SENIOR HUNGER AND THE OLDER AMERICANS ACT

Mary Jane Koren, M.D., M.P.H.
Vice-President
The Commonwealth Fund
One East 75th Street
New York, NY 10021
mjk@cmwf.org
www.commonwealthfund.org

Invited Testimony before the
U.S. Senate Committee on Health, Education, Labor and Pensions
Subcommittee on Primary Health and Aging

Hearing entitled Senior Hunger and The Older Americans Act

June 21, 2011

The views presented here are those of the author and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.

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 as the assistant medical director of the Montefiore Home Health Agency to patients living throughout the Bronx and later was appointed to be the Director of NY State's Bureau of Long Term Care Services. Currently, I am a Vice-President at the Commonwealth Fund, an independent private foundation working toward a high performing health system which is located in New York City. The grant-making program I manage is aimed at improving long term services and supports particularly for people covered by both Medicare and Medicaid, also called the "dual eligibiles", and for those transitioning from one level of care to another.

No matter which hat I'm wearing – geriatrician, policy maker or grantmaker – my goal has been, and is, to help frail older adults maintain their independence and well-being. The program I would speak to today, Title III-C of The Older Americans Act, Nutrition Services, is probably one of the simplest, yet most effective programs yet devised to help low-income seniors stay in their homes and stay out of hospitals and nursing homes. You have heard today from both federal and state policymakers and from those who administer these programs. I will therefore try to give you a somewhat different perspective. Based on my professional background and front-line experience caring for elderly patients I'll briefly cover four areas: First, I'll say a bit on exactly why hunger, or under-nutrition, is so common in this population; second, talk about the consequences of under-nutrition 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 lastly, 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 under-nutrition – 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 there is the tendency to only eat a little bit or

even to 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 which 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/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 mealtimes 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 try to 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 its 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 under-nutrition 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[3] because of loss of appetite, diminished enjoyment of food, difficulty with food preparation and consumption of a less varied diet[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

---

[1] "Nutrition" ch2, p9. Merck Manual of Geriatrics, Second Edition, (Whitehouse Station, NJ: Merck & Co., Inc. 1995).

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

[3] German L, Kahana C, Rosenfeld V, Zabrowsky I, et al. "Depressive symptoms are associated with food insufficiency and nutritional deficiencies in poor community-dwelling elderly people". J Nutr Health Aging. 2011;15(1):3-8, cited in Morley JE. "Undernutrition: a major problem in nursing homes". J Am Med Dir Assoc. 2011 May;12(4):243-6. Epub 2011 Mar 23.

[4] Sharkey JR, Branch LG, Zohoori N, Giuliani C, et al. "Inadequate nutrient intakes among homebound elderly and their correlation with individual characteristics and health-related factors". Am J Clin Nutr. 2002 Dec;76(6):1435-45.

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]. I would also note that social isolation is one of the 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 what's often a hidden problem and in getting help for an elder, who may have no other contact with people outside the home.

In addition to the impact of depression on food intake, older people have multiple chronic conditions, such as diabetes, heart failure, kidney disease, stroke and arthritis. The prevalence for those over age 65 of two to four chronic illnesses is about 50%. For those over age 75 almost 20% have five or more chronic illnesses[7] which take 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. The presence and perceived effect of individual diseases and conditions on daily activities is termed the "the burden of disease"[8] – and 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 3 or more prescription drugs per month. Almost 40 percent are taking five or more prescription medications per month[9] – and that's the average! 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 those with heart problems, directly suppress appetite. Others, like medications for arthritis or antibiotics, can cause stomach upset.

---

[5] Penninx BW, Leveille S, Ferrucci L, van Eijk JT, et al. "Exploring the effect of depression on physical disability: longitudinal evidence from the established populations for epidemiologic studies of the elderly". Am J Public Health. 1999 Sep;89(9):1346-52, cited in Sharkey JR, Branch LG, Zohoori N, Giuliani C, et al. "Inadequate nutrient intakes among homebound elderly and their correlation with individual characteristics and health-related factors". Am J Clin Nutr. 2002 Dec;76(6):1435-45.

[6] "Who Are the Abusers". National Center for Elder Abuse, Administration on Aging. Accessed June 17, 2011 http://www.ncea.aoa.gov/NCEAroot/Main_Site/FAQ/Basics/Abusers.aspx.

[7] "Chronic Care: A Call to Action for Health Reform". AARP Public Policy Institute. Accessed June 17, 2011 http://assets.aarp.org/rgcenter/health/beyond_50_hcr.pdf.

[8] Ibid. 4

[9] Gu Q, Dillon CF, Burt VL. "Prescription Drug Use Continues to Increase: U.S. Prescription Drug Data for 2007-2008". NCHS Data Brief. 2010 Sep;(42):1-8. Accessed June 17, 2011 http://www.cdc.gov/nchs/data/databriefs/db42.pdf.

Then, 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 under-nutrition in the elderly is dementia, a slowly progressive disease found in almost 50% of people over the age of 85. It is the 5th leading cause of death for those over 65[10]. Data shows that it strikes women with far greater frequency than men, with 2/3 of the cases being women, who according to census data are far more likely than men to be poor and live alone. So here we have people who may not feel hungry, who 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 thus significantly lowering the costs of what is otherwise an extremely high cost population and a major driver of health care expenditures.

Aside from these common medical problems however 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% of the elderly live at or below poverty[11]. Data from numerous studies shows that poverty and hunger go hand in hand in the elderly. This is a problem that will only get worse. A recent survey by AARP's Public Policy Institute[12] reported that one quarter of those surveyed who were ages 50 and over, said they had already exhausted all their savings during the recession and over a third who were having difficulty making ends meet had had to stop or cut back on saving for retirement. Food insecurity is a problem that will grow as more and more old people are faced with having to choose between 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've "aged in place" either in rural or suburban areas may find themselves living

---

[10] "2011 Alzheimer's Disease Facts and Figures, Fact Sheet". March 2011, p1-2. Accessed June 17, 2011 http://www.alz.org/documents_custom/2011_Facts_Figures_Fact_Sheet.pdf.

[11] "A Profile of Older Americans: 2010", p1. Administration on Aging (AoA), U.S. Department of Health and Human Services. Accessed June 17, 2011 http://www.aoa.gov/aoaroot/aging_statistics/Profile/2010/docs/2010profile.pdf.

[12] "Recovering from the Great Recession: Long Struggle Ahead for Older Americans". May 2011, p3. Sara E. Rix, AARP Public Policy Institute. Accessed June 17, 2011 http://assets.aarp.org/rgcenter/ppi/econ-sec/insight50_recovering.pdf.

miles from a grocery store and, unable any longer to drive, dependent on the good will of neighbors, friends or relatives to get out 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 lug 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 saw them as "easy prey". I cannot tell you how many of my patients ended up defaulting to a "tea and toast" diet, 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 them, meals on wheels was central to their survival.

But does "under-nutrition" or "hunger" really matter? Absolutely – and here's why. Under-nutrition leads to any one of several types of nutritional deficiencies. Whether it's not enough calories to maintain weight, insufficient protein to maintain muscles and other vital organs or deficiencies of vitamin and micronutrients, such as zinc, unless older people eat enough "good food" bad things happen. These include:

- Weight loss – and at least 2 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 such a common occurrence with the papery skin seen in the oldest old. Unhealing 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 which 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 which exacerbates depressive symptoms and saps any energy an individual might have to stay engaged with their communities and wider social network;

[13] "The Role of Nutrition in Maintaining Health in the Nation's Elderly: Evaluating Coverage of Nutrition Services for the Medicare Population". 2000, p67. Institute of Medicine. National Academy Press. Washington DC.

[14] Fielding RA, Vellas B, Evans WJ, Bhasin S, et al. "Sarcopenia: an undiagnosed condition in older adults. Current consensus definition: prevalence, etiology, and consequences. International working group on sarcopenia". J Am Med Dir Assoc. 2011 May;12(4):249-56. Epub 2011 Mar 4.

- Increased frailty, which has been described as loss of physiologic reserve that increases the risk of disability, which is a sort of precursor state 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, e.g. 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 sometimes a condition known as pseudodementia;
- Falls which 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 sequellae;
- Anemia from deficiencies of B6 (sideroblastic anemia) or B12 (megaloblastic anemia) which leaves people feeling exhausted and can even worse heart failure..

Any of these negative health outcomes have enormous implications for service utilization. For example, as was mentioned above, many of the consequences of malnutrition increase the risk of a fall. Already, according to the CDC[16]:

- One in three adults 65 and older falls each year[17,18].
- Of those who fall, 20% to 30% 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].
- Older adults are hospitalized for fall-related injuries five times more often than they are for injuries from other causes[20].

---

[15] Buchner DM, Wagner EH. “Preventing frail health”. Clin Geriatr Med. 1992 Feb;8(1):1-17, cited in Rockwood K, Fox RA, Stolee P, Robertson D, et al. “Frailty in elderly people: an evolving concept”. CMAJ. 1994 Feb 15;150(4):489-95.
[16] “Costs of Falls Among Older Adults”. Centers for Disease Control and Prevention. Accessed June 17, 2011, http://www.cdc.gov/HomeandRecreationalSafety/Falls/fallcost.html.
[17] Hausdorff JM, Rios DA, Edelberg HK. “Gait variability and fall risk in community-living older adults: a 1-year prospective study”. Arch Phys Med Rehabil. 2001 Aug;82(8):1050-6.
[18] Hornbrook MC, Stevens VJ, Wingfield DJ, Hollis JF, et al. “Preventing falls among community-dwelling older persons: results from a randomized trial”. Gerontologist. 1994 Feb;34(1):16-23.
[19] Alexander BH, Rivara FP, Wolf ME. “The cost and frequency of hospitalization for fall-related injuries in older adults”. Am J Public Health. 1992 Jul;82(7):1020-3.

These statistics translate into real money:

- In 2000, the total direct cost of all fall injuries for people 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].
- In a study of people age 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 by even a fraction what just this one preventable event costs the health care system, the program would pay for itself. Multiply that by the number of items in the list above and the value of these Title III-C Nutritional programs is manifest. Especially since we know, from research studies and from 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]. Translation? It reduced the likelihood of nursing home placement.

This discussion would not be complete however without asking what the impact of these programs is for the elderly themselves. Ensuring that old people have a balanced, nutritionally complete diet, can reverse many of the consequences of malnutrition or outright prevent them. People feel better, stronger, and more able to care for themselves. Which is good. However the other real “take away” is that the importance of these programs transcends food – they not only give people something to eat, they give people a reason to eat. They are a life-line out to the community for low-income older people whose world has often been reduced to a couple of rooms due to frailty, illness and dysfunction. The nutrition programs are a source of socialization which is so often missing for the old old. Knowing that someone’s coming by is often the only reason for them to get out of bed. Forming a relationship with the person delivering the

---

[20] Ibid. 19

[21] Stevens JA, Corso PS, Finkelstein EA, Miller TR. “The costs of fatal and nonfatal falls among older adults”. Inj Prev. 2006 Oct;12(5):290-5.

[22] Englander F, Hodson TJ, Terregrossa RA. “Economic dimensions of slip and fall injuries”. J Forensic Sci. 1996 Sep;41(5):733-46.

[23] Rizzo JA, Friedkin R, Williams CS, Nabors J, et al. “Health care utilization and costs in a Medicare population by fall status”. Med Care. 1998 Aug;36(8):1174-88.

[24] Neelemaat F, Bosmans JE, Thijs A, Seidell JC, et al. “Post-discharge nutritional support in malnourished elderly individuals improves functional limitations”. J Am Med Dir Assoc. 2011 May;12(4):295-301. Epub 2011 Feb 11.

meal so they have someone to talk to or getting out to a lunch program where they'll see friends a couple of times a week is as important as the food itself.

I saw 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 from where he lived 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 out there in his house in the country.

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 either he appeared bruised from having fallen, or "wasn't himself" or the heat didn't seem to be working. Meals on Wheels were my eyes: they got to know my father and alerted me about "a problem" before it became "a catastrophe".

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 really big ticket items go up: more trips to the emergency rooms, more frequent hospitalizations with longer stays, more readmissions, and more years in a nursing home[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

---

[25] Yang Y, Brown CJ, Burgio KL, Kilgore ML, et al. "Undernutrition at baseline and health services utilization and mortality over a 1-year period in older adults receiving Medicare home health services". J Am Med Dir Assoc. 2011 May;12(4):287-94. Epub 2010 Oct 27

nutritional programs covered under Title III-C of the Older American's Act, I would suggest they be expanded. The elderly use more health care services than any other age cohort and the low income elderly, or dual eligibles, even more so. Therefore, while there is no single "silver bullet" to rein in costs for Medicare these Title III programs come about as close as you will ever get to a simple, low cost, low tech intervention that's very popular with patients and their families with an incredible pay back. **Second**, I would advise that there be 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 American's 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, 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.
- 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 providing the opportunity of addressing the Committee.