

# The Case for Expanding Medicare

Hearing Loss: The Economic,  
Social and Medical Factors  
Impacting Healthy Aging

*This paper is based on an unpublished manuscript authored by Margaret Wallhagen, Ph.D.; University of California, San Francisco<sup>1</sup>.*

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## OVERVIEW

As we age, the ability to communicate becomes an increasingly critical element in maintaining a better quality of life. To remain cognitively and socially engaged with families, friends, and other individuals, seniors with a hearing impairment must have access to effective treatments to help reduce the incidence of social isolation, an important driver of morbidity and mortality in older adults<sup>2</sup>.

According to the National Institute on Deafness and Other Communication Disorders approximately one third of Americans between ages 65 and 74 and nearly half of those over age 75 have hearing loss. Age related hearing loss generally starts with a decrease in the ability to hear high frequency sounds and is a distortion of sound transmission, not a decrease in sound as might be experienced when wearing ear plugs<sup>3</sup>.

Hearing loss is the third most prevalent chronic health condition facing older adults. Unfortunately, only 20% of those individuals who might benefit from treatment actually seek help. Most tend to delay treatment until they cannot communicate even in the best of listening situations. On average, individuals wait more than 10 years after an initial diagnosis to be fitted with their first set of hearing aids<sup>4</sup>.

Hearing aids have proven effective in alleviating the communicative and psychosocial consequences of mild, moderate, and moderately-severe sensorineural hearing loss in adults. A recent study conducted on 194 older adults with mild to moderately-severe sensorineural hearing loss found that beneficial treatment effects from hearing aids emerge as early as six weeks after initiation of treatment. The study concluded that hearing aids represent a relatively inexpensive intervention for the amount of benefit gained<sup>5</sup>.

According to Dr. Frank Lin, M.D., Ph.D., of Johns Hopkins University, prevalence of hearing aid use has not changed substantially for decades in the United States or around the world. With so many new sound technologies, extended life spans and an array of professionals who can assist with hearing assessments and identification of proper devices, it is discouraging that an estimated 70% of Americans with hearing problems between ages 65 and 84 are not using hearing aids.

Hearing loss also intersects with health and health outcomes. Many older persons with hearing loss misunderstand or misinterpret what is said by a health professional. Conversely, hearing loss can also influence diagnostic accuracy. Individuals with hearing loss are sometimes thought to have cognitive impairment when they do not respond or respond inappropriately to questions.

Studies have increasingly linked cognitive decline and unmanaged hearing loss to the progression of dementia and Alzheimer's disease<sup>6</sup>. According to the Alzheimer's Association, hearing loss can lead to frustration and embarrassment and ultimately to social disengagement. Individuals who try to manage hearing loss without any form of hearing assistance expend considerable cognitive and physical resources in trying to cope and it often becomes "easier" to opt out of conversation than address the root of the problem<sup>7</sup>. Recent studies do not state unequivocally that hearing loss is the cause of

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dementia or Alzheimer's disease; what they do highlight, however, is that the curtailment of cognitive stimulation is an important and incontrovertible factor in the acceleration of these conditions.

Recently Dr. Frank Lin and his team at Johns Hopkins University and the National Institute on Aging found that shrinkage of the brain, which is part of natural aging, seems to be fast-tracked in older adults with hearing loss. They used data from the Baltimore Longitudinal Study on Aging that began in 1958 and tracked individuals for more than 10 years. They found that those with hearing loss had a higher probability of developing dementia, with the probability rising with the severity of the hearing loss. According to respected researchers in the field, there is a striking relationship between hearing loss and development of dementia<sup>8</sup>. If confirmed, this would have a profound financial impact on the American healthcare system and particularly on Medicare, the national social insurance program administered by the federal government which provides health care coverage for seniors 65 and above who have paid into the system during their working careers. However, Medicare does not provide payment "for any expenses incurred for items for services {for} hearing aids or examinations"<sup>9</sup>.

This issue brief is intended to identify the arguments for modification of Medicare law related to hearing loss in order to enhance healthy aging for America's seniors and, over the long term, help to reduce some of the costs associated with dementia which adversely impact the Medicare program. Simply put, if seniors can lead more productive and healthy lives with a hearing device, they will improve the quality of their lives and may delay the on-set of other life-altering conditions.

## PSYCHOSOCIAL IMPACT OF HEARING LOSS

Numerous studies have demonstrated a link between hearing loss and social isolation. In well-accepted research dating from 1982, it was found that the individuals in the study who were most isolated exhibited the worst-measured hearing, the greatest self-perceived hearing disability, and the most challenges in auditory processing<sup>10</sup>. Remaining engaged in personal relationships and activities is associated with "successful aging," and hearing loss directly affects the ability and desire to stay involved.

According to several studies, hearing loss is connected to:

- ◆ **Depression** – Depression is prevalent in the elderly, with 15 to 20 percent of older adults having been diagnosed with the illness. A strong relationship has been identified between hearing problems and depression.
- ◆ **Loss of independence** – Hearing loss affects independence by increasing reliance on support systems. Age-related hearing loss impacts an individual's ability to hear warning signals, such as sirens, smoke alarms, disaster warnings, on-coming cars and phones. Driving or walking safely can be affected when individuals do not hear on-coming cars<sup>11</sup>.
- ◆ **Falls** – Hearing loss may also be a risk factor for mortality because of balance issues, walking difficulty and falls.
- ◆ **Cognitive impairment** – Preliminary studies indicate a possible associative relationship between hearing loss and cognitive decline. Based on a study of older adults that began in 1958 in Baltimore where individuals were followed for more than 10 years, those with hearing loss had a higher probability of developing dementia with the probability rising with the severity of hearing

loss. The relationship between hearing loss and the development of dementia is “convincing and striking,” according to Marilyn Albert, professor of neurology at the Johns Hopkins University School of Medicine<sup>12</sup>. Most professionals agree that the curtailment of cognitive stimulation is an important and incontrovertible factor in the acceleration of these conditions<sup>13</sup>. Findings released by Dr. Frank Lin in early 2014 from a Johns Hopkins University and National Institute on Aging study found that as the brain becomes smaller with age, the shrinkage seems to be fast-tracked in older adults with hearing loss. These findings add to the growing list of health consequences associated with hearing loss.<sup>14</sup>

## HEARING LOSS INTERVENTIONS

Age-related hearing loss is associated with sadness, depression, worry, anxiety, emotional turmoil and insecurity according to Theresa Hnath Chisolm of the University of South Florida, and it can have many different impacts on a person. In order to properly assess hearing loss and the kinds of interventions that would be helpful most professionals recommend an audiogram. This mechanism determines how sensitive an individual’s hearing is to different sounds that range in pitch from low to high and the degree of hearing loss ranging from mild to profound. In addition, functional hearing-related difficulties need to be assessed<sup>15</sup>.

## BARRIERS TO THE TREATMENT OF HEARING LOSS

According to Meg Wallhagen of the University of California, San Francisco, multiple barriers minimize the extent and effective use of hearing health care services.

### WHY MILLIONS WITH HEARING LOSS ARE UNTREATED

- ◆ lack of coverage of hearing health care services and hearing aids by Medicare and most other forms of insurance;
- ◆ the cost of hearing aids;
- ◆ lack of agreement across the hearing services community about payment approaches;
- ◆ the stigma associated with hearing loss;
- ◆ the fact that hearing loss comes on slowly which limits initial awareness;
- ◆ lack of knowledge of alternatives to hearing aids;
- ◆ lack of knowledge of and appreciation for hearing loss by health care practitioners and lack of screening; and
- ◆ the prioritization of other health-related concerns by both individuals with hearing loss and their health care providers<sup>16</sup>.

Hearing aid interventions can improve emotional, social, cognitive and communication functioning and those who are properly fitted with a hearing aid have a higher quality of life as a function of hearing level<sup>17</sup>.

A senior collecting an average monthly Social Security check of \$1,287, without other income, can ill afford a hearing aid that might range in cost from \$3,000 - \$7,000. In most mortality charts, a 65 year old senior today may live another twenty years contrasted with a senior in 1965 who was expected to live less than ten years. In fact, the fastest growing segment of the population is seniors in the 90-99 age category which grew 30% between 2000 and 2010<sup>18</sup>.

## **NAVIGATING THE COMPLEX HEALTH CARE SYSTEM**

Seniors must navigate a complex marketplace where they may begin the journey with their primary care provider but require the services of a hearing health care specialist. Of course, a consumer can go directly to a hearing health care specialist, but referrals are needed to obtain coverage of the assessment performed by the audiologist. Additionally, there is a wide array of hearing specialists to choose from including audiologists; Ear, Nose and Throat physicians; and hearing instrument specialists (hearing aid dispensers).

Providers in the primary care setting could help overcome many of the barriers to accessing good hearing health care. Yet most do not screen for, pay much attention to, or even know much about hearing loss<sup>19</sup>.

Lack of coverage of hearing health care services and hearing aids by Medicare and most other forms of insurance and lack of agreement across the hearing services community about payment approaches are serious barriers to seniors getting help. In fact, since many health insurance programs use Medicare as a model for this type of coverage, lack of hearing loss coverage is wide spread. Bundling of services to include assessments, fittings and adjustments of hearing aids, which is common place, masks the true cost of the hearing device and presents a very costly scenario for a typical patient.

## **THE CASE FOR MEDICARE EXPANSION**

The increasing numbers of “baby boomers” becoming eligible for Medicare are more tech savvy than previous generations and may boost the demand for hearing services. In fact, the United States’ 65-plus population is expected to represent 20% of the nation in just over a decade. The economic need for many of these seniors to remain in the work force longer underscores the compelling reason to ensure that they stay active, healthy and hearing abled.

As seniors live longer, their productivity and quality of life can increase if Medicare is modernized to include hearing loss benefits. The expensive care for treatment of persons with dementia and the increasing prevalence of cognitive impairment with age necessitates assessments and devices that may postpone costlier and more complex treatments.

The National Committee to Preserve Social Security and Medicare Foundation is committed to educating policy leaders on the need to expand Medicare coverage to include hearing assessments and hearing devices and recommends the following:

- ◆ An immediate study of the economic impact of hearing loss on the 65-plus population conducted by a germane government agency, i.e. Agency for Healthcare Research and Quality (AHRQ);
- ◆ A Health and Human Services evaluation of the projected costs of Medicare lifting its exclusion for reimbursement for age-related hearing loss assessments and hearing devices;
- ◆ A poll of the hearing related testing and referral practices of primary care physicians undertaken by the National Committee Foundation and a major national physician's organization;
- ◆ Congressional hearings on age-related hearing loss and the impact on seniors' quality of life and productivity; and
- ◆ Passage of legislation lifting the 49 year old Medicare hearing exclusion.

When Congressman Claude Pepper introduced H.R. 1127 in 1977 to allow for hearing services under Medicare<sup>20</sup>, America's senior population was smaller, life expectancy was lower and our knowledge about the connection between hearing loss and other physical and mental illnesses was more limited.

Today we understand the devastating and sometimes ravaging effects of hearing loss on individuals and their families. As our nation marks the 50<sup>th</sup> anniversary of Medicare in 2015, the time is now to take action to ensure that seniors no longer have to endure the silence of old age and the many negative consequences associated with hearing loss.

## FOOTNOTES

<sup>1</sup> Wallhagen, Margaret I. "Hearing Loss: Impact, Policy Implications, and Future Directions." The National Committee to Preserve Social Security and Medicare Foundation. 10 October 2014. Web. <http://www.ncpssmfoundation.org/Portals/0/hearing-loss.pdf>

<sup>2</sup> "Background." Introduction. *Hearing Loss and Health Aging: Workshop Summary*. Ed. David Reuben. Washington, DC: National Academy, 2014. 1-2. Print. Forum on Aging, Disability and Independence.

<sup>3</sup> Oyler, Anne. "Untreated Hearing Loss in Adults: A Growing National Epidemic." American Speech-Language-Hearing Association, n.d. Web.

<sup>4</sup> Ibid.

<sup>5</sup> Weinstein, Barbara. "Hearing Loss and Hearing Aids in Adults." Treatment Efficacy Summary (n.d.): American Speech-Language-Hearing Association. Web.

<sup>6</sup> Rokins, Tom. "The Links Between Hearing Loss and Dementia." *The Huffington Post*. TheHuffingtonPost.com, 15 Apr. 2013.

<sup>7</sup> Lewis, Melanie. "Hearing Loss and Dementia." *Alzheimer's and Dementia Caregivers Tips Blog*. Alzheimers Association, 15 May 2014.

<sup>8</sup> John Hopkins University. School of Medicine. *Hearing Loss Linked to Accelerated Brain Tissue Loss. News and Publication*. John Hopkins University, 22 Jan. 2014. Lin believes that there is urgency in treating hearing loss rather than ignoring it: "If you want to address hearing loss well," Lin says, "you want to do it sooner rather than later".

<sup>9</sup> United States. Department of Health and Human Services. Center for Medicare and Medicaid Services. *Medicare Benefit Policy Manual: General Exclusions From Coverage*. Washington, DC: US Government Printing Office, 2014. It is interesting to note that in these challenging economic times those who acquired their hearing loss before retirement were estimated to earn only 50% to 70% of what their non-hearing-impaired peers earned, thus losing between \$220,000 and \$440,000 in earnings over their working life, depending in part on the age of onset of the hearing loss. This has a direct impact on the monthly Social Security benefits of affected seniors, which can lower their ability to pay out-of-pocket for hearing loss technology. See Meg Wallhagen, "Hearing Loss: Impact, Policy Implications and Future Directions." 4 July 2014. TS. 2. University of California, San Francisco.

<sup>10</sup> Lin, Frank. "Introduction, Background and Overview of the Workshop." Introduction. *Hearing Loss and Health Aging: Workshop Summary*. Washington, DC: National Academy, 2014. 3-7. Print. Forum on Aging, Disability and Independence.

<sup>11</sup> Lewis, Melanie. "Hearing Loss and Dementia." *Alzheimers and Dementia Caregivers Tips Blog*. Alzheimers Association, 15 May 2014.

<sup>12</sup> Albert, Marilyn. "The Impact of Hearing Loss on Cognition." *Hearing Loss and Health Aging: Workshop Summary*. Washington, DC: National Academy, 2014. 24-25. Print. Forum on Aging, Disability and Independence.

<sup>13</sup> Lewis, Melanie. "Hearing Loss and Dementia." *Alzheimers and Dementia Caregivers Tips Blog*. Alzheimers Association, 15 May 2014.

<sup>14</sup> John Hopkins University. School of Medicine. *Hearing Loss Linked to Accelerated Brain Tissue Loss. News and publication*. John Hopkins University, 22 Jan. 2014.

<sup>15</sup> Chisolm, Theresa Hnath. "The Spectrum of Hearing Impairment and Intervention." *Hearing Loss and Health Aging: Workshop Summary*. Washington, DC: National Academy, 2014. 31-36. Print. Forum on Aging, Disability and Independence.

<sup>16</sup> Wallhagen, Meg. "Hearing Loss: Impact, Policy Implications and Future Directions." 4 July 2014. TS. 2. University of California, San Francisco.

<sup>17</sup> Wallhagen, Meg. "Hearing Loss: Impact, Policy Implications and Future Directions." 4 July 2014. TS. 6. University of California, San Francisco.

<sup>18</sup> Hoyert DL, Xu JQ. Deaths: Preliminary Data for 2011. National Vital Statistics Reports; vol 61 no 6. Hyattsville, MD: National Center for Health Statistics. 2012.

<sup>19</sup> Wallhagen, Margaret. "The Current US Health Care Model." *Hearing Loss and Health Aging: Workshop Summary*. Washington, DC: National Academy, 2014. 36-39. Print. Forum on Aging, Disability and Independence.

<sup>20</sup> H.R. 1127 was introduced on January 4, 1977 by Representative Claude Pepper and referred to the House Ways and Means Committee and the Interstate and Foreign Commerce Committee. Several additional bills providing similar coverage were subsequently introduced by other members of the House during the 95<sup>th</sup> Congress.