





#### RESEARCH BRIEF NUMBER 8 • SEPTEMBER 2015

## Older Americans Benefit from Older Americans Act Nutrition Programs

by Niranjana Kowlessar, Kristen Robinson, and Claudia Schur, Social & Scientific Systems, Inc.

Since the passage of the Older Americans Act (OAA) in 1965, the Administration on Aging (AoA) has supported older adults by helping them to maintain their independence and remain in their homes. Through its "Aging Services Network," including State Units on Aging, Area Agencies on Aging, Native American Tribes and organizations, and local service providers, AoA provides services designed to promote health and functionality, engage older adults in the community, maintain needed community and family supports, and mitigate the effects of declining physical health and functioning. This brief, the eighth in a series that represents findings from AoA's National Survey of OAA Participants, explores the Older Americans Act Nutrition Program (OAA NP). It 1) describes program requirements, 2) discusses the link between nutrition, health, and the ability of older adults to remain at home, 3) describes the high risk population served, and 4) shows participants' perceptions of the positive impact programs have on their quality of life.

## **Summary**

The Administration for Community Living and the Aging Services Network strive to help older adults remain safely in their homes and communities. One important way this is accomplished is by providing regular and adequate sources of nutrition to older adults who are in greatest social and economic need. While it can be difficult to isolate the beneficial effects of nutrition programs from other community supports (such as availability of caregivers), it is clear that AoA nutrition programs are serving those most in need. As this brief demonstrates, adults receiving congregate and homedelivered meals are older and in poorer health than the older population as a whole. They are also more likely to be living alone. This suggests that the OAA NP<sup>1</sup>, is fulfilling its mission by providing the most frail and vulnerable older adults with nutrition services that are helping them to stay in their homes.

### **Background**

Good nutrition is a key component in maintaining the health of vulnerable, older adults. The OAA recognizes the importance of providing adequate nutrition to older adults through the OAA NP. In 2013, 2.4 million older adults received 219 million meals; 62 percent of meals

#### <sup>1</sup> This brief is specific to programs under OAA Title III-C.

#### What Is the Aging Services Network?

The Aging Services Network (funded under Title III of the OAA) provides a range of community-based services – home-delivered and congregate nutrition services, case management, transportation, and homemaker and caregiver support to individuals age 60 and over and their caregivers. These services are intended to reach the most vulnerable older adults in greatest social and economic need. Such services enhance both quality of life and social interaction, and minimize the impact of disability. Funding for OAA services is provided by the Administration for Community Living's (ACL) AoA.

were served to people in their homes, and 38 percent were served in congregate settings (Adminstration for Community Living, 2013).

One of the consequences of longer life spans is the higher incidence of chronic conditions which may negatively affect quality of life, contribute to declines in health and functionality, limit individuals' ability to remain at home in the community, contribute to caregiver burden, and contribute to increased hospitalizations and health care costs. Adequate food and quality nutrition services are a prevention, risk reduction, and treatment modality for

many of the most common chronic conditions, such as hypertension, heart disease, diabetes, osteoporosis, and obesity (Bernstein & Munoz, 2012).

The OAA NP provides funding for both congregate and home-delivered nutrition programs through formula grants to states and U.S. territories. Congregate nutrition programs are provided in senior centers, adult day care centers, and other community venues, while home-delivered nutrition programs are provided to frail, older adults who have difficulty leaving their homes. In addition to providing meals, these nutrition programs also offer nutrition education, nutrition counseling, and other nutrition services as appropriate.

## **Nutrition Services as Part of Home**and Community-Based Services

The OAA NP is not a stand-alone service or program but functions as part of a home- and community-based service (HCBS) system. The OAA emphasizes that services provided are to be part of a comprehensive and coordinated service system designed to secure and support maximum independence and dignity in the home environment for older adults (Bernstein & Munoz, 2012).

As part of a HCBS system, providing adequate quality food and nutrition is part of the broader OAA purpose. The OAA NP is not simply focused on meal provision or nutrition outcomes, but on how to maintain the health and functionality of older adults in the community. To maintain health and functionality, the OAA indicates that the OAA NP has specific purposes in addition to the overall OAA purposes. These specific purposes focus on how the role of nutrition contributes to:

- 1) reducing hunger and food insecurity
- 2) promoting socialization
- 3) promoting health and well-being
- 4) delaying adverse health conditions

#### **Reducing Hunger and Food Insecurity**

Food insecurity is often used to assess and evaluate hunger within specific populations (Opsomer, Jensen, & Pan, 2003). Based on a review by the Committee on National Statistics (CNSTAT), the United States Department of Agriculture (USDA) uses the following terms to refer to food security and insecurity: food security, marginal food security, low food security, and very low food security.

Although low and very low food security are less prevalent in the older population than other populations (Coleman-Jensen, Gregory, & Singh, 2014), older adults

#### **Nutrition Requirements**

The OAA requires that nutrition service providers ensure that meals meet food and nutrient requirements, are safe to serve and are appealing to older adults.

#### **Dietary Guidelines for Americans**

Meals offered must meet the most recent *Dietary Guidelines for Americans* (DGAs) which are issued every 5 years by the Secretaries of Health and Human Services and Agriculture. Based on the most current science, the DGAs are designed to promote health and reduce the risk of chronic disease through healthy eating and physical activity. The DGAs serve as the nutrition basis for all federal nutrition programs, aid policymakers in designing and implementing nutrition programs, and provide the basis for nutrition messages and consumer materials developed by nutrition and health professionals (U.S. Department of Health Human Services & U.S. Department of Agriculture, 2010).

#### **Dietary Reference Intakes**

Meals must provide at least one-third of the Dietary Reference Intakes. The Dietary Reference Intakes (DRIs) are nutrient reference values developed by the Institute of Medicine of The National Academies. They are intended to serve as a guide for good nutrition and provide the scientific basis for the development of food guidelines in both the United States and Canada (National Academies. Institute of Medicine, 2010).

#### **Food Safety and Sanitation**

Meals offered are to meet state and local foodservice laws, rules, and regulations to ensure that the meals served are safe and sanitary. Most states base their state and local foodservice codes on the most recent edition of the Food Code published by the U.S. Public Health Service and the Food and Drug Administration (U.S. Department of Health and Human Services. Public Health Service. Food and Drug Administration, 2013).

#### **Meal Appeal**

Meals offered are designed to be appealing to older adults and it is intended that older adults provide input into the planning process (*Older Americans Act of 1965. Section 339 (2)(B)*, n.d.).

For additional information visit: http://www.aoa.acl.gov/AoA\_Programs/HPW/ Nutrition Services/index.aspx who are less food secure are more likely to have adverse health consequences than food secure older adults. For example, food insecure older adults are 50 percent more likely to be diabetic, 60 percent more likely to have congestive heart failure, and 3 times more likely to suffer depression (Ziliak & Gundersen, 2014). Chronic health conditions combined with food insecurity can negatively affect older adults' ability to remain in the community.

To address these conditions, meals provided in the OAA NP are to comply with federal requirements. These federal requirements are designed to promote health and reduce the risk of chronic disease (see textbox for further detail). While most OAA NP providers serve one meal per day about 5 days a week or about 25 percent of the meals considered a usual eating pattern over a week's time (5 of 21 meals), more than half of the 2.4 million older participants (56 percent of congregate nutrition service participants and 60 percent of home-delivered nutrition service participants) report that these meals make up one-half or more of their food intake for the day. In addition, the meal service provides socialization opportunities for both congregate and home-delivered participants that positively affect their ability to stay at home.

#### **Promoting Socialization**

The OAA NP promotes socialization for vulnerable older adults who may be isolated due to physical or mental conditions, living alone, lack of transportation, or other issues. The day-to-day contact in group settings or in-person contact that occurs when meals are delivered is designed to decrease isolation. Isolation has been linked to higher mortality for older men and women (Steptoe, Shankar, Demakakos, & Wardle, 2013). Recent research compared individuals receiving dailydelivered meals, once-a-week frozen delivered meals, and individuals who were on a waiting list to receive home-delivered meals on a number of dimensions including social contact. The research indicated that those receiving daily-delivered meals were more likely to report improvements in mental health, self-rated health, and reductions in feelings of isolation as well as less worry about being able to remain at home (Thomas & Dosa, 2015).

#### **Promoting Health and Well-being**

The OAA NP promotes the health and well-being of older individuals by assisting them in accessing other disease prevention and health promotion services that may delay the onset of adverse health conditions (Older Americans Act. OAA amendments of 2006.P.L.109-365, n.d.). Among people currently receiving congregate nutrition services, 43 percent are also receiving one or more other HCBS. Likewise, among people receiving home-delivered nutrition services, 59 percent reported receiving one or more additional HCBS.

#### **Delaying Adverse Health Conditions**

Another purpose of the OAA NP is to delay adverse health conditions. Because the prevalence of multiple chronic conditions is higher among congregate and home-delivered program participants (see next section) than the general Medicare population, the provision of healthy meals, access to lifestyle modification programs and nutrition education and counseling are important to promoting health, modifying risk, helping to treat these multiple chronic conditions, helping to maintain functionality, and reducing health care utilization.

Recent research compared individuals on waiting lists to individuals receiving meals delivered to their homes by one of two methods: daily delivery of a single meal or once-a-week frozen delivery of multiple meals. The research indicated that individuals on waiting lists needed a variety of supports beyond meals, and that those receiving home-delivered meals (regardless of delivery method) had greater improvements in anxiety, and self-rated health, and reduced rates of hospitalizations and falls. Those receiving daily-delivered meals reported greater health benefits compared to the group receiving frozen meals (Thomas & Dosa, 2015).

## Who Receives OAA Home-Delivered/ Congregate Nutrition Services?

The OAA NP (both congregate and home-delivered nutrition services) specifically targets and provides services to older adults who are in poor health and functionally impaired. For example, 45 percent of congregate participants and 63 percent of home-delivered participants have six or more medical conditions; 44 percent of congregate and 62 percent of home-delivered participants take over five medications daily and 17 percent of congregate and 38 percent of home-delivered participants have been in the hospital in the past year. Providing appropriate services to high risk individuals supports these older adults and their desire to live at home. This brief examines the older adults who use

these programs by looking at a number of different demographic, socioeconomic and health characteristics and comparing them to the general population.

### Recipients of OAA Congregate and Home-Delivered Nutrition Services and the National Population Age 60 and Over

There are approximately 61.4 million community-dwelling adults age 60 and over in the United States (U.S. Census Bureau, n.d.). Within this group, those who use Title III congregate and home-delivered nutrition services are more vulnerable compared with the general population. The characteristics shown in Figure 1 are often indicative of a higher risk for institutionalization.

The overall purpose of the OAA programs is to help older adults remain in their homes through the provision of long-term services and supports.

- In 2013, the mean age of congregate meal participants was 76.05 years and the average age of homedelivered meal participants was 79.53 years.
- Eighteen percent of congregate nutrition service participants and 35 percent of home-delivered nutrition service users are age 85 or older. This equates to being twice as likely and four times as likely (respectively) as the general population to be aged 85 years and over.

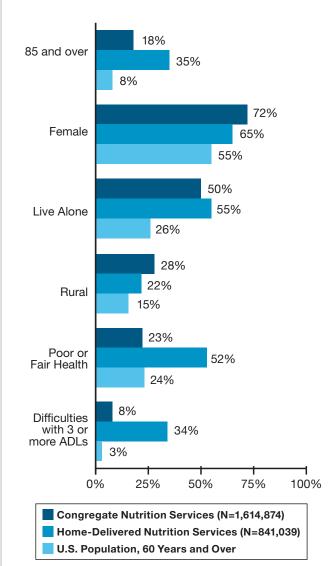
Older women are more likely to live alone and have lower incomes than men, placing them at higher risk for institutionalization.

- 72 percent of congregate nutrition service participants are older women, as are 65 percent of home-delivered nutrition service participants, compared with 55 percent of the general population.
- Compared with the general population, congregate and home-delivered nutrition service participants are much more likely to live alone (50 percent and 55 percent, respectively, compared with 26 percent for the general population).

Individuals in rural areas may experience more difficulties in accessing and obtaining services as needed to maintain independence.

 Twenty-eight percent of congregate nutrition service participants and 22 percent of home-delivered nutrition service participants live in rural areas of the country. These groups are almost one and one-half times as likely as the general population to be living in rural areas.

Figure 1. Comparison of Older Americans Act Nutrition Program Participant Characteristics to the U.S. Population Age 60 and Over, 2013



Sources: National Survey of Older Americans Act Participants (2013); National Health Interview Survey (2012); Medical Expenditure Panel Survey (2012).

Services for congregate participants such as access to healthy meals and other health promotion interventions may promote better health behaviors, delay complications of chronic disease, and slow the decline to a more restrictive living environment.

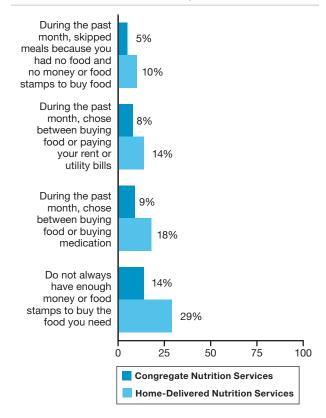
 While the proportion of congregate nutrition service participants in poor or fair health (23 percent) was similar to the general population (24 percent), homedelivered nutrition service participants are over twice as likely (52 percent) as these two groups to report being in poor or fair health. Assistance with activities of daily living (ADL) impairments may decrease the risk for institutionalization and allow individuals to remain at home longer (Banaszak-Holl et al., 2004).

- Differences with respect to ADLs<sup>2</sup> are particularly striking: congregate nutrition service participants are over twice as likely (8 percent) while home-delivered nutrition service participants are over ten times as likely (34 percent) as the population age 60 and over to have difficulties with 3 or more ADLs.
- Both home-delivered nutrition service participants (91 percent) and congregate meal participants (64 percent) reported that the nutrition programs helped them stay in their own home (see Figure 4).

# **Nutrition Service Users and Food Insecurity**

Many older adults live on fixed incomes that force them to choose between paying for rent, utilities, or medication versus paying for groceries (Mabli, Cohen, Potter, Zhao, & America, 2010; Sattler & Lee, 2013). Congregate and home-delivered nutrition services help bolster seniors' food intake by providing an additional source for meeting their nutritional needs. Data indicate that both homedelivered nutrition service participants and congregate nutrition service participants have limited incomes, with 63 percent of home-delivered nutrition service participants reporting annual income below \$20,000 and 42 percent of congregate nutrition service participants reporting annual income below \$20,000 (data not shown). It is therefore not surprising that both groups face greater barriers to meeting their nutritional needs. As shown in Figure 2, congregate nutrition service participants and home-delivered nutrition service participants both report often choosing between buying food or paying rent or utility bills (8 percent and 14 percent, respectively), as well as having to choose between food and medication (9 percent and 18 percent, respectively). In addition, 14 percent of congregate nutrition service participants and 29 percent of home-delivered nutrition service participants report not always having enough money or food stamps to buy the food they need.

Figure 2. Purchasing Decisions of Congregate and Home-Delivered Nutrition Service Participants, 2013



Source: National Survey of Older Americans Act Participants (2013).

## Are Title III Services Meeting the Needs of Program Users

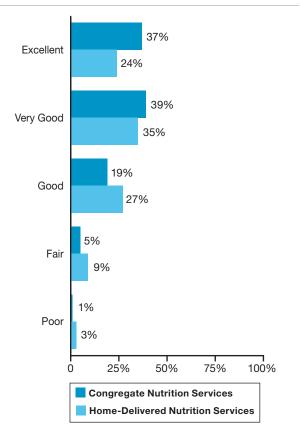
Both congregate and home-delivered participants value the meals and services that they receive from the OAA NP. Congregate and home-delivered nutrition service participants rated the programs highly in terms of meal and service quality as well as how the program affected their ability to maintain their health, and functionality, and ability to remain at home in the community.

As shown in Figure 3, 95 percent of congregate and 86 percent of home-delivered meal participants rated the meals as good, very good, or excellent. Participants in both programs indicated that they are highly satisfied with meal taste and variety.

Over 90 percent of participants in both programs indicate that they would recommend the program to a friend (data not shown). Independent research of several home-delivered programs indicates that 99 percent of participants would recommend the program to others (Thomas & Dosa, 2015). The individuals in this study indicate that the social contact with the

ADLs are basic activities people complete to care for themselves, including: personal hygiene activities, such as bathing or using the toilet; dressing; eating; walking without an assistive device, such as a cane; and transferring from a seated to a standing position and getting in and out of bed.

Figure 3. Congregate and Home-Delivered Nutrition Service Participants Rating of the Nutrition Program Overall, 2013

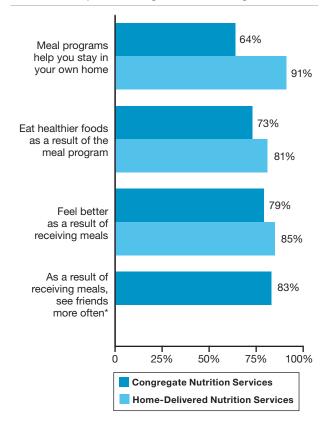


Source: National Survey of Older Americans Act Participants (2013).

person delivering the meals makes them feel less lonely. These data indicate that the program is helping with socialization.

Over 80 percent of congregate nutrition service participants indicate that they see their friends more often as a result of participation. Congregate and home-delivered nutrition service participants rated the programs highly in terms of benefits to their health and well-being. As shown in Figure 4, 73 percent of congregate and 81 percent of home-delivered participants reported eating healthier foods as a result of program participation, while 79 percent of congregate and 85 percent of home-delivered participants indicated that the program helped them feel better. These data indicate that the program is helping to meet individuals' needs as well as the program purpose of maintaining health and well-being.

Figure 4. Congregate and Home-Delivered Nutrition Service Participants Rating of the Meal Program, 2013



<sup>\*</sup>This question is only applicable to congregate nutrition services. Source: National Survey of Older Americans Act Participants (2013).

#### Conclusion

The number of older adults in the United States is projected to continue increasing over the next two decades. By 2030, adults age 65 and over will constitute approximately one-fifth of the U.S. population. This growth in the number and proportion of older adults combined with their changing demographic composition is expected to have profound impacts on the demand for social services. These services must address the unique nutritional, cultural, and social needs and challenges faced by older adults, including not only poor diets and health problems but also food insecurity and social isolation.

Congregate and home-delivered nutrition services are designed to provide more than daily nutrition, and provide important avenues for meeting the social needs of consumers. In the case of congregate nutrition services, participants have the opportunity to interact with each other in a communal setting where they also have access

to other community-based services. In the case of home-delivered nutrition services, the people who deliver these meals may be the only source of social contact for nutrition service recipients. It is also a "check-in" opportunity in which the delivery personnel can report back to their Aging Services Network contacts if they see a dangerous or unhealthy situation unfolding or a need for other services such as nutrition education or nutrition counseling. Finally, both sources of socialization can help older adults better address feelings of depression, anxiety, or loneliness they may be experiencing.

More research into nutrition services as part of homeand community-based services may provide greater insight into the program's impact on improved food security, social connectedness, nutrient intake, health, and health care utilization among the older adult population. While it goes beyond the scope of this brief to draw any conclusions as to whether congregate and homedelivered nutrition services help people remain in their homes longer, based on survey responses, recipients of these programs report that the nutrition programs are key to helping them remain in their homes and communities as they age. ACL has contracted for a rigorous program evaluation that addresses all of these questions.

## **Acknowledgments**

We would like to thank the Administration for Community Living's Office of Performance and Evaluation, Center for Policy and Evaluation, and the Administration on Aging, Office of Nutrition and Health Promotion Programs, for their guidance and feedback while completing this brief. We would also like to extend particular thanks to Jean Lloyd who recently retired from AoA as their National Nutritionist, and provided considerable guidance in the development of this brief.

#### **Data**

Information on Title III participants was drawn from the Eighth National Survey of OAA Participants. Westat, Inc., conducted the telephone survey in 2013, administering it to over 5,000 people who reported receiving Title III services. This brief includes data for 2,038 recipients who were surveyed about their experiences with congregate and home-delivered nutrition services. The survey used a two-stage sample design, first selecting a sample of AAAs and then randomly sampling participants from each selected AAA by service type. The number of participants selected from each AAA was proportional to the number of participants served in that particular service by the sampled AAA. All analyses in this brief apply sample weights to account for this design. Additional data from, and more detailed documentation about, the NSOAAP and other AoA data sources are available on the AGing Interactive Database (AGID) located at http://www.agid.acl.gov.

#### References

Adminstration for Community Living. (2013). *State Program Report Data*. Retrieved May 15, 2015 from http://www.agid.acl.gov/

Banaszak-Holl, J., Fendrick, A. M., Foster, N. L., Herzog, A. R., Kabeto, M. U., Kent, D. M., Straus, W.L., and Langa, K.M. (2004). Predicting nursing home admission: estimates from a 7-year follow-up of a nationally representative sample of older Americans. *Alzheimer Disease and Associated Disorders*, 18(2), 83–89.

Bernstein, M., & Munoz, N. (2012). Position of the Academy of Nutrition and Dietetics: food and nutrition for older adults: promoting health and wellness. *Journal of the Academy of Nutrition and Dietetics*, 112(8), 1255–1277.

Coleman-Jensen, A., Gregory, C., & Singh, A. (2014). Household food security in the United States in 2013. USDA-ERS Economic Research Report, (ERR-173).

Mabli, J., Cohen, R., Potter, F., Zhao, Z., & America, F. (2010). *Hunger in America 2010: National Report Prepared for Feeding America: Final Report.* Feeding America.

National Academies. Institute of Medicine. (2010). Dietary Reference Intakes Tables and Application. Retrieved April 28, 2015, from http://iom.nationalacademies.org/Activities/Nutrition/SummaryDRIs/DRI-Tables.aspx

Older Americans Act. OAA amendments of 2006.P.L.109-365.

Older Americans Act of 1965. Section 339 (2)(B).

Opsomer, J. D., Jensen, H. H., & Pan, S. (2003). An evaluation of the U.S. Department of Agriculture food security measure with generalized linear mixed models. *The Journal of Nutrition*, 133(2), 421–427.

Sattler, E. L. P., & Lee, J. S. (2013). Persistent food insecurity is associated with higher levels of cost-related medication nonadherence in low-income older adults. *Journal of Nutrition in Gerontology and Geriatrics*, 32(1), 41–58.

Steptoe, A., Shankar, A., Demakakos, P., & Wardle, J. (2013). Social isolation, loneliness, and all-cause mortality in older men and women. *Proceedings of the National Academy of Sciences of the United States of America*, 110(15), 5797–5801.

Thomas, K. S., & Dosa, D. (2015). More than a Meal: Results from a Pilot Randomized Control Trial of Home-Delivered Meal Programs. Funded by AARP Foundation. Retrieved April 25, 2015 from http://www.mealsonwheelsamerica.org/docs/default-source/News-Assets/mtam-full-report---march-2-2015.pdf?sfvrsn=6

U.S. Census Bureau. Population 60 Years and Over in the United States: 2013 American Community Survey 1-Year Estimates. Retrieved February 4, 2015, from <a href="http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml">http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml</a>

U.S. Department of Health and Human Services. Public Health Service. Food and Drug Administration. (2013). Food Code 2013. Retrieved May 24, 2015, from http://www.fda.gov/food/guidanceregulation/retailfoodprotection/foodcode/ucm374275.htm

U.S. Department of Health Human Services, & U.S. Department of Agriculture. (2010). Dietary guidelines for Americans, 2010.

Ziliak, J. P., & Gundersen, C. (2014). The health consequences of senior hunger in the United States: Evidence from the 1999-2010 NHANES.

#### **About This Series**

This series is funded by ACL, and presents analyses conducted by Social & Scientific Systems using data from AoA's National Survey of Older Americans Act Participants. This survey collects information from Title III recipients about their demographics, socioeconomic status, health, and functioning, as well as their service use and client-reported service impact and quality. For more information about this study, please contact Niranjana Kowlessar at Social & Scientific Systems, *NKowlessar@s-3.com*.