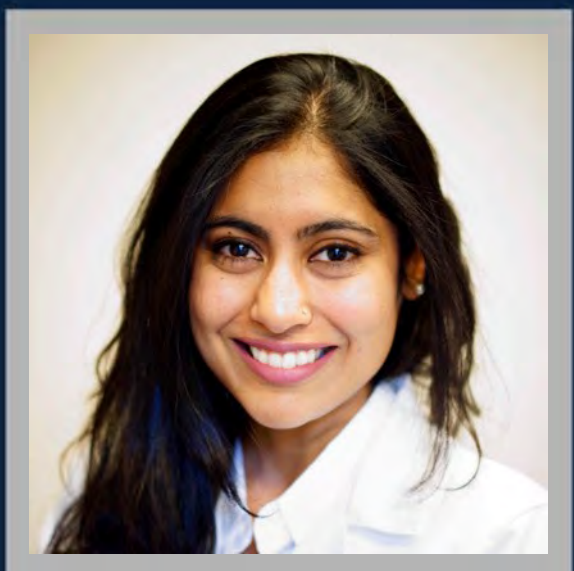




SESSION 2: Why the Eye: Forum on the Public Health Connection Between Mental Wellness and Vision

Public Health Case Around Mental Health and Vision



Varshini Varadaraj, MD, MPH

Research Associate

Johns Hopkins Disability Health Research Center



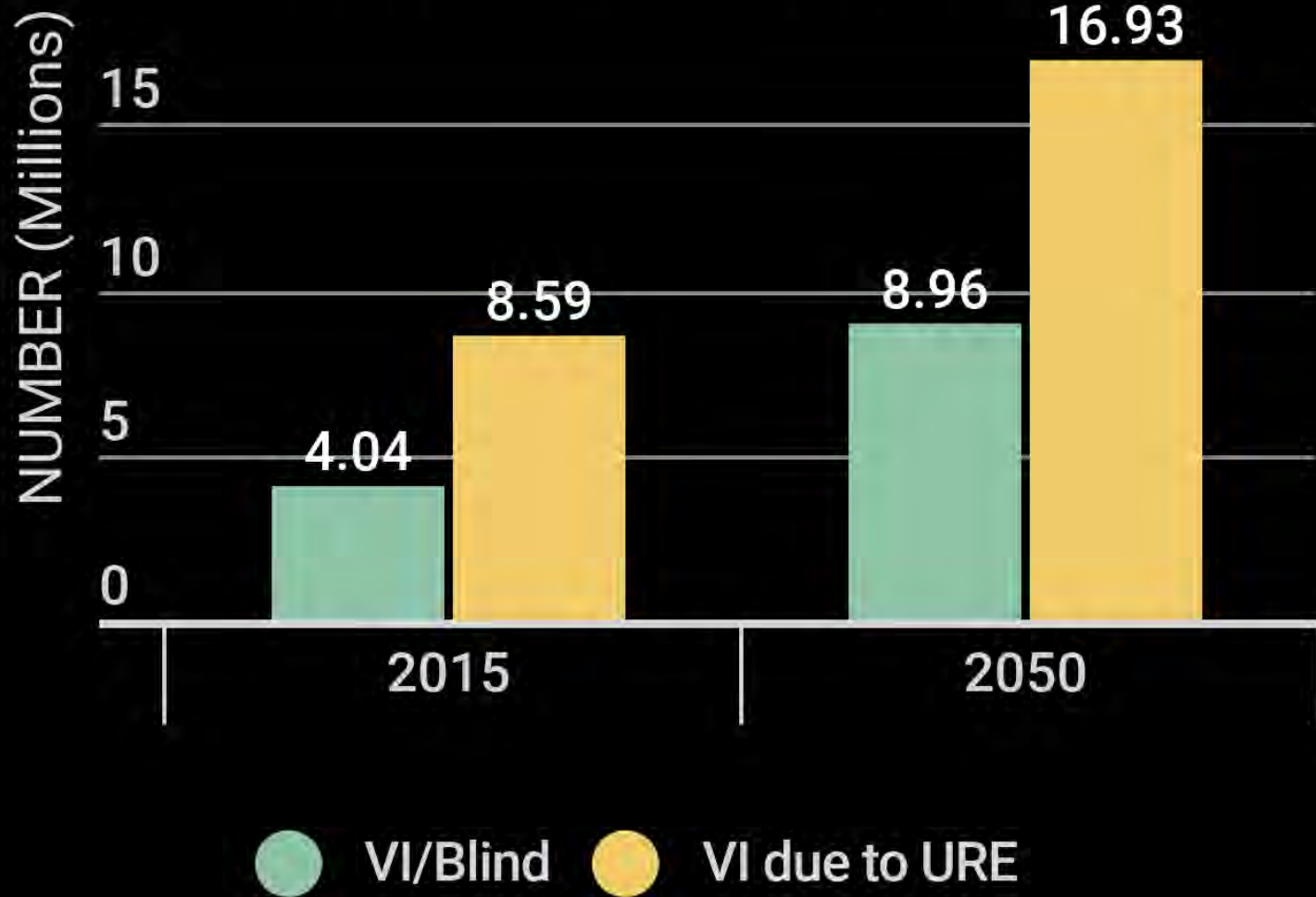
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Shifting the paradigm from
living with a disability to
thriving with a disability

of Americans 40 yrs+

20 Visually Impaired (VI) or Blind



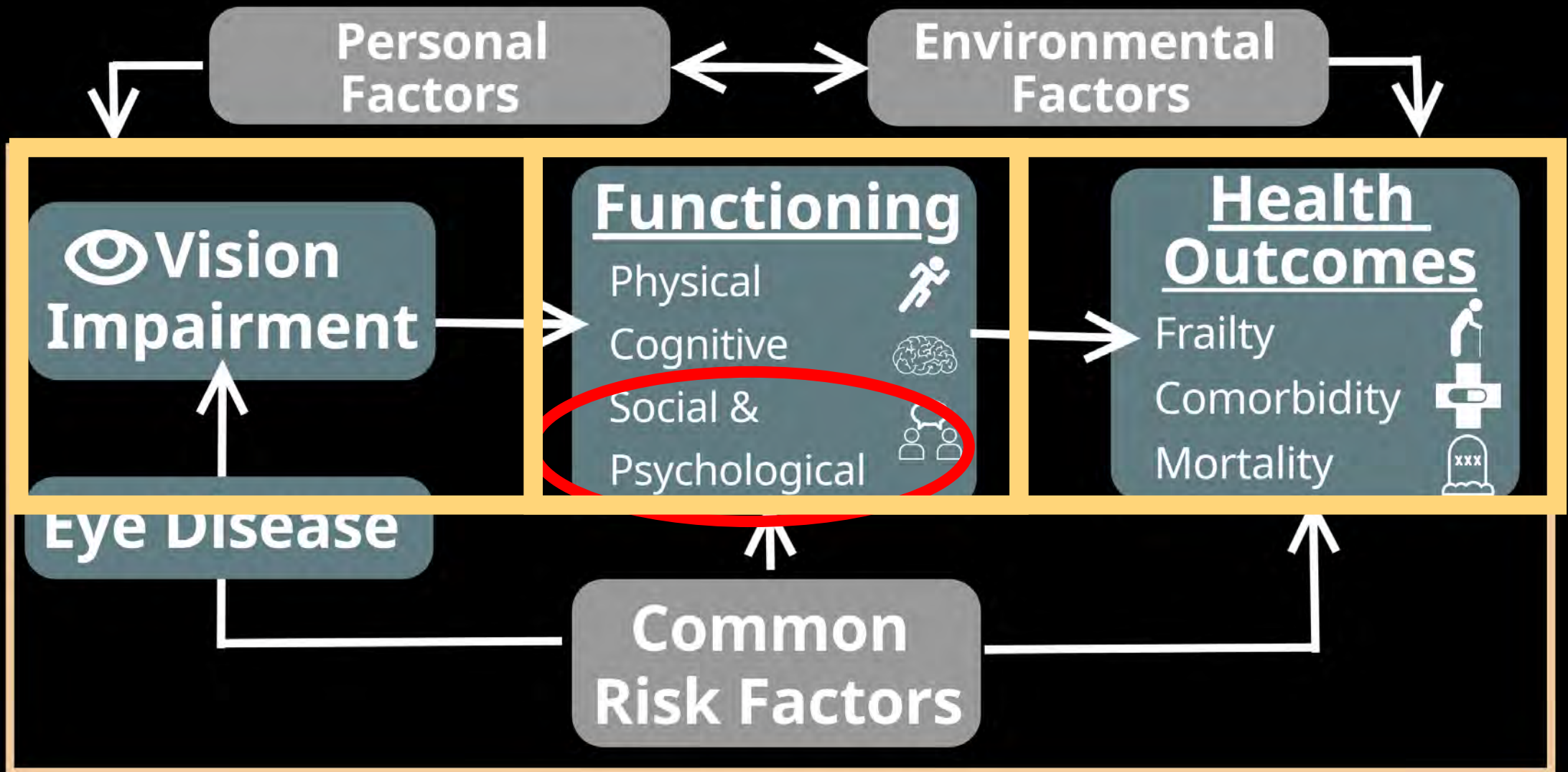
Visual
Impairment
is ↑

Varma et al. JAMA Ophthal. 2016.



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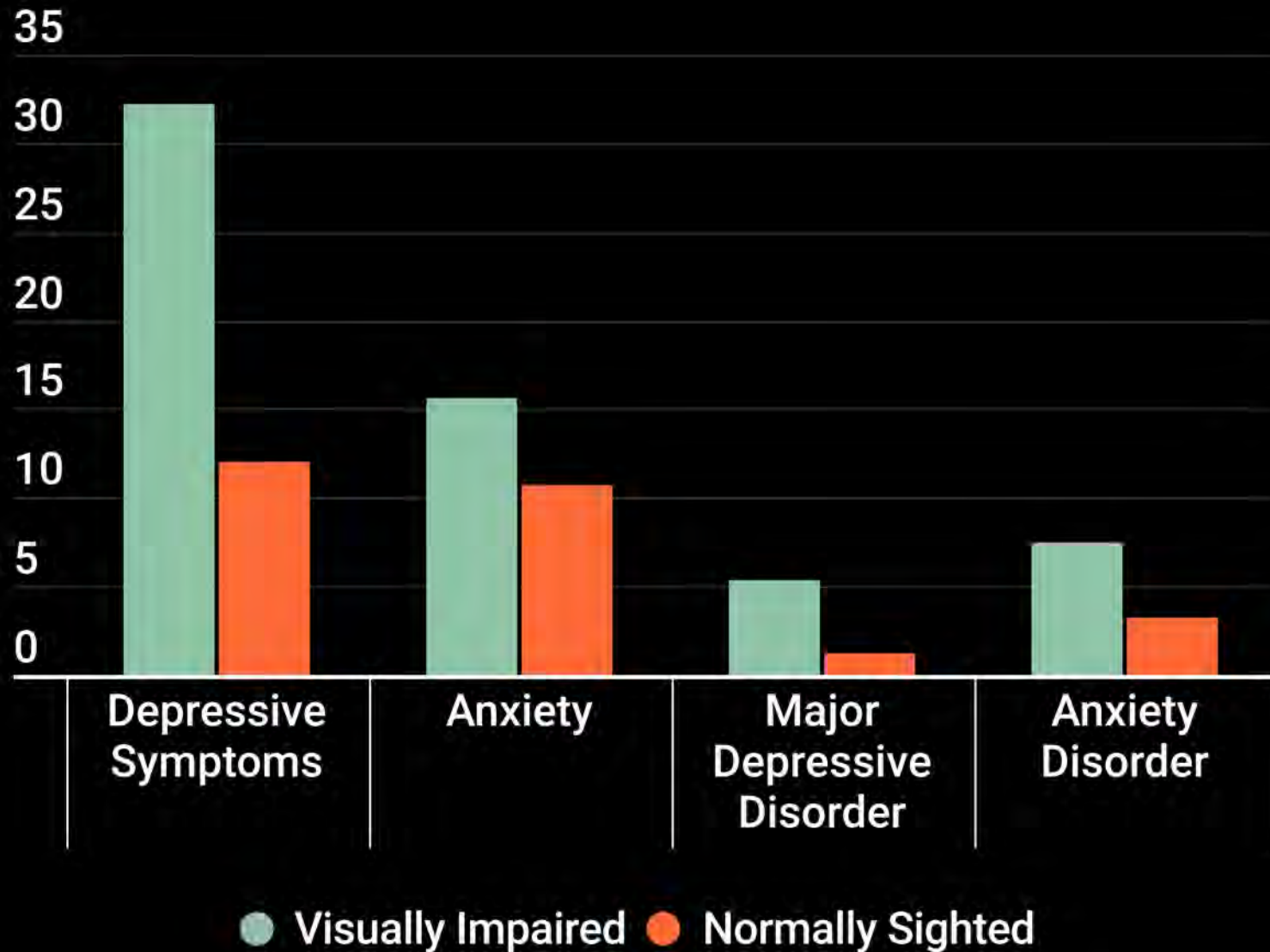
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“Some of the limitations of disability stem from the psychological environment rather than physical impairment.”



Older adults with visual impairments more likely to have depression and anxiety

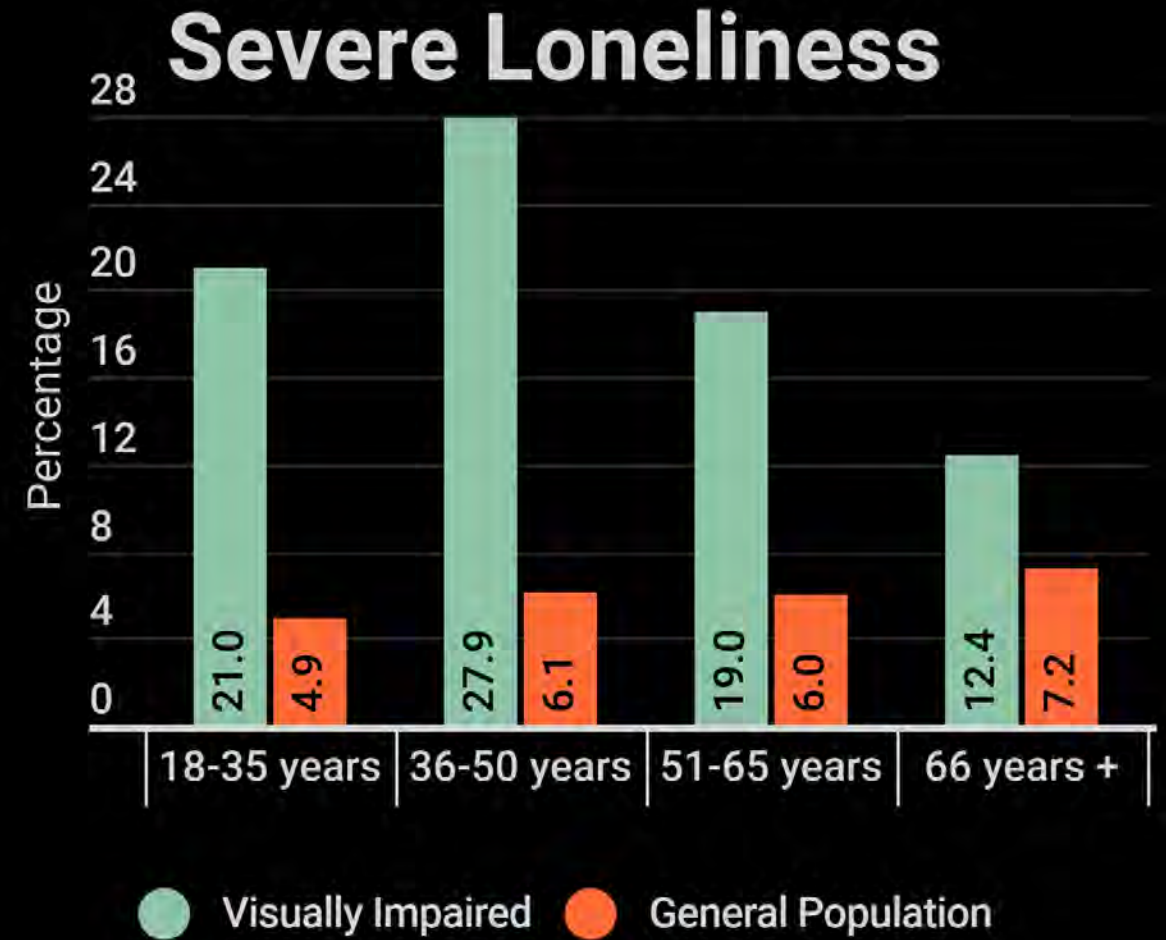
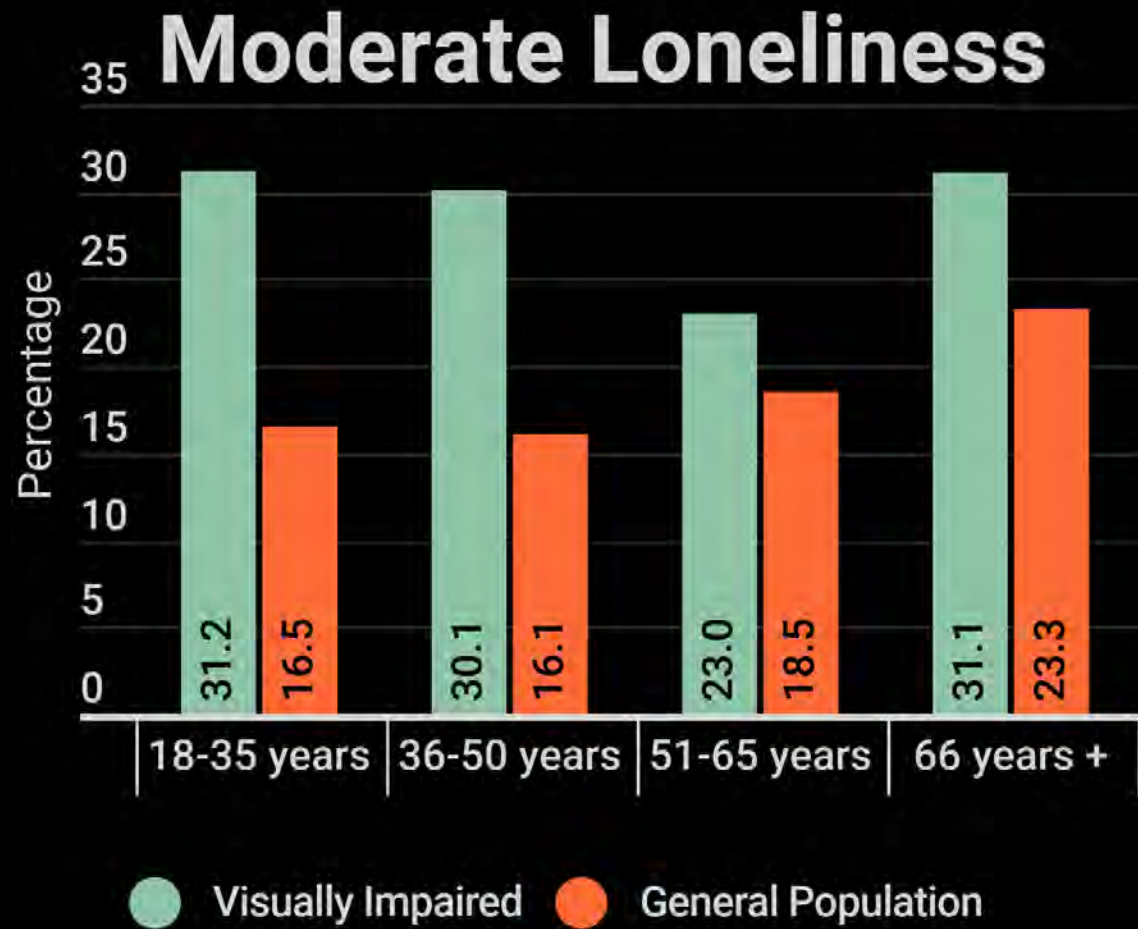


Van der Aa et al. IOVS. 2015.



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A higher proportion of persons with visual impairment reported loneliness

Why does vision loss
impact psychosocial
health?

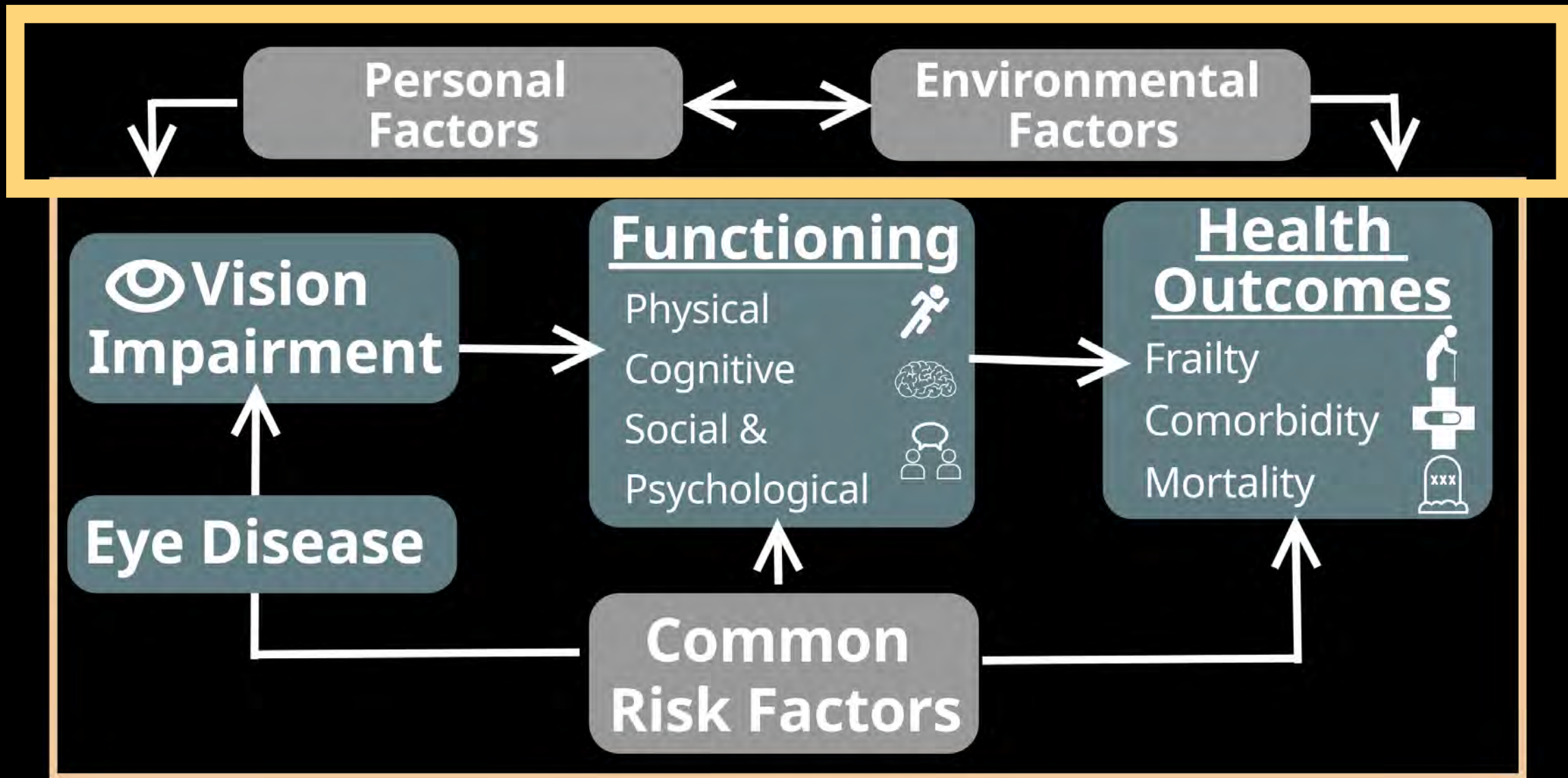


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“Loss of eyesight described as
the **worst ailment that could
happen** relative to losing
memory, speech, hearing, or a
limb.”





Stigma &
Discrimination

Non-inclusive
& Inaccessible
environments



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Stigma Among Older Adults with Age-Related Vision Impairments

Priyanka Kumar¹, Jessica Campanile^{1,2,3},
Bonnielin K. Swenor^{1,2,3,4},
and Varshini Varadaraj^{1,2}

Journal of Visual
Impairment & Blindness
1-10

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“I just don’t want to have a perception of limitations.”

“I don’t want people to feel sorry for me.”



“I think it hurts them, because they are targeted as different. They are targeted as not a whole person, as being a lesser person. I do feel that people feel rejected— rejected in general.”



Discrimination



Adults with dual sensory impairment experience more frequent perceived discrimination.

1. Being treated with less respect.
2. Others acting as though the person with VI was not smart.

Discrimination

ELSA

English Longitudinal Study of Ageing

Association of Perceived Discrimination With Emotional Well-being in Older Adults With Visual Impairment

Sarah E. Jackson, PhD; Ruth A. Hackett, PhD; Shahina Pardhan, PhD; Lee Smith, PhD; Andrew Steptoe, DSc

- Older adults with reported VI more likely to report discrimination
- Discrimination → higher levels of depressive symptoms & loneliness and lower quality of life



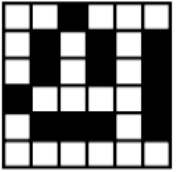
Stigma &
Discrimination

Non-inclusive
& Inaccessible
environments



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1. Do crossword, jigsaw or other puzzles
2. Read newspaper or magazine
3. Read novel or non-fiction book
4. Play board game, bingo, bridge or cards
5. Use a computer
6. Write a letter, article poem or story
7. Travel 100 or more miles from home
8. Do handcrafts, needlework, sewing, carpentry, woodworking, art projects, photography, or painting
9. Go to a movie, concert, theater, sports events, museum, aquarium, or science center
10. Take a class or adult education course
11. Attend a lecture, discussion, or public meeting
12. Participate in church, club, or community event



Vision impaired
participate in fewer
cognitive activities

Unlike race, ethnicity, gender,
and age, disability data are not
routinely collected



JAMA
Network | **Open**™

Original Investigation | Health Informatics

Identifying Accessibility Requests for Patients With Disabilities Through an Electronic Health Record–Based Questionnaire

Varshini Varadaraj, MD, MPH; Xinxing Guo, MD, PhD; Nicholas S. Reed, AuD; Kerry Smith, MS; Michael V. Boland, MD, PhD; A. J. Nanayakkara, MA; Bonnielin K. Swenor, PhD

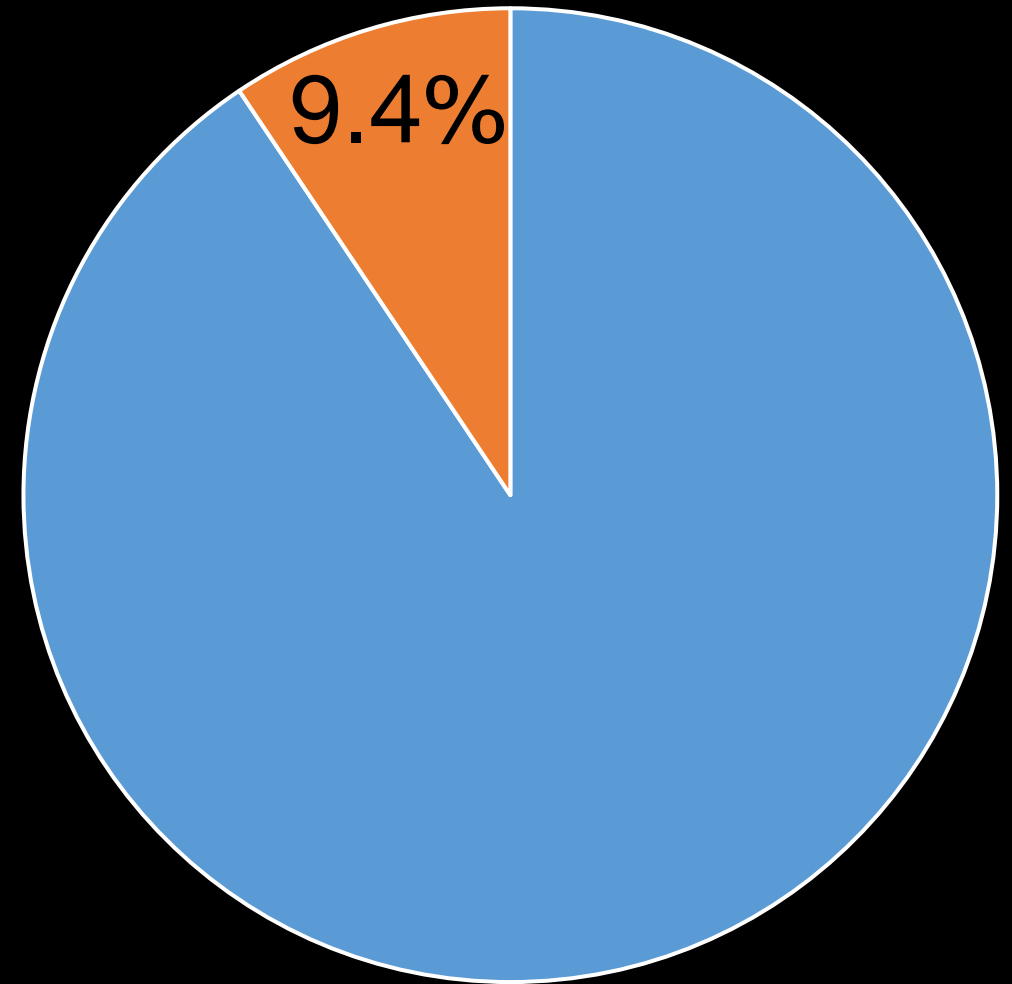


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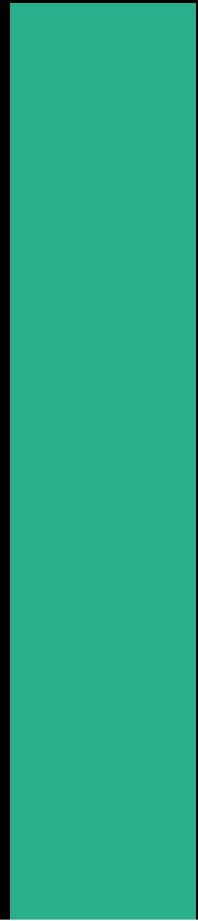
Accessibility
need
requested in
23,510 (9.4%)
encounters



Accessibility Requests

55,722 patients
250,932 patient encounters

80%



Mobility

13%



Sensory

2%



Intellectual

6%



Other



accessibility
needs  disability

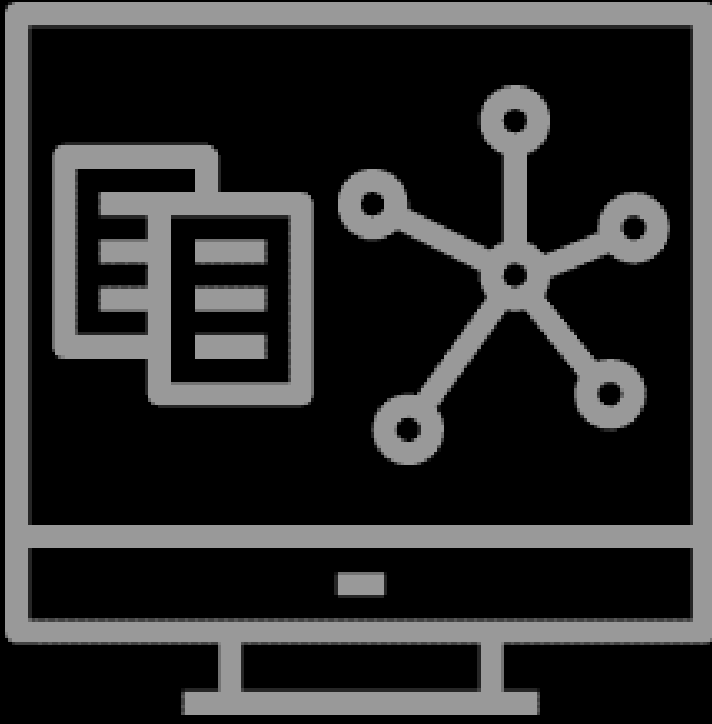
Standardize data collection for:

- % of patients with a disability
- % of patients with disability-related accessibility need requests

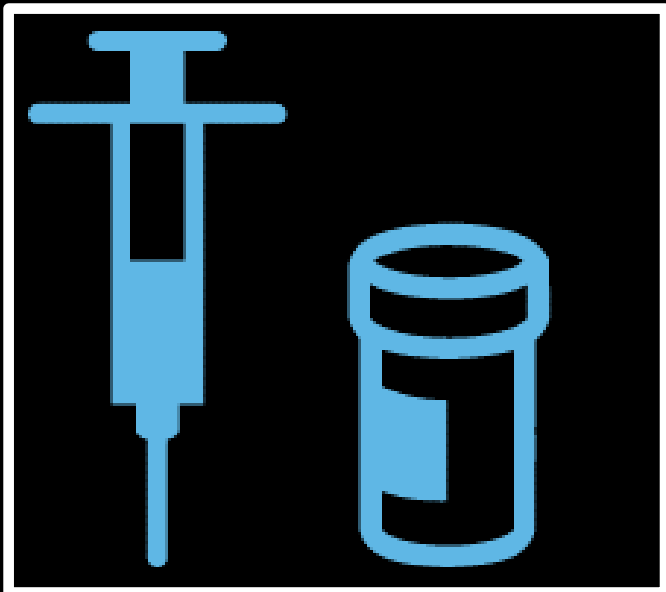


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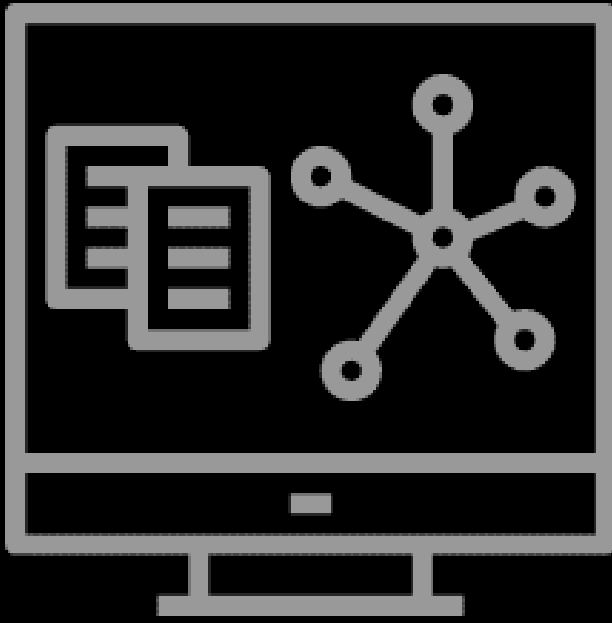
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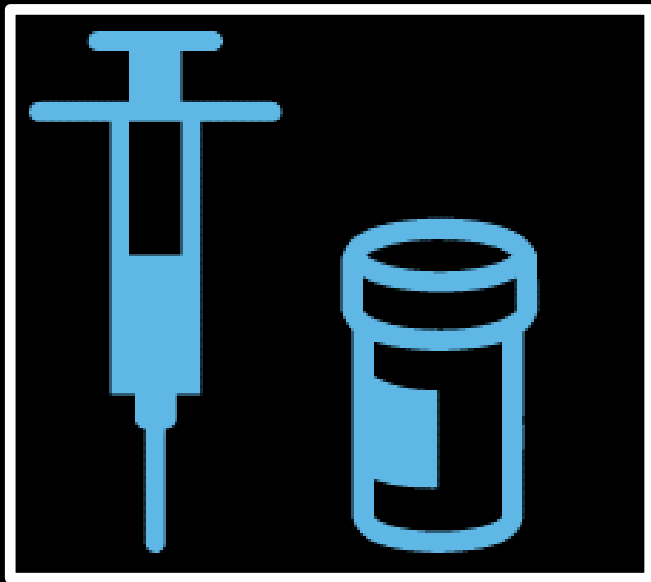
The Disability Dashboards Approach



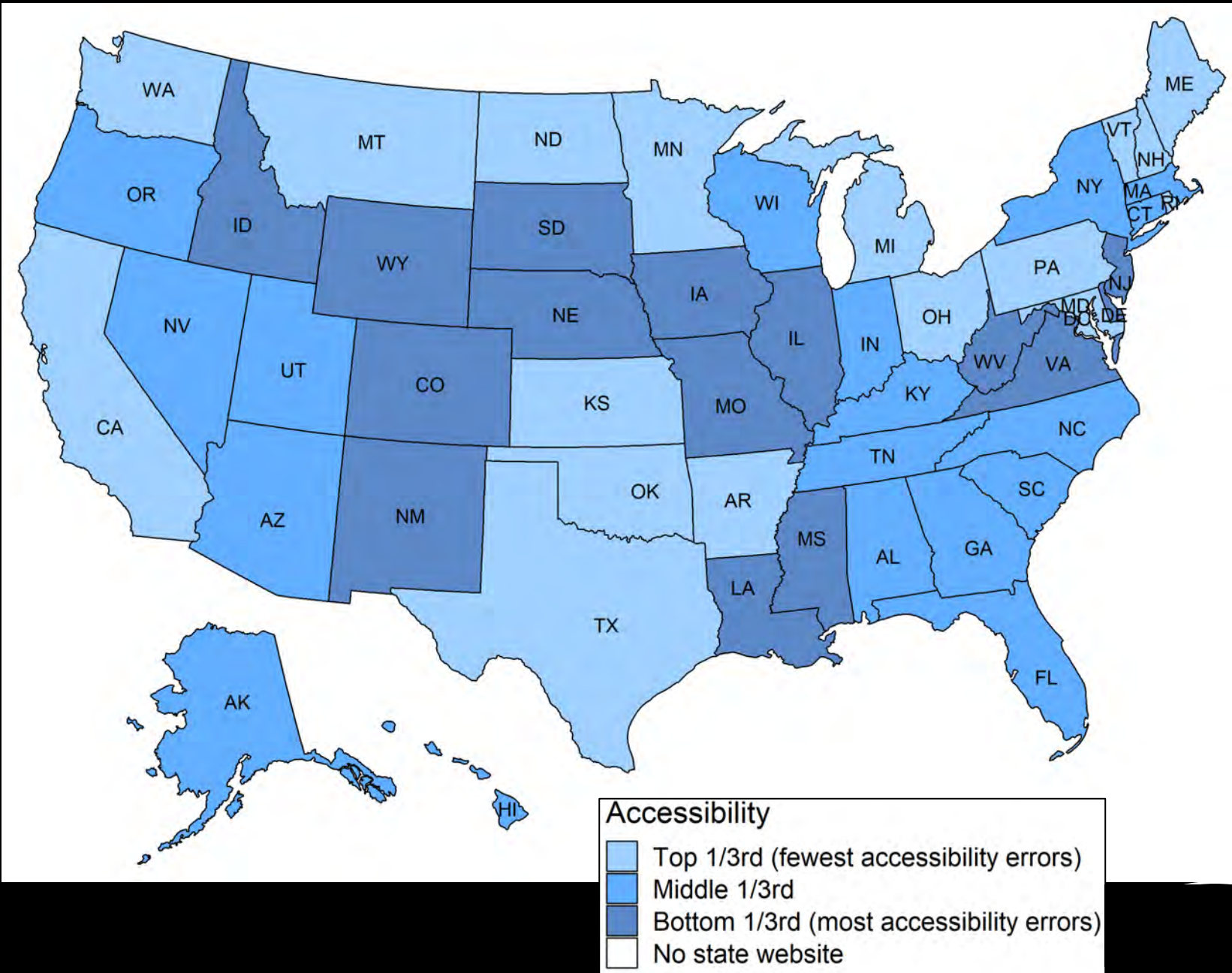
COVID-19 Vaccine
Accessibility Dashboard



- Assessed website accessibility
- # and types of errors
- Health department websites
- 50 states, DC, 5 US territories



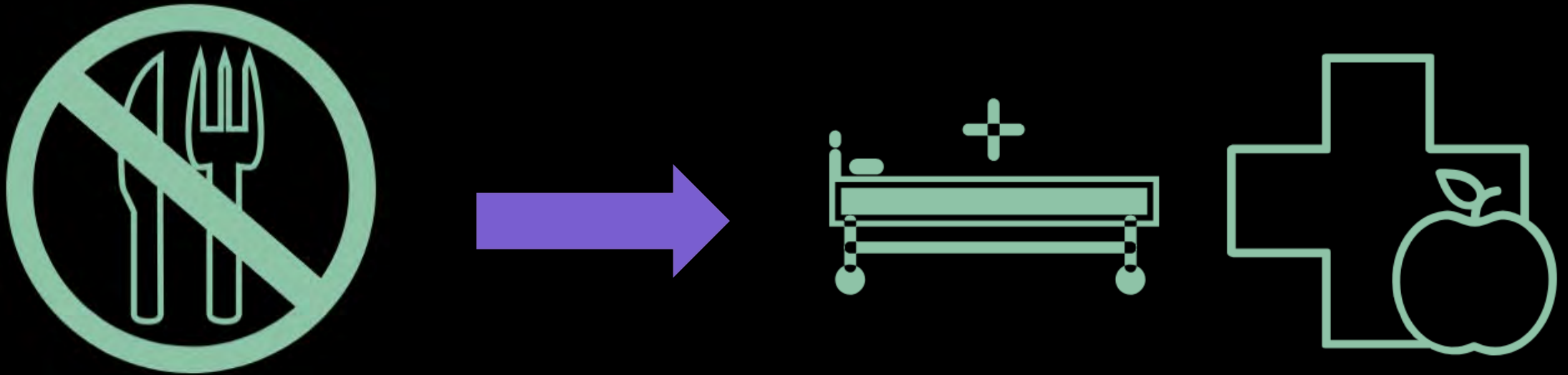
COVID-19 vaccine information website accessibility



“Our results underscore the addressable, yet persistent inequities in the pandemic response for the disability community.”

Jo et al. DHJO. 2022

- Food security is central to health & well-being
- Linked to poor mental and physical health



“Limited or uncertain availability of nutritionally-adequate or safe foods”

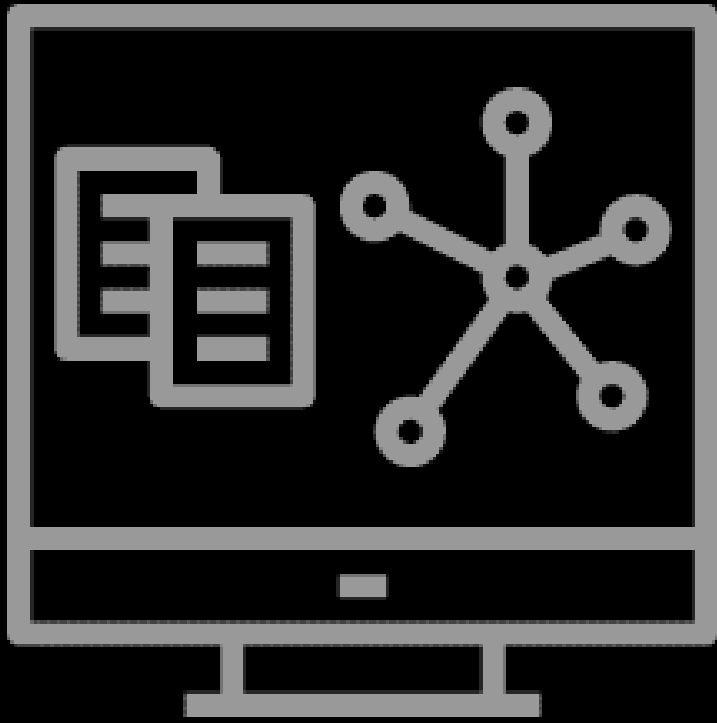


VI have higher odds of Food Insecurity



Food Insecure

No VI	Ref
Vision Impaired	2.2 (2.0-2.3)



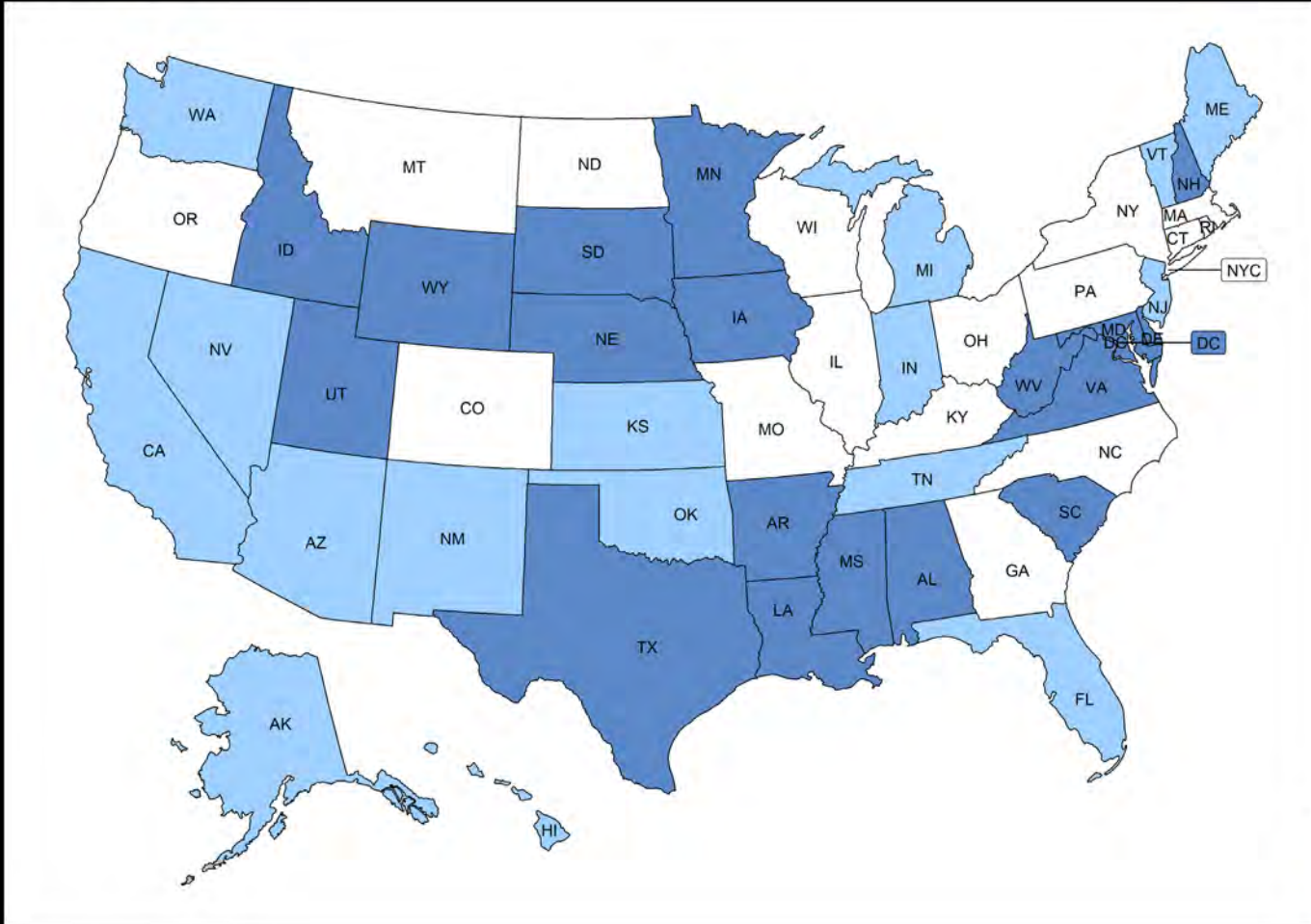
The Disability Dashboards Approach



SNAP Disability
Dashboard

SNAP Disability Dashboard

SNAP Total score



Total scores (18 pts):

- Flexibility (6 pts)
- Efficiency (6 pts)
- Accessibility (6pts)

disabilityhealth.jhu.edu

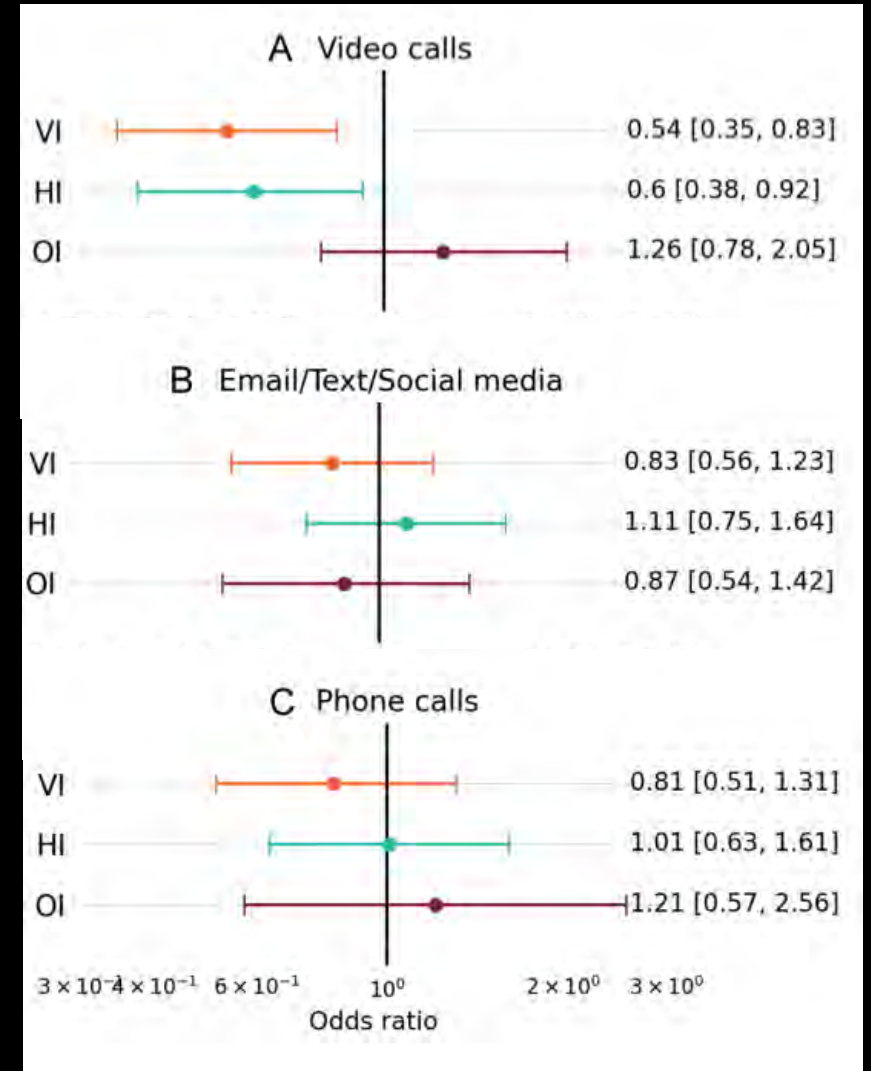
Impact of the COVID-19 Pandemic



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- Older adults with VI \uparrow depressive symptoms
- Video calling, but not phone calling, mitigated this effect
- Facial expressions improve bonding by signaling active social engagement





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Disability and Health Journal

journal homepage: www.disabilityandhealthjnl.com

Disability and
Health Journal

New obstacles and widening gaps: A qualitative study of the effects of the COVID-19 pandemic on U.S. adults with disabilities

Sabrina Epstein ^a, Jessica Campanile ^a, Caroline Cerilli ^a, Prateek Gajwani ^{a, b},
Varshini Varadaraj ^{a, b}, Bonnielin K. Swenor ^{a, b, c, *}

“If the gap exists before a major health crisis, you better believe that that’s gonna become the Grand Canyon when something like this happens to us.”



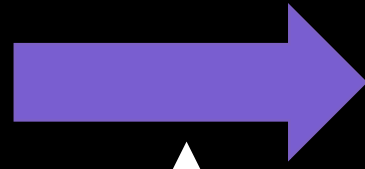
“Food access was as scary to me, if not scarier than COVID.”



“The paratransit systems in my area will not deliver you or pick you up from a testing site. If you can’t get there on the bus or on your own, you can’t do it.”



SUMMARY



↑ anxiety and depression
↑ loneliness and social isolation



- Stigma & discrimination
- Inaccessible environment



“Everyone, if they live long enough, will experience at least 1 eye condition.”





World Health
Organization

“Disability is part of being human. Almost everyone will temporarily or permanently experience disability at some point in their life.”



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Accessibility is all our responsibility

- Shift from solely focusing on fixing VI to prevent or cure mental health issues
- Broaden to creating inclusive environments
- ↓ barriers to information, programs, facilities
- Access must be equally effective and integrated

Learn more!



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