



Use of Vision Rehabilitation and Adaptive Devices among Adults with Visual Impairment, U.S. 2002

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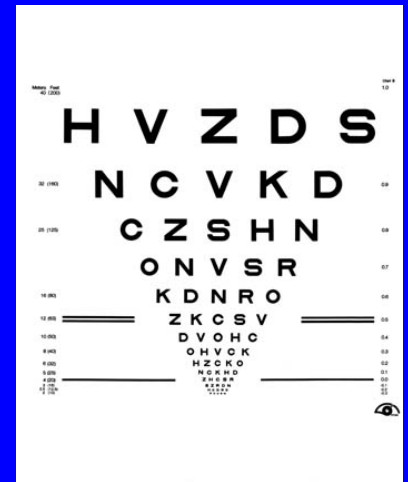


U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics
National Institutes of Health, National Eye Institute



Public Health Importance

- Visual impairment (VI) – frequent cause of disability in the US
- 1.1 million people legally blind
- Annual economic and social costs: \$67 billion
- Prevalence of age-related eye diseases is projected to double by 2020
- Use of visual rehabilitation improves quality of life





Healthy People 2010 Vision Goal

Improve the visual health of the Nation through prevention, early detection, treatment, and rehabilitation.





Healthy People 2010 Vision Objectives:

28-10. Increase visual rehabilitation

28-10a. Increase the use of rehabilitation services by visually impaired persons aged 18 years and older

28-10b. Increase the use of visual and adaptive devices by visually impaired persons aged 18 years and older



Objective of the Study

- To estimate the reported use of visual rehabilitation services and adaptive devices
- Assess gender, race/ethnicity, education differences among persons who used visual rehabilitation services and adaptive devices



Data Source

2002 National Health Interview Survey (NHIS)

- Conducted annually since 1957
- Nationally representative sample of civilian, non-institutionalized population
- Computer-assisted in-person interview
- Over-samples black and Hispanic persons
- 2002 NHIS vision health supplement

Study Population

- Adults ages 18 and over
- Response rate – 74.3%, sample size – 31,044
- NHIS questions on visual impairment, use of visual rehabilitation services and adaptive devices
- Number of visually impaired persons: 3,301



NHIS Questions

- Do you have any trouble seeing, even when wearing glasses or contact lenses?
- Do you use any vision rehabilitation services, such as job training, counseling, or training in daily living skills and mobility?
- Do you use any adaptive devices such as telescopic or other prescriptive lenses, magnifiers, large print or talking materials, closed circuit TV (CCTV), white cane, or guide dog?

**When regular
eyeglasses
don't help, other
things might.**



There are services and devices that can help people make the most of the vision they have.

Call for a free booklet:

1-877-LOW VISION
(1-877-569-8474)



Analytic Methods

- SUDAAN software
- Data were weighted to the US population
- Estimates were age-adjusted
- Reliability of estimates determined by relative standard error (RSE)
 - RSE > 30% = unreliable estimates
- Test of significance at 0.05 level

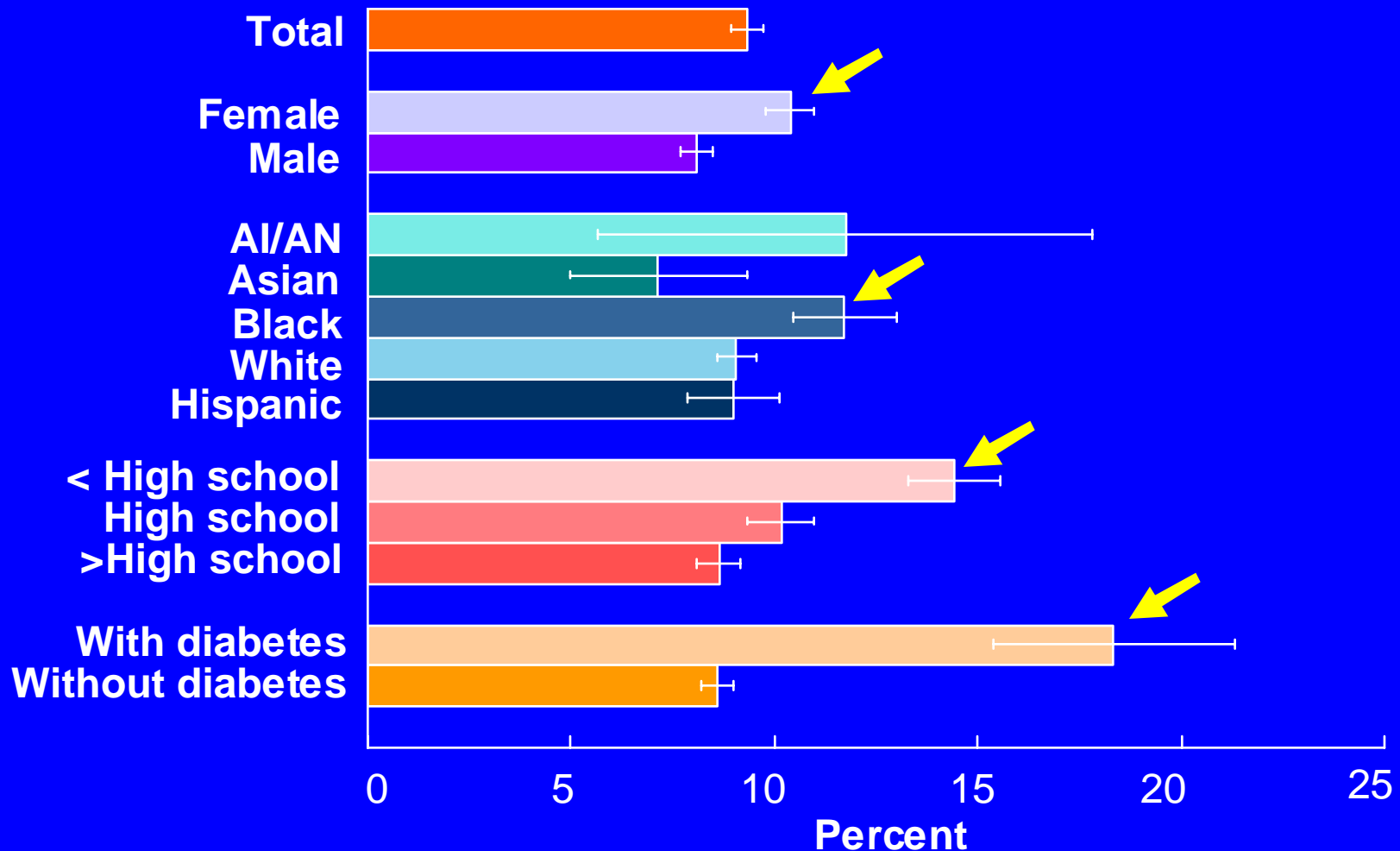
Leading Causes of Visual Impairment, 2002

Prevalence of eye diseases among an estimated 205 million US civilian, non-institutionalized adults 18 years and older:

	%	Number
Cataract	8.9	17 million
Diabetic retinopathy*	0.7	1.3 million
Glaucoma	2.1	4.1 million
Macular degeneration	1.2	2.1 million
Eye injury	4.4	8.5 million

* Prevalence of diabetic retinopathy among adults with diabetes is 7.9%.
Source: National Health Interview Survey, CDC, NCHS.

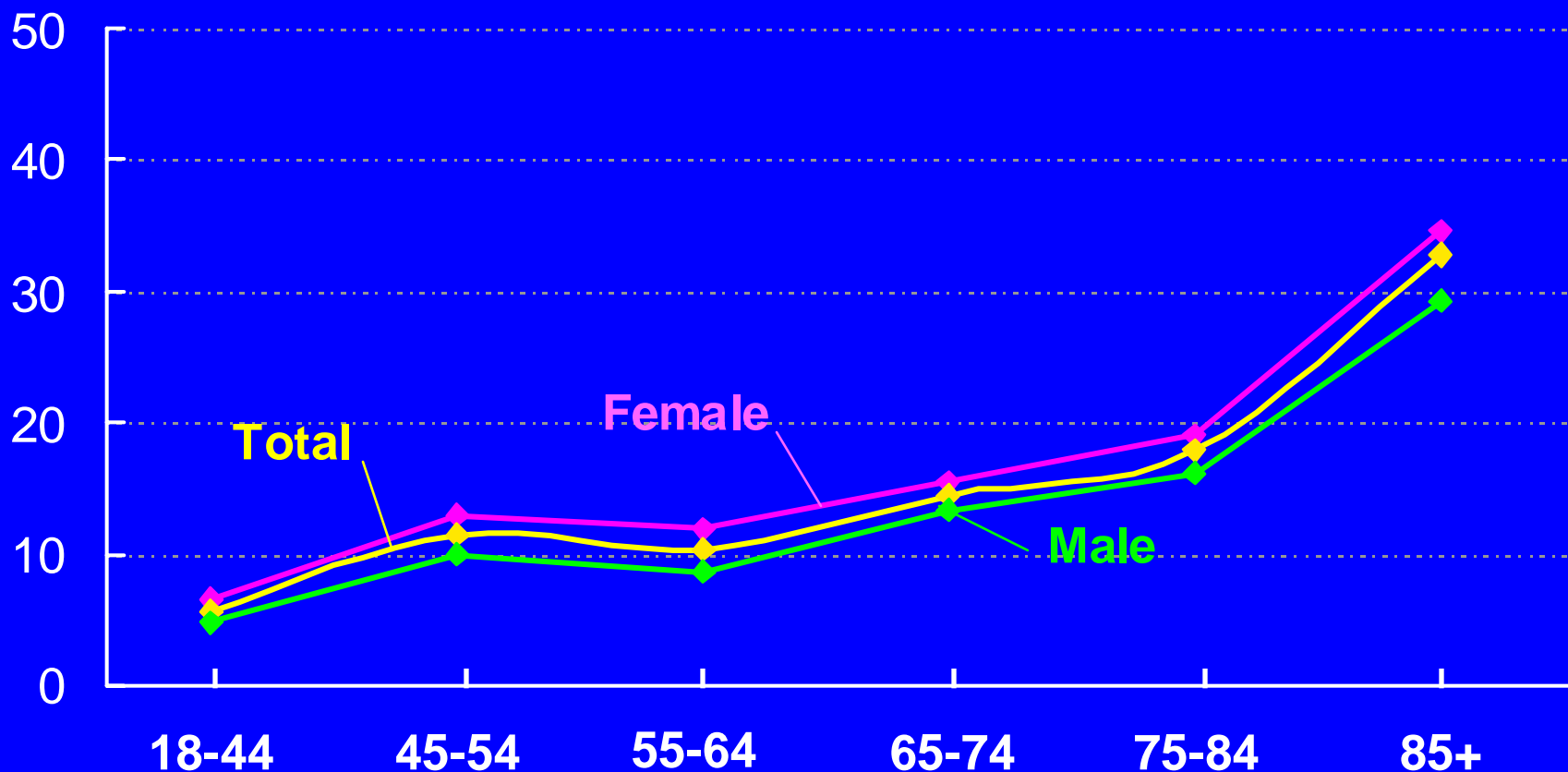
Visual Impairment in Adults, 2002



Note: Data are age adjusted to the 2000 standard population. Except for education levels, data are for adults 18 years and over; education-level data are for adults 25 years and over. AI/AN - American Indian and Alaska Native. Black and white exclude persons of Hispanic origin. Persons of Hispanic origin may be any race. I is 95% confidence interval.
 Source: National Health Interview Survey, CDC, NCHS.

Visual Impairment in Adults, 2002

Percent



Source: National Health Interview Survey, CDC, NCHS.

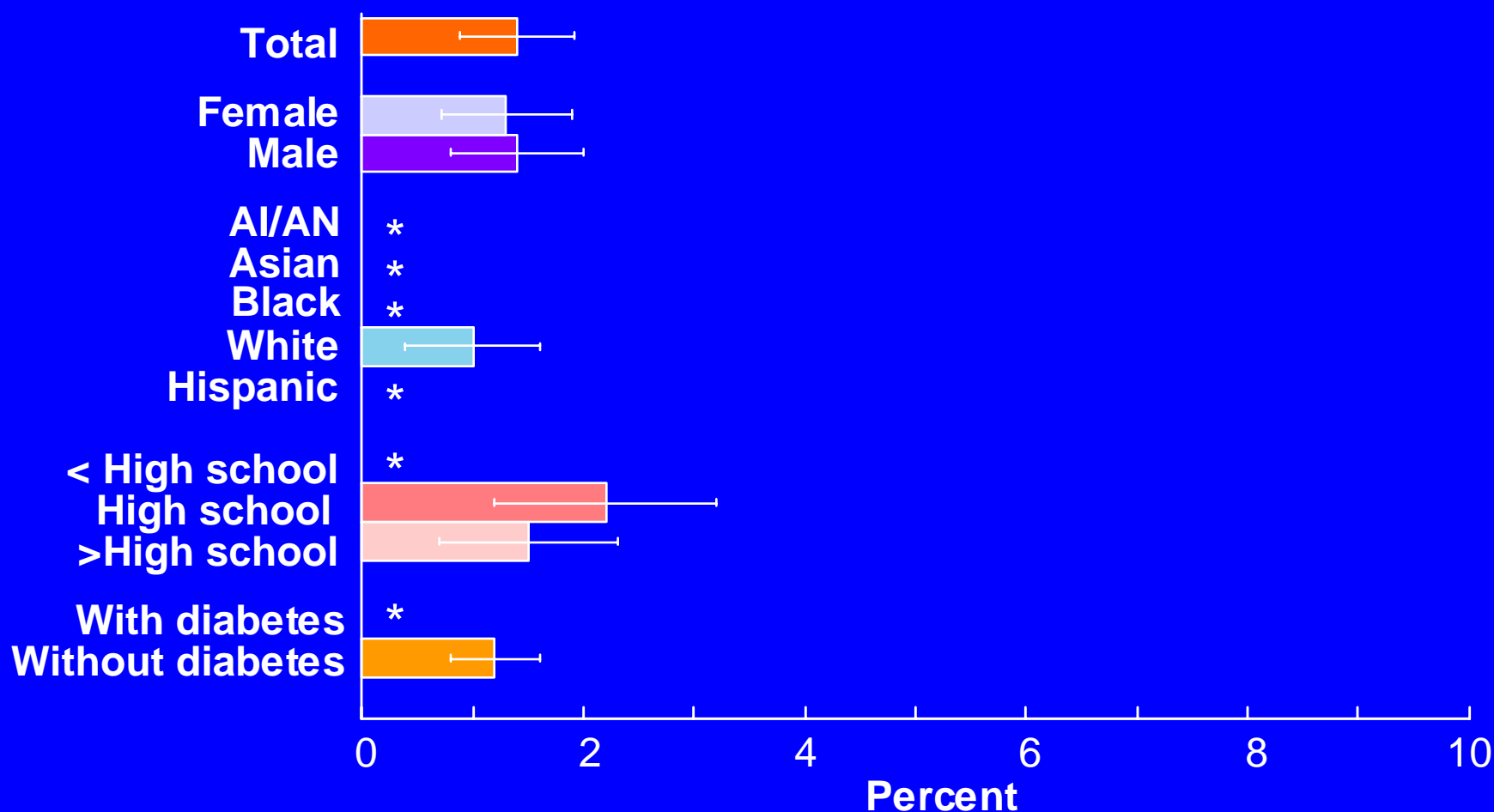
Selected Characteristics of Adults with and without Visual Impairment (VI), 2002

	Adults with VI	Adults without VI
Age		
45-74 years	50.9%	39.0%
75+ years	16.8%	6.5%
Female	59.4%	51.3%
Black	13.1%	11.0%
White	73.5%	72.6%
Hispanic	7.9%	11.3%
Income below 200% of FPL	40.5%	28.1%
Education less than high school	25.8%	14.8%
Persons with diabetes	15.8%	5.7%

Note: FPL – Federal Poverty Level

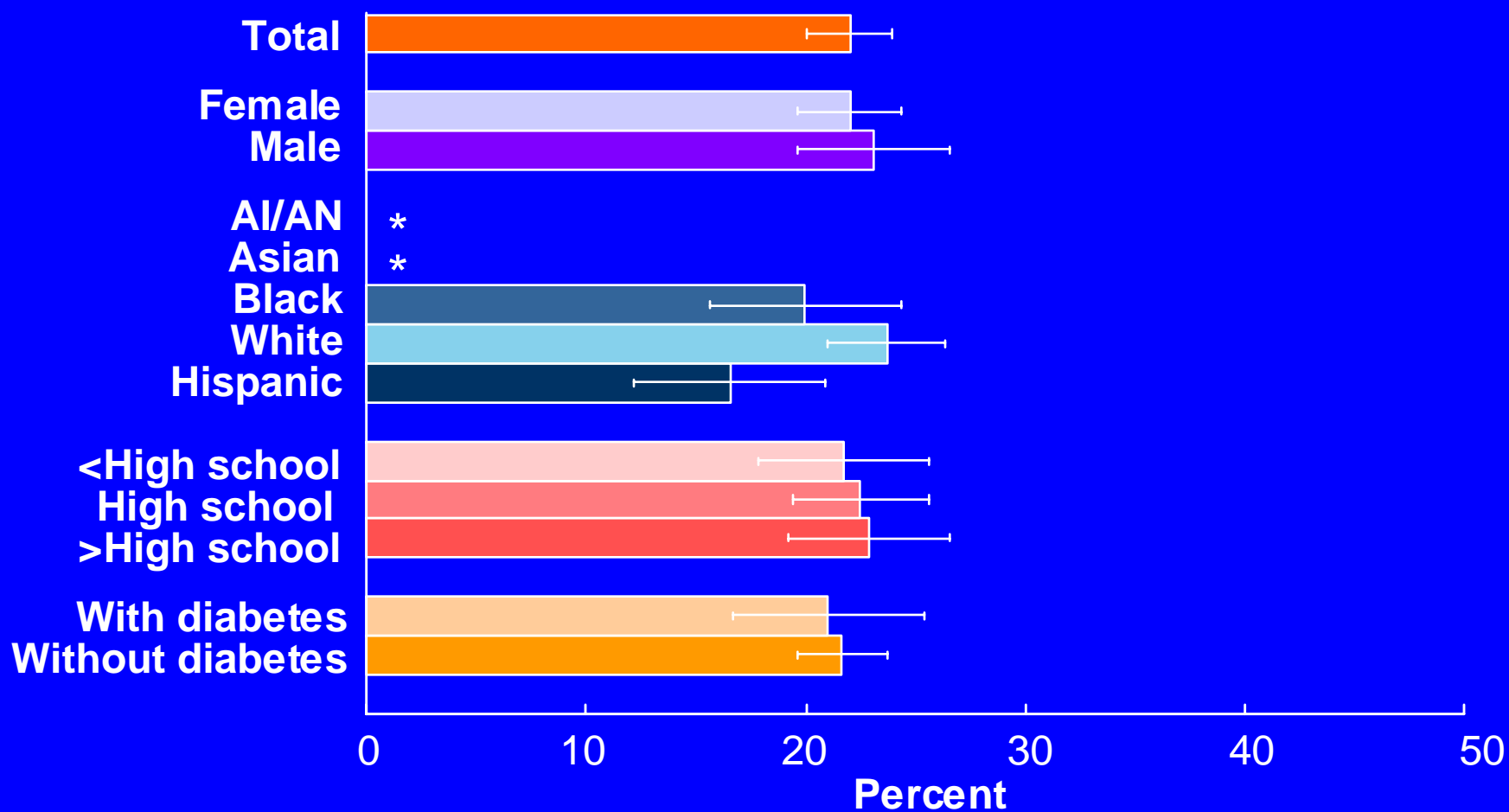
Source: National Health Interview Survey, CDC, NCHS.

Use of Visual Rehabilitation Services: Adults with Visual Impairment, 2002



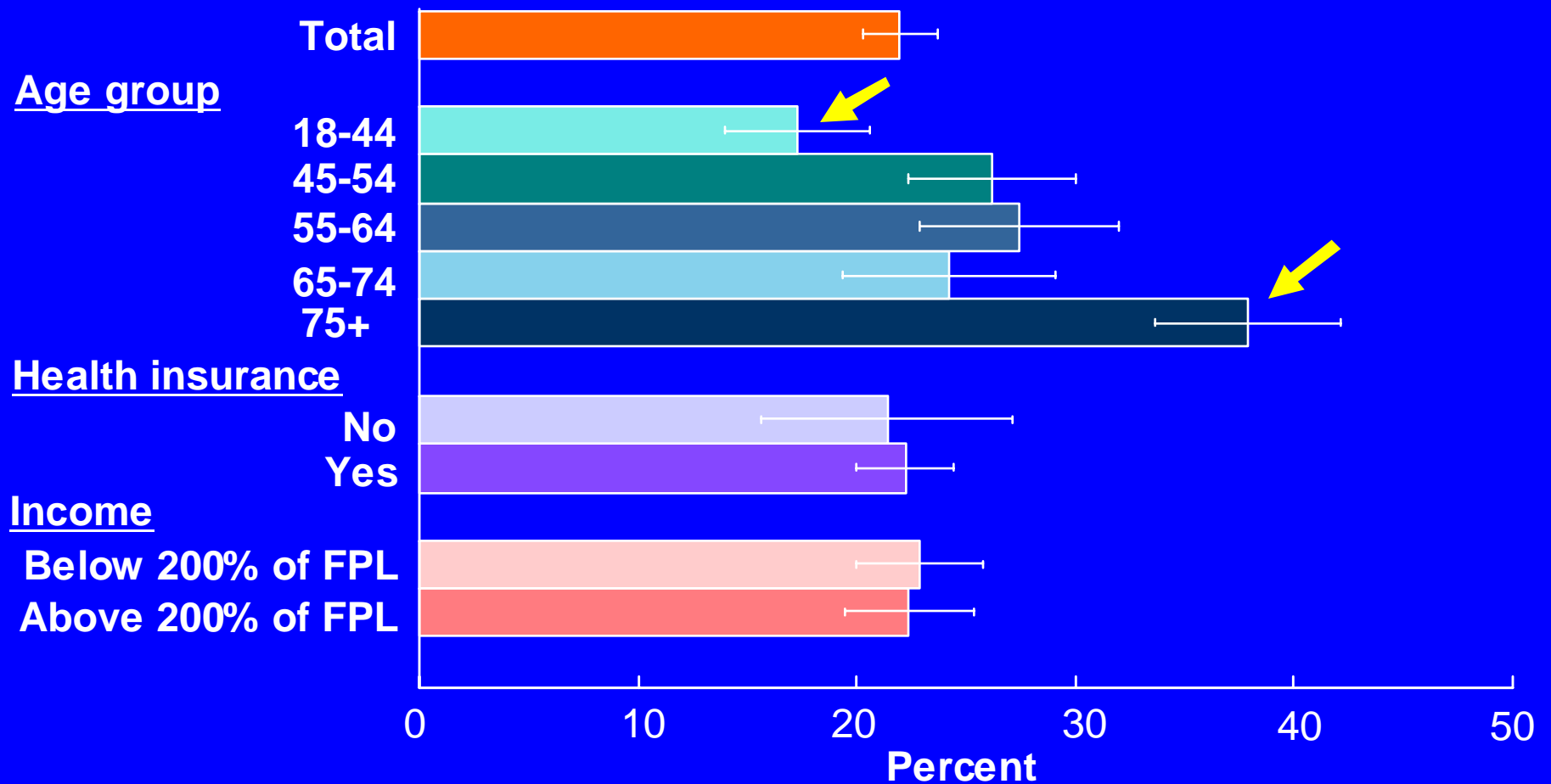
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Source: National Health Interview Survey, CDC, NCHS.

Use of Visual and Adaptive Devices: Adults with Visual Impairment, 2002



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Use of Visual and Adaptive Devices: Adults with Visual Impairment, 2002



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Source: National Health Interview Survey, CDC, NCHS.

Limitations


- Vision questions are not asked on a regular basis (vision health supplement)
- Based on self-reports
- Excludes institutionalized population
- Unreliable data on small minority U.S. populations



Conclusions

- NHIS provides national data for HP 2010 vision objectives
- 19 million adults are visually impaired
- Low rates of rehabilitation services and adaptive devices use
- Some population groups with higher rates of visual impairment have lower use of visual rehabilitation
- Next NHIS vision supplement in 2008


Does your vision make it hard to read or do everyday tasks?



Are you or someone close to you experiencing vision loss? Ask your eye care provider about a low vision evaluation and rehabilitation services.

There is help.
There is hope.

www.nei.nih.gov/lowvision/

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