

# ADDRESSING LONELINESS AND ISOLATION MEDICALLY AND WITH A PUBLIC HEALTH LENS

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## OBJECTIVES

### **Discuss**

4 cases to contextualize how loneliness and isolation present in different medical settings

### **Understand**

Why loneliness and isolation should be viewed as a public health issue and something we as individuals cannot ignore

### **Identify**

Identify tools and frameworks to begin to imagine solutions

4 CASES

# 1

## MAN, 93, WHO FROZE TO DEATH HAD RECEIVED HEAT SHUT-OFF NOTICES



Bay City, Michigan Thursday, February 19, 2009 : *Public records show a 93-year-old man found frozen to death in his Michigan home had received several utility shut-off notices... six letters were sent to Marvin Schur's home in the past two years. His body was found Jan. 17, several days after Bay City Electric Light & Power restricted electricity and a month after his final shut-off notice. Records suggest Schur was confused about how to pay. He tried at least twice to pay bills at his bank, which couldn't accept them.*

See also Widera JAMA 2011



## JOHN, 82, STUCK AT HOME POST-COVID

- homebound since Dec 2020. Had COVID and fell
- Stairs getting into home
- Live in an ethnically marginalized and "unsafe" neighborhood
- has family nearby
- Has been dismissed from many practices for "inappropriate behavior"
- Recently described himself as "socially isolated"
- Has a landline and basic cell phone.
- Does not want to be bothered by any other technology



3



## MEL, 94, DYING OF CANCER

- Jewish, European Refugee
- Lives in assisted living that caters to people of a different heritage
- Identifies as Atheist, and some describe him as a Holocaust survivor
- Doesn't participate in activities but enjoys religious conversation
- Hearing Impaired
- English is his second language
- Requests Aid in Dying

4

## GIANNA, 2.5 Y, BORN IN A PANDEMIC

- Born July 2020
- Limited social contact initially
- Met family and friends to prioritize socialization
- Raised in a bilingual and multicultural family
- Day care 3 times a week
- Intergenerational home with nanny twice a week
- Recently traveled to visit friends and family in Italy for the first time



E: Educate

A: Assess

R: Respond



*The* NEW ENGLAND JOURNAL *of* MEDICINE

Perspective  
JANUARY 19, 2023

## Social Isolation and Loneliness as Medical Issues

Julianne Holt-Lunstad, Ph.D., and Carla Perissinotto, M.D., M.H.S.

In the spring of 2021, one of us (J.H.-L.) lost both her parents, within 17 days of each other — but Covid-19 was not the direct cause of either death. As is the case for many families trying to protect

directly discussed; other times, they become evident indirectly — manifesting, for instance, in overuse of clinic services because there is no one to help with med-



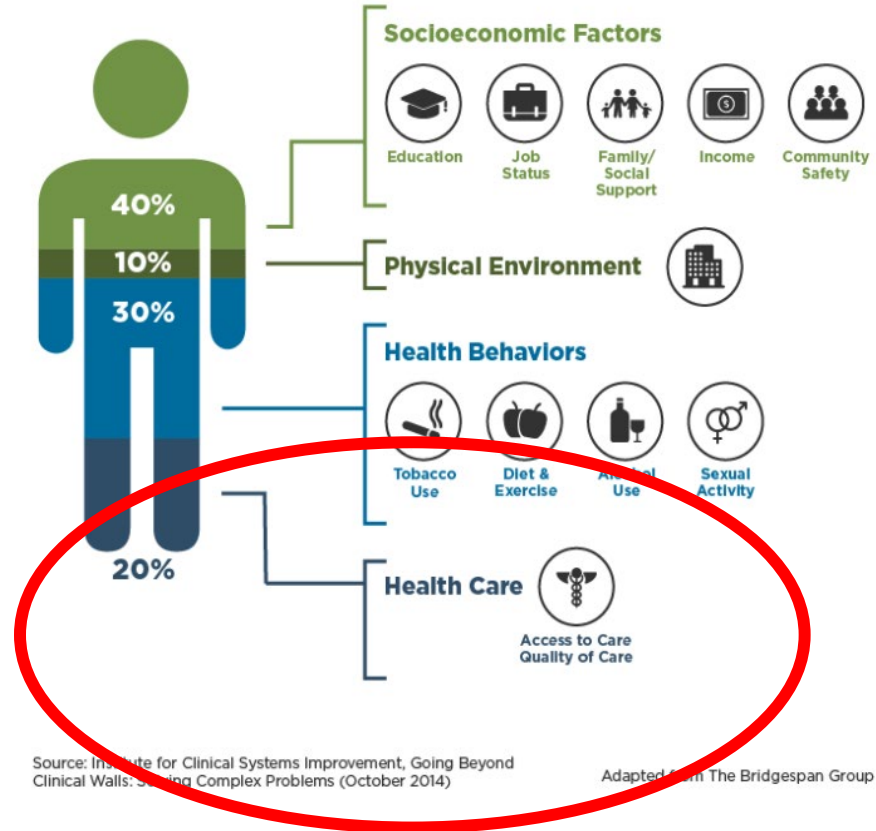
# E: EDUCATE

## ESTIMATING HEALTH RISK



# LONELINESS AND ISOLATION IN THE CONTEXT OF SOCIAL DETERMINANTS OF HEALTH (SDOH)

## What Goes Into Your Health?



# 1

## CONTEXT: ESTIMATING HEALTH RISKS

**If you were Mr. Schur's medical provider, or health system leader, or bank teller: how do you estimate health risks, and how do you help?**

1. Cognitive Impairment
2. Mobility?
3. Social Isolation?

## 2

## CONTEXT: ESTIMATING HEALTH RISKS

**If you were John's medical provider, or health system leader, policy maker, or neighbor: how do you estimate health risks, and how do you help?**

1. COVID-19

2. Arthritis

3. Constipation

4. FALLS\*

5. Social Isolation

6. Loneliness

7. Mobility

8. Tech Access

9. "Inappropriate  
Behavior"

# 3

## CONTEXT: ESTIMATING HEALTH RISKS

**How do you think about Mel who is nearing the end of life?**

1. Cancer
2. Limited Mobility
3. Hearing\*

5. Social Isolation
6. Loneliness
7. Living situation
8. Trauma/refugee/survivor

# 4

## CONTEXT: ESTIMATING HEALTH RISKS

**If you were Gianna's medical provider, or health system leader, or her parent: how do you estimate health risks, ensure she has dignity, longevity and how do you help?**

### **RISKS:**

1. Pandemic Baby
2. Limited Exposure to infectious diseases
3. 2<sup>nd</sup> generation American\*
4. Latina
5. Lives in an "unsafe" neighborhood

### **Protective Factors:**

1. Intergenerational home
2. 2<sup>nd</sup> generation American\*
3. Prioritize socialization

# AGEING and HEALTH



World Health  
Organization

## ► WHAT INFLUENCES HEALTH IN OLDER AGE

### INDIVIDUAL

### ENVIRONMENT THEY LIVE IN



Behaviours



Age-related  
changes



Genetics



Disease



Housing



Assistive  
technologies



Transport



Social  
facilities

#yearsahead

A network diagram on a blue background. Numerous pushpins, mostly white and one red, are connected by thin black lines, forming a complex web. The text 'DEFINING SOCIAL DETERMINANTS OF HEALTH' is overlaid in the center. The background is split horizontally into a darker blue top half and a lighter blue bottom half.

# DEFINING SOCIAL DETERMINANTS OF HEALTH

Social Connections,  
Loneliness and Isolation



# HOW DO WE DEFINE LONELINESS?

Loneliness is the  
*subjective* feeling of  
being alone

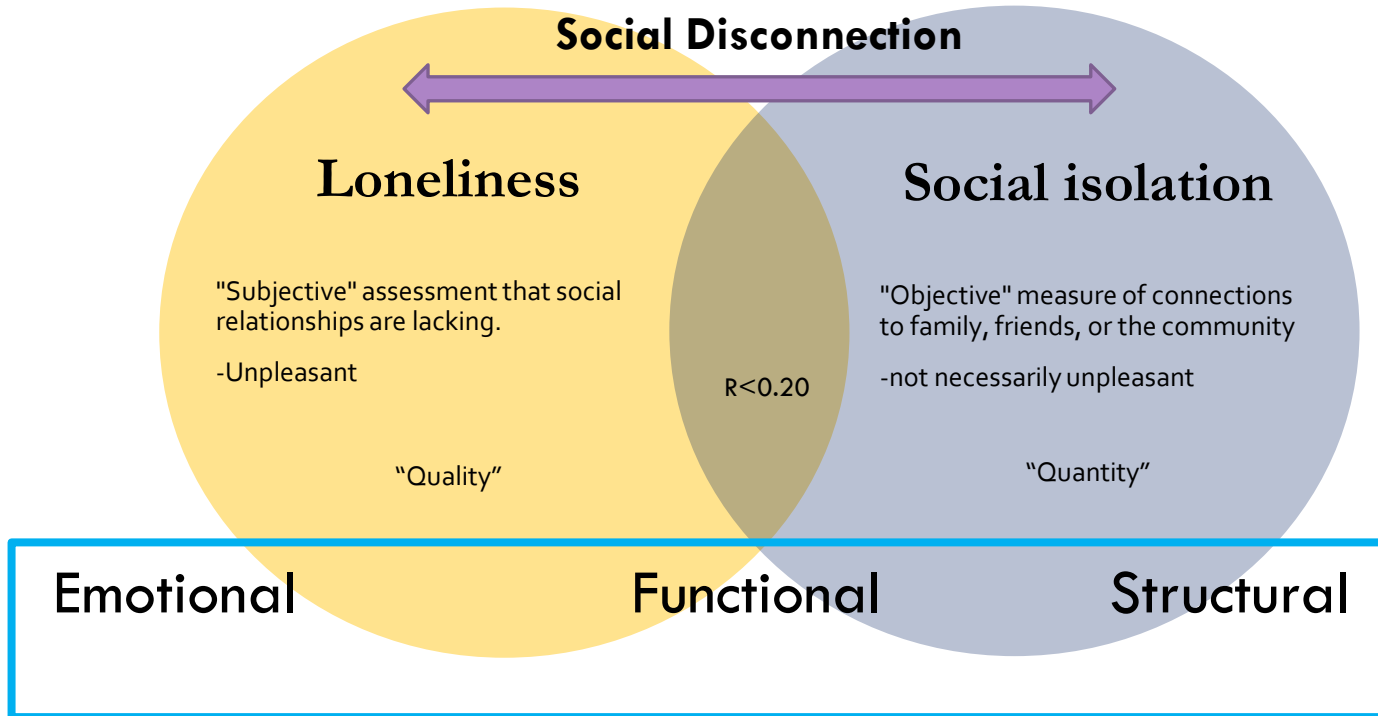
“the distress that results  
from discrepancies  
between ideal and  
perceived social  
relationships.”

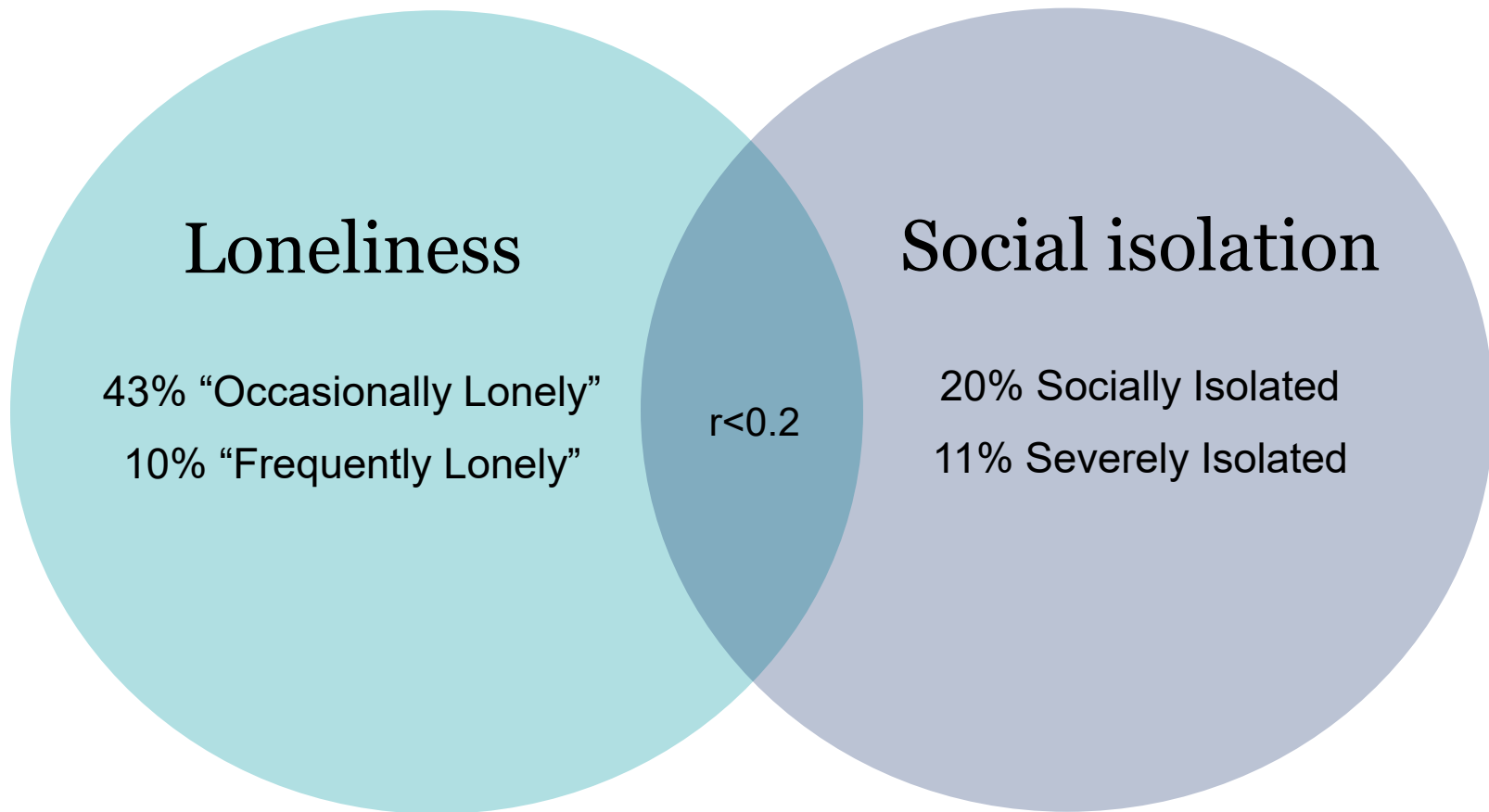


# LONELINESS OR ISOLATION?

Loneliness	Social isolation
Subjective: feeling isolated	Objective: being isolated
Mismatch between actual and desired social relationships (*quality*)	Low levels of social contact (*quantity*)
Unpleasant	Need not be unpleasant
Low sense of control or choice	May be chosen: “solitude”

# Intersection of Loneliness and Isolation





Perissinotto, Carla M., Irena Stijacic Cenzer, and Kenneth E. Covinsky. "Loneliness in older persons: a predictor of functional decline and death." *Archives of internal medicine* 172.14 (2012): 1078-1084.

Cudjoe, Thomas KM, David L. Roth, Sarah L. Szanton, Jennifer L. Wolff, Cynthia M. Boyd, and Roland J. Thorpe Jr. "The epidemiology of social isolation: National health and aging trends study." *The Journals of Gerontology: Series B* 75, no. 1 (2020): 107-113.

# A: ASSESS MEASUREMENT

Who is at risk

# IDENTIFYING LONELINESS AND SOCIAL ISOLATION

NO “gold Standard”

Multiple different measurement tools

- All scales have benefits and drawbacks
- Most developed for research purposes
- Little validation for clinical use
  
- Some of the most commonly used:
  - UCLA-3
  - Lubben Social Network Scale
  - Duke Social Support Index (DSSI)
  - *De Jong Gierveld Loneliness Scale*
  - Cornwell

# HOW DO WE MEASURE LONELINESS?

## UCLA Loneliness Scale

Question	Hardly Ever	Some of the Time	Often
1. I feel left out	1	2	3
2. I feel isolated	1	2	3
3. I lack companionship	1	2	3

- Original scale has 20 items. 3 most frequently used
- Single Item question: “How often do you feel lonely?”  
-Kotwal et al. 2022 <https://agsjournals.onlinelibrary.wiley.com/doi/10.1111/jgs.17700>

# THE INSTITUTE OF MEDICINE

- Recommends the inclusion of the Berkman-Syme Index in electronic medical records

**The Berkman-Syme Social Network Index (SNI) is a self-reported questionnaire for use in adults aged 18–64 years old that is a composite measure of four types of social connections:**

- marital status (married vs. not)**
- sociability (number and frequency of contacts with children, close relatives, and close friends)**
- church group membership (yes vs. no)**
- membership in other community organizations (yes vs. no)**

**\*\*SNI categorize into four levels of social connection: socially isolated, moderately isolated; moderately integrated; and socially integrated.**

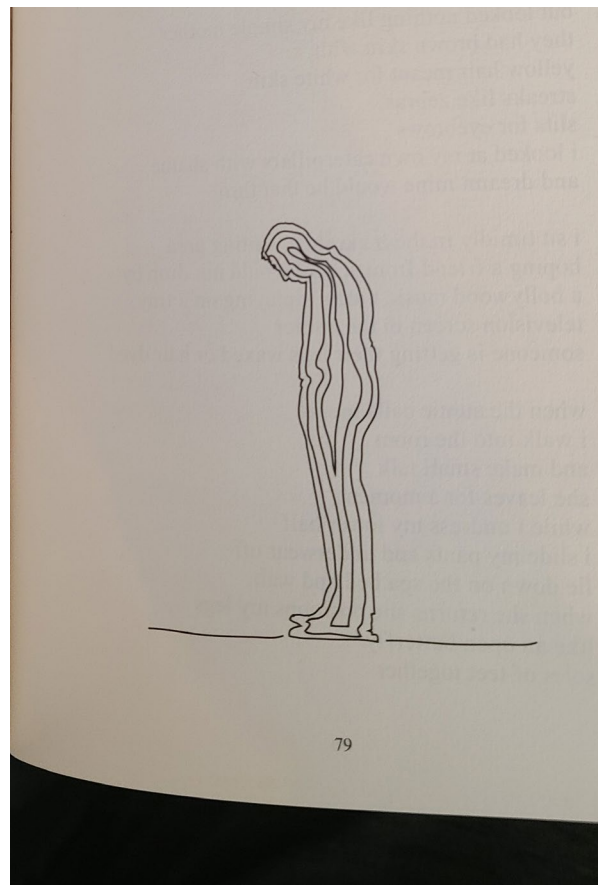


# RISK FACTORS

Who is at risk

“THE IRONY OF  
LONELINESS  
IS WE ALL FEEL IT  
AT THE SAME TIME  
-TOGETHER”

Rupi Kaur, “the sun and her  
flowers”

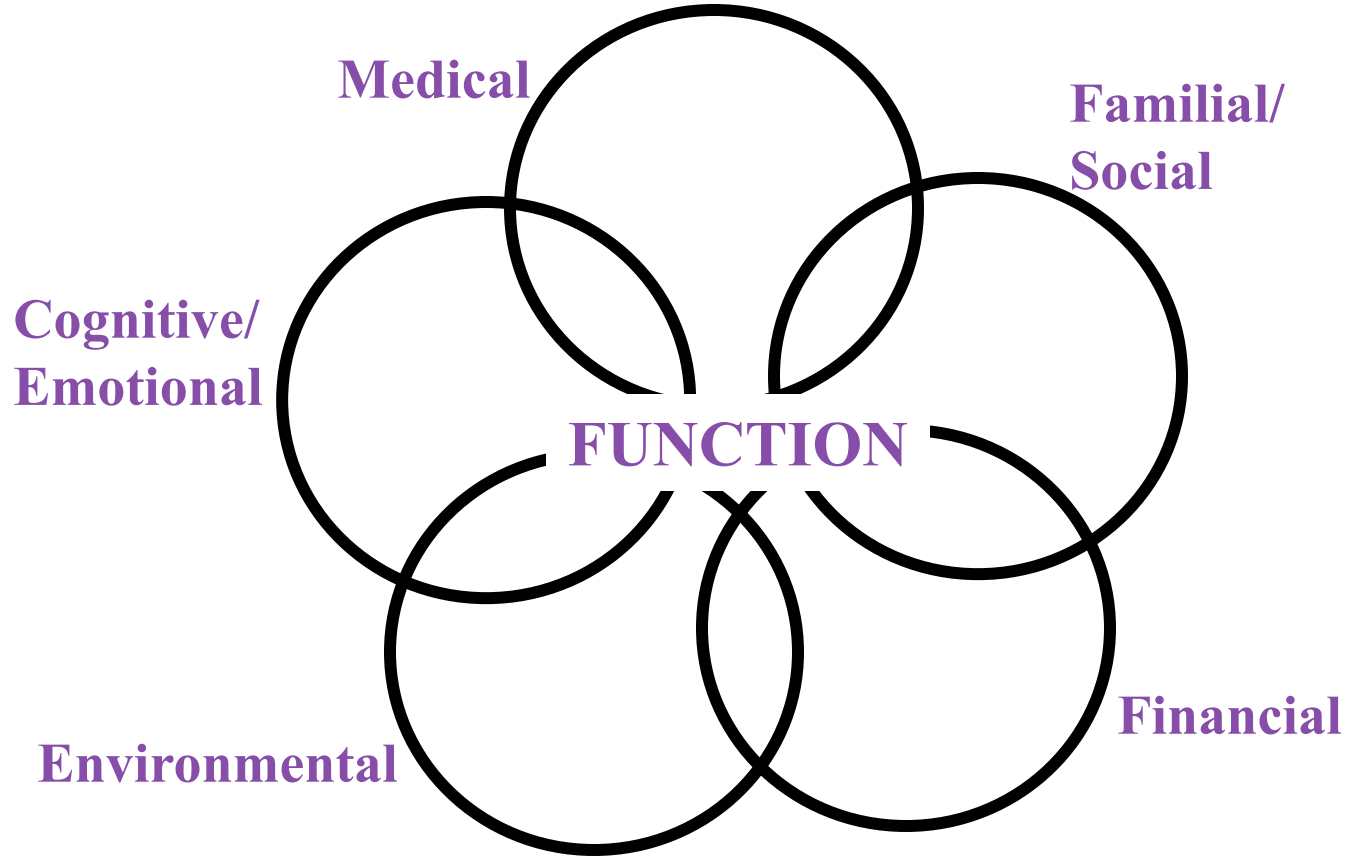


# LOSSES PREDICT INCREASES IN LONELINESS AT THE LEVEL OF THE INDIVIDUAL (AND ISOLATION)



Aartsen & Jylhä, 2011; Dykstra et al., 2005; Newall, Chipperfield & Bailis, 2014; Nicolaisen & Thorsen, 2014; Tjihuis et al., 1999; Victor & Bowling, 2012; Wenger & Burholt, 2004

## Younger Person: Functional Domains



# The Challenge of Complexity:

**Multiple Chronic Diseases**

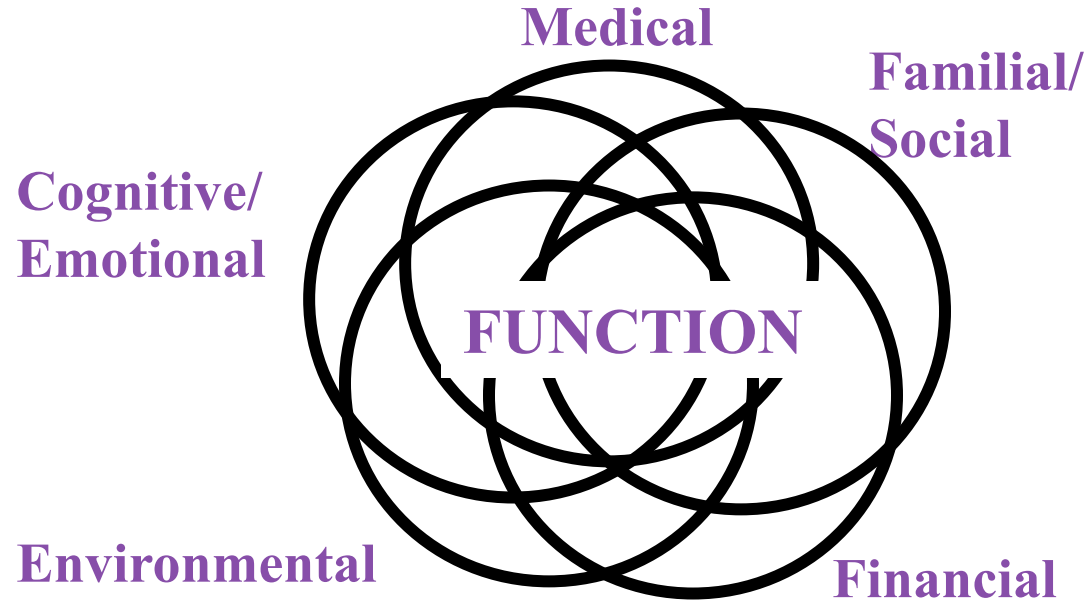
+

**Problems in Other Domains**

=

**Functional Decline**

## Older Person: Functional Domains



# WHERE BREAKDOWNS HAPPEN:

Assume all adults are the same

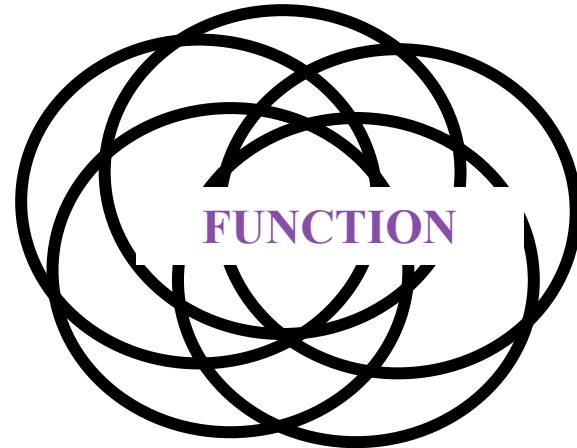
Create systems that cater to younger adults and expect everyone else to adapt

Focus only on the “medical”

Do not recognize heterogeneity of aging

Do not understand decreased physiological reserve in aging

Failure to recognize this:





# SERIOUS ILLNESS



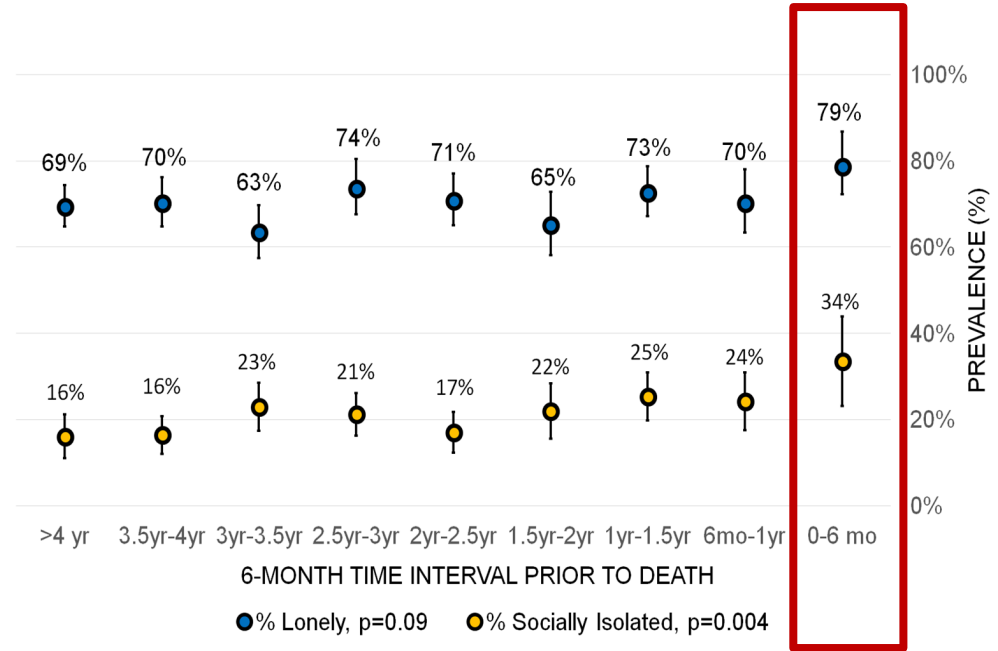
# WHY SHOULD WE CARE ABOUT THESE TOPICS IN THE LAST YEARS OF LIFE?

- Individuals and family members care about social needs
  - “Have someone who will listen” - 99%
  - “Share time with close friends” - 85-91%
  - “Presence of family” - 81-95%
  - “Be able to help others” - 88%
- Individuals may be less able to cope with loneliness
- Socially isolation may become more common and impact quality of life and health care

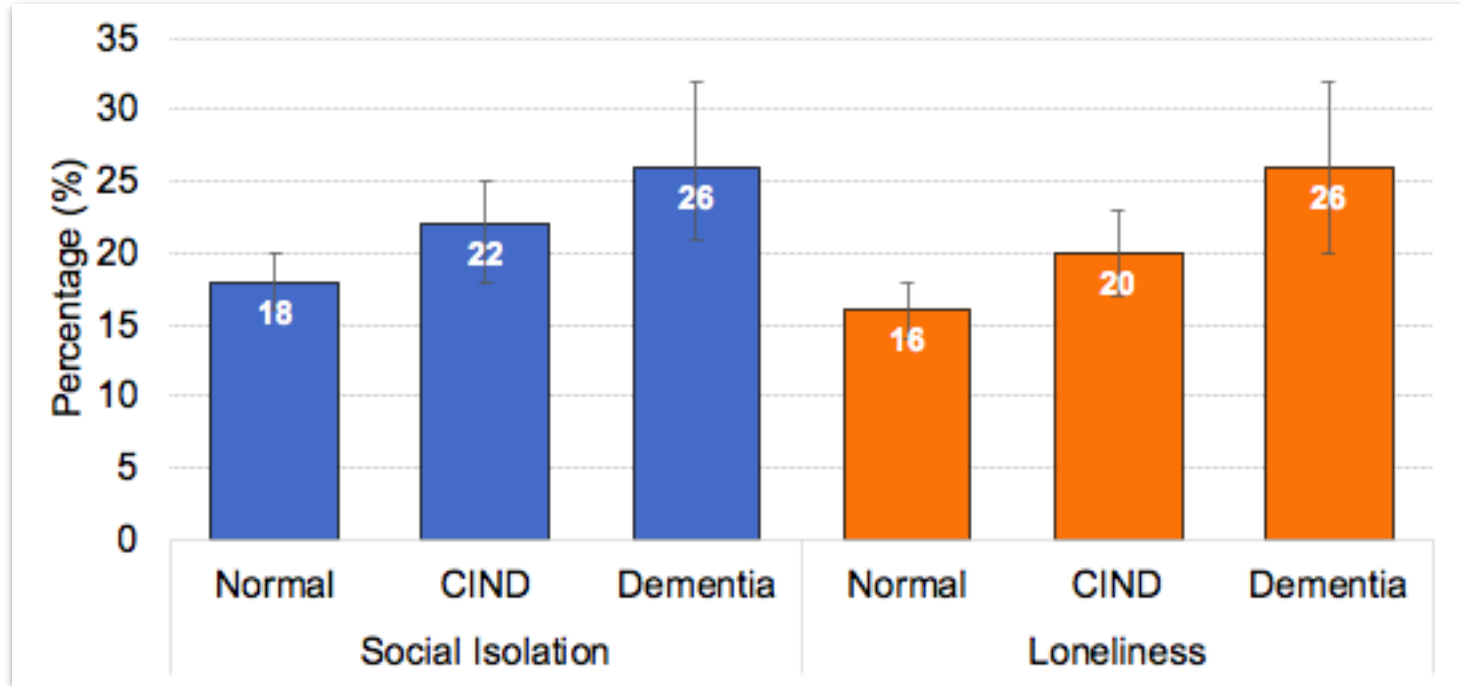
# SERIOUSLY ILL OLDER ADULTS

Nearly 4 in 5 older adults are lonely (79%)

Social Isolation doubles in the last 6 months of life (34%)



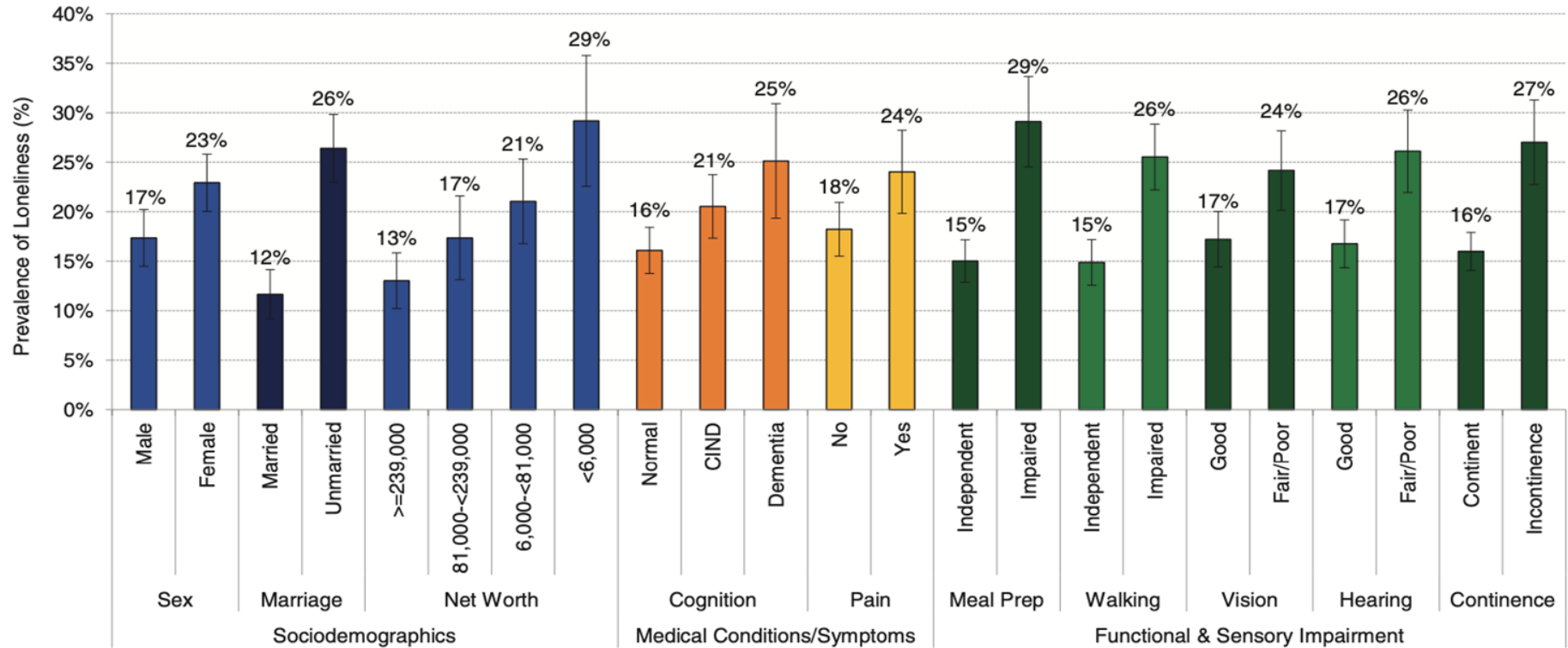
# OLDER ADULTS WITH COGNITIVE IMPAIRMENT IN THE LAST 4 YEARS OF LIFE



\*Adjusted for time before death, age, sex, race/ethnicity, and education

\*\*Spouses of patients with dementia have HIGHER levels of loneliness and depression

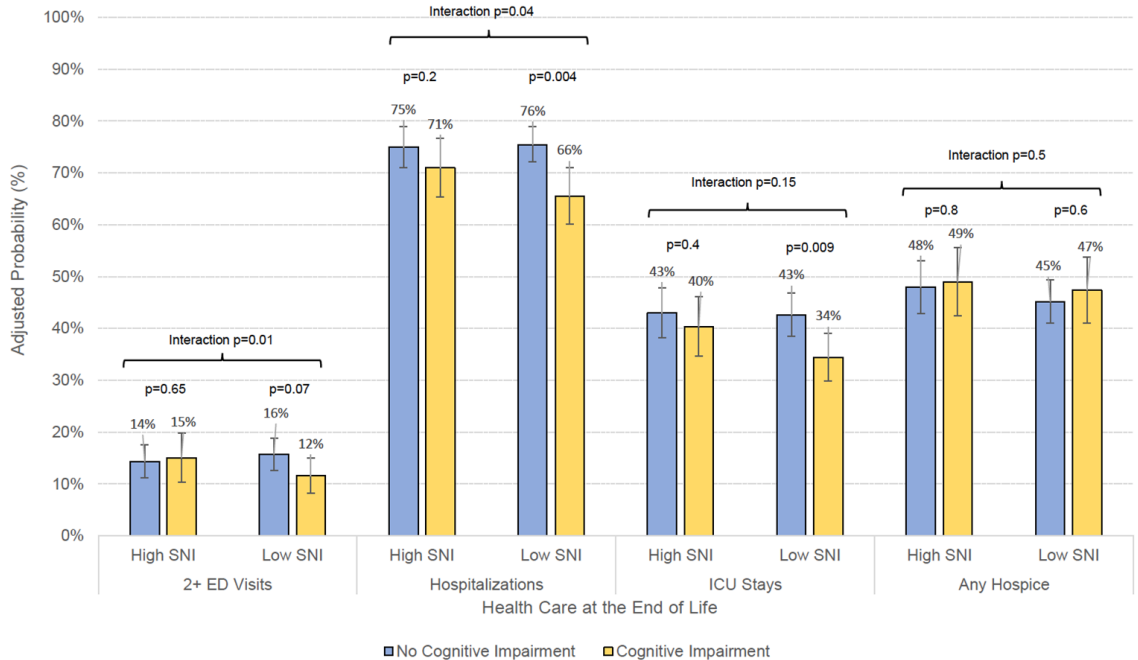
# Subgroups at Risk for Loneliness



\*Adjusted for time before death, age, sex, race/ethnicity, and education

## At the end of life, socially isolated older adults with cognitive impairment have:

- Lower Hospice Use
- Lower end-of-life acute care (ED, hospital stays, ICU stays)



# CONTEXT: MEL'S RISKS

- Older
- Terminal Illness
- Homebound
- He is losing mobility
- He has hearing impairment
- He is incontinent
- He is an immigrant
- English is not his first language
- He has experienced Trauma, and is a survivor





## ISOLATION DURING COVID-19

Kotwal, A., Perissinotto, C et al. 2020.  
*Journal of the American Geriatrics Society*

# HEALTH EFFECTS

Understanding  
the risks





# **Loneliness in Older Persons: A Predictor of Functional Decline and Death**

Carla Perissinotto, MD, MHS, Irena Cenzer, MA, Kenneth Covinsky, MD, MPH

- National survey of 1604 adults aged >60 followed for 6 years
- Asked if they were lonely - UCLA Loneliness Scale
  - classified as lonely if responded “some of the time or often to any of the 3 questions”
- Outcomes:
  - Death
  - Decline in Function
    - Activities of Daily Living (ADLs)
    - Other mobility tasks

# STUDY CONCLUSIONS

- Loneliness is common
- It is an independent predictor of functional decline (59% increased risk)
- It is an independent predictor of death (45% increased risk)

# Social isolation, loneliness, and all-cause mortality in older men and women

Andrew Steptoe, Aparna Shankar, Panayotes Demakakos, and Jane Wardle

- 6500 men and women over 7 years
- Mortality higher in socially isolated AND lonely

Research Article

## Cumulative effect of loneliness and social isolation on health outcomes among older adults

Timothy L. Barnes, Stephanie MacLeod, Rifky Tkatch, Manik Ahuja, Laurie Albright, James A. Schaeffer & ...show all

Received 12 Dec 2020, Accepted 31 May 2021, Published online: 02 Jul 2021

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### Abstract

### Objectives

Loneliness and social isolation are described similarly yet are distinct constructs. Numerous studies have examined each construct separately; however, less effort has been dedicated to exploring the impacts in combination. This study sought to describe the cumulative effects on late-life health outcomes.

Related  
People also read  
Loneliness

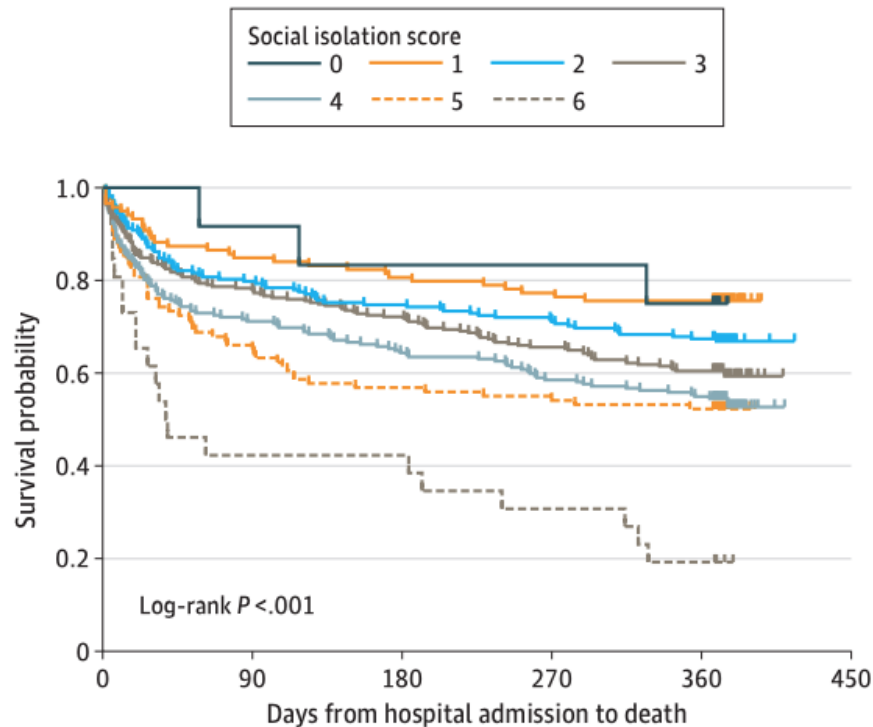
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In 2020, still see worse health outcomes in adults with BOTH loneliness and isolation

## Association of Social Isolation with Disability Burden and 1-Year Mortality Among Older Adults with Critical Illness





Jason R. Falvey, PT, DPT, PhD<sup>1</sup>; Andrew B. Cohen, MD, DPhil<sup>2</sup>; John R. O'Leary, MA<sup>2</sup>; Linda Leo-Summers, MPH<sup>2</sup>; Terrence E. Murphy, PhD<sup>2</sup>; Lauren E. Ferrante, MD, MHS<sup>3</sup>

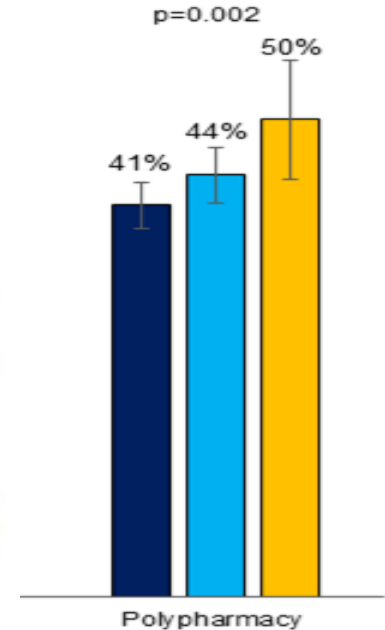
- 997 older adults hospitalized in the ICU
- Each 1 point increase on the social isolation score:
  - 7% increase in disability count
  - 14% increase in mortality

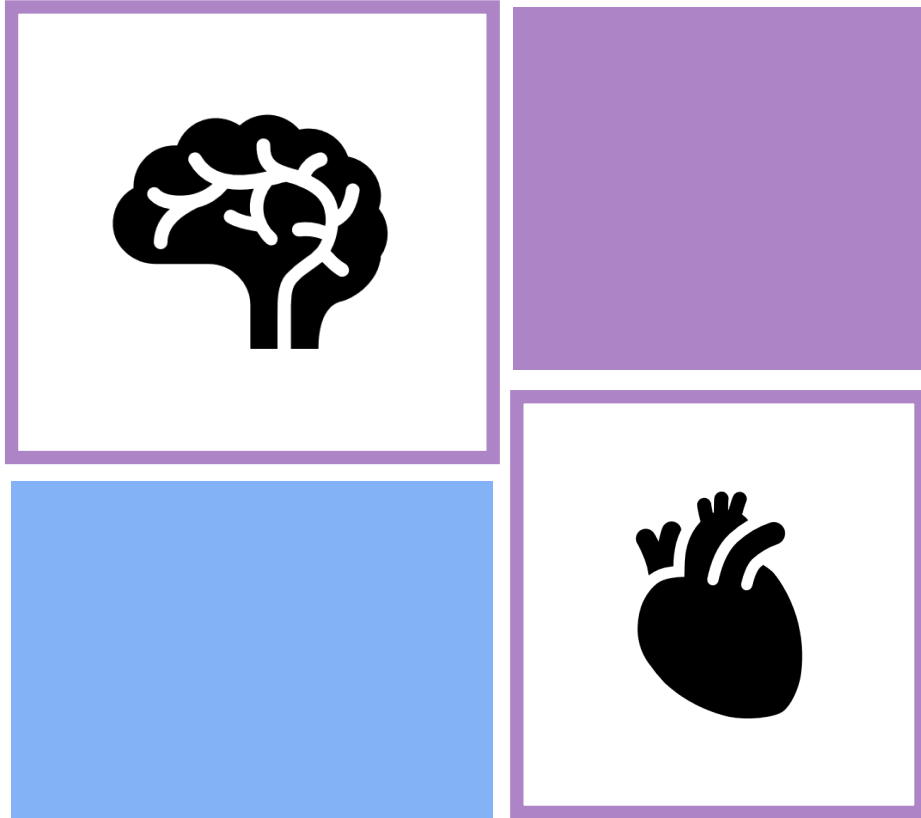


# LONELINESS AND PHYSICAL & PSYCHOLOGICAL SYMPTOMS

- Lonely older adults experience higher rates of:

- pain 
- Anxiety 
- Depression 
- and insomnia 





# HEALTH EFFECTS

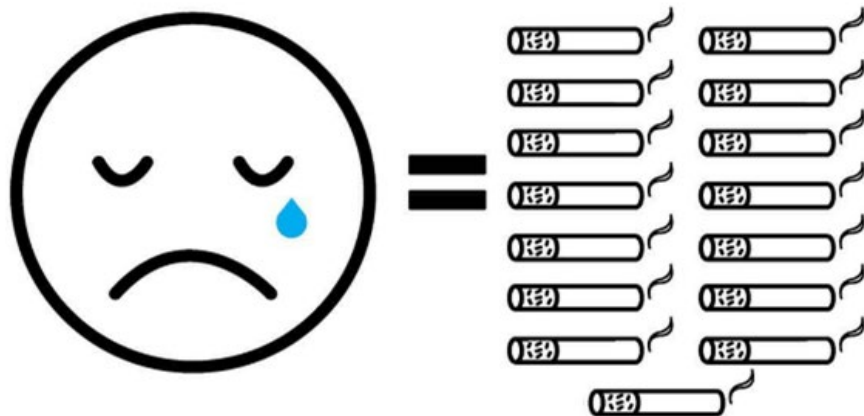
May be harmful at any age, and likely worse for older adults.

Social isolation and loneliness are associated with:

- Worsened heart disease
- Worse control of diabetes
- Poor Sleep and depression
- Increased Dementia risk
- Frailty and functional decline
- HIGHER health care costs
- Increased mortality



# #ScienceAlert: Social isolation is as bad for your health as smoking.

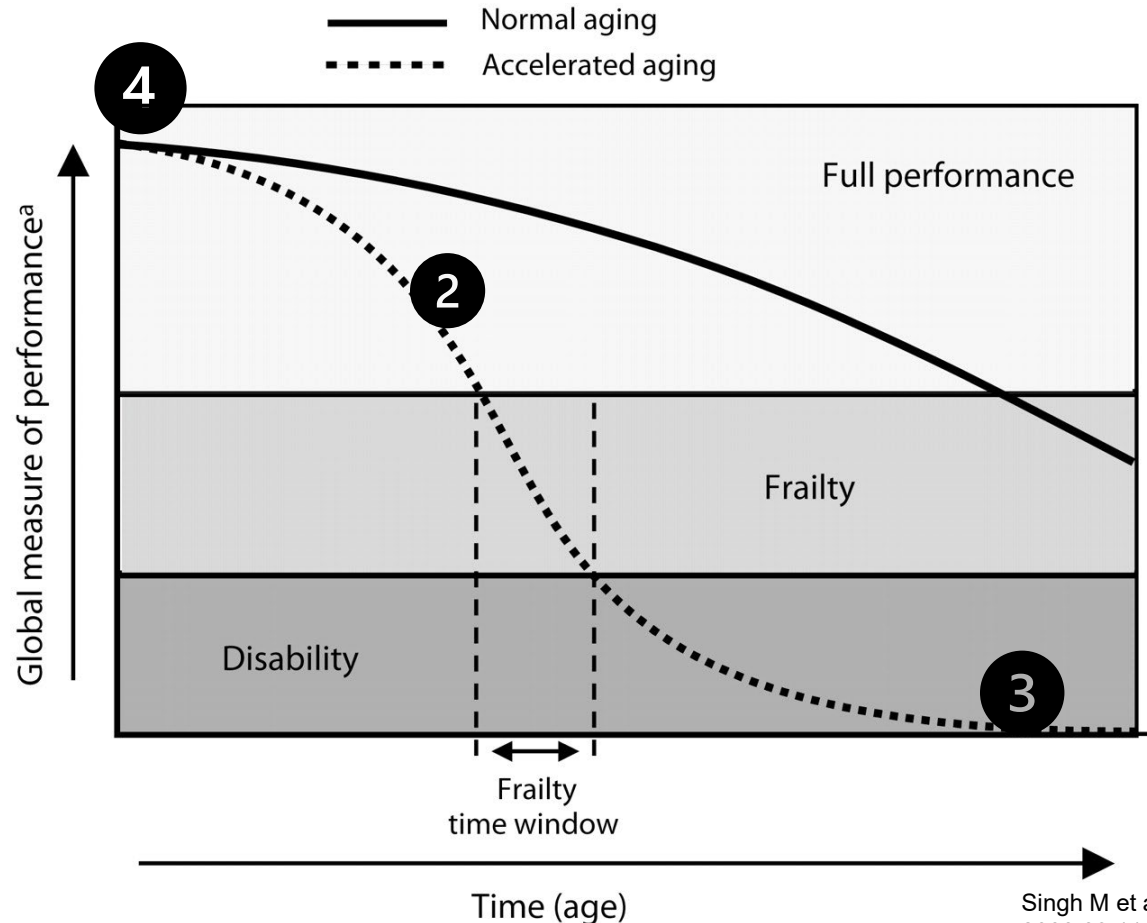


source: Holt-Lunstad, 2015 & 2010

# WHAT DOES IT MEAN TO BE OLDER?

Physiologic age more important than chronological age

- Not just age but comorbidity, functional loss, frailty







**R: RESPOND**  
TRANSLATING FINDINGS  
TO PRACTICE

The role of social  
prescribing

UCSF

## Activity

The Health and Medical Dimensions of Social Isolation and Loneliness in Older Adults

# SOCIAL ISOLATION AND LONELINESS IN OLDER ADULTS: OPPORTUNITIES FOR THE HEALTH CARE SYSTEM

## RECOMMENDATIONS



Develop a more robust **evidence base**



Translate current research into **health care practices**



Improve **awareness**



Strengthen ongoing **education and training**



Strengthen **ties** between the health care system and community-based networks and resources



Primary Prevention:  
Identify people at risk for  
loneliness and Isolation

Women, lower SES,  
older, LGBTQ  
Recent losses

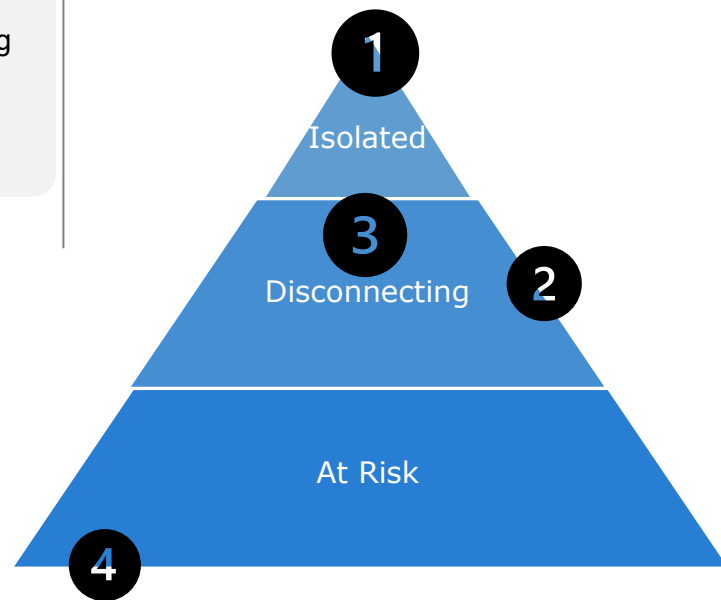


Secondary Prevention:  
decrease the  
consequences for those  
who are lonely and or  
isolated

Requires screening  
Knowing which  
interventions work

**COSTS: \$6.7 billion every year**  
\$1,608/person/year

# POPULATION LEVEL FRAMEWORK



# THE ROLE OF SOCIAL PRESCRIBING



# TIME TO BENEFIT

How long do we have to experience loneliness before we see the negative health effects?

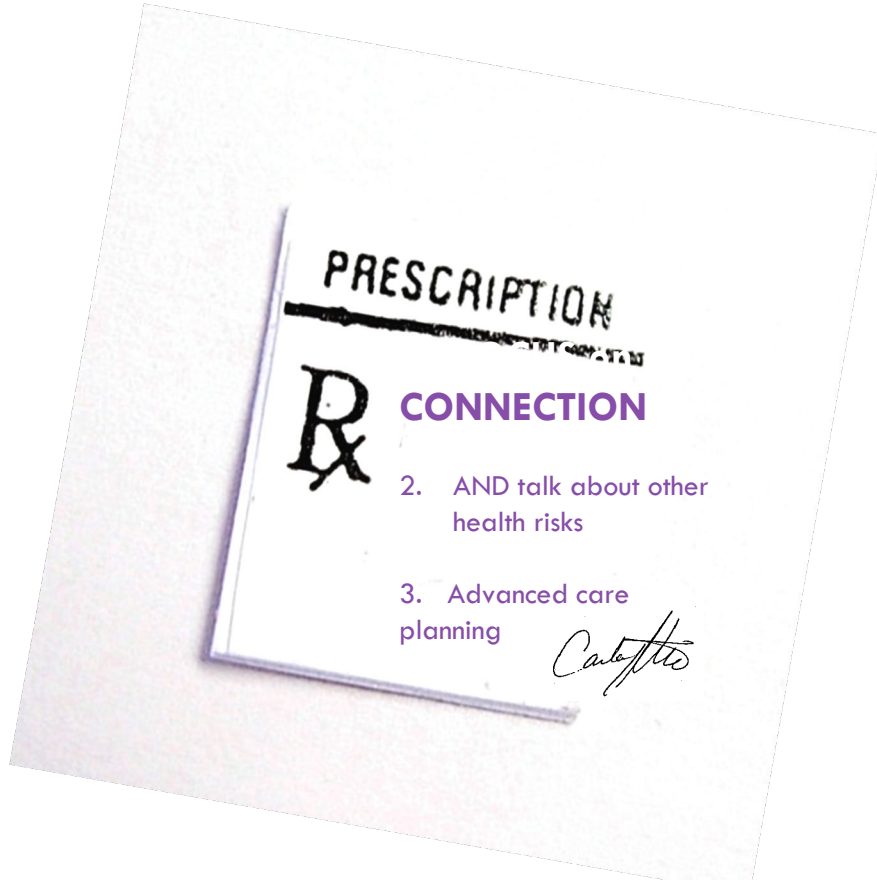
Or

Can we reduce the risk of negative consequences?

AND

How can we proactively protect our health

## LESSONS LEARNED: SOCIAL PRESCRIPTIONS



1. Who do I focus on
2. What are the risks
3. What am I treating
4. Why am I treating
5. For how long
6. Who else can help

## Framework for clinical interventions

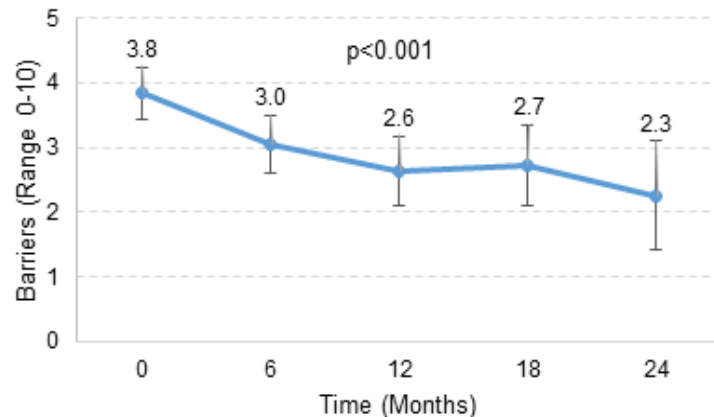
- a. Direct interventions: Social support, enhancing interactions, address maladaptive cognition
- b. Indirect interventions: Vision & Hearing, Functional Needs
- c. Downstream consequences: Early Advanced care planning, Address related Symptoms (pain, depression, trauma)

**Policy** changes which incentivize addressing social needs

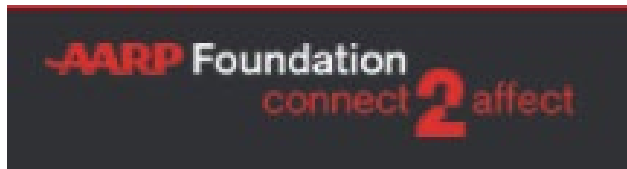
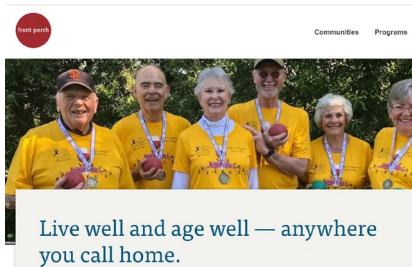
# DIRECT: OPPORTUNITIES FOR SOCIAL CONNECTIONS

## Community-based programs

- Peer support programs
- Telephone Support
- “without walls programs”
- Foundation for Art and Healing
- Caregiver support



Kotwal et al. 2021. Journal of the American Geriatrics Society.



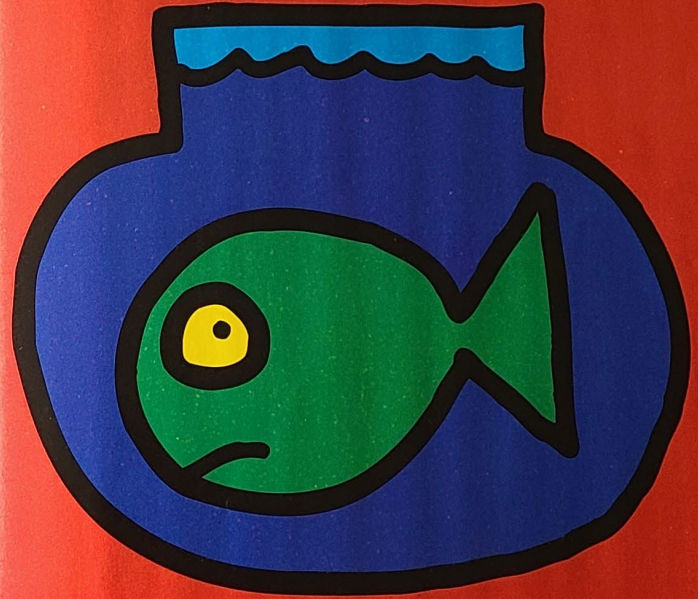


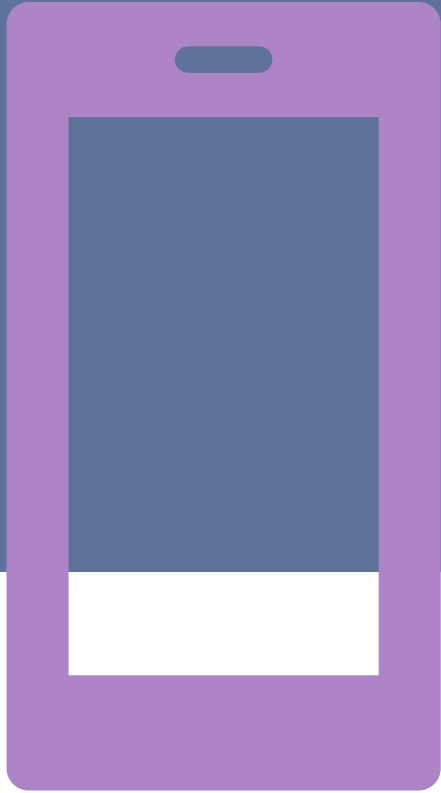
## Social Skills, Social Support

Sometimes I feel like holding  
hands with a friend



Sometimes I feel lonely





IS TECH THE  
SOLUTION?



# CONNECTIVITY GAPS INTERSECT WITH OTHER FACTORS

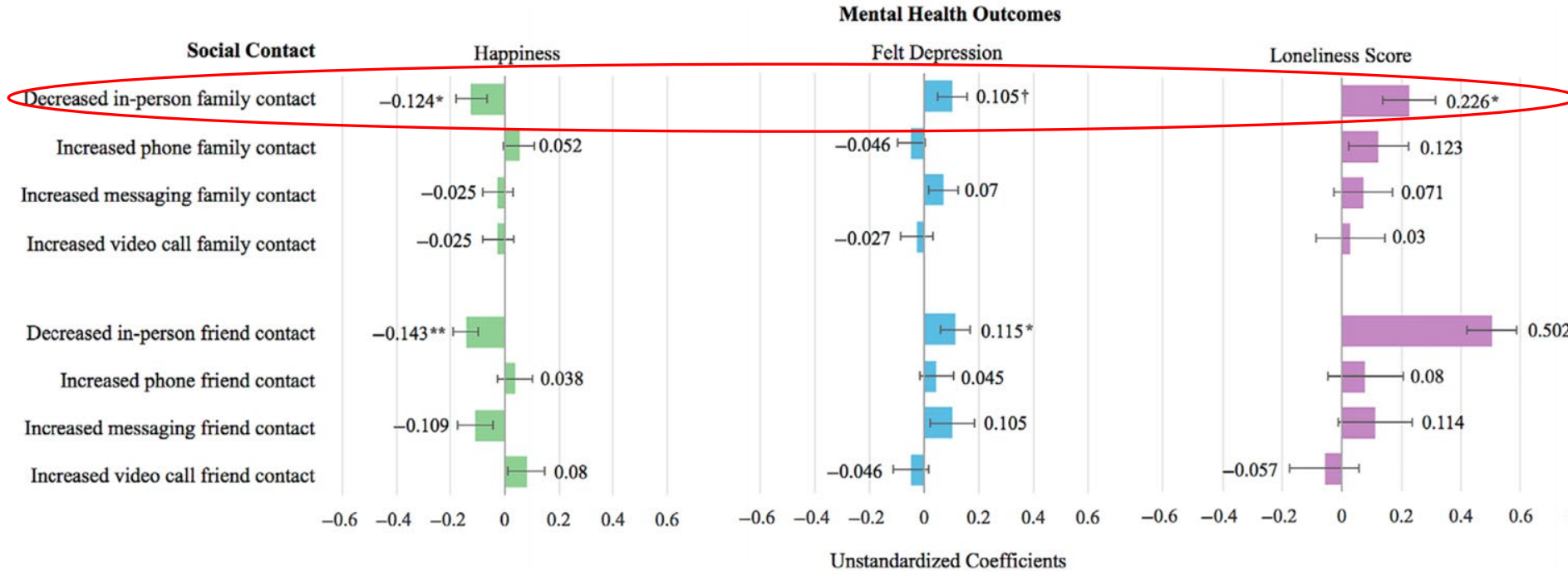
- Older adults with low educational attainment (less than a high school degree) and incomes below \$25,000 are 10X more likely to be offline
- Ethnicity is a major factor
- Health status
- Geography

*Broadband gap varies widely by state*

Lowest Rates		Highest Rates	
Age 18-64			
Mississippi	53.0%	New Hampshire	82.4%
Arkansas	56.8%	New Jersey	82.6%
Oklahoma	61.6%	Massachusetts	82.9%
Age 65+			
Mississippi	39.6%	New Hampshire	70.2%
Arkansas	43.5%	Washington	66.4%
Alabama	48.3%	Delaware	66.4%

Source: [Aging Connected](#) report, OATS and the Humana Foundation (January 2021)

# VIRTUAL CONNECTIONS ARE NOT A SUBSTITUTE FOR IN-PERSON INTERACTIONS



**IN SUMMARY**

# ASSESSMENT FRAMEWORK

## PERSPECTIVE

## SOCIAL ISOLATION AND LONELINESS AS MEDICAL ISSUES

EAR Framework for Addressing Social Isolation and Loneliness.		
E	Educate	Social connection is part of a healthy lifestyle. Social connection, isolation, and loneliness affect risks for illness and death. Social connections help patients maintain their health, manage existing medical conditions, and adhere to medical regimens.
A	Assess	Document social support, isolation, and loneliness in the electronic health record. Identify patients at risk with the use of validated measures of social isolation and loneliness. Track risk and progress over time.
R	Respond	Reinforce the need for social connection alongside other health risks and protective factors. Integrate psychosocial support from all members of the care team (e.g., clinicians, volunteers, family or care-givers) into patients' treatment. Offer referrals tailored to patients' needs and partner with local community resources. Reassess patients regularly for changing circumstances and needs and respond accordingly.

# WHAT TO DO WHEN EVIDENCE IS LIMITED

- Strategies for Individuals
- Strategies at the population level



1.  
INDIVIDUALIZE



2. TALK  
ABOUT IT



3. THINK  
CREATIVELY

# REVISITING OUR CASES: INDIVIDUAL VS. POPULATION

1

- Where did he get missed, or forgotten?

2

- Is addressing the structural environment the answer?

3

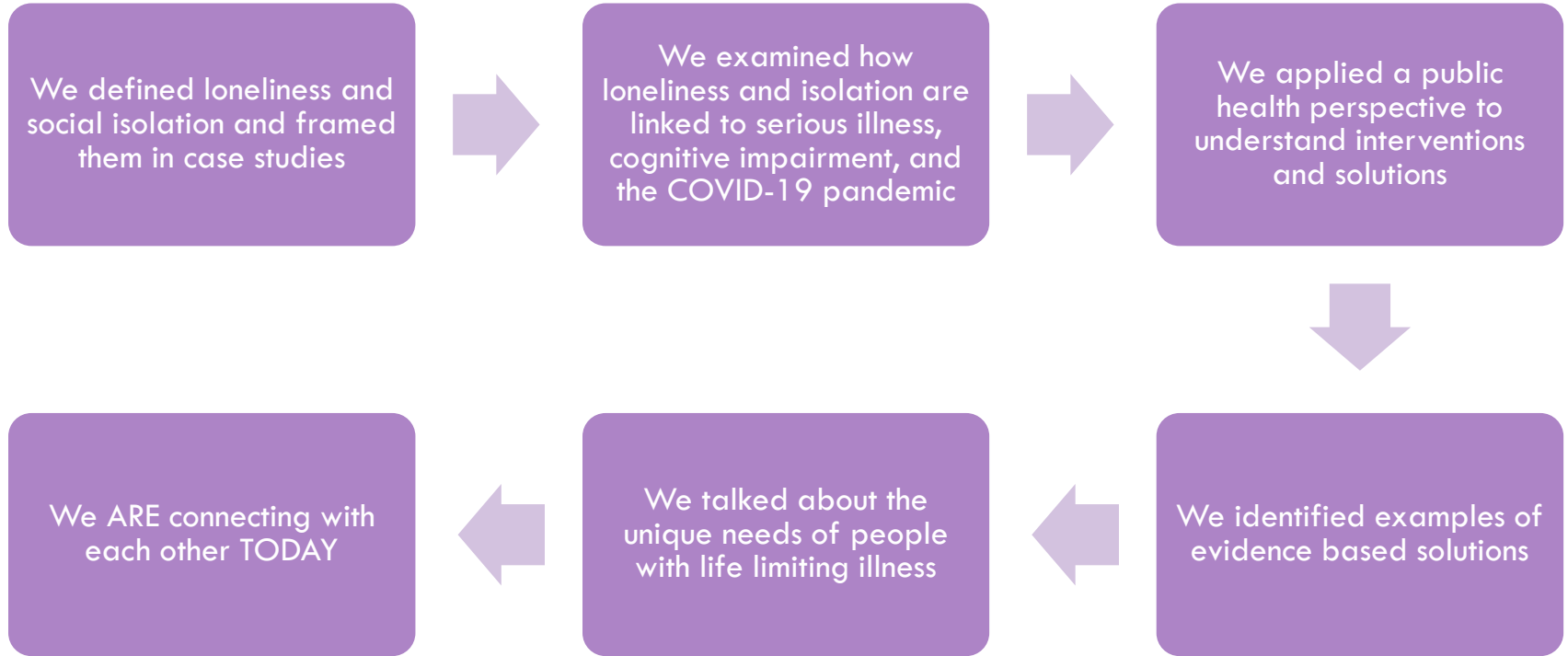
- Can addressing his “challenging behaviors” help?

4

- Can we change his life course?

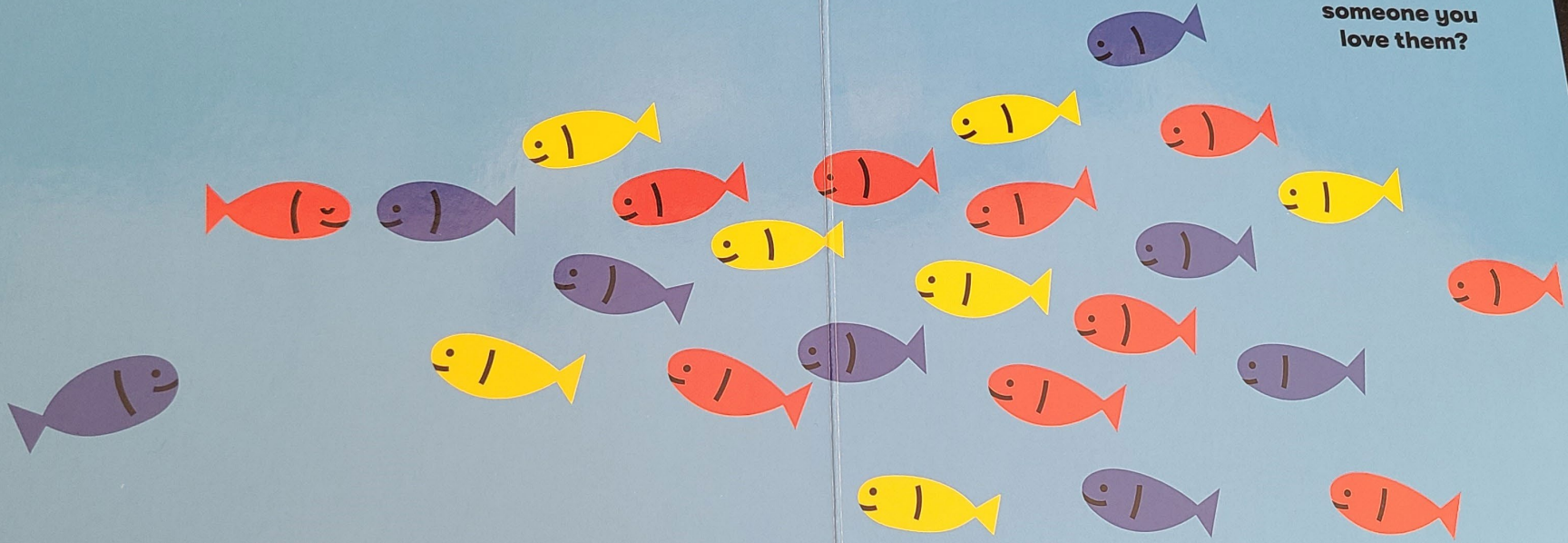


# IN SUMMARY



**but then, I remember  
I am loved.**

**What are  
ways to show  
someone you  
love them?**



**THANK YOU!**