

Investment in research saves lives and money

The medical and health research policy program of the Mary Woodard Lasker Charitable Trust
www.fundingfirst.org
www.laskerfoundation.org

facts about:

Vision & Blindness

"If you think research is expensive, try disease."
— Mary Lasker 1901–1994

Today:

- 3.4 million Americans 40 and older are blind or have impaired vision that cannot be corrected by eyewear. The most common causes are macular degeneration, glaucoma, cataract and diabetic retinopathy.*
- Americans 80 and older are the fastest growing segment of our population and have the highest rate of blindness.*
- Latinos have higher rates of age-related visual impairment and blindness than other ethnic groups. Visual impairment often goes undetected in Latinos because of limited access to eye care services.**
- Glaucoma is a leading cause of blindness in African Americans. Half of glaucoma cases could be delayed or prevented with prescription eye drops.***

SOURCE: NATIONAL EYE INSTITUTE, NATIONAL INSTITUTES OF HEALTH (WWW.NEI.NIH.GOV) RESEARCH TO PREVENT BLINDNESS (WWW.RPBUSA.ORG)
*THE EYE DISEASES PREVALENCE RESEARCH GROUP. ARCHIVES OF OPHTHALMOLOGY 2004, 122(4): 477-485.
**VARMA, R. ET AL. OPHTHALMOLOGY 2004, 111(6): 1132-1140.
***HIGGINBOTHAM, E.J. ET AL. ARCHIVES OF OPHTHALMOLOGY 2004, 122(6): 813-820.

The Cost:

- In 2003, visual disorders and disabilities cost the U.S. \$68 billion.
- If a child becomes visually impaired, the additional costs for medical visits, home modifications and lost productivity are estimated at \$566,000 over the child's lifetime.*

SOURCE: *HONEYCUTT, A. ET AL. MORBIDITY AND MORTALITY WEEKLY REPORT 2004, 53(3): 57-59.

survivor



NAME: ZACHARY McCARTHY
AGE: 3
DISEASE: RETINOPATHY OF PREMATUREITY

Zachary McCarthy of Santa Clara, California, was born three months early in December 2000. Weighing just over two pounds, Zach was admitted to the neonatal intensive care unit where doctors treated him for complications, including retinopathy of prematurity (ROP). The blood vessels in his retinas began to grow abnormally, which could have left Zach blind for life.

Dr. William Good of the Smith-Kettlewell Eye Research Institute approached Zach's parents, Michele and Kevin, about participating in a National Eye Institute-funded study on ROP. Dr. Good explained that he would use a laser to burn the edge of the retina to stop the abnormal blood vessel growth. "The description of the procedure made me so upset. It would take away part of Zach's peripheral vision, but the alternative was unthinkable. He could have gone blind," explains Michele.

In the study, Dr. Good and other researchers discovered that treating high-risk cases of ROP earlier decreases the chance of needing glasses or going blind. Michele says, "Zach doesn't even require glasses now. We haven't assessed how much peripheral vision he has lost, but hopefully he will be able to compensate for any loss by turning his head a little."

The McCarthys are thankful for the study and strongly support medical research. Michele says, "We served as Ambassadors for the local March of Dimes chapter because I felt that if I could encourage just one person to donate to research, I had made a difference. How do you help ailing people without research?"

SAVING LIVES
SAVING MONEY

HOW RESEARCH SAVES LIVES:

- Older drivers with cataracts are more likely to have automobile accidents. Cataract surgery cuts the number of crashes by these drivers in half.

SOURCE: OWSLEY, C. ET AL. JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION 2002, 288(7): 841-849.

HOW RESEARCH SAVES MONEY:

- Everyone with diabetes is at risk for developing diabetic retinopathy. NIH-funded researchers have developed treatments that delay or prevent diabetic retinopathy, saving the U.S. \$1.6 billion a year.
- Thirty years ago, cataracts were the leading cause of blindness in our nation. Research led to new surgical and material technologies that reduced complications and improved recovery time without increasing costs. Economists estimate that cataract surgery provided Americans over \$300 billion in benefits in 2003 alone.*

SOURCE: *CUTLER, D.M. AND MCCLELLAN, M. HEALTH AFFAIRS 2001, 20(5): 11-29.

facts about: } Vision & Blindness

Hope for the Future:

- Researchers funded by the NIH have demonstrated that injecting adult stem cells into the eye can help repair damaged retinas in mice. Scientists hope that stem cell transplants can be used to treat diseases such as macular degeneration, the leading cause of blindness in older Americans.*
- Researchers are working on an artificial retina that can restore vision. This novel device consists of a pair of glasses with a tiny camera that transmits images to a microchip in the eye. Scientists hope that this new technology will someday allow individuals who are otherwise blind to move around the house, read and recognize faces.**

SOURCE: *OTANI, A. ET AL. THE JOURNAL OF CLINICAL INVESTIGATION 2004, 114(6): 765-774.

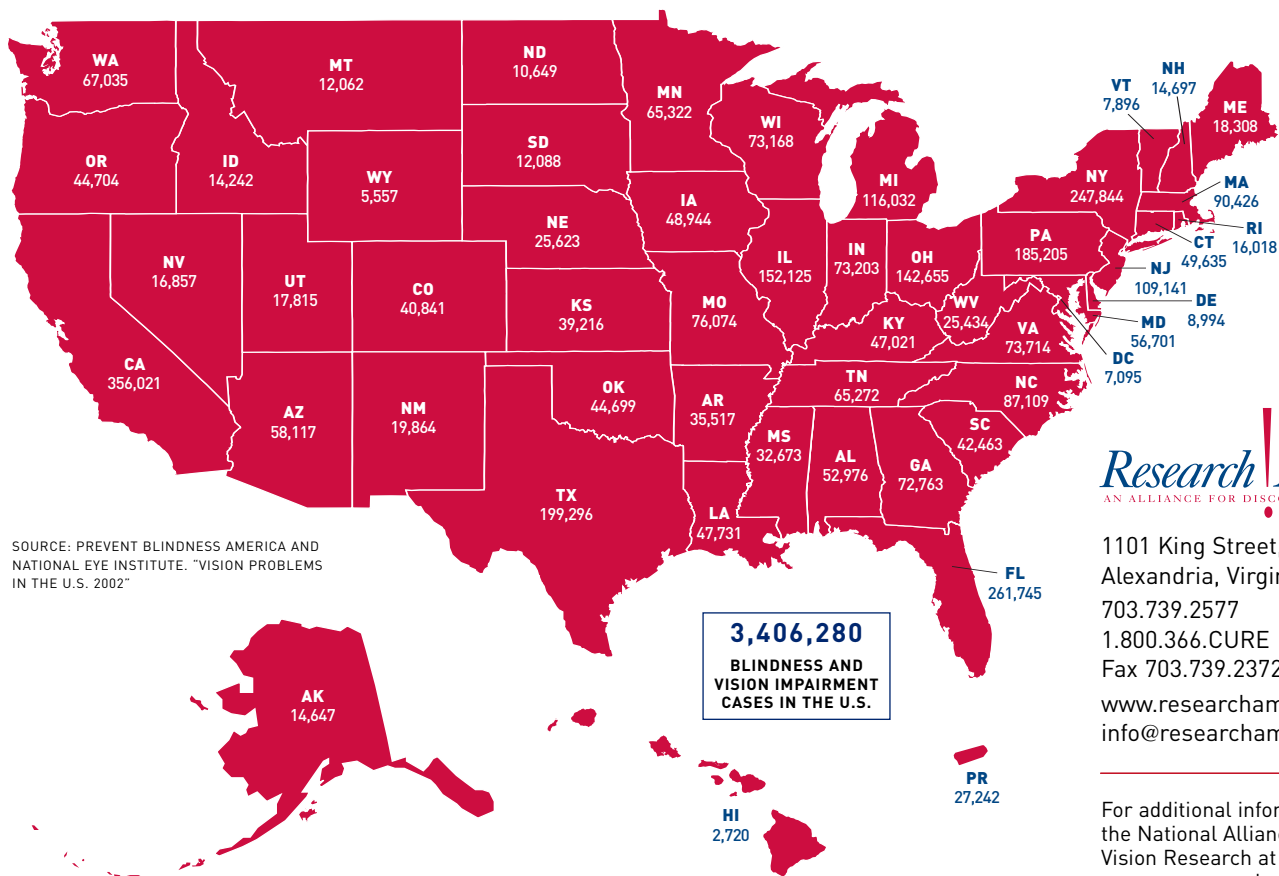
**U.S. DEPARTMENT OF ENERGY OFFICE OF SCIENCE MEDICAL SCIENCES DIVISION (WWW.DOEMEDICALSCIENCES.ORG)

The Bottom Line:

Without improvements in preventing and treating eye diseases, the number of blind or visually impaired Americans 40 and older will grow from 3.4 to 5.5 million in 2020. Increased investment in eye and vision research is needed now to reduce the prevalence of visual impairment among Americans and the costs associated with treating and caring for them.*

SOURCE: * THE EYE DISEASES PREVALENCE RESEARCH GROUP. ARCHIVES OF OPHTHALMOLOGY 2004, 122(4):477-485.

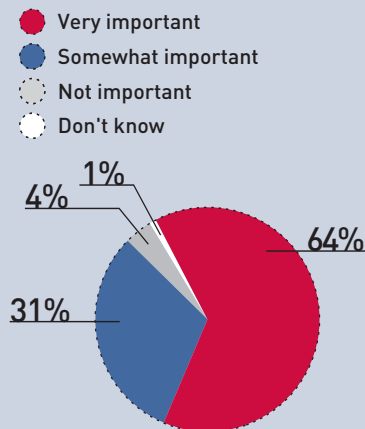
Cases of blindness and vision impairment in Americans 40 and older



SOURCE: PREVENT BLINDNESS AMERICA AND NATIONAL EYE INSTITUTE. "VISION PROBLEMS IN THE U.S. 2002"

Americans say vision research very important

Research into lasers has led to new treatments that help improve vision for people with poor eyesight. How important do you think it is for the United States to invest in this type of research?



SOURCE: CHARLTON RESEARCH COMPANY FOR RESEARCHAMERICA, 2002

Research!America
AN ALLIANCE FOR DISCOVERIES IN HEALTH®

1101 King Street, Suite 520
Alexandria, Virginia 22314
703.739.2577
1.800.366.CURE
Fax 703.739.2372
www.researchamerica.org
info@researchamerica.org

For additional information, contact the National Alliance for Eye and Vision Research at 240-221-2905; www.eyerresearch.org.