

Preventive Therapies Needed

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more and more people are living longer."

Interestingly, he said, the risk of developing Alzheimer's appears constant throughout the world, despite the wide variety of environmental and economic factors that occur in different regions. He and colleague Kathryn Ziegler-Graham, Ph.D., of St. Olaf College, Northfield, Minn., previously concluded that the risk of Alzheimer's doubles every 5 years once a person reaches a critical age, regardless of location (Alzheimers Dement. 2007;3:S168-9).

"At age 80, the average risk of developing Alzheimer's within the next 12 months is 1.5%," Dr. Brookmeyer said. "At age 85, the risk is 3%, and it continues to double every 5 years. . . . Wherever you start, the doubling occurs every 5 years. It's remarkably consistent."

Using this finding and the worldwide literature on prevalence, Dr. Brookmeyer concluded that Alzheimer's is poised for an explosive increase (Alz. Dem. 2007;3:186-91). However, his projection for 2050 is based on current estimates that don't include data for every country in the world. Different diagnostic thresholds could also slightly skew the prevalence numbers that provide the basis for his extrapolation. But the exponential growth is certain to occur, regardless of the base from which it springs, he said. "Our finding about the proportionate increase—the quadrupling in prevalence—is reasonably precise even if the absolute number of cases is more uncertain."

Advances in therapies that delay onset and in interventions that delay progression would have a profound impact on this trajectory. Delaying disease onset by just 2 years would decrease the worldwide prevalence of Alzheimer's disease by 23 million cases, but even a 1-year delay in disease onset (but not progression)

would lead to 12 million fewer cases worldwide by 2050.

On the other hand, Dr. Brookmeyer explained that a technique to delay disease progression with no effect on disease onset would actually lead to an increase in global prevalence, because of a rise in the number of patients who remain at an early disease stage before entering the late stages of Alzheimer's.

With that in mind, the best scenario discussed by Dr. Brookmeyer—delaying both disease onset and progression by 2 years—would reduce burden by more than 18 million cases, with most (16 million) of the decrease in the late-stage cases that require the most intensive, expensive care.

"I think these numbers show that we don't have to hit that home run to have an enormous impact on the global burden of disease," Dr. Brookmeyer said.

Unchecked, the looming epidemic is expected to wreak economic damage, he added. "Health care systems all over the world will be challenged."

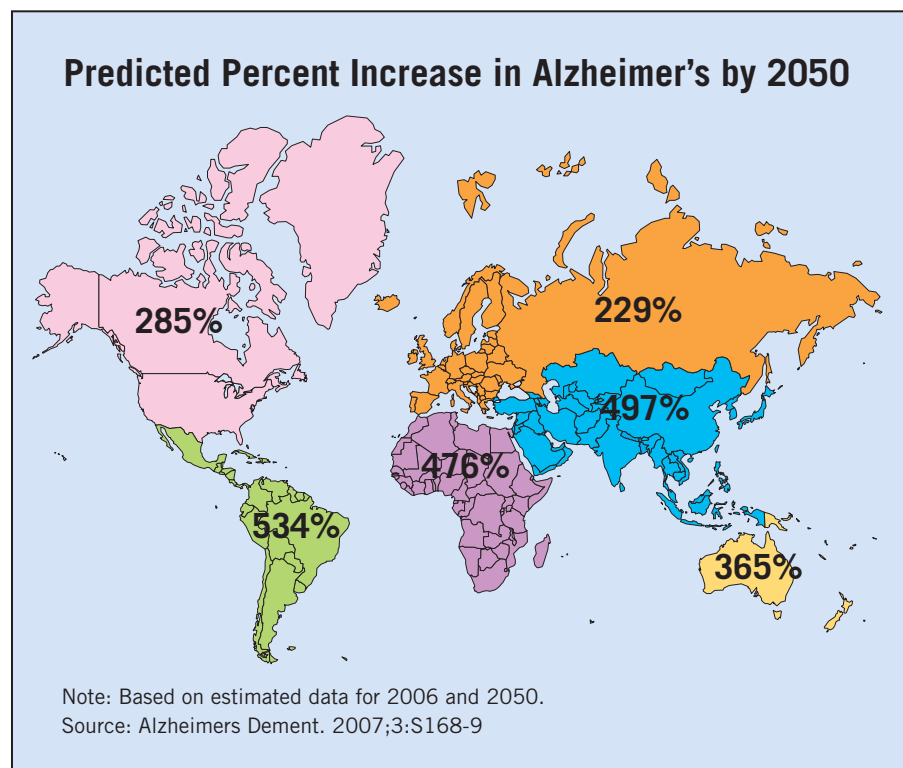
A recent study estimated that it cost \$156 billion to care for an estimated 28 million patients with dementia in 2003; 92% of those costs were associated with caring for those with late-stage disease (Dement. Geriatr. Cogn. Disord. 2006;21:175-81).

However, no cost analysis has ever taken into account the financial impact that families suffer while caring for Alzheimer's patients in their own homes, Dr. Brookmeyer said.

"Family caregivers make enormous financial and personal sacrifices to care for these patients in their home as long as possible, and little of this economic impact factors into financial analyses of Alzheimer's cost to society," he said.

"This will only increase. We are not ready for this." ■

Delaying disease onset by just 2 years with an effective preventive therapy would decrease the worldwide prevalence by 23 million cases in 2050.



'Money and Leadership' Sought As Alzheimer's Crisis Looms

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

Alzheimer's disease advocates and federal officials are calling for measures to combat what is being called a "looming avalanche" of Alzheimer's disease in the United States.

Alzheimer's disease prevalence in this country is projected to skyrocket in the next 40 years, from 4.5 million to more than 13 million. The national health infrastructure is not equipped for this, said Robert Egge of the Center for Health Transformation.

"Because of our national strategy—or rather the lack of it—we are not on the right footing to get a handle on this before it hits," Mr. Egge commented in an interview.

The Center for Health Transformation, a health policy think tank founded by former Speaker of the House Newt Gingrich, advocates a national AD strategic plan that would tackle the impending epidemic just as national policy spearheaded the response to HIV/AIDS and the possibility of an avian flu epidemic. That kind of bold commitment is precisely what's long overdue for AD," said Mr. Egge, director of the center's Alzheimer's disease project.

Such a plan would address two facets of the problem: money and leadership, Mr. Egge said. "We simply don't have anyone at the executive level focused on [AD], and without that, it's hard to imagine how we can get an overall organized approach. Secondly, we need to examine the amount of money we're spending now on treating the disease, compared [with] what we are investing to overcome it."

The numbers are distressing, he and Mr. Gingrich wrote in a recent commentary. AD is the third most expensive medical condition in the U.S., costing \$100 billion annually in Medicare and Medicaid dollars. "Without medical breakthroughs, as the Boomers pass through their elder years, federal spending on AD care will increase to more than \$1 trillion per year by 2050, in today's dollars. That is more than 10% of America's current gross domestic product," they wrote (Alzheimers Dement. 2007;3:239-42).

A national AD strategy would build the case for making substantial national investments in research for both early detection and pharmacotherapy, and urge the Food and Drug Administration to accelerate new drug evaluation, Mr. Gingrich and Mr. Egge wrote. A strategic plan also should help caregivers, perhaps by providing some kind of financial support to those who save Medicare money by keeping a patient at home as long as possible.

The Alzheimer's Association has joined the Center for Health Transformation in taking the first steps toward building a national plan. In mid-July, the two entities announced the formation of a study group cochaired by Mr. Gingrich and for-

mer Sen. Bob Kerrey (D-Neb.). The group will consist of nonpartisan, independent health policy experts and is charged with evaluating the nation's efforts to combat the disease and recommend strategies for addressing shortcomings.

The Center for Health Transformation is not the only one nipping at government heels over the Alzheimer's epidemic. Sen. Barbara Mikulski (D-Md.) has introduced two bills to address several of the same issues: shoring up research dollars and assisting families.

The Alzheimer's Breakthrough Act of 2007 (S. 898) would double National Institutes of Health funding for AD research to \$1.3 billion in 2008; the Alzheimer's Family Assistance Act (S. 897) would provide a \$3,000 annual tax credit for families caring for a member with a chronic condition like AD, and includes a long-term care tax deduction as well. Both bills have a House companion and have been referred to committee.

Sen. Mikulski also has held three hearings on the issue. Dr. Samuel Gandy, chairman of the Alzheimer's Association Medical and Scientific Advisory Council, was among the experts who testified.

With a number of promising drug therapies on the horizon, it's more important than ever to push for increased research money, Dr. Gandy told the committee. "Within the next 3 years, it is all but certain that we will have disease-modifying drugs that will fundamentally change the nature of Alzheimer's. For millions of Americans, a diagnosis will no longer be a death sentence, but [rather be] the beginning of a manageable chronic illness."

The promises of research are a direct result of federal funding support, he said. But NIH funding for Alzheimer's research has declined every year since 2003, and the proposed fiscal year 2008 federal budget contains yet another cut.

Doubling federal research dollars would improve this situation, said Jennifer Zeitzer, associate director of federal policy for the Alzheimer's Association. "It's a very significant request, but that's what the scientific community believes needs to be done to bring these new drugs to market," she said in an interview. "This would really speed up the time to when prevention becomes a reality, and to when we can detect and treat symptoms before they become disabling."

Stephen McConnell, the association's vice president for Advocacy and Public Policy, believes the new bills have a chance this time, especially with growing concern about Medicare dollars. "Elected officials are looking at ways to keep Medicare solvent as the Baby Boomers age," he said in an interview. "Addressing AD is one way to help that cause."

The disease is also grabbing a lot of headlines—and politicians view those as a meter of public interest. "Elected officials are tuned into that, especially in an election cycle."