U.S. AD and Related Dementia Burden to Double by 2060

The U.S. Centers for Disease Control and Prevention (CDC) released a new study on September 20 reporting that U.S rates of Alzheimer disease (AD) and related dementias (ADRD) will double by 2060. The report was published online in *Alzheimer's & Dementia* and is the first to forecast AD prevalence by race and ethnicity. The CDC researchers predicted that Hispanic Americans will have the largest absolute projected increase as a result of population growth over the 40+-year period, but that non-Hispanic whites will continue to constitute the largest total number of AD cases. The U.S. burden of ADRD in 2014 was 5 million individuals, which accounted for 1.6% of the U.S. population. These numbers are expected to grow to 13.9 million and 3.3% of the projected population in 2060.

"This study shows that as the U.S. population increases, the number of people affected by ADRD will rise, especially among minority populations," said CDC Director Robert R. Redfield, MD. "Early diagnosis is key to helping people and their families cope with loss of memory, navigate the health care system, and plan for their care in the future."

CDC researchers estimated the number of people with AD by age, sex, race, and ethnicity in 2014 and 2060 based on population projections from the U.S. Census Bureau and percentages of Medicare Fee-for-Service beneficiaries ≥65 years old with ADRD from the Centers for Medicare & Medicaid Services.

Among individuals ≥65 years old in 2014, African Americans were found to have the highest prevalence of ADRD (13.8%), followed by Hispanics (12.2%), non-Hispanic whites (10.3%), American Indian and Alaska Natives (9.1%), and Asian and Pacific Islanders (8.4%). By 2060, the CDC estimated that there will be 3.2 million Hispanics and 2.2 million African Americans with ADRD. These and other increases are the result of fewer people dying from other chronic diseases and surviving into older adulthood, when ADRD risks increase.

The report also addressed the need to provide support to caregivers of persons living with ADRD because an early diagnosis can help with future planning, including those for their own health and well-being in challenging circumstances. "It is important for people who think their daily lives are impacted by memory loss to discuss these concerns with a health care provider. An early assessment and diagnosis is key to planning for their health care needs, including long-term services and supports, as the disease progresses," said Kevin Matthews, PhD, health geographer and lead author of the study in the CDC's Division of Population Health within the National Center for Chronic Disease Prevention and Health Promotion.

The complete report is available at: https://www.alzheimersanddementia.com/article/S1552-5260(18)33252-7/fulltext.

U.S. Centers for Disease Control and Prevention

SNMMI Task Force to Address Linear No-Threshold Hypothesis

SNMMI has convened a task group to examine the evidence of risk of carcinogenesis from low-dose radiation exposure. The task group is made up of individuals from various professional societies, including SNMMI, the Health Physics Society (HPS), the American Association of Physicists in Medicine (AAPM), and the American Society for Radiation Oncology (ASTRO). In their report, the members of the task group will express their personal views, without explicit endorsement or approval by any professional society. Such endorsement by HPS, AAPM, and ASTRO will be actively pursued.

Assessment of the validity of the linear no-threshold (LNT) hypothesis is the first goal of the task group. The following question was posed: Do the scientific data support or refute the LNT dose–response hypothesis for radiation carcinogenesis? After this question is addressed, the group will examine several other related issues. One of the more important of these is whether the LNT model should be used for radiation protection, which is the current standard approach throughout imaging. Proponents state that this approach is prudent and the most conservative. However, others believe the LNT model is incorrect and inappropriate for radiation protection. Discussions on this issue should prove interesting.

Bennett S. Greenspan, MD, MS
Immediate Past President, SNMMI

CMS Proposes Updating Regulations to "Ease Burdens on Providers"

On September 17, the Centers for Medicare and Medicaid Services (CMS) announced a proposed rule designed "to relieve burden on health care providers by removing unnecessary, obsolete, or excessively burdensome Medicare compliance requirements for health care facilities." The announcement indicated that these updates would save health care providers an estimated $1.12 billion annually. The rule was developed as part of the Patients Over Paperwork initiative, launched in 2017.

"We are committed to putting patients over paperwork, while at the same time increasing the quality of care and ensuring patient safety and bolstering program integrity," said CMS Administrator Seema Verma, MPH. "With this proposed rule, CMS takes a major step forward in its efforts to modernize the Medicare program by removing regulations that are outdated and burdensome. The changes we're proposing will dramatically reduce the amount of time and resources that health care facilities have to spend on CMS-mandated compliance activities that do not improve the quality of care, so that hospitals and health care

professionals can focus on their primary mission: treating patients."

Many of the proposals simplify and streamline Medicare's conditions of participation, conditions for coverage, and other requirements of participation for facilities. A key provision would reduce burden and promote efficiency to support patients who need organ transplants. The rule would eliminate a duplicative requirement on transplant programs to submit data and other information more than once for reapproval by Medicare.

Additional examples of provisions in the rule are proposed to: (1) streamline hospital outpatient and ambulatory surgical center requirements for conducting comprehensive medical histories and physical assessments; (2) allow multihospital systems to have unified and integrated quality assessment and performance improvement programs for all of their member hospitals; (3) simplify ordering processes for portable x-rays and modernize personnel requirements for portable x-ray technologists; and (4) remove duplicative ownership disclosure requirements for critical access hospitals.

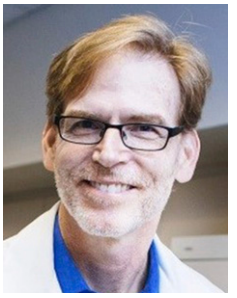
As part of the Patients Over Paperwork initiative, CMS has held interviews and sessions with stakeholder groups, visited health care facilities across the country, and organized work groups. Stakeholders included beneficiaries/consumers, clinicians/individual providers, institutional providers, government entities, health plans, and members of the supply chain. The resulting data placed strong emphasis on the need to reduce "burden hours," the amount of time health care providers spend complying with federal regulations. Through several rules, including the one introduced on September 20, CMS has or has proposed to eliminate reporting requirements for 105 measures across the agency's programs, projected by the agency to save health care providers $178 million over the next 3 years.

Comments on the proposed rule will be accepted until November 19 at https://www.cms.gov/Regulations-and-Guidance/Regulations-and-Policies/eRulemaking/index.html?redirect=/eRulemaking. The complete proposed rule is available at: https://s3.amazonaws.com/public-inspection.federalregister.gov/2018-19599.pdf

Centers for Medicare & Medicaid Services

Bruce J. Tromberg, PhD, to Lead NIBIB

National Institutes of Health (NIH) Director Francis S. Collins, MD, PhD, announced on September 6 the selection of Bruce J. Tromberg, PhD, as director of the National Institute of Biomedical Imaging and Bioengineering (NIBIB). A leader in the field of biophotonics, Tromberg is currently a professor at the University of California at Irvine (UCI), with dual appointments in the Departments of Biomedical Engineering and Surgery. He is also director of the UCI Beckman Laser Institute and Medical Clinic, an interdisciplinary research, teaching, and clinical center for optics and photonics in biology and medicine. He is expected to join NIH in early 2019.



"Bruce brings substantial experience in biophotonics and demonstrated his commitment to state-of-the-art imaging and bioengineering technologies through his research and leadership on numerous advisory committees, including the NIBIB National Advisory Council," said Collins. "We look forward to having him join the NIH to guide NIBIB in the development and testing of biotechnologies to advance human health."

In his new role, Tromberg will oversee NIBIB's annual budget of ~$378 million. Although a portion of the research budget is allocated to laboratories at NIH, the majority supports a portfolio of >800 active grants awarded to universities around the nation and world. His staff will include ~230 employees who conduct or support research and development of new biomedical imaging and bioengineering technologies and techniques to improve the detection, treatment, and prevention of disease. NIBIB also supports multidisciplinary research in the physical, mathematical, and computational sciences.

Tromberg has conducted extensive NIH-supported research and has been the principal investigator (PI) for multiple NIH grants beginning in 1994. This includes 20 years as PI for the Laser Microbeam and Medical Program, an NIH National Biomedical Technology Resource Center in which several cutting-edge technologies have been developed and disseminated to laboratories and clinics around the world. In addition to advisory committee appointments with numerous national and international entities, Tromberg has provided expertise on NIH working groups, review committees, and boards, including the NIBIB National Advisory Council from 2012 to 2016.

Tromberg's research spans biophotonics and biomedical optics, 2 rapidly growing fields that use light to image and conduct therapy at the molecular, cellular, and tissue levels. He has coauthored >450 publications and holds 18 patents for biophotonics technologies and their applications in areas such as cancer, neuroscience, and vascular disease. He specializes in new technology development as well as bench-to-bedside clinical translation, validation, and commercialization of promising methods designed to improve human health.

National Institutes of Health