



SENIOR HUNGER AND THE OLDER AMERICANS ACT

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Thank you, Mr. Chairman, for inviting me to testify today. I am Dr. Mary Jane Koren and a geriatrician by training. Most of my career has been devoted to serving the elderly, particularly those with serious chronic conditions. I have taken care of residents living in nursing homes, made home visits to patients living throughout the Bronx as the assistant medical director of the Montefiore Home Health Agency, and later was appointed to be the director of New York State's Bureau of Long-Term Care Services. Currently, I am a vice president at The Commonwealth Fund, an independent, private foundation located in New York City that is working toward a high-performing health system. The grantmaking program I manage is aimed at improving long-term services and supports, particularly for people covered by both Medicare and Medicaid—also known as “dual eligibles”—and for those transitioning from one level of care to another.

No matter which hat I'm wearing—geriatrician, policymaker, or grantmaker—my goal is to help frail older adults maintain their independence and well-being. The program I speak of today, Title III–C of the Older Americans Act, Nutrition Services, is one of the simplest, yet most effective programs to help low-income seniors stay in their homes and out of hospitals and nursing homes. You have heard today from both federal and state policymakers and from program administrators. I will therefore try to give you a different perspective. Based on my professional background and frontline experience caring for elderly patients, I'll briefly cover four areas. First, I will discuss exactly why hunger, or undernutrition, is so common in this population; second, talk about the consequences of undernutrition both for patients and for rising health care expenditures; third, describe how home-delivered and congregate meals can help low-income seniors, their families, health care providers, and policymakers, especially in a time of constrained resources; and last, make several recommendations to strengthen these programs.

First, some information about aging: because of the way our bodies age, older people have a heightened risk of “hunger.” The aging process itself predisposes a person to undernutrition—physiologically, it's a stacked deck. These physiologic changes make it extremely difficult for even healthy older adults to stay well nourished. Here are some examples. There is what's termed the “anorexia of aging,” a natural phenomenon in which the desire for even adequate quantities of food declines commensurate with the decline in physical activity seen in the very old. This means that seniors don't feel as hungry as you or I do at meal times and so tend to only eat a little bit or even skip a meal. Compounding that, stomachs “shrink,” or become less compliant, as people age so they feel full faster. This sensation of satiation is further mediated by the release of such hormones as cholecystokinin, leptin, and dynorphin that act both on the brain and on the

gut. The senses of smell and taste likewise diminish with age—food loses its savor, making meals less interesting and enjoyable so people tend to eat less. Oral problems, such as poor dentition, ill-fitting dentures, or decreased saliva production are common in old age, which can make eating a misery. It has been estimated that dental problems alone may decrease food intake by up to 100 kcal per day. Not a lot, perhaps, for one day but cumulatively over weeks and months, enough to cause an insidious and inexorable loss of weight.¹ Swallowing problems, or dysphagia, can make meal times a source of stress, not enjoyment. People who've experienced difficulty swallowing may be reluctant to eat very much or be very selective about what they eat because of their fear of choking. In addition, older adults don't get as thirsty as young people, which, especially in hot weather or for people with congestive heart failure on diuretics, can cause dehydration with serious complications, including dizziness, delirium, and falls.² In a word, the aging process itself sets the stage for inanition or energy-protein malnourishment.

On top of this, there are a whole host of medical problems and social issues common to low-income older adults that further compromise an elder's ability to maintain optimum nutrition. Far and away the most common cause of undernutrition is depression. Research has shown that depressive symptoms are associated with insufficient food intake and nutritional deficiencies, especially in poor elderly people living at home because of loss of appetite, diminished enjoyment of food, difficulty with food preparation, and consumption of a less varied diet.^{3,4} A vicious circle gets started where depression leads to poor intake, which worsens depressive feelings, and so on. It can be a hard circle to break, especially in the homebound elderly who tend to become lonely, withdrawn, and apathetic. One study, for example, found that depressive symptoms, which were more common among women in the study, were linked with diminished mobility and social interaction.⁵ In addition, social isolation is one of the

¹ "Nutrition," chapter 2, page 9, *Merck Manual of Geriatrics, Second Edition* (Whitehouse Station, N.J.: Merck & Co., Inc. 1995).

² Up to 2 percent of falls in elderly patients result in hip fractures and up to another 5 percent result in other fractures. These types of injuries account for about 5 percent of hospitalizations for patients over 65 years old. About 5 percent of elderly hip-fracture patients die while hospitalized, while overall 12-month mortality ranges from 12 percent to 67 percent. See N. Alexander, "Falls," *Merck Manual of Geriatrics, Third Edition* (Whitehouse Station, N.J.: Merck & Co., Inc. 2000).

³ L. German, C. Kahana, V. Rosenfeld et al., "Depressive Symptoms Are Associated with Food Insufficiency and Nutritional Deficiencies in Poor Community-Dwelling Elderly People," *Journal of Nutrition, Health & Aging*, 2011 15(1):3–8, cited in J. E. Morley, "Undernutrition: A Major Problem in Nursing Homes," *Journal of the American Medical Directors Association*, May 2011 12(4):243–46.

⁴ J. R. Sharkey, L. G. Branch, N. Zohoori et al., "Inadequate Nutrient Intakes Among Homebound Elderly and Their Correlation with Individual Characteristics and Health-Related Factors," *American Journal of Clinical Nutrition*, Dec. 2002 76(6):1435–45.

⁵ B. W. Penninx, S. Leveille, L. Ferrucci et al., "Exploring the Effect of Depression on Physical Disability: Longitudinal Evidence from the Established Populations for Epidemiologic Studies of the Elderly," *American Journal of Public Health*, Sept. 1999 89(9):1346–52, cited in Sharkey, Branch, Zohoori et al. "Inadequate Nutrient Intakes," 2002.

major risk factors for elder abuse, most commonly perpetrated by family members.⁶ Encouraging those delivering meals to look for signs of elder abuse would help enormously in the detection of an often hidden problem and in getting help for an elder who may have no other contact with people outside the home.

Older people often have multiple chronic conditions, such as diabetes, heart failure, kidney disease, stroke, and arthritis. The prevalence of two to four chronic illnesses in those ages 65 and older is about 50 percent. For those older than 75, almost 20 percent have five or more chronic illnesses. This takes a huge toll on normal function, including even basic actions like being able to stand or lift things, which compromises the ability to shop, prepare a meal, and sometimes even the ability to eat.⁷ The presence and perceived effect of individual diseases and conditions on daily activities is termed the “the burden of disease.”⁸ The more illnesses a person has, the higher that burden becomes. When people don’t feel well, appetite is often the first thing to go, which leads to insufficient energy—protein intake and weight loss.

But treating people’s illnesses may actually worsen the situation as far as nutrition is concerned. National surveys show that more than nine of 10 older adults are taking prescription medications. According to the National Health and Nutrition Examination Survey, 64 percent of adults ages 60 and older are taking three or more prescription drugs per month. Almost 40 percent are taking five or more prescription medications per month.⁹ In a population with such a high burden of illness, the likelihood that people will be on multiple medications is all but certain. Some drugs, like digitalis, a common medication for heart problems, directly suppress appetite. Others, like medications for arthritis or antibiotics, can cause stomach upset. There is another group of medications that can cause malabsorption (i.e., the medicines inhibit the uptake of nutrients from the intestinal track).

Another disease that is a major factor in undernutrition in the elderly is dementia, a slowly progressive disease found in almost 50 percent of people over the age of 85. It is the fifth leading cause of death for those over 65.¹⁰ Data shows that it strikes women with far greater frequency than men—two-third of cases are women who, according to census data, are far more likely than men to be poor and live alone. So, people may not feel

⁶ U.S. Department of Health and Human Services, Administration on Aging, National Center for Elder Abuse, “Who Are the Abusers?” (Washington, D.C.: AoA), http://www.ncea.aoa.gov/NCEARoot/Main_Site/FAQ/Basics/Abusers.aspx.

⁷ AARP Public Policy Institute, “Chronic Care: A Call to Action for Health Reform” (Washington, D.C.: AARP), http://assets.aarp.org/rgcenter/health/beyond_50_hcr.pdf.

⁸ Sharkey, Branch, Zohoori et al., “Inadequate Nutrient Intakes,” 2002.

⁹ Q. Gu, C. F. Dillon, and V. L. Burt, *National Center for Health Statistics: Prescription Drug Use Continues to Increase—U.S. Prescription Drug Data for 2007–2008* (Atlanta: Centers for Disease Control and Prevention, Sept. 2010), <http://www.cdc.gov/nchs/data/databriefs/db42.pdf>.

¹⁰ Alzheimer’s Association, *Fact Sheet: 2011 Alzheimer’s Disease Facts and Figures* (Chicago: Alzheimer’s Association, March 2011), http://www.alz.org/documents_custom/2011_Facts_Figures_Fact_Sheet.pdf.

hungry, may quite literally forget to eat and, even if they do remember, may be unable to figure out how to prepare even the most rudimentary of meals. In this all too common scenario, the probability of admission to a nursing home rises exponentially. Yet a low cost, simple intervention such as home meal delivery or congregate meals can reduce hospitalization and delay nursing home admissions and thus, significantly lower the costs of an otherwise extremely high-cost population and a major driver of health care expenditures.

Aside from these common medical problems, there are many social factors that play a vital role in the health and well-being of the elderly. Compared to the under-65 population, almost 9 percent of the elderly live at or below poverty.¹¹ Data from numerous studies show that poverty and hunger go hand-in-hand in the elderly. This problem will only get worse. According to a recent survey by AARP's Public Policy Institute, one-quarter of those surveyed who were ages 50 and older said they had already exhausted all their savings during the recession, and more than one-third said they were having difficulty making ends meet and had to stop or cut back on saving for retirement.¹² Food insecurity is a problem that will grow as more and more old people are forced to choose among food, rent, or medicine. Addressing hunger through Title III's Nutrition Programs will help seniors stay independent in their own homes.

Physical disability, frailty, and dementia separately and in combination mean that many seniors experience difficulty with shopping and meal preparation. For example, people who have "aged in place" either in rural or suburban areas may find themselves living miles from a grocery store. If they are no longer able to drive, they are dependent on the good will of neighbors, friends, or relatives to shop for food. Even in areas with reasonably good public transportation, buses and subways may be difficult for the frail and disabled, especially if trying to carry groceries or maneuver a small shopping cart. Furthermore, as I can attest from my own experiences making home visits in the South Bronx, many patients are afraid to venture beyond their apartments. They learned the hard way that denizens of the urban jungle see them as easy prey. I cannot tell you how many of my patients ended up defaulting to a tea-and-toast diet, which is essentially devoid of nutritional benefit, because they were trapped in their own apartments and couldn't or wouldn't risk a trip to the store for food. For these people, the meals-on-wheels program was central to their survival.

Does undernutrition or hunger really matter? Absolutely. Undernutrition leads to several types of nutritional deficiencies. Whether it's because they do not eat enough

¹¹ U.S. Department of Health and Human Services, Administration on Aging, *A Profile of Older Americans: 2010* (Washington, D.C.: AoA, 2010), http://www.aoa.gov/aoaroot/aging_statistics/Profile/2010/docs/2010profile.pdf.

¹² S. E. Rix, *Recovering from the Great Recession: Long Struggle Ahead for Older Americans* (Washington, D.C.: AARP, May 2011), http://assets.aarp.org/rgcenter/ppi/econ-sec/insight50_recovering.pdf.

calories to maintain weight, get insufficient protein to maintain muscles and other vital organs, or have deficiencies of vitamin and micronutrients, such as zinc, bad things happen to older people eat who do not eat enough good food. These problems include:

- weight loss—at least two longitudinal studies suggest that weight loss in later life predicts mortality;¹³
- skin problems, such as the development of pressure ulcers and decreased wound healing, especially of the skin tears that are prone to the papery skin seen in the oldest old; unhealed wounds leave people vulnerable to infections of the surrounding skin, soft tissues, and underlying bone;
- loss of muscle mass, or sarcopenia, causes loss of strength and function that predisposes to increased falls leading to hospitalization, nursing home placement, and death;¹⁴
- suppressed immune function, which makes people more susceptible to infections and less able to mount a defense against otherwise minor infections;
- fatigue that exacerbates depressive symptoms and saps any energy an individual might have to stay engaged with their communities and wider social network;
- increased frailty, which has been described as loss of physiologic reserve that increases the risk of disability; this can be a precursor to being dependent on another individual to compensate for functional deficits;¹⁵
- functional decline and impairment, which means people have trouble with their own personal care, like bathing, as well as things like ambulation, thus increasing the risk of falls and gradual loss of the capacity to independently manage routine household tasks such as grocery shopping and meal preparation;
- higher complication rates and more severe complications from underlying chronic conditions or acute inter-current illnesses, such as pneumonia, and longer lengths of stay when hospitalized;
- depression, loneliness, and a condition known as pseudodementia;

¹³ Institute of Medicine, *The Role of Nutrition in Maintaining Health in the Nation's Elderly: Evaluating Coverage of Nutrition Services for the Medicare Population* (Washington, D.C.: National Academies Press, 2000), http://www.nap.edu/catalog.php?record_id=9741.

¹⁴ R. A. Fielding, B. Vellas, W. J. Evans et al., "Sarcopenia: An Undiagnosed Condition in Older Adults, Current Consensus Definition: Prevalence, Etiology, and Consequences, International Working Group on Sarcopenia," *Journal of the American Medical Directors Association*, May 2011 12(4):249–56.

¹⁵ D. M. Buchner and E. H. Wagner, "Preventing Frail Health," *Clinics in Geriatric Medicine*, Feb. 1992 8(1):1–17, cited in K. Rockwood, R. A. Fox, P. Stolee et al., "Frailty in Elderly People: An Evolving Concept," *Canadian Medical Association Journal*, Feb. 15, 1994 150(4):489–95.

- falls that may arise from altered function brought about by any number of vitamin deficiencies such as hypovitaminosis D, vitamin B12 deficiency, or from unrecognized dehydration;
- delirium, which even when transient, has been shown to have long-term sequelae; and
- anemia from deficiencies of vitamins B6 (sideroblastic anemia) or B12 (megaloblastic anemia), which leaves people feeling exhausted.

Any of these negative health outcomes have enormous implications for service utilization. For example, as mentioned above, many of the consequences of malnutrition increase the risk of a fall. According to the Centers for Disease Control and Prevention:¹⁶

- one of three adults ages 65 and older falls each year;^{17,18}
- of those who fall, 20 percent to 30 percent suffer moderate-to-severe injuries that make it hard for them to get around or live independently and increase their chances of early death;¹⁹ and
- older adults are hospitalized for fall-related injuries five times more often than they are for injuries from other causes.²⁰

These statistics translate into costs:

- In 2000, the total direct cost of all fall injuries for people age 65 and older exceeded \$19 billion—\$0.2 billion for fatal falls and \$19 billion for nonfatal falls.²¹
- By 2020, the annual direct and indirect cost of fall injuries is expected to reach \$54.9 billion (in 2007 dollars).²²

¹⁶ Centers for Disease Control and Prevention, “Costs of Falls Among Older Adults,” (Atlanta: CDC), <http://www.cdc.gov/HomeandRecreationalSafety/Falls/fallcost.html>.

¹⁷ J. M. Hausdorff, D. A. Rios, and H. K. Edelberg, “Gait Variability and Fall Risk in Community-Living Older Adults: A One-Year Prospective Study,” *Archives of Physical Medicine and Rehabilitation*, Aug. 2001 82(8):1050–56.

¹⁸ M. C. Hornbrook, V. J. Stevens, D. J. Wingfield et al., “Preventing Falls Among Community-Dwelling Older Persons: Results from a Randomized Trial,” *Gerontologist*, Feb. 1994 34(1):16–23.

¹⁹ B. H. Alexander, F. P. Rivara, and M. E. Wolf, “The Cost and Frequency of Hospitalization for Fall-Related Injuries in Older Adults,” *American Journal of Public Health*, July 1992 82(7):1020–23.

²⁰ Ibid.

²¹ J. A. Stevens, P. S. Corso, E. A. Finkelstein et al., “The Costs of Fatal and Nonfatal Falls Among Older Adults,” *Injury Prevention*, Oct. 2006 12(5):290–95.

²² F. Englander, T. J. Hodson, and R. A. Terregrossa, “Economic Dimensions of Slip and Fall Injuries,” *Journal of Forensic Sciences*, Sept. 1996 41(5):733–46.

- In a study of people ages 72 and older, the average health care cost of a fall injury totaled \$19,440, which included hospital, nursing home, emergency room, and home health care.²³

If home-delivered services and congregate meal programs could reduce these costs by even a fraction, the program would pay for itself. If we included the other conditions listed above, the value of these Title III–C nutritional programs is manifest. Especially since we know, from research studies and experience, that providing nutritional support to vulnerable elders works. For example, in one study, nutritional support of malnourished elderly individuals after a hospitalization actually improved their function.²⁴ Meaning? It reduced the likelihood of nursing home placement.

This discussion would not be complete however without discussing the impact of these programs on the elderly. Ensuring that old people have a balanced, nutritionally complete diet can reverse many of the consequences of malnutrition or prevent them outright. People feel better, stronger, and more able to care for themselves. However, the importance of these programs transcends food—they give people not only something to eat, they give them a reason to eat. They are a lifeline out to the community for low-income older people whose world has often been reduced to a couple of rooms because of frailty, illness, and dysfunction. The Nutrition Programs are a source of socialization that is often missing. Knowing that someone is coming by is often the only reason they get out of bed. The relationship with the person delivering the meal or getting out to a lunch program to see friends a couple of times a week is as important as the food itself.

I experienced this with my father. He received home-delivered meals after an automobile accident at age 82 left him with a traumatic brain injury. He could no longer drive, his higher executive functions were impaired, and gradually his short-term memory eroded but his desire to live in his own home stayed strong. I live 75 miles away and don't own a car. I can assure you that had he not had Meals on Wheels, which came by five days a week, he would have been in a nursing home for the last 14 years of his life. I also know how much he valued the volunteer's visit, which was the high point of his day. That volunteer was his audience for an all too brief but important few minutes a day, relieving some of the tedium and loneliness of his life.

Meals on Wheels did something for me, too, in my role of long-distance caregiver. It was my early warning system if something was going wrong. Over the course of several years I'd get a call that my father either appeared bruised from having

²³ J. A. Rizzo, R. Friedkin, C. S. Williams et al., "Health Care Utilization and Costs in a Medicare Population by Fall Status," *Medical Care*, Aug. 1998 36(8):1174–88.

²⁴ F. Neelemaat, J. E. Bosmans, A. Thijs et al., "Post-Discharge Nutritional Support in Malnourished Elderly Individuals Improves Functional Limitations," *Journal of the American Medical Directors Association*, May 2011 12(4):295–301.

fallen or “wasn’t himself” or that the heat didn’t seem to be working. Meals on Wheels were my eyes. The volunteers got to know my father and alerted me about problems before they became catastrophes.

The bottom line is Title III–C funds are amazingly effective at helping seniors help themselves by feeding not only the body but the person. Having social connections and having enough to eat fulfills several basic human needs and keeps people healthier, longer. Healthy people, even when they are very old, don’t need and don’t use as many health care services as sick people do. Without a strong program of home-delivered meals and congregate dining, the big-ticket items increase: more trips to the emergency rooms, more frequent hospitalizations with longer stays, more readmissions, and more years in nursing homes.²⁵ As a nation, it behooves us to start spending smart. Providing funding for these programs is the way to do just that. Nutritional programs are a low-cost solutions for high-cost problems.

In conclusion I would make several recommendations for things that can be done at the federal level. First, I would urge not only the reauthorization of funding for the nutritional programs covered under Title III–C of the Older Americans Act, I would suggest they be expanded. The elderly use more health care services than any other age cohort and the low-income elderly and dual eligibles use even more. Therefore, while there is no single silver bullet to rein in costs for Medicare, these Title III programs come close to a simple, low-cost, low-tech intervention that’s very popular with patients and their families, with an incredible payback. Second, I would advise support for demonstrations, pilot programs, evaluations, and applied research aimed at better understanding the needs of the populations served and testing creative strategies for improving outcomes. Third, I would recommend that certain elements of the program be strengthened to make it even more cost-effective. Specifically, the requirements for the Nutrition Programs under the Older Americans Act should:

- Ensure the nutritional completeness and adequacy of key nutrients in delivered or served meals. For many seniors these meals are their main source of daily food intake. Therefore, they need to have sufficient calories, including high-quality protein from meat, fish, or poultry; green, leafy vegetables; and fresh fruit. Research has shown that nutritional supplements are unnecessary if people are eating a well-balanced diet.
- Target specific highly vulnerable groups, such as women, African Americans, and the homebound for receipt of enhanced services.

²⁵ Y. Yang, C. J. Brown, K. L. Burgio et al., “Undernutrition at Baseline and Health Services Utilization and Mortality over a One-Year Period in Older Adults Receiving Medicare Home Health Services,” *Journal of the American Medical Directors Association*, May 2011 12(4):287–94.

- Tailor the program's services to increase effectiveness for people with particularly high burdens of illness or high energy (caloric) requirements, such as those with Parkinson's disease, who burn through calories because of tremors.
- Include nutritional education and counseling to patients and caregivers.
- Give the program flexibility to accommodate regional, ethnic, and racial food preferences and improve palatability and taste.

I thank you for your attention and for providing me with the opportunity to address the Committee.