The Hispanic population is the largest minority group in the United States. By 2050, an estimated 102 million Hispanics will reside in the United States, nearly 24.5 percent of the total U.S. population. The 2000 Census from the U.S. Census Bureau showed an estimated 10 percent Hispanic population in Wichita, the largest city in Kansas. This number is expected to double, and possibly triple, by the year 2010. In addition, there are three counties in Western Kansas where Hispanics make up more than 50 percent of the total population.

Hispanics are three times more likely to have diabetes as non-Hispanic whites, and according to the American Diabetes Association, the prevalence of diabetic retinopathy among Mexican Americans who have diabetes is between 32 and 40 percent. In addition, recent studies have shown that glaucoma is the leading cause of blindness among Hispanics.
Members of Proyecto Enfoque, the Hispanic support group at Envision, practice dancing the cumbia.

According to the Pew Hispanic Center and the Robert Wood Johnson Foundation, one in four Hispanics do not have a personal physician, nor do they regularly visit the doctor, in part, due to a lack of access to health insurance. Recent immigrants can also be at increased risk for chronic disease, particularly those who lack fluency in English and familiarity with the U.S. health care system, or those who have different cultural attitudes about the use of traditional versus conventional medicine. For Hispanics in the United States, health disparities often result in decreased quality of life, loss of economic opportunities, and perceptions of injustice. For society, these disparities translate into less than optimal productivity, higher health care costs and social inequity.

The Envision Hispanic Initiative continued from page I

tural norms which directly contribute to the vulnerability of this population relative to vision loss. One such cultural norm is diet. Discussions include healthy alternatives to recipes that are traditionally high in cholesterol. Another cultural norm is religious tradition. In a population that is 68 percent Catholic, it is common for diseases to be seen as punishment from God, and a reality that needs to be accepted. Emphasis is also placed on the importance of early detection and regular eye exams, especially for diabetics and those at risk. Meetings are conducted entirely in Spanish, and strive to incorporate relevant cultural exercises whenever possible, to keep the group engaged.

Response to the Hispanic Initiative has been notable. In 2007, Envision identified an existing 1.9 percent Hispanic patient base at the Envision Low Vision Rehabilitation Center, and saw an increase of 5.3 percent in 2008 as outreach efforts progressed. The outcomes of the Envision Hispanic Initiative will demonstrate an increase in public awareness of healthy vision, hope for individuals with eye diseases that cause blindness, and a conscious effort by members of our Hispanic community to prevent vision loss through public education and early detection.

But Envision does not do it alone. Collaboration has played a vital role in establishing name recognition and trust within the Hispanic community. The office of Hispanic Relations is a member of the Wichita Hispanic Chamber of Commerce, and chairs the health committee in order to foster relationships with other local organizations that are reaching out to this growing population. Envision has also worked closely with the La Familia Senior Center, which is the only senior center in Sedgwick County that plans its services and activities around the needs of Spanish-speaking persons. This center currently serves an estimated 5,000 Hispanics per month, 66 percent of whom are diabetic.

At the national level, Hispanic outreach efforts and Spanish publications by organizations such as the National Eye Institute, American Diabetes Association and American Foundation for the Blind are utilized by Envision during outreach to emphasize the importance of healthy lifestyles. There is a consistent tone to each successful Hispanic outreach that considers the family unit, religious tradition, cultural norms, health disparities, immigration issues and sub-cultures within the group. 9,11

Envision is prepared to make comprehensive low vision rehabilitation services financially accessible to Hispanics of all socioeconomic backgrounds. In addition to participation in the Medicare Low Vision Demonstration Project, which extends Medicare reimbursement for vision rehabilitation services to Medicare Part B participants, Envision has a medical assistance program that ensures that no patient is denied service due to lack of insurance coverage or ability to pay.

For more information about the Envision Hispanic Initiative, or to request brochures in Spanish, contact Lori Morton at (316) 440-1511 or lori.morton@envisionus.com.

References


Lori Morton is the Manager of Outreach & Hispanic Relations for Envision Low Vision Rehabilitation Center. She is instrumental in collaborating with members of the Hispanic community and local health care providers to focus specifically on eye diseases, such as diabetic retinopathy and glaucoma, and their effect on the underserved Hispanic population. Lori oversees Envision’s “Encarguese de Su Visión” or “Take Charge of Your Vision.”
The First Annual Envision-Atwell Award in Low Vision and Vision Rehabilitation Research Presented at ARVO 2009

The first annual Envision-Atwell Award for research in low vision and vision rehabilitation was presented to Ms. Nicole Ross, a student at the New England College of Optometry, at the annual meeting of the Association for Research in Vision and Ophthalmology (ARVO) held in Ft. Lauderdale, Florida on May 6, 2009.

According to the ARVO website (www.arvo.org), ARVO is the largest vision research organization in the world, with members including more than 12,000 researchers from 73 countries. ARVO encourages and assists research, training, publication and knowledge-sharing in the fields of vision and ophthalmology.

The award was originally named the Atwell Award, in honor of long-time low vision research supporter Constance Atwell. While on staff at the National Eye Institute, Dr. Atwell played a pivotal role in encouraging and motivating high quality low vision research. The award has now been renamed the Envision-Atwell Award through an agreement made between Envision, ARVO and the Low Vision Research Group prior to this year’s meeting.

The Envision-Atwell Award is given to an ARVO presenter who is a junior investigator, defined as an individual who is currently a student, post-doctoral researcher, or junior faculty member with less than five years since their last professional degree.

The award consists of a $500 stipend and a trophy celebrating the spirit of the award. The organizational committee of the LVRG reviews the research scientists’ presentations who have declared that they wish to be considered for the award. The award is presented at the annual LVRG social held during the ARVO meeting. This year’s social was sponsored by Envision and Good-Lite (manufacturer of vision screening instruments and charts) and was attended by scientists and professionals from throughout the world who all have the common interest of low vision and vision rehabilitation research.

With the tension building in the potential award recipients, Richard Jamara, OD and president of the LVRG introduced other LVRG committee members as well as Shirin Hassan, PhD and incoming president of the LVRG. James Nolan, PhD, Director of Research at Envision presented at the upcoming Envision Conference being held September 9-12 in San Antonio, Texas. Dr. Nolan then introduced Linda K. Merrill, Envision, Inc. CEO who presented the award.

The award recipient, Ms. Ross, is also a member of Dr. Eli Peli’s research lab and Schepens Eye Research Institute, Harvard University.

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Cataracts: An Overview for the Low Vision Professional

Low vision rehabilitation is, by nature, a collaboration of medical professionals and a variety of other low vision specialists. Not all involved with the continuum of care know the exact science of cataract formation or removal. For this reason, the basics are necessary in order to fully understand the etiology and treatment options for patients who may have vision loss due to cataracts.

Normal Eye Anatomy:
Vision is a complicated process with light rays passing through various structures of the eye (cornea, pupil, and lens) before becoming focused on the retina, which serves much like a film in a camera. The lens is one of the primary focusing structures of the eye, and sits just behind the colored part of the eye.

What is a Cataract?
A common myth is that a cataract is a growth or film that forms on the eye’s surface. However, a cataract is the clouding of the normally clear lens inside the eye. The normal lens is formed of neatly arranged protein fibers that allow light to pass easily and become focused clearly. In a cataract, these fibers clump together to form opaque clusters and the entire lens becomes cloudy and disrupts the passage of light into the eye. This can make images seem dull or blurry and interfere with a patient’s ability to see clearly.

What Causes Cataracts?
For the vast majority of individuals, cataract development is part of the normal aging process. Heredity, however, can play a role in how early or late in life a patient develops a cataract.

Risk Factors:
Certain risk factors, alone or in combination with age, can increase the risk of developing cataracts as an adult.
- Smoking
- Excessive exposure to UV rays (sunlight exposure)
- Significant eye injuries
- Poorly controlled diabetes
- Long-term use of certain medications, primarily corticosteroids

Signs and Symptoms of Cataracts:
The word cataract is derived from the Greek word for “waterfall.” If a cataract becomes advanced enough, a patient’s vision can fail and they may feel like they are seeing everything through a sheet of rushing water. Today, it is rare for a patient’s cataract to advance that far because treatment is usually sought at a much earlier stage.

Classic symptoms include:
- Blurred vision: Fuzzy vision is a common first symptom of cataracts. Street signs are more difficult to see and reading becomes a challenge. Many patients even present the complaint that they can no longer see the golf ball.
- Night vision difficulties: Patients with cataracts may feel unsafe driving at night. Glare from oncoming headlights can become blinding and streetlights can take on a halo effect.
- Excessive brightness and glare: Even sunlight can be blinding and create intolerable glare for patients.
- Prescription changes: Frequent eyeglass prescription changes are needed. With early cataract formation, it is appropriate to change a patient’s prescription in order to improve vision. However, with more advanced cataracts, eyeglass changes are no longer beneficial.
- Dimness of colors: Cataracts cause colors to become washed out and dull. Because cataracts usually develop slowly, patients are often unaware of this color change. It is only after cataract surgery that many patients realize the profound impact that the cataract had on color perception and brightness.
- Increased eyestrain: For many cataract patients, reading, working on a computer, or using their eyes for daily activities can create strain or fatigue.
- Double vision: Patients may see “ghost” images or an out-of-focus shadow effect.

Cataract Treatment:
There are no medical treatments for cataracts. No eyedrops, exercises, medications, or glasses will cause cataracts to regress or disappear. Surgery is the only definitive treatment for cataracts. The surgical technique has progressed so much that the incision can be as small as two millimeters and a patient’s return to excellent vision can often occur within a few days. Cataract surgery has become the most commonly performed surgery and one of the most successful. Surgery can have a life-changing impact for many patients.

Not everyone that has a cataract needs surgery. “If it is not broken, don’t fix it.” If a patient is not yet struggling or limited in their daily activities, treatment may not be necessary. Patients may be able to compensate by changing glasses, using magnifying lenses or with improved lighting when reading or working.

Patients can be trained on these simple modifications through low vision rehabilitation. Through training in activities of daily living, assistive technology, adaptive aids and appropriate lighting, patients can continue to utilize their remaining functional vision.

When a patient’s cataract progresses to a point where it is significantly interfering with daily living or compromising their lifestyle (driving, cooking, reading, performing their job, sewing, or golfing) it may be time to recommend surgery.

Several decades ago, doctors waited until a cataract became “ripe”—when the lens became fully opaque—before surgery was performed. With modern surgical techniques and excellent surgical results, it is better to proceed earlier than was customary in the past.

continued on next page
Surgical Technique:
Modern cataract surgery is performed on an outpatient basis, either in an ambulatory surgical center or in a hospital. Surgery is performed with anesthetic eye drops or local anesthesia. Patients do not need to undergo general anesthesia. Surgery is typically painless, both during and after surgery. Using an operating microscope, tiny surgical instruments are used to break apart and remove the cloudy cataractous lens from the eye. Ultrasonic techniques (called phacoemulsification) are the most modern techniques of cataract removal. Lasers are not used in cataract removal. The back membrane of the lens (called the posterior capsule) is usually left in place. A man-made artificial lens is then implanted into the eye to replace the natural lens that was removed.

Visual recovery is usually very rapid and patients can resume normal daily activities almost immediately.

The lens capsule (the membrane that holds the artificial lens in place) can become cloudy several months or years after the original cataract operation. If the cloudy capsule blurs a patient’s vision, a laser procedure (posterior capsulotomy) can be painlessly performed to make an opening in the capsule, restoring normal vision.

Lens Implants:
Modern lens implants are usually made of a foldable material (acrylic or silicone) that can be implanted into the eye via very small incisions. The power of the lens must be individually calculated for each surgery. Lens implants today can correct near-sightedness and far-sightedness. The most modern specialized lenses can even correct astigmatism and can have multifocal powers for best uncorrected distance and near vision. Surgery can make one much less dependent on glasses, but often reading glasses or glasses with a low pre-scription are still needed for patients to obtain their best vision.

In cataract surgery, the intraocular lens replaces the eye’s natural lens.

During cataract surgery, tiny instruments are used to break apart and remove the cloudy lens from the eye. Images courtesy of American Academy of Ophthalmology.

An intraocular lens (IOL) implant

So What if We Go Outside the Box?
An Argument for Cataract Extraction of Moderate to Profound Visually Impaired Persons:

Throughout my career, a quagmire in my low vision rehabilitation practice has always been convincing cataract surgeons to perform a cataract extraction on my moderate to profoundly visually impaired patients. This is true whether it was an academic institution or a 1,200 bed hospital with an eye institute. Location also didn’t matter — whether it was Detroit, Baltimore or Morgantown. That is, until I met and convinced a junior faculty member in Baltimore to consider the premise. Those results are now being considered for publication in a major peer review journal.

The usual reasons for not considering the surgery were systemic review of systems, age, and the thought that it “wouldn’t help.” This was especially true of patients with macular degeneration for the reasons of age as well as the disease.

Well, the baby boomers are here with their Macs, PCs, iPods, and iPhones — texting, emailing, gaming, Facebooking and Twittering — and they aren’t ready to go to that nursing home! There are millions of Americans affected by cataracts each year. As a result of the baby boomers aging, there will be a significantly greater incidence and epidemiological change as well as increased quality of life issues. This includes driving and tennis, avocations and travel, shopping, reading, using the computer, sports and simply living.

In the last six months, I have seen four patients that needed cataract surgery who were told in the past, for various reasons, that cataract surgery should not be performed. I discussed my philosophy of having cataract extraction as part of the low vision rehabilitation process when appropriate, realizing that case and social history can often lead to prejudgment about an individual, perhaps preventing implementation of a surgical procedure that may unequivocally change their psychological and social health and current life predicament.

Clinical diagnoses, past consultations and possible reasons given by each of the four patients (prior to seeing me) included a history of the following:

1. History of amblyopia – strabismus, diplopia and significant psychosocial manifestations
2. High myopia, myopic degeneration, status post laser for lattice and “risk factors”
3. Chronic history of cluster headaches, neurological history, chronic complaint of visual phenomenon, psychosocial and domestic implications
4. Risks after retina detachment and status post laser surgery in the right eye

So What if We Go Outside the Box? continued on next page

William L. Park, OD, FAAO
Private practice, LLC
Past Director of Low Vision Services, Lions Research & Rehabilitation Center, Wilmer Eye Institute-Johns Hopkins University

“...There are millions of Americans affected by cataracts each year. As a result of the baby boomers aging, there will be a significantly greater incidence and epidemiological change as well as increased quality of life issues.”

A 63-year-old single female was seen in late December of 2008 with a self-reported history of macular degeneration, high myopia, lattice degeneration and retinal holes (with status post laser treatment in PA).

There was a history of her receiving her first prescription at 8 years of age. She had recently moved to Kansas from Arizona to live with her daughter due to the impact of her visual impairment on her life. Review of systems was negative for systemic disease.

Chief complaints consisted of decreased color perception and discontinuance of driving due to vision, poor subjective mobility and safe travel, difficulty with all visual tasks such as reading, television viewing, seeing faces, financial management, personal management and grooming, to name a few. The Geriatric Depression Rating Scale (GDS) indicated a score of 2 and the Mini-Mental State Examination (MMSE) indicated a score of 26.

The patient was seen for two post-op evaluations (status post 3 and 6 weeks) for determination of her Best Corrected Visual Acuity (BCVA) and lens prescription. BCVA in the distance was right eye 20/500, left eye 20/40 + 1. Near visual acuity was .4M at 35 cm.

The final prescription written was:
Right Balance Lens
Left + 0.75 –1.50 x 094 with +2.75 add

Three of the four patients have been seen for evaluation at six to eight weeks post-cataract surgery with no complications and significant clinical improvement in visual acuity (mean 4.5 line improvement in six eyes).

The final outcomes of these four patients is yet to be determined, with respect to activities of daily living, driving issues, functional vision, occupational and avocational activities and quality of life. However, it appears that cataract surgery in visually impaired persons is a reasonable direction as part of low vision rehabilitation.

REFERENCES:

William L. Park, OD, FAAO, is in private practice in Wichita, KS. Dr. Park is committed to outreach efforts in stemming the epidemic of diabetes. He works exclusively with patients referred for low vision evaluation, low vision rehabilitation and neurological vision loss. He is a past Director of Low Vision Services, Lions Research & Rehabilitation Center, Wilmer Eye Institute-Johns Hopkins University. Dr. Park can be reached at William L. Park, OD, PLLC, www.parklowvision.com, 610 N. Main, Suite 201 Wichita, KS 67203, (316) 440-1690 or drpark@parklowvision.com.

Diagram of a normal eye and one with a cataract.
The program for Envision 09 has been set, and we hope you will join us in beautiful San Antonio September 9 - 12.
Low Vision Research at Envision 09

Join us a day early for a free pre-conference research symposium, Wednesday, September 9.

Health Policy Issues and the Burden of Vision Loss:
Moderated by August Colenbrander, MD, Smith-Kettlewell Eye Research Institute and California Pacific Medical Center

The World Health Organization (WHO) is preparing the 11th revision of the International Classification of Diseases (ICD-11). This revision will be a major one, since it is aimed at serving not only the WHO’s need for public health statistics, but also the terminology needs for Electronic Medical Records (EMR) and other Health Information Technology (HIT) applications.

The WHO has a special interest in defining the Global Burden of Disease (GBD) as a means to compare the impact of various diseases and to set health policy priorities. For vision, this translates to the Burden of Vision Loss, a topic that is of special importance to vision rehabilitation. This free discussion will address this very important topic.

Contact August Colenbrander, MD directly at gus@ski.org.

Current Trends in Low Vision and Vision Rehabilitation Research: Where and How Should Scientists be Focusing their Efforts?
Moderated by James Nolan, PhD, Envision Low Vision Rehabilitation Center and the University of Kansas Medical School - Department of Ophthalmology

Many trends and practical applications, not to mention funding and the lack thereof, dictate the topics of research chosen by the scientific community. This free round table discussion is designed to provide the venue for current scientists to discuss the relevant issues of study today in low vision and vision rehabilitation science. Topics to be discussed will also include what areas of research may be coming up short today based on inconclusive or contradictory findings and what areas of research hold the most promise for the future.

Contact James Nolan, PhD directly at nolan@envisionus.com.

Assistive Technology Grant Available for Kansans with Disabilities

The loss of vision can be devastating. Low vision rehabilitation can train individuals with vision loss on the use of assistive technology, such as magnifiers, CCTVs (Closed Circuit Televisions), and specialized computers. With the help of this equipment, people with vision loss can continue to read and retain a sense of normalcy in their lives.

Thanks to the generosity and partnership of the United Cerebral Palsy of Kansas (UCP-K), funds are available for Kansans with disabilities over the age of 60 in need of assistive technology. UCP-K, thanks to a Kansas Department on Aging grant and matching funds from the Cerebral Palsy Research Foundation of Kansas, will award up to one-half the purchase price, not to exceed $2,500, to individuals who need assistive technology such as magnifiers and CCTVs.

Please contact the Cerebral Palsy Research Foundation of Kansas for more information. (316) 440-1600
Envision Accessible Arts Programs Expanded

Art can give a visually impaired child or adult a tangible way to “map out” a confusing sense of the world. The arts can provide a stimulating and pleasurable way to view the sensory world. Art can help build confidence, increase self-concept and cultivate independence and quality of life.

Envision has added several arts programs in ceramics and fiber arts to provide and promote the tangible benefits of art education and art-making for children and adults with vision loss. Providing access to the arts for people who are blind and visually impaired expresses Envision’s belief that individuals who are visually impaired can equally engage in creative arts through exploration and discovery. Day classes for low vision adults, after-school programs for visually impaired children and youth, and weekend workshops are available. Call the Envision Low Vision Rehabilitation Center for more information. (316) 440-1600

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(316) 440-1660

Brochures on Cataracts, Eye Diseases Available

In this issue of Visibility, several articles focus on cataracts. As a component of Envision’s public education initiative, new brochures on the etiology, prevention and common treatments of the leading eye diseases that cause vision loss and blindness have been produced. Spanish versions are also available. Brochures on diabetic retinopathy, macular degeneration, glaucoma, retinitis pigmentosa, stroke and cataracts are available. Multiple copies can be ordered through the Envision Everyday store: (316) 440-1680, or toll free (888) 311-2299.

About Envision Low Vision Rehabilitation
The Envision Low Vision Rehabilitation Center provides comprehensive, multi-disciplinary low vision rehabilitation and services for people with vision loss. The center’s goal is to help patients maximize their independence and realize their best functional vision. The center achieves this by offering a comprehensive low vision rehabilitation program unique to the needs of each patient. Envision provides low vision rehabilitation regardless of ability to pay. Call to find out about the availability of financial, medical assistance.

REQUEST COPIES OF VISIBILITY
If you would like to share Visibility with a colleague, please request a copy from Michael Epp, Director of Outreach & Continuing Education at michael.epp@envisionus.com or call (316) 440-1515. Visibility is also available online at www.envisionus.com/Visibility.