

Vision Problems Action Plan:

A National Public Health Strategy

2004

Prepared by **Prevent Blindness America**

in collaboration with:

American Academy of Ophthalmology (AAO)

American Optometric Association (AOA)

Lighthouse International (LHI)

National Alliance for Eye and Vision Research (NAEVR)



Acknowledgements

The *Vision Problems Action Plan: A National Public Health Strategy* evolved as a result of the response to the publication of *Vision Problems In the U.S. (VPUS)*. The VPUS report provides comprehensive prevalence data for adult vision impairment and age-related eye disease in America. The *Vision Problems Action Plan, A National Public Health Strategy* provides a framework for three major priority areas: prevention/public health, access to care and treatment including vision rehabilitation, and research.

We wish to thank key individuals and organizations for contributions that helped make this plan a reality as well as for their commitments to improve our nation's eye health and provide comprehensive services to those with vision loss and impairment.

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Table of Contents

Executive Summary 2

Section 1

The Need for a National Vision Strategy 5

Section 2

Background: The Growing Burden of Vision Problems in the U.S. 7

2.1 Blindness and Vision Impairment 7

2.2 Refractive Error 7

2.3 Age-related Macular Degeneration 7

2.4 Cataract 8

2.5 Diabetic Retinopathy 9

2.6 Glaucoma 9

2.7 Amblyopia 9

2.8 Strabismus 10

A Vision Health Strategy 11

Section 3

Prevention and Public Health 11

3.1 Communication and Education 11

3.2 Surveillance, Epidemiology and Health Services Research 13

3.3 Programs, Policies and Systems 14

Section 4

Access to Care and Treatment, including Rehabilitation 15

4.1 Major Factors Affecting Access to Services 15

4.2 Strategic Goals: Treatment and Rehabilitation 17

Section 5

Research 18

5.1 National Progress in Research 18

5.2 Overall Strategic Objectives for Research 19

Footnotes 20

“Our nation’s leaders must comprehend the scope of eye problems in our country so that adequate government resources can be devoted to research, treatment and prevention.”ⁱⁱ

...*Vision Problems in the U.S., 2002*

Executive Summary

The Facts

An estimated 80 million people have a potentially blinding eye disease, 3 million have low vision, 1.1 million are legally blind, and 200,000 are more severely visually impaired.ⁱⁱ Vision is critical to conducting activities of daily living, is a portal for language, and affects developmental learning, communicating, working, health, and quality of life.ⁱⁱⁱ Vision impairment is one of the most feared disabilities.^{iv}

And while it is believed that **half of all blindness can be prevented**, the number of Americans who suffer from vision loss continues to increase.^v Vision disorders and impairment are major public health problems. It is estimated that by 2030, the number of blind and visually impaired people will double if nothing is done to curb vision problems.

The Need for a National Vision Strategy

In 2002, the National Eye Institute (NEI) and Prevent Blindness America (PBA) published *Vision Problems in the U.S. (VPUS)*, a groundbreaking assessment of vision problems in this country. The findings of the report have clear implications. We must:

- Raise awareness that the number of Americans at risk for age-related eye diseases is increasing as the baby boomer generation ages;
- Understand our own personal risk of vision loss and take steps to preserve and protect our precious eyesight;
- Inform our communities so they may prepare the treatment and rehabilitation services that will be needed;
- Educate our nation’s leaders so they comprehend the scope of eye problems in our country to ensure adequate government resources are devoted to research, treatment and prevention.^{vi}

Founded in 1908, PBA is the nation’s leading volunteer eye health and safety organization dedicated to fighting blindness and saving sight. Focused on promoting a continuum of vision care, PBA touches the lives of millions of people each year through public and professional education and training, advocacy, community and patient service programs, and research. In January 2003, PBA organized a meeting of key public health and research organizations to outline a National Vision Strategy and lay the groundwork for a Congressional Vision Caucus. The abbreviated strategy plan is outlined on the following pages.

The Strategic Plan

Three major priority areas: **prevention/public health, access to care and treatment including rehabilitation and research**—are proposed to strengthen and stimulate a national focus for reducing and controlling vision problems and their associated disabilities. Each priority area has key objectives that we must strive to meet as a nation, including:

Prevention/Public Health

To stimulate and strengthen a national coordinated effort for reducing the occurrence of vision loss and its accompanying disabilities, the nation must have a full-scale public health effort underway that includes: **1) communication and education; 2) surveillance, epidemiology and prevention research; and 3) programs, policies and systems changes.**

- Enhance efforts to substantially increase funding for the National Eye Health Education Program (NEHEP) at NEI to ensure ample resources needed to carry out communication and education campaigns;
- Enhance efforts to substantially increase funding for the Centers for Disease Control and Prevention (CDC) to build a national vision program, including surveillance and translation research in partnership with key public health partners.

Access to Treatment and Rehabilitation

To ensure access to and availability of treatment and rehabilitation services, we must:

- Support funding for the Centers for Medicare and Medicaid Services (CMS) for initiatives, such as the Diabetes Quality Improvement Program (DQIP), that promote access to diabetic eye exams;
- Advance initiatives across the Department of Health and Human Services (HHS) that remove barriers and improve access to eye exams currently covered under Medicare, such as diabetic eye exams and glaucoma detection for high-risk populations;
- Initiate and support efforts to advance coverage for Medicare vision rehabilitation services as provided by orientation and mobility specialists, rehabilitation teachers and low-vision therapists in settings including patients' home environments.
- Encourage and advance improved coordination on vision rehabilitation and access to care between HHS, the Departments of Labor, Education, and the Social Security Administration.



Research

To ensure the highest quality of laboratory and clinical research aimed at increasing our understanding of the eye and visual system in health and disease, as well as developing the most appropriate and effective means of prevention, and access to treatment and rehabilitation through:

- Supporting full funding of NEI's critical priorities in eye and vision research for preventing and treating sight threatening diseases and disorders identified by the strategic planning process of the NEI;
- Intensifying efforts at the National Institutes of Health (NIH), the Agency for Healthcare Research and Quality, and the Health Resources and Services Administration to train and retain physicians in clinical research until the decline in the numbers has been reversed and the clinical research workforce includes substantially more medical doctors and other healthcare doctorates than is now the case.

Another generation of Americans should not suffer vision loss or blinding eye disease when we know so much about how to prevent blindness and the devastating complications associated with vision problems. This strategic effort is intended to raise awareness, inform and educate the general public, public health professionals and our nation's leaders about steps they can take now to improve vision health through prevention and control, early detection, research, and ensuring access to treatment and rehabilitation.

Footnotes

ⁱ Friedman, D. S., et al. *Vision Problems in the U.S.: Prevalence of Adult Vision Impairment and Age-Related Eye Disease in America (VPUS)*. 2002

ⁱⁱ Tielsch, J. M. *Blindness and Visual Impairment in an American Urban Population. The Baltimore Eye Survey*, 108. *Archives of Ophthalmology* 286-290 (1990); *Healthy People 2010*, (Office of Disease Prevention & Health Promotion, U.S. Department of Health and Human Services), available at <http://www.healthypeople.gov/Document/pdf/Volume2/28Vision.pdf> [hereinafter *Healthy People 2010*].

ⁱⁱⁱ *Healthy People 2010*, *supra*

^{iv} *VPUS*

^v *Id.* at 1.

^{vi} *Id.* at 2.

Vision is critical to daily living, is a portal for language, and affects developmental learning, communicating, working, health, and quality of life.

1. The Need for a National Vision Plan

In 2002, the National Eye Institute (NEI) and Prevent Blindness America (PBA) published *Vision Problems in the U.S. (VPUS)*, a groundbreaking assessment of vision problems in this country. The findings of the report have clear implications. We must:

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- Educate our nation's leaders so they comprehend the scope of eye problems in our country to ensure adequate government resources are devoted to research, treatment and prevention.ⁱⁱ

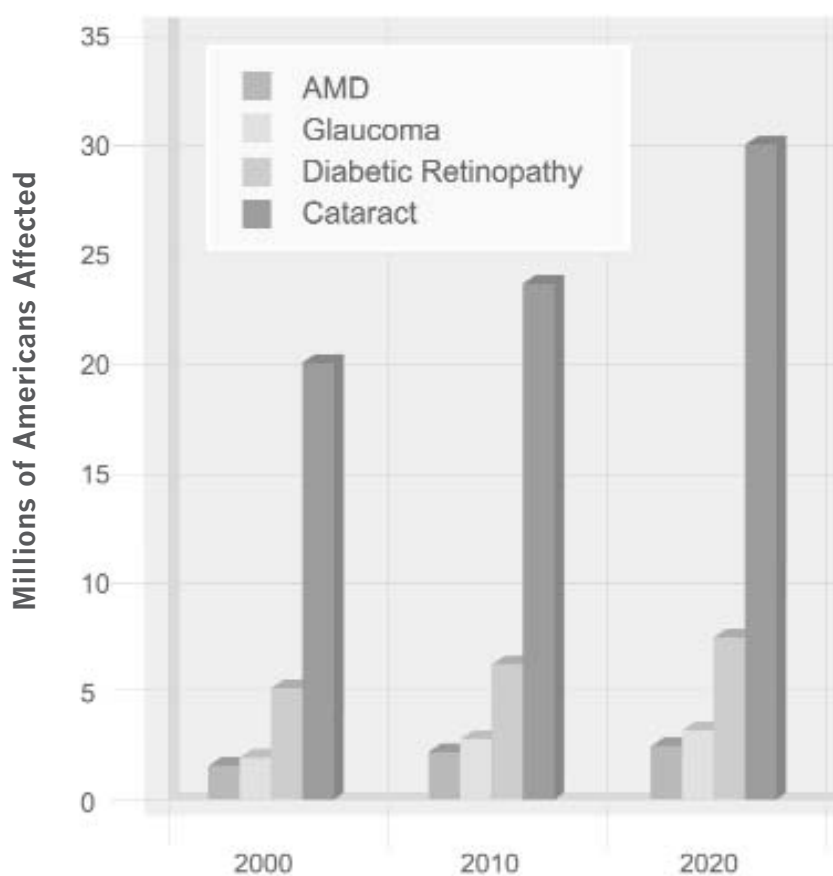
A government initiative released prior to *VPUS*, entitled *Healthy People 2010*, dedicated a chapter to vision and hearing, and set out as a goal to improve the nation's visual health through prevention, early detection, treatment, and rehabilitation. *Healthy People 2010* cited that in the U.S., an estimated 80 million people have a potentially blinding eye disease, 3 million have low vision, 1.1 million are legally blind, and 200,000 are more severely visually impaired.ⁱⁱⁱ The 2010 report highlighted that vision is critical to conducting activities of daily living, is a portal for language, and affects developmental learning, communicating, working, health, and quality of life.^{iv} Vision impairment is one of the most feared disabilities.^v

And while it is believed that **half of all blindness can be prevented**, the number of Americans who suffer from vision loss continues to increase.^{vi} Vision disorders and impairment are major public health problems. It is estimated that by 2030, the number of blind and visually impaired people will double if nothing is done to curb vision problems.^{vii}

The economic impact of visual disorders and disabilities in 1995 alone approached an estimated \$40 billion annually—\$22.3 billion in direct costs and another \$16.1 billion in indirect costs.^{viii} Additional economic studies are needed to revise these dated estimates, in order to better understand the true cost of vision disorders and associated disabilities that are escalating as a result of the epidemic of chronic conditions (such as diabetes) that can result in vision loss.

PBA introduces this strategic plan in an effort to call on our nation's leaders to ensure that there is a true understanding of the impact of vision problems, including what can be done to prevent, delay and treat diseases and disorders, reduce associated disabilities, improve quality of life for those living with vision problems, and to focus needed attention on existing and future research opportunities to improve vision care and outcomes. The purpose of this plan is to guide and prioritize the use of national health resources and present a case for a call to action by our nation's leaders to ensure that appropriate attention is given to research, treatment, and prevention of vision problems.

By the year 2020, 40 million Americans will have age-related eye disease.



2. Background: The Growing Burden of Vision Problems in the U.S.

VPUS focuses attention on the prevalence of sight-threatening eye diseases in Americans age 40 and older. The report highlights the high prevalence of blindness and vision impairment, significant refractive error and the four leading eye diseases affecting older Americans: age-related macular degeneration (AMD), cataract, diabetic retinopathy and glaucoma. In addition, vision problems affect one in 20 preschoolers.^{ix} Untreated eye problems, such as amblyopia (lazy eye), strabismus (squint, cross eye, wall eye), and refractive error can worsen and lead to other serious problems as well as affect learning ability, personality, and adjustment in school.^x

2.1 Blindness and Vision Impairment

The visually impaired, including those who are blind, total more than 3.4 million older Americans. Blindness, to many people, refers to the complete loss of vision with no remaining perception of light. Far more people have permanent loss of some, but not all of their eyesight. People who have some difficulties seeing with one or both eyes even when wearing glasses are visually impaired.^{xi} Visual impairment is one of the 10 more frequent causes of disability in the U.S.^{xii} Most individuals with blindness or visual impairment can benefit from vision rehabilitation to maximize their remaining vision and independence, including the use of low vision services and devices. Blindness and visual impairment represent a significant human and economic toll on individuals and society.

2.2 Refractive Error

More than 150 million Americans use corrective eyewear to compensate for the most frequent eye problem in the U.S.—refractive error. Better known as myopia (nearsightedness), hyperopia (farsightedness) and astigmatism (uneven focus), refractive errors can almost always be corrected with eyeglasses or contact lenses. More recently, refractive surgery is performed as another alternative for correcting these problems, but is not without some risk, and long-term effects of some of these procedures are unknown. Uncorrected or under-corrected refractive error can result in significant vision impairment. Americans are expected to spend more than \$15 billion each year on eyewear.^{xiii}

2.3 Age-related Macular Degeneration

Age-related macular degeneration (AMD) is a condition that primarily affects the part of the retina responsible for sharp central vision. AMD occurs in two forms:

Dry AMD

This type affects 90 percent of all people with AMD. Scientists are still not sure what causes dry AMD. Studies suggest that an area of the retina becomes diseased, leading to the slow breakdown of the light-sensing cells in the macula and a gradual loss of central vision.^{xiv}

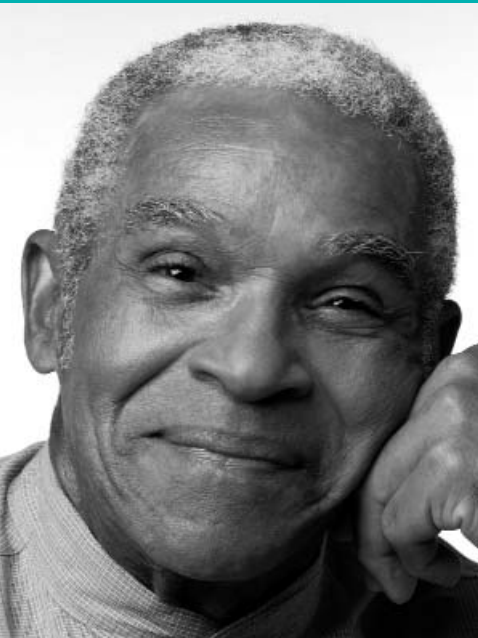
Wet AMD

Although only 10 percent of all people with AMD have this type, it accounts for 90 percent of all blindness from the disease. As dry AMD worsens, new blood vessels may begin to grow and cause “wet” AMD. Because these new blood vessels tend to be very fragile, they will often leak blood and fluid under the macula. This causes rapid damage to the macula that can lead to the loss of central vision in a short period of time.^{xv}

AMD is the most common cause of low vision and legal blindness in older Americans, but unfortunately there is no cure and no generally accepted treatment. The most common early sign of dry AMD is blurred vision. Some nutritional interventions and laser therapies have shown some benefit for slowing the advance of late cases of the disease. Factors that may increase someone’s risk for developing the disease include age, race, cigarette smoking, and diets low in antioxidant nutrients. More than 1.6 million Americans age 50 and older live with late-stage AMD—a more serious and progressive form of AMD. No estimates are available for the number of Americans with early AMD.^{xvi} In an effort to identify the disease in its earliest stages, and minimize and manage the consequences of the condition, it is recommended that those individuals who have dry AMD or are age 60 or older, should have their eyes examined through dilated pupils at least once a year. Although there is no effective treatment for dry AMD at this time, it is crucial that those who progress to wet AMD and need laser surgery undergo it before the disease destroys central vision.^{xvii}

2.4 Cataract

The clouding of the eye’s naturally clear lens is known as cataract. While the exact cause is unclear, it may be the result of exposure to UV light, cigarette smoking, diet, alcohol consumption, diseases like diabetes, toxic substances or radiation, injury, or a genetic defect at birth or rubella. Cataract is the leading cause of blindness in the world. In the U.S., nearly 20.5 million Americans age 40 and older, or about one in every six people, have cataracts. By age 80, more than half of all Americans will have cataracts. Surgery is widely available that can eliminate vision loss due to the disease. However, significant vision impairment still exists in the U.S. from cataract because of barriers in access to care. The federal government spends more than \$3.4 billion each year treating cataract in the Medicare program.





Ongoing research holds great promise for understanding how cataract may be prevented.^{xviii} Those age 60 and older should have an eye examination at least once every two years. The exam should include dilating the pupils. Cataract can be detected without dilated pupils, but getting a good view of the retina and optic nerve is important in detecting eye diseases.^{xix}

2.5 Diabetic Retinopathy

Diabetic retinopathy is known to affect more than 5.3 million Americans age 18 and older. Today, of the 18.2 million people with diabetes, 5.2 million are not aware they have the disease, and an additional 16 million Americans have pre-diabetes (which translates to a higher number of individuals at risk of diabetic retinopathy). Diabetic retinopathy affects the tiny blood vessels of the retina, causing them to break down, leak or become blocked, affecting and impairing vision over time.^{xx} Early diagnosis, laser treatment and surgery have been shown to prevent vision loss in 90 percent of individuals with diabetes.^{xxi} Yet, as many as 50 percent of patients are not getting their eyes examined and/or are diagnosed too late for treatment to be effective.^{xxii} Research also suggests that diabetic retinopathy can be reduced through careful control of blood sugar. Individuals with diabetes are also at an increased risk of glaucoma and cataract.^{xxiii} Individuals with diabetes should have their eyes examined at least once a year and the eyes should be dilated during the exam. This allows the eye care professional to see more of the inside of their eyes to check for signs of the disease. Finding diabetic retinopathy early is the best way to prevent vision loss.^{xxiv}

2.6 Glaucoma

Affecting more than 2.2 million Americans age 40 and older, glaucoma is a disease that causes a gradual degeneration of the cells that make up the optic nerve, which carries visual information from the eye to the brain. When the nerve cells die, vision is slowly lost, usually beginning with the periphery. Often referred to as the “sneak thief of sight,” as many as half of the people with glaucoma do not know they have the disease, as vision loss is unnoticeable until a significant amount of nerve damage occurs. Most cases of glaucoma can be controlled and vision loss slowed or halted with laser treatment and surgery, but glaucoma cannot be prevented. Risk factors for the disease include age, race, diabetes, eye trauma, and long-term use of steroid medication.^{xxv}

2.7 Amblyopia

An estimated 2-3 percent of the general population suffers from amblyopia, or lazy eye, which is reduced vision in an eye caused by the brain and the eye not working together properly during early

childhood. If left untreated, the weak eye will worsen, potentially resulting in monocular vision, or functional blindness in the lazy eye. With early detection and treatment, including glasses, surgery and eye exercises (followed by patching or medication), sight in the “lazy eye” may be restored.^{xxvi}

2.8 Strabismus

An estimated 2 percent of the nation’s children have strabismus, or eyes that are not straight or properly aligned. The failure of eye muscles to work together results in a misalignment in which one or both eyes turn in or out or up or down. If the condition persists after 4 months of age, it is critical to take the child to an eye care professional to rule out the presence of a serious disease, such as a tumor, or to detect and correct strabismus to avoid the development of amblyopia. Treatments include glasses, medication, surgery and eye exercise.^{xxvii}



A Vision Health Strategy

Another generation of Americans should not suffer vision loss or blinding eye disease when we know so much about how to prevent blindness and the devastating complications associated with vision problems. This strategic effort is intended to raise awareness, inform and educate the general public, public health professionals and our nation's leaders about steps they can take now to improve vision health through prevention and control, early detection, research and ensuring access to treatment and rehabilitation. The following further explores the nation's progress in prevention and public health, access to treatment and rehabilitation, and vision research and lays out strategic vision health goals and objectives in each of these key priority areas.

3. Prevention and Public Health

Blindness and visual impairment from most eye diseases and disorders can be reduced or prevented with early detection and treatment. In fact, it is believed that **half of all blindness can be prevented**, yet the number of Americans who suffer from vision loss continues to increase. Vision loss ranks only behind arthritis and heart disease as the etiology for impaired function in people age 70 and older. Efficacious and cost-effective strategies are available for diabetic retinopathy, glaucoma and cataract removal surgery. Most individuals with visual impairment or blindness can benefit from vision rehabilitation to maximize their remaining vision and independence, including the use of low vision services and devices.

In an effort to stimulate and strengthen a national coordinated effort for reducing the occurrence of vision loss and its accompanying disabilities, the nation must have a full-scale public health effort underway that includes: **1) communication and education; 2) surveillance, epidemiology and prevention research; and 3) programs, policies and systems changes.**

3.1 Communication and Education

Efforts must be made to increase awareness of vision problems, their impact, the importance of early diagnosis and appropriate management, and effective prevention strategies.

National Progress in Communication and Education

In 1989, Congress established the National Eye Health Education Program (NEHEP) at NEI as an extension of NEI's activities in vision research to ensure the dissemination of research results to health professionals, patients, and the public. The ultimate goal of NEHEP was to prevent vision loss and promote vision rehabilitation through



Vision loss ranks only behind arthritis and heart disease for impaired function in people age 70 and older.

public and professional education programs. NEHEP is a partnership between NEI and more than 60 public and private-sector organizations. Three separate education campaigns have been launched in the areas of glaucoma, diabetic eye disease and low vision:

- The Glaucoma Education Campaign targets people age 60 and older, African-Americans age 40 and older, individuals with a family history, and individuals with diabetes. The program delivers the essential message: *Have a comprehensive dilated eye exam at least once every two years.*
- The Diabetic Eye Disease Education Campaign targets all individuals with diabetes with the message: *Have a comprehensive dilated eye exam at least once a year.*
- The Low Vision Education Campaign targets people age 65 and older, Hispanics and Latinos age 45 and older, and African-Americans age 45 and older. The message is: *If you have low vision, make the most of your remaining sight.*

The Centers for Disease Control and Prevention (CDC) has had Diabetes Control Programs in state health departments for more than 25 years. While state diabetes programs have different levels of infrastructure and capacity, the programs all deliver important communication and education campaigns regarding the importance of dilated eye exams for individuals with diabetes and the risk, consequences, and economic costs of blindness associated with diabetes. CDC is a partner with the National Institutes of Health (NIH) on the National Diabetes Education Program, which, together with hundreds of national partners, delivers similar messages on the importance of eye exams.

Strategic Goals: Communication and Education

To increase awareness of vision problems and their impact, the importance of early diagnosis and appropriate management, and effective prevention and rehabilitation strategies through:

- Expanding communication and education campaigns on vision at the Department of Health and Human Services (HHS), NIH and CDC, state agencies, states, localities and partners, such as PBA and its affiliates;
- Testing the effectiveness of existing eye health communication and education campaigns by voluntary health associations, such as PBA, American Association of Diabetes Educators, and Lighthouse International and other eye health organizations and associations;



Nearly 20.5 million
Americans are
affected by cataract.

- Delivering consistent messages that reach the public, especially high-risk populations. These campaigns must be based on science and market-based research;
- Expanding partnerships with eye health professionals to improve knowledge, attitudes and practices of providers through education programs, medical societies, professional organizations, newsletters and conferences;
- Test, evaluate and advance model training, certification and risk assessment programs for vision screeners;
- Promote strategies to mobilize communities to take action to advance eye health.

3.2 Surveillance, Epidemiology and Health Services Research

To establish a solid scientific base of knowledge on the prevention and control of vision problems and related disabilities.

National Progress in Surveillance and Health Services Research

VPUS, now in its fourth edition, provides invaluable estimates of the prevalence of sight-threatening eye diseases in Americans age 40 and older. This report, funded by NEI, is the most comprehensive assessment of eye disease among Americans ever undertaken, and was accomplished by identifying large population-based studies, obtaining primary data from investigators, and combining data using meta-analytic techniques and data modeling.

Strategic Goals: Surveillance, Epidemiology, and Prevention Research

- Build on prevalence estimates by creating a national ongoing surveillance system to monitor trends over time, and assist the nation in setting priorities for interventions;
- Standardize diagnostic criteria for clinical and public health surveillance, using uniform definitions of diseases;
- Identify and test screening modalities to improve preventive strategies and related outcomes;
- Evaluate the efficacy and cost-effectiveness of current and future interventions and community strategies;
- Update and improve upon the existing body of health services and economic research to improve our knowledge about the true costs of vision problems and related disabilities.

3.3 Programs, Policies and Systems


To implement effective programs that prevent and control the onset of vision problems and related disabilities.

National Progress in Programs, Policies and Systems

Prevention strategies for a variety of vision problems exist today, but in many cases need to be fully implemented or further developed. From early detection, screening, and treatment and rehabilitation programs, we know much about how to prevent and control several eye diseases and conditions that result in vision problems and a diminished quality of life. Unfortunately, little or no infrastructure exists in state health departments to test or implement programs, policies and systems changes that will improve outcomes for individuals at risk of vision problems and associated disabilities. PBA, through its state affiliates, has built a strong network of programs and policies throughout the country, but has limited partnerships with the public health system to further test existing strategies, or to lay the groundwork for policy and systems changes. In fiscal year 2003, Congress provided funding to CDC to establish vision screening and education programs in partnership with national voluntary health agencies and for CDC to develop a national surveillance system to monitor trends over time and assess the economic costs of vision loss.

Strategic Goals: Programs, Policies and Systems

- Develop, implement and evaluate prevention intervention programs for vision loss;
- Further develop and disseminate vision education programs for health professionals and the general population about the benefits of prevention and control;
- Increase public and professional awareness of vision problems and associated disabilities as a public health issue;
- Implement policies that advance vision objectives in *Healthy People 2010*;
- Expand the capacity at national, state and local levels for public health approaches to vision problems;
- Further build partnerships between PBA and its affiliate network, public health agencies at the national, state and local levels, eye health professionals, and organizations with an interest in vision issues;
- Work with healthcare systems to better address vision problems and associated disabilities.



Vision loss from strabismus and amblyopia can be prevented or reversed with early detection and intervention.



Strategic Objectives: Prevention/Public Health

- Enhance efforts to substantially increase funding for NEHEP at NEI to ensure ample resources are available to carry out communication and education campaigns;
- Enhance efforts to substantially increase funding to CDC for building a national vision program, including surveillance and translation research, in partnership with key public health partners. Target funding for FY04 is \$5 million, with larger increases over time.

4. Access to Care and Treatment, including Rehabilitation

Healthy People 2010 reports that blindness and visual impairments from most eye diseases and disorders can be reduced with early detection and treatment. Recognizing that most vision, once lost, cannot be restored and that most eye diseases lack symptoms until vision is lost, it is essential that individuals are aware of and have access to available services, including screening, treatment and rehabilitative care.

National Progress in Access to Treatment, including Rehabilitation

Efficacious and cost-effective treatment strategies exist today for diabetic retinopathy, glaucoma, cataract removal surgery and vision rehabilitation services. While public and private insurance programs have expanded to cover select treatment and rehabilitation care services, severe access barriers continue to exist, resulting in vision loss and other health complications. For example, each year, 12,000-24,000 people go blind because of diabetic eye disease. Screening and care could prevent up to 90 percent of diabetes-related blindness. However, only 60 percent of people with diabetes receive annual dilated eye exams.^{xxviii} Additionally, vision impairment is the cause of 18 percent of hip fractures among older adults. If only one in five of these hip fractures were prevented through vision rehabilitation services, more than \$440 million would be saved annually.^{xxix}

4.1 Major Factors Affecting Access to Treatment and Rehabilitation Services

Affordability/Coverage through Third Party

- **The Uninsured.** The per capita provider visit rate for the uninsured is about half that of those with insurance coverage. With 40 million Americans uninsured—many of which are at an increased risk for vision problems—access to vision-saving screenings and treatment is extremely limited for this population;

It is believed that half of all blindness can be prevented, yet the number of Americans who suffer from vision loss continues to increase.

- **The Insured.** Of those Americans with health insurance, approximately 36 million either have vision insurance coverage or have an “eyewear” plan. While plans vary, many screening and treatment services are covered by private plans, and at the same time, large portions of the population are either not aware of and/or not taking advantage of these services;
- **Medicare.** The insured population faces restrictions in their policies on what is covered, and recent reductions in Medicare reimbursement rates are forcing doctors to receive rates so low, they no longer practice and/or see Medicare patients. Co-payments and deductibles also present a financial barrier to care for older Americans on Medicare, as Medicare does not cover routine eye exams, but does cover some preventive tests and screenings. Generally, Medicare does not cover eyeglasses or contact lenses. However, following cataract surgery with intraocular lens, Medicare can help pay for cataract glasses, contact lenses and intraocular lenses. Medicare provides reimbursement for annual eye exams for diabetics and laser surgery. Medicare recently provided coverage for glaucoma screening and treatment for high-risk individuals and for people with diabetes. Medicare covers a treatment for some patients with “wet” AMD;
- **Medicaid.** Vision problems affect one in 20 preschoolers, and 80 percent of children under the age of 6 are not being screened for vision problems before they enter public school. Medicaid finances health coverage for more than 21 million children (one in four) in the U.S. One of the central services under the Medicaid program is Early and Periodic Screening, Diagnosis and Treatment program (EPSDT) to screen children under 21 years of age for various conditions, such as vision problems, so that health problems can be treated early before they become worse. A 2001 General Accounting Office (GAO) report urged Medicaid to strengthen this program expressing concern that families were not adequately informed of the services and children were not receiving them;
- **Vision Rehabilitation.** Reimbursements for vision rehabilitation vary across the lifespan. From birth to age 21, the federal, state and local educational system provides resources for children, including the development of an Individual Education Plan (IEP). Vision rehabilitation agencies provide early intervention programs (age birth to 2 years) and preschool programs (age 3 to 5 or 6 years) and in mainstream schools for ages 7 to 9 years with support from teachers and rehabilitation professionals. Through age 21, Medicaid pays for medical expenses; schools pay for low vision assessments, devices and rehabilitation therapies; vocation rehabilitation funds may be directed at children age 14 and older for additional vision rehabilitation, socialization skills, computer training, and transition to the world of work.

From age 21 through the working years, the vocational rehabilitation system provides federal dollars to state offices for the visually impaired and services, such as vision rehabilitation; full career services, computer training and social work are paid for through vision rehabilitation agencies. When individuals stop working, almost no resources are provided. For 6.6 million Americans age 65 and older—there is no coverage at all. There is no coverage for vision rehabilitation services by Medicare or any third party insurers. In addition, very few HMO's offer vision rehabilitation services. An independent cost study estimated that providing vision rehabilitation services to older adults through Medicare would add less than \$10 million to program costs over five years.

Improved Access through Patient and Provider Education

Recent patient education efforts by the Centers for Medicare and Medicaid Services (CMS) and providers to increase screening rates and eye care services for the Medicare population highlights how challenging it can be to assure access. As discovered, patients may not access care that is offered to them for little or no charge. Similarly, providers do not always adequately educate patients about availability of care and the need to access it. Federal agencies lack sufficient resources to educate the general public and providers about available screening, treatment and rehabilitation services.



4.2 Strategic Goals: Treatment and Rehabilitation

In order to ensure access to and availability of treatment and rehabilitation services, we must:

- Promote awareness of the value of vision and cost to society of its loss;
- Support the standardization of Medicare coverage for vision rehabilitation services nationwide;
- Educate private payers and eye health professionals about the importance of vision screenings and the full range of eye care;
- Enhance efforts to ensure that Medicaid families are adequately informed of vision screening services for their children and that they receive those services.

- Support funding for CMS for initiatives such as the National Diabetes Quality Improvement Alliance Measures that promote access to diabetic eye exams;
- Advance initiatives across HHS that remove barriers and improve access to eye exams currently covered under Medicare, such as diabetic eye exams and glaucoma detection for high-risk populations;
- Initiate and support efforts to advance coverage for Medicare vision rehabilitation services as provided by orientation and mobility specialists, rehabilitation teachers and low-vision therapists, in settings including patients' homes environments;
- Encourage and advance improved coordination on vision rehabilitation and access to care between HHS, the Departments of Labor, Education, and the Social Security Administration.

5. Research

Congress created NEI as a new institute of NIH in 1968. NEI was created out of concern for the eyesight of the American people. Its vision and commitment is to protect and improve the visual health of the nation through the support and performance of the highest quality laboratory and clinical research aimed at an increased understanding of the eye and visual system in health and disease, and developing the most appropriate and effective means of prevention, treatment and rehabilitation, and through the timely dissemination of research findings and information that will promote visual health.

5.1 National Progress in Research

Over the past 30 years, NEI has engaged in a strategic process that culminated in the publication of a series of national plans for vision research. In the Winter of 2003, NEI and the National Advisory Eye Council (NAEC) published *The National Plan for Eye and Vision Research*, which identifies the most pressing needs and opportunities in vision research. With input from members of the vision research community, outside public groups, professional and advocacy groups, and panels of experts identified program goals, highlights of recent progress and program objectives in each of the following program areas at NEI: Retinal Diseases; Corneal Diseases; Lens and Cataract; Glaucoma and Optic Neuropathies; Strabismus, Amblyopia, and Visual Processing; Low Vision and Blindness Rehabilitation; and NEHEP.

See http://www.nei.nih.gov/strategicplanning/np_toc.htm for progress, goals and objectives in each of these program areas.

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5.2 Overall Strategic Objectives for Research

To ensure the highest quality of laboratory and clinical research aimed at increasing our understanding of the eye and visual system in health and disease, as well as developing the most appropriate and effective means of prevention, treatment, and rehabilitation through:

- Supporting full funding of NEI's critical priorities in eye and vision research for preventing and treating sight threatening diseases and disorders identified by the strategic planning process of NEI;
- Intensifying efforts at NIH, the Agency for Healthcare Research and Quality, and the Health Resources and Services Administration to train and retain physicians in clinical research until the decline in the numbers has been reversed and the clinical research workforce includes substantially more medical doctors and other healthcare doctorates than is now the case.



Footnotes

- ⁱ Friedman, D. S., et al. *Vision Problems in the U.S.: Prevalence of Adult Vision Impairment and Age-Related Eye Disease in America (VPUS)*. 2002
- ⁱⁱ *Id.* at 2.
- ⁱⁱⁱ Tielsch, J. M. *Blindness and Visual Impairment in an American Urban Population. The Baltimore Eye Survey*, 108. *Archives of Ophthalmology* 286-290 (1990); *Healthy People 2010*, (Office of Disease Prevention & Health Promotion, U.S. Department of Health and Human Services), available at <http://www.healthypeople.gov/Document/pdf/Volume2/28Vision.pdf> [hereinafter *Healthy People 2010*].
- ^{iv} *Healthy People 2010*, *supra*
- ^v *VPUS*
- ^{vi} *Id.* at 1.
- ^{vii} Rahmani, B., et al. *The Cause-Specific Prevalence of Visual Impairment in an Urban Population. The Baltimore Eye Survey*, 103. *Ophthalmology*, 1721-1726 (1996); *Healthy People 2010*, *supra*
- ^{viii} Kahn, H. A. & Moorhead, H. B. *Statistics on Blindness in the Model Reporting Area, 1969-70*, (PHS publ no [NIH] 73-427), U.S. Department of Health, Education, and Welfare (1973), 120-143; *Healthy People 2010*, *supra*
- ^{ix} *Recommendations for Preventive Pediatric Health Care*, American Academy of Pediatrics Policy Statement, American Academy of Pediatrics, Volume 105, Number 03, March 2000, 645.
- ^x *Children's Eye Problems*, available at http://www.preventblindness.org/children/ch_eye_problems.html.
- ^{xi} *VPUS*
- ^{xii} Verbrugge, L. M. & Patrick, D. L. *Seven Chronic Conditions: Their Impact on U.S. Adults' Activity Levels and Use of Medical Services*, 85. *American Journal of Public Health*, 173-182 (1995); *Healthy People 2010*, *supra*
- ^{xiii} *Vision*, *supra*, note 1 at 4.
- ^{xiv} *Are You At-Risk of Age-Related Macular Degeneration?* National Eye Health Education Project, National Eye Institute available at <http://www.nei.nih.gov/health/maculardegen/armd%5Frisk.htm>. [hereinafter *Are You At Risk*]
- ^{xv} *Id.* *Are You At-Risk*, note 14
- ^{xvi} *VPUS*
- ^{xvii} *Are You At-Risk*, *supra*, note 14
- ^{xviii} *VPUS*
- ^{xix} *Are You At Risk for Cataract?* National Eye Health Education Project, National Eye Institute available at <http://www.nei.nih.gov/health/cataract/cataract%5Frisk.htm>
- ^{xx} *VPUS*
- ^{xxi} *Healthy People 2010*, *supra*
- ^{xxii} *Diabetes: Disabling ,Deadly and On the Rise. At-A-Glance, 2002*, (Centers for Disease Control & Prevention) available at <http://www.cdc.gov/diabetes/pubs/pdf/Diabetes2002.pdf>.
- ^{xxiii} *Id.* at 26-27.
- ^{xxiv} *Are you at Risk for Diabetic Eye Disease?* National Eye Health Education Project, National Eye Institute available at <http://www.nei.nih.gov/health/diabetic/ded%5Frisk.htm>.
- ^{xxv} *VPUS*
- ^{xxvi} *Frequently Asked Questions About Amblyopia*, available at <http://www.preventblindness.org/children/amblyopiaFAQ.html>.
- ^{xxvii} *Frequently Asked Questions About Strabismus*, available at <http://www.preventblindness.org/children/StrabismusFAQ.html>.
- ^{xxviii} *Diabetes: Disabling ,Deadly and On the Rise. At-A-Glance, 2002*, (Centers for Disease Control & Prevention) available at <http://www.cdc.gov/diabetes/pubs/pdf/Diabetes2002.pdf>.
- ^{xxix} Felson, D. T., Anderson, J. J., Hannan, M. T., Milton, R. C., Wilson, P. W. F., & Kiel, D. P. (1989). Impaired vision and hip fracture: The Framingham study. *Journal of the American Geriatrics Society*, 37, 495-500.
- ^{xxx} *National Plan for Eye and Vision Research: A Report of the National Eye Institute and the National Advisory Eye Council*, U.S. Department of Health and Human Services, 2003.



The mission of Prevent Blindness America is to prevent blindness and preserve sight.

Founded in 1908, Prevent Blindness America is the nation's leading volunteer eye health and safety organization dedicated to fighting blindness and saving sight. Focused on promoting a continuum of vision care, Prevent Blindness America touches the lives of millions of people each year through public and professional education, advocacy, certified vision screening training, community and patient service programs, and research.

These services are made possible through the generous support of the American public. Together with a network of affiliates, divisions and chapters, it is committed to eliminating preventable blindness in America.

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