The Potential Power of Vision Rehabilitation for Older Adults with Vision Loss

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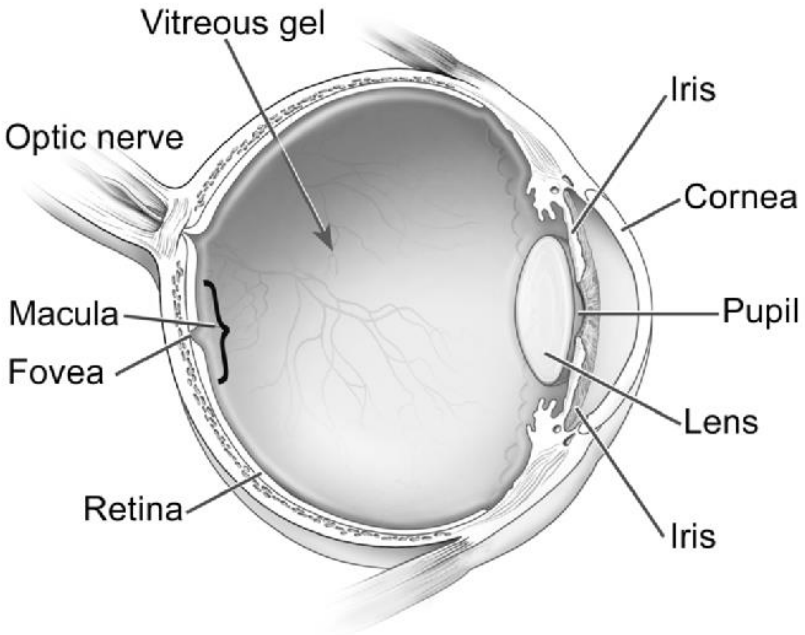
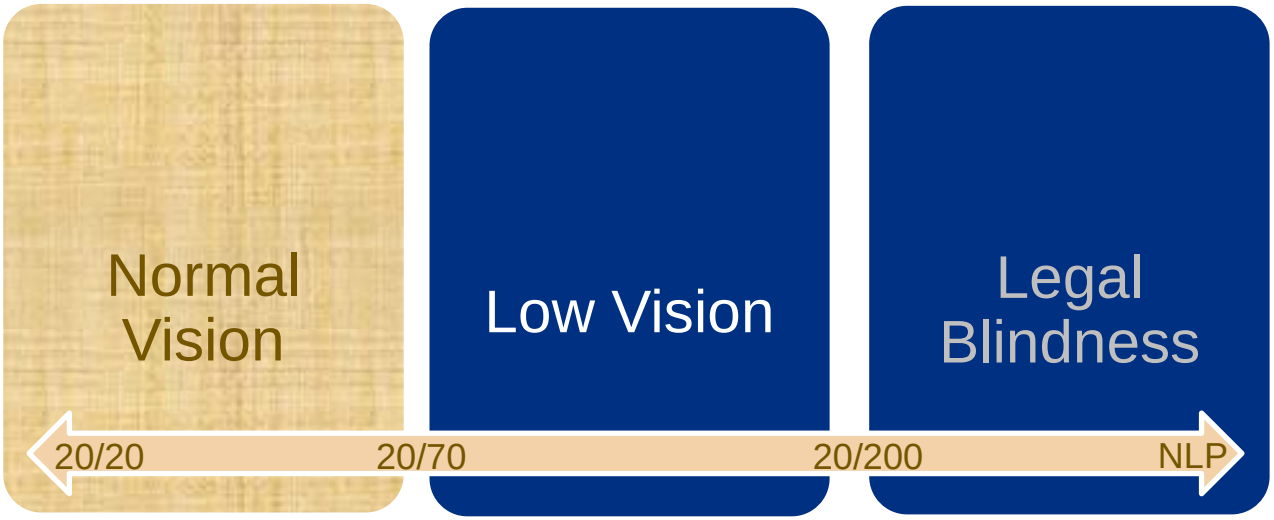
Objectives

- Discuss prevalence of vision loss among older people in TN and US and the implications for service delivery.
- Describe strategies to effectively include older people with vision loss in aging services programs
- Review discuss age-related eye conditions and their functional implications.
- Discuss how and where to refer individuals to find/obtain vision rehabilitation services in TN.

The Eye


Vitreous gel
Optic nerve
Iris
Cornea
Macula
Fovea
Pupil
Lens
Retina
Iris

Vision Spectrum



What Causes Low Vision or Blindness?

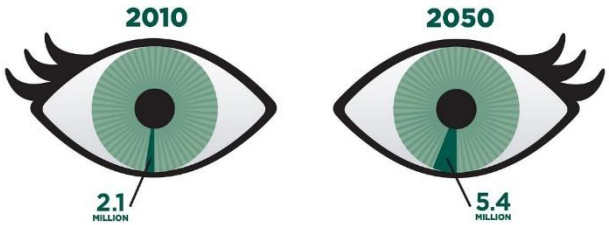
Eye conditions such as:

- Macular degeneration, which affects central vision
- Glaucoma, which affects peripheral vision
- Diabetic Retinopathy which causes overall blurring
- Untreated cataracts, which cause blurring, glare issues

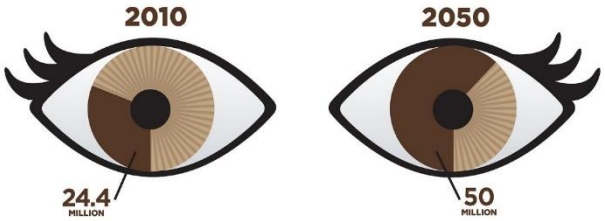
The Most Common Eye Diseases

Each eye represents a total of 80 million people, the estimated number of Americans who will be 65 and older in 2050, the population most affected by these diseases.

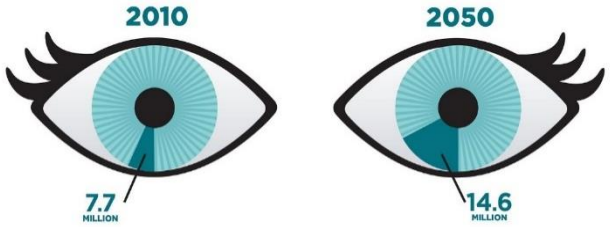
AGE-RELATED MACULAR DEGENERATION



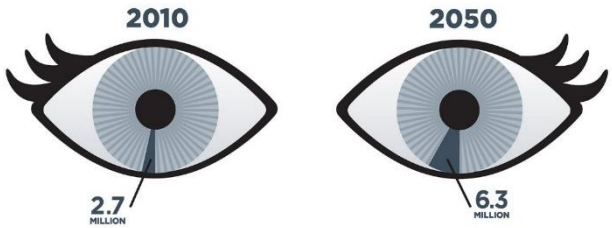
CATARACT



DIABETIC RETINOPATHY



GLAUCOMA



For more information on eye disease, visit **http://nei.nih.gov/health**.

NIH National Eye Institute

Visual Field Impairments

Scattered Blind Spots

Central Blind Spot

Peripheral Field Loss

National Eye Institute, National Institutes of Health (NEI/NIH)

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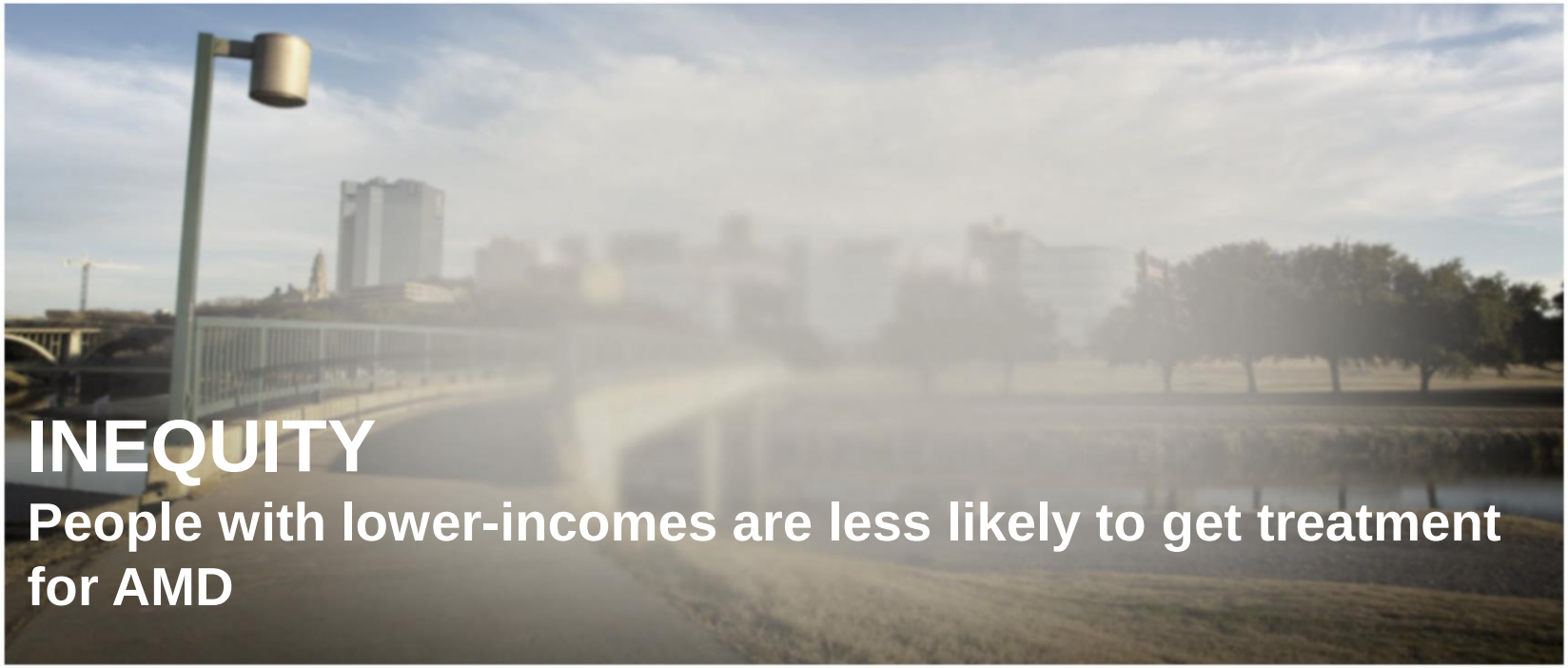
A MAP TO LIVABLE EAST TN

Macular Degeneration causes central vision and color perception loss, distorted/fuzzy vision, or difficulty with reading or facial recognition.



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Cataracts creates a blurry hazy view with multiple levels of images. Other symptoms: glare sensitivity, color perception loss.

INEQUITY

People with untreated cataracts are more likely to be older (>85), homebound, and have cognitive impairment

Diabetic Retinopathy causes patches of vision loss (floaters), cloudy vision, glare sensitivity

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Glaucoma causes side vision loss, tunnel vision, blurred central vision, and seeing colored rings on lights

The Dementia Brain and Vision

- Changes to vision are substantial with dementia
- There are three levels of vision changes

- Watch video about these changes: https://youtu.be/iaUsRa5kNyw
-

Scuba Vision

Binocular Vision

Monocular Vision

Aging and Vision Loss National Coalition BIG DATA Project

- State specific data from the Behavioral Risk Factor Surveillance Survey and American Community Survey from 2019
- Vision question: Are you blind or do you have serious difficulty seeing, even when wearing glasses?

Purposes of Big Data Project

Provide national, state and county level data on people with vision impairment on:

1. Health
2. Chronic Conditions
3. Health-related Quality of Life
4. Disability Measures
5. Income and Poverty
6. Education

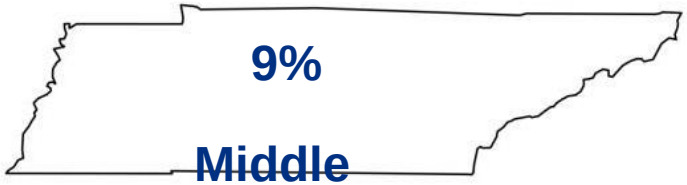
The Big Data Project

Findings: Prevalence of VI Age 65+, Selected States

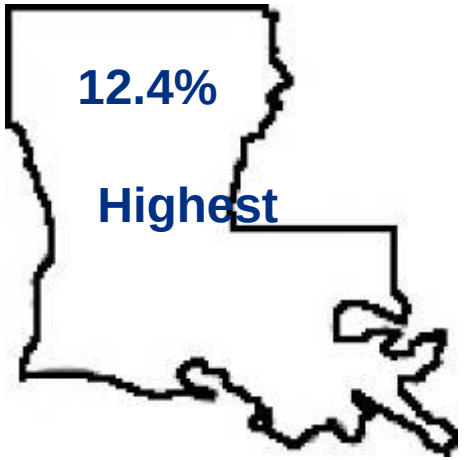
US Average = 7.3%

Illinois

Tennessee

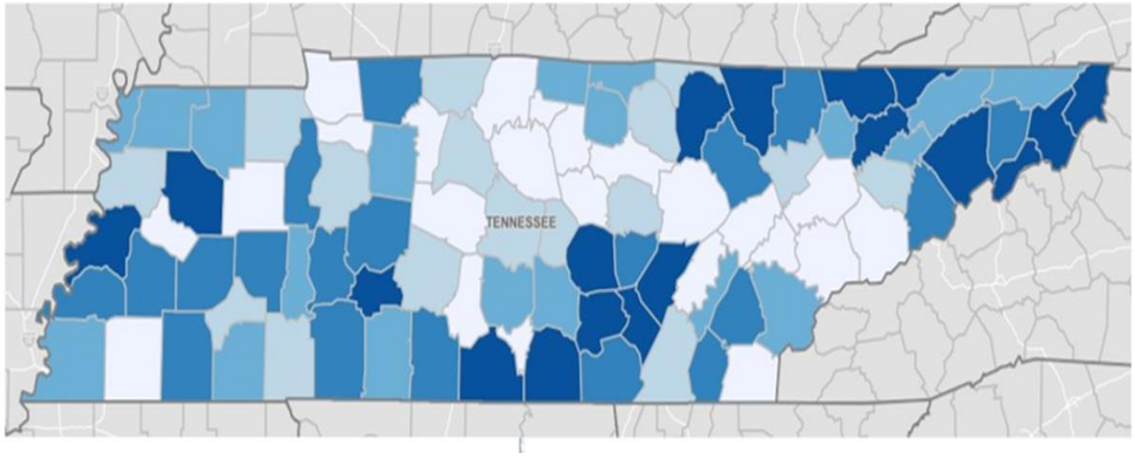


Louisiana



The Big Data Project

Findings: Tennessee County Distribution, VI Age 65+



The Big Data Project

Findings: TN vs. U.S. VI Age 65+ Demographics

		TN	U.S.
SEX	Male	8.5%	7.5%
	Female	9.4%	7.0%
AGE	65-74 years	7.5%	6.3%
	75-79 years	8.2%	7.4%
	80+ years	14.5%	9.8%
RACE/ ETHNICITY	White, non-Hispanic	9.0%	6.1%
	Black, non-Hispanic	8.1%	10.5%
	Hispanic	---	13.9%

The Big Data Project

Findings: Income among Age 65+ with and without Vision Impairment, TN (BRFSS)

Income	Blind / VI	Not Blind / VI
<$10,000	**9.2%**	2.7%
$10,000 to $15,000	**17.2%**	8.4%
$15,000 to $20,000	**15.7%**	10.8%

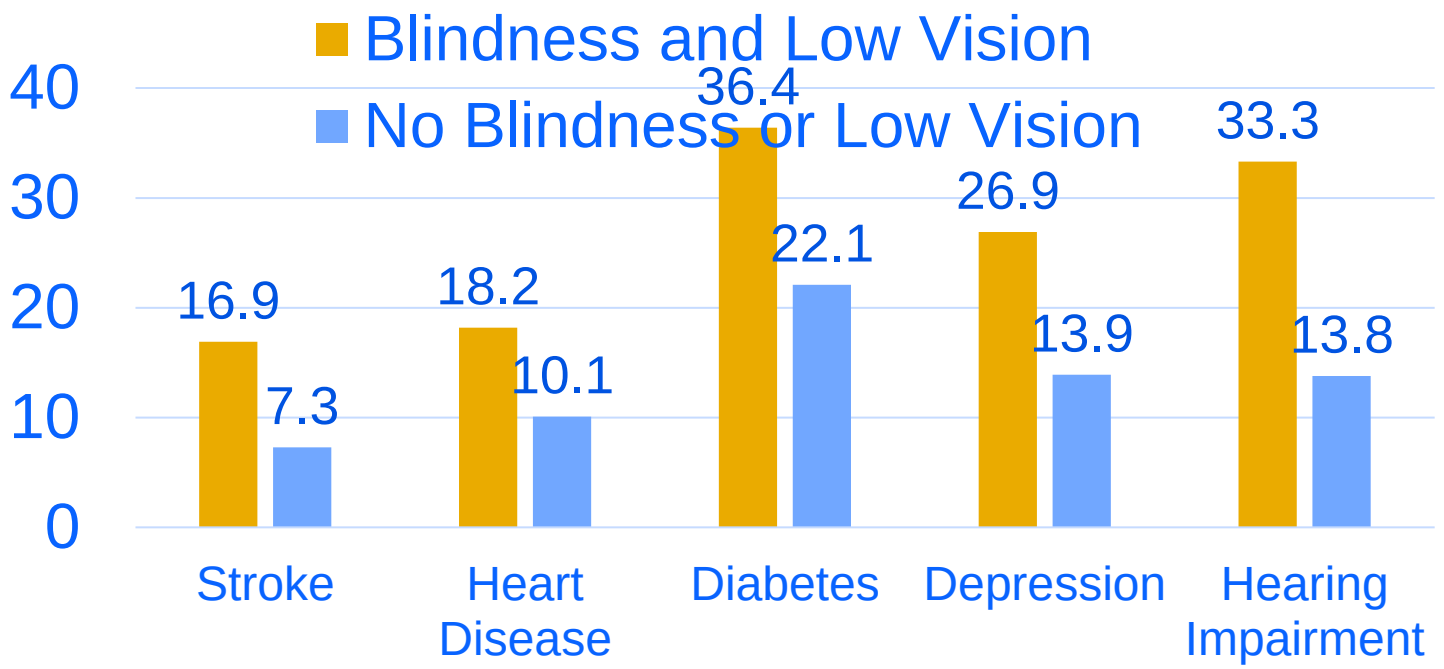
The Big Data Project

Findings: Education among Age 65+ with and without Vision Impairment, TN

Education	Blind/VI	Not Blind/VI
Less than High School	37.2%	16.2%
High School	34.3%	35.1%
Some College	15.6%	25.4%
College Graduate	12.9%	23.5%

The Big Data Project

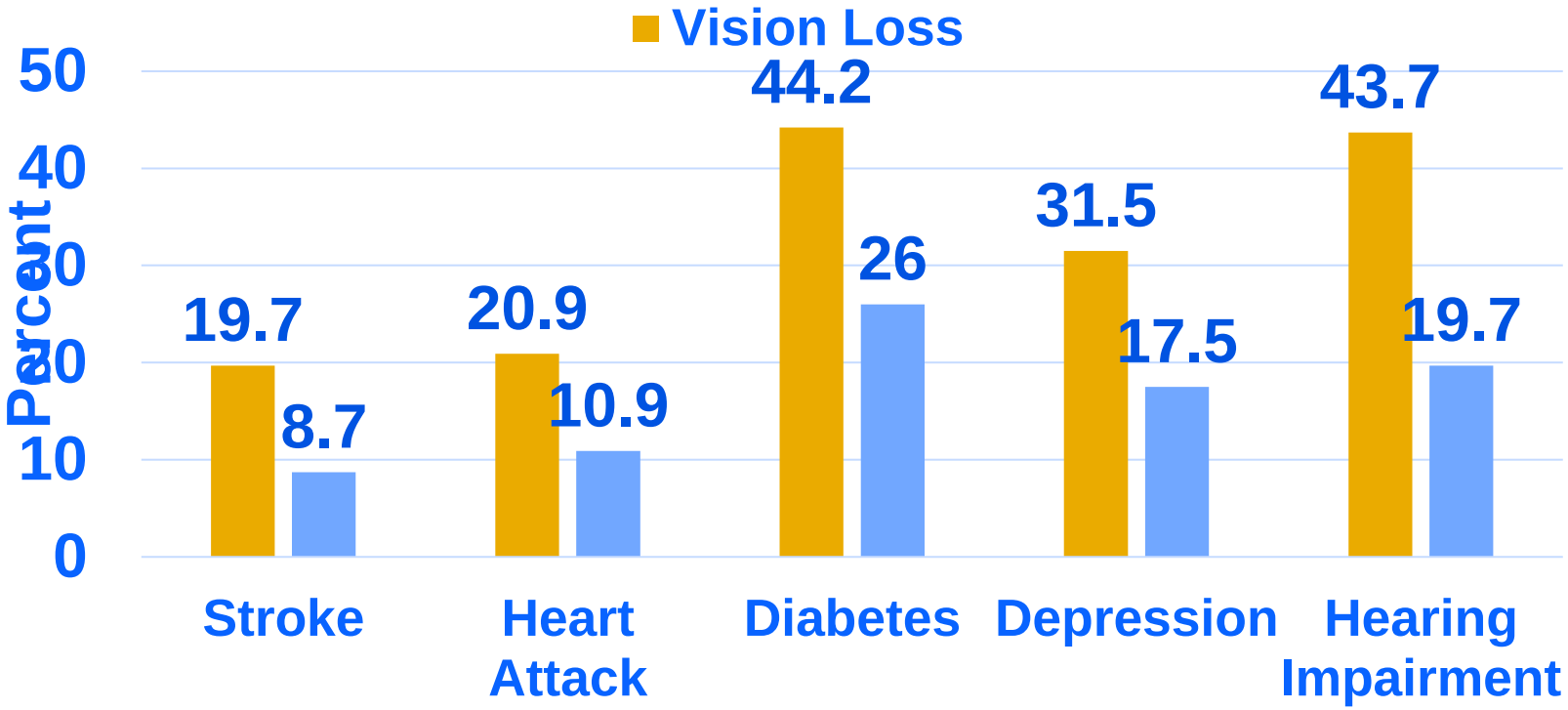
Findings: Chronic Conditions U.S.



Data Source: 2019 Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention, Atlanta, GA

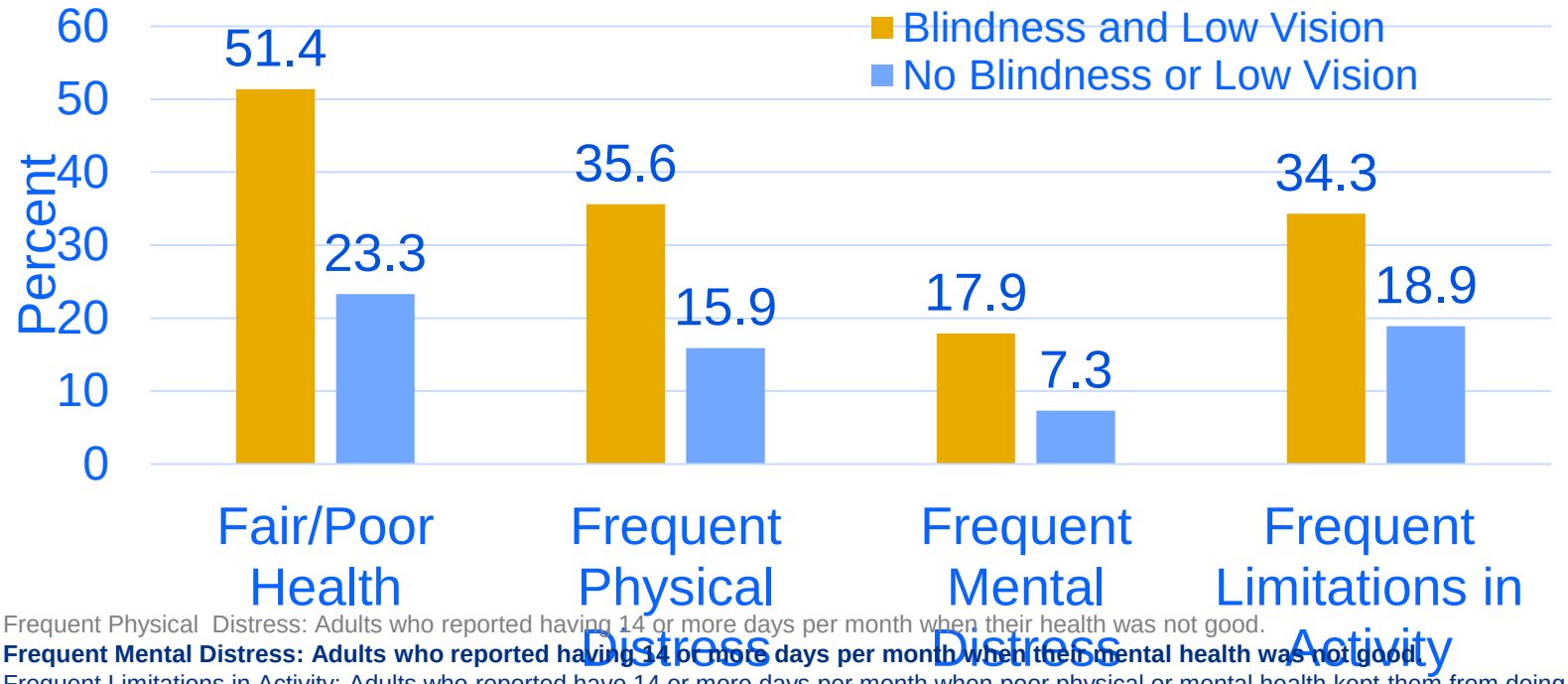
The Big Data Project:

Prevalence of Chronic Conditions among Age 65+ with and without Vision Impairment, TN (BRFSS)



The Big Data Project

Findings: Prevalence of VI Age 65+, U.S., HRQoL



Frequent Physical Distress: Adults who reported having 14 or more days per month when their health was not good.

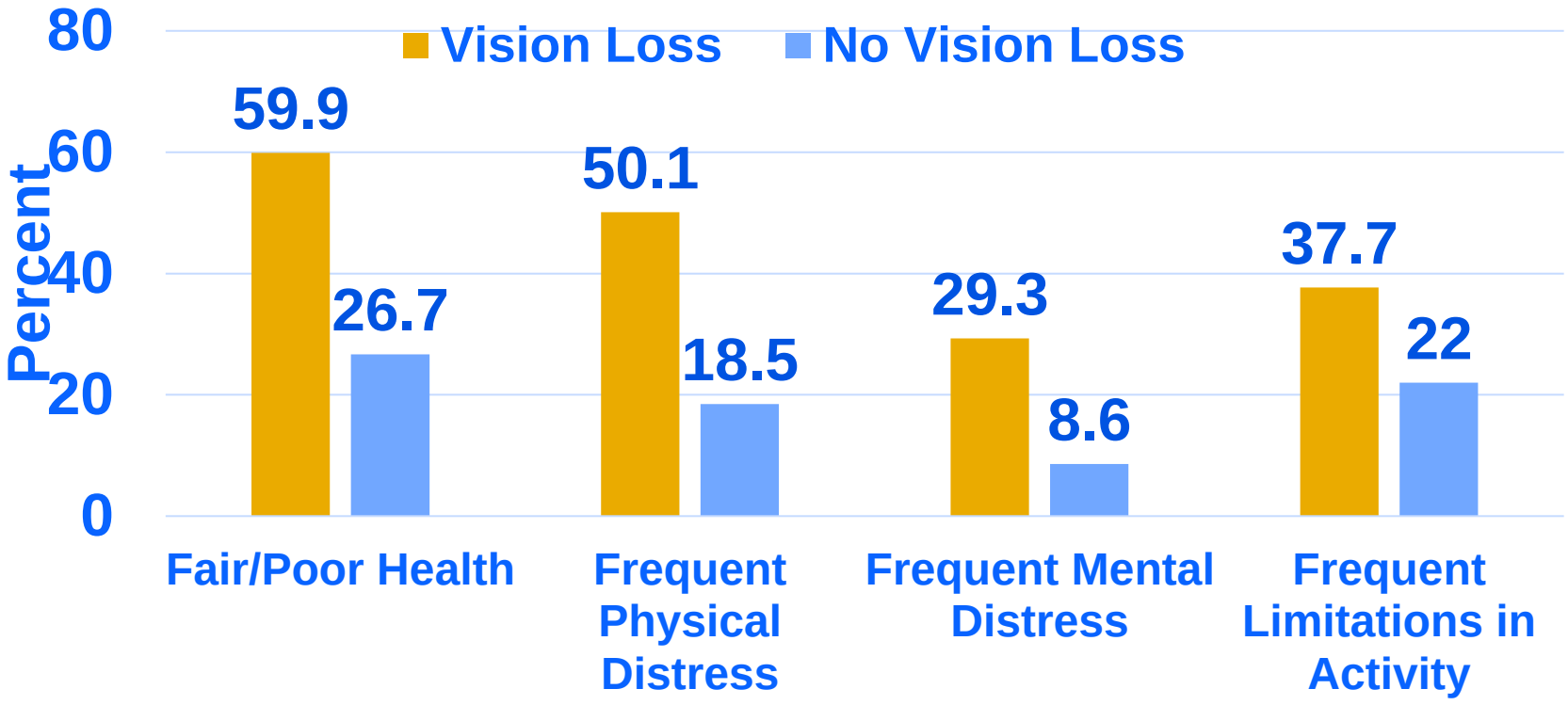
Frequent Mental Distress: Adults who reported having 14 or more days per month when their mental health was not good.

Frequent Limitations in Activity: Adults who reported have 14 or more days per month when poor physical or mental health kept them from doing activities.

Data Source: 2019 Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention, Atlanta, GA.

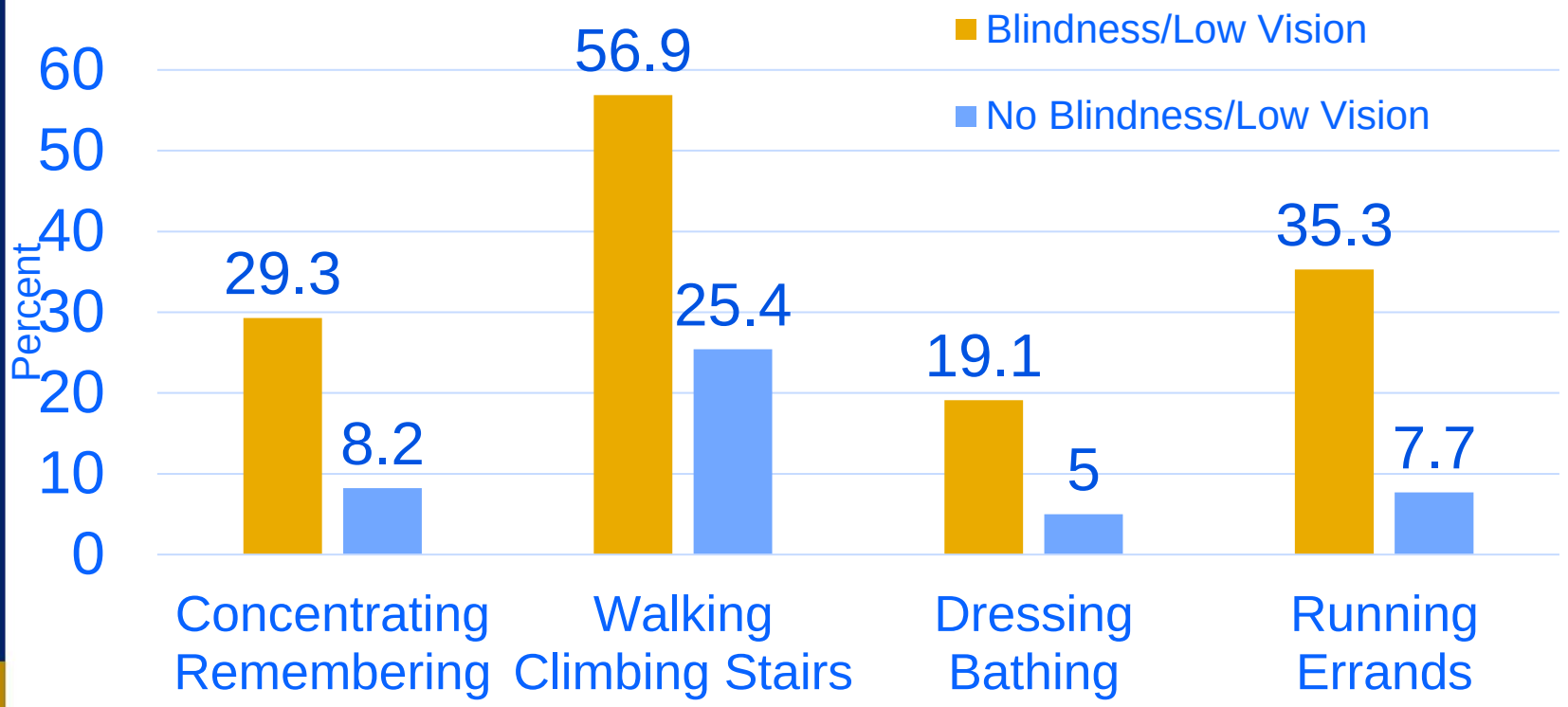
The Big Data Project

Findings: Health-Related Quality of Life among Age 65+ with and without Vision Impairment, TN (BRFSS)



The Big Data Project

Findings: Prevalence of VI Age 65+, Disability U.S.



Source: 2019 Behavioral Risk Factor Surveillance System, Centers for Disease Control, Atlanta, GA

Economic Burden of Care

Medical – inpatient, ambulatory, prescriptions, glasses, DME

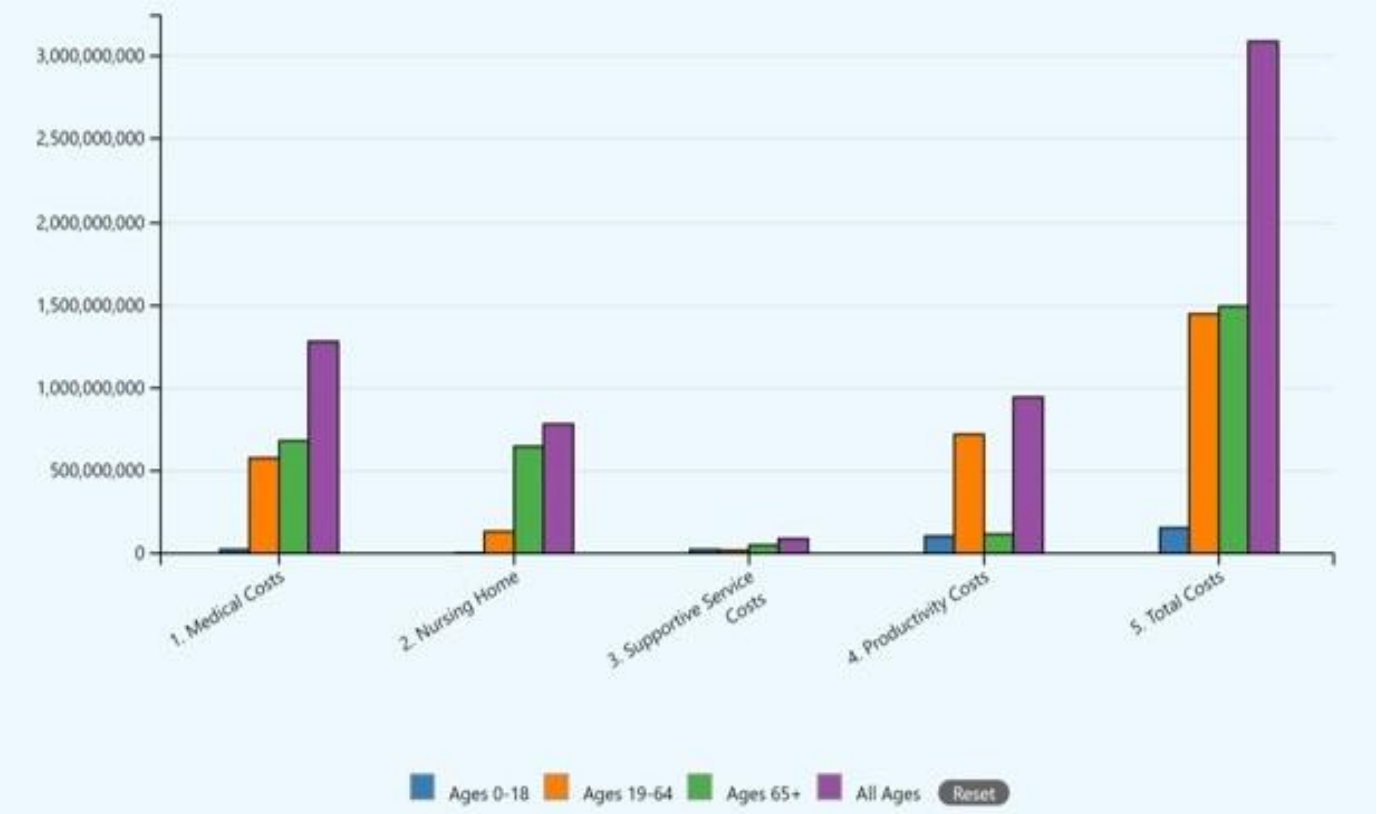
Long-Term Care – nursing home cost

Productivity Losses – loss of household productivity, informal care, loss of wages,

Supportive Services Cost – includes Vision Rehab and related services

Detailed Results - Tennessee | Vision State Economic Burden Toolkit | CDC

Tennessee Economic Burden



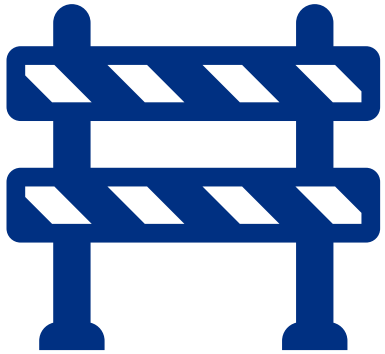
More about Big Data

- To find out more about the Big Data project and other projects in which the Aging and Vision Loss Coalition is involved: visionservealliance/avlnc

Retrospective Cohort Study by Muhammad Elahi ETSU Quillen College of Medicine / College of Public Health

- **166 Participants**
- Survey in **4 NE TN counties**:
  - Greene
  - Hawkins
  - Sullivan
  - Washington
- Conducted in **community and senior centers** among **individuals 50+**

Significant Obstacles to Eye Exams



45.8%

1+ obstacles

1. **19.3%** Cost
2. **14.5%** Limited/No Insurance
3. **13.2%** Transportation/Distance
4. **6.6%** Lack Awareness of PCP

Data & Implications

- Large prevalence of eye diseases/vision loss in surveyed counties (48.2%).
- 60% of participants with vision loss had 4+ chronic diseases.
- Cost/insurance prevented 33.8% from seeking eye care.
- 21.5% of participants with eye diseases reported transportation as obstacle to eye care.
- Accessibility and affordability of eye care is an increasing challenge.

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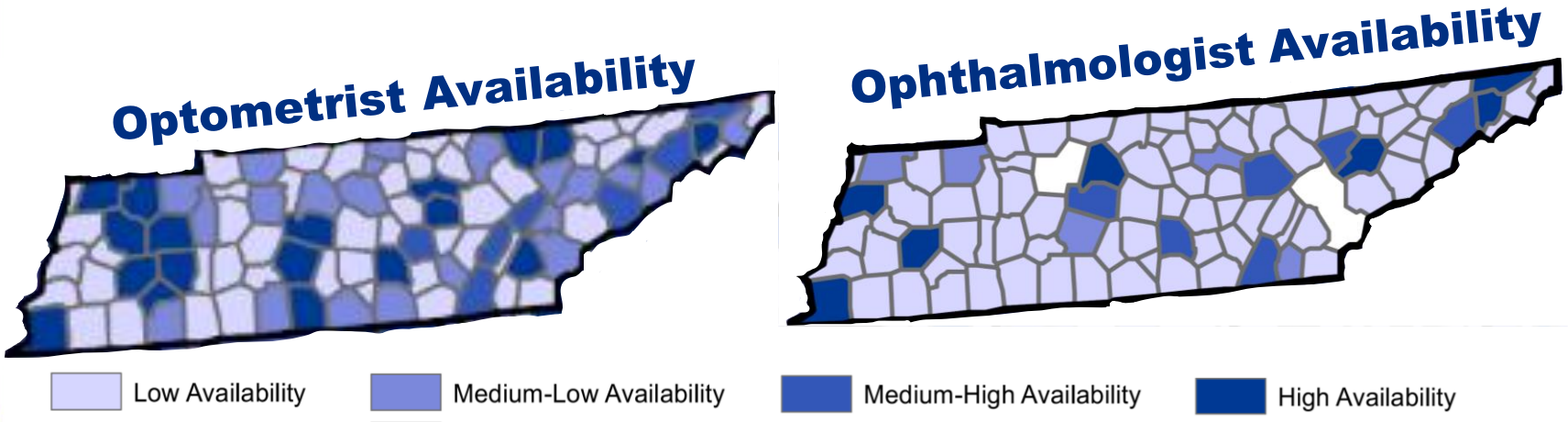
A MAP TO LIVABLE EAST TN

Call to Action

One in four

U.S. counties have no ophthalmologist or optometrist



Source: Gibson, DOI: 10.1016/j.ypmed.2015.01.008

What do Aging Service Providers Need to Know?

- Older people with vision loss are often misunderstood
- Are often left out and not included
- They may not have had an eye exam nor does their primary care physician check vision or refer for eye care.

Misunderstood

There are false assumptions—by providers and family members—

- that they need to be taken care of
- that quality of life is not possible

Left Out

- Left out socially because unable to see faces
- Left out because sometimes others don't want to have to make adaptations
- Unable to get to activities because of transportation limitations
- Aren't aware of opportunities because unable to access print information about them

What Can Help

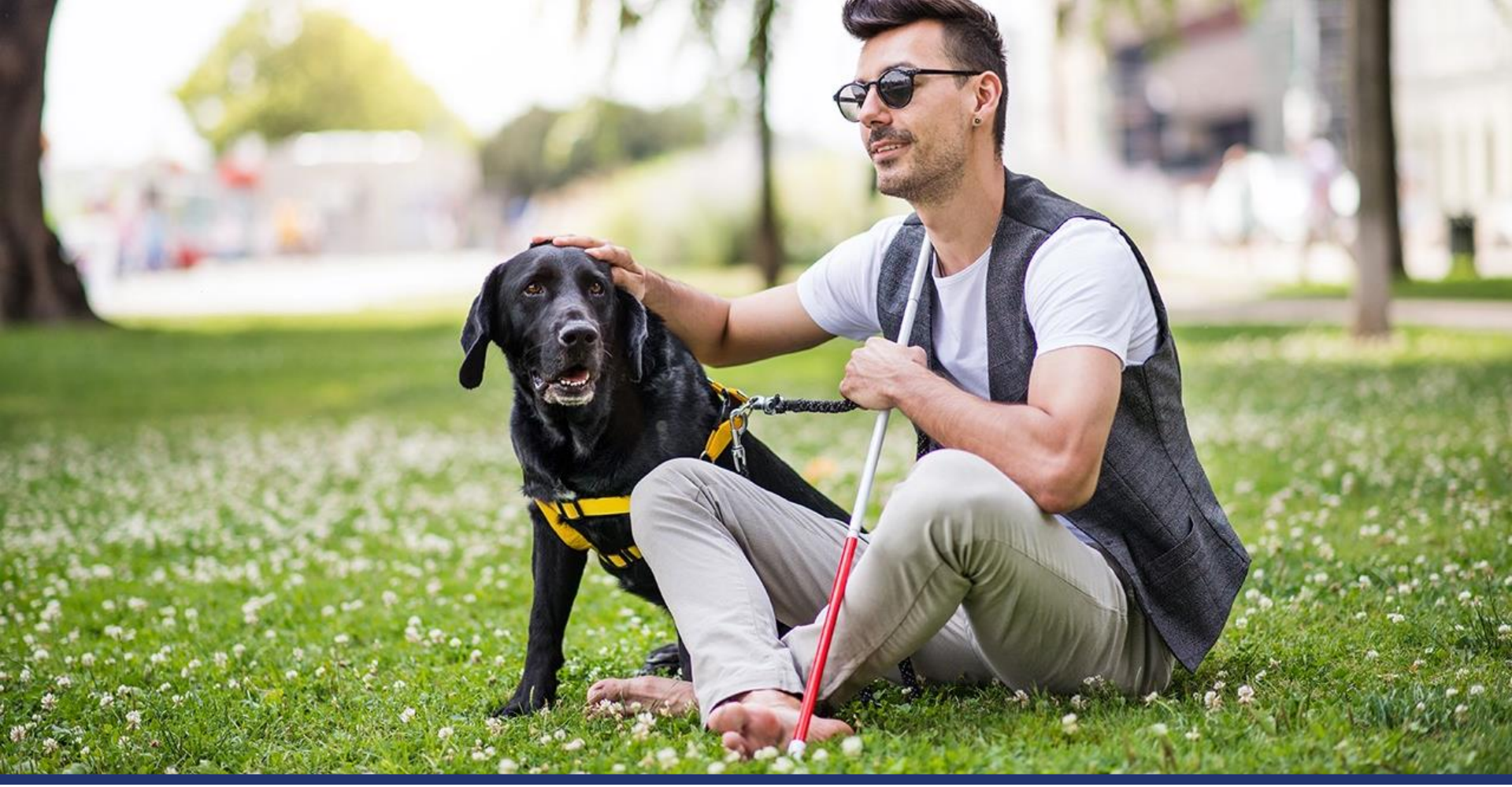
- Access to eye care
- Access to vision rehabilitation services
- Access to transportation
- Access to information
- Promoting and encouraging environment of inclusion

Promoting Inclusion

- Optimize lighting
- Reduce glare
- Increase the use of contrast
- Incorporate magnification
- Give verbal descriptions
- Learn about human guide techniques

Promoting Understanding

- Access resources as professional to increase knowledge/understanding and make referrals
- Share resources with consumers and family members



Independent Living Program
Services for the Blind and Visually Impaired

TN Department of Human Services

October 2023

Independent Living Program
Services for the Blind and Visually Impaired

- **The Independent Living Program is a part of Services for the Blind and Visually Impaired within the Division of Rehabilitation Services.**
- **The program provides services to eligible individuals of all ages who are blind or who have a severe visual impairment.**
- **Services help Tennesseans continue to live as independently as possible in their homes and communities.**

Independent Living Program
Services for the Blind and Visually Impaired

- There are no fees required for the program. Services are provided through State and Federal Funding.
- Someone may be eligible for program services if they are having difficulty seeing the newspaper or reading their mail, setting their microwave or signing their name.
- Referrals are accepted from all sources including doctors, individuals, home health providers, and other state or local agencies.

Independent Living Program
Services for the Blind and Visually Impaired

- **Rehabilitation Instructors and Rehabilitation Assistants are located throughout the State.**
- **Rehabilitation Instructors meet with individual who are referred and conduct assessments to help define daily living goals related to vision loss. Medical information is obtained to determine the severity of vison loss and eligibility for program services.**
- **Once eligibility has been established, the Independent Living Program staff can provide direct services to individuals on a one-on-one basis.**

Independent Living Program,
Services for the Blind and Visually Impaired

Services are customized to meet each individual's needs and may include:

- **Functional Low Vision Evaluations:** Exploration of magnifiers, filters and lighting
- **Instruction in Communication Skills:** Learning to write signatures and notes, accessing and using auditory books, and tracking dates and appointments
- **Daily Living Skills:** Practicing kitchen safety, dining skills, organizing and identify foods, telling time, setting and using kitchen appliances, performing personal hygiene and matching clothing

Independent Living Program
Services for the Blind and Visually Impaired

- **Instruction in Leisure Activities:** Playing cards, performing craft projects, and viewing tv
- **Orientation and Mobility Services:** Traveling safely and independently indoors and outdoors
- **Information and Referral:** Coordinating services with other agencies
- **Guidance and Counseling:** Assistance with coping and adjusting to vision loss

Independent Living Program
Services for the Blind and Visually Impaired

- **Rehabilitation Instructors and Assistants provide training to help adjust to in-home environments and life with vision loss.**
- **Training to introduce adaptive techniques and equipment to compensate for vision loss will occur at least once a month for several months .**
- **Services will continue until the individual can independently use the new skills and adjust to life with limited vision. An individual can be referred to the program again if their vision becomes worse or if additional needs are identified.**

Independent Living Program
Services for the Blind and Visually Impaired

Getting Started:

Referrals are accepted from all sources including doctors, individuals, home health providers, and other state or local agencies.

Call:

833-772-TDHS (8347)

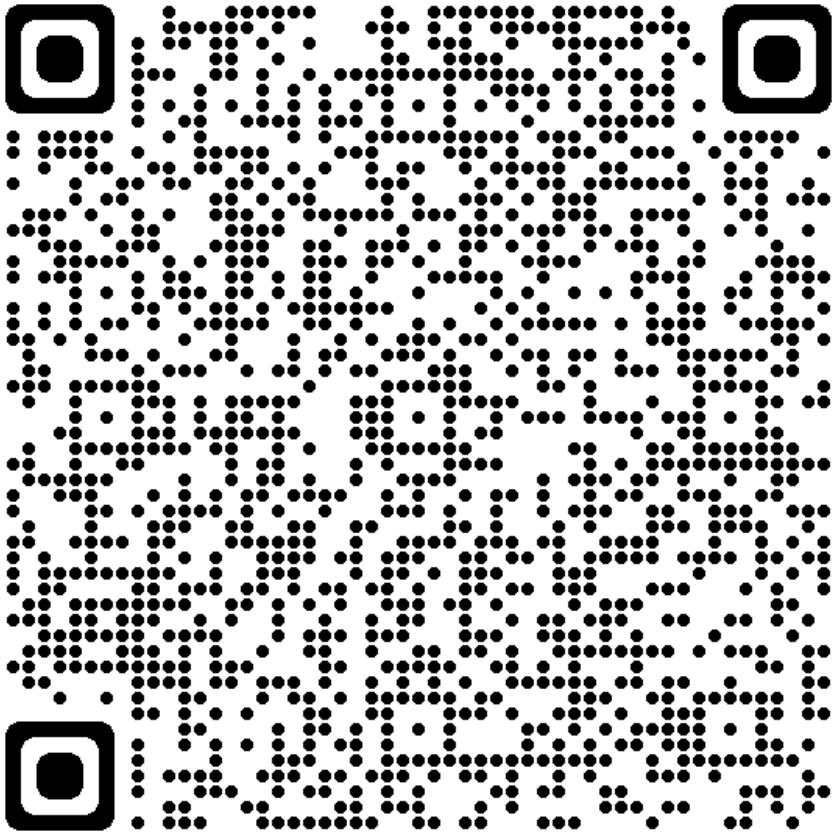
To reach the One DHS Contact Center

THANK YOU

APH Resources

The APH Information & Referral Hotline
1-800-232-5463 (U.S and Canada)
staffed M-F 8:00-8:00 PM EST
Email: connectcenter@aph.org
Also contains AFB Directory of Services and
VisionAware Professional Resources—
with tips and helpful articles

Other Professional Resources

- ADA National Network--provides information, guidance and training on how the ADA applies to older people with disabilities including vision loss.
- Aging and Vision Loss National Coalition Aging Service Provider Toolkit
- Resources | OIB-TAC & Continuing Education | OIB-TAC
- Timetobebold.org to find resources
- WellConnected--A virtual community that offers phone and online activities that build community through group conversations, games, and education.
- Guide Techniques for people who are blind or visually impaired - YouTube

QR Code for Professional Information & Resources on APH ConnectCenter