

A Summary Report of a Five-Year Cooperative Agreement with The Vision Health Initiative of the Centers for Disease Control and Prevention (2003–2008)

August 2009



INTRODUCTION

Prevent Blindness America is among the nation's oldest voluntary health organizations, having been first established in 1908. Today, 101 years later, with the aging of our population and the many advances that allow for longer and healthier lives, its mission of preventing blindness and preserving sight remains as important and urgent as ever.

In 2003, Prevent Blindness America entered into a critical phase of its growth as a relevant public health organization through a partnership with the Centers for Disease Control and Prevention (CDC). Under a cooperative agreement with CDC's Vision Health Initiative, Prevent Blindness America has spent the past five years expanding the scope of its public health prevention efforts and engaging its mission in new and innovative ways.

Over the course of this partnership, Prevent Blindness America, along with its network of affiliates and regional offices, established new programs in vision preservation aimed primarily at adult populations. Key to this effort's success were initiatives to ensure appropriate follow-up care; the development of a national data collection system; a successful partnership with the National Association of Chronic Disease Directors; public education through state-based vision symposia; participation in the expansion of the optional vision module of the Behavioral Risk Factor Surveillance System; strategies to integrate vision and eye health into state public health systems; engagement of the primary healthcare system in addressing vision and eye health; and expansion of programming to new territories throughout the country.

During the past five years, Prevent
Blindness America engaged many
of its affiliates in efforts contained
within the cooperative agreement.
States represented include: Arizona,
California, Florida, Georgia, Indiana,
Iowa, Kentucky, Massachusetts,
Nebraska, North Carolina, Ohio,
Tennessee, Texas, Wisconsin and
Virginia. Throughout this report
examples of some of these statebased programs will be highlighted,
along with key national efforts that
have expanded the capacity of the
organization to deliver upon its mission.

NATIONAL DATA COLLECTION SYSTEM

Prevent Blindness America has long been a national leader in vision screening initiatives, having developed its first children's vision screening program in 1926, followed by a glaucoma screening effort beginning in 1944. Prevent Blindness America's vision screening protocol are developed and updated by committees of leading national experts in ophthalmology, optometry, pediatrics, and public health; and include the only national certification process for vision screeners. And yet, as of 2003 there existed no national mechanism for the collection of vision screening and follow-up data.

Therefore, a critical first step in the cooperative agreement with CDC was

to develop a national database for the uniform reporting and collection of screening information. With a standardized database, population targeting, tracking to referrals and treatment, and program evaluation become possible. As data begins to be collected in a uniform and systematic manner, vision preservation programming can be more effectively measured and evaluated, leading to key improvements and modifications in program design.

In 2004, the first phase of this Internetbased system became available for use by Prevent Blindness Americacertified screeners and training on the database become a critical element of Prevent Blindness America vision screening training programs. Since that time, numerous iterations have been developed to allow the program to become more user-friendly and to expand its scope to fully address the variety of screening and follow-up programs being delivered.

Because of this database and its improvements over the course of this cooperative agreement, Prevent Blindness Georgia is now able to utilize the data collections system not only to track its vision screenings, but also to enter data specific to the follow-up exams it conducts during its clinics.



THE GEORGIA EXPERIENCE

The aim of Prevent Blindness Georgia's Adult Demonstration Project was to provide training for senior center staff and eye health education for their clients by offering eye exams onsite at senior centers. Older Georgians came to the clinics hoping to get new glasses, they left the clinic having a personalized experience that identified their needs and built a specific treatment plan that linked each person to the care they needed. These strong, personalized relationships increase the likelihood that clients will return for the follow-up care and services they need.

At the senior centers Prevent Blindness provided each client eye examinations to identify eye disease and begin treatment, while educating the client about the importance of regular eye exams. During this project, Prevent Blindness Georgia substantially enhanced professional education for health coordinators and expanded the number of eye exams and eyeglasses provided to seniors. This innovative program demonstrated the importance of provider education and training to ensure quality vision care for all seniors.

At the first senior center vision clinic, the director, Ms. Janet Smith, explained that staff members were deeply concerned that a patient, Edna Johnson, was going blind. Later that afternoon, as the project's eye care professional diagnosed cases of glaucoma, diabetic retinopathy and cataracts among her clients, Ms. Smith observed, "As we watched Mrs. Johnson lose her sight, it did not occur to us that other older people at the center should be getting eye

exams. Now we see that seniors don't just lose their sight because they are getting older; they go blind because they have eye diseases." The health coordinators were looking for diabetes and nutritional issues, but they were overlooking the importance of regular eye exams to prevent unnecessary vision loss.

Another woman, Ella Mae Grady, had been diagnosed with glaucoma years earlier, but stopped taking her prescription eye drops because she could not afford them. She apologetically explained that she had reduced her drops to once a day and then completely stopped taking the drops because she had to choose between food and medicine. Through the demonstration project, the health coordinator is now aware of the importance of the eye drops, familiar with Ms. Grady's dilemma, and will work to help her find free or



low cost medications. One gentleman, Mr. Bill Green, previously diagnosed with glaucoma, had stopped taking his glaucoma medication because the drops did not improve his vision. "I used the drops for a year and they didn't seem to make my eyes any better, so I stopped taking them." The program coordinator now understands that the drops can only slow the progression of the glaucoma, not improve Mr. Green's vision. Now the

health coordinator knows about his condition and will monitor his use of medication

The addition of vision clinics at senior centers across Georgia provided much needed eye exams. Perhaps more importantly they also educated health coordinators about aging eye diseases, how to best link clients to care, and what they can do to help save vision.

During the first three years of this program, 48 individuals were trained as vision screeners and 46 clinics took place. As a result, 723 at-risk adults were given eye exams and 611 were referred for follow-up eye exams for aging eye diseases. This work made a profound difference improving the quality of life and saving sight for hundreds of at-risks adults.

After the initial vision clinic funding ended, many of these senior centers asked Prevent Blindness Georgia to continue offering onsite services on a contractual basis. Because of this crucial program, health coordinators were motivated and inspired to ensure funding of this valuable service through their own state-provided budgets.

CRITICAL PARTNERSHIP WITH THE NATIONAL ASSOCIATION OF CHRONIC DISEASE DIRECTORS

Early on, Prevent Blindness America recognized the importance of engaging state public health systems in its efforts to advance vision preservation activities. Toward this end, a partnership was developed with the National Association of Chronic Disease Directors (NACDD), which led to a number of initiatives.

As an initial effort, the NACDD partnership resulted in an abbreviated literature review on state-based vision and eye health efforts – Age-related Eye Diseases: An Emerging Challenge for Public Health Professionals. This was coupled with an assessment of the vision-related activities of seven states, which included surveys as well as site visits to meet with key players in each state's public health network. The states included in this effort were Arizona, Arkansas, Florida, Georgia, Maine, New Mexico and Ohio. This process resulted in the publication of a document entitled Vision Problems in the U.S.: Recommendations for a State Public Health Response.²

Among the findings of this assessment process were that most states had vision programs to some degree or another that were linked to their diabetes programs; there existed a few statewide councils; there was some Medicaid coverage for vision; and that rehabilitation agencies and Veterans Administration facilities generally addressed vision. It was also discovered that there existed little evidence of systematic coordinated planning; there were few communitybased services; data was generally not available on vision problems, and there was no integration of vision services outside of diabetes.

Following the release of this report, a working group was formed consisting of representatives of state public health agencies, CDC, and Prevent Blindness America and its affiliates, to recommend actions that would result in state-based comprehensive vision preservation programs. The working group met in the fall of 2005 to reach consensus on the key elements of this action plan. The resulting document, *A Plan for the Development of State Based Vision Preservation Programs*, serves as a summary of the working group's deliberations.

The report describes the current status of public health vision conservation: recommends increased adult vision preservation activities within state chronic disease programs; recommends increased program activity by Prevent Blindness America: emphasizes collaborative roles and activities for health departments, Prevent Blindness America, and other vision preservation organizations; and recommends that CDC identify comprehensive and coordinated strategies and priorities in eye health and vision preservation that can serve as the basis for collaborative initiatives. This last recommendation was addressed by CDC'S Vision Health Initiative in 2007 with the publication of its *Improving the Nation's Vision Health:* A Coordinated Public Health Approach.4

Over the course of this partnership, both Prevent Blindness America and key members of NACDD recognized the value of an ongoing structure through which to advance vision and eye health into state public health systems. Therefore, in 2007, the organizations worked together to initiate a standing Vision and Eye Health Work Group of NACDD. It conducts its work through a number of sub-teams, which address the topics of communication, data, national and local partnerships, and primary care. This group continues to foster collaboration among state public health professionals, other state agencies, and non-governmental partners to expand and integrate programs to prevent vision loss.

Partnerships have been an essential element of this cooperative agreement. Another important partnership was forged between Prevent Blindness North Carolina and that state's WISEWOMAN initiative.

WISEWOMAN AND PREVENT BLINDNESS NORTH CAROLINA

There are 1,996,481 women in North Carolina over the age of 40 and 62,098 of these are estimated to have a visual impairment. Diseases and conditions such as diabetes and obesity impact both general health and eye health. An estimated 18,416 women over age

- ¹ Gohdes DM, Balamurugan A, Larsen BA, Maylahn C. Agerelated eye diseases: an emerging challenge for public health professionals. Prev Chronic Dis. Available at: http://www.cdc.gov/pcd/issues/2005/jul/04_0121.htm, accessed May 5, 2009; 2005 Jul.
- ² National Association of Chronic Disease Directors and Prevent Blindness America. Vision Problems in the United States: Recommendations for a State Public Health Response. Available at: http://www.preventblindness.net/site/DocServer/CDD_Vision_ Report.pdf?docID=1324, accessed May 5, 2009; 2004.
- ³ National Association of Chronic Disease Directors and Prevent Blindness America. A Plan for the Development of State Based Vision Preservation Programs: Summary of a Retreat on Public Health Vision Preservation. Available at: http://www. preventblindness.net/site/DocServer/State_Based_Vision_ Screening_Programs.pdf?docID=1341, accessed May 5, 2009; 2005.
- ⁴Centers for Disease Control and Prevention. Improving the Nation's Vision Health: A Coordinated Public Health Approach. Available at: http://www.cdc.gov/diabetes/pubs/vision.htm, accessed May 5, 2009; 2007.



18 in North Carolina have diabetic retinopathy and 3,404 women over 40 have primary open angle glaucoma. Less than 50 percent of low-income seniors and only 60 percent of African-Americans age 40 and older receive services from an eye care professional on a regular basis; and of the adult seniors screened in rural eastern North Carolina in 2005, 70% were women.

Due to these alarming statistics,
Prevent Blindness North Carolina
decided to focus on this population.
They began with a needs assessment
which identified a select number of
counties in the rural eastern part of
the state which were at a heightened
need of services — they had little or
no vision screening services in local
health departments, little or no access
to eye care specialists, and no vision
screening outreach services.

During their program development phase, collaboration began with the state's WISEWOMAN initiative, a CDC-sponsored project that offers health interventions to underinsured women ages 40-65, many of whom are low-income, uninsured or under-insured. While this program offered screenings for blood pressure, cholesterol and diabetes; provided intervention classes on diet, physical activity and smoking cessation; and offered medical referral and following; it did not include vision screenings.

After initial discussion, the two programs established a program mechanism that would address this missing need. Prevent Blindness North Carolina refocused their energies on counties which were also served by WISEWOMAN, they added a series of risk assessment questions to the traditional vision screening program and made referrals to the WISEWOMAN program based on the results of the assessment. WISEWOMAN, in return, shared information on the Prevent Blindness vision screening initiatives with their county coordinators to ensure crossfertilization of each program.

As a result of this collaboration, between 2005 and 2008, Prevent Blindness North Carolina screened a total of 5,318 adults in 13 counties served by WISEWOMAN. Of these, 3,615 were female, 1,082 were referred for follow-up eye care, and 890 were referred to WISEWOMAN for enrollment in their public health screening and education programs.

VISION AND EYE HEALTH EDUCATION SYMPOSIA

Educating the general public, as well as professionals on a variety of issues related to vision and eye health is an essential component of any public health program. Prevent Blindness America achieves this objective through a number of avenues, including its website, newsletter and a series of public service announcements. With this cooperative agreement, Prevent Blindness America and its affiliates have been able to add to these mechanisms by developing and delivering a number of state and

national education symposia.

The goal of these public health events has been to increase the understanding of important vision and eye health issues while also creating a springboard for ongoing state coalitions and other activities to address the problems discussed. In addition to serving as a venue for public education, the process of bringing together multiple disciplines is essential in order to advance a true public health response to vision problems across the country.

Over the past five years, such events have taken place in Georgia, Florida, Tennessee and Illinois; along with a national symposium focused on addressing issues related to the economic and other public health impact of vision problems in the United States.

In 2004, Prevent Blindness Georgia hosted a symposium entitled "The Aging Eye," during which a number of presentations were delivered to the general public focusing on the four major age-related eye conditions — cataract, diabetic retinopathy, glaucoma and macular degeneration. A key success measure has been the development of an ongoing Georgia Vision Collaborative which formed soon after the symposium to serve as a statewide public/private coalition to address vision and eye health concerns facing that state.

"Florida's Vision...Awaken to the Challenge," was hosted in 2005 by Prevent Blindness Florida to bring together the medical community, public health officials, educators, elected leaders, government representatives,

and vocational and rehabilitation professionals. The goal of the summit was to raise awareness of the eye problems associated with aging and to create a working collaborative group to address policy and community service needs for Florida seniors' aging eye concerns.

Prevent Blindness Tennessee held a symposium in 2006 in collaboration with the Tennessee State Health Department. A steering committee made up of community volunteers, senior center service directors, state health department staff, and Prevent Blindness Tennessee volunteers and staff developed an event which included speakers from the Tennessee Academy of Ophthalmology and the Tennessee Optometric Association to address topics of aging-eye disease and low vision. Participating professionals represented a variety of agencies, including the Metro Housing Authority, Tennessee Rehabilitation Services, Services for the Blind and Visually Impaired, the Department of Human Services, and local health departments.

Later in 2006, Prevent Blindness
America joined with the Illinois Society
for the Prevention of Blindness to
host the "Illinois Vision Symposium:
Understanding the Aging Eye." The
event attracted a variety of attendees,
including eye doctors, nurses, public
health and aging professionals, and
the general public. Discussion topics
included the four major aging eye

diseases; public health and aging in Illinois; the social, emotional and mental health impact of vision impairment; and living with low vision. The event concluded with a discussion on the establishment of vision as a public health priority in the state, which resulted in the creation of an ongoing Illinois Vision Coalition.

While these state-based efforts have been cornerstones of the growth of state vision strategies, equally important is further dialogue around vision and eye health at the national level. In 2007, Prevent Blindness America hosted "The Impact of Vision Problems in the U.S.," a national vision symposium held in Washington, DC to address issues primarily related to the economic cost of these problems to the overall U.S. economy. This event also served as an avenue for the release of *The Economic Impact* of Vision Problems: The Toll of Major Adult Eve Disorders, Visual Impairment and Blindness on the U.S. Economy.⁵ This document married outcomes from two studies to detail a total economic impact from adult eye disorders on the U.S. economy of \$51.4 billion annually. The two teams of prominent health economists delved into public sources of data, teasing out the impact of vision problems on federal and state budgets, personal expenditures and health-related quality of life. David B. Rein, PhD, of RTI International led one team, with funding provided by the Vision Health Initiative of CDC.

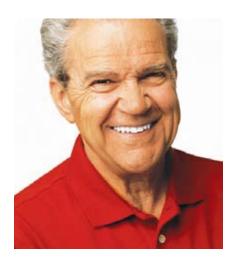
Kevin D. Frick, PhD, of Johns Hopkins Bloomberg School of Public Health, led the other, funded by Prevent Blindness America. This report continues to serve as a valuable resource when advocating for policy change or increased funding for vision and eye health research and programming.

Public education has been a key ingredient of a successful health clinic-based program developed by Prevent Blindness Florida that seeks to educate while also working to identify potential vision problems.

FLORIDA'S HEALTHY VISION CORNER

Prevent Blindness Florida established its Healthy Vision Corner Program to offer vision education and screenings at Florida health department clinics. Through this initiative, they are able to provide a physical vision education area in select clinics throughout Hillsborough, Manatee, Orange, Pinellas, Polk, Orange and Sarasota counties. The clinics offer brochures, resource materials and monthly vision screenings. With this Florida Department of Health partnership, Prevent Blindness Florida works to serve community members who need vision assistance and seek educational information. They encourage and equip individuals to be aware of potentially blinding eye diseases and other conditions that can lead to vision loss, while seeking to increase the number of vision screenings and exams offered to health clinic patients

⁵ Prevent Blindness America. The Economic Impact of Vision Problems: The Toll of Major Adult Vision Disorders, Visual Impairment and Blindness on the U.S. Economy. Available at: http://www.preventblindness.net/site/DocServer/Impact_of_Vision_Problems.pdf?docID=1321, accessed May 5, 2009; 2007.



to identify such conditions. This process corresponds with the health clinic environment and other health partnerships through which community members access services. Our services are provided in a consistent manner by which individuals who access care from public health departments recognize and understand.

Prevent Blindness Florida ensures each location remains fully stocked with English and Spanish-language brochures on a range of eye health and safety topics. At regularly scheduled vision screening dates and times, Prevent Blindness America-certified vision screeners conduct vision screenings, which include a risk assessment, visual acuity test, visual field screening and, when necessary, referral to an eye care professional. If financial assistance is needed. Prevent Blindness Florida provides an eligibility packet and/or applications from partnering organizations who provide free exams and glasses. Advance publicity, including public service announcements, promotes the screenings at the clinics for the monthly events.

During the course of this project, a partnership was forged with the University of Central Florida's and the University of South Florida's Pre-Optometry Societies to volunteer at the screenings. The students were trained and certified as vision screeners and volunteer their time to assist with the screening events. In addition to helping the public, this partnership provides a learning opportunity for the students and introduces them to volunteerism and public health.

The Healthy Vision Corner Program has been well received by the clinics and their patient population. In 2008 alone, Prevent Blindness Florida served approximately 4,200 people through the Healthy Vision Corners. This was an increase of 20% over the previous year. Prevent Blindness Florida plans to build on the project's momentum to expand this important public health service throughout the state of Florida.

BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM

In order to effectively establish programs of care, the gathering of epidemiological data is essential. An important mechanism for collecting state-specific data that can help shape prevention activities is the Behavioral Risk Factor Surveillance System (BRFSS). Unfortunately, until recently its use for vision-related data has been limited. Prior to 2005, BRFSS has only included two vision-related questions, both a part of a secondary diabetes optional module. Beginning in 2005, due largely to the efforts of CDC's Vision Health Initiative, a vision and eye health module — Vision Impairment and Access to Eye Care - became available. Yet, much work still needed.

to be done to convince the states of the importance of including these questions in their survey instruments. Over the past several years, Prevent Blindness America, in partnership with CDC and state governments, successfully engaged numerous states in this important epidemiological effort by convincing them of the need for such data in the development of successful vision preservation programs.

For example, in 2006 and 2008 the North Carolina State Center for Health Statistics ran the module with substantial success collecting important health service information for the state of North Carolina.

Additionally, Prevent Blindness America has worked with the Illinois Department of Public Health Center for Health Statistics to run three of the Optional Vision Module questions on the 2008 BRFSS survey. Results from both states are now available and currently being analyzed.

Further highlighting Prevent Blindness America's impact on this module is an analysis of the states that actually chose to include it. Prevent Blindness America currently has affiliates in approximately 20 states, yet the ratio of states running the module in its first three years far surpasses Prevent Blindness America's affiliate representation. In 2005, 4 of the 5 states running the module were PBAaffiliated; in 2006, this number was 9 of 11; and in 2007, 8 of 10. These data will serve as useful guides for program development opportunities as Prevent Blindness America and its affiliates continue engaging in public/ private partnerships to advance vision preservation activities.

PRIMARY HEALTHCARE PROJECT

Over the course of this cooperative agreement, Prevent Blindness America and its affiliates have undertaken efforts to more effectively engage primary healthcare providers in the vision and eye health of their patients. To begin a national dialogue on the issue, Prevent Blindness America worked closely with CDC and the National Eye Health Education Partnership of the National Eye Institute to convene a workgroup to explore the challenges and opportunities related to vision and eye health in the primary care setting. In addition to those previously mentioned, participating organizations included the American Academy of Nurse Practitioners, the American Academy of Ophthalmology, the American Academy of Optometry, the American Academy of Physician Assistants, the American Optometric Association, the American Society of Ophthalmic Registered Nurses, the National Association of Community Health Centers and the Society of General Internal Medicine.

Since the initial workgroup, Prevent Blindness America has enhanced its website through the addition of a Healthcare Professionals section of the site (http://www.PreventBlindness.org/ hcp/), adding key resources targeting healthcare professionals. The target audience for this information is primary healthcare providers (pediatricians, family care practitioners, physician assistants, nurse practitioners, etc.), and the content includes information and guidance related to their role in patients' vision care. Plans are in place to continue adding new resources to this section of the site.

At the urging of Prevent Blindness America, another outcome of this workgroup has been the establishment of an ongoing primary care team within the Vision and Eye Health Work Group of NACDD, as detailed previously.

Integration and enhancement of the primary healthcare system has been a core element of Prevent Blindness Ohio's efforts as they have worked with Community Health Centers in that state.

OHIO ENGAGES COMMUNITY HEALTH CENTERS IN VISION CARE

In the 1970s, doctors from The Ohio State University (OSU) College of Optometry decided that a good way to give back to their community would be to open a vision care clinic at one of the Federally Qualified Health Centers (FQHC) in Franklin County, Ohio. The result was the Vision Clinic at the East Central Neighborhood Health Center, one of the five FQHCs that are operated by the Columbus Neighborhood Health Center, Inc. In 2003, Prevent Blindness Ohio began collaborating with CNHC, as well as Access Health Columbus (AHC) to expand access to vision care and to direct resources to populations that are at greatest risk of not receiving needed vision care services. Prevent Blindness Ohio also partnered with VSP Lab Columbus, a local optical lab, to donate eyeglass frames and lenses to the Vision Clinic to increase access to low-cost eyewear for uninsured patients.

Integration of vision care services into the regular care of a community health center can be a challenge, especially in sites with clients with substantial healthcare needs. Prevent

Blindness Ohio conducted a vision screening training course for all primary care physicians, nurses and medical assistants employed at the five CNHC health center sites. The vision screening training equipped clinicians to conduct vision screenings for all new patients, high-risk patients and pediatric patients at least once per year. The training also served to introduce a standardized approach of referring patients to the Vision Clinic at the East Central Neighborhood Health Center.

Over the first three years of this initiative, the results have been impressive. 324 adult care providers were trained and certified as vision screeners, 163 primary care providers were trained and certified, and 36,335 adult vision screenings were provided as a result. By virtue of these trainings being conducted in existing community health centers, the transition to follow-up care is inherent in the program.

In the last year of this CDC cooperative agreement, Prevent Blindness Ohio engaged Community Research Partners (CRP) to explore the history of the East Central Health Center Vision Clinic, describe the many collaborations involved in its success and to identify the lessons learned in the process. According to a report issued by CRP, all of the participants were impressed by the thoroughness of the exams given at the Vision Clinic because they tend to feel that with public insurance patients usually do not get the same level of care as patients with private insurance do. As one patient stated. "...it's like when you're not paying as much, you don't expect as much. And I was really surprised because you couldn't have gotten any better care



anywhere else."

While distance was a significant barrier for many patients, the lack of low-cost services inspired many to travel to receive quality services. According to another satisfied patient, "We don't have a clinic like this up there [where we live]. And I will gladly drive all this way to get care. I don't know of anybody else that has subsidized stuff like this."

Among the conclusions and recommendations offered by CRP were that buy-in to providing vision care as a component of integrated healthcare is needed by FQHC top management; all FQHC clinical staff need to receive on-going training on vision screening and referrals; there need to be improvements in the policies and procedures for referring high-risk patients for vision care; there need to be policies and procedures that help integrate primary care with vision care; vision clinic staffing needs to have the capacity to meet patient demand; effective vision care requires a continuum of services, including optometry, ophthalmology, and access to affordable eyeglasses and medications: and vision clinics need to work in collaboration with other outside service providers so that patient access and clinic sustainability is increased.

PROGRAM EXPANSION EFFORTS

As Prevent Blindness America continues to broaden its public health scope of services by enhancing existing programs, creating new ones, and expanding key state and national partnerships, the organization's geographic expansion efforts are more and more critical. As an overlay of its existing 20-state affiliate network, in July 2008 Prevent Blindness America officially established its first two regional offices to support the program expansion and training efforts of the Chicago-based national office and to complement the existing outreach efforts of its affiliate network.

A Director of Prevent Blindness
America-Northeast was hired and
based in Boston, Massachusetts, to
serve a five state region, including
Maine, Massachusetts, New
Hampshire, Rhode Island and Vermont.
A Director of Prevent Blindness
America-Northwest was hired and
based in Portland, Oregon, to serve
the states of Idaho, Montana, Oregon,
Washington and Wyoming.

These regional offices not only serve as vision screening trainers and local Prevent Blindness resources, but they also have begun establishing themselves as a central knowledge base throughout their regions to ensure a coordination of vision and eye health services. Initial reports from both offices indicate they have been well received and are off to a great start in providing increased services.

Not only has Prevent Blindness America been working hard to expand its reach nationally, but its state-based partners have been looking to expand their own work within their states. Recognizing a tremendous need in the rural eastern part of its state, the Kentucky Division of Prevent Blindness America went to work to address a small part of the larger healthcare crisis that faces those communities.

THE KENTUCKY APPALACHIAN PROJECT

The Kentucky Division of Prevent Blindness America received funding through this cooperative agreement for the past five years to screen, educate and provide follow-up vision care for adults in one of the most at-risk communities in this country — the Appalachian Region of Eastern Kentucky. This region is one of the poorest regions in the country and many of the citizens have very little access to healthcare and health education services. Over the last several decades, agriculture in the region has significantly declined and the push to move away from coal as an energy source has caused many mines to close. This has resulted in a high unemployment rate and a declining population base. There is very low labor force participation — just 39% compared to 60% for all non-metro counties nationally. There is a very high incidence of disability among people ages 21-64 — 42% compared with 21% nationally. The poverty level in this region is extremely elevated and the health education and overall health of this region suffers. Without a doubt, this includes the population's vision and eye health.

Between 2003 and 2008, this program expanded its services from six counties to eleven counties, and partnered with local healthcare clinics to

provide health education and vision screenings for acuity, glaucoma, diabetic retinopathy and age-related macular degeneration. During this time, thousands of individuals were screened, most for the first time in their adult lives. In 2008 alone, 1.350 individuals were screened, with a referral rate of approximately 34%. Program staff worked with generous eye care providers and companies throughout the state and followed up with individuals on subsequent visits to ensure they were obtaining the recommended care. The need for this program is certainly ongoing. According to LuAnn Epperson, Executive Director of the Kentucky Division of Prevent Blindness America, "Many of the clinics invited us back year after year, and as word spread we received numerous requests from community care centers, diabetic support groups, health departments, etc. to provide our services." These services provided a critical link to sight-saving services previously unavailable to many of the people of Kentucky. Efforts are underway to identify fiscal support to continue this valuable program for this povertystricken area of the country.

VISION INTEGRATION

The integration of vision efforts throughout state health departments has been a driving goal of this overall effort. As a resource to advance the mission of vision integration in state public health departments, Prevent Blindness America worked closely with its partners at CDC and NACDD to create a DVD to be used as a mailer to health departments, in presentations,

or other communication venues. The video details the value of integration and establishes important integration concepts. To advance the practice of vision integration, in year five of the cooperative agreement, several small grants were provided to Prevent Blindness affiliates to further engage their states' own health departments around these important issues.

Prevent Blindness Georgia began efforts, in partnership with the Georgia Vision Collaborative, to institutionalize vision in the State of Georgia public health system by developing a series of reports, websites, and other materials that mirror those of other disease states and organs; and to continue to support the efforts of the Collaborative workgroups in moving forward the State Vision Preservation Plan.

Prevent Blindness Indiana received support to enhance current activities through an aggressive public awareness campaign and outcomes management program. The overall goal of these efforts is to improve vision health in Indiana by educating target public groups, promoting the integration of vision preservation within public health strategies at the state level, and ensuring follow-up care for those who are referred to an eye care professional.

The lowa Vision Project has been working to address vision integration from both a broad, community collaborative perspective as well as on a patient care level. A Prevent Blindness lowa partnership with the lowa Department of Public Health initiated the creation of a state-level

vision coalition for the purpose of identifying major vision and eye health needs in lowa and to develop a plan of action.

Prevent Blindness North Carolina has been involved in expansion of its adult program for the past 5 years. This expansion has been supported primarily through foundation efforts, but the engagement of this affiliate within this cooperative agreement has made it possible for them to become familiar with and to collaborate with several statewide and national projects. In addition, they have successfully married their children's vision screening programs with state agencies and are continuing to bring other nonprofit and state stakeholders into this successful collaboration.

Finally, the groundwork for a unique vision integration program to be piloted in New York has been laid. Prevent Blindness America. Prevent Blindness Tri-State (representing Connecticut, New Jersey and New York), and the New York State Health Department have begun a partnership toward the creation of a vision integration program within the Chronic Disease Division of that state's health department. This project, which officially kicked off during a new CDC cooperative agreement begun in 2008, was initiated earlier that same year through an ongoing discussion among the key partners. As of early 2009 a Vision Health Integration Specialist was hired by the state health department. She will work closely with the affiliate's New York Director of Public Health to engage internal and external

stakeholders around establishing a statewide strategic plan and ensuring that vision and eye health issues are appropriately addressed by all relevant divisions of the health department.

FUTURE DIRECTION

Without a doubt, this collaboration between Prevent Blindness America and the Centers for Disease Control and Prevention has resulted in a stronger, more effective public health program that not only addresses vision and eye health needs of individuals throughout the country, but has begun to establish an ongoing infrastructure of healthcare prevention functions that will have a long-lasting impact on the vision and eye health of the nation's public at large.

Despite the impact of the past five years, there remains much left to be done. Prevent Blindness America is eager to continue its work with CDC and other essential partners to continue to improve the quality and health of Americans' lives through programs aimed at ensuring good vision and healthy eyes.

Prevent Blindness America has already entered into a second cooperative agreement with CDC — a collaborative effort toward the development of an integrative approach to eye health promotion and vision loss prevention. This project will involve multiple partners across four separate, yet integrated

components. Initial participating organizations include Duke University, Johns Hopkins University, the New York State Department of Health, Prevent Blindness North Carolina, Prevent Blindness Ohio, and Prevent Blindness Tri-State (serving Connecticut, New Jersey and New York). This team is examining intervention models for identifying and treating individuals with potential vision disorders in both pediatric and adult populations; developing methods to integrate and link vision public health initiatives to state, local, and community health programs; and evaluating and expanding vision health data systems.

Prevent Blindness America is also eager to expand its public health collaborations through an upcoming partnership with the Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration. With the support of MCHB, Prevent Blindness America will establish a National Universal Vision Screening for Young Children Coordinating Center, which will focus its initial work on three core programmatic areas. These include 1) providing national leadership in the development of the statewide vision screening and intervention component of programs for all children four years of age, prior to school entry; 2) advancing recommendations for the establishment of state and national Title V performance measures for vision screening, and developing proposed national standards

for state-based data collection and reporting; 3) developing and implementing a plan for assisting states to coordinate and enhance existing vision screening activities, working closely with five pilot states to develop and implement uniform statewide strategies for universal vision screening by age 4, and advancing best practice guidance to all states.

Another key factor of ongoing success is coordination of key objectives and goals. Not only will Prevent Blindness America continue to support and work to advance the objectives established by CDC's Improving the Nation's Vision Health, but the organization is committed to being a key partner in advancing the Healthy People 2010 vision objectives and working to establish and support those of Healthy People 2020. These important frameworks for prevention for the nation, as established under the guidance of the U.S. Department of Health and Human Services, serve as guideposts for the collaborative work being done to advance vision health.

It is only through the continued emphasis on the development and replication of successful evidence-based public health programs; collaboration among all national, state and local organizations; and cooperative involvement of all healthcare disciplines that we can hope to be successful in improving the nation's vision and eye health.