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Special Topic: Healthy Aging

Improving the Health of Older Americans: A CDC Priority

The baby boomers—people born after World War II, from 1946 to 1964—have had a major impact on the United States and will continue to do so as they age. Through both their sheer numbers and the proportion of the population they represent, baby boomers are contributing to the unprecedented aging of the U.S. population.[1] The leading edge of 76 million baby boomers reached age 60 this year, and in 2011, will reach age 65. The aging of this generation will have profound effects on virtually every institution of our society—the workplace, family structure, housing options and home design, recreation, and health care, to name a few.

How the nation will address the impact of this growing population of older adults remains unclear. Increasing health care costs seem inevitable. In the United States and other developed nations, the health-care cost for people 65 years and over is three to five times greater than the cost for younger people.[2] Chronic diseases disproportionately affect older adults and are associated with disability, diminished quality of life, and increased costs for health care and long-term care.[2] Clearly, if we are to help older adults stay healthy and independent and stem rising health care costs, an increased focus is needed on preventing disease and promoting health among this population.

It is important to recognize that poor health is *not* an inevitable consequence of aging. The public health community is committed to identifying and disseminating effective strategies to prevent disease and disability and to improve health-related quality of life for older adults. Effective public health interventions could help stem the rising costs of health care for older adults by improving health and reducing disability.[2] To achieve these goals, CDC supports and conducts research, ensures that research findings are put into practice, and promotes the use of effective preventive measures to make healthy aging a reality for older Americans. CDC's approach to healthy aging involves working with key partners, including our sister federal agency, the Administration on Aging, which heads the nation's aging services network of state units on aging and area agencies on aging (see related story, page 8). Area agencies on aging and the community service providers with whom

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Commentary

Aging in Good Health

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It has been said that the goal of healthy aging is to die young—as late in life as possible. This concept is one reflected in the goals of CDC to promote healthy aging for all Americans. CDC strives not only to add years to life expectancy but also to ensure that those added years are ones of well-being, active engagement, and independence.

Meeting the Challenges of an Aging Population

Given the unprecedented aging of our nation's population, promoting healthy aging has emerged as a major public health issue. The health impact of a rapidly aging population is widely recognized at CDC. In response to an internal survey conducted in 2005, CDC employees ranked the aging of the population as the greatest future health challenge of all the critical health issues the agency faces. Accompanying the aging of the baby boomer generation will be significant public health challenges related to meeting the physical, social, cognitive, and mental health needs of seniors, including health care access and costs and long-term care needs. These challenges must be addressed by beginning to work now to ensure that Americans age in good health and with the ability to remain independent for as long as possible. Clearly, the choices we make today about public health priorities will set a course for our eventual success or failure.

CDC's Role in Promoting Healthy Aging

CDC has a critical role to play in identifying and disseminating strategies shown to be effective in promoting health and reducing disease and disability among adults. CDC is pursuing a number of strategies to preserve and maintain older adult health. With the help of our partners, we promote healthy lifestyles through supportive policies, programs, and environments that foster physical activity, good nutrition, and cessation of tobacco use at the community level. For people with chronic diseases such as diabetes, heart disease, and arthritis, CDC supports self-management programs designed to reduce the impact of disease and improve the quality of life. CDC is also working to ensure that effective clinical preventive strategies, many of which are covered by Medicare, reach all older adults. These services, including adult immunizations and screening for the early detection of selected cancers, save lives. We address injury hazards to reduce the risk of injuries and associated disabilities. Effectively reducing such risk can mean the difference between an older person being able to remain at home or having to move to an institutional setting.

Effective health promotion strategies give us reason to hope for a healthy future; however, a key challenge is to fully apply what we already

know. As the articles in this issue demonstrate, poor health and functional decline do not have to be inevitable consequences of growing older.

CDC's partnerships are critical for meeting the health-related needs of older adults. Our academic partners in the Healthy Aging Research Network, a part of CDC's Prevention Research Centers program, conduct research to test the effectiveness of interventions and demonstrate the feasibility of applying them at the community level. Cooperative efforts between public health, the aging services network, clinical care and social service systems, and many others are essential to our work in facilitating the translation of research findings into practice for individuals and communities.

At CDC, we also engage in work on emerging public health opportunities related to aging, such as healthy cognition, caregiving, and end-of-life issues. These issues will increasingly move to the forefront as we discover new ways for public health to play a role.

Preserving health and preventing functional decline among Americans demands our creativity and commitment. As individuals, we understand the importance of being able to enjoy our later years; as public health professionals, we must work to make the same future available to all.

Improving the Health of Older Americans

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they work have a presence in virtually every community in the country and thus represent tremendous potential for getting health messages and effective interventions out to individuals. CDC also works through partnerships with key national organizations such as the National Association of Chronic Disease Directors, the National Association of County and City Health Officials, the National Association of Area Agencies on Aging, and AARP, who share common goals related to improving older adult health.

The Challenges of an Aging Population

In 1900, life expectancy for Americans was 47 years.[3] For people born in 2004, life expectancy is 75.2 for men and 80.4 for women.[4] In 2005, 35 million Americans were older than 65, but this age group is projected to double by 2030, when one in every five Americans will be aged 65 or older.[1]

Changes in life expectancy reflect improvements in health. Death rates for heart disease, stroke, and cancer have declined.[4] Disability rates among older adults have declined as well. According to the National Institute on Aging's 2006 National Long-Term Care Survey (NLTCS), the health and daily function of older U.S. residents has improved as the incidence of chronic disability has "dropped dramatically." The study found that the percentage of Americans over age 65 who have heart disease, arthritis, hypertension, or other chronic health conditions dropped from 27% in 1982 to 19% in 2005. During the

same time, the percentage of seniors in nursing homes also declined, from 8% to 4%, while the percentage of older adults considered nondisabled increased from 73% to 81%.[5] Baby boomers may benefit from improved medical care and research advances that will make it possible to treat or delay chronic illnesses such as diabetes and Alzheimer's disease in the future.[1] However, current trends such as health disparities that exist for many minority populations and the obesity epidemic threaten to reduce these potential gains.

Even if boomers have better health and less disability than their predecessors, their impact on health care costs is likely to be substantial. Overall U.S. health care costs are projected to increase 25% by 2030, largely because of the increase in the number of older adults, who account for a major portion of health care spending.[3] In 2002, people aged 65 or older made up 13% of the population but incurred 45% of hospital inpatient expenditures.[6]

A considerable proportion of U.S. health care spending goes to treat and manage chronic diseases. Considering that 80% of older Americans have at least one chronic condition, and 50% have at least two,[1] it is easy to understand why older adults account for nearly one-third of the nation's health care expenditures.[7]

Diabetes offers a clear example of how health care costs will rise. In June 2006, researchers at the National Institutes of Health and CDC reported that nearly 22% of people aged 65 or older had diabetes, one of the more costly chronic diseases.[8] Cases of diabetes are projected to increase 336% over the next 50 years among people aged 75 or older, a trend that has serious implications for health care costs.[8]

Although effective preventive measures are available, not all older adults take advantage of them.[9] Examples include screening for selected cancers and immunizations for influenza and pneumococcal disease, clinical measures that are covered by Medicare. "If we don't increase the nation's focus on prevention, the economic costs are potentially devastating," said William F. Benson, a consultant on aging-related policy to CDC's Healthy Aging Program. "Primary and secondary prevention are necessary to slow the growth in health care spending."

The Disproportionate Burden of Chronic Diseases

Americans of all ages are now more likely to die of chronic diseases and degenerative illnesses than of infectious diseases and acute illnesses.[10] More than one-third of U.S. deaths in 2000 were attributed to three behaviors that increase a person's risk for developing chronic diseases: smoking, poor diet, and physical inactivity.[11] Among older adults, the leading causes of death are heart disease (33% of all deaths), cancer (22%), and stroke (8%).[1] These three diseases are among the most common and costly health problems in the United States.

Chronic diseases may also lead to disability and severely diminished quality of life for older Americans. Arthritis and related conditions, the leading cause of disability in the

United States, are associated with chronic pain and functional limitations.[12] Older adults are also at risk of becoming disabled as a result of complications of diabetes.[13]

Although mortality from heart disease, stroke, and cancer has declined recently, the prevalence of these chronic conditions remains high. Some minority populations and subgroups have seen fewer benefits than others from public health successes that reduced chronic disease mortality. Factors that may contribute to health disparities include income, race, ethnicity, education, and geography.[14]

"Poor health is not an inevitable consequence of aging."

Age and Obesity

Public health experts are particularly concerned about the effect of the obesity epidemic on older adults. U.S. adults tend to become less active as they age, and the prevalence of obesity and overweight among older adults has increased markedly in recent years. From 1976–1980 to 1999–2002, the percentage of people aged 65–74 who were obese doubled.[15] The benefits of maintaining a healthy weight are especially evident with advancing age. Obesity is a risk factor for four of the 10 leading causes of death in the United States—coronary heart disease, type 2 diabetes, stroke, and several forms of cancer.[16]

Even older adults who already have a weight problem can take steps to improve their health. "We've learned enough to know it's never too late," Mr. Benson observed. Added David Buchner, MD, MPH, Chief of the Physical Activity and Health Branch in CDC's National Center for Chronic Disease Prevention and Health Promotion, "People in their 80s and 90s who become physically active gain strength and increase their spontaneous activity."

Diversity and Disparity

The older adult population is becoming more diverse, and further change is predicted for the next 50 years. By 2030, the older adult population is projected to be 72% non-Hispanic white, 11% Hispanic, 10% black, and 5% Asian.[1] Hispanic and black populations are at higher risk for illness. "We know that the racial and ethnic composition of the country's older adult population is becoming much more diverse," said Wayne H. Giles, MD, MS, Director of the Division of Adult and Community Health in CDC's National Center for Chronic Disease Prevention and Health Promotion. "This trend may exacerbate already existing health disparities unless effective health promotion and disease prevention programs and strategies are brought to bear to improve the health of older adults and the communities in which they live."

The populations most affected by health disparities are also likely to report poorer quality of life. Among the indicators tracked by researchers to measure health are obesity, diabetes, frequent mental distress, physically unhealthy days, nutrition (whether a person eats five or more servings of fruits and vegetables daily), rates of influenza and pneumonia vaccinations, and cholesterol screening.[3] Rates of self-reported physically unhealthy days among older adults are highest for Native Americans/Alaska Natives, followed by non-Hispanic blacks, Hispanics, non-Hispanic whites, and Asians/Pacific Islanders.[17] (For more information about research and programs related to reducing disparities among older adults, see *SENIOR Grants*, page 8.)

The Power of Prevention

Promoting healthy lifestyles is a major public health priority to help older adults avoid disability and preserve their health. Adopting healthy behaviors such as getting regular physical activity, eating a healthy diet, not smoking, and getting regular health screenings can dramatically reduce a person's risk for many chronic diseases, including the leading causes of death and disability. Older adults who already have chronic diseases can learn to better manage them through self-care courses such as those currently offered for arthritis and diabetes.

CDC is working with public health and aging organizations at federal, state, and community levels to increase older adults' access to and use of preventive services. Proven preventive measures include life-saving detection services such as mammograms and colorectal cancer screening. Adult immunizations can prevent some of the 42,000 deaths from influenza and pneumonia each year.

Injury prevention strategies can help older adults avoid injuries from falls, the leading cause of injury death among older adults and a major contributor to hospitalizations and emergency room visits for this population. As Ileana Arias, PhD, Director of CDC's National Center on Injury Prevention and Control, observed, "Injuries from falls and the fear of falling lead older adults to limit their activities, thereby decreasing their independence, but we know that falls do not have to be inevitable for this population."

Older Americans want to continue to be active, to be engaged with family and friends, and to participate in productive and recreational activities of all kinds. They can pursue life as they wish only if they are healthy enough to do so. In collaboration with colleagues in the larger aging network, CDC and its partners in public health are helping to make these goals a reality.

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SENIOR Grants Address Healthy Aging through Collaboration

Both state health departments (SHDs) and state units on aging (SUAs) seek to improve the health of older adults. They do so in different but complementary ways. While each brings its respective resources, expertise, and partners to the table, they share similar goals for promoting health and health-related quality of life among the older adults they serve.

Traditionally, few SHDs and SUAs have collaborated to address older adult health in their states. The SENIOR grant program (originally referred to as the Health and Aging Mini-Grant Program) is designed to promote collaboration and coordination between state health departments and state units on aging, in order to substantially enhance the impact of both organizations. Working together, these agencies are better able to address the health-related needs of the nation's rapidly expanding number of older adults.

The Foundation for SENIOR Grants: The Aging States Project

In 2001, CDC and the Administration on Aging (AoA) identified the need to have a better understanding of the needs and activities of SHDs and SUAs related to older adult health as well as the degree to which these organizations were working together. In response to this need, the Aging States Project was conducted in 2001. Results from this landmark project, a joint effort of the National Association of Chronic Disease Directors (NACDD) and the National Association of State Units on Aging (NASUA), with support from CDC and AoA, indicated similar priorities among public health and aging professionals at the state level related to high-priority health problems among older adults, the need for enhanced knowledge of best practice models, and the means to reduce barriers to older adult health promotion and disease prevention. Chronic diseases were the greatest health concern for both networks. Both types of agencies also recognized that categorical funding had made it difficult to approach healthy aging in a cross-cutting manner.

Even the differences identified between the two types of agencies suggested the benefits of integrating the expertise and capacity of the public health and aging services networks. SUAs were found to have extraordinary outreach and direct access to older adults, given their focus on providing social services to individuals, such as transportation and congregate and home-delivered meals. SHDs, on the other hand, were more likely to have expertise in disease prevention strategies and in implementing health promotion programs at the community level.

Valuable information and associated recommendations gained from the Aging States Project were helpful to CDC and AoA. A key recommendation was to provide opportunities through which SHDs and SUAs could collaborate in planning, implementing, and evaluating projects targeted to older adults. An essential factor in facilitating such opportunities was

shown to be providing funding for projects on which SHDs and SUAs would work together.

Support for Collaboration between State Health Departments and State Units on Aging

In response to the recommendations of the Aging States Project, CDC and AoA, through the administrative efforts of NACDD and NASUA, initiated the Health and Aging Mini-Grant Program in fiscal year 2003. The main focus of these grants was to develop a working relationship between public health and aging at the state level. Ten states (Arkansas, California, Iowa, Maine, Maryland, Massachusetts, Michigan, North Carolina, Oklahoma, and Wyoming) were funded at approximately $10,000 each. States elected to conduct activities in one of the following areas: physical activity, nutrition, Medicare-covered preventive services, arthritis, local-level capacity-building, or stress management. The funding was minimal but supported coordination, program planning, evaluation, and communications activities. It also enabled CDC's Healthy Aging Program to fulfill one of its identified roles in healthy aging: better integrating public health prevention expertise within the work and reach of the aging services network.

In fiscal year 2004, CDC and AoA again funded mini-grants for SHDs and SUAs to collaborate, but this time required the implementation of evidence-based health promotion and disease prevention projects. The grants, again administered through NACDD and NASUA, funded 14 states (Arizona, Arkansas, Florida, Idaho, Kansas, Maine, Maryland, Montana, Nebraska, New Jersey, Texas, Virginia, Washington, and West Virginia) at approximately $14,000 each. Funded states conducted interventions in one of three subject areas: clinical preventive services, physical activity, or chronic disease self-management. This new focus on evidence-based activities stemmed from the need for states to have access to effective science-based programs for older adults. This focus was among the initial steps by CDC's Healthy Aging Program to fulfill a key role of identifying and putting into practice what works in prevention.

Fiscal year 2005 marked the third year of the grant program and a name shift to the SENIOR (State-based Examples of Network Innovation, Opportunity, and Replication) grant program. NACDD, with support from CDC, funded 11 state partnerships (Arizona, Iowa, Kansas, Maryland, Massachusetts, Michigan, New Jersey, North Carolina, Rhode Island, South Carolina, and Utah) at approximately $15,000 each. States were given the option to implement evidence-based programs in one of three areas: clinical preventive services, physical activity, or chronic disease self-management, or to conduct a project in oral health assessment and promotion. The addition of an oral health component was an exciting milestone for the SENIOR grant program and for CDC's Healthy Aging Program. It offered CDC's Division of Oral Health an opportunity to better understand

the oral health needs of older adults and states the opportunity to better integrate oral health promotion efforts into broader healthy aging activities.

Fiscal year 2006 brought additional changes to the SENIOR grant program that better reflected the changing interests and needs of SHDs and SUAs. Once again, NACDD, through support from CDC, funded 11 state partnerships (Arizona, Colorado, Florida, Iowa, Massachusetts, New Jersey, New York, North Carolina, Oregon, Pennsylvania, and South Carolina) at approximately $15,000 each. Funded states were asked to select one of three components of the grant program on which to focus their efforts. The first component was implementation of an evidence-based program in one of three areas: physical activity, chronic disease self-management, or preventing falls. The inclusion of falls prevention was a result of feedback received from states about the importance of this issue at the state level. The second component was the assessment and promotion of older adult oral health. The last component, called Opportunity Grants, was designed to develop SHD readiness for action for healthy aging. This new track was offered to better enable states to strategically promote healthy aging and to take advantage of opportunities to improve the health status of older adults.

Over the past 4 years, a total of 46 grants have been awarded to 28 states. Feedback from grantees has indicated that although the grants have provided limited funding, they have been helpful in fostering innovation, disseminating knowledge of evidence-based prevention strategies, and perhaps most importantly, providing a sound basis for public health and aging services colleagues to work together. These new partnerships provide the framework for future collaboration and activity. In many states they are already serving as a catalyst for more broad-based healthy aging efforts, such as the creation of statewide healthy aging coalitions, the development of statewide, multiagency healthy aging plans, and the implementation of evidence-based interventions addressing such areas as physical activity, oral health, chronic disease self-management, and broader use of clinical preventive services.

A SENIOR Grant in Action: *A Blueprint for Healthy Aging in New Jersey*

For the past 3 years, the New Jersey Department of Health and Senior Services has received a SENIOR grant. In fiscal year 2004, New Jersey implemented the People with Arthritis Can Exercise program (now known as the Arthritis Foundation Exercise Program), and in FY 2005, the state implemented the Chronic Disease Self-Management program developed at Stanford University. Work conducted through these two grants demonstrated that various organizations at the local level are interested in and willing to address health issues among older adults. The SENIOR grant program provided the impetus for activity in areas where none had previously existed and catalyzed the development of common goals, the designation of key staff, and joint work by agencies at both the state and local levels.

Building on these early efforts, New Jersey again successfully competed for a SENIOR opportunity grant in fiscal year 2006. New Jersey's SENIOR grant focuses on the development of a "Blueprint for Healthy Aging in New Jersey." The document is designed to educate key decision makers about older adult health status in the state, raise awareness of benefits that can be achieved through healthy behaviors, and highlight evidence-based health promotion programs to be supported and replicated throughout New Jersey.

In addition, the Blueprint provides both the public health and aging services networks with data that can be used to plan, implement, and evaluate health promotion initiatives. It will also enhance their capacity to successfully prepare grant proposals to support healthy aging.

New Jersey's Blueprint will be released in early summer 2007 and distributed to a wide range of partners and others interested in older adult health, including state legislators, local health departments, area agencies on aging, local foundations, and county-level decision makers. The media will be alerted to the release, and a Web-based version of the Blueprint will also be made available.

Although New Jersey is among the very few states in which the state health department and state unit on aging are located within the same agency, a concerted effort to communicate and coordinate activities is still a vital necessity. New Jersey's SENIOR grants have reinforced and strengthened the relationship between public health and aging and allowed the state to collaborate on additional healthy aging projects, such as the development of a compendium of best practices in healthy aging for local staff.

An Emerging Public Health Priority: Promoting Cognitive Health

If you fear growing older because you believe it means an inevitable decline in memory and cognition, think again. New research is examining the potential of healthy lifestyles and other strategies in helping people maintain their cognitive health.[1]

Of vital importance to all of us is the ability to think, learn, and feel as we interact with the world around us. Cognitive health, including the ability to learn new things, to exercise intuition and logic, and to use language effectively to engage with others, is a key component of general health and well-being for people of all ages. For older adults, retaining a clear and active mind means being able to continue to enjoy social connections, to feel a sense of purpose and engagement, to continue to learn, and to feel equipped to meet the tasks and challenges of everyday life. The ability to maintain cognitive health in later life often means the difference between living independently and facing the need for family or institutional care.

The growing number of older adults in the United States compels public health professionals to direct their attention to the issue of cognitive health and to strategies that may be effective in helping older people maintain cognitive function. Although most public health efforts have traditionally addressed physical health, a state of true health and well-being, both for populations and for individuals, takes into account mental health, including such issues as cognitive health. No measure of health-related quality of life could be considered complete without considering the presence or absence of cognitive health.

Moreover, cognitive health and physical health are interrelated. The lack of cognitive health—from mild cognitive decline to dementia—can have profound implications for one's physical health. Older adults and others experiencing cognitive decline may experience difficulties with activities of daily living, such as meal preparation and money management, or be unable to care for themselves. Limitations in the ability to effectively manage medications and existing medical conditions are of particular concern when an individual is experiencing cognitive decline or dementia.

The public health community has much to learn about how best to promote and preserve cognitive function. Clearly, if cognitive decline among older adults could be better treated or prevented, improvements in quality of life and functional independence for many older adults could be considerable. Clinical researchers at the National Institutes of Health and elsewhere are examining the promise of several factors in preserving cognitive health. Among these factors are controlling blood pressure, preventing or controlling diabetes, being physically active, and avoiding tobacco use. Current scientific findings are not definitive on the relationship between cognitive health, mild cognitive decline, and progression to dementia. However, further research related to maintaining cognitive function may well help to highlight opportunities to prevent or significantly delay demen-

tias, including Alzheimer's disease. A continued focus in this area is important, particularly given dementia-associated health, economic, and societal challenges that will only be exacerbated as the U.S. population continues to age.

The Challenges of Dementia

In 2002, an estimated 2.5 million Americans were living with significant dementia. Researchers project that by 2030, the number of Americans with this condition will reach 5.2 million.[2] "Among all seniors age 65 years and older, the prevalence of dementia is roughly seven to eight per 100, while the incidence [number of new cases] is roughly three to four per 100 per year," said David Thurman, MD, MPH, a neurologist in CDC's Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion. "The incidence is much higher as age increases," he added.

present significant challenges to the time and resources of families and other informal (nonpaid) caregivers. "The emotional and physical burden of caring for someone with dementia can be overwhelming," according to the Web site of the National Institutes of Health.[4] When dementia leads to behaviors such as wandering and violence, it may place both the person with dementia and the caregiver at risk. Many families in such situations eventually turn to nursing home care. From 1985 to 1997, more than half of nursing home residents were cognitively impaired.[5]

Public Health Opportunities in Cognitive Health

Opportunities for maintaining cognitive health are growing as public health professionals gain a better understanding of risk factors for cognitive decline. However, further research is needed, both in better understanding what leads to cognitive decline and dementia, and in moving scientific knowledge into public health practice. CDC has recently stepped up work in these areas by launching the Healthy Brain component of its Healthy Aging Program, through which CDC is pursuing several strategies related to cognitive health:

> *"Beneficiaries with dementia cost Medicare three times more than other older beneficiaries."*

The potential savings in health care costs would be considerable if future research demonstrates a linkage between maintaining cognitive function and preventing dementia. According to a 2004 report that analyzed Medicare claims data, beneficiaries with dementia cost Medicare three times more than other older beneficiaries.[3] Dementia not only increases the demands for health care and social services, but can

- Funding the Alzheimer's Association to develop and implement community-based demonstration projects to increase knowledge and foster positive attitudes about brain health and to promote brain-healthy lifestyle choices among African American baby boomers.
- Developing the "Healthy Brain Initiative: A National Public Health Road Map to Maintaining Cognitive Health." Under shared leadership of CDC and the Alzheimer's Association, this road map identifies public health opportunities and outlines recommended strategies for addressing the critical issue of cognitive health for all Americans. Developed with vital input from a wide variety of key partners, the road map was released in June 2007.
- Focusing on public health prevention research related to cognitive health. Deliberations and outcomes from the landmark Public Health Research Working Group meeting "The Healthy Brain and Our Aging Population: Translating Science to Public Health Practice" set the stage for the development of recommendations for the road map. Proceedings from the meeting were published in the April 2007 supplement of *Alzheimer's & Dementia: The Journal of the Alzheimer's Association*.
- Supporting efforts to identify how older adults understand cognitive health and which approaches may be most effective in promoting healthy lifestyle choices designed to prevent cognitive decline among this population. CDC is supporting the University of South Carolina to lead efforts of the Healthy Aging Network, a part of CDC's Prevention Research Centers Program, to coordinate and carry out formative research (e.g., focus groups) designed to elicit information helpful in better designing and tailoring health promotion strategies related to cognitive health for older Americans.

In concert with key partners such as the Alzheimer's Association, CDC will continue to explore, define, and develop public health strategies to address cognitive health, and to emphasize this issue as a public health priority.

For more information, see the National Institute on Aging's Web site, The Impact of Alzheimer's disease, at http://www.nia.nih.gov/Alzheimers/Publications/UnravelingTheMystery/ImpactOfAlzheimerIll.htm.

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Alzheimer's Disease and Other Dementias

There are two major types of dementia: Alzheimer's disease and vascular dementia. Alzheimer's disease (AD) accounts for more than two-thirds of dementia cases. Vascular dementia accounts for about a quarter of all dementia diagnoses. Many people with dementia appear to have a combination of these two types.

There is presently no cure for Alzheimer's disease, although there are medications that can help reduce early symptoms. People with a family history of Alzheimer's disease are generally considered to be at heightened risk of developing the disease themselves. However, many people with a family history never develop the disease, and many without a family history of the disease do develop it.[4] How quickly changes occur and the course of the disease vary from person to person. Currently, persons who are diagnosed with Alzheimer's disease live from 8 to 10 years, though some people may live with the disease for as many as 20 years.

"The remaining types of dementia are relatively uncommon, but a few of them are attributable to conditions that can be helped or even cured," CDC's Dr. David Thurman noted. Examples of such conditions are normal pressure hydrocephalus, certain vitamin deficiencies, and hypothyroidism. Depression, which can mimic the symptoms of dementia, can also be treated. "It is important that a person with signs of early dementia have a careful medical evaluation to rule out these causes," he said.

Improving Oral Health among Older Americans

The mouth mirrors a person's health and well-being throughout life, yet the oral health of older adults is often neglected. Many older adults—especially those with low incomes or with physical or cognitive limitations—may not be able to maintain their oral health or visit the dentist's office regularly. Among all adults aged 65 or older, a third report not visiting a dentist in the past year. Among those with an annual income of $15,000 or less, 44% report not visiting a dentist in the past year, and among those in fair or poor health, that percentage rises to 53%.[1]

Poor oral health can affect many aspects of general health. Oral health problems can lead to needless pain and suffering, including difficulty speaking, chewing, and swallowing, and a related loss of self-esteem. Some oral conditions are life-threatening. Each year, about 30,000 Americans—most of them aged 60 or older—are diagnosed with mouth and throat cancers, which can lead to disfigurement, disability, and death. Oral cancers occur twice as often in men as women, and African American men have the highest incidence of these cancers. Among risk factors for oral cancer are tobacco and alcohol use.

Most adults show signs of periodontal disease, and up to 25% of older adults have periodontal disease severe enough to lead to tooth loss.[2] Adults with diabetes have both a higher prevalence of periodontal disease and more severe forms of the disease. In addition, emerging evidence points to an association between severe periodontal disease and increased risk for heart disease and stroke.

Older adults may be particularly vulnerable to tooth decay because medications can affect saliva production. Saliva is needed to lubricate the mouth and gums, reduce bacterial growth, and provide important minerals, such as calcium, phosphates, and fluoride, to "heal" tooth surfaces where decay is beginning. The combination of dry mouth, receding gums, poor oral hygiene, and a lack of fluoride can increase the risk of tooth decay and the need for extensive and costly treatment. Older adults who do not have private dental insurance generally must bear the costs of dental treatment themselves or go without. The Medicare program does not cover routine dental services, and Medicaid dental coverage for adults is limited and available in fewer than half the states.[3]

There is good news, however. Recent surveys show that more adults are retaining their teeth into the senior years. Fifty-four percent of older adults responding to the 2004 Behavioral Risk Factor Surveillance System (BRFSS) survey reported that they had most of their teeth (i.e., had lost five or fewer teeth), and only 21% of adults aged 65 and older reported that they had lost all of their natural teeth.[4] This is a significant improvement from the 1950s, when more than half of all older adults had lost all of their teeth. Yet disparities remain. Low-income older adults are twice as likely as those with higher incomes to have lost all of their teeth.

The percentage of older adults with tooth loss also varies by state. Results from the 2004 BRFSS indicate that the percentage of older adults with complete tooth loss ranged from a low of 14% in California and Utah to more than 40% in West Virginia. One of the government's *Healthy People 2010* national objectives is to reduce to 20% or below the proportion of adults aged 65 and older who are toothless.

"The majority of older adults remain at risk for tooth decay," said William R. Maas, DDS, director of CDC's Division of Oral Health. "Our research shows that the rate of tooth decay for older adults is similar to or even higher than that for schoolchildren and that fluorides are effective in reducing new tooth decay in adults. Daily use of fluoridated toothpaste and drinking fluoridated water are recommended prevention strategies."

CDC's Focus on Oral Health for Older Adults

CDC's Division of Oral Health is expanding activities to support community-based approaches that promote older adult oral health and reduce the burden of oral disease. These approaches include monitoring oral health status, expanding partnerships, supporting prevention research, and increasing public and professional awareness of common oral health conditions, risk factors, and related behaviors.

Since 2001, CDC has supported research conducted through its Prevention Research Centers network to examine the effectiveness of innovative strategies to promote oral health in older adults. Investigators at Columbia University are seeking to determine the feasibility and potential utility of using "activities of daily living" (ADL) measurements to predict oral health care needs among homebound older adults. At the University of Washington, investigators are assessing the feasibility and potential impact of a newly developed CD-ROM designed to promote oral health among older adults with limited access to preventive dental services.

CDC Support for "Senior Smiles"

In 2005, CDC and the National Association of Chronic Disease Directors provided support through the SENIOR grant program to Rhode Island. The Providence Senior Smiles project, a collaboration of the Rhode Island Department of Health and the Department of Elderly Affairs, assessed the oral health needs of seniors served by 10 urban, community-based sites. Project coordinators developed a survey (in English and Spanish) for a low-literacy population and administered it to an ethnically diverse group of 250 adults at senior residences, senior centers, and adult day care sites. Toothbrushes and dental floss were provided to survey participants. The assessment indicated that nearly half of those surveyed had not had a dental checkup for more than 2 years, although more than 20% reported that they needed denture or other restorative care, such as fillings. About 10% reported having a toothache or another oral health problem in the month prior to the survey. These and other key findings are valuable in determining unmet oral health needs and helping to guide tailored efforts to ensure that older adults in Providence receive needed oral health care.

Another key effort in which CDC's Division of Oral Health has engaged is the SENIOR (State-based Examples of Network Innovation, Opportunity, and Replication) grant program. Through this program, CDC has supported selected states to collect information from older adults to help identify unmet oral health needs, community strategies to address these needs, and high-risk populations for the delivery of oral health promotion programs. Through SENIOR grant funding to selected states (Arizona, Iowa, Pennsylvania, and Rhode Island), CDC has also helped to enhance partnerships between state oral health programs, the aging services network, dental and nondental professionals, and other key stakeholders. These efforts will help guide CDC's research agenda in the area of oral health and lead to more effective oral health promotion strategies for older adults at the community level.

"With the number of older adults growing, it is critical that we examine ways to expand oral health prevention services to this population," said CDC's Dr. Maas. "Collaborative approaches, such as those being piloted through the SENIOR grants, offer an opportunity for clinicians, public health professionals, the aging services network, and families to join together to address the unmet oral health needs of older adults."

The following sources offer information related to oral health for older adults:

- American Society on Aging. CDC Backgrounder: CDC Aims to Prevent Oral Diseases Among Older Americans. Available at http://www.asaging.org/media/pressrelease.cfm?id=85

- Oral Health America. *A State of Decay: The Oral Health of Older Americans. 2003*. Available at www.oralhealthamerica.org/OralHealthParity.html

- CDC. Fact Sheet: Oral Health for Older Americans. Available at http://www.cdc.gov/OralHealth/factsheets/adult-older.htm

References

1. CDC. Behavioral Risk Factor Surveillance System, 2002. Data analysis by Paul Eke, PhD.
2. U.S. Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: National Institute of Dental and Craniofacial Research; 2000.
3. Oral Health America. *A State of Decay: The Oral Health of Older Americans. 2003*. Available at www.oralhealthamerica.org/OralHealthParity.html
4. CDC. Behavioral Risk Factor Surveillance Survey, 2004. Available at http://www.cdc.gov/brfss/

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Conferences and Events

National Prevention and Health Promotion Summit: Creating a Culture of Wellness

The U.S. Department of Health and Human Services' Office of Disease Prevention and Health Promotion and the Centers for Disease Control and Prevention will host the 2007 National Prevention and Health Promotion Summit: Creating a Culture of Wellness, an event for health professionals, business leaders, and government workers interested in health promotion, chronic disease prevention, health preparedness, birth defects, disabilities, genomics, and wellness.

The summit, which will take place November 27–29, 2007, at the Hyatt Regency Capitol Hill in Washington, D.C., will feature prominent national speakers, the Secretary's Innovation in Prevention Awards, and new approaches to disease prevention and health promotion—including innovations that promote regular physical activity, eating a healthful diet, taking advantage of medical screenings, and making other healthy choices.

For 2007, the National Prevention and Health Promotion Summit will take the place of previous conferences, including the Secretary's National Prevention Summit and CDC's National Health Promotion Conference, the National Conference on Chronic Disease Prevention and Control, and the National Birth Defects and Developmental Disabilities Conference. Updates on the meeting are available at www.healthierus.gov

June 24–28, 2007
2007 CSTE Annual Conference
Sheraton Atlantic City Convention Center Hotel
2 Miss America Way
Atlantic City, NJ 08401
Contact: Council of State and Territorial Epidemiologists (CSTE)
Telephone: 770/458-3811
Web site: http://www.cste.org/annualconference/index.asp

August 13–16, 2007
2007 CDC Cancer Conference
Hyatt Regency Hotel
265 Peachtree Street
Atlanta, GA 30303
Contact: Jameka Reese
Telephone: 770/488-4740
E-mail: jreese@cdc.gov
Web site: http://www.cdccancerconference.net

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Conferences - *continued*

October 11–13, 2007
5th Annual World Congress on the Insulin Resistance Syndrome
Boston Marriott Newton
296 State Street
Boston, MA 02109
Contact: Nava Mekel
Telephone: 818/458-0190
E-mail: metabolicinst@pacbell.us
Web site: http://www.insulinresistance.us

Communications

The National Public Health Road Map to Maintaining Cognitive Health

On June 10, 2007, CDC, in conjunction with the Alzheimer's Association and other partners, released *The National Public Health Road Map to Maintaining Cognitive Health*. The road map is being released at a critical time as increasing scientific interest and the demands of a burgeoning aging population meet in seeking substantially enhanced efforts related to maintaining cognitive function. This landmark document is both a call to action and a guide for a coordinated approach to moving cognitive health into the national public health arena. *The National Public Health Road Map to Maintaining Cognitive Health* is available online at http://www.cdc.gov/aging. A limited number of hard copies can be requested through the Web site.

The State of Aging and Health in America 2007

Audiences committed to improving and preserving the health of older adults will welcome *The State of Aging and Health in America 2007*, a report released in March 2007 by the Centers for Disease Control and Prevention and The Merck Company Foundation. Public health and aging professionals, policy makers, researchers, and the media will find information and data from a variety of sources presented in a straightforward, easy-to-read format. Information on effective health promotion strategies and model programs is also included. *The State of Aging and Health in America 2007,* which updates a similar report released in 2004, is available online in a searchable format at http://www.cdc.gov/aging. A limited number of hard copies of the report can be requested through the Web site.

Disaster Planning for Older Adults

Disaster preparedness for older adults is the topic of two recently released CDC reports. "Disaster Planning Tips for Older Adults and Their Families" and "CDC's Disaster Planning Goal: Protect Vulnerable Older Adults" are the newest additions to a series of background papers on important health topics for older

adults. Covering such issues as planning for the special dietary needs of older adults, ensuring access to medications and essential treatment, and effectively planning evacuation and shelter stays for older people during times of disaster, the reports will inform journalists who write on aging or public health issues, and serve as valuable references for public health and aging services professionals who may be involved in disaster planning for older people. The publications are available at CDC's Healthy Aging Web site, http://www.cdc.gov/aging.

Eagle Books Teach Children About Diabetes Prevention

CDC's Native Diabetes Wellness Program in the Division of Diabetes Translation has partnered with First Book, a nonprofit organization, and the Indian Health Service to distribute 200,000 Eagle Books. Written for children aged 4–9 years, the four books in the series teach children about physical activity, eating healthy foods, and learning from elders about diabetes prevention and health.

For more information or to place bulk orders, contact Dave Baldridge at 505/232-9908 or dave@nipinfo.com. Single copies of the Eagle Books can be ordered from CDC by calling 800/CDC-INFO (232-4636).

New Beginnings: A Discussion Guide for Living Well with Diabetes

The National Diabetes Education Program (NDEP) has developed a discussion guide that targets African Americans. The guide, *New Beginnings: A Discussion Guide for Living Well with Diabetes*, is a companion piece to *The Debilitator*, a film about diabetes. For more information or to obtain a copy of the guide, visit http://www.ndep.nih.gov/diabetes/pubs/New_Beginnings_2005.pdf

Nutrition and Physical Activity Policy Resource Guide

The Nutrition and Physical Activity Policy Resource Guide, developed by the Washington State Department of Health, can help states, regions, localities, and private organizations prioritize and develop policies on nutrition and physical activity that support healthy communities and healthy choices. The Guide discusses policy options, provides examples of promising or proven policies, and reviews their effectiveness. Sample policies are divided into community, school, work site, and health care domains. Available at http://www.doh.wa.gov/cfh/steps/publications/nutrition_activity_policy_guide_final.pdf

Better Diabetes Care

The National Diabetes Education Program developed the Better Diabetes Care Web site to help health care professionals enhance diabetes prevention and treatment practices. This Web site provides models, links, and resources to help public health professionals. For more information, visit http://www.betterdiabetescare.nih.gov or http://www.cdc.gov/diabetes/ndep/index.htm

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Information Sources

Newly Updated Health-Related Quality of Life Web Site

CDC announces the release of updated Health-Related Quality of Life (HRQOL) state-level data and CDC's first surveillance summary on HRQOL. New tools include updated HRQOL prevalence estimates and trend charts using 1993–2004 data from the Behavioral Risk Factor Surveillance System (BRFSS). Updates include several new state and community program links, validation study abstracts, and many new references that use or discuss Healthy Days measures. Visit http://www.cdc.gov/hrqol

Cancer Incidence Data Available in CDC WONDER

The National Program of Cancer Registries (NPCR) is pleased to announce the first release of cancer incidence data in the CDC WONDER system. The data are for 1999–2002 from selected NPCR registries and cover between 84% and 88% of the U.S. population, depending on the year of diagnosis. Users may customize their queries by year of diagnosis, state, metropolitan statistical area, sex, race, and age. Visit http://wonder.cdc.gov/cancer.html

2005 BRFSS Maps and SMART Data and Prevalence Tables Now Available

Additional data are now available at CDC's Behavioral Risk Factor Surveillance System (BRFSS) Web sites. BRFSS Maps is a unique interactive Web site that allows users to quickly and easily generate maps displaying the prevalence of behavior health risk factors (such as tobacco use) by state and metropolitan/micropolitan statistical areas. Maps for 2002–2005 are available at http://apps.nccd.cdc.gov/gisbrfss/default.aspx

SMART (Selected Metropolitan/Micropolitan Area Risk Trends) BRFSS data and prevalence tables for 2005 are now available on the Internet. SMART BRFSS prevalence estimates cover more than 170 metropolitan and micropolitan statistical areas and include data from 2002 to 2005. Visit http://apps.nccd.cdc.gov/brfss-smart/index.asp

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