

# ACT-AD

## Accelerate Cure/Treatments for Alzheimer's Disease

### **NATIONALLY RECOGNIZED RESEARCHERS PROVIDE FIRST ECONOMIC PROJECTIONS OF SOCIAL VALUE OF TREATMENTS THAT DELAY ONSET OF ALZHEIMER'S DISEASE**

#### **-- ANALYSIS FINDS \$TRILLIONS IN VALUE BY 2050 --**

Washington, D.C. May 14, 2007 – Results of a new study announced today provide the first economic estimates of the impact of new treatments that could delay the onset of Alzheimer's disease (AD), concluding that such treatments would be worth trillions of dollars to Americans. This study, sponsored by a coalition of not-for-profit organizations called ACT-AD (Accelerate Cure and Treatments for Alzheimer's Disease), adds an important new dimension to projections of the coming Alzheimer's epidemic because they allow a quantified dollar value to be assigned to issues such as longevity, productivity and quality of life that have previously been left out of the Alzheimer's discussion. Further, the study begins to suggest that steps taken now could help to avert an epidemic that the Alzheimer's Association estimates would cost \$160 billion annually by 2010 in Medicare costs alone.<sup>1</sup> This study will be submitted for publication to National Bureau for Economic Research (NBER).

The paper, titled *Alzheimer's Disease and Cost-effectiveness Analyses: Ensuring Good Value for Money?*, assumes a scenario in which a treatment were made available to patients by 2010 which could delay the onset of Alzheimer's by a range of up to five years, resulting in a present value benefit to the United States of nearly four trillion dollars (\$3.97 trillion) by 2050. Even a therapy that delayed onset of the disease for only one year could result in a benefit of more than one trillion dollars (\$1.20 trillion). In addition, the authors note that their model measures only monetary value of a delay in disease onset. The advent of new technologies that delayed onset and slowed progression of the disease, they argue, would likely result in significant additional economic value.

"Delay of onset" is a standard criterion for defining a treatment's therapeutic effect on an underlying disease, as opposed to a treatment that masks the symptoms of the disease. While currently available Alzheimer's treatments are not able to delay the onset of the disease at all, there are a number of drugs that have shown promise in this respect in early clinical trials, some of which are currently being reviewed by the U.S. Food and Drug Administration (FDA) and could be available in coming years.

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<sup>1</sup> *Saving Lives, Saving Money: Dividends for Americans Investing in Alzheimer Research*. A report from the Lewin Group, commissioned by the Alzheimer's Association. Washington, D.C.: 2004.

“To add an economic equivalent of improved quality of life to the equation is to approach a fuller and more revealing sense of the value of better treatments for Alzheimer’s disease from the patient’s perspective,” said John Vernon, Ph.D., Professor of Finance at the University of Connecticut School of Business, Faculty Research Fellow with The National Bureau of Economic Research, and lead author of the study. “In the current political environment we often focus myopically on cost containment at the exclusion of everything else. Our calculations, while preliminary, suggest it is more important than ever to understand the full economic value associated with new treatments for Alzheimer’s, as for any other devastating disease.”

### **Study Methodology**

In order to arrive at an accurate dollar value for seemingly subjective issues such as the value of a lifespan, Vernon and coauthors examine the cost-effectiveness analyses (CEA) used by some payers, governments and government bodies such as the National Institute for Clinical Excellence (NICE) in the United Kingdom to allocate scarce health resources in an efficient manner. A primary unit of analysis used to determine costs and benefits of medical technologies is called a quality-adjusted life year (QALY). The authors argue that the current estimation of \$50,000 per QALY has not been updated since 1980 and should be reevaluated. The study’s proposed QALY of \$175,000 is based on more recent work on the value of health and longevity in the United States by University of Chicago economists Kevin Murphy and Robert Topel.<sup>2</sup>

“The mounting economic evidence that Alzheimer’s disease could bankrupt our healthcare system, plus the promise posed by a number of new drugs in the pipelines, makes today the time to change,” explained Robert Goldberg, Ph.D., Vice President for the Center for Medicine in the Public Interest (CMPI) and co-author of the study. “Our ability to make medicine more predictive, preventive and personalized also means that individuals will find medicine more valuable, even if insurers or health systems do not.”

### **The Cost of Alzheimer’s Disease in the United States**

According to revised figures by the Alzheimer’s Association

- 5.1 million Americans currently have Alzheimer’s, including 4.9 million people age 65 and older.<sup>3</sup>
- At least 500,000 Americans younger than 65 are living with “early-onset” Alzheimer’s or other dementia.<sup>4</sup>
- By 2050, the number of individuals in this country 65 and older with Alzheimer’s could range from 11 million to 16 million, without new and more effective therapies.<sup>5</sup>
- Medicare costs alone for beneficiaries with Alzheimer’s will reach \$160 billion in 2010.<sup>6</sup>
- In addition to these Medicare costs, one in four caregivers of people with Alzheimer’s spend an average of 40 hours per week, and more than 71 percent maintain this commitment for more than a year, resulting in significant loss in earnings productivity.<sup>7</sup>

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<sup>2</sup> Murphy, T, *Measuring the Gains from Medical Research*, edited edition, 2003.

<sup>3</sup> *Saving Lives, Saving Money*.

<sup>4</sup> *Alzheimer’s Disease Facts and Figures 2007*. A statistical abstract of U.S. data on Alzheimer’s disease published by the Alzheimer’s Association, Washington, D.C.: 2007.

<sup>5</sup> *Saving Lives, Saving Money*.

<sup>6</sup> *Saving Lives, Saving Money*.

<sup>7</sup> *Alzheimer’s Association Facts and Figures 2007*.

- Families who hire in-home caregivers face annual costs of up to \$200,000, while families that decide to provide care themselves spend as many as 70 hours a week, severely compromising their own earning potential and costing employers an estimated \$61 billion annually in lost productivity.<sup>8</sup>

### **After 100 Years, Alzheimer’s Treatment Advances**

Scientists are finally getting closer to unraveling the mysteries of Alzheimer’s disease, 100 years after Alois Alzheimer discovered the neurofibrillary tangles and amyloid plaque deposits that are hallmarks of the disease. There are more than 100 compounds currently in development including several with mechanisms of action that address the cause of the disease, such as beta-amyloid modulators and neuro-protective drugs. Dozens of these drugs have already been submitted to the FDA and are awaiting review.

“There is enormous optimism today that we can profoundly change the way Alzheimer’s is treated, if only promising treatments were to be given the same priority review by the FDA as drugs for other life-threatening conditions like cancer and HIV/AIDS,” said Daniel Perry, Chair of ACT-AD (Accelerate Cure and Treatments for AD), a coalition of not-for-profit organizations and sponsor of the study. “The FDA is working right now to reevaluate their approach to Alzheimer’s drugs, and we believe that the new findings on social value will help to support an argument for rallying the kind of response that the disease demands of us all.”

While current experimental treatments hold promise for the next generation of Americans approaching the age of 65, when the risk for Alzheimer’s increases significantly, those affected today have few options. “Our generation must stop hiding from the reality of Alzheimer’s disease. The growing fate of our parents, warehoused or managed mindless at home, is a window on our own future. Today’s research helps reveal the hidden value of transformational treatments for these Alzheimer’s patients,” said award-winning journalist and current full-time Alzheimer’s caregiver, Meryl Comer. “The next step is to extend the definition of Alzheimer’s victim to include caregivers and family whose value or quality of life also deserves to be factored into the equation.”

### **About the Authors**

Robert Goldberg, Ph.D. is co-founder, Vice President and Director of Programs for the Center for Medicine in the Public Interest. Prior to founding CMPI, he was senior fellow at the Manhattan Institute and has published widely on health policy.

John Vernon, Ph.D. teaches finance, risk management and insurance, decision analysis, and computer-based simulation modeling at the University of Connecticut. He is currently a Faculty Research Fellow with the National Bureau of Economic Research (NBER).

### **About ACT-AD**

ACT-AD is a growing coalition of 49 national organizations representing patients, providers, caregivers, consumers, older Americans, researchers and employers seeking to accelerate development of potential cures and treatments for Alzheimer’s. The Coalition is directed by an Advisory Council made up of representatives from Alliance for Aging Research (AAR), Alzheimer’s Foundation of America (AFA), American Society on Aging (ASA), National Alliance for Caregiving (NAC), National Association of Area Agencies on Aging (n4a), National Consumers League (NCL), Research!America, and the Society for Women’s Health Research.

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<sup>8</sup> *Alzheimer’s Disease: The Cost to U.S. Businesses in 2002*, prepared for the Alzheimer’s Association by Ross Koppel, Ph.D., The Social Research Corporation.

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To learn more about the *Alzheimer's Disease and Cost-effectiveness Analyses* study, Alzheimer's or the ACT-AD campaign to fight the disease, visit [www.ACT-AD.org](http://www.ACT-AD.org).

**About the Center for Medicine in the Public Interest**

The mission of the Center for Medicine in the Public Interest is to discuss, debate, and demonstrate how exponential and accelerating technological progress coupled with smart public policy will enhance and advance 21st century health care by predicting, preventing, diagnosing, and treating disease with greater speed, more precision, and less cost. CMPI was founded by Peter Pitts, former Associate Commissioner of the United States Food and Drug Administration, and Dr. Robert Goldberg, a leading health care thought leader and former Senior Fellow at the Manhattan Institute for Policy Research. You can learn more about CMPI by visiting [www.cmpi.org](http://www.cmpi.org) and its blog [www.drugwonks.com](http://www.drugwonks.com).

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