplements

Background

- Older adults (65 y and older) made up 15% of the US population (49.2 million people) in 2016; percentage is projected to grow to ~24% by 2060¹.
- Undernutrition (protein-energy malnutrition) and frailty are important interrelated issues that face our nation's growing older adult population.
- Undernutrition and frailty continue to be left out of national goals such as Healthy People 2030.
- This is in part due to the lack of standardized measures to accurately screen older adults and the lack of consistently available data to estimate the prevalence and incidence of undernutrition and frailty among older Americans.

¹ US Department of Commerce Economics and Statistics Administration, US Census Bureau. 2017 national population projections tables: main series [Internet]. Suitland, MD: US Census Bureau; 2017. Available from: <https://www.census.gov/data/tables/2017/demo/popproj/2017-summary-tables.html>. [Accessed 23 September, 2020].

Screening in Federal surveys

- Screening tests or measures in population surveys aim not to bring patients to treatment but 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!

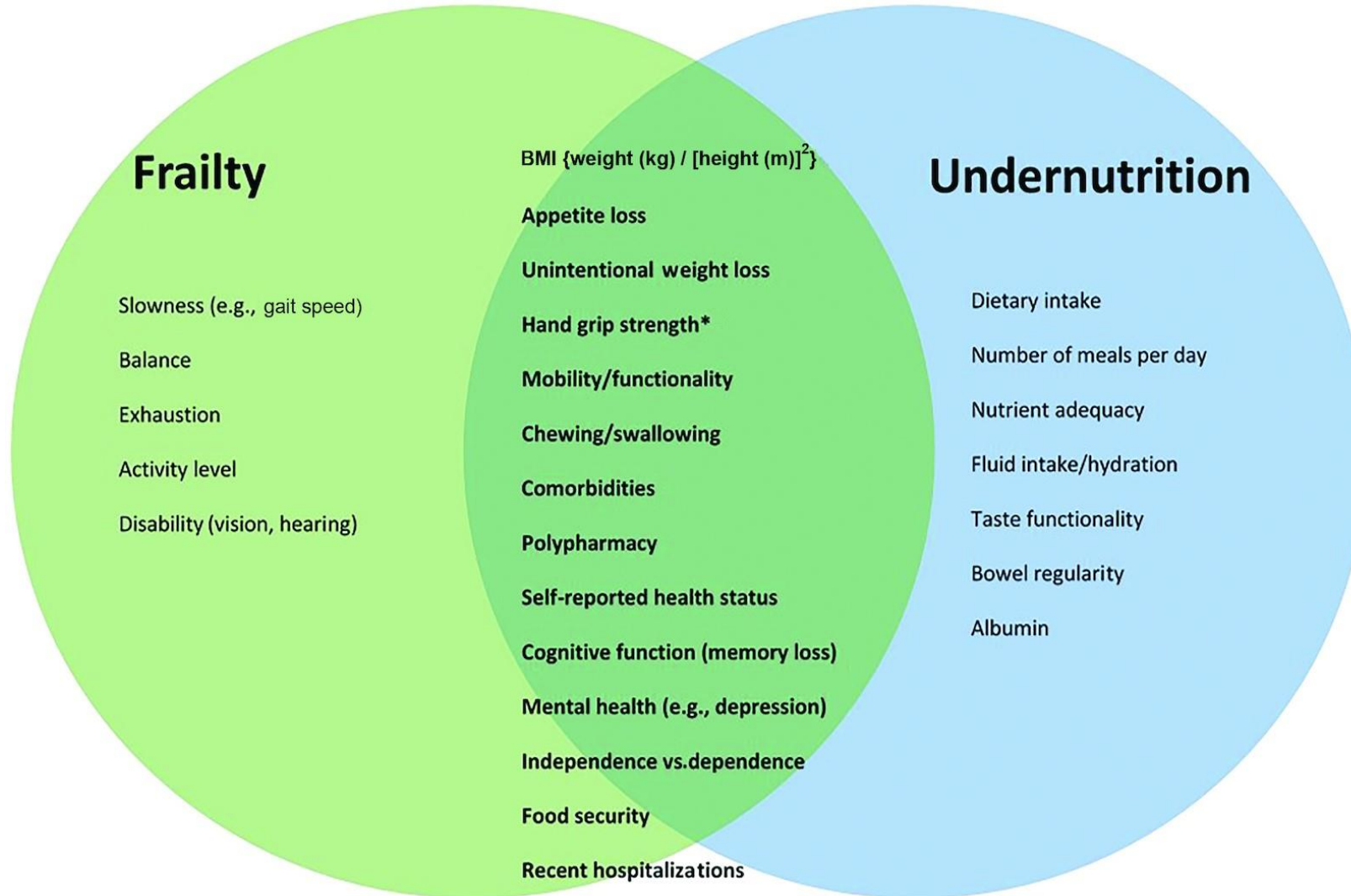


FIGURE 1 Common and unique screening measures among popular undernutrition and frailty screening tools.

Current status of federal surveys: our objectives

- Objective: Identify whether US national surveys that include older adults (aged 60+ years) collect/report data that could be used to screen for risk of frailty/malnutrition
- Review US National Surveys
 - Identify surveys that include older adults (aged 60+ y)
 - List malnutrition and frailty components collected in recent surveys
- Define Opportunities for Frailty/Malnutrition Risk Screening in those US National Surveys
 - List common frailty/malnutrition screening items currently in US national surveys
 - Identify those that could be added to provide more complete measures

National surveys that collect health data

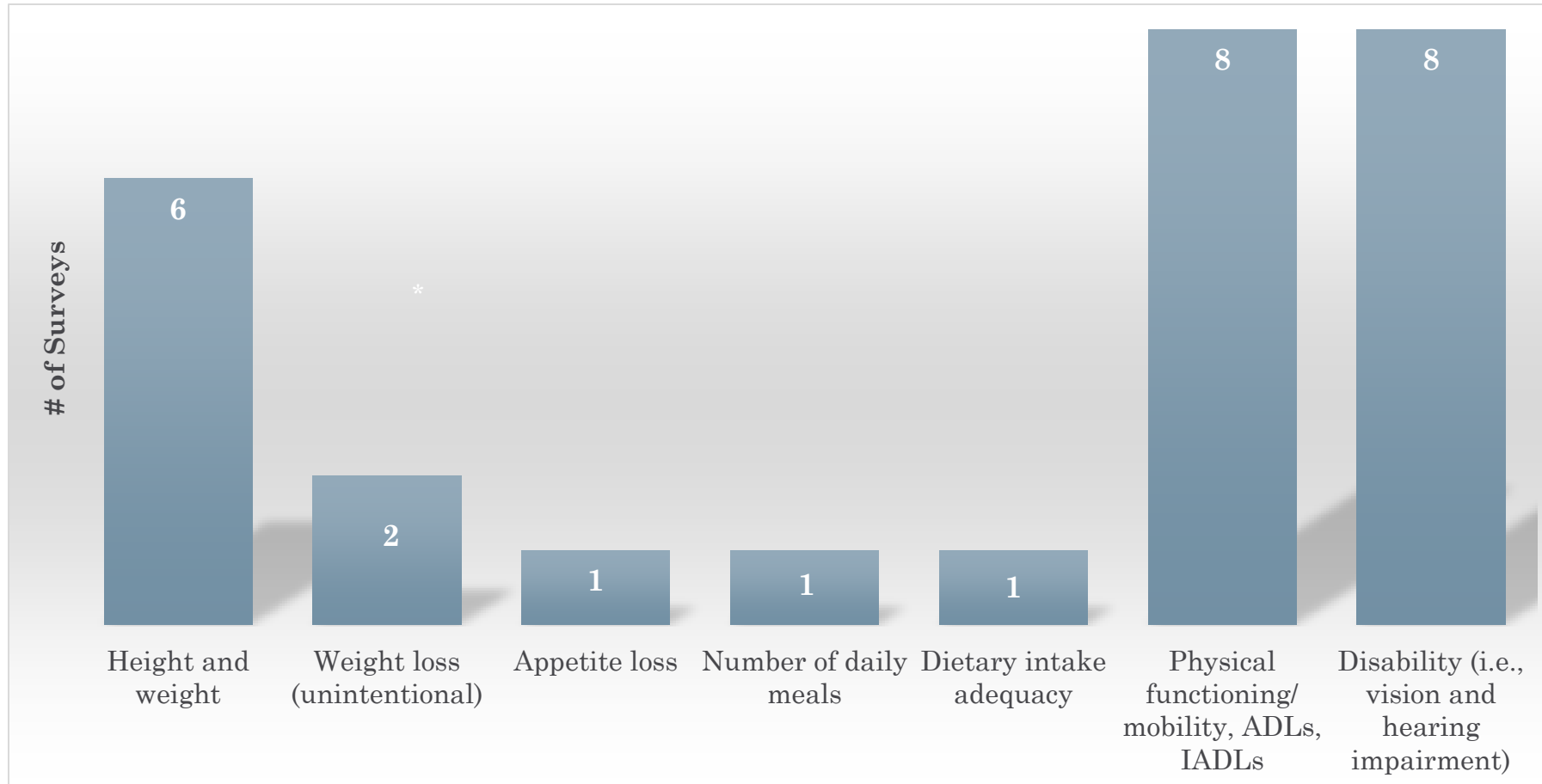
Survey	Sample size	Target population/ type of study	Mode	Types of data collected	Year of survey reviewed
National Health and Nutrition Examination Survey (NHANES)	~5,000/yr	Non-institutionalized population/cross-sectional	Home / mobile examination	Questionnaires, physical measures	2017-18, 2019
National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

Physical measurements included in surveys

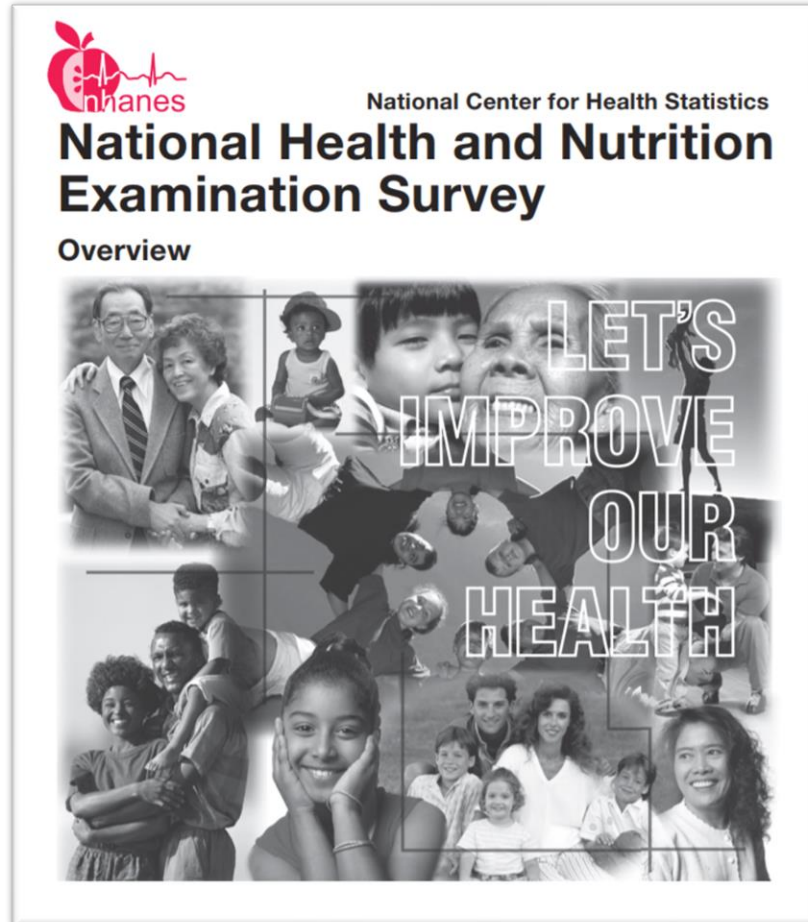
- For the protocol years queried, only 3 surveys collected physical measures
- NHANES: Body measures
- NHATS: Some body measures and physical functioning
- HRS: Body measures and physical functioning

	National Health and Nutrition Examination Survey (NHANES)	National Health and Aging Trends Study (NHATS)	Health and Retirement Study (HRS)
Height and Weight	✓		✓
Waist/arm circumference	✓	✓	✓
DEXA (body composition)	✓		
Hand Grip Strength		✓	✓
Gait Speed (time to walk a set distance)		✓	✓
Balance		✓	✓
Oral Health Exam	✓		

Self-reported measures included in surveys



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

Health and Retirement Study (HRS)

HRS HEALTH AND RETIREMENT STUDY

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The Health and Retirement Study

The University of Michigan Health and Retirement Study (HRS) is a longitudinal panel study that surveys a representative sample of approximately 20,000 people in America, supported by the National Institute on Aging (NIA U01AG009740) and the Social Security Administration.

...more

Age Group	Percentage
Age: 55-64	47%
Other Group 1	25%
Other Group 2	30%

- 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

National Health & Aging Trends Study (NHATS)



The screenshot shows the NHATS website header with the logo and tagline 'National Health & Aging Trends Study: how daily life changes as we age'. The navigation menu includes 'About NHATS', 'News', 'Methods', 'Data Documentation', 'Data Access', and 'Bibliography and Reports'. The main content area is titled 'Sponsors, Partners, Collaborators' and features a section for the 'National Institute on Aging'. A sidebar on the left contains links for 'Sponsors, Partners, Collaborators', 'Advisory Committees / Boards', 'NHATS Leadership', and 'Why Use NHATS Data?'. A search bar and 'Submit' button are visible in the top right of the main content area.

- 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

Conclusions

- Most US national surveys included at least one common frailty/malnutrition screening measure (i.e. weight and height (measurement or self-reported), and questions on physical functioning and mobility, disability, cognitive functioning).
- Opportunities exist to add several simple measures to US national surveys.
- This would allow researchers an initial means to assess potential prevalence and help policymakers set national goals to ultimately support maintaining functional ability and wellbeing and helping older adults to age in place in their communities.

The Medicare Current Beneficiary Survey

Overview



Introduction to the MCBS

- The Medicare Current Beneficiary Survey (MCBS) is a continuous, in-person, multi-purpose longitudinal survey representing the population of Medicare beneficiaries aged 65 and over and beneficiaries aged 64 and below with certain disabling conditions, residing in the United States.
- The MCBS is sponsored by the Office of Enterprise Data and Analytics (OEDA), the survey is managed by the Survey Management and Analytics Group within OEDA, and is conducted through a contract with NORC at the University of Chicago (NORC).
- The MCBS is designed to aid CMS in administering, monitoring, and evaluating the Medicare program. A leading source of information on Medicare's impact on beneficiaries, the MCBS provides important information on beneficiaries that is not available in CMS administrative data and plays an essential role in monitoring and evaluating beneficiary health status and how health care policy affects the beneficiary.



History of the MCBS

- The MCBS was implemented in 1991 to serve as a resource of information for administering the Medicare program, estimating total health care expenditures for beneficiaries not accounted for in the administrative records, and providing a better understanding of the health and well-being of Medicare beneficiaries.
- Since its implementation in 1991, the MCBS has continued to collect and provide essential data on the costs, use, and health care status of Medicare beneficiaries. The MCBS has conducted continuous data collection for almost 30 years, completing more than one million interviews provided by thousands of respondents.

Features of the MCBS

- The MCBS is distinguished by several features, including:
 - 1. Linked self-report and administrative claims data:** The MCBS collects information directly from beneficiaries to understand their health care needs, costs and experiences, and then links their responses to administrative claims, which provides researchers and policy analysts with more accurate and complete estimates of beneficiaries' total health care costs and utilization, including those costs and events NOT covered by Medicare.
 - 2. Complete source of payment information:** The MCBS collects survey-reported data on **all** sources of payment for health care costs including those not covered by Medicare, such as co-payments, deductibles and uncovered services. MCBS data also reveal the extent to which retiree benefits, Medigap, VA benefits and other sources of coverage address total costs.
 - 3. Rotating panel design:** The MCBS features a rotating panel design that enables users to conduct longitudinal analysis. The MCBS rotating panel is designed to be representative of the population of all Medicare beneficiaries for the survey year. Each sampled beneficiary is scientifically selected as part of a panel and is interviewed up to three times per year (Winter, Summer, Fall) for four consecutive years. One panel is retired during each winter round, and a new panel is selected to replace it each fall round.



Features of the MCBS (continued)

- The MCBS is distinguished by several features, including:
 - 4. Inclusion of facility-residing beneficiaries:** The MCBS follows beneficiaries into and out of long-term care facilities to maintain a comprehensive profile of their health care utilization and expenditures.
 - 5. Oversampling:** Hispanic beneficiaries, beneficiaries with disabilities (aged 64 and under) and beneficiaries aged 85 and over are oversampled to ensure sufficient sample for analysis purposes due to interest in their special health care needs.



Overview of the MCBS LDS Releases

- The MCBS LDS releases contain the following data:
 1. The **Survey File** contains beneficiaries' demographic information, health insurance coverage, self-reported health status and conditions, and responses regarding access to care and satisfaction with care, as well as linked FFS claims.
 2. The **Cost Supplement File** contains a comprehensive accounting of beneficiaries' health care use, expenditures, and sources of payment for both Medicare covered services and non-covered services.
- Each of the two LDS releases contains multiple files, called segments, which are easily linkable through a common beneficiary key ID.
- Depending on their research questions, data users have the option of obtaining the Survey File alone or purchasing both the Survey File and Cost Supplement File.

Overview of MCBS Files

- The releases are identified by the Medicare population benefit year. Our 2019 release represents individuals enrolled in Medicare in 2019. Data collection for these individuals is from January 1, 2019 – December 31, 2019 for their healthcare utilization (the benefit year) and data collection for the health topic information is from August 1, 2019 – November 30, 2020.
- The Survey File contains beneficiaries' demographic information, health insurance coverage, self-reported health status and conditions, and responses regarding access to care and satisfaction with care. The Survey File contains survey data collected directly from respondents.
- The Cost Supplement file contains survey collected utilization data matched to administrative records to show cost and utilization data for the benefit year, including both covered services and non-covered services like dental, vision, and hearing events as well as long term care.
- *The 2019 release also includes information on how COVID-19 affected beneficiaries in both Summer and Fall of 2020.*

Sample Design Overview

- The MCBS uses a rotating panel sample design, and is designed to be representative of the population of all Medicare beneficiaries for the survey year. The MCBS sample is selected from locations throughout the continental U.S.
- Each year, beneficiaries are scientifically selected as part of a panel and is interviewed up to three times per year for four consecutive years to form a continuous profile of their health care experiences.
- The three rounds of data collection per year are referred to seasonally (fall, winter, summer). One panel is retired during each winter round, and a new panel is selected to replace it each fall round. The new panel is referred to as the Incoming Panel.
- The MCBS sample is designed to yield about 14,500 completed cases annually in the MCBS Survey File and between 9,000 and 11,000 completed cases annually in the MCBS Cost Supplement File.
- Every year, CMS specifies a 5-percent sample of the administrative enrollment data that is used for selecting the MCBS sample. The first extract of the 5-percent file is made available in the spring, and the bulk of the sample is selected from that extract. Additional extracts of the 5-percent file are utilized to support sampling of current-year enrollees. These extracts contain new enrollees who were not included in the initial extract. The combination of these extracts constitutes the full frame from which the Incoming Panel is selected.



Targeted Population

- The targeted population for the MCBS consists of Medicare enrollees as of December 31 of the sample-selection year (benefit year).
- This allows the MCBS to include current-year enrollees (i.e., those who enroll in Medicare between January 1 and December 31 of the sample-selection year) in that year's Incoming Panel.



Questionnaire Overview

- The MCBS Questionnaire features a complex design that enables CMS to collect detailed longitudinal data on a wide range of topics for both community and facility-residing beneficiaries.
- The MCBS Questionnaire is broadly structured as follows:
 - Two components: Community and Facility
 - Two types of interviews within each component: Baseline and Continuing
 - Two types of sections within each type of interview: Core and Topical
- The questionnaire flow varies based on the component and type of interview, as well as other factors such as the round of data collection (fall, winter, or summer), whether the beneficiary is alive or deceased, and whether the interview is conducted with the beneficiary or a proxy.

Community Questionnaire Sections

Core Section Content

- Socio-Demographics including Income and Assets
- Health Insurance
- Health Status & Functioning: Chronic Conditions, Health Status, Preventive Health, Nicotine and Alcohol Use
- Experiences with Care: Access and Satisfaction with Care, Usual Source of Care
- Health Care Utilization: Dental, Vision, Hearing, ER, IP, OP, IU, HH, MP, OM, PM, FA
- Health Care Cost: Cost, who paid?

Topical Section Content

- Housing Characteristics
- Health Behaviors
- Drug coverage and patterns of use
- Chronic Pain
- Knowledge and Decision Making
- COVID-19



Facility Instrument Sections

- The sections in the Facility Instrument parallel those in the Community Questionnaire and are administered according to the same rotation schedule as the Community Questionnaire sections.
- Unlike the Community Questionnaire, the Facility Instrument is tailored to be administered to Facility staff instead of the actual beneficiary, and is modeled after the Minimum Data Set (MDS) assessment.
- The beneficiary does not answer questions during a Facility interview; instead, facility administrators and staff answer questions about the beneficiary.



Facility Instrument Sections (continued)

Core Section Content

- Socio-Demographics
- Health Insurance
- Health Care Utilization
- Health Care Cost
- Health Status
- Facility Characteristics

Topical Section Content

- None



New Content:

- 2019 and 2020: Impact of COVID-19 on beneficiaries including vaccine uptake
- 2020: Introduction of cognitive screening questions including backwards counting, date naming, object naming, naming the president/vice-president
- 2021: Detailed questions on internet usage, questions on malnutrition and dietary supplement use
- 2022: Physical measures including: Timed walk, sit to stand, measured height and measure weight, and grip strength



Physical Measures:

- Delayed implementation due to COVID-19 pandemic
- Multiple measures being implemented using protocols from the National Social Life Health and Aging Project (NSHAP) including: measure height, measured weight, balance, gait speed (timed walk), and chair stands
- Grip Strength using the NIH Toolbox® for assessment of Neurological and Behavioral Function.

Data Products and Documentation Overview

- CMS provides users with multiple ways to access MCBS data and a wide array of documentation that is publically available on the CMS MCBS website.
- Data users have several options to access MCBS data:
 - MCBS data are made available via **two annual Limited Data Set (LDS) releases requiring a data use agreement** and a **Public Use File (PUF)**. These releases are accompanied by detailed *Data User's Guides* as well as other technical documentation.
 - CMS also releases an annual **Chartbook** based on the LDS files that identifies key estimates and survey findings and includes free downloadable charts for use by the research community.
- MCBS documentation (including User Tutorials, *Data User's Guides*, *Methodology Reports*, codebooks, and questionnaire specifications) is publically available on the CMS website.

MCBS Documentation and Resources

- CMS provides a wide array of MCBS documentation that is publically available on the CMS MCBS website.
 - Annual questionnaire specifications
 - Data documentation including *Data User's Guides*, *Methodology Reports* and codebooks for the LDS files
 - Annual Chartbooks and data tables with key estimates
 - Annual bibliographies
 - Topical data briefs
 - User tutorials to learn how to analyze the data

CMS Website:
<https://www.cms.gov/Research-Statistics-Data-and-Systems/Research/MCBS/index.html>

Medicare Current Beneficiary Survey (MCBS)

[Questionnaires](#)

[Data Documentation and Codebooks](#)

[Data Tables](#)

[Bibliography](#)

[Data Briefs and Tutorials](#)

Thank you!

Want to know more?

Visit our website:
www.cms.gov/mcbs



National Survey of Older Americans Act Participants

Kristen Robinson, PhD

National Survey of Older Americans Act Participants

- **Home-Delivered Meals**
- **Congregate Meals**
- Assisted Transportation
- Case Management
- Homemaker
- Family Caregiver

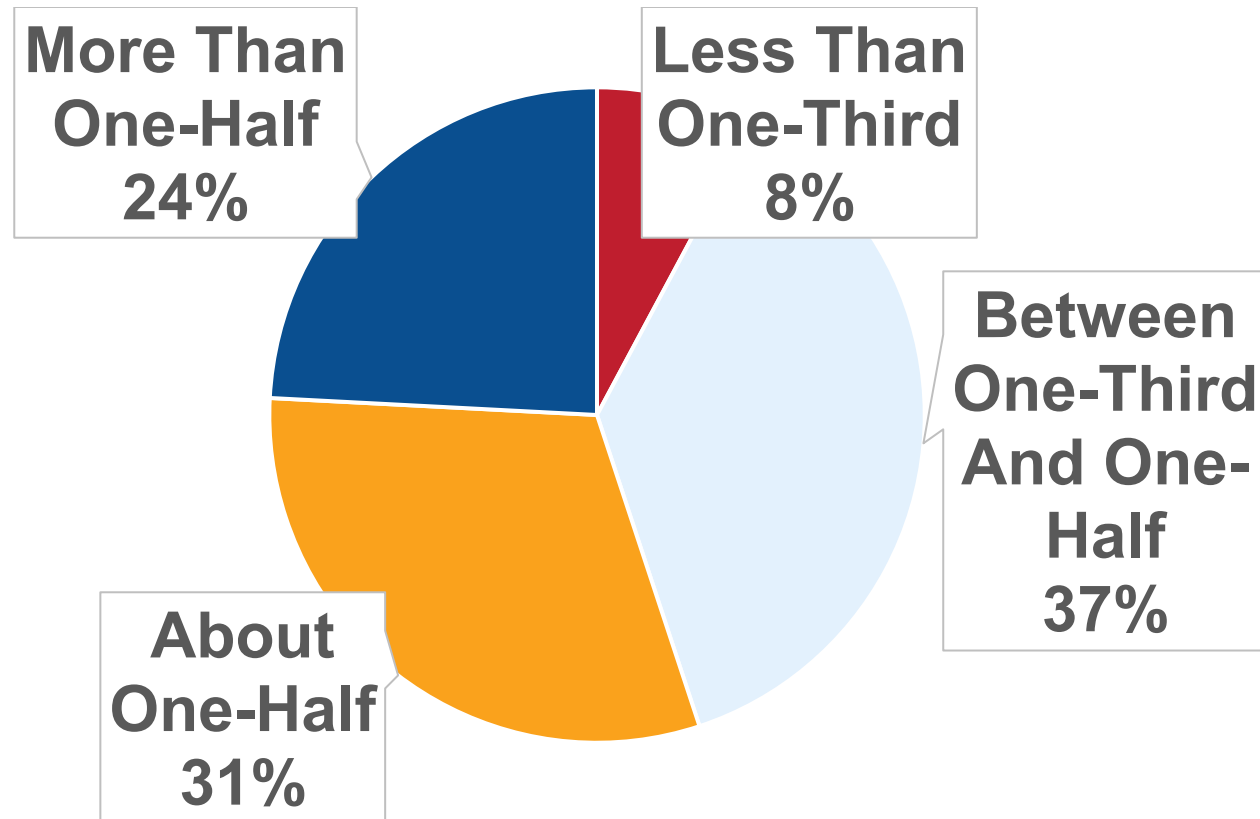
NSOAAP – Overview

- The National Survey of Older Americans Act Participants (or NSOAAP) is:
 - An annual collection of surveys conducted by the Administration on Aging
 - Administered as a telephone survey to a random sample of OAA service recipients
- Service recipient demographics, health, and wellbeing indicators are also collected

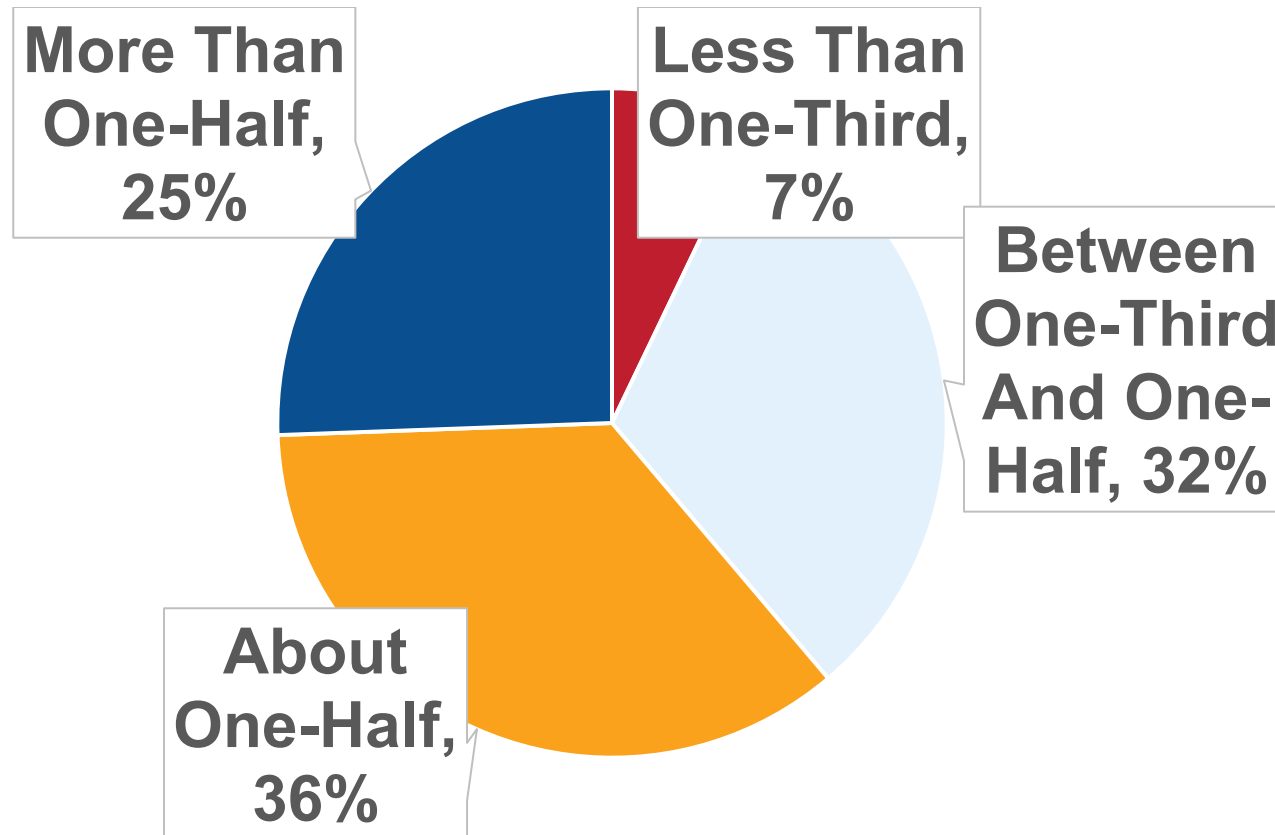
NSOAAP – Purpose

- To provide outcome information to the aging network that demonstrates the effect of services and illustrates client reported quality of service
- Examine the extent to which the goals of the OAA are met
- Inform program design
 - Understand program and service trends
 - Inform technical assistance for the aging network
- Support agency budget requests to Congress

Congregate Meal Clients: The portion of food one meal represents



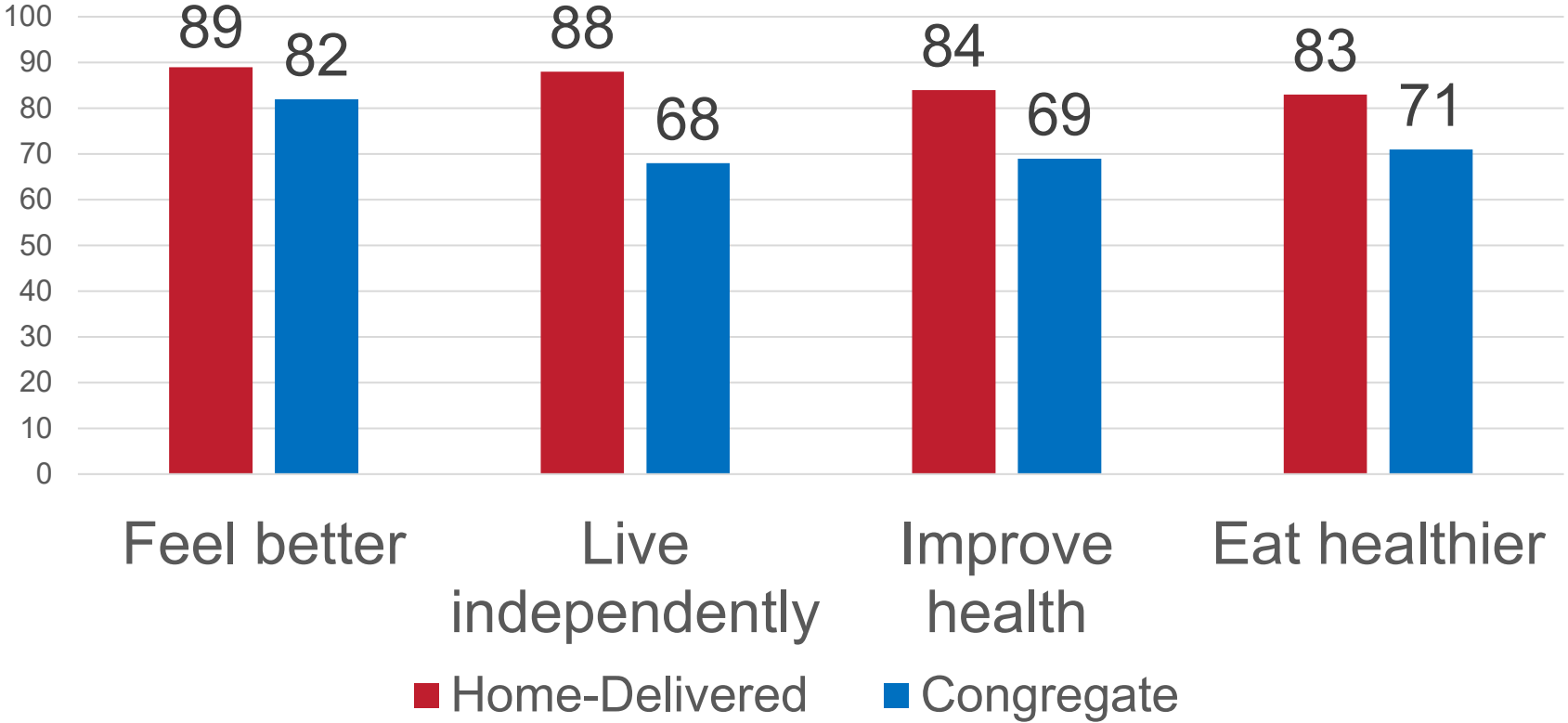
Home-Delivered Meal Clients: The portion of food one meal represents



Selected Home-Delivered and Congregate Meal Questions

- Do you eat healthier foods as a result of the meals program?
- Does receiving home-delivered meals improve your health?
- Do the meals help you to continue to live independently?
- As a result of receiving meals, do you feel better?

Home-Delivered and Congregate Meal Questions



USDA Questions

I'm going to read you several statements that people have made about their food situation.

For the first two statements, please tell me whether the statement was often true, sometimes true, or never true for you in the last 12 months.

USDA Questions (con't)

- The food that I bought just didn't last, and I didn't have money to get more.
- I couldn't afford to eat balanced meals.
- In the last 12 months, did you ever cut the size of your meals or skip meals because there wasn't enough money for food? [Yes/No]

Changes Due to COVID-19

- Canceled 2020 NSOAAP
- Convened Advisory Workgroup to guide the development of COVID-19 module
- Content specific subgroups:
 - Nutrition Services
 - Overall Well-being
 - Caregiver Support

Advisory Workgroup Methodology

- Discussed and prioritized what changes in services due to COVID-19 affected clients the most
- Presented thematic analysis of service issues
- Reviewed and edited, ranked, and voted on questions for the COVID module including:
 - Which module items need to be prioritized
 - Which service-related items will not be relevant and, thus, dropped for 2021 NSOAAP

Purpose of COVID-19 Module

- To measure the effect that the pandemic has had on older adults' use of OAA programs and services during the past year.
- To measure the impact of stay-at-home orders and quarantine on OAA clients' ability to receive services, their satisfaction of services, and their well-being.
- To measure the impact of social distancing on feelings of loneliness.

COVID Module

Interviewer: “I am going to read you two statements that people have made about their food situation at home. Thinking about you and your household, please tell me if the statements is often true, sometimes true, or never true:”

COVID Module (con't 1)

- Since COVID, I worry whether food would run out before more can be bought or more can be delivered or picked up from a meals program.
- Since COVID, the food that I have just didn't last and I didn't have money to get more.

COVID Module (con't 2)

In the past 12 months, have you lost or gained weight without trying to lose or gain this weight?

- Yes, I gained 10 pounds or more
- Yes, I gained less than 10 pounds
- No, I stayed the same
- Yes, I lost 10 pounds or more
- Yes, I lost less than 10 pounds
- Don't know
- Yes, but I tried to lose or gain weight (if said)

COVID Module (con't 3)

In the past 12 months since COVID, have you tried to get meals, food, or groceries from {AAA} but were unable to? If Yes, why?

- No response from {AAA}
- You were put on a waiting list
- You were told that you could not have more meals/food
- You were told there was no more food available
- You were told there was not enough staff
- You were unable to pick up meals or get to the pickup place
- Other

COVID Module (con't 4)

In the past 12 months, compared to before COVID, would you say that how much you rely on meals or food from {AAA} has:

- Increased
- Stayed the same
- Decreased

COVID Module (con't 5)

In the past 12 months since COVID, how have you been receiving meals or food from {AAA}:

- Grab-n-go service (such as pick-up, carryout, drive-through)
- Meals delivered to your home
- Groceries or food boxes delivered to your home
- Food box with random ingredients
- Food box (containing food items to make meals; may come with instructions)
- Sit-down meal at a senior center or other place
- Other (specify)

COVID Module (con't 6)

In the past 12 months since COVID, which type of food or meal do you most often receive from {AAA}?

- A hot meal
- A cold meal like a sandwich or submarine
- A frozen meal that needs to be heated up and/or microwaved
- Shelf-stable – unopened food in their original can, jar, or box.
- Delivery of groceries that you ordered
- Food box (containing food items to make meals; may come with instructions)
- Food box with random ingredients

COVID Module (con't 7)

In the past 12 months since COVID, have you eaten any of your {AAA}-provided meals in an in-person group setting? If No, what have you missed the most about the in-person meal program?

- Eating a good meal
 - Seeing friends, peers, staff
 - Someplace to go and get out of the house
 - Socializing in general
 - The feeling of being supported by others.
 - Accessing other programming: classes, activities
 - Other, specify:
-
- If yes, how? Specify:

Evaluation of OAA's Title III Nutrition Services Program

- Process Evaluation
- Cost Study
- Client Outcome Study

<https://acl.gov/programs/program-evaluations-and-reports>

Thank you!

AGID.ACL.GOV

Kristen.Robinson@ACL.HHS.GOV

Questions?



Links to Resources

- Interested in nutrition? Join our coalition! Info is on the Defeat Malnutrition Today website on how to join as an individual or an organization: <http://defeatmalnutrition.today>
- New state toolkits: <https://www.defeatmalnutrition.today/advocacy-toolkits>
- Resources for professionals: <https://www.defeatmalnutrition.today/resources>
- Resources for older adults: <https://www.defeatmalnutrition.today/pt-resources>
- Updated National Blueprint: <https://defeatmalnutrition.today/blueprint>
- mponder@matzblancato.com, info@defeatmalnutrition.today