

# OUR TIPPING POINT

**MEALS ON WHEELS**  
ANNUAL CONFERENCE & EXPO  
DENVER, CO | AUGUST 29-31, 2017



## Assessing and Leveraging Food Insecurity and Malnutrition Across the Care Continuum



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Hunger receded after the recession but not for older Americans, U.S. f... <https://www.washingtonpost.com/news/wonk/wp/2017/08/17/hunger->

The Washington Post

Wonkblog

# Hunger receded after the recession but not for older Americans, U.S. figures show

By Peter Whoriskey August 17

Since the recession, many measurements of the U.S. economy improved: The stock market rallied, unemployment fell and the number of Americans worried about getting enough food began to drop.

Yet for all that, one important measure has lagged.

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## Background – Food Insecurity and Malnutrition in Older Adults

- Food insecurity – lack of access to nutritious food for an active, healthy life.
- Recent reports suggest that:
  - 14.7% of seniors face the threat of hunger,
  - 8.1% face the risk of hunger,
  - 3.1% are facing hunger.
- This translates into 9.8 million, 5.4 million, and 2.1 million seniors, respectively.

Gunderson C, Ziliak K. The State of Senior Hunger - Supplement, 2015. National Foundation to End Senior Hunger.  
Available at: [https://www.nfesh.org/wp-content/uploads/2013/03/State\\_of\\_Senior\\_Hunger\\_2015-Supplement.pdf](https://www.nfesh.org/wp-content/uploads/2013/03/State_of_Senior_Hunger_2015-Supplement.pdf)

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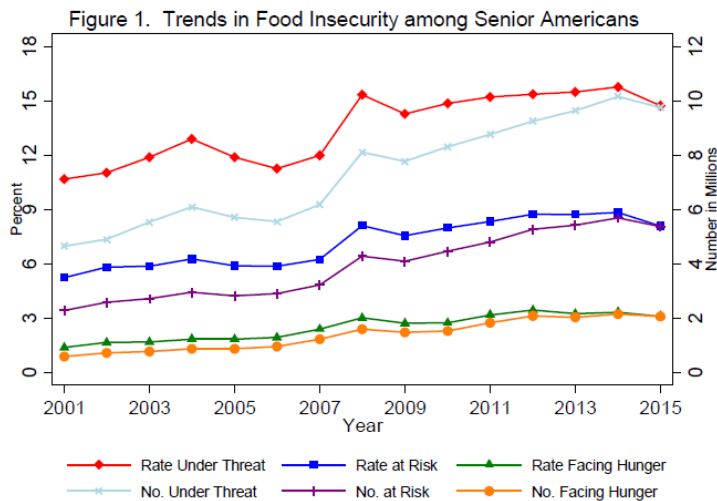
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## Measuring Food Insecurity, Hunger and Related Risks

Gunderson & Ziliack, 2017	USDA Classification	No. Affirmative Responses to FSS
Fully Food Secure	Fully Food Secure	0
Threat of Hunger	Marginally Food Insecure	1 or more
Risk of Hunger	Food Insecure	3 or more
Facing Hunger	Very Low Food Secure	8 or more (HH w/ kids) 6 or more (HH w/o kids)

Gunderson C, Ziliak K. *The State of Senior Hunger - Supplement, 2015. National Foundation to End Senior Hunger.*  
Available at: [https://www.nfesh.org/wp-content/uploads/2013/03/State\\_of\\_Senior\\_Hunger\\_2015-Supplement.pdf](https://www.nfesh.org/wp-content/uploads/2013/03/State_of_Senior_Hunger_2015-Supplement.pdf)

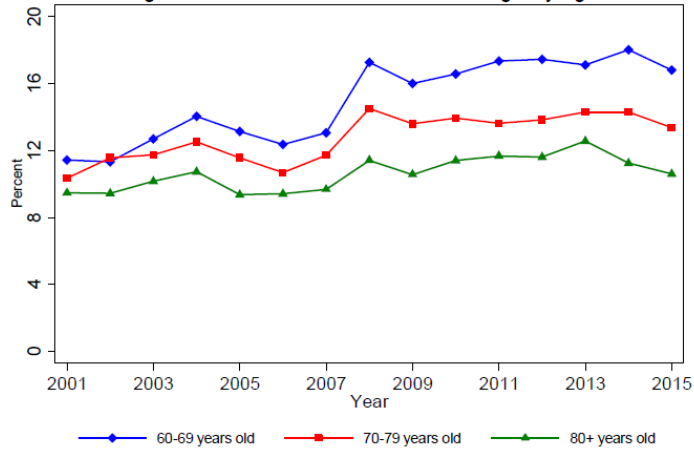
## State of Senior Hunger in America: 2015



Gunderson C, Ziliak K. *The State of Senior Hunger - Supplement, 2015. National Foundation to End Senior Hunger.*  
Available at: [https://www.nfesh.org/wp-content/uploads/2013/03/State\\_of\\_Senior\\_Hunger\\_2015-Supplement.pdf](https://www.nfesh.org/wp-content/uploads/2013/03/State_of_Senior_Hunger_2015-Supplement.pdf)

## State of Senior Hunger in America: 2015

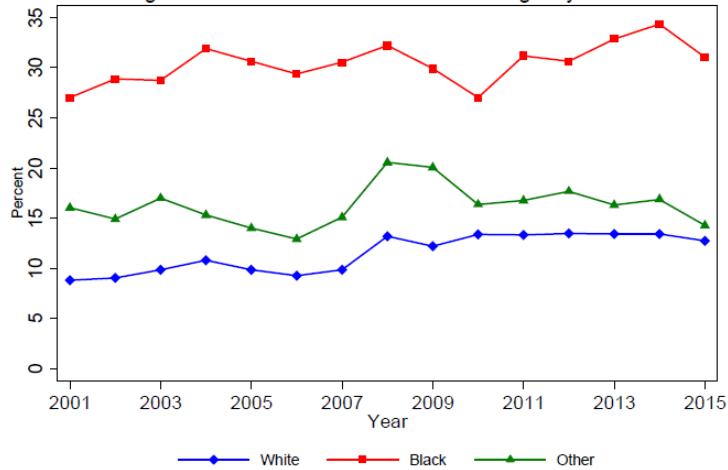
Figure 5a. Trends in Threat of Senior Hunger by Age



Gunderson C, Ziliak K. The State of Senior Hunger - Supplement, 2015. National Foundation to End Senior Hunger. Available at: [https://www.nfesh.org/wp-content/uploads/2013/03/State\\_of\\_Senior\\_Hunger\\_2015-Supplement.pdf](https://www.nfesh.org/wp-content/uploads/2013/03/State_of_Senior_Hunger_2015-Supplement.pdf)

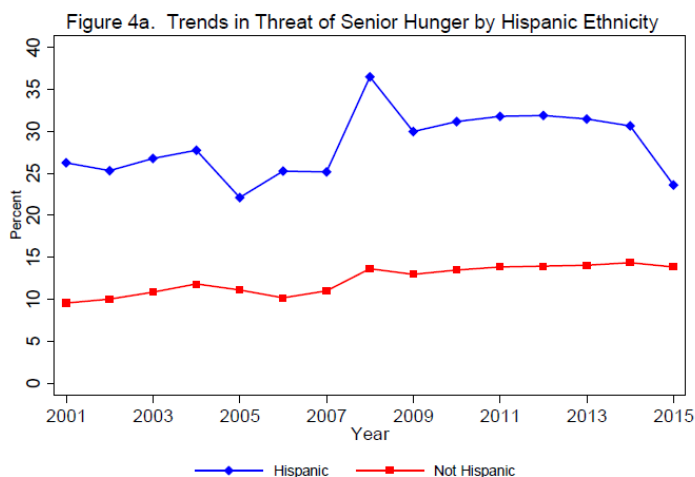
## State of Senior Hunger in America: 2015

Figure 3a. Trends in Threat of Senior Hunger by Race



Gunderson C, Ziliak K. The State of Senior Hunger - Supplement, 2015. National Foundation to End Senior Hunger. Available at: [https://www.nfesh.org/wp-content/uploads/2013/03/State\\_of\\_Senior\\_Hunger\\_2015-Supplement.pdf](https://www.nfesh.org/wp-content/uploads/2013/03/State_of_Senior_Hunger_2015-Supplement.pdf)

## State of Senior Hunger in America: 2015



Gunderson C, Ziliak K. *The State of Senior Hunger - Supplement, 2015. National Foundation to End Senior Hunger.*  
Available at: [https://www.nfesh.org/wp-content/uploads/2013/03/State\\_of\\_Senior\\_Hunger\\_2015-Supplement.pdf](https://www.nfesh.org/wp-content/uploads/2013/03/State_of_Senior_Hunger_2015-Supplement.pdf)

## Background – Food Insecurity and Malnutrition in Older Adults

- From 2014 to 2015, there were statistically significant declines in the proportion of seniors facing the threat of hunger and at risk of hunger.
- Note: there was no change in those facing hunger. These declines were most pronounced among those living in metro areas, African Americans, Hispanics, and younger seniors.
- Rates of chronic disease, poverty, hunger, functional impairment differ among ethnically diverse groups, and are also associated with food insecurity.

Gunderson C, Ziliak K. *The State of Senior Hunger - Supplement, 2015. National Foundation to End Senior Hunger.*  
Available at: [https://www.nfesh.org/wp-content/uploads/2013/03/State\\_of\\_Senior\\_Hunger\\_2015-Supplement.pdf](https://www.nfesh.org/wp-content/uploads/2013/03/State_of_Senior_Hunger_2015-Supplement.pdf)

## MALNUTRITION: AN OLDER-ADULT CRISIS

Just 4 steps can help improve  
older-adult malnutrition care

**\$51.3 Billion**  
Estimated annual cost  
of disease-associated  
malnutrition in older  
adults in the US<sup>1</sup>



**Up to 1 out of  
2 older adults**  
are at risk for  
malnutrition<sup>2,3</sup>



**300%**  
The increase in  
healthcare costs  
that can be  
attributed to poor  
nutritional status<sup>4</sup>



**20% to 50%**  
of patients are  
malnourished or at  
risk for malnutrition  
on hospital admission<sup>4</sup>



**4 to 6 days**  
How long malnutrition  
increases length  
of hospital stays<sup>5</sup>

**Chronic health  
conditions**  
lead to increased  
malnutrition risk



**Malnutrition  
leads to more  
complications, falls,  
and readmissions<sup>6</sup>**



**Screen**  
all patients



**Assess**  
nutritional status



**Diagnose**  
malnutrition



**Intervene**  
with appropriate  
nutrition

**Focusing on malnutrition  
in healthcare helps:**

- ✓ Decrease healthcare costs<sup>7</sup>
- ✓ Improve patient outcomes<sup>7</sup>
- ✓ Reduce readmissions
- ✓ Support healthy aging
- ✓ Improve quality of healthcare

Support policies across the healthcare system that defeat older-adult malnutrition.

Learn more at [www.DefeatMalnutrition.Today](http://www.DefeatMalnutrition.Today)

References: 1. Snider JT, et al. JPEN J Parenter Enteral Nutr. 2014;38(2 suppl):775-855. 2. Kaiser MJ, et al. J Am Geriatr Soc. 2010;58(9):1734-1738. 3. Izawa S, et al. Clin Nutr. 2006;25(6):962-967. 4. Barker LA, et al. Int J Environ Res Public Health. 2015;12(2):534-527. 5. Correa MI, et al. Clin Nutr. 2003;22(3):235-239. 6. Norman K, et al. Clin Nutr. 2008;27(1):5-15. 7. Phillipson TJ, et al. Am J Manag Care. 2015;16(2):121-128.

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Key to addressing the  
issue of malnutrition is  
talking about it in terms  
that are easily  
understood.

## What Is Malnutrition?

Part of a monthly series from The Gerontological Society of America publication,  
*What We Know and Can Do About Malnutrition*

52% of adults  
think that getting  
older is a cause of  
malnutrition.  
True, but...



### Causes

*Did you know*

*Taking 3 or more  
prescription or over-the-  
counter medicines per day*

*Eating alone most of the  
time*

*Having 3 or more alcoholic  
drinks per day*

What does good  
nutrition mean?

Keeping a  
healthy weight

**Shopping List**  
*The right  
balance of  
protein, carbs,  
and fat.*



Eating  
meals  
per day **3**

Gerontological Society of America, 2016. Available at:  
<https://www.ncoa.org/center-for-healthy-aging/resourcehub/knowledge-base/infographics/>

Want to learn more about malnutrition?  
Visit [bit.ly/MalnutritionGSA](http://bit.ly/MalnutritionGSA)

This infographic is the result of a panel moderated through the Malnutrition Panel, including members of the Malnutrition Panel.

GERONTOLOGICAL  
SOCIETY OF AMERICA

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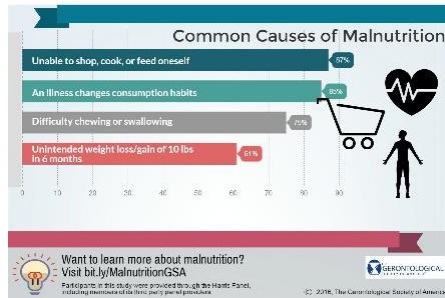
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# Identifying Malnutrition

Part of a monthly series from The Gerontological Society of America publication, *What We Know and Can Do About Malnutrition*

## Top Six Recognized Signs of Malnutrition

- 1  Feeling weak
- 2  Losing weight without trying
- 3  Becoming sick more often
- 4  Long recovery from illness
- 5  Digestive problems
- 6  Slow wound healing



Key to addressing the issue of malnutrition is sharing simple ways to recognize it and its common causes.

Gerontological Society of America, 2016. Available at: <https://www.ncoa.org/center-for-healthy-aging/resourcehub/knowledge-base/infographics/>

# Contributors of Nutritional Vulnerability Along the Continuum of Care



## In the community

- Risk factors:
- Physiological
  - Emotional
  - Social
  - Environmental
  - Psychological
  - Biomedical



## Upon admission

- 30 – 50% of patients are malnourished upon admission
- Absence of nutrition screening
- Focus on acute conditions



## During hospitalization

- Diet intake changes due to treatment
- Delay in receipt of nutrition consults
- Limited assistance during meal times
- Depression
- Immobility



## During care transitions

- Omission of nutrition during care planning at discharge
- Inconsistent transmission of nutrition care plan to new setting of care
- Limited follow up to support dietary adherence

Sauer A, Alish C, Strausbaugh K, West, K & Quatrara. Nurses needed: identifying malnutrition in hospitalized older adults. *NursingPlus Open*, 2016: 21- 25.

## Healthcare's Blind Side



4 IN 5  
physicians

surveyed (80%) are not confident  
in their capacity to address their  
patients' social needs



4 IN 5  
physicians

surveyed (85%) say patients' social needs are as  
important to address as their medical conditions.  
This is especially true for physicians (more than  
9 in 10, or 95%) serving patients in low-income,  
urban communities.



4 IN 5  
physicians

surveyed (85%) say unmet  
social needs are directly  
leading to worse health

Robert Wood Johnson Foundation, 2011. Healthcare's Blind Side. Available at: <http://www.rwjf.org/en/library/research/2011/12/health-care-s-blind-side.html>.

## Healthcare's Blind Side

- 4 in 5 physicians (87%) say the problems created by unmet social needs are problems for *everyone*, not only for those in low-income communities.
- 3 in 4 physicians surveyed (76%) wish the *health care system would pay* for connecting patients to needed services if deemed important for their overall health.
- Physicians also believe that they do not have the *time or staff support* to address their patients social needs.

Robert Wood Johnson Foundation, 2011. Healthcare's Blind Side. Available at: <http://www.rwjf.org/en/library/research/2011/12/health-care-s-blind-side.html>.



Physicians wish they could write prescriptions to help patients with social needs



1 out of 7

Prescriptions written weekly - an additional 26 prescriptions per week.

And if they could, here are the types of prescriptions they would write:

Fitness program 75%

Nutritious food 64%

Employment assistance 52%

Adult education 49%

Transportation assistance 47%

Housing assistance 43%

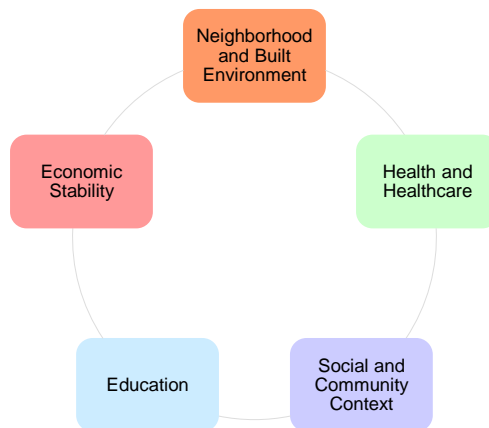
Robert Wood Johnson Foundation, 2011. *Healthcare's Blind Side*. Available at: <http://www.rwjf.org/en/library/research/2011/12/health-care-s-blind-side.html>.

## What are the Social Determinants of Health?

The structural determinants and conditions in which people are born, grow, live, work and age."

A solution:

- Integrating Nutrition Services to Healthcare Provision to Address Social Determinants of Health.



Haiman H, Artiga S. (2015) *Beyond health: the role of social determinants of health in promoting health equity*. Available at: <http://kff.org/disparities-policy/issue-brief/beyond-health-care-the-role-of-social-determinants-in-promoting-health-and-health-equity/>.

SDOHs	Related Causes of Food Insecurity	Related Effects of Food Insecurity
<b>Socioeconomic factors</b>	<ul style="list-style-type: none"> <li>Inability to afford healthy foods due to poverty, lack of education and employment</li> </ul>	<ul style="list-style-type: none"> <li>Maximize calorie consumption due to purchasing high-calorie, often lower cost food items</li> <li>Malnutrition</li> </ul>
<b>Physical environment</b>	<ul style="list-style-type: none"> <li>Lack of access to grocery stores and farmers markets with fresh, healthy and shelf-stable meals</li> <li>Difficulty getting to grocery stores due to lack of transportation or unsafe neighborhoods</li> </ul>	<ul style="list-style-type: none"> <li>Limited consumption of fresh, healthy foods</li> </ul>
<b>Clinical care</b>	<ul style="list-style-type: none"> <li>Inability to access health insurance</li> <li>High cost of healthcare leading to financial trade-offs</li> <li>High cost of healthy foods</li> <li>Lack of adherence to dietary recommendations</li> <li>Irregular eating habits and limited intake of foods</li> </ul>	<ul style="list-style-type: none"> <li>High risk chronic disease like diabetes, and obesity in some age groups</li> <li>Difficulty self-managing chronic diseases</li> <li>Increase in healthcare costs</li> <li>Increased stress levels and behavior health issues</li> </ul>

*Health Research & Educational Trust, 2017. Food security and role of hospitals.*

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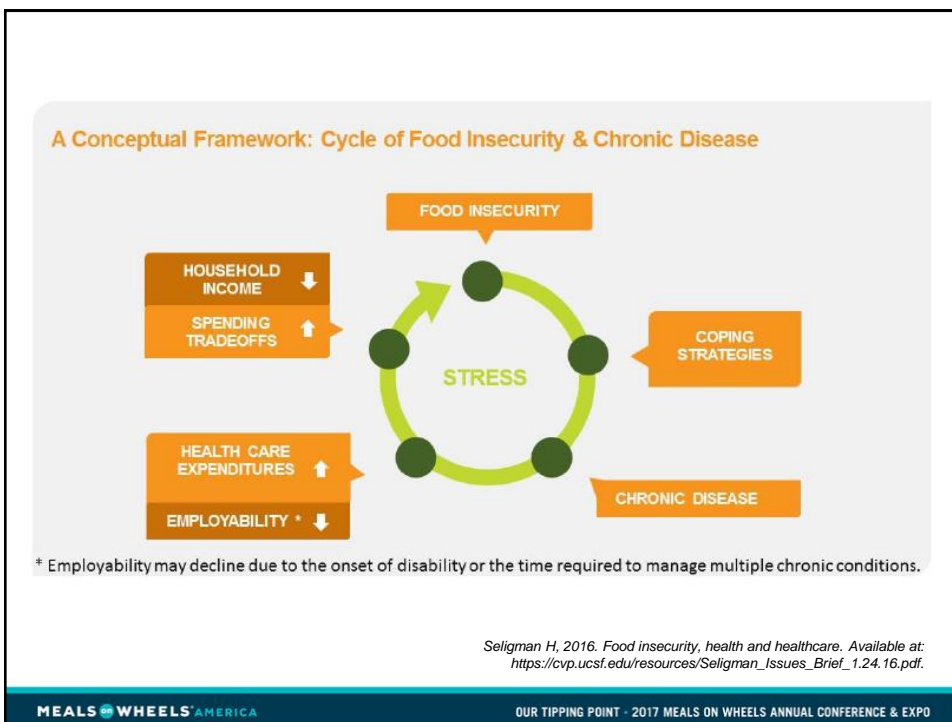
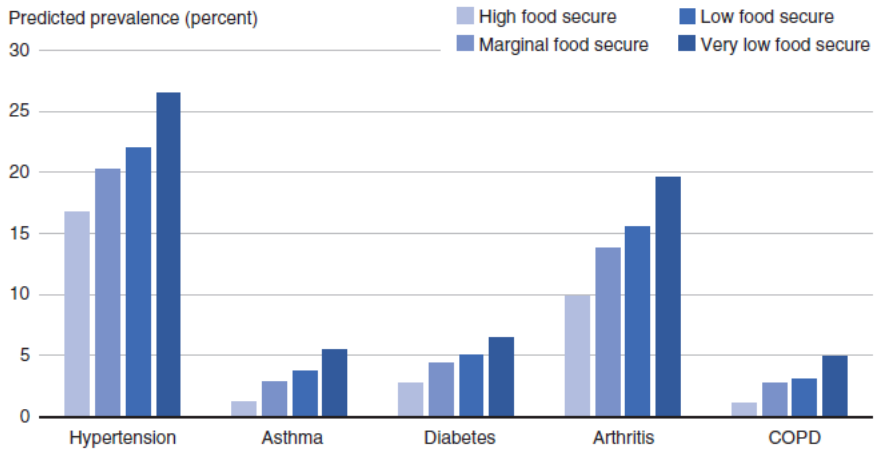


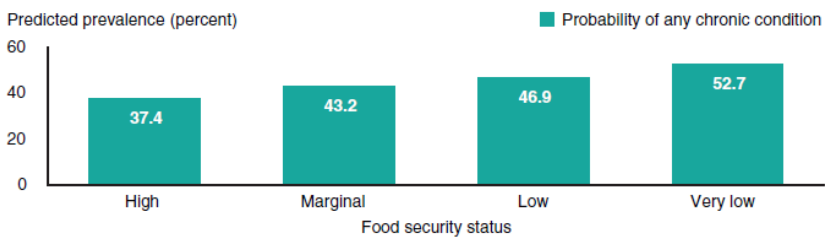
Figure 1  
**Predicted prevalence of more common chronic diseases by food security status, adults in low-income households**



Gregory CA, Coleman-Jensen A. Food Insecurity, Chronic Disease, and Health Among Working-Age Adults, ERR-235, U.S. Department of Agriculture, Economic Research Service, July 2017

## Food security and chronic disease in working age adults

**Adults in households with more severe food insecurity are more likely to have a chronic illness**



Source: USDA, Economic Research Service calculations using National Health Interview Survey data 2011-2015.

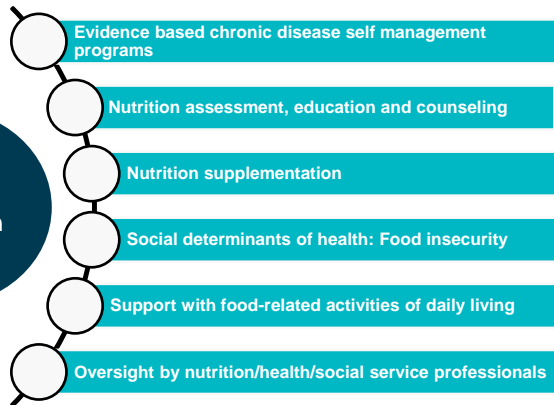
Gregory CA, Coleman-Jensen A. Food Insecurity, Chronic Disease, and Health Among Working-Age Adults, ERR-235, U.S. Department of Agriculture, Economic Research Service, July 2017

# Healthcare integration opportunities for senior nutrition programs

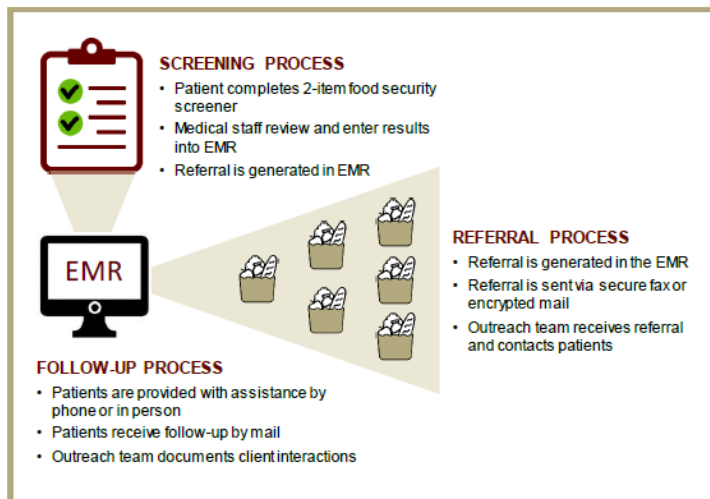
Nutritious Meal



Value Added Services: More Than a Meal Approach

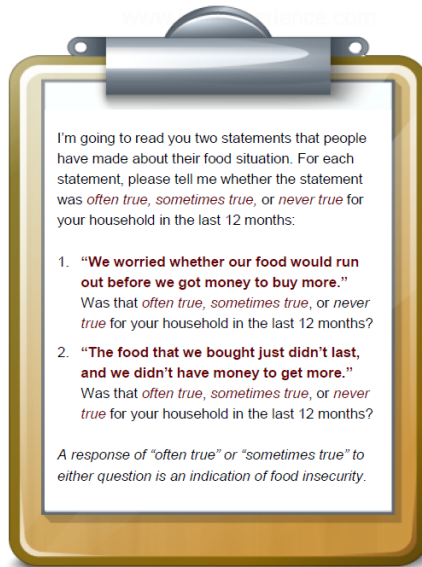


**FIGURE 1:**  
**Food Security Screening and Referral Systems**



Pooler J et al., 2016 Implementing Food Security Screening and Referral for Older Patients in Primary Care: A Resource Guide and Toolkit. Available at: [http://www.aarp.org/content/dam/aarp/aarp\\_foundation/2016-pdfs/FoodSecurityScreening.pdf](http://www.aarp.org/content/dam/aarp/aarp_foundation/2016-pdfs/FoodSecurityScreening.pdf).

FIGURE 2:  
Validated 2-Item Food Security Screening Tool  
Recommended for Routine Screening in Primary Care



Pooler J et al., 2016 *Implementing Food Security Screening and Referral for Older Patients in Primary Care: A Resource Guide and Toolkit*. Available at: [http://www.aarp.org/content/dam/aarp/aarp\\_foundation/2016-pdfs/FoodSecurityScreening.pdf](http://www.aarp.org/content/dam/aarp/aarp_foundation/2016-pdfs/FoodSecurityScreening.pdf).

## Implementation: Screen and Take Action

- Include the FI screening questions as part of written client intake forms.
- Routinely screen every client – annually or quarterly.
- Include any positive screen notes for review and discussion by case manager or intervention specialist.
- Train all staff to take note of a positive screen and evaluate nutrition risk screening data to identify opportunities for intervention.



Feeding America, 2017. *Healthcare provider training: Screening for and Addressing Food Insecurity in Clinical Settings*. [https://hungerandhealth.feedingamerica.org/wp-content/uploads/2014/05/FA\\_Clinical-Training\\_2017.pdf](https://hungerandhealth.feedingamerica.org/wp-content/uploads/2014/05/FA_Clinical-Training_2017.pdf)

## Document to Support Successful Healthcare Integration

- Note within the client record the presence of absence of food insecurity.
- There are CD10 codes that you can also include in the client record:
  - **ICD10 Code Z659** can be used to indicate that a food insecurity screen has been completed;
  - **ICD10 code Z59.4** can be used to indicate a positive screen for food insecurity



Feeding America, 2017. Healthcare provider training: Screening for and Addressing Food Insecurity in Clinical Settings.  
[https://hungerandhealth.feedingamerica.org/wp-content/uploads/2014/05/FA\\_Clinical-Training\\_2017.pdf](https://hungerandhealth.feedingamerica.org/wp-content/uploads/2014/05/FA_Clinical-Training_2017.pdf)

## Your Turn: Discussion

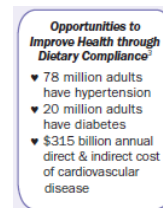
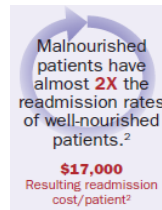
### Data collection / management is vital to program providing integrated healthcare.

- What are the realities of adding the 2-item food security screener or ICD10 malnutrition codes into your data collection process?
- What factors in your organization would facilitate or hinder making this change? How would you address them?
- How frequently do you reassess clients participating in your program? Can you increase the reassessments?

## Case Study: Value Added Nutrition Services

Minuteman Senior Services, as part of their participation in the NRCNA Learning Collaborative hired a consultant to:

- Develop marketing materials which target current industry needs and challenges, and
- Analyze available services and identify those that would help mitigate these challenges and serve their needs in a cost effective way.



## Taking Stock: Leveraging Available Resources

### Services Under Evaluation & Rationale

#### In-Home Registered Dietitian Consult

- Evaluate Malnutrition Risk
- In-home Observations
- Coaching of family members and caregivers
- Care Plan Development
- Information and Referrals

#### Nutritious Meals

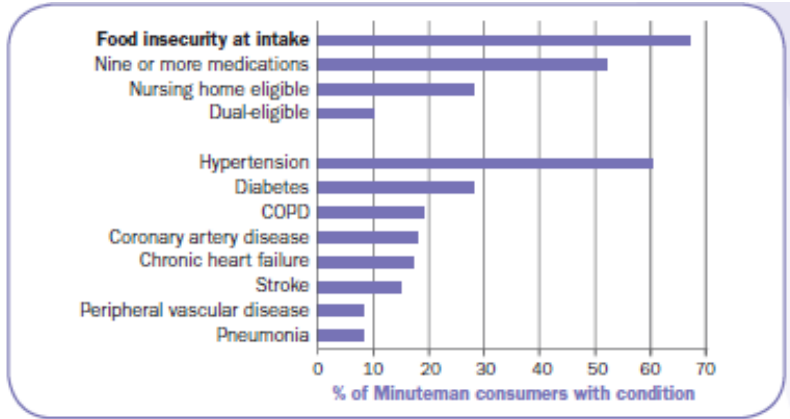
- Address Food Insecurity Issues
- Caregiver Support

#### Care Manager

- Improve Medical Dietary Compliance

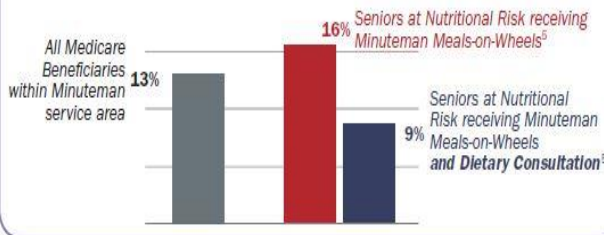


## Preliminary Findings: Health & Nutrition Status



## Preliminary Findings: Readmission Rates

**30-day Hospital Readmission Rate, Minuteman-area Seniors**  
Impact of Minuteman Dietary Consultation



Seniors all assessed for nutrition risk

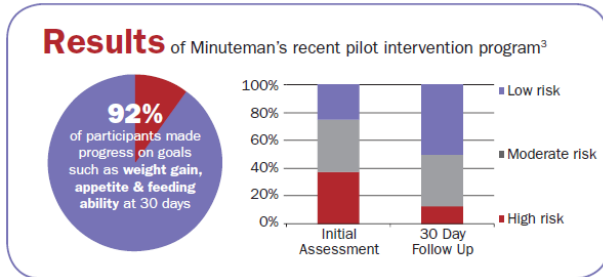
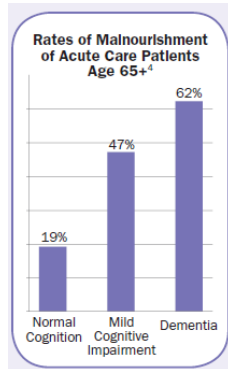
Seniors determined to be at risk using nutrition risk screening tool randomized to receive:

- Usual care
- Dietary consultation with Registered Dietitian





## Preliminary Findings: Malnutrition & Dementia



## Your Turn: Discussion

- What aspects of the Minuteman Senior Services approach resonated with you?
- How can you leverage your nutrition support resources to add greater value?
- What do you think of testing the impact that your nutrition, health and/or social service staff resources can have on clients?
- How would you arrange to conduct such an initiative within your program?

## Access to Public Benefits Among Dual Eligible Seniors Reduces Risk of Nursing Home & Hospital Admission

- The need to address social determinants is growing however doubt of its impact in populations of high utilizers.
- **Research question:** does access to SNAP and other public benefits that address financial strain and food security **improve** health outcomes and reduce healthcare costs?



Zielinskie, et al. "Access to Public Benefits among Dual Eligible Seniors Reduces Risk of Nursing Home and Hospital Admission and Cuts Costs." Benefits Data Trust.

## Methods

- **Data leveraged:** administrative data from Medicare and SNAP - linked to Medicare and Medicaid claims data for dual eligible – 65 years of age and older, in Maryland between 2009 – 2012.
- **Key Metrics:** Healthcare use and cost were calculated per calendar year. SNAP exposure was defined as cumulative monthly benefit amount in prior year.

Zielinskie, et al. "Access to Public Benefits among Dual Eligible Seniors Reduces Risk of Nursing Home and Hospital Admission and Cuts Costs." Benefits Data Trust.

## Results

- Although they qualify, **49%** of seniors on Medicaid are not enrolled in SNAP.
- The average annual income for an older dual eligible was just **\$5,860**.
- Access to SNAP reduces a senior's likelihood of admission into a **hospital by 14%** and a **nursing home by 23%**.

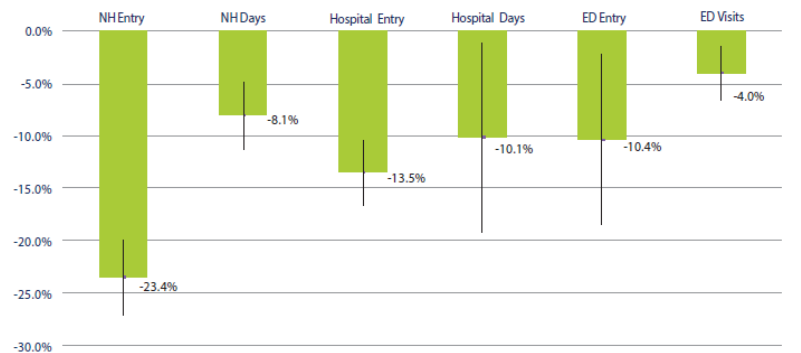
Zielinskie, et al. "Access to Public Benefits among Dual Eligible Seniors Reduces Risk of Nursing Home and Hospital Admission and Cuts Costs." *Benefits Data Trust*.

## Results

- Every \$10 increase in monthly SNAP benefits further reduced the odds of additional days in the hospital and shortened nursing home length of stay.
- Increased access to SNAP delivers **\$2,100 in annual healthcare savings per senior** enrolled.
  - Nursing home (day): \$1,360
  - Hospital stay (day): \$760

Zielinskie, et al. "Access to Public Benefits among Dual Eligible Seniors Reduces Risk of Nursing Home and Hospital Admission and Cuts Costs." *Benefits Data Trust*.

FIGURE 1: Impact of SNAP on Likelihood of Healthcare Utilization (Odds Ratios\*)



\*NOTE: Effect sizes and medical cost savings are only estimates, as peer review process is ongoing, and final results may change before publication.

Zielinskie, et al. "Access to Public Benefits among Dual Eligible Seniors Reduces Risk of Nursing Home and Hospital Admission and Cuts Costs." *Benefits Data Trust*.

## Policy and Practice Implications

Strategies to improve access to SNAP for eligible older adults likely will improve health and healthcare cost.

Advocate for implementation of:

- Elderly Simplified Application Project
- Combined Application Project,
- Leverage administrative data from public assistance rolls to identify eligible older adults non-SNAP users
- Increased benefit amount to older adults

Zielinskie, et al. "Access to Public Benefits among Dual Eligible Seniors Reduces Risk of Nursing Home and Hospital Admission and Cuts Costs." *Benefits Data Trust*.

## Take Home Messages

- A focus on food insecurity and malnutrition in the seniors we serve is vital.
- A greater attention to the prevalence and impact of these challenges among the populations we serve is warranted.
- Senior nutrition programs are well-situated to collect and leverage data on food insecurity and malnutrition for:
  - Advocacy
  - Healthcare integration
  - Education and training
- There are many resources and tools available to aid you in this important work.

## 6<sup>th</sup> Annual Malnutrition Awareness Week



- September 18th – 22nd, 2017
- The purpose of this week is to raise awareness in healthcare professionals to consider assessing and intervening earlier and for the public to realize that they need to ask about their nutrition status and advocate for optimal nutrition care as much as possible.
- Events and resources include:
  - Webinars
  - ASPEN Malnutrition Toolkit
  - Advocacy ideas and templates
- To find out more, visit: [www.nutritioncare.org/maw/](http://www.nutritioncare.org/maw/)

## A Malnutrition To Do List

### Know thy enemy:

- Add the 2-item food insecurity screener to your intake surveys and assessments
- Include ICD10 codes in your client records
- Examine discharge instructions or physicians orders to identify and document those at risk/who are malnourished

### Engage your staff and stakeholders:

- Why malnutrition and food insecurity matters?
- Why the addition of these data collection points is critical?
- How can they can leverage their skills and expertise to provide value-added services to address client SDOHs?

## A Malnutrition To Do List (cont.)

### Amplify your voice and reach:

- Look online for content or create stories on/related to malnutrition, hunger and food insecurity in older adults & share
- Leverage Web properties (Facebook, Twitter, LinkedIn) and A/V (i.e., TV in a lounge area, bulletin board, table tents) to educate on malnutrition
- Pitch stories to run in your local media outlets: TV, radio

### Engage your local healthcare/academic professionals – professors, researchers, social workers, nurses, physicians, dentists, midwives:

- Do they have food security questions in the EHR? Elsewhere?
- How can you support/expand the professional medical education opportunities of local health professionals – meetings, newsletters, etc?
- Do they know of the economic impact malnutrition/food security can have on health and wellbeing?
- Can you partner with them on a research/pilot project to leverage your data and that of a local healthcare entity to test your program's value?

**Thank You!**