Hunger is a Health Issue for Older Adults:
Food Security, Health, and the Federal Nutrition Programs

FRAC
Food Research & Action Center

Poverty, food insecurity, and poor nutrition have harmful impacts on the health and well-being of older adults, which, in turn, can limit their ability to work (for those still capable of working), carry on daily activities, and live independently. Maintaining good health, consuming a nutritious diet, and/or managing an existing chronic disease can be especially challenging for older adults struggling with food insecurity for a variety of reasons, including limited finances and resources, the cost of healthy foods, competing priorities, functional limitations, and stress. One essential strategy to improve food security and health is connecting vulnerable older adults to the federal nutrition programs, including the Supplemental Nutrition Assistance Program (SNAP), Congregate Nutrition Program, and Home-Delivered Nutrition Program. These profoundly important programs have well-documented benefits for older adults.

This brief will review food insecurity rates and risk factors among older adults; the connections between food insecurity and health among older adults; and the effectiveness of the federal nutrition programs in alleviating food insecurity and supporting health for this population.

Food Insecurity Affects Millions of Older Adults

In 2018, more than 2.9 million food-insecure households included an adult age 65 or older.[1] This represented 7.5 percent of all households with an adult that was 65 or older. Among those within that age bracket who lived alone, more than 1.3 million (or 8.9 percent) were food insecure and 512,000 (or 3.4 percent) struggled with very low food security. Although these food insecurity rates are lower than the national average, households with older adults represent a considerable share of the food-insecure population: about 21 percent of all food-insecure households include an adult 65 or older.

Research shows that certain groups of older adults are at greater risk for food insecurity than others. Food-insecurity rates tend to be higher among older adults who are low income, less educated, Black, Hispanic, separated or divorced, never married, renters, residing in the South (e.g., Louisiana, Mississippi, North Carolina, Texas, Alabama), unemployed, living alone, living with a disability, living with grandchildren, or "younger" older adults (i.e., those 50 to 59 years of age).[2,3]

1 in 5 food-insecure households include an older adult ≥ 65 years old

SOURCE: U.S. Department of Agriculture

Chronic disease is a risk factor for, and consequence of, food insecurity among this population as well. More specifically, research shows that older adults with multiple chronic conditions are at higher risk for food insecurity.[4] According to one study, older adults with two to four chronic conditions and five or more chronic conditions are 2.12 and 3.64 times as likely to be food insecure, respectively, than older adults with no or one chronic condition. In addition, older adults engaging in cost-related medication nonadherence (i.e., taking less medication than prescribed due to cost) are 1.9 times more likely to be food insecure than those not reporting such practices.

Chronic disease is a strong predictor of food insecurity among older adults, and so too are functional limitations.[5,6] Low-income older adults with functional limitations have 69 percent higher odds of food insecurity and 65 percent higher odds of poor dietary quality, based on national survey data.[7] These associations are even greater for those living alone. (Functional limitation classification was based on reports of being unable to perform or having difficulty with certain activities, such as walking without special equipment, lifting or carrying something that weighs 10 pounds, doing chores around the house, and pushing or pulling large objects.)

Food Insecurity Has Harmful Impacts on the Health and Well-Being of Older Adults

It is well-established that a nutritious, adequate diet is critical for health and well-being across the lifespan. Poor dietary intake can cause micronutrient and macronutrient deficiencies, increase disease risk, or worsen existing diet-related conditions.[8] As Meals on Wheels America describes it, "older adults cope with food insecurity in ways that adversely affect their nutrient intake, health, and ability to remain at home."[9]

Older adults struggling with food insecurity consume fewer calories and nutrients and have lower overall dietary quality than those who are food secure, which can put them at nutritional risk.[10,11,12,13] For example, one study using national data compared the nutrient intakes of food-insecure adults age 60 years and older to their food-secure counterparts.[14] Those who were food insecure consumed less energy (i.e., calories), protein, vitamin A, thiamin, riboflavin, vitamin B6, vitamin C, calcium, phosphorous, magnesium, and iron.

Malnutrition Disproportionately Impacts Older Adults

Malnutrition is a separate, but related, concept to food insecurity. By definition, "malnutrition is considered a state of deficit, excess, or imbalance in protein, energy, or other nutrients that adversely impacts an individual's own body form, function, and clinical outcomes."[15] Up to 50 percent of older adults are either at risk of becoming malnourished or are already malnourished. A number of factors can lead to malnutrition among older adults, including loss of appetite, limited ability to chew or swallow, certain medication regimes, functional or cognitive decline, and disease-related factors (e.g., increased metabolic demand, gastrointestinal problems). Food insecurity and poverty are common risk factors for malnutrition among community-dwelling older adults (i.e., those not in institutionalized care).

Poor health not only can be a risk factor for food insecurity among older adults, it also can be a consequence of food insecurity for this population.[16] Older adults who are food insecure often experience negative mental and physical health conditions and outcomes, such as diabetes, fair or poor health status, depression, lower cognitive function, limitations in activities of daily living, hypertension, congestive heart failure, peripheral arterial disease, history of a heart attack, osteoporosis, gum disease, and asthma.[17,18,19,20] The association between poor health and food insecurity is particularly strong for diet-related conditions: food-insecure older adults (compared to food-secure older adults) are 19 percent more likely to have high blood pressure, 57 percent more likely to have congestive heart failure, 65 percent more likely to be diabetic, and 66 percent more likely to have experienced a heart attack.[21] In addition, food insecurity significantly increases the risk for falls, which are the leading cause of fatal and nonfatal injuries for older adults.[22] According to one study, food-insecure Medicare Advantage members had a 1.69 times greater likelihood of experiencing a fall in the past year, compared to their food-secure peers.[23]

Because of limited financial resources, adults — including older adults — who are food insecure also may use coping strategies to stretch budgets that are harmful for health. Examples of these coping strategies include engaging in cost-related medication underuse or nonadherence (e.g., skipping doses, taking less medicine, delaying to fill a prescription, not taking certain medications with food); postponing or forgoing preventive or needed medical care; purchasing a low-cost diet that relies on energy-dense, but nutrient-poor, foods; watering down food or drinks; forgoing the foods needed for special medical diets (e.g., diabetic diets); and making trade-offs between food and other basic necessities (e.g., housing, utilities, and transportation).[24,25,26,27]

Food-Insecure Older Adults Often Resort to Cost-Related Medication Underuse

Rates of cost-related medication underuse among adults 65 and over are[28]

- 25 percent for those experiencing marginal food security (low level of food insecurity);
- 40 percent for those experiencing low food security; and
- 56 percent for those experiencing very low food security (most severe level of food insecurity).

(Cost-related medication underuse for this study was defined as skipping medications to save money, taking less medicine than prescribed to save money, delaying filling a prescription to save money, requesting lower-cost medications to save money, and not being able to afford medicine due to cost.)

Food insecurity, along with the health-compromising coping strategies associated with food insecurity, can exacerbate existing disease. Some of these exacerbated conditions among adults include poor glycemic control for people — including older adults — with diabetes,[29,30,31,32,33] end-stage renal disease for people with chronic kidney disease,[34] and low CD4 counts (a measure of immune system health) and poor antiretroviral therapy adherence among people living with HIV.[35,36]

Not surprisingly, food insecurity is a strong predictor of greater health care utilization and increased health care costs across the lifespan.[37,38,39] In 2014, the direct and indirect health-related costs of hunger and food insecurity in the U.S. were estimated to be a staggering $160 billion.[40] Among older adults, those who are food insecure have more frequent hospitalizations and visits to physician offices and emergency rooms than their food-secure counterparts.[41,42] And in terms of health care costs, one study found that "on average, food insecurity added about 11 percent to the health care costs of older adults with and without a specific chronic condition."[43]

The Federal Nutrition Programs Alleviate Food Insecurity and Support Health for Older Adults

The U.S. Department of Agriculture (USDA) and U.S. Department of Health and Human Services (HHS) administer a number of federally funded nutrition programs that support the food and nutritional needs of low-income older adults, including the Supplemental Nutrition Assistance Program (SNAP), Congregate Nutrition Program, Home-Delivered Nutrition Program, Commodity Supplemental Food Program, Senior Farmers' Market Nutrition Program, and Child and Adult Care Food Program.*

This section of the brief focuses on the importance and effectiveness of SNAP, the Congregate Nutrition Program, and Home-Delivered Nutrition Program for the older adult population. These three programs are of particular interest given their considerable reach in communities across the nation as well as the recent surge of research examining their impacts.

SNAP

Administered by USDA, SNAP is an effective anti-poverty initiative that serves as the first line of the nation's public policy defense against hunger and undernutrition. Over 36 million people participate in SNAP in a given month.[44] On average each month, SNAP serves about 5 million households with older adults 60 years or older (or 24 percent of all SNAP households).[45] Even so, only an estimated 48 percent of eligible older adults participate in SNAP, compared to 86 percent of eligible nonelderly adults.[46] The rates are even lower — 29 percent — among eligible older adults who live with others. Eligible older Americans are far less likely to participate in the program than most other demographic groups for a variety of

reasons, including barriers related to mobility, technology use, stigma, and widespread mistaken beliefs, such as how the program works, who can qualify, and benefit levels.[47]

Increasing SNAP participation among older adults is critically important given the high rates of food insecurity in this population and the well-documented effectiveness of the program. First and foremost, the monthly benefits provided by SNAP enhance the food purchasing power of eligible low-income older adults. The benefits can be used only for food and are delivered through Electronic Benefit Transfer (EBT) cards, which are used like debit cards at authorized food retailers. In addition, a considerable body of evidence shows that SNAP plays a role in improving food security, economic security, health, and dietary intake throughout the lifespan.† The following selection of studies demonstrates the many economic and health benefits of SNAP participation for older adults.‡

- In analyses using nationally representative data, SNAP reduced the probability of food insecurity by 18 percent for all-elderly households of low-income.[48] In this study, "elderly" was defined as 60 or older.

*These and other programs available to older adults are summarized in FRAC's *Federal Nutrition Programs and Emergency Food Referral Chart for Older Adults*, available at www.frac.org. The chart includes program descriptions and eligibility information.

† For a comprehensive review of the literature, see FRAC's *SNAP and Public Health: The Role of the Supplemental Nutrition Assistance Program in Improving the Health and Well-Being of Americans* at www.frac.org.

‡ Studies that examine SNAP participation among adults have considerable variations in the ages of those included in the studies' samples. For example, many studies examine SNAP participation among adults 18 and older, which would include older adults. However, for the purposes of this brief, studies focused specifically on older adults are included in the selection of SNAP studies, with age descriptions provided. Refer to FRAC's *SNAP and Public Health: The Role of the Supplemental Nutrition Assistance Program in Improving the Health and Well-Being of Americans* at www.frac.org for additional studies on SNAP's effectiveness among adults generally.

- Nationally, SNAP lifted 3.2 million people — including 315,000 adults 65 and older — above the poverty line in 2018, based on Census Bureau data on poverty and income in the U.S.[49] For older American households, a separate study found that SNAP participation was associated with lower intensity and inequality of time spent in poverty.[50]

- Food-insecure older adults participating in SNAP were less likely to be depressed than nonparticipants in a study using longitudinal data.[51] The study sample included adults over the age of 54.

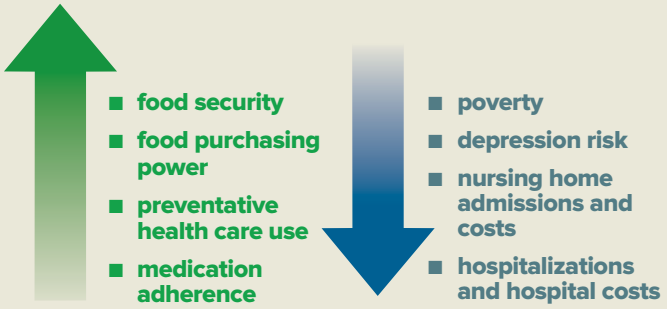
- Participation in SNAP was associated with increased use of preventative health care and receipt of a flu shot, based on longitudinal data of adults at least 60 years old.[52]

- In analyses using national survey data, older adults participating in SNAP were 4.8 percentage points less likely to engage in cost-related medication nonadherence than eligible nonparticipants.[53] According to the study's authors, the "findings point to a spillover 'income effect' as SNAP may help older adults better afford their medications, conceivably by reducing out-of-pocket food expenditures." This study sample included adults age 60 and older.

- In another study using national survey data, adults 65 years and older with diabetes who were participating in SNAP were 5.3 percentage points less likely to engage in cost-related medication nonadherence than eligible nonparticipants.[54] The study's authors write that the "findings suggest that participation in SNAP may help improve adherence to treatment regimens among older adults with diabetes. Connecting these individuals with SNAP may be a feasible strategy for improving health outcomes."

SNAP Matters for Seniors

SNAP Has Many Economic and Health Benefits for Older Adults



SOURCE: Hunger is a Health Issue for Older Adults

- SNAP participation was associated with reduced hospitalization and, among those who were hospitalized, less costly hospital stays in a study of older adults in Maryland dually enrolled in Medicare and Medicaid. According to the study team's estimates, "expanding SNAP access to nonparticipating dual eligible older adults in Maryland could have resulted in inpatient hospital cost savings of $19 million in 2012."[55] A companion study also found an association between SNAP participation and reduced nursing home admissions and admission costs, with estimated cost savings of $34 million in 2012 if SNAP had been provided to eligible nonparticipants.[56] Both studies involved adults 65 years of age and older.

- A $10 increase in monthly SNAP benefits was associated with reduced hospitalization and, among those who were hospitalized, less costly hospital stays, based on the study of older adults in Maryland dually enrolled in Medicare and Medicaid.[57] Similar findings were observed for nursing home admissions: a $10 increase in benefits was associated with reduced nursing home admissions and, among those who were admitted, shorter and less costly stays.[58] Both studies were among adults 65 and older.

Congregate Nutrition Program and Home-Delivered Nutrition Program

The Congregate Nutrition Program and Home-Delivered Nutrition Program are authorized by Title III-C of the Older Americans Act and administered by the Administration of Community Living's (ACL) Administration on Aging at HHS.[59] The healthy meals and nutrition services (e.g., screening for nutritional risk, nutrition education) provided by the Congregate and Home-Delivered Nutrition Programs are targeted to adults who are 60 and older and in the greatest social and economic need (e.g., low-income, minority, rural resident, limited English proficiency, high risk for institutional care). In some cases, the programs also serve caregivers, spouses, and/or persons with disabilities. Unlike SNAP, there is no means test for participation, the funding for these programs is capped, and the programs cannot reach every eligible individual. According to estimates from the U.S. Government Accountability Office, only about 10 percent of low-income older adults receive congregate or home-delivered meals and only about 17 percent of low-income older adults struggling with food insecurity do so.[60]

The Congregate Nutrition Program provides group meals and related nutrition services at participating sites throughout the country (e.g., recreation centers, churches, senior housing).[61] The program also fosters social engagement and offers educational and volunteer opportunities. In 2018, the program reached more than 1.5 million people and served about 71 million meals.[62]

The Home-Delivered Nutrition Program provides in-home meals and related nutrition services to those who are frail, homebound, or isolated. The in-home visits provide an important opportunity to conduct safety checks and promote social engagement among those who are homebound. In 2018, the program reached more than 861,000 people and served about 145 million meals.[63] For both programs, meals are provided at no cost, although voluntary contributions are accepted.

The primary goals of the Congregate and Home-Delivered Nutrition Programs are to reduce hunger and food insecurity, promote socialization, promote health and well-being, and delay the onset of adverse health conditions among older adults.[64] A number of studies and literature reviews conclude that the programs have achieved these goals and more,[65,66,67,68] with one study even demonstrating health care savings from increased home-delivered program participation.[69] But perhaps most notable of all these studies is the ACL-funded comprehensive evaluation of the Congregate and Home-Delivered Nutrition Programs, which found multiple positive effects on nutrition, health, and well-being as a result of program participation.[70,71] For instance, the majority of congregate and home-delivered meal participants reported that the programs helped them eat healthier foods, improved their health and helped them to achieve or maintain a healthy weight, and allowed them to live independently and remain in their home.

What Are the Goals of the Congregate and Home-Delivered Nutrition Programs?

- Reduce hunger and food insecurity
- Promote socialization
- Promote health and well-being
- Delay the onset of adverse health conditions

A number of studies and literature reviews conclude that the programs have achieved these goals and more.

The ACL evaluation, which was conducted by Mathematica Policy Research, also compared program participants to eligible nonparticipants on a number of outcomes. In terms of dietary intake, congregate meal participants consumed diets that were more adequate in key nutrients (phosphorus, zinc, riboflavin, niacin, vitamin B6, and vitamin B12) and higher in overall dietary quality, when compared to nonparticipants. Home-delivered meal participants consumed diets that were more adequate in key nutrients as well (zinc, vitamin A, vitamin B6, and vitamin D). Additional analyses that supplemented and expanded on the program evaluation found that congregate and home-delivered meal participants were significantly more likely to consume milk and dairy, fruit or 100% juice, and vegetables over a 24-hour period than nonparticipants.[72]

Furthermore, the evaluation demonstrated the favorable impacts of congregate meal program participation on food security, socialization, and health care use.[73,74] Compared to eligible nonparticipants, congregate meal participants had lower rates of household food insecurity, were less likely to screen positive for depression, and were more satisfied with their socialization opportunities. Congregate meal participants also had lower health care use: participants were less likely, in the short run, to have a hospital admission, emergency room visit that led to a hospital admission, or home health episode (among those with at least one episode), and, in the longer run, participants were less likely to have a nursing home admission.

Conclusion

Food insecurity has serious consequences for the health and well-being of older adults. Beyond the consequences for individuals and families, food insecurity also has costly implications for the health care system. Fortunately, solutions exist to tackle these challenging issues, including increased use of the federal nutrition programs. Specifically, the Supplemental Nutrition Assistance Program, the Congregate Nutrition Program, and Home-Delivered Nutrition Program are all important and effective interventions for low-income older adults. Increasing access to and strengthening these programs would further their role in improving the food security, health, and well-being of older Americans.

FRAC has numerous resources focused exclusively on older adults, including food insecurity data and maps (by state); SNAP participation data and maps (by state and county); SNAP fact sheets (by state); a primer on SNAP's importance in supporting older adults; best practices in improving SNAP access and participation; and how to identify and address food insecurity among older adults in health care settings. Learn more at www.frac.org.

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