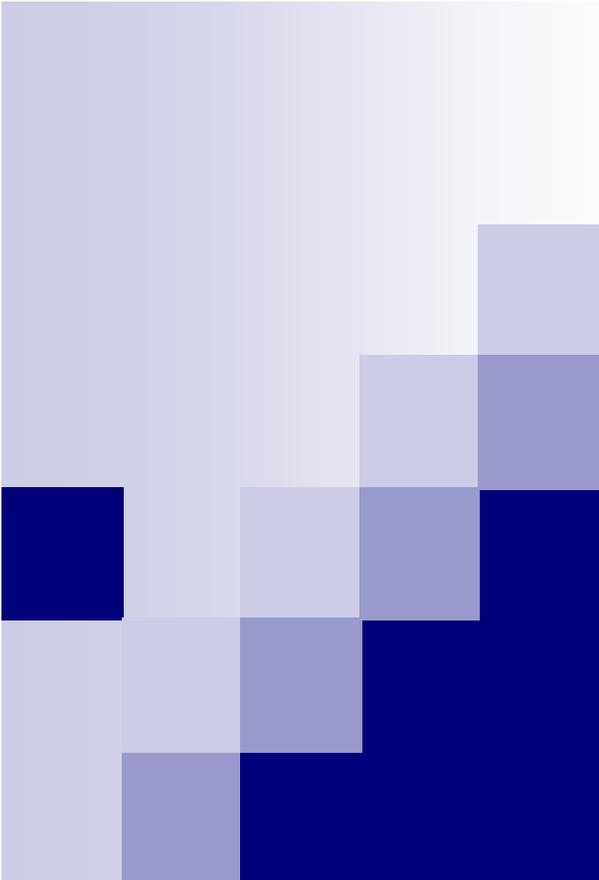
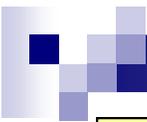


Vision Loss and Aging: Prevention, Identification, Rehabilitation and Independence



Part 1 Vision Impairment

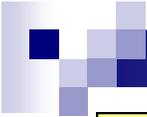


Vision Impairment

Among persons age 65 and older, an estimated **21%** report some form of vision impairment.

According to the American Community Survey 2016, 84,000 NYC residents and 187,000 NYS residents age 65 years and older, report blindness or severe vision loss.

- Vision rehabilitation services are **largely underutilized** despite the documented need and benefit of such services. Less than 3% of those in need access vision rehabilitation. (NEI)



Fear of Losing Vision

Studies have shown that:

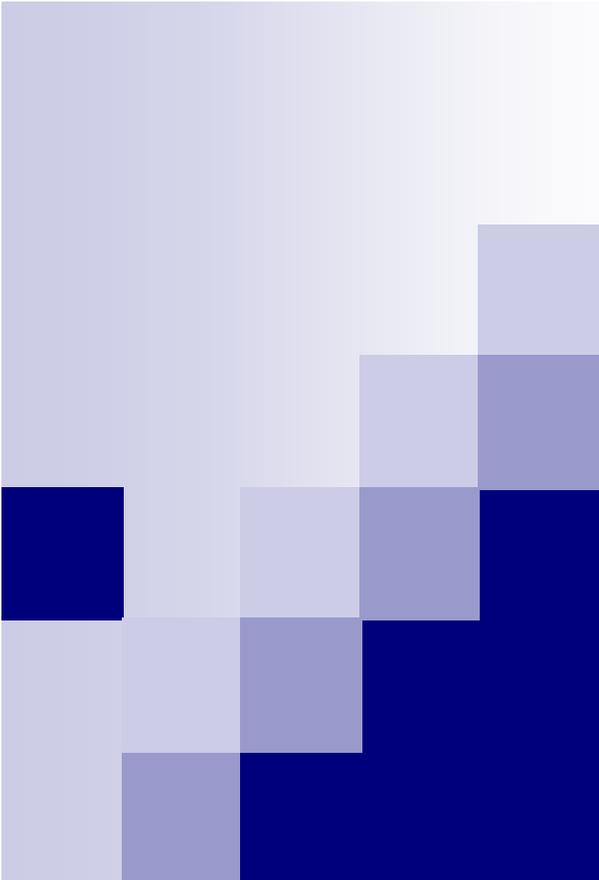
- **71%** of Americans age 45 and older fear being blind more than being deaf.
- **76%** fear blindness more than having to use a wheelchair.
- **70%** fear blindness more than losing a limb.
- **41%** fear blindness more than having a mental or emotional illness.



Vision changes are a natural part of aging

- Difficulty focusing up close
- Slight loss of side (peripheral) vision
- Need for more illumination especially task lighting (ex. Direct lighting on a book)
- Eyes take longer to adjust when moving between light and dark areas

- 
- Glare may be bothersome
 - It becomes hard to distinguish contrast between similar colors, such as dark blue and black
 - Dry eyes or excessive tears are more common
 - Floaters, small pieces of amoeba shaped bodies that “float across the visual field,” begin appearing



Part 2
Four Major Eye Diseases

Macular Degeneration





Some Signs of Macular Degeneration

- A gradual loss of ability to see objects clearly in the center of the visual field.

May be reading a paper or watching TV and not see all or parts of the words or pictures or the center of the screen



Some Signs of Central Vision Loss

- Distorted vision

Straight edges appear wavy or have wavy lines; may be noticed when looking at the edge of a counter top or table



Some Signs of Macular Degeneration

- A gradual loss of color vision
- The most common sign of macular degeneration is a dark or empty area appearing in the center of vision

May experience it as having a blind or clouded spot in their vision



Some Signs of Macular Degeneration

- Person may tilt their head to use their remaining peripheral vision or appear to be looking to the side of a person's face.
- There may be an inability to recognize a familiar person.



Who Is At High Risk?

- Smokers
- Heredity, genetic predisposition
- People with high blood pressure
- People who are obese and/or inactive
- People with lighter eye color ex. blue, gray
- Can be related to a drug side effect



Macular Degeneration Treatment

There are two types of age-related macular degeneration (AMD): wet and dry

Wet Only Treatments are:

- Laser Surgery
- Photodynamic therapy
- Injections

Glaucoma





Signs of Glaucoma

- Moving the head hesitantly while walking or walking close to or reaching for the wall
- Bumping into objects that are off to the side, near the head, or at foot level
- Trouble reading, writing, or doing activities in a dimly lit room



Who Is At High Risk?

- African Americans over the age 40
- Everyone over age 60
- People with a family history of glaucoma
- Former NYS Governor David A. Paterson has glaucoma. He had an attack in May 2008 requiring surgery to reduce the pressure in his eyes.



Glaucoma Treatment

The eye doctor prescribes drops or pills to reduce and control pressure and improve the flow of moisture within the eye

- Laser surgery
- Conventional eye surgery

Cataracts



Normal vision



Vision through
a cataract



Signs & Symptoms of Cataracts

- Blurred or hazy, cloudy vision that makes it difficult to tell time, read, watch TV, see food on a plate, and travel safely
- The appearance of spots in front of the eyes
- Increased sensitivity to glare



Signs & Symptoms of Cataracts

- The feeling of having a film over the eyes
- A temporary improvement in near vision may also indicate formation of a cataract



Signs & Symptoms of Cataracts

- Cataracts that are so advanced and pronounced that you can actually see the film over the eye must be treated immediately and should be considered an emergency.



Who Is At High Risk?

- People with Diabetes
- Smokers and people who excessively consume alcohol
- Prolonged exposure to sunlight without UV protection



Treatment

- The symptoms of early cataract may be improved with new eyeglasses, brighter lighting, anti-glare sunglasses, or magnifying lenses.
- Surgery involves removing the cloudy lens and replacing it with an artificial lens. This surgery is very effective.

Diabetic Retinopathy



Blurred central or side vision (left) or a blind spot in central vision (right) may indicate diabetic retinopathy



Diabetic Retinopathy

- The early stages of diabetic retinopathy may cause blurred vision, or it may produce no visual symptoms at all.
- Vision may change from day to day or even from morning to evening.



Diabetic Retinopathy

- This “*changeable vision*” may interfere with all activities.
- As the disease progresses, diabetics may notice a cloudiness of vision, blind spots or an unusual amount of floaters.



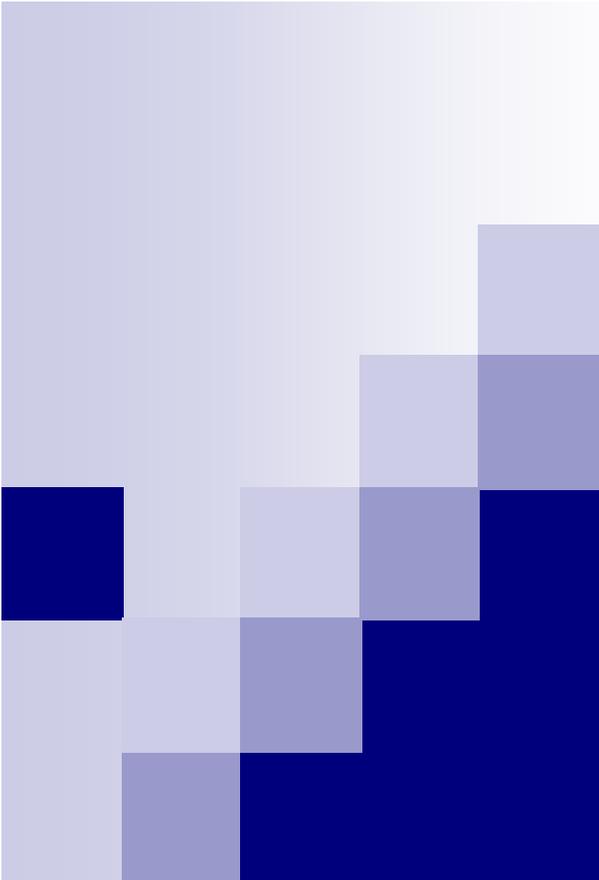
What are the Risks & Symptoms?

- Risks: People with Type 1 & 2 diabetes.
- Often there are no symptoms in the early stages of the disease, nor is there any pain.
- Blurred vision may occur.
- If new blood vessels grow on the surface of the retina, they can bleed into the eye and impair vision.



Treatment

- Control blood sugar, blood pressure and blood cholesterol.
- Laser treatment might be effective to correct and control the leaking.



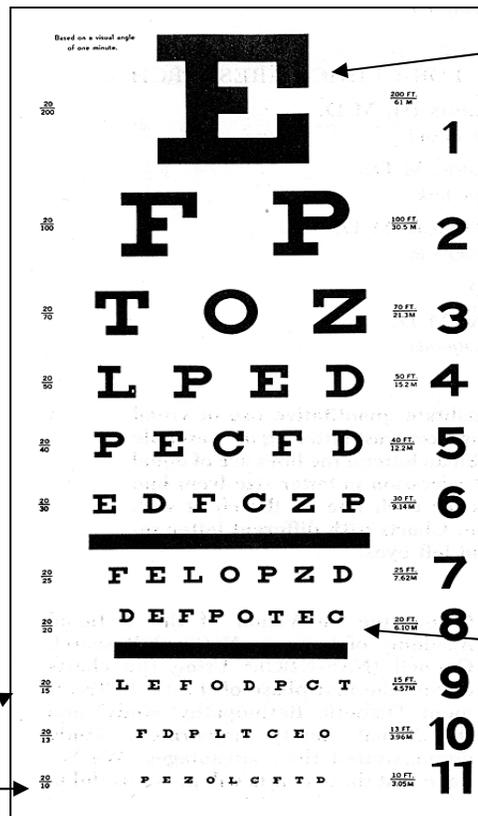
Part 3:
Legal Blindness
vs.
Low Vision

Low Vision vs. Legally Blind

Legal Blindness is an arbitrary definition created for the purpose of benefits
(not a clinically, evidence based measure)

Anyone in this range can be said to have low vision. The definition of low vision varies by state. (20/40 to 20/200 with correction)

This is the cut point for Legally Blind (20/200 with correction)



Normal Vision (20/20 with correction)

Better than 20/20 vision



A determination of legal blindness, 20/200 acuity on both eyes with correction or a visual field of less than 20 degrees, qualifies an individual for certain benefits.

In NYS, you become eligible for free services from the NYS Commission for the Blind (NYSCB). This includes vision rehabilitation services provided by a nonprofit to help learn skills and adaptations to maintain independence.



Common Signs of Vision Loss

- Bumping into objects or difficulty reading signs
- Moving hesitantly or walking close to a wall
- Groping for objects or touching in tentative ways
- Squinting or tilting one's head to see
- Requesting additional or different kinds of lighting
- Difficulty recognizing faces
- Difficulty reading regular size print
- Difficulty reading papers with poor contrast



Common Signs of Vision Loss

- Holding books or other reading materials close to one's face
- Spilling liquids or pushing food off the plate
- Becoming withdrawn and hesitant to leave the house
- A physical alteration to the eyes including excessive tearing, swelling or color change.
- Visual hallucinations (for example Charles Bonnet Syndrome)



Part 4:
Prevention of Vision Loss



Prevention of Vision Loss

- What can you do to protect against vision loss?
 - Wear sunglasses (from childhood on) w/ UV protection and/or a brimmed hat **in all seasons.**
 - Eat a balanced diet rich in green leafy veggies & fish
 - Stop smoking or don't start
 - Manage your diabetes if you have been diagnosed
 - Get tested for diabetes, especially if there is a family history
 - Get an annual dilated eye exam with pressure of the eye checked by an Optometrist or Ophthalmologist
 - Wear protective lenses doing work or hobbies that could cause eye damage



Prevention of Vision Loss

■ What else can you do?

- Avoid tobacco & drink alcohol in moderation
- Keep tight blood sugar control
- Urge family members and friends to get regular dilated eye exams from an ophthalmologist or optometrist
- Exercise and keep active
- Eat a balanced diet rich in fish and antioxidants; eat blueberries every day



Prevention of Vision Loss

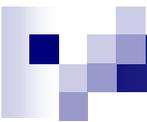
- What else can you do?
 - Learn the warning signs of eye diseases
 - Learn your family history and determine if you are at high risk
 - Admit if you have difficulty seeing and get your eyes examined and ask for a referral to a vision rehabilitation agency if your vision loss interferes with daily living activities, reading or social activities



Important for you or your clients to be a self-advocate

Questions to ask the Eye Doctor

- When you call to make an appointment
 - Be prepared to describe any vision problem(s) you are having even if they are minor .
 - Ask how much the exam will cost.
 - Ask if your health insurance will cover the whole cost and if not what is the cost to you (co-pay, co-insurance, deductible).
 - Ask if you need to pay at the time of the exam or will you be billed.



Questions for the Eye Care Professional

- Before you go to your exam, make a list of the following:
 - Signs and symptoms of eye problems you have noticed
 - Eye injuries or eye surgery you have had and the dates, treatments and hospitals
 - All your prescriptions and over-the-counter drugs you are taking
 - Questions you have about vision
 - General health condition
 - Family history of eye problems or other conditions



Questions for the Eye Care Professional

- Take along the following:
 - Your eyeglasses and/or contact lenses
 - All your prescription bottles and any over-the-counter drugs or vitamins you are taking
 - Your Medical/Health Insurance card
 - A list of any current or past medical conditions
 - The date of your last eye exam and the results



Questions for the Eye Doctor

What is my diagnosis? Will I need treatment of any kind?

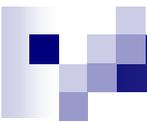
Will my vision get worse or stay the same? Changes to expect?

If I will lose any vision, how quickly?

Can eyeglasses improve my vision?

Are treatments available? Is there more than one option? When do you recommend for treatment start? Are there treatment risks or side effects?

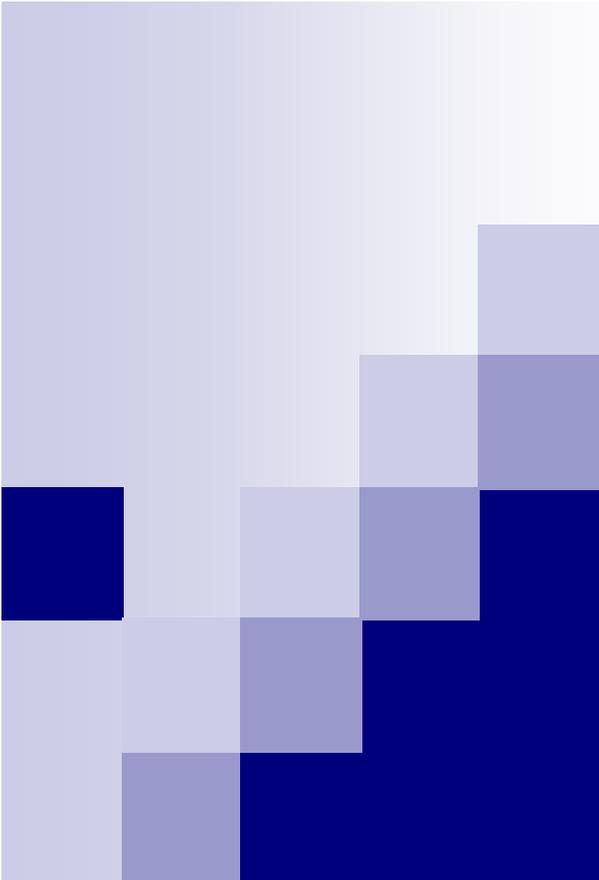
If there is medication(s), what do I do if I miss a dose?



Questions for the Eye Doctor

List of questions to ask your eye care doctor

- Should I watch for any particular symptoms?
- What can I do to protect or improve my vision?
- Will diet, exercise, or lifestyle changes help?
- Do I have “low” vision (partial or impaired vision)?
- Is a “low vision” exam from a “low vision” specialist recommended?
- If my vision can't be corrected with regular glasses, can you refer me to a low vision specialist?
- Would I benefit from low-vision optical aids?
- Where can I get vision rehabilitation services to manage better with my vision loss?

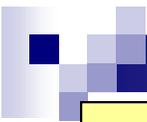


Part 5
Vision Rehabilitation Services



Vision Rehabilitation Services

- There are 17 nonprofit vision rehabilitation agencies in New York State serving every county.
- They offer individualized and group training and support services.
- Services may be offered in the home, in the community and/or at the agency.
- Vision rehabilitation agencies help people of all ages to lead independent and active lives despite vision loss. The agencies especially help older persons, the age at which vision loss is most prevalent.



What are Vision Rehabilitation Services?

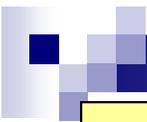
Vision rehabilitation professionals utilize a team approach

Vision Rehabilitation Therapist (VRT)

University-trained certified professionals that address the skills needed to live independently at home, to obtain employment and to participate in community life. You may learn Braille or other alternative forms of communication.

Orientation and Mobility (O&M) Specialist

University-trained certified professionals that help individuals use their remaining vision and other senses to determine their position within the environment and to use techniques for safe movement from one place to another, crossing streets or using public transportation. You may be prescribed a long red and white cane.



What are Vision Rehabilitation Services?

Intake worker/Licensed Social Worker/Case Worker

The initial point of contact is usually called “intake.” The worker will familiarize you with available services, and inform you about available entitlements and assist with access to benefits. Licensed social workers provide supportive counseling to help in the process of adjusting to vision loss for older persons and their families.

Occupational Therapist (OT)

You may also meet with a licensed occupational therapist when:

- an additional functional limitation exists or a physical condition or disability affects the person with vision loss.
- When the person is recovering or in rehabilitation from a stroke, experiences multiple sclerosis or other sensory, muscle or neurological conditions.
- When a person with multiple impairments ages and develops a functional vision impairment.

What are Vision Rehabilitation Services?

Low Vision Services/Low Vision Eye Clinic

Low vision services help older persons **maximize** the use of their remaining vision through the use of optical aids, equipment, devices and special lighting.

In a **low vision exam** the emphasis is on assessment and **evaluation** and **improving** how a person with vision loss performs routine daily tasks.

Refraction using specially prescribed lenses, to better focus and use the remaining vision, is an important part of the low vision exam.

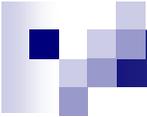
Vision Rehabilitation Services Seniors Often Receive

Vision Rehabilitation Therapy

- Meal Management
- Communication Skills including Braille
- Home Management
- Financial Management
- Personal Management
- Indoor Mobility
- Using Low Vision aids
- Medication and clothing labeling
- Leisure such as knitting

Orientation and Mobility

- Independent Street Crossing
- Outdoor and Sidewalk Travel
- Emergency Exiting
- Use of Public Transportation
- Navigating in unfamiliar environments
- Development of other senses to substitute for or supplement function
- Preparation for dog guide training



Other Vision Rehab Services

■ Employment

- Skills to remain in or return to work
- Adaptations used in the workplace
- Career exploration and communicating with other blind seniors who are working
- Coaching, resume writing and preparing for a job interview
- People of all ages with vision loss can work including seniors

■ Blindline®

- A NYS toll free number to access information about products and services for people with vision loss
- Where to find the vision rehab agency in your area
- Toll free call center Mon-Fri 9 am-5 pm
1-888-625-1616

A Website www.blindline.org

■ DFTA bill payer program



VISIONS/Services for the Blind and Visually Impaired is a NY vision rehabilitation agency

- **VISIONS Center on Blindness** VCB is in Rockland County
 - Overnight vision rehabilitation and social programs for youth, adults, seniors and families; overnight respite for caregivers; serves people from all counties of NYS.
- **VISIONS at SELIS MANOR in Manhattan**
 - Adapted learning environment and meeting place for people with vision loss ages 14 to 100+.
 - **VISIONS Center on Aging** senior center, support groups, computer training, adapted classes, fitness center, library, ceramics, photography, bowling, benefits help and social work counseling.

VISIONS Intergenerational Volunteer Program

- High school teens assist older blind persons at home and at VISIONS at Selis Manor
- Reading, shopping, escorting, computer help, friendly visiting
- Reduces isolation; enables older blind persons to mentor youth

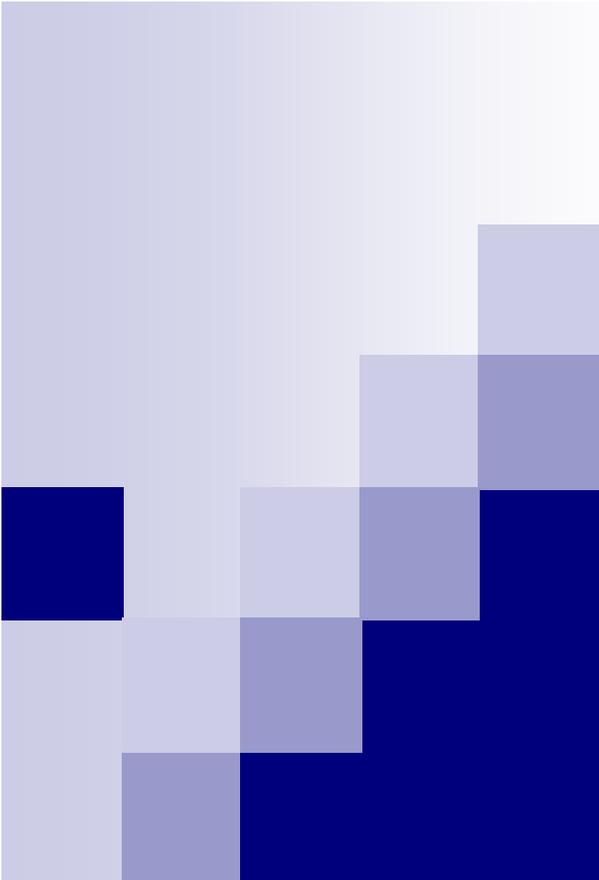


What if older persons are reluctant to accept a referral to Vision Rehabilitation Services?

- Consider
 - Language/Culture barriers
 - Fear or denial of vision loss
 - Belief that nothing can be done
 - Depression leading to isolation
- Work with Family/Medical/Service Professionals that know the senior
 - Get Social Worker, MD or OD or OT or PT to prescribe or recommend vision rehabilitation services
 - Get family or trusted person to recommend vision rehabilitation
- Address Limited Resources
 - Basic vision rehabilitation services for “legally blind” older persons In NYS are free of charge and funded by the NYS Commission for the Blind. Some agencies charge co-pays or sliding scale charges for other services; some agencies like VISIONS do not charge for any services and all services are provided free for the senior with no billing of insurance.

Who pays for Vision Rehabilitation Services?

- Vision rehabilitation services for people age 55+ who do not intend to enter or reenter the workforce are generally funded by the state rehabilitation agency NYSCB under a program, known as Independent Living Services for Older Individuals Who Are Blind. Medicare also covers limited low vision rehab performed by licensed occupational therapists.
- Vocational Rehabilitation Services are for individuals of all ages interested in returning to work also funded by the state rehabilitation agency NYS Commission for the Blind.
- The Veterans Administration provides extensive low vision and vision rehabilitation services for qualified veterans.
- Children's Services: early intervention services for blind babies and toddlers is paid for through the Department of Health and Medicaid. School aged children's vision rehab may be paid for by the local school district or the state rehabilitation agency NYSCB.



Part 6 Disability Etiquette



Things to know about disability etiquette:

- Remember that the *person* is not the *condition*.
- Avoid words like *victim, suffers from, and afflicted by*.

It is okay to say “John is a person with a vision problem.”

- Many people who meet the legal definition of blindness, do have some remaining sight (partial vision) or perception of light.



Introductions

- Introduce yourself. Identify who you are and what your job role is.

“Hi! I’m John the Case Manager. How can I help you?”

- Speak to a person who is blind the same way you would to anyone else. **Don’t shout or speak slower than usual.**

Do not speak to the companion or family member.

Ask the senior with vision loss direct questions.

- When you move, or leave a room, let the person who is blind know.

“I’m going to get a pen. I’ll be back in a a minute.”

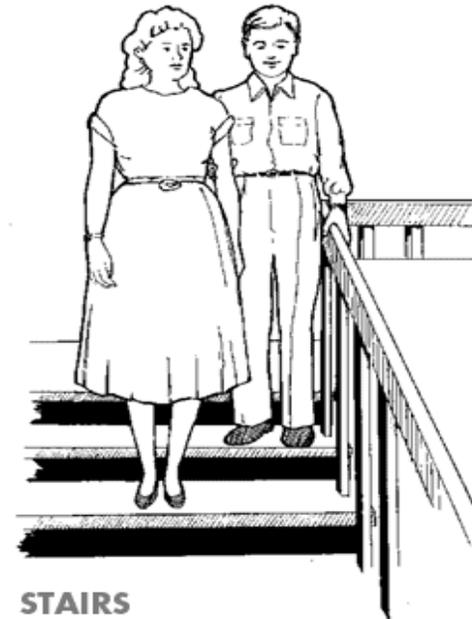
Assisting

- If you encounter a person who is blind who seems to need help, **offer help**. Just ask if they need assistance. **Never touch a person who is blind without asking first.**
- Allow the person who is blind to take your arm. Let them control their movements. This is known as Human Guide Technique.



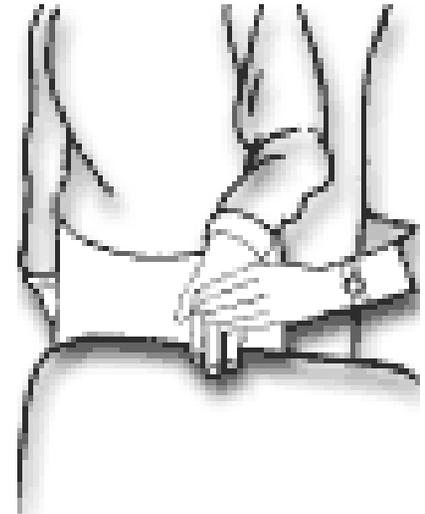
Giving Directions; Using stairs

- Be specific “Walk about 5 feet and enter at the second door on your left.”
- Be descriptive as you walk.
- If the person takes your arm, stay a step ahead of them.
- Let them hold the rail.



Giving Directions

- Put the person's hand on the back or side of a chair.
“The chair is facing away from you and has no arms.”



- During meals help the person locate food on the plate by using a clock system:
“Potatoes are at 2 o'clock and meat is at 10 o'clock.”

Dog Guides

- A dog guide is a **working dog**. Get permission before interacting with or petting someone's dog guide. Don't give commands.

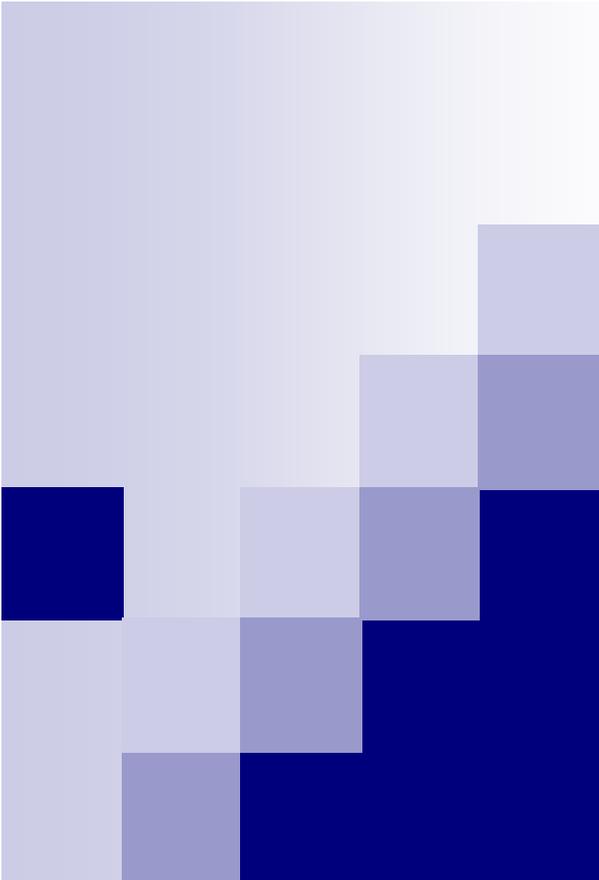
Ex. "Rover, come over here!"

To get a dog guide, you must go to dog guide school.

Only about 10% of blind people use dog guides. They

make great companions, work generally for 7-10 years and help older blind people stay active.

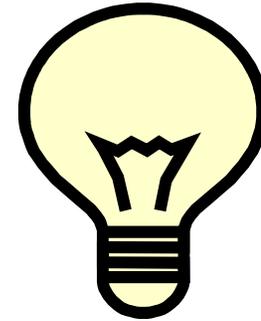




Part 7

Home Safety and Maintaining Independence with Vision Loss

Home Safety

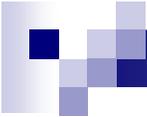


- Lighting is critical. Make sure there is:
 - Proper, Ample, Even Lighting
 - Lighting in hallways, stairwells and work areas
 - A light switch, table lamp or automatic nightlight by bedroom door (nightlights in hallways, bathrooms, bedroom)
 - Blinds or sheer curtains to reduce glare
 - The right wattage for light bulbs. Don't use 60 watts if you need 100 watt bulbs for proper lighting.



Color Contrast & Texture

- Paint, wall paper or carpet in contrast colors to make doors, stairs and room borders easier to see.
- Mark edges of steps and ramps with paint or tape in a high contrast color red or orange.
- Use texture changes as markers: Velcro, rubber bands, raised dots on bottles, cans



Color Contrast Tips-cont' d

- Examples:

- Install handrail with color different from background wall color

- Mark edges of stairs with bright paint, orange or red

- Place a strip of Velcro at the end of handrail to identify when at the bottom step

- Paint or install door handles in contrast to door

- Add bright tape or paint on light switches and keyholes

- Use brightly colored non-skid tub mat

- Color contrast grab bars and towels from background wall

- Add bright tape to outline rim of tub, edges of counter or vanity, kitchen countertops

- Use different textured markers for medicine bottles

- Use a different color cutting board from the counter and the food being prepared



Furnishings

- Move furniture out of main walkway areas.
- Keep doors/cabinets fully closed or fully open.
- Keep chairs, desks pushed in and in the same place.
- Mark common settings on appliances (i.e. on/off, 375) so the person can see or feel it with bump dots.
- Color contrast of floors from sofas/chairs.
- Avoid upholstery with patterns.
- Do not move anything into a new position without letting the person know.



Flooring-Reduce Risk of Falls

- Replace torn carpets, remove area carpets or throw rugs.
- Always use non-skid padding or mats.
- Remove electrical cords from pathways.
- Use non-shiny finishes on floor-no polish or wax.
- Remove doorsills if they are tripping hazards.
- Remember to pick up any items that you could trip over and ask family to do the same.
- Have lights at top and bottom of stairs.

Communication Systems to Consider



- Telephones with large print keypads or dials
- Telephone color that contrasts with the color of the bedside table
- Voice Dialing or Phone that Announces the Numbers
- Telephone/Emergency Numbers in Large Print that are readily available or pre-programmed into the phone
- Learn to use the accessibility features on your smart phone and applications to download



Signage

- Note where emergency exits are located and make sure they are clearly readable.
- Use heavy black felt tip pen on white, off white on non-glossy background or paper when making signs.
- Immediately report or replace any lights out on building signs or signs that can no longer be read easily.



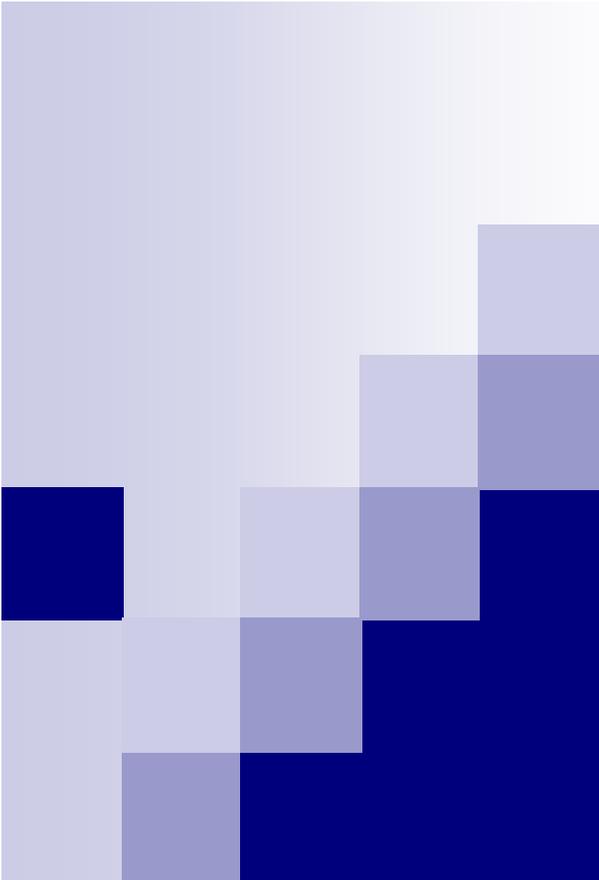
Magnifiers

- Use an illuminating magnifier in any area when reading or taking medications
- It is preferable to have a low vision doctor prescribe a magnifier with the proper magnification level and lighting for each person with their particular eye condition.



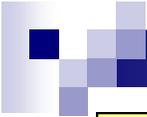
Emergency Preparedness

- Always keep a cane or walker in the same place near the door or with a wallet or hand bag.
- Keep a “Go Bag” with extra medicine for 2-3 days, tooth brush, toothpaste, water, proper identification, emergency contacts.
- Decide on a place to meet family or friends
- Practice an emergency evacuation drill locating a go bag, safely exiting building using stairwell, crossing street to a set meeting place
- If you must remain indoors, have emergency food and supplies in place.



Part 8
Impact of Vision Rehabilitation
Services on Quality of Life

Demonstration Project (2003-2005)
NYC Department for the Aging and
VISIONS/Services for the Blind and
Visually Impaired



Research Proves Vision Rehab Works

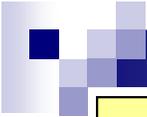
In 2004, VISIONS and the NYC Department for the Aging measured the impact of vision rehabilitation services for 194 frail and homebound seniors with vision loss.

Quality of life issues included:

- Functional Ability
- Depression
- Coping Skills
- Overall Health

Face-to-face interviews were conducted collecting information on

- I. Socio-demographics
- II. Health & functional vision status
- III. Quality of Life

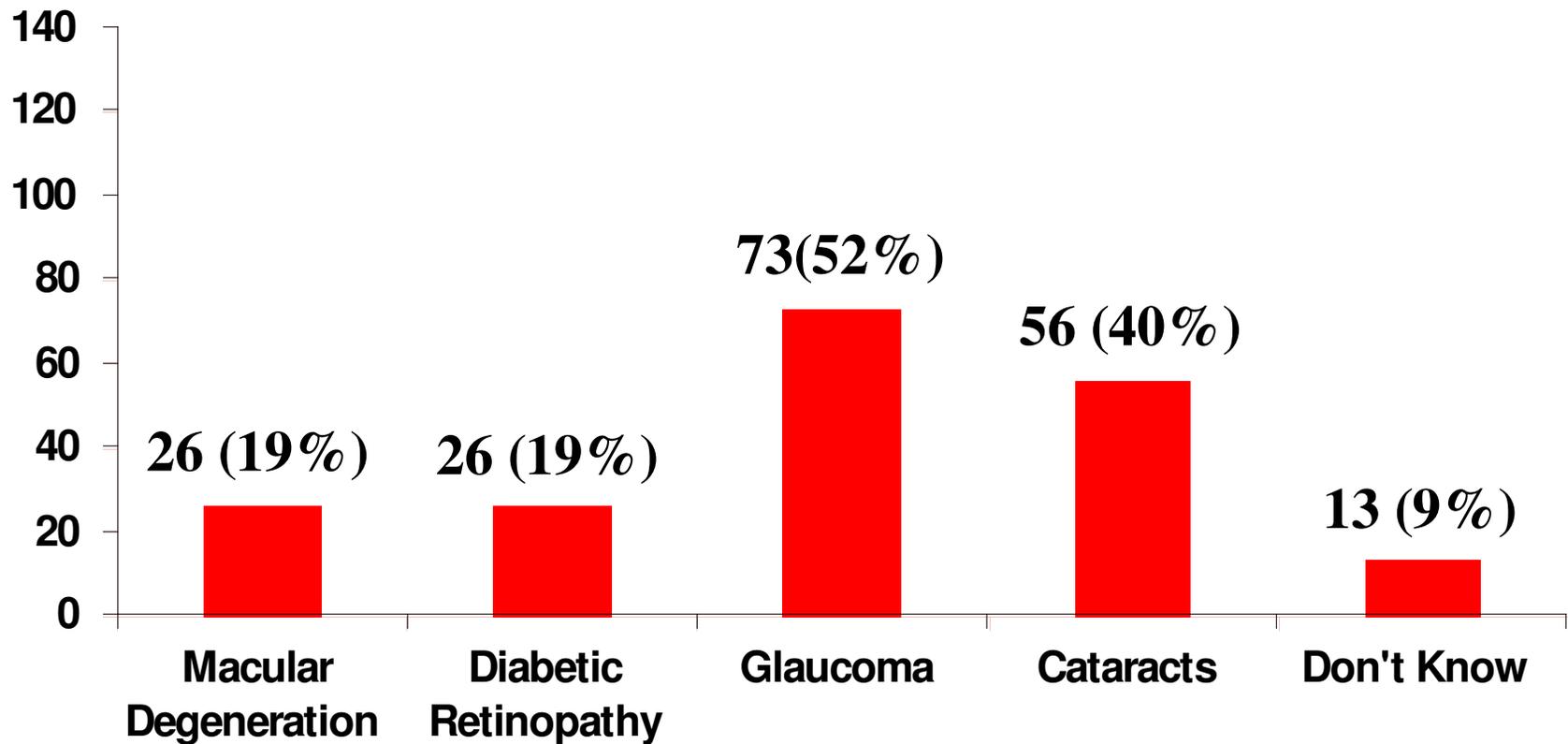


Baseline Sociodemographics

- Close to three-fourth (74%) were female.
- Over two-thirds (68%) were age 75 and older.
- Over two-thirds (71%) identified themselves as African-American.
- Close to one-sixth (16%) identified themselves as being of Latino descent.
- Slightly over half (51%) were widowed.
- Slightly over two-fifths (42%) had an educational level less than a High School Diploma or GED.
- A little over one-third (34%) live in poverty.

Profile of Participants

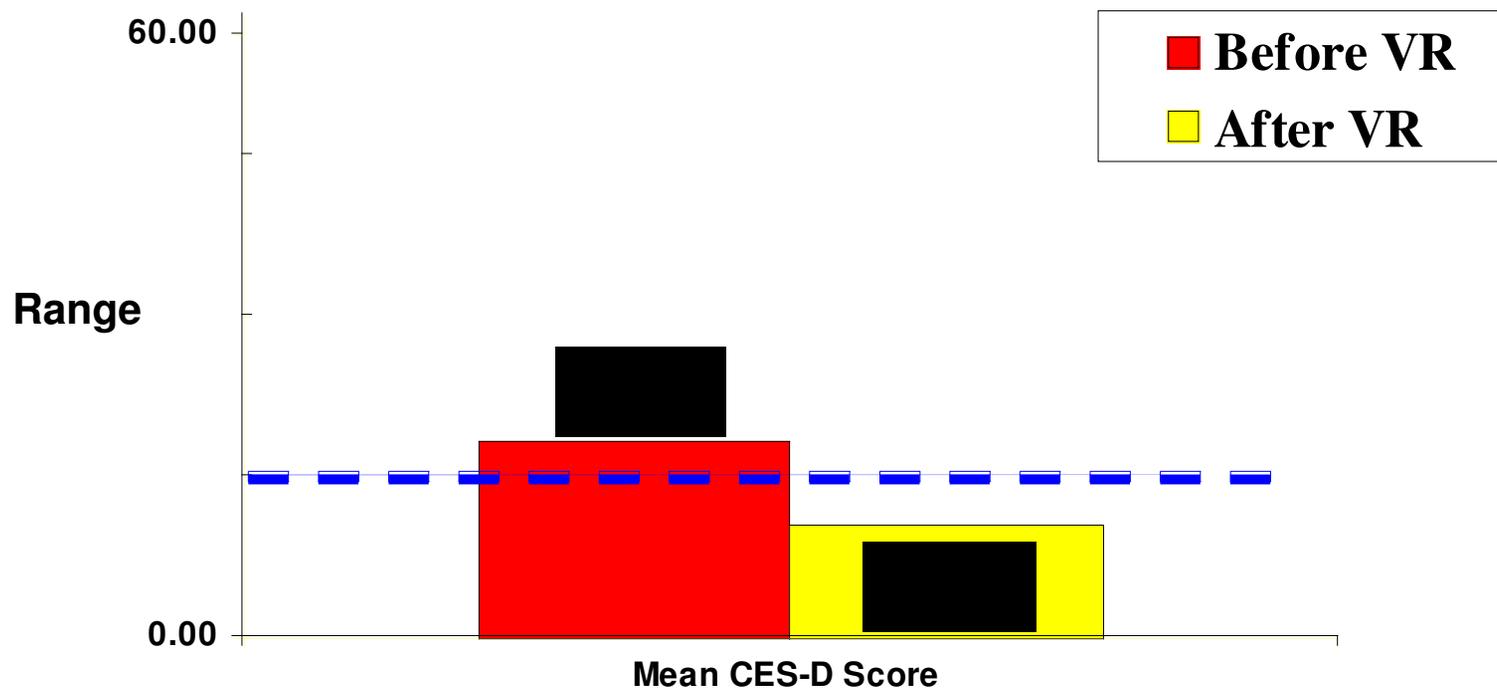
Number of Participants That Report Having Each of the
Four Common Eye Diseases
N = 194



Profile of Participants

Mean CES-D Score*

The higher the score the greater the depressive symptomology



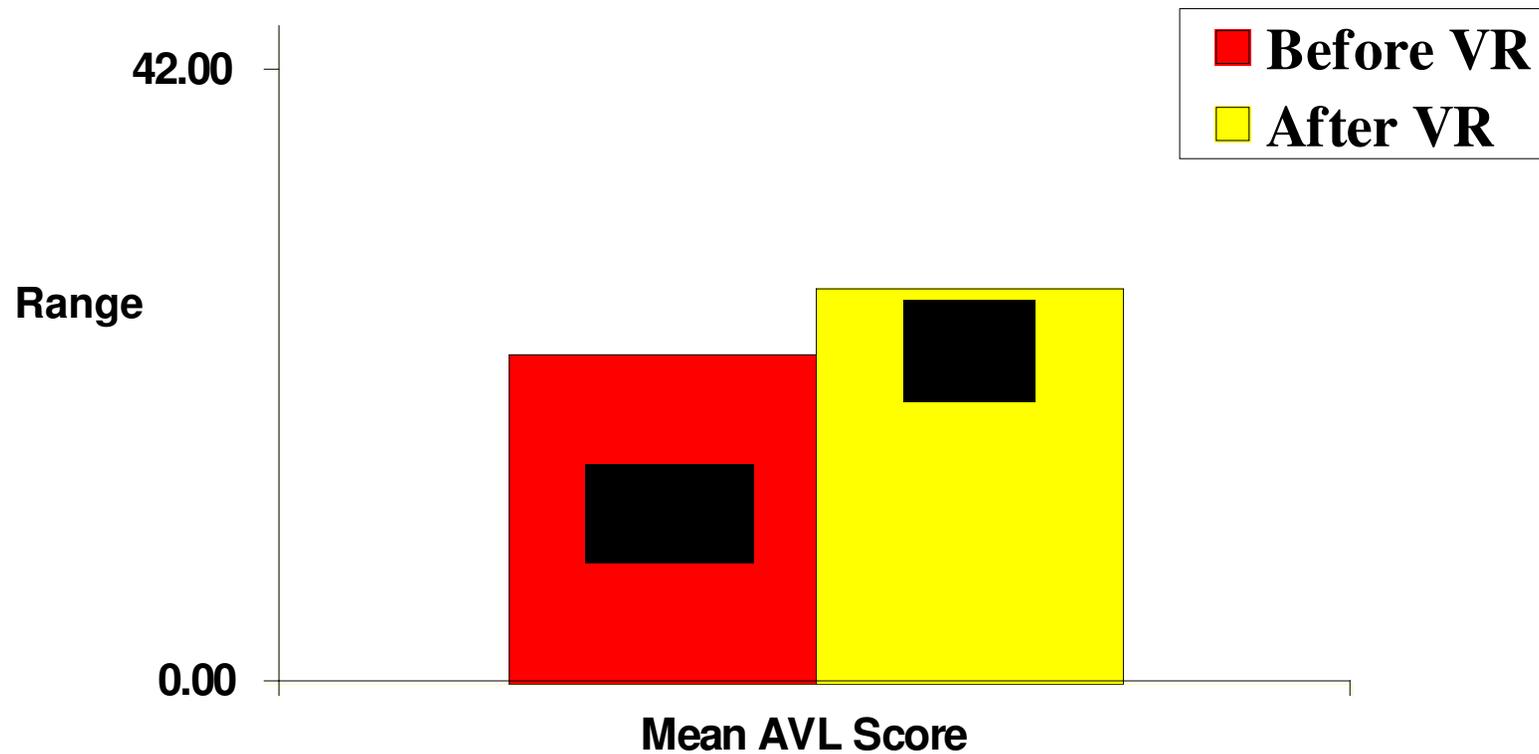
***p < .05**

A Score ≥ 16 indicates High Depressive Symptomology

Profile of Participants

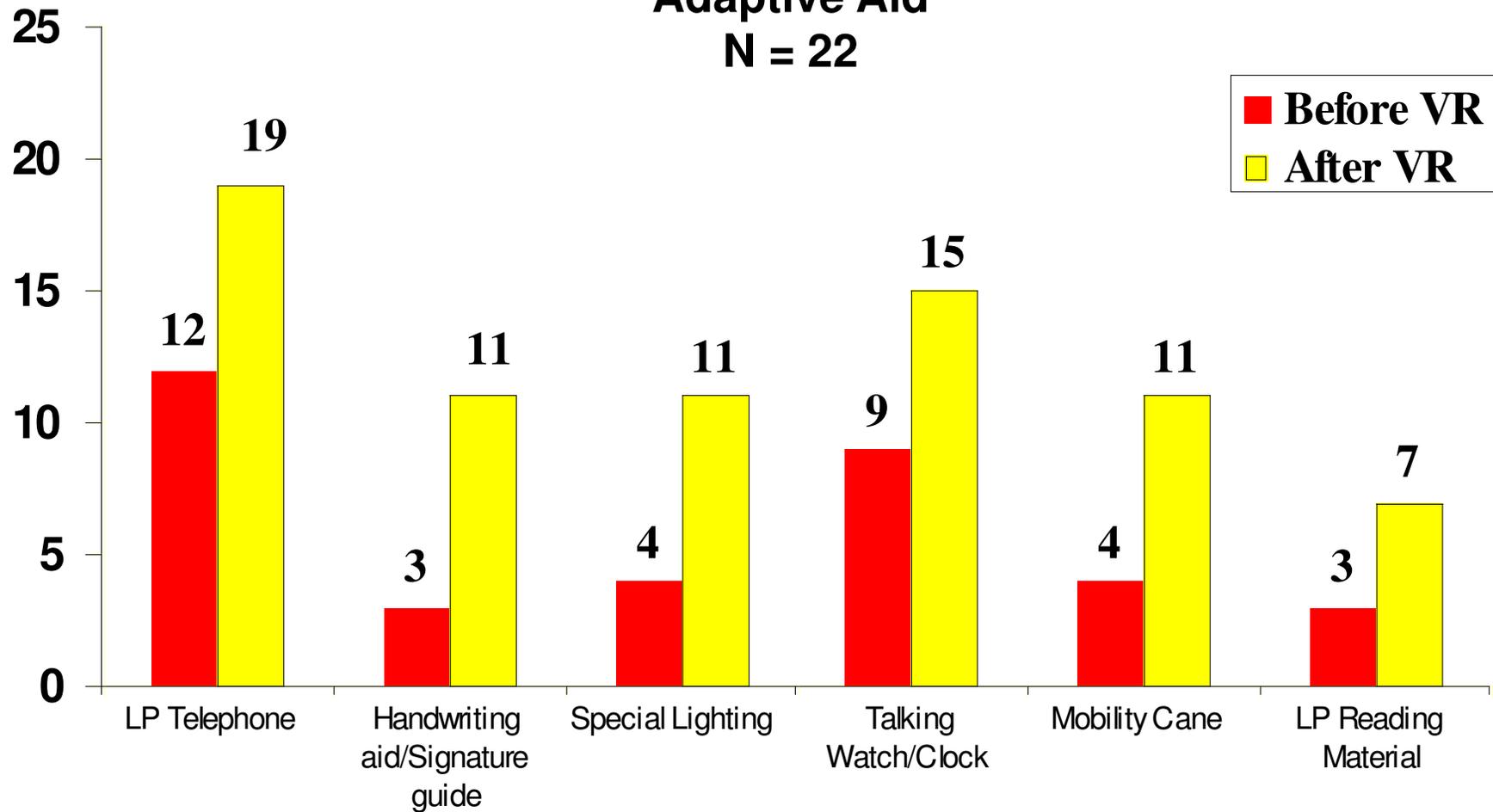
Mean Adaptation to Vision Loss (AVL) Score

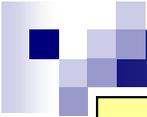
The higher the score the better the adaptation



Profile of Participants

Number of Participants That Report Using Each Type of Adaptive Aid
N = 22



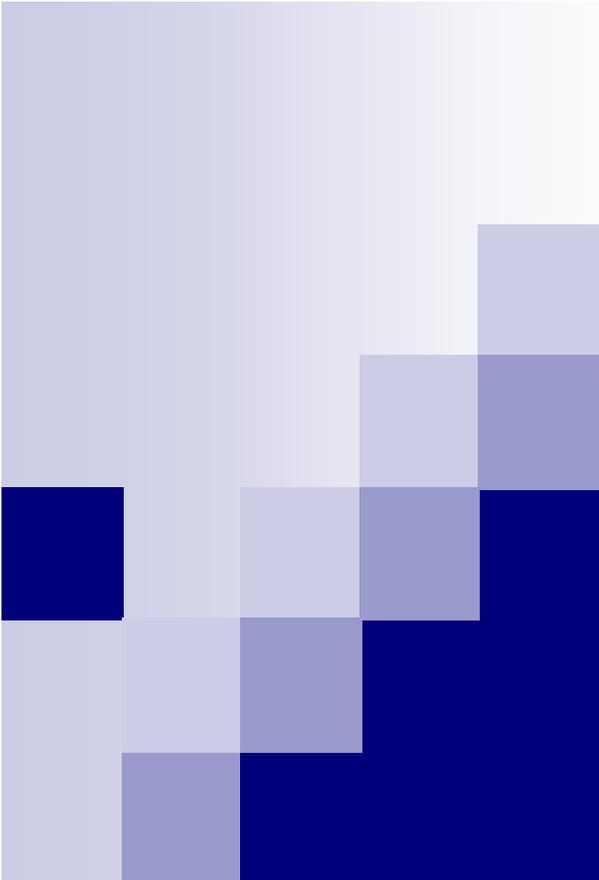


Findings/Conclusions

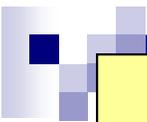
Baseline to 3 Months after Services

Analysis of Quality of life issues for all seniors indicate:

- Coping skills, functional ability and depression were all inter-related. There was a significant positive difference in function and attitude after vision rehabilitation services.
 - Significantly less functional disability.
 - Reduction in depressive symptoms.
 - Increased psychosocial ability to adapt to vision loss.
 - Increased Life Satisfaction.
 - Increase in use of Adaptive Aids.



Part 9 Other Resources



Resources

1. NYS Commission for the Blind

<http://www.visionloss.ny.gov>

2. National Eye Institute Website

<http://www.nei.nih.gov>

<https://nei.nih.gov/nehep/programs/visionandaging/toolkit/>

3. American Foundation for the Blind

<http://www.afb.org>

4. VISIONS/Services for the Blind and Visually Impaired

<http://www.visionsvcb.org>

5. NYC DFTA Bill Payer Program for visually impaired persons

David Knapp Director dknapp@aging.nyc.gov



CONTACT INFORMATION

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Nancy D. Miller is a presenter, trainer and writer. She is a fellow of the Gerontological Society of America, on the editorial Board of the Journal of Gerontological Social Work, on the board of LiveOn NY.