

UsAgainstAlzheimer's



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**Social Isolation,
Loneliness, and
Dementia**

Social Isolation, Loneliness, and Dementia

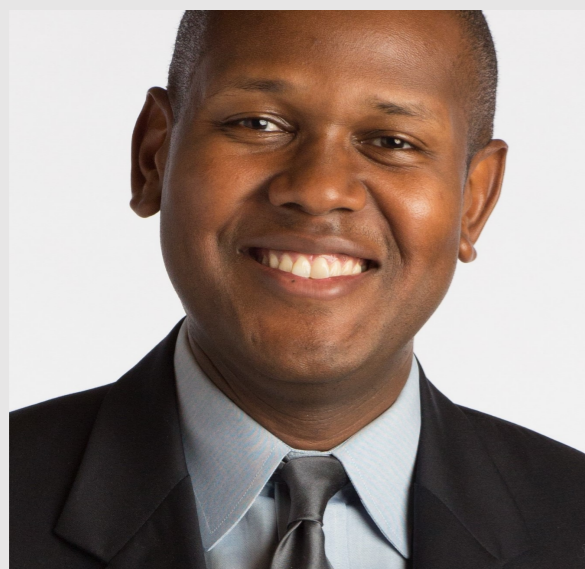
August 8, 2024

Acknowledgements

This course and continuing education credit is provided free of charge, with support from



Presenter



Thomas K.M. Cudjoe, M.D., M.P.H., M.A. is the Robert and Jane Meyerhoff Endowed Professor, Assistant Professor of Geriatric Medicine and Gerontology at the Johns Hopkins School of Medicine. Dr. Cudjoe is the co-director of Medicine for the Greater Good and the Division of Geriatric Medicine and Gerontology's Director for Community Engagement. He leverages community-based strategies, mixed-methods and human centered design to understand and address social isolation. Dr. Cudjoe also serves on the Scientific Advisory Council for the Foundation for Social Connection and as the co-lead to the Stakeholder Core for the Johns Hopkins Artificial Intelligence and Technology Collaboratory for Aging Research. Additionally, he has led studies that examined the prevalence of social isolation among older adults and associations between social isolation and health outcomes. His work has been featured in the New York Times, Wall Street Journal, NPR, and on Good Morning America.

Course Description

Studies show loneliness and social isolation are risk factors for cognitive decline. This course will discuss tools to assess social isolation and loneliness and provide intervention strategies to promote social connection to reduce the risk of Alzheimer's Disease and related dementias.

Learning Objectives

- List 6 or more modifiable risk factors for dementia
- Summarize the link between social isolation, loneliness, and dementia
- Identify interventions and strategies to address social isolation and loneliness with a special focus on adults 45+ years
- Identify special considerations for high-risk populations

01

Facts: Alzheimer's and related dementias (ADRD)



Scope of the Dementia Epidemic (U.S.)

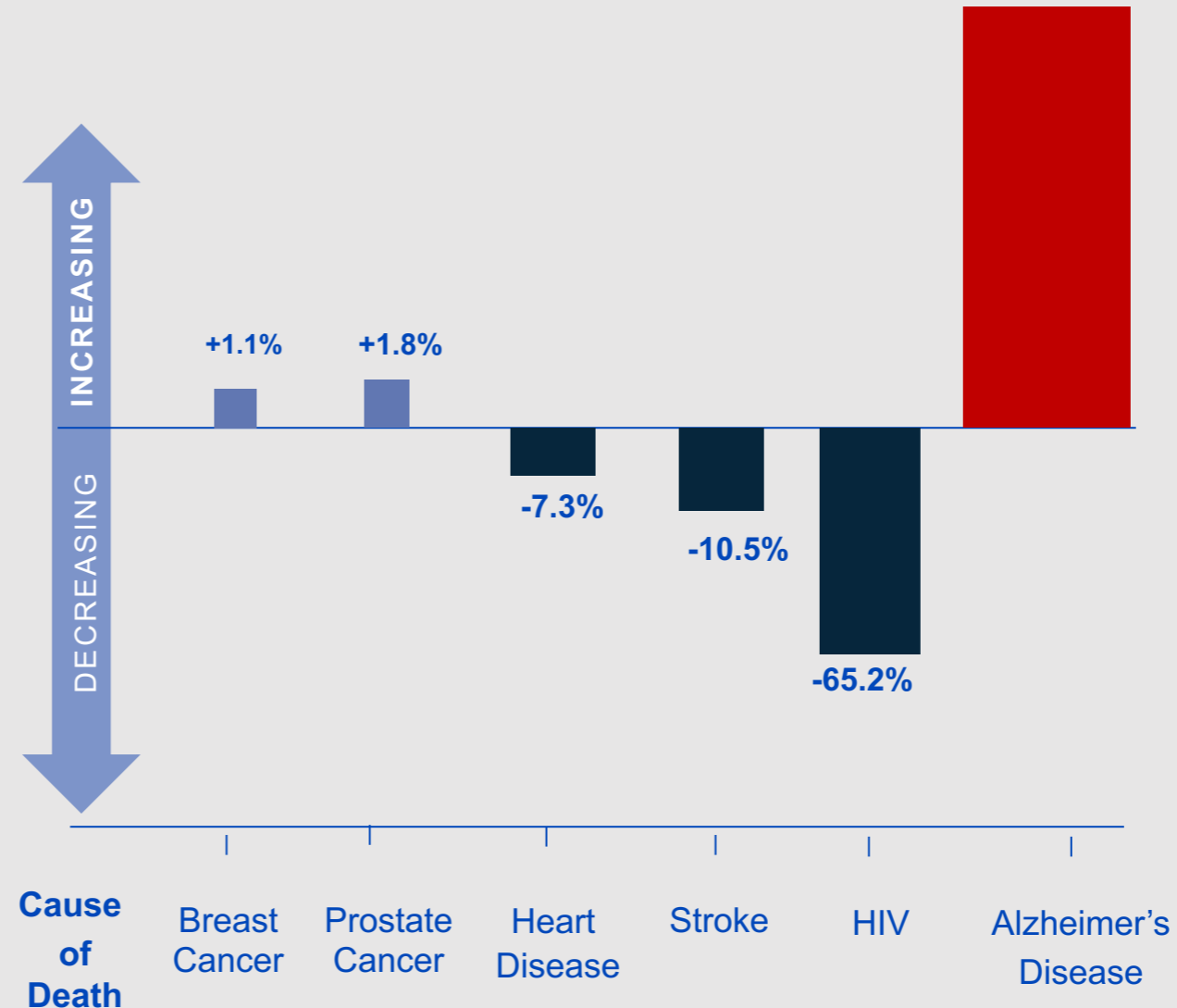
6.5 million adults

1 in 9 adults age ≥ 65

1 in 3 adults age ≥ 85

2/3 are women

Alzheimer's deaths increased 145% from 2000-2019, while many other top causes of death have declined



(BAR GRAPH NOT TO SCALE)

Comorbidities for Alzheimer's in the African American Community

44% More Likely to have a stroke.

23% More Likely to live with obesity.

25% More Likely to die from heart disease.

72% More Likely to be diabetic.



Inequities in Brain Health

African American people are
2X AS LIKELY
to have Alzheimer's

Latino people are
1.5X AS LIKELY
to have Alzheimer's



Less likely than White patients to receive a timely diagnosis;



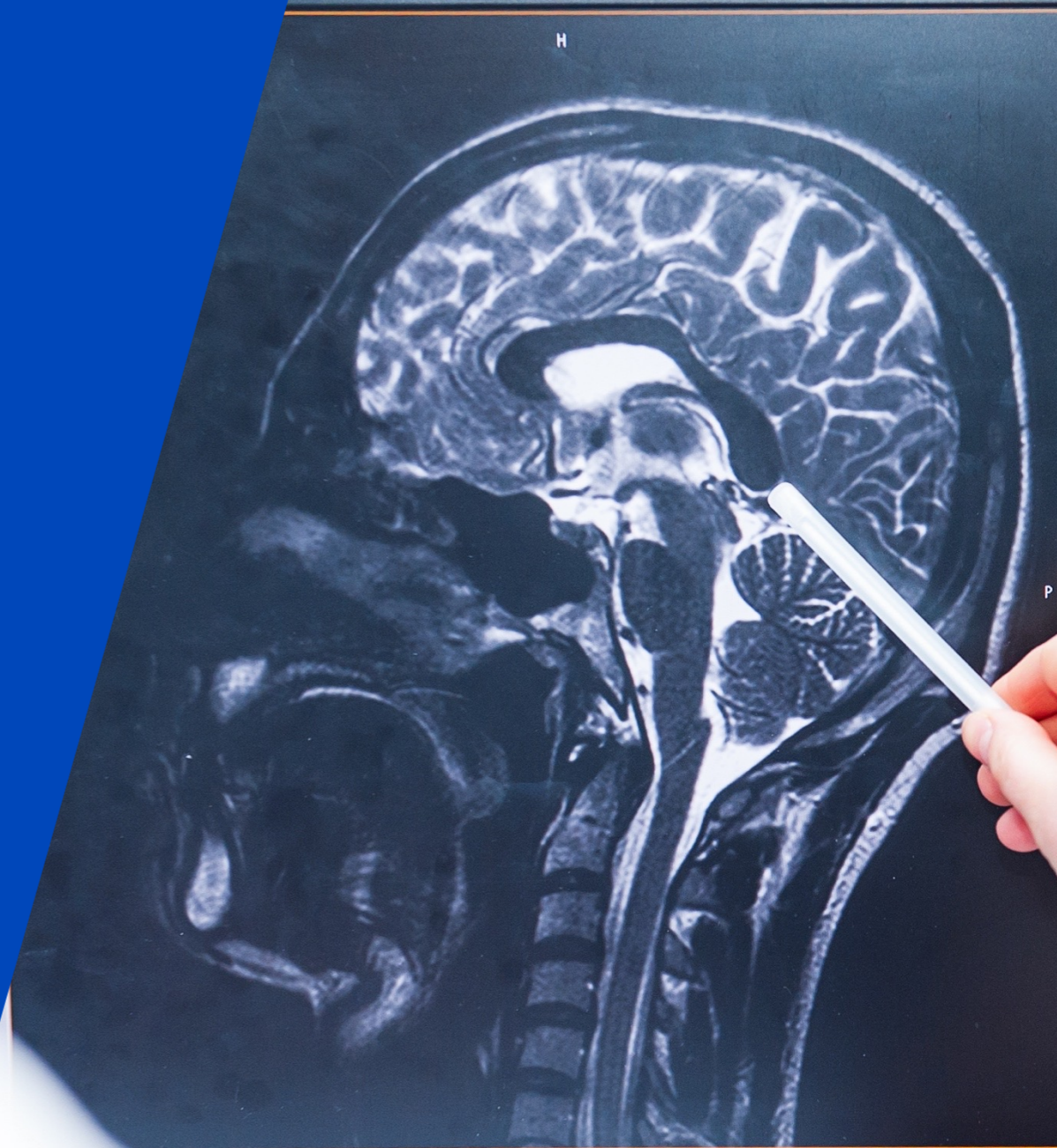
More likely to report experiencing racial discrimination along their patient and caregiver journeys;



Less likely to be enrolled in cutting-edge Alzheimer's and brain health research.

02

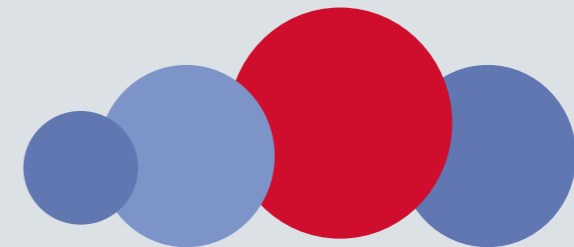
Modifiable Risk Factors for Dementia



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Modifiable Risk Factors

40%
of dementia cases
could be prevented
by addressing these
lifestyle factors



INCREASE

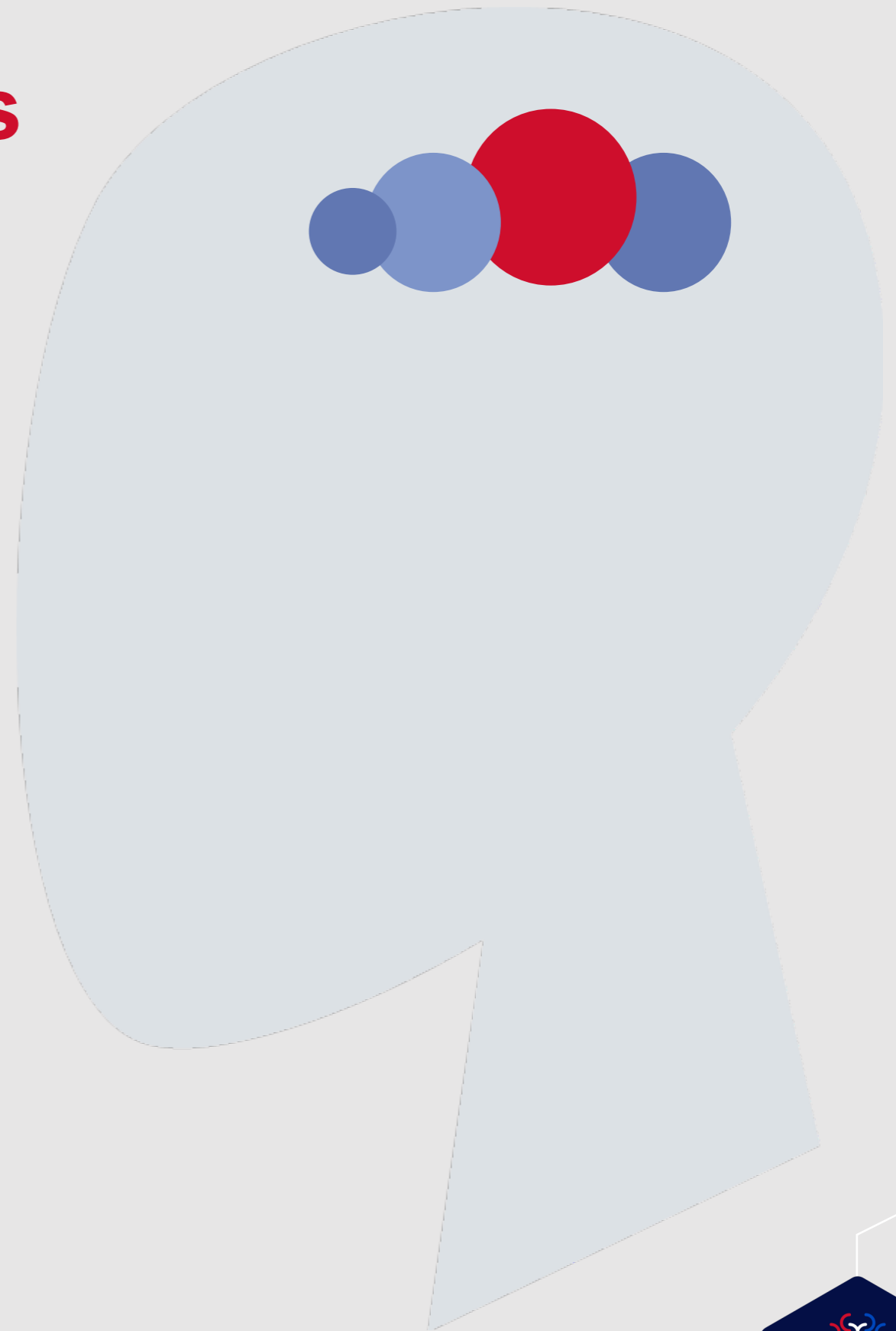
- Healthy Diet
- Physical Activity
- Mental Activity
- Cognitive activity
- Social Connection

DECREASE

- Hypertension
- High cholesterol
- Uncontrolled diabetes
- Obesity
- Smoking
- Depression
- Excessive Alcohol Intake
- Head Injury
- Air Pollution
- Hearing Loss

Modifiable Risk Factors

40%
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Alzheimer's: Non-Modifiable Risk Factors

Age

Number one risk factor is advancing age.
Risk doubles every 5 years after age 65.

Family History

Genetics vs environmental factors.

Education*

Fewer years of formal education and lower levels of cognitive engagement may be risk factors.

Sex

2/3 of those with Alzheimer's are women.
16% of women age ≥ 71 (11% of men).
After age 65, have more than 1 in 5 chance (1 in 11 for men).

03

The link between Social Isolation/ Loneliness to Cognitive Function



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Loneliness

A subjective distressing experience that results from perceived isolation or inadequate meaningful connections, where inadequate refers to the discrepancy or unmet need between an individual's preferred and actual experience.

Prohaska et al BMJ Open 2020

Social Isolation

Objectively having few social relationships, social roles, group memberships, and infrequent social interaction.

Holt-Lunstad 2018, GILC 2022

Social Disconnection

Subjective or objective deficits in social connection, including deficits in relationships and roles, their functions, and/or quality



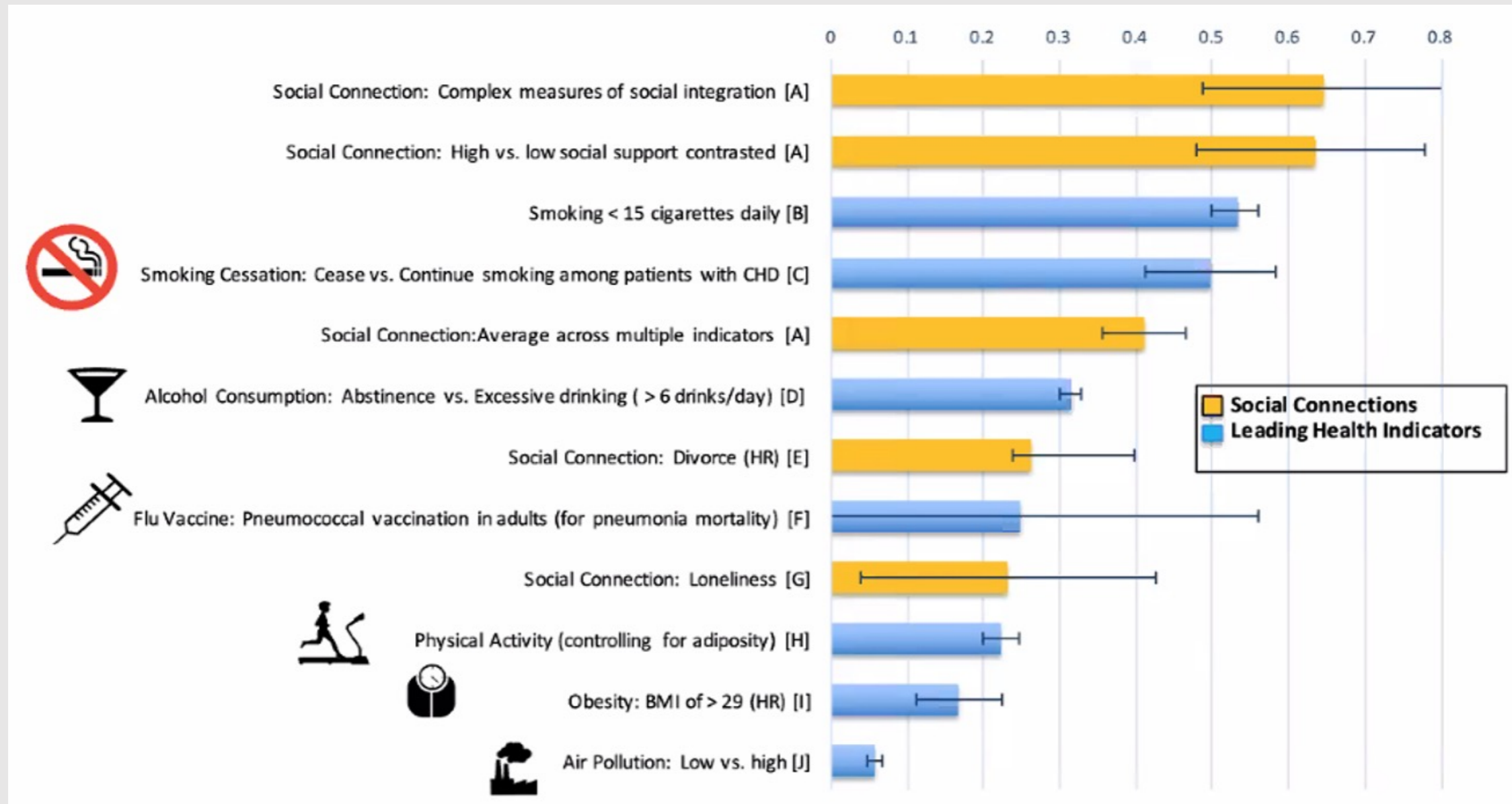
Badcock JC, Holt-Lunstad J, Bombaci P, Garcia E, Lim MH.
Global Initiative on Loneliness and Connection (GILC) 2022

Distinctions

Social Isolation	Loneliness
Objective: being isolated– like quarantine	Subjective: feeling isolated
Low levels of social contact	Mismatch between actual and desired social relationships
Not necessarily unpleasant, possibly preferred	Emotionally distressing and unpleasant
May be chosen: “solitude”	Low sense of control or choice

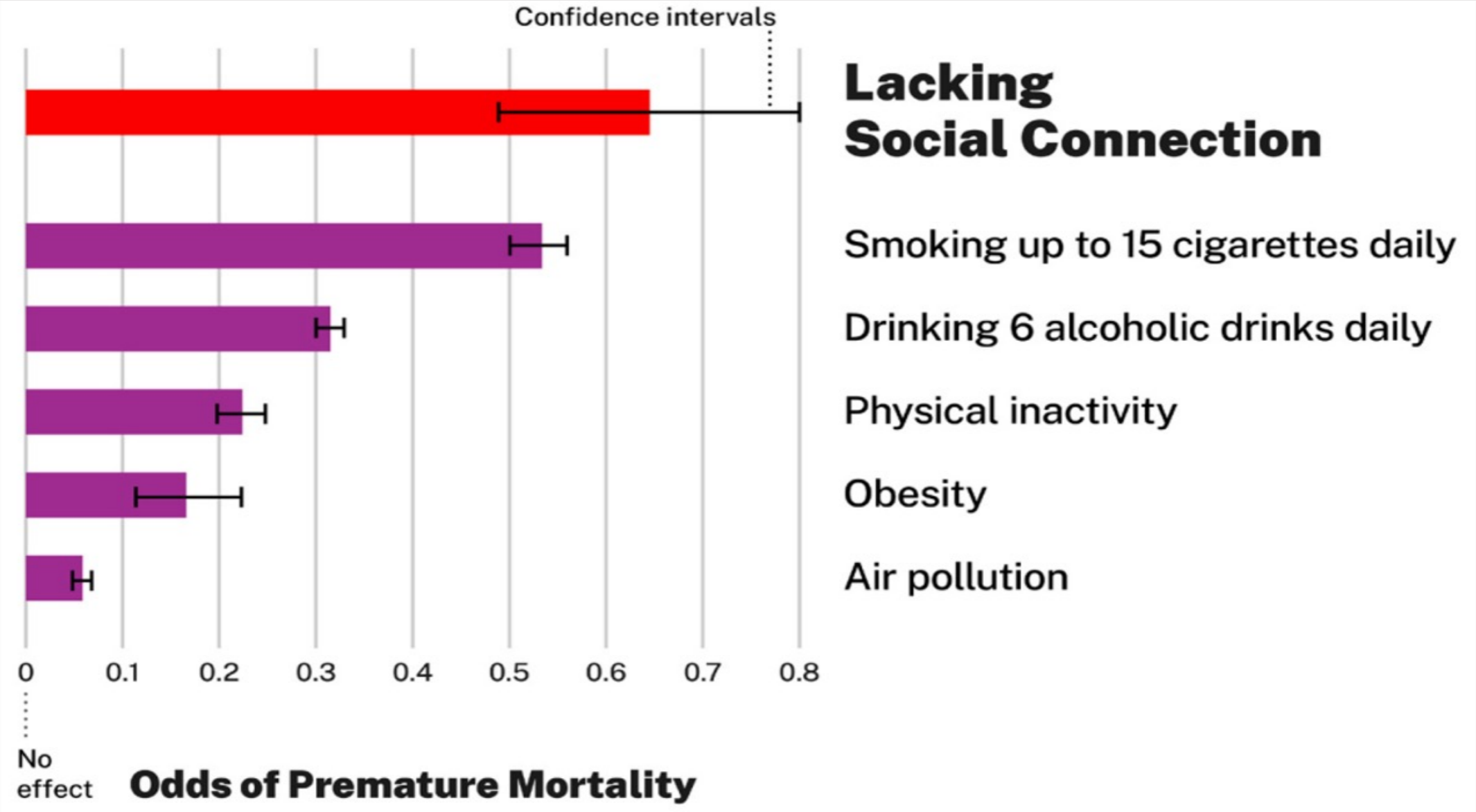
With permission from Louise Hawkey, PhD

Social Disconnection impact on premature mortality compared to other important factors



Holt-Lunstad J, et al, American Psychology 2017

Social Disconnection impact on premature mortality compared to other important factors



Holt-Lunstad J, et al 2017, US Surgeon General Advisory 2023

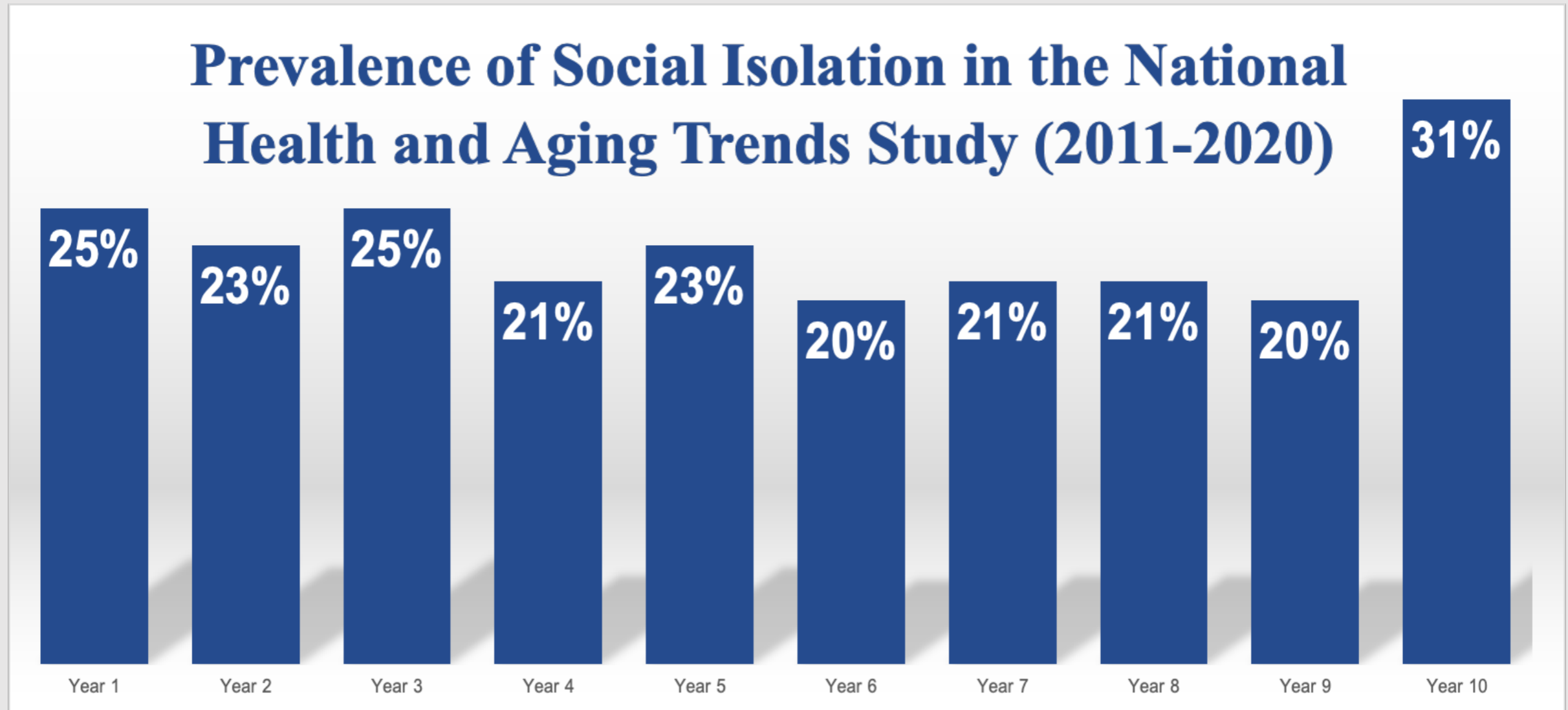
How many older adults are socially isolated?



1 in 4 adults
age 65 and older are
socially isolated.

Cudjoe TKM et al JGSS 2020, NIA Toolkit

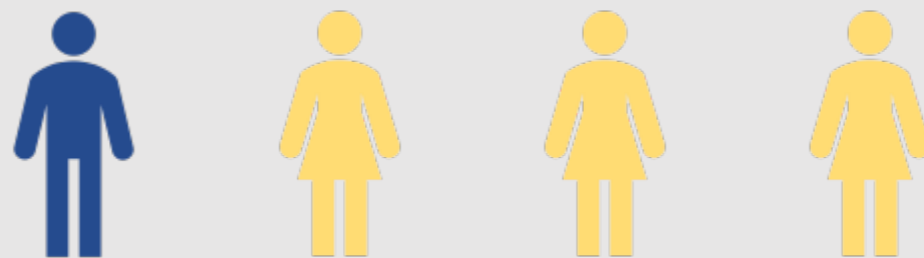
How many older adults are socially isolated?



Cudjoe TKM 2023, in press

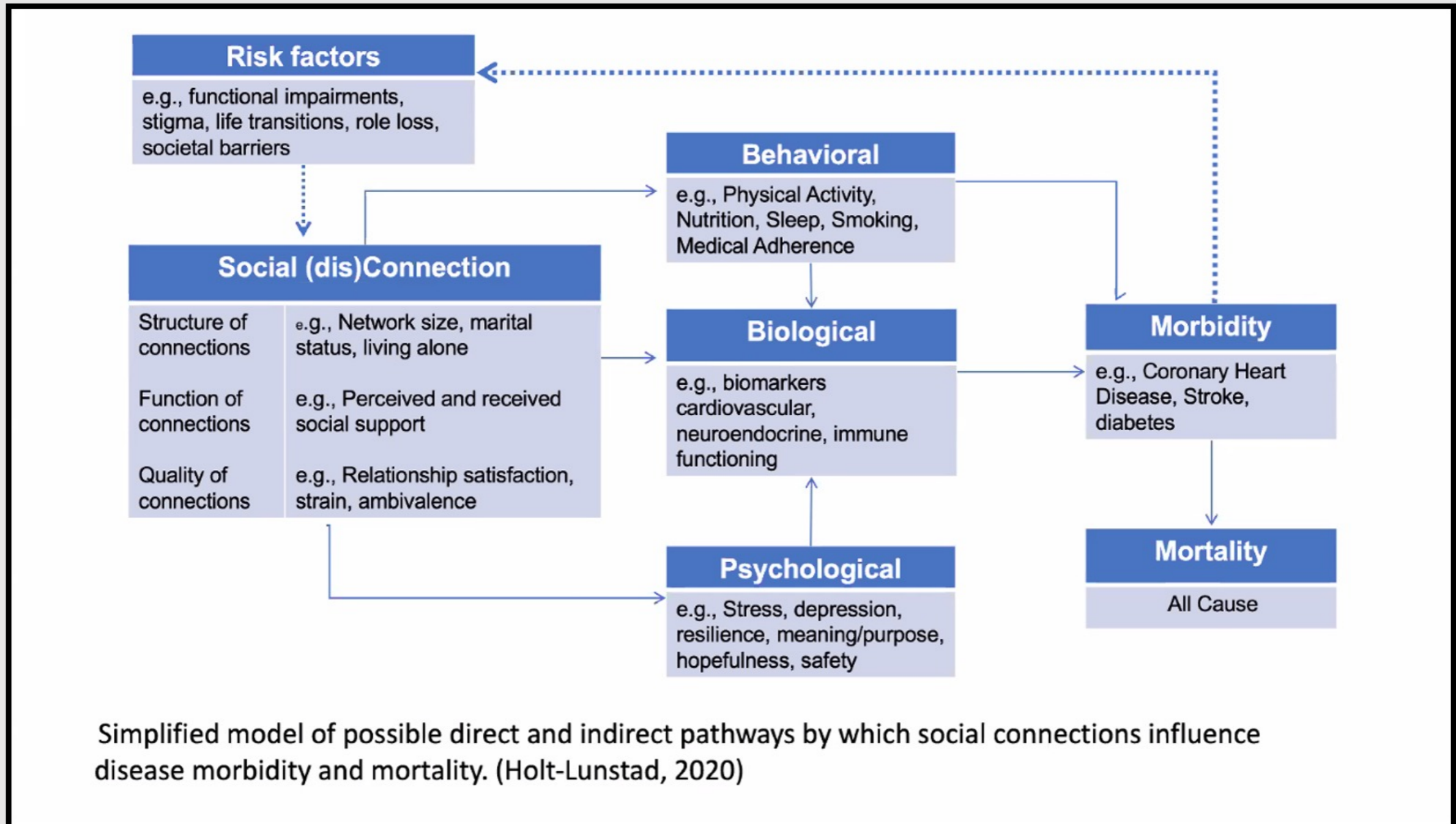
Epidemiology of social isolation & loneliness in last years of life

- Data for Health and Retirement Study
 - Representative cohort (N=3,613)
- Measures of social isolation and loneliness
- Age >50 and older, interviews from last 4 years of life
- 1 in 4 were socially isolated or lonely in last 4 years of life



Kotwal AK et al, JAGS, 2022

How does social connection impact health?



Research links deficits in social connection to a variety of adverse health outcomes

Mental Health / Cognition

- Sleep disturbance
- Depression
- Anxiety
- Stress
- Suicidality
- Dementia

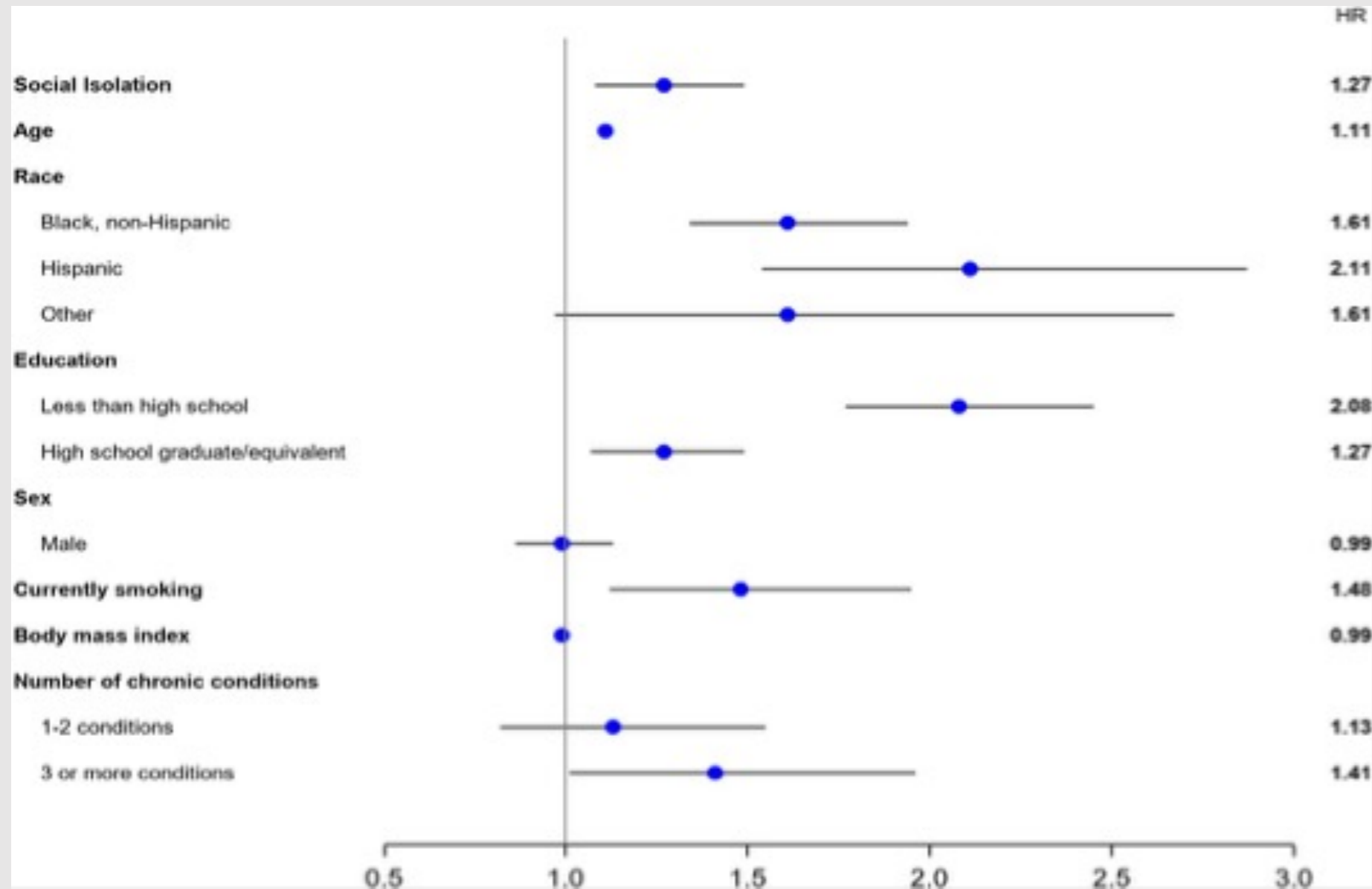
Physical Health

- Fatigue
- Heart disease
- Diabetes
- Obesity
- Infectious disease
- Disability

Health Outcomes

- Hospitalization
- Nursing home entry
- Mortality

Social Isolation and Dementia



Socially isolated older adults have a 27% higher chance of developing dementia

Huang et al. 2023 J American Geriatrics Society

Social contact and brain volume



Neurology[®]

Association Between Frequency of Social Contact and Brain Atrophy in Community-Dwelling Older People Without Dementia

The JPSC-AD Study

- N= 8,896 participants, dementia free, >65 yrs who underwent brain MRI scans and health exam
- Study was conducted in Japan
- Lower frequency of social contact was associated with decreased total and cognitive function related to regional brain volumes.
- Depressive Symptoms may mediate the relationship between social isolation and brain volumes

Social Isolation, memory, technology



Journal of Alzheimer's Disease 90 (2022) 513–528
DOI 10.3233/JAD-220438
IOS Press

513

Systematic Review

Digital Technologies to Prevent Social Isolation and Loneliness in Dementia: A Systematic Review

Harleen Kaur Rai^{a,1}, David Kernaghan^{a,1}, Linda Schoonmade^b, Kieren J. Egan^{a,*} and Anne Margriet Pot^{c,d}

^aDigital Health and Wellness Research Group (DHAWG), Department of Computer and Information Sciences, University of Strathclyde, UK

^bMedical Library, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands

^cErasmus School of Health Policy & Management, Erasmus University, Rotterdam, The Netherlands

^dOptentia, North-West University, Vanderbijlpark, South Africa

Accepted 31 August 2022

Pre-press 16 September 2022

- Limited but increasing evidence that technologies hold potential to improved quality of life and reduce isolation/loneliness for people with dementia.
- Findings based on small scale studies.
- Involvement of people with dementia limited and few research concepts are reaching implementation.
- Closer collaboration with PWD to provide affordable, inclusive, person-centered solutions is urgently required.

04

Other health benefits of addressing Social Isolation/Loneliness



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BENEFITS OF SOCIAL CONNECTION



- Better health outcomes
- Reduced burden of disease
- Improved cognitive function
- Longer survival
- Collectively, downstream improvements in:
 - Community health
 - Natural disaster/emergency preparedness
 - Community safety
 - Economic prosperity
 - Civic engagement

05

Social Isolation/ Loneliness - disparities and the impact of social determinants of health



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Social Connection and SDOH



06

Social Isolation/Loneliness recommendations for clinicians



Strategies to advance social connection

- Educate individuals and communities
- Assessment
- Response
- Fun, Easy, Purposeful, Sustainable
- Start Proximal including impacted individuals

07

Considerations for implementation



Our Epidemic of Loneliness and Isolation



2023

The U.S. Surgeon General's Advisory on the Healing Effects of Social Connection and Community



Strengthen Social Infrastructure

Enact Pro-Connection Public Policies

Mobilize the Health Sector

Reform Digital Environments

Deepen Our Knowledge

Cultivate a Culture of Connection

US Surgeon General Advisory, 2023

The Six Pillars to Advance Social Connection



1

Strengthen Social Infrastructure in Local Communities

Design the built environment to promote social connection

Establish and scale community connection programs

Invest in local institutions that bring people together

2

Enact Pro-Connection Public Policies

Adopt a "Connection-in-All-Policies" approach

Advance policies that minimize harm from disconnection

Establish cross-departmental leadership at all levels of government

3

Mobilize the Health Sector

Train health care providers

Assess and support patients

Expand public health surveillance and interventions

4

Reform Digital Environments

Require data transparency

Establish and implement safety standards

Support development of pro-connection technologies

5

Deepen Our Knowledge

Develop and coordinate a national research agenda

Accelerate research funding

Increase public awareness

6

Build a Culture of Connection

Cultivate values of kindness, respect, service, and commitment to one another

Model connection values in positions of leadership and influence

Expand conversation on social connection in schools, workplaces, and communities

08

What patients/people think



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What Matters Most Insights Survey: Social Isolation & Loneliness

- **92%** believe feeling socially isolated affects the brain and brain health (65% significantly)
- **86%** believe that social isolation is a risk factor for dementia (53% significantly)
 - **80%** say that if they knew social isolation was a risk factor for dementia, they would change their behavior
- **11%** are experiencing feelings of social isolation
 - **66%** of this group are Female
 - **47%** of this group are living with, or at risk for MCI Alzheimer's, or another dementia
 - Racial and ethnic minority groups are at higher risk of social isolation compared to White/ Caucasian groups. **31%** of Black/ African American groups feel isolated compared to **10%** of White/ Caucasian
- **24%** feel more socially isolated than before the pandemic
- Impacts physical/mental/emotional
- When asked how healthcare providers can help manage patients' social isolation, most respondents recommended referrals to local organizations or leaning on family, while fewer suggested clinical options like counseling

Key Takeaways

- An overwhelming majority of people believe that social isolation affects the brain and is a risk factor for dementia.
- Almost ¼ of respondents feel more isolated post-pandemic with 11% experiencing feelings now.
- Racial and ethnic minority groups and females are at a higher risk of feelings of social isolation.
- Most respondents suggest referring patients to local organizations or leaning on family.

Respondents largely over age 65 (70%), Caucasian (94%), female (77%), college educated or greater (76%)

N=862 (ADRD/MCI diagnosis: 58; high risk for ADRD: 299; current caregivers: 90; former caregivers: 222; general interest in brain health: 193)

07

Tools and resources for health professionals



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Tools & Resources

- [Preventing Alzheimer's Disease: What Do We Know?](#)
- [Brain Health Equity Practical Guide](#)
- [BrainGuide™](#)
- [Provider Toolkit](#)
- [Surgeon General Advisory on Social Isolation and Loneliness](#)
- [Social Isolation and Loneliness in Older Adults: Consensus Study Report](#)

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08

Acknowledgments:

National Institute on
Aging



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Thank you!



This presentation and related resources are available at:

<https://www.usagainstalzheimer.org/social-isolation-loneliness-and-dementia-2024>

Please register for additional courses at:

<https://www.usagainstalzheimer.org/brain-health-academy>

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Inequities in Brain Health

African American people are
2X AS LIKELY
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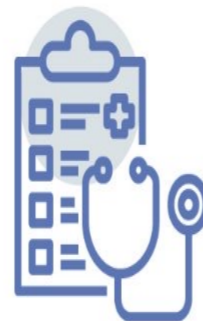
Less likely than White patients to receive a timely diagnosis;

In a recent study of Medicare beneficiaries, Black Americans (18.2%) and Latinos (15.8%) were less likely to receive a timely diagnosis when compared to Whites (23.3%).⁴



More likely to report experiencing racial discrimination along their patient and caregiver journeys;

Half of Black Americans (50%) and one in three Latino Americans (33%) report they have experienced healthcare discrimination.⁵



Less likely to be enrolled in cutting-edge Alzheimer's and brain health research.

Latino and Black Americans make up less than 10% of all clinical trial participants in active ADRD research.⁶