

Screen and Intervene: Essential Steps to Reduce Food Insecurity in Iowa

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MEASURING FOOD INSECURITY

Utilizing BRFSS State-Level Data



BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)

- Cross-sectional telephone surveillance system active in all 50 states, the District of Columbia, Puerto Rico, Guam and Virgin Islands
- Landline and cellular telephones
- Collects health information from a representative sample of non-institutionalized adults aged 18 years or older on:
 - Health risk behaviors
 - Clinical preventive health practices
 - Health care access (primarily related to chronic disease and injury)
- The BRFSS provides flexible, timely, and ongoing data collection that allows for state-to-state and state-to-nation comparisons.



BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)

- Informs CDC's key winnable public health battles

- Advances IDPH's role as chief health strategist through assessing current status of Iowa's top health issues

Tobacco

Nutrition, Physical Activity, Obesity

Teenage Pregnancy

Food Safety

Healthcare Associated Infections

HIV

Motor Vehicle Accidents



BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM (BRFSS)

- BRFSS is organized in 3 sections:
 - Core
 - Optional modules
 - State-added questions
- Provides a sound basis for developing and evaluating public health programs, including programs targeted to reduce disparities in health outcomes.
- Collects information on individual health-related behavior as well as access to utilization of healthcare system through survey questions
- Includes community level measures



SOCIAL DETERMINANTS OF HEALTH (SDOH)

- Conditions in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.

- Now recognized to be the primary drivers of health outcomes across the lifespan

Access to care account for 10 -15% of preventable deaths in the US (RWJ Commission to Build a Healthier America).

Social factors such as housing, education, income, transportation, access to healthy affordable food, and employment greatly influence the health and quality of life in communities



SOCIAL DETERMINANTS OF HEALTH (SDOH)

Figure 1

Social Determinants of Health

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment	Housing	Literacy	Hunger	Social integration	Health coverage
Income	Transportation	Language	Access to healthy options	Support systems	Provider availability
Expenses	Safety	Early childhood education		Community engagement	Provider linguistic and cultural competency
Debt	Parks	Vocational training		Discrimination	Quality of care
Medical bills	Playgrounds	Higher education		Stress	
Support	Walkability				
	Zip code / geography				

Health Outcomes
Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations

- Measures available in the BRFSS:

- Economic instability
- Food insecurity
- Housing insecurity
- Neighborhood safety and design
- Stress
- Social support system

BRFSS FOOD INSECURITY QUESTIONS

SASDHQ4

For the next two statements, please tell me whether the statement was often true, sometimes true, or never true for you in the last 12 months (that is, since last [CATI NOTE: NAME OF CURRENT MONTH]). The first statement is, “The food that I bought just didn’t last, and I didn’t have money to get more.”

Was that often, sometimes, or never true for you in the last 12 months?

- 1 Often true,
- 2 Sometimes true, or
- 3 Never true

Do not read:

- 7 Don’t Know/Not sure
- 9 Refused

SASDHQ5

I couldn’t afford to eat balanced meals. Was that often, sometimes, or never true for you in the last 12 months?

- 1 Often true,
- 2 Sometimes true, or
- 3 Never true

Do not read:

- 7 Don’t Know /Not sure
- 9 Refused



BRFSS DATA SNAPSHOTS

- Disaggregate data by demographic characteristics:
 - Sex
 - Household income
 - Education level
 - Race/Ethnicity
 - Sexual orientation
 - Disability
 - Home ownership
 - Employment
 - Industry and occupation
- Ability to perform cross-analysis between measures and outcomes



BRFSS DATA SNAPSHOTS

DEMOGRAPHIC GROUPS	Iowa seniors experiencing food insecurity	
	Prevalence Rate (%)	C.I. (95%)
TOTAL	6.9	(5.8 - 8)
SEX		
Male	5.6	(4.1 - 7.2)
Female	7.9	(6.3 - 9.5)
RACE/ETHNICITY		
White/non-Hisp.	6.3	(5.2 - 7.4)
Black/Non-Hisp.	-	-
Other/Non-Hisp.	-	-
Hispanic	-	-
AGE GROUP		
60 - 64	9.6	(7.2 - 12.1)
65 - 69	6.7	(4.6 - 8.8)
70 - 74	5.1	(3.1 - 7.2)
75+	5.3	(3.3 - 7.4)

DEMOGRAPHIC GROUPS	Iowa seniors experiencing food insecurity	
	Prevalence Rate (%)	C.I. (95%)
EDUCATION		
Less than H.S.	25.4	(17 - 33.8)
H.S. or G.E.D.	6.5	(4.8 - 8.2)
Some Post-H.S.	6.1	(4.3 - 7.8)
College Graduate	2.1	(1.1 - 3)
HOUSEHOLD INCOME		
Less than \$15,000	39.3	(30.5 - 48.2)
\$15,000- 24,999	16	(12 - 20)
\$25,000- 34,999	6.7	(3.2 - 10.2)
\$35,000- 49,999	2	(0.7 - 3.3)
\$50,000- 74,999	1.2	(0 - 2.5)
\$75,000+	0.4	(0 - 0.9)



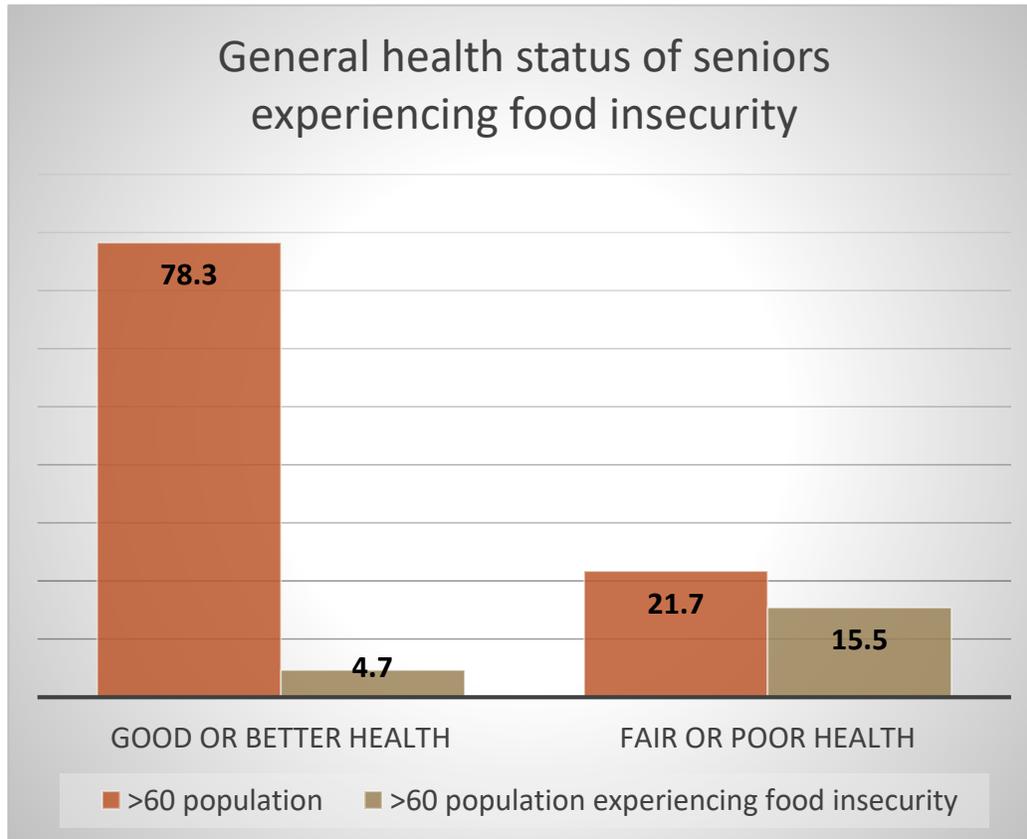
BRFSS DATA SNAPSHOTS

- Food insecurity associated with poorer health outcomes:
 - General health status
 - Good, very good or excellent health
 - Fair or poor health
 - Health-related quality of life:
 - 14+ days of poor physical health days
 - 14+ days of poor mental health days
 - Underweight
 - Chronic disease



BRFSS DATA SNAPSHOT

GENERAL HEALTH STATUS

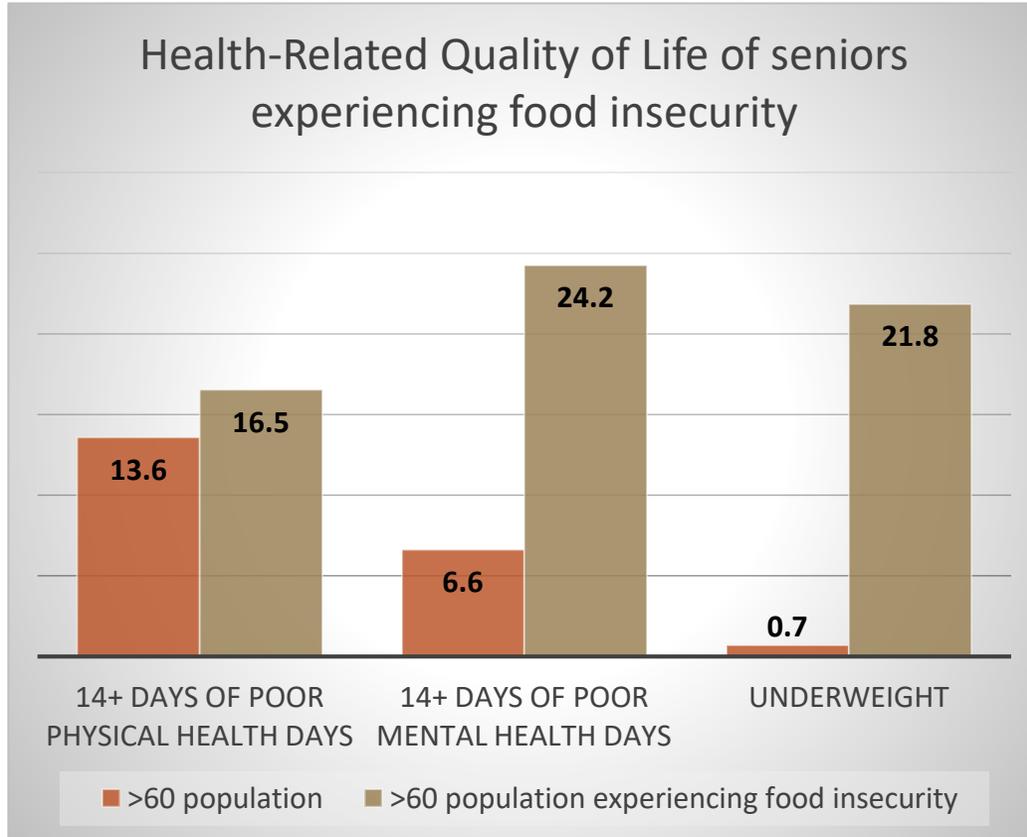


BRFSS Measure	>60 population	>60 population experiencing food insecurity
Good or Better Health	78.3	4.7
Fair or Poor Health	21.7	15.5



BRFSS DATA SNAPSHOT

HEALTH-RELATED QUALITY OF LIFE



BRFSS Measure	>60 population	>60 population experiencing food insecurity
14+ Days of poor physical health days	13.6	16.5
14+ days of poor mental health days	6.6	24.2
Underweight	0.7	21.8



QUESTIONS?

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MercyOne Community Health Workers

Screening for Social Determinants of Health

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MERCYONESM



MercyOne CHWs

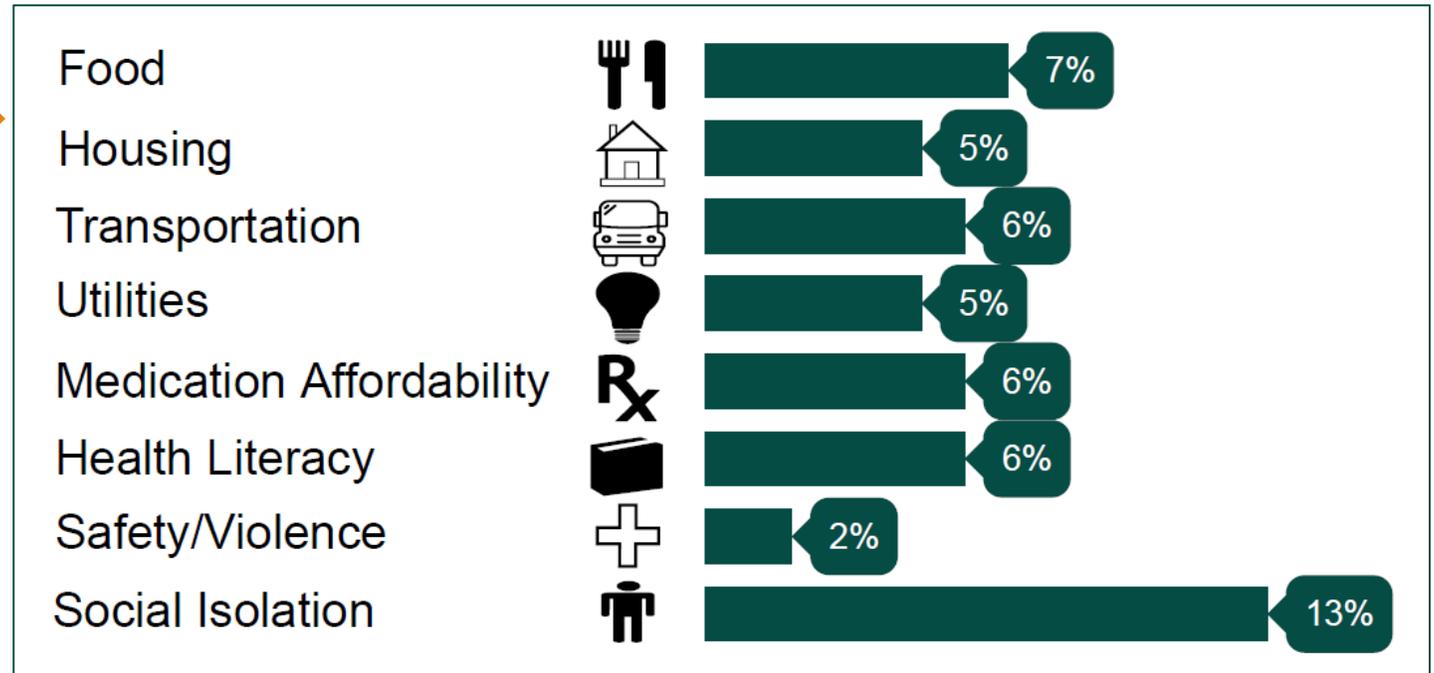
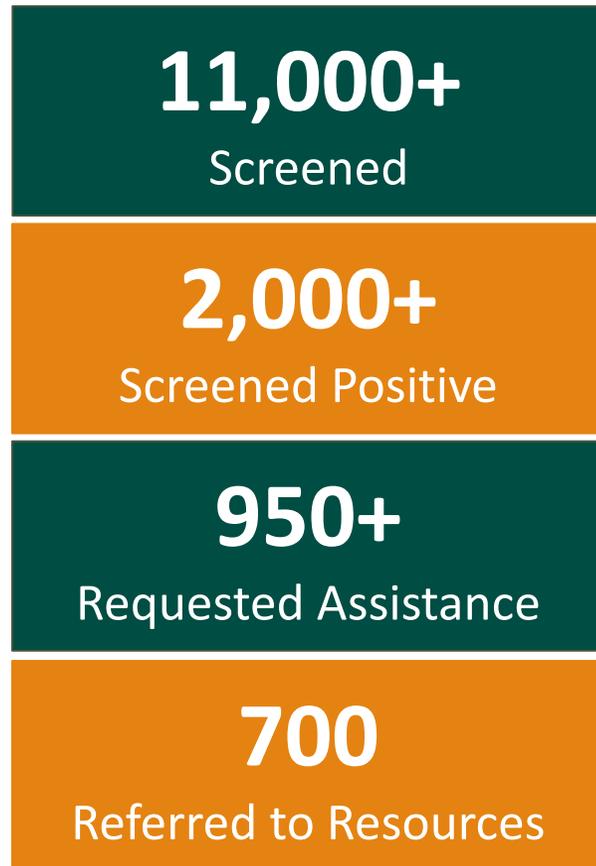
Who We Are & What We Do

- MercyOne's "Total Health Road Map" project is a grant funded initiative to identify & address Social Determinants of Health within our patient population.
- CHWs are located in the clinics & are knowledgeable of the area's resources.
 - Currently screening in three Central Iowa clinics (South, East Village, Centerville) & will soon add three more Central Iowa clinics (Indianola, Ankeny, Urbandale).
- All patients in our clinic are welcome to complete our screening for SDoH needs.
 - We currently screen for needs in the following areas:
Food, Housing, Utilities, Financial Strain, Transportation, Social Isolation, Personal Safety & Health Literacy
- We are available to meet with patients the same day in the clinic.
 - We can also meet anywhere in the community to offer support while a patient navigates/accesses a resource for the first time.
- Working with a CHW is *free & voluntary*.
 - There is no time-limit to our partnership with patients.
 - We are available to help as long as needed.

MercyOne CHWs

- Ask patients what is most important today and address their self-identified need first.
 - Avoid pushing our opinions / priorities on them.
 - We do not want to overwhelm with too much information at once.
- Identify support systems (Family, Friends, Church, Neighbor, Pets, etc.)
- Ask what resources have already been utilized.
 - People are resourceful and have experience finding ways to meet their needs.
 - We do not want to waste anyone's time by discussing information that is not new.
- Encourage setting a detailed goal.
 - More likely to follow through on a plan if it is specific.
- Follow-up with everyone after our initial encounter.
 - We care about you and want you to be successful at meeting your needs.
 - We want to make sure we are recommending the most useful resources.

MercyOne SDoH Screening Results



Community Health in Rural Iowa

Benefits

- Referrals to resources typically process faster because they have shorter waiting lists.
- Hospital is an anchor in the community.
- Easier to make an impact on the area as a whole (assist a larger % of our patients).

Challenges

- Limited financial resources
- Some SDoH only have one resource in the area, they become over-accessed and have limited funds. Out of town travel is almost always required to get specialty services or to have more specific SDoH needs met
- Limited public transportation (No bus routes / Taxi / Uber / Lyft)
- Privacy issues - “Everyone knows everyone.”

Barriers to Assistance

Why don't we ask for help or use the resources once they are offered to us?

- Pride, Embarrassment, Fear
 - Someone “finding out”
 - Seeing someone we know
- Socioeconomic Conditions
 - Poverty & other life stresses
- Easier to stay home than it is to be vulnerable
- Availability of Resources:
 - Safe Housing (without long waiting lists)
 - Fresh Food / Food Deserts
 - Food that meets our dietary requirements, low sodium, diabetic
- “Iowa Nice”- Taking from others who need more
- Physical / Cognitive
 - Unable to physically navigate a resource
 - Dementia, Dyslexia, Anxiety
- Vision or Hearing Difficulties
- Communication / ESL
- Transportation
- Other Personal Barriers:
 - Discrimination, Racism, distrust of government

Ultimately, we assist patients

- Get the help they need
 - Break barriers to accessing community supports & resources
 - Receive better healthcare
 - Build confidence
 - Achieve goals
 - Live longer, healthier lives!
-

Our job is to *see* things from other perspectives,
to *accept* others where they are (at the time),
to *understand* that change is difficult,
and to *respect* everyone we meet.



I-Smile Silver Pilot Project

Modeled after the statewide I-Smile program for children and pregnant women, I-Smile Silver is developing local systems that help adult and older Iowans access oral health services and maintain overall health.





Oral Health Impacts Nutrition

The mouth serves as the body's primary means to receive nutrition and hydration.

Nearly half of I-Smile Silver participants report avoiding certain foods in the past year due to problems with their mouth

- Primary reason: inability to access dental care (ill-fitting dentures, decay, oral lesions, gum disease, dry mouth)

Coordinating Care Beyond the Mouth



The I-Smile Silver Coordinator

“Connecting adult and older Iowans to community resources to improve and maintain overall health”

National Efforts: Screening for Food Insecurity and Malnutrition in Older Adults

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RETIRED- IOWA DEPARTMENT ON AGING



Screening for Food Insecurity

Hunger Vital Sign™ Two Question Screening

“Within the past 12 months we worried our food would run out before we got money to buy more.”

“Within the past 12 months the food we bought just didn’t last and we didn’t have money to get more.”

Responses “sometimes true” or “often true” to either or both questions should **trigger a referral** for food security support .

Food Insecurity and Health- A Tool Kit for Physicians and Health Care Organizations

Feeding America. <https://hungerandhealth.feedingamerica.org/wp-content/uploads/2017/11/Food-Insecurity-Toolkit.pdf>



Malnutrition Screening Tool - MST

The MST is a validated tool

- Weight loss (score 0 or 2)
- Amount of weight lost (score 1-4)
- Poor food intake or poor appetite (score 0 or 1)

A score ≥ 2 = risk for malnutrition

alliance | Malnutrition Screening Tool (MST)
to Advance Patient Nutrition

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 nutrition for your patients at risk of malnutrition.

Notes: _____

Replaces MST at November 2009 UG-008-004

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www.nutrition.com

alliance | AMSN | 4M | stm | Alliant
These health organizations are dedicated to the education of effective hospital nutrition practices to help improve patients' medical outcomes and support all clinicians in collaborating on hospital-wide nutrition procedures. The Alliance to Advance Patient Nutrition is made possible with support from Abbott Nutrition.



Integrate Nutrition Care into Care Transitions



Defeat Malnutrition Today Infographic.

https://www.defeatmalnutrition.today/sites/default/files/documents/Dialogue%20Infographic_Malnutrition%20Transitions%20of%20Care_20180806.pdf

Ohio Senior Malnutrition and Food Insecurity Screening Tool

Older Adult Malnutrition and Food Insecurity Screening

The Ohio Department of Health (ODH) recently convened a multi-stakeholder statewide commission to look at malnutrition in Ohio, and issued a report with policy recommendations and local strategies to address malnutrition (https://www.ohio.gov/web/odh/4779a1_48c4e17706-7f1e49397609b760c156.pdf).

Partners in Central Ohio felt that the time had come to develop a common, regional plan to address senior malnutrition and ways to implement the ODH Commission Report's policy recommendations. The first result of this work is the following tool that all providers—physicians (independent practices and hospitalists/specialists), nurses, social service agencies, care coordinators, and registered dietitians—can utilize to quickly identify BOTH malnutrition AND food insecurity risk with their older adult patients/clients, as well as provide direction and resources regarding next steps based on the results.

MALNUTRITION SCREENING TOOL ¹	
1. Have you recently lost weight without trying?	
No	0
Not Sure	
Yes	1
If yes, how much weight have you lost?	
2-15 lbs	1
16-25 lbs	2
26-33 lbs	3
34 or more lbs	4
Unsure	2
Question 1 Score:	
2. Have you been eating poorly because of decreased appetite?	
No	0
Yes	1
Question 2 Score:	
Total Score:	

Results

Questions 1 & 2 Total	
Score of 0-1	Patient is not at risk for malnutrition; screen again in 1 year or if condition changes.
Score of 2 or more	Patient is at risk for malnutrition and needs a referral to registered dietitian and/or a healthcare provider and ongoing monitoring.

¹ Ferguson PL, et al. Nutrition. 2005;15(1):68-84.

Resources

- Find a [Registered Dietitian Nutritionist \(RD/N\)](#)
- Congregate Meals:** served in group settings, provide nutritious meals and opportunities for social interactions.
- Home Delivered Meals:** often referred to as "meals on wheels," provides nutritious meals delivered to the door of older adults with limited mobility, who are homebound, or have a lack of transportation.

Helpful Conversation Starters:

- Malnutrition can be caused by not getting enough of the nutrients your body needs to stay healthy or recover. You can be underweight or overweight and be malnourished. Have you ever been screened for malnutrition before?
- Have there been any changes in your health or life that may have caused weight loss?

For more information, visit the [Ohio Department of Health](#).

FOOD INSECURITY SCREENING TOOL ^{1, 2}	
1. Within the last 12 months, I worried whether my food would run out before I had money to buy more.	
Often True	
Sometimes True	
Never True	
2. Within the last 12 months, the food I bought just didn't last and I didn't have money to get more.	
Often True	
Sometimes True	
Never True	

Saved to this PC



Results

Questions 1 & 2 Responses	
Never True for both questions	Patient is not food insecure; screen again in 1 year or if living conditions change.
Often True/Sometimes True for one or both questions	Patient should be referred to meal services (see resources section) and/or a foodbank/food pantry; continue to monitor.

Resources

- Congregate Meals:** served in group settings, provide nutritious meals and opportunities for social interactions.
- Home Delivered Meals:** often referred to as "meals on wheels," provides nutritious meals delivered to the door of older adults with limited mobility, who are homebound, or have a lack of transportation.
- Senior Farmer's Market Nutrition Program:** provides coupons for older residents that can be redeemed for fresh foods from farmers' markets and roadside stands (available in select counties).
- Commodity Supplemental Food Program:** supplements the diets of older adults with nutritious foods.
- Supplemental Nutrition Assistance Program (SNAP):** provides nutrition benefits to supplement the food budget of those in need.

Helpful Conversation Starters:

- Just like your medication is important to keep you healthy, food is medicine too. Have you ever learned about the importance of getting enough nutritious food before?
- Who typically does the shopping for food in your home?
- I noticed you are having trouble getting enough healthy foods. Are you aware of the options available to you to access food or resources to buy food?

For more information, visit the [Ohio Department of Health](#).

¹ Meyer DL, et al. Nutrition. 2005;15(1):71-80.
² Gunderman E, et al. Public Health Nutr. 2003;3(2):163-71.

Call to Action



- Identify validated screening tools- Consider using common tool across system/state so results can be aggregated and connected to national efforts
- Look for opportunities to incorporate screening for the people you serve
- Develop process/workflow to address identified needs
- Develop and maintain community nutrition resource list
- Connect people with resources they need
- Document outcomes

Resources

Defeat Malnutrition Today

<https://www.defeatmalnutrition.today/>

Malnutrition Quality Improvement Initiative
(Mqii)

<http://malnutritionquality.org/mqii-toolkit.html>

Aspen Malnutrition Toolkit

[https://www.nutritioncare.org/Guidelines_and_Clinical_Resources/Toolkits/Malnutrition Toolkit/](https://www.nutritioncare.org/Guidelines_and_Clinical_Resources/Toolkits/Malnutrition_Toolkit/)

Food Insecurity Screening Toolkit: Connecting with Community Resources. Feeding America

<https://hungerandhealth.feedingamerica.org/resource/food-insecurity-screening-toolkit/>

