NAEV R
National Alliance For
Eye And Vision Research
Serving as Friends of the National Eye Institute

WRITTEN TESTIMONY IN SUPPORT OF INCREASED FISCAL YEAR (FY) 2016 FUNDING FOR THE NATIONAL INSTITUTES OF HEALTH (NIH) AND THE NATIONAL EYE INSTITUTE (NEI)
LABOR, HEALTH AND HUMAN SERVICES, EDUCATION AND RELATED AGENCIES SUBCOMMITTEE OF THE SENATE COMMITTEE ON APPROPRIATIONS
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EXECUTIVE SUMMARY

NAEV R requests Fiscal Year (FY) 2016 NIH funding of at least $32 billion, waiving it from sequester cuts and Budget Control Act caps and improving upon the President’s FY2016 funding proposal of $31 billion. This build upon actions in FY2014 and 2015 by Congress to restore the $1.7 billion in FY2013 sequester cuts by enabling at least a 5 percent increase in the NIH budget, reflecting both modest growth and an inflationary increase. The latter is crucial, as NIH has lost 22 percent of its purchasing power since FY2003, in terms of constant dollars.

- Cuts and a lack of inflationary increases have significantly limited NIH’s ability to sustain current research capacity and encourage new areas of science. This comes at a time when past investment in basic and clinical research has resulted in new diagnostics, treatments, and prevention strategies that save lives and improve quality of life.
- NIH is an economic driver. In FY2011, NIH-funded research supported 432,000 jobs across the U.S. and generated more than $62 billion in new economic activity. Every $1 of NIH funding generates $2.21 in local economic growth.
- The U.S. must capitalize on previous NIH investment to drive research progress, train the next generation of scientists, create new jobs, promote economic growth, and maintain leadership in the global innovation economy.

NAEV R requests National Eye Institute (NEI) funding at $730 million, which would fully restore the $36 million in FY2013 sequester cuts and enable both modest growth and an inflationary increase, the latter being crucial as the NEI has lost 25 percent of its purchasing power since FY2003.

- Despite Congressional actions in FY2014 and 2015 to restore sequester cuts, the NEI’s operating budget is still $25 million below the FY2012 level—the equivalent of 60 grants, any one of which could have held the promise to save sight and restore vision. The President’s FY2016 proposed NEI funding of $695 million would still be $7 million below pre-sequester funding.
- NEI’s FY2015 operating budget of $676 million is still less than 0.5 percent of the $145 billion annual cost of vision disorders, which will grow to a $717 billion annual cost by year 2050, in inflation-adjusted dollars.
AMERICANS FEAR VISION LOSS, WHICH IS A GROWING PUBLIC HEALTH PROBLEM

The NEI estimates that more than 38 million Americans age 40 and older experience blindness, low vision, or an age-related eye disease such as age-related macular degeneration (AMD), glaucoma, diabetic retinopathy, or cataracts. This is expected to grow to more than 50 million Americans by year 2020, driven by:

- The aging of the population—the “Silver Tsunami” of the 78 million baby boomers who will turn age 65 this decade and experience increased risk for eye disease.
- The disproportionate risk/incidence of eye disease in Hispanic and African American communities, which increasingly account for a larger share of the U.S. population.
- Vision loss as a co-morbid condition of chronic disease, such as diabetes, which is at epidemic levels due to the increased incidence of obesity.

In September 2014, NAEVR’s educational foundation, the Alliance for Eye and Vision Research (AEVR), released results of a new poll entitled The Public’s Attitudes about the Health and Economic Impact of Vision Loss and Eye Disease, which was commissioned by Research!America and conducted by Zogby Analytics with a grant from Research to Prevent Blindness (RPB), a private vision funding foundation which conducted the first-ever poll of the public’s attitudes about vision loss in 1965. The 2014 poll—the most rigorous conducted to-date of attitudes about vision and vision loss among ethnic and racial groups including non-Hispanic Whites, African Americans, Hispanics, and Asian Americans—found, in part, that:

- a significant number of Americans across all racial lines rate losing their eyesight as having the greatest impact on their daily life, affecting independence, productivity, and quality of life.
- African Americans, when asked what disease or ailment is the worst that could happen, ranked blindness first, followed by HIV/AIDS. Hispanics and Asians ranked cancer first and blindness second, while non-Hispanic Whites ranked Alzheimer’s disease first, followed by blindness.
- America’s minority populations are united in the view that not only is eye and vision research very important and needs to be a national priority, but many feel that the current annual federal funding of $2.10 per-person, per-year is not enough and should be increased.

In June 2014, Prevent Blindness (PB) released a report entitled The Future of Vision: Forecasting the Prevalence and Costs of Vision Problems, which it commissioned from the University of Chicago’s National Opinion Research Center (NORC). This report estimates the current annual cost (inclusive of direct and indirect costs) of vision disorders at $145 billion, an increase of $6 billion from the $139 billion estimate in PB’s 2013 study entitled Cost of Vision Problems: The Economic Burden of Vision Loss and Eye Disorders in the United States, which also concluded that direct medical costs associated with vision disorders are the fifth highest—only less than heart disease,
cancers, emotional disorders, and pulmonary conditions. PB’s 2014 study projects that the total annual cost of vision disorders, which includes government, insurance, and patient costs, will grow to $373.2 billion in 2050 when expressed in 2014 dollars—which is $717 billion when adjusted for inflation. Of the $373.2 billion estimated 2050 costs, $154 billion or 41 percent will be borne by the federal government as the Baby-Boom generation ages into the Medicare program.

PB’s 2014 report also concludes that the prevalence of vision disorders and costs will shift to conditions that are more common at older ages and for minorities:

- The age 90-plus population will see the highest rates of growth in prevalence and costs by 2050, since it will be the fastest growing segment of the U.S. population, reflecting the aging over the next 40 years of the Baby-Boom generation.
- The prevalence of eye diseases is going to increase by 60 to 80 percent by 2050, with cataract being most prevalent in the growing older population and with prevalence of diabetic retinopathy and glaucoma also increasing, driven by greater incidence in the African American and Hispanic populations.

**NEI’S BUDGET IS NOT KEEPING PACE AS THE BURDEN OF EYE DISEASE AND VISION IMPAIRMENT GROWS**

In FY 2015, NEI’s operating budget is still $25 million below the FY2012 level due to a combination of the FY2013 sequester cut, lack of inflationary increases, and a reduction in NEI’s appropriation due to the transfer back to the NIH Office of AIDS Research (OAR) for funding of the successfully completed NEI-sponsored Studies of the Ocular Complications of AIDS (SOCA). Although OAR’s funding to NEI was not committed indefinitely, its return to NIH Central in the amounts of $5.6 million (FY2013), $6.9 million (FY2014), and $7.4 million (FY2015) has essentially cut NEI’s budget further, resulting in a new baseline upon which any future funding increases are based. Even though the President’s budget would increase NEI funding to $695 million, its budget would still be $7 million below the FY2012 pre-sequester level.

NEI’s FY2015 operating net budget of $676 million, as well as the President’s FY2016 proposed NEI budget of $695 million, are each less than 0.5 percent of the $145 billion annual vision disorder cost burden. The U.S. is spending only $2.10 per-person, per-year for vision research at the NEI, while the 2013 PB report estimates that the cost of treating low vision and blindness is at least $6,690 per-person, per-year.

The very health of the vision research community is also at stake. The convergence of factors that have reduced NEI funding has affected both young and seasoned investigators and threatened the continuity of research and the retention of trained staff, while making institutions more reliant on bridge and philanthropic funding.

In 2009, Congress spoke volumes in passing S. Res 209 and H. Res. 366, which designated 2010-2020 as The Decade of Vision and recognized NEI’s 40th anniversary as the lead institute in funding research to save sight and restore vision. With the
FY2016 LHHS spending bill, Congress can act upon its past resolutions regarding vision and ensure that NEI is funded at $730 million to meet these challenges.

**$730 MILLION FY2016 FUNDING ENABLES NEI TO PURSUE ITS AUDACIOUS GOAL OF RESTORING VISION**

NEI has lost 25 percent of its purchasing power since FY2003, and the $25 million that its budget is down from the FY2012 level is the equivalent of 60 grants it cannot fund—any one of which could have held the promise to save sight and restore vision. Although these goals would have seemed unattainable just a few short years ago, the NEI is pursuing vision restoration through its *Audacious Goal Initiative (AGI)* which focuses on regenerating neurons and neural connections in the eye and visual system. In February 2014, NEI Director Dr. Paul Sieving stated the following about the *AGI*:

"The goals are bold but achievable. They are beyond what medicine currently can do. We are planning for a 10-15 year effort to reach these endpoints. Success would transform life for millions of people with eye and vision diseases. It would have major implications for medicine of the future, for vision diseases, and even beyond this, for neurological diseases."

The *AGI* builds upon discoveries from past investment in biomedical research, such as gene sequencing, gene therapy, and stem cell therapies, and combines these with new discoveries—such as imaging technologies that enable researchers to non-invasively view in real-time biological processes occurring in the retina at a cellular level—to develop new therapies for degenerative retinal disorders.

These are ambitious goals that require increased—not decreased—funding. Our nation’s investment in vision health is an investment in its overall health. NEI’s breakthrough research is a cost-effective investment, since it is leading to treatments and therapies that can ultimately delay, save, and prevent health expenditures, especially those associated with the Medicare and Medicaid programs. It can also increase productivity, help individuals to maintain their independence, and generally improve the quality of life, especially since vision loss is associated with increased depression and accelerated mortality.

In summary, NAEVR requests FY2016 NIH funding of at least $32 billion and NEI funding of $730 million to maintain the momentum of research.

**ABOUT NAEVR**

NAEVR, which serves as the “Friends of the NEI,” is a 501(c)4 non-profit advocacy coalition comprised of 55 professional (ophthalmology and optometry), patient and consumer, and industry organizations involved in eye and vision research. Visit NAEVR’s Web site at www.eyeresearch.org.