



Testimony
Before the Subcommittee on Retirement and
Aging
Committee on Health, Education, Labor,
and Pensions
United States Senate

Mapping Out a Brighter Future for Our
Nation's Older Adults: Promoting Brain
Health and Preventing Cognitive Decline

Statement of

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Good afternoon, Madam Chair, Senator Burr, and distinguished Members of the Subcommittee. I am Dr. Julie Louise Gerberding, Director of the Centers for Disease Control and Prevention (CDC) within the Department of Health and Human Services (HHS). Thank you for the opportunity to be here today to talk with you about the importance of safeguarding the cognitive health of our nation's aging population. We at CDC share your commitment to doing all we can to address the impact of cognitive impairment, which includes Alzheimer's disease and other forms of dementia. We recognize the impact it has on individuals, families and society. As you know, the numbers of people with Alzheimer's disease and other dementias are expected to increase substantially over the coming decades unless these conditions can be prevented.

Thanks to funding provided by Congress, CDC has established an Alzheimer's disease segment within the Healthy Aging Program, which we refer to as the Healthy Brain Initiative. We have reached out to collaborate with the National Institutes of Health and the Administration on Aging, and we have formed a strong partnership with the Alzheimer's Association. A critical outcome from this partnership is the release last month of *The Healthy Brain Initiative: A National Public Health Road Map to Maintaining Cognitive Health*. I will tell you more about this *Road Map* shortly.

With the increase in life expectancy over the past century, most older adults look forward to having a long life. However, one of the greatest worries about living to

age 75 and beyond revolves around memory loss¹. The public's concerns about losing their mental capacities as they age are also reflected in a recent national poll conducted by Research!America². When asked to think about aging and losing either physical or mental capacity, 62 percent of respondents indicated they feared losing their mental capacity as compared to 29 percent who feared losing their physical ability. These fears of declining mental capacity and Alzheimer's disease have led to increased attention by the public, the media and public health professionals. Despite all the attention, the public and even many health care providers still know very little about the specific factors that increase a person's risk of experiencing cognitive decline.

CDC recognizes the importance of considering the entire person and not focusing on physical health alone. One of our four key Health Protection Goals is to ensure that all people, and especially those at greater risk of health disparities, will achieve their optimal lifespan with the best possible quality of health in every stage of life. This holistic approach takes into account mental and cognitive health as well as physical health.

I would like to briefly define cognitive decline and talk about how the aging of our population is expected to affect the national burden posed by cognitive impairment. I will then talk about the role of public health, including a brief

¹ American perceptions of aging in the 21st century. Washington DC: The National Council on the Aging, Inc., 2002

² Research!America. America speaks. Poll data summary, volume 7. Alexandria, VA: Research!America; 2006. <http://www.researchamerica.org/polldata/2006/mentalhealth9-06.pdf> (slide 6)

highlight of our achievements to date and where we expect to take these activities in the future.

Definition of Cognitive Decline

Much like physical health, cognition can be viewed along a continuum – from optimal functioning to mild cognitive impairment to severe dementia. While there are certain cognitive changes that occur with age -- what we call normal age-related changes -- such as a slower pace of learning and the need for new information to be repeated, cognitive decline is not a normal part of aging. It is more serious. Cognitive decline can range from mild cognitive impairment to severe dementia, but these two conditions are not necessarily manifestations of the same condition. Many people never develop any serious decline in their cognitive performance and those who develop mild cognitive problems do not necessarily develop dementia or Alzheimer's disease.

Implications of a Rapidly Aging Population

The aging of the U.S. population is expected to place demands on our public health system, medical services and social services. The growth in the number and proportion of older adults is unprecedented in the history of the United States. A hundred years ago, only 3 million people in this country were aged 65 or older. Today, more than 36 million Americans are in this group, and that number is expected to grow during the next 25 years to more than 70 million as the baby boomers age. Public health's prevention efforts and improved medical

care have contributed to a significant increase in life expectancy in the United States during the past century. However, this success has been accompanied by a major shift in the leading causes of death for all age groups, including older adults, from infectious diseases to chronic and degenerative illnesses.

Alzheimer's disease is one of the top ten leading causes of death. We know Alzheimer's disease and cognitive impairment have economic costs and impacts on individuals and their families. Recent scientific advances have highlighted potential risks associated with cognitive decline and may ultimately pave the way for preventing cognitive decline.

Alzheimer's disease and cognitive impairment can cause years of disability, and loss of function and independence. We must focus on preventing or delaying disability and the loss of function. Although the risk for disease and disability clearly increases with advancing age, poor health is not an inevitable consequence of aging. It is a priority for all of us that we work to find ways to prevent or postpone functional loss including losses to physical, mental and cognitive health.

Burden of Cognitive Decline

In the United States, the burden of cognitive impairment has been expressed mainly in terms of prevalence, incidence, and mortality for dementia generally or for Alzheimer's disease in particular. An estimated 4.5 million people currently have Alzheimer's disease, and census population projections indicate that by 2050, as many as 16 million individuals will have the disease. More recently,

prevalence statistics for mild cognitive impairment have become available. Mild cognitive impairment refers to a level of impairment that is more serious than normal age-related changes, but it is not as severe as Alzheimer's disease or other forms of dementia. Studies from the United States and Canada have suggested that mild cognitive impairment may be a problem for 16-25 percent of older adults aged 65 years and older.

Societal and Economic Impact

Alzheimer's disease and other dementias place a costly burden on the nation's health care system. Individuals with Alzheimer's disease make up less than 13 percent of the Medicare population, yet they account for 34 percent of Medicare spending (approximately \$91 billion in 2005). In 2000, Medicare spending for persons with Alzheimer's disease and other dementias was nearly three times as much, on average, as spending for individuals without these conditions (Urban Institute, unpublished tabulations from the 2000 Medicare Current Beneficiary Survey and Medicare Claims, 2005; published by the Alzheimer's Association, Alzheimer's Disease Facts and Figures, 2007).

Cognitive decline can have profound implications for a person's health and quality of life. It affects a person's ability to use words, identify objects, make decisions, and communicate with loved ones. Gradually, people experiencing severe cognitive decline may be unable to care for themselves or to engage in necessary activities of daily living or instrumental activities of daily living, such as preparing meals or managing their finances. Cognitive decline may also limit

one's ability to effectively manage medications and existing medical conditions. Adverse changes in cognitive abilities can make an individual more vulnerable to malnutrition, improper use of medications, injuries, and even abuse and other crimes.

The adverse effects of cognitive decline go well beyond those suffering from it. Seven out of every 10 people with Alzheimer's disease live at home. Caregivers often find the task of caring for a person with Alzheimer's disease to be physically exhausting and emotionally challenging. The demands on caregivers adversely affect their lives and eventually impact our economy when caregivers must take time off from work, work part-time instead of full-time, take less demanding jobs, opt for early retirement, or stop working altogether. Because of these adjustments, Alzheimer's disease costs American businesses billions of dollars each year — more than \$36 billion in lost productivity (absenteeism, productivity losses, and worker replacement costs) plus nearly \$25 billion for the businesses' share of coverage for health and long-term care expenses (Koppel R. Alzheimer's disease: the costs to U.S. businesses in 2002. Chicago, IL: Alzheimer's Association; 2002.).

The Role of Public Health

Public health's role in physical health is well defined. Thanks to decades of multidisciplinary research, prevention efforts are now applied to a variety of chronic conditions and their associated risk factors. In the area of cognitive

health, however, we have only recently begun to delineate public health's roles and responsibilities.

Alzheimer's disease and other dementias are costly and debilitating, and we anticipate the incidence of Alzheimer's disease and other dementias will increase markedly as our population ages. Recent scientific findings by the National Institutes of Health focus on factors such as high blood pressure, diabetes and physical inactivity associated with cognitive decline. According to the Cognitive and Emotional Health Project report, a large number of lifestyle and health behaviors may alter the risk for maintenance of cognitive and emotional health.³ However, the report cautions that it is not yet possible to develop individual prescriptions.

Public health has an opportunity to build upon existing knowledge, anticipated future breakthroughs, and the public's desire for information. By embracing cognitive health as a priority issue, the public health community with CDC's leadership can be mobilized to study, identify, implement, and monitor effective interventions that preserve this key component of health and well-being, and help to maintain independence and quality of life.

³ Hendrie HC, Albert MS, Butters MS, Gao S, Knopman DS, Launer LJ, et al. The NIH cognitive and emotional health project: report of the critical evaluation study committee. *Alzheimer's & Dementia* 2006;2:12-32.

Cognitive Health: An Emerging Priority at CDC

CDC recognizes the vital role that physical, mental and cognitive health play in shaping our overall well-being. We are committed to ensuring that all people, especially those at risk for health disparities, enjoy good health and the best possible quality of life at every stage of life. For older adults, a primary goal is to ensure that the years gained through increased life expectancy are healthy years and to prevent or delay illness and functional decline. It might be said that our goal is to help ensure Americans live a vibrant and productive life throughout their aging years.

CDC takes a multi-faceted approach to improving cognitive health. Some of the outcomes CDC has either achieved or is working to advance include the following:

- Last month we released *The Healthy Brain Initiative: A National Public Health Road Map to Maintaining Cognitive Health* (www.cdc.gov/aging/roadmap). This call to action proposes priority actions to move cognitive health into the national public health arena. The *Road Map* is a major accomplishment. Under shared leadership of the CDC and the Alzheimer's Association, and in close collaboration with the National Institutes of Health, the Administration on Aging and others, we embarked on an intensive process to develop the *Road Map*. Several cross-cutting areas of focus are recommended drawing on the proven expertise and capacities of the public health community. These include

communicating the current state of science about cognitive health to Americans; developing tracking measures to better understand the public health burden of cognitive impairment; and delineating the potential value of public health strategies known to be effective for other health issues, such as physical activity, in maintaining cognitive health and preventing cognitive decline.

- CDC is bringing public health practice and research communities together to move them forward on getting out current scientific information about cognitive health. CDC is funding the Healthy Aging Research Network, within its larger Prevention Research Centers Program (PRC-HAN), to increase our understanding of the public's, including caregivers and health care providers, needs and perceptions about cognitive health. Assessing the public's needs and how they think and talk about this issue is an important part in addressing cognitive health.

CDC is excited to be at the forefront of national efforts, working in collaboration with Federal and private sector partners, to advance cognitive health. Cognitive health is a cross-cutting issue that touches upon areas such as vascular risk factors, physical activity, social engagement, and caregiving. It fits within CDC's healthy aging agenda and older adult health goal to promote health at every stage of life. It is aligned with CDC's commitment to increase the number of older adults who live longer, high-quality, productive, and independent lives. Our

involvement with the Healthy Brain Initiative also is aligned with CDC's strategy to create and disseminate the knowledge and innovations people need to protect their health now and in the future.

CDC is known for monitoring changes in health status, translating research into practice and providing high-quality health information. Maintaining cognitive health and preventing cognitive decline is a cross-cutting issue. CDC's activities to prevent cognitive decline already touch on several promising areas, such as physical activity, and managing diabetes and cardiovascular risk factors. However, our work also extends to new areas, such as the benefits of social engagement and caregiving concerns. Working within the framework set out by the *Road Map*, CDC has identified several national public health efforts we can best advance and support to safeguard Americans' cognitive health. We hope to build upon our existing activities with the Alzheimer's Association and other partners to put critical public health elements in place to promote cognitive health and prevent cognitive decline. As the science evolves, we hope to develop community-based public health interventions designed to help Americans maintain their cognitive health. And, as we proceed on this journey together, we look forward to collaborating with our colleagues across the Department of Health and Human Services to inform the nation's public health infrastructure about the science undergirding our knowledge about cognitive health and promising interventions.

Closing Summary

Thank you for the opportunity to speak on the issue of cognitive health and the benefits of addressing cognitive health within the public health arena. No less than cardiovascular disease, cancer or diabetes, addressing cognitive impairment should be a critical public health priority and deserves committed national public health action. Promising research findings coupled with public health action in the areas of epidemiology, surveillance and evidence-based interventions can translate to a difference in our understanding of cognitive decline, and our ability to address this issue in a positive way for the benefit of all Americans. We at CDC appreciate your continued commitment to efforts related to Alzheimer's disease and other dementias, and we look forward to working with you and our national partners in ensuring that cognitive health is addressed in an aggressive manner commensurate with the fundamental role that it plays in our overall health and quality of life. I would be happy to answer any questions you might have.