

NSHAP

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Describe the health of older adults:

- **Evaluate** the ***social*** pathways through which older adult interpersonal and intimate connections affect and are affected by health
- **Identify** the ***biological*** pathways through which social factors affect and are affected by health
- **Examine** any differences between groups in the relationships between the social world and health

We collect information on:

- Physical Health
- Physical functioning
- Medications
- Cognition
- Health behaviors
- Biological measures
- Sensory functioning
- Social relationships
- Social networks
- Social Support
- Social Activities
- Social participation
- Demographic characteristics

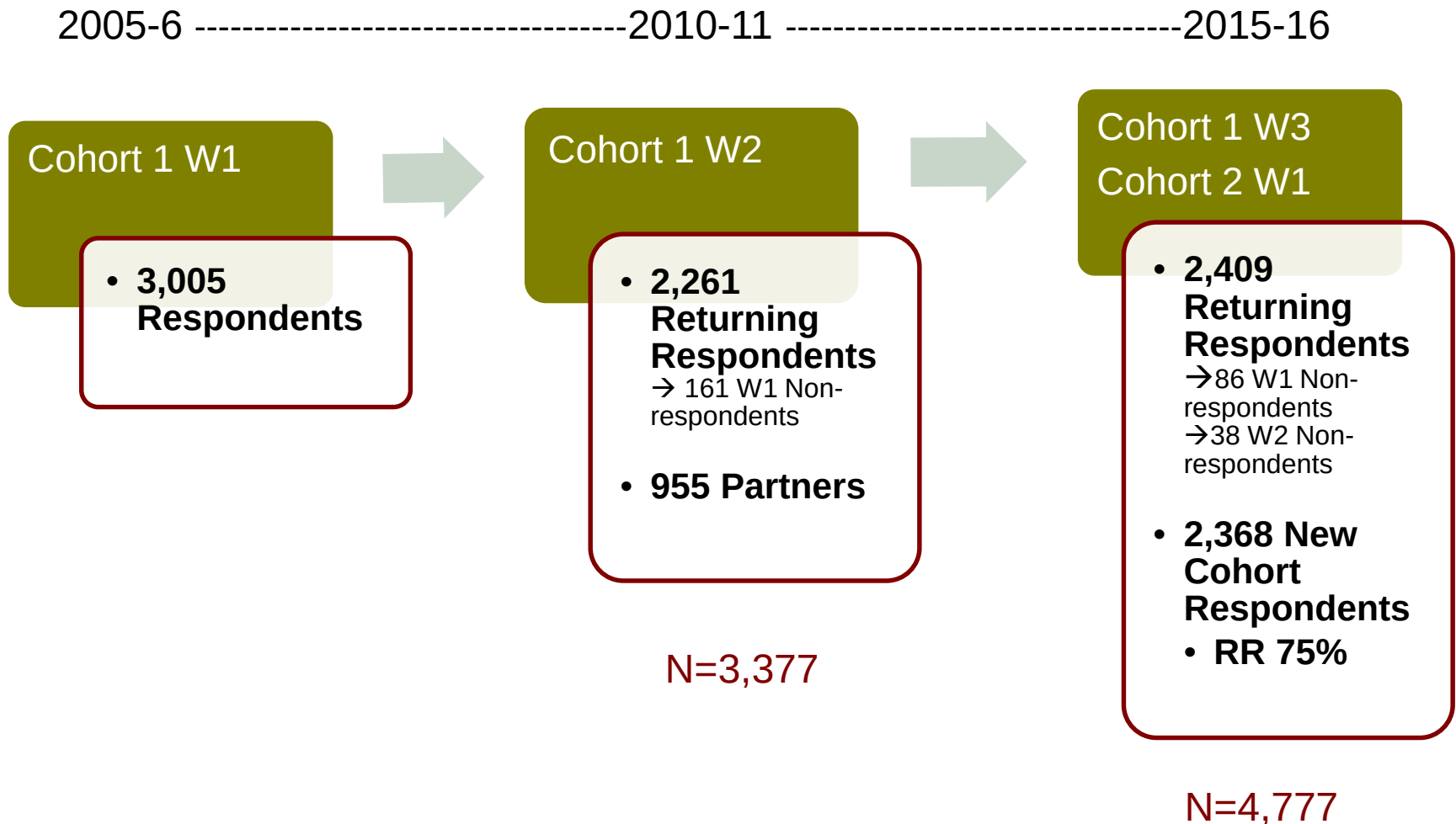
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We collect information on:

- Depressive symptoms
- Perceived stress
- Anxiety
- Loneliness
- Happiness
- Self-rated mental health
- Self-esteem
- Marital status & history
- Relationship quality
- Sexuality
- Activities
- Dyads

Sample Sizes



NSHAP Data from Two Cohorts

National area probability sample of community residing older adults, which includes an oversampling of African Americans and Hispanics

Cohort 1 Wave 1 (2005-2006)

- ✦ Adults born between 1920 and 1947 (1 person per household selected)
- ✦ Co-resident romantic partners of any age added in 2nd wave
- ✦ Interviewed every 5 years – 3 waves of data collected to date

Cohort 2 Wave 1 (2015-2016)

- ✦ Adults born between 1948 and 1965
- ✦ All age eligible household members selected
- ✦ Age ineligible co-resident romantic partners included in 1st wave



Planning for 2020-21

2020-2021

Data Collection

- Cohort 1 Wave 4
- Cohort 2 Wave 2

Biomeasures



- **Biomeasures** are biological, anthropometric, functional, and sensory measurements collected from survey respondents by non-medically trained field staff, allowing the examination of biological indicators of processes, events, or conditions

Include:

- Anthropometrics (BMI, Waist Circumference)
- Cardiovascular Function (Blood Pressure, Rapid Pulse)
- Physical Performance (Timed Get-Up-and-Go)
- Sensory Function (Smell, Vision, Taste, Touch)
- Blood Spots (C-Reactive Protein, Epstein-Barr Virus, HbA1c)
- Sleep as measured by actigraphy



Biomarkers of Key Health Domains in NSHAP



- **Biomarkers of Physical Function and Condition**
 - Short Physical Performance Battery, Blood Pressure, Pulse, Waist Circumference, Hip, Circumference, Weight, Height
- **Biomarkers of Disease or Risk**
 - Cardiovascular Disease and Inflammation (CRP), Hypertension (Blood Pressure), Diabetes (HbA1c)
- **Biomarkers of Sensory Function**
 - Smell, Taste, Touch, Vision, Hearing

Biomarkers of Key Health Domains in NSHAP



- **Biomarkers of Endocrine Function** (Bioindicators of Sexual Function)
 - Testosterone, Progesterone, Estradiol, DHEA
- **Biomarkers of Immune Function**
 - Epstein-Barr Virus, C-reactive Protein (inflammation)
- **Biomarkers of Health Behavior**
 - Smoking (Cotinine), Obesity (Height, Weight, Waist Circumference), Stress (Cortisol), Sociability (Vasopressin)

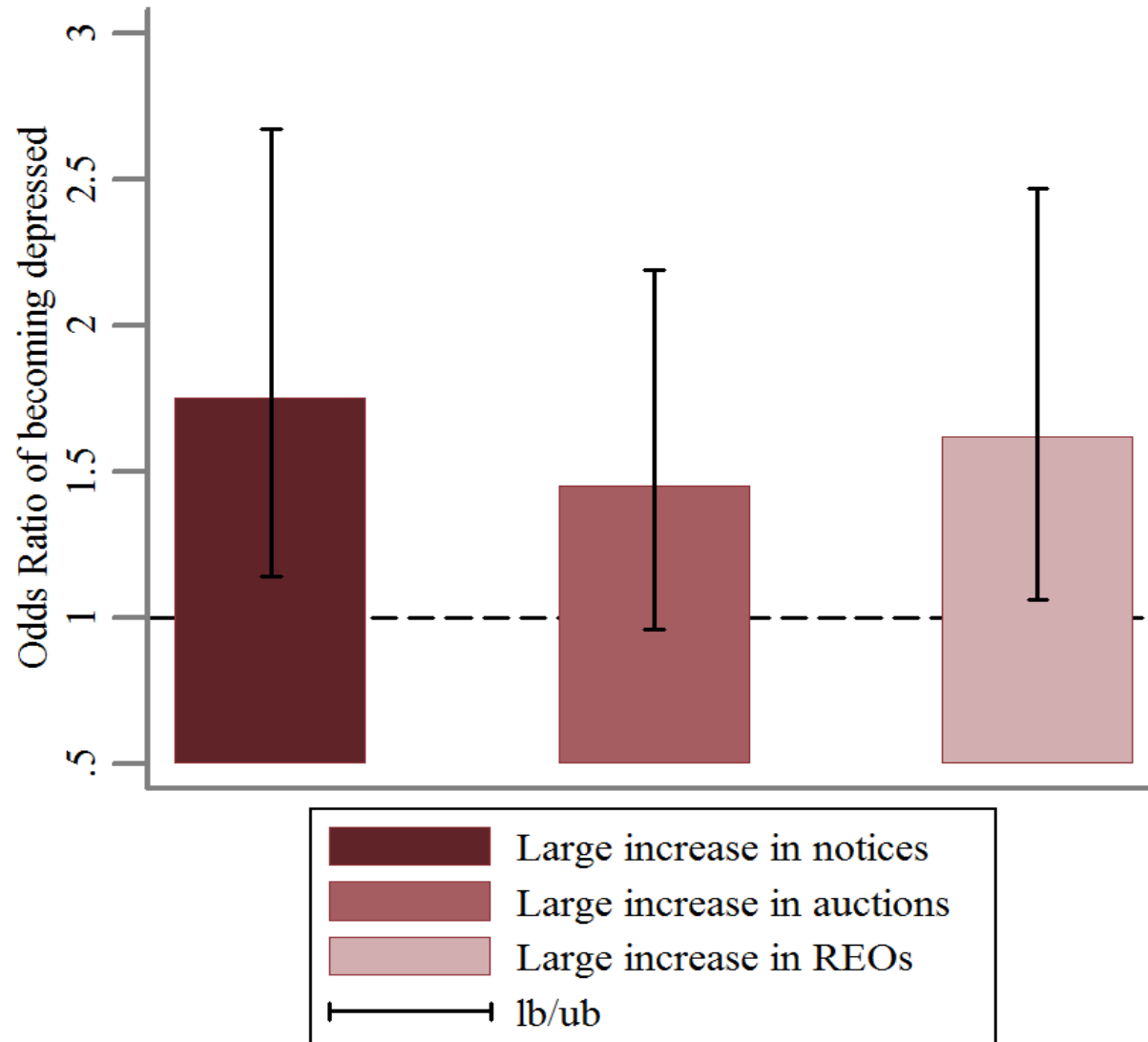


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Neighborhood Foreclosure and Depression NSHAP



Neighborhoods and Health

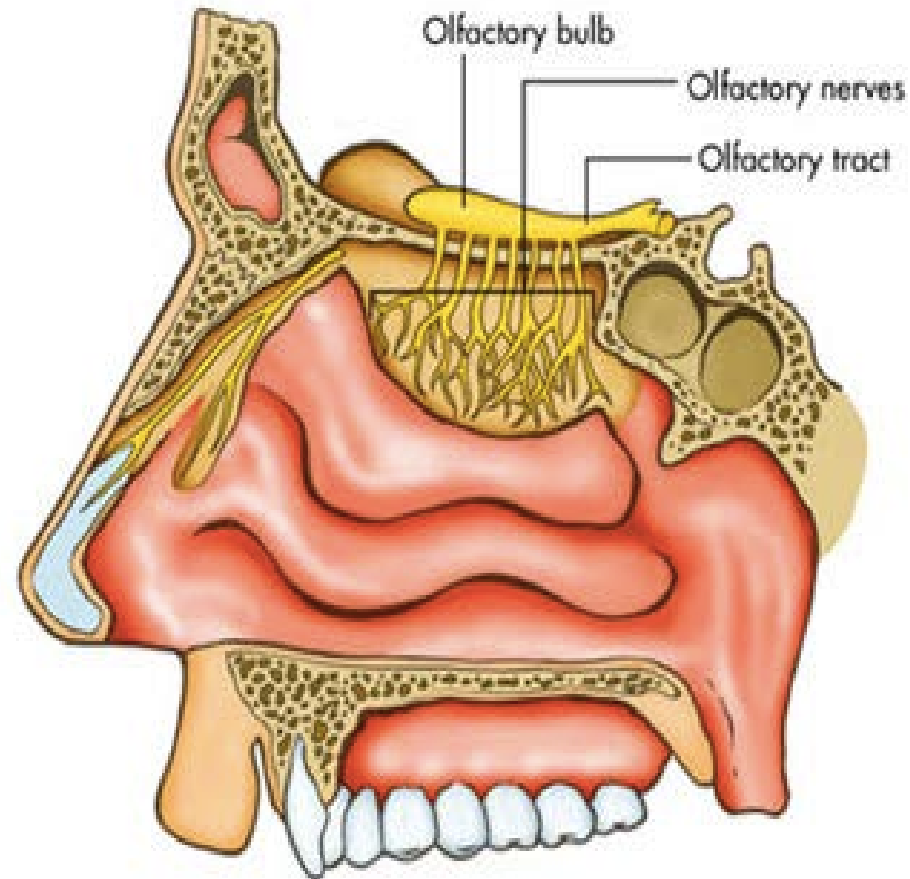


- The foreclosure process includes notices of default, properties returning to ownership by the bank and properties going to auction.
- Older adults in neighborhoods in which there were large increases in foreclosures faced increased risks of developing depression during the great recession.
- Increases in neighborhood-level foreclosure represent an important risk factor for depression in older adults, suggesting that the effects of economic crises are typically first experienced through deficits in emotional well-being.

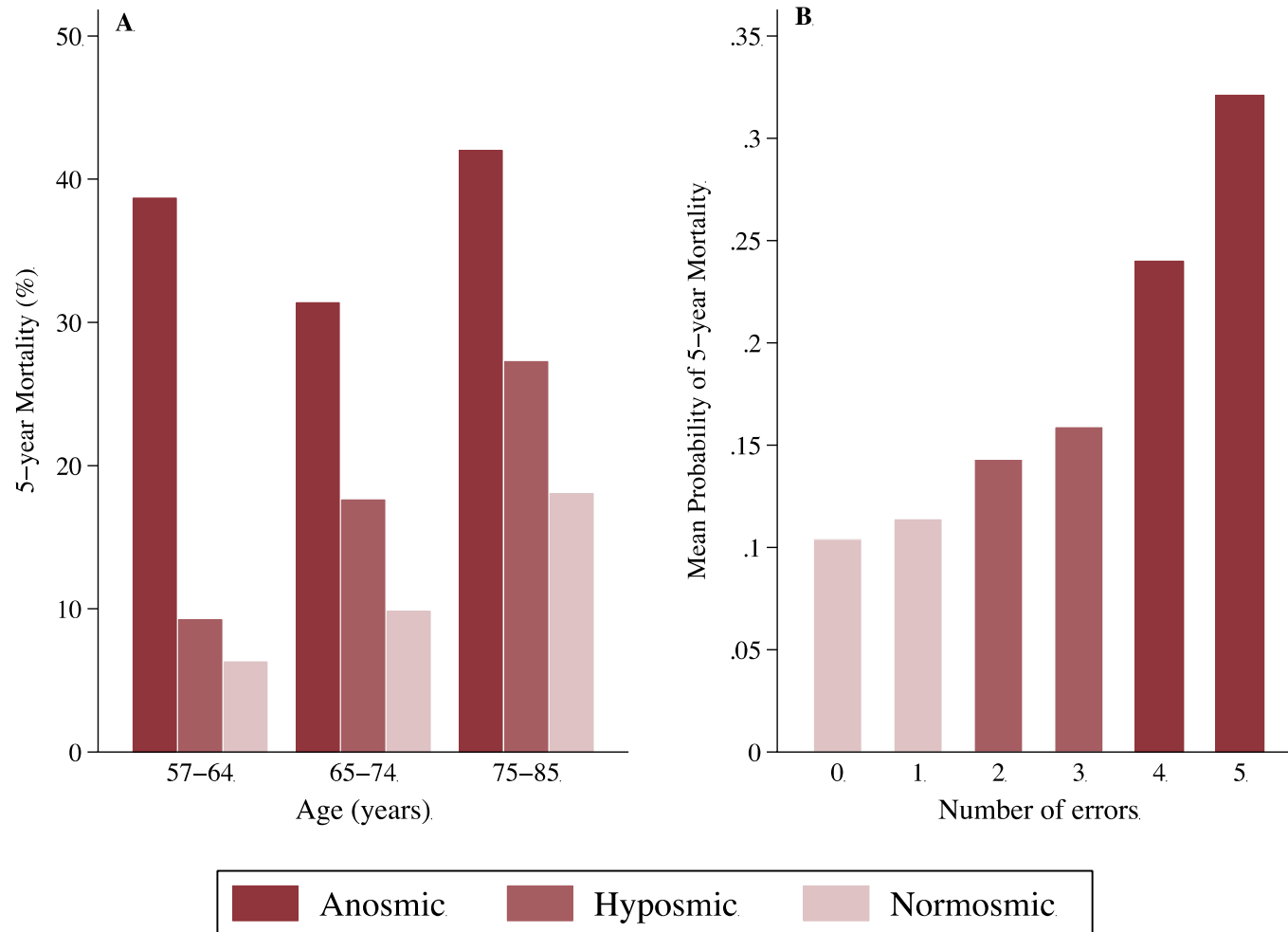
Cagney, K. A., Browning, Christopher R. Browning, Iveniuk, James, and Ned English (2014). "The Onset of Depression during the Great Recession: Foreclosure and Older Adult Mental Health." American Journal of Public Health 104(3): 498-505.

Smell Function and Health

- Sensitive indicator of brain function
- Decreased nutrition
- Cumulative aging burden
- Slowed cellular repair
- Respiratory exposure to toxins

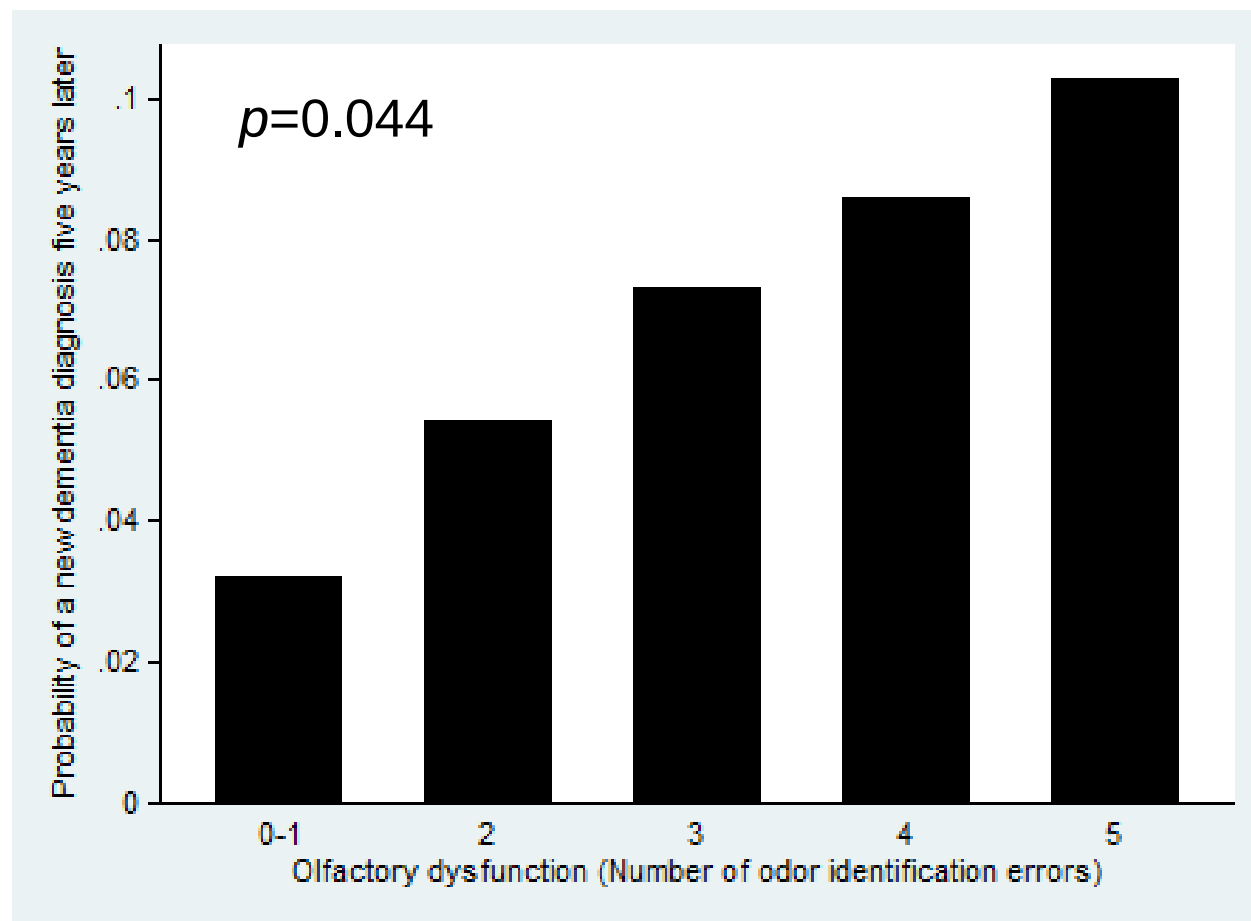


In all age groups, people with no sense of smell are more likely to die than those with decreased or normal sense of smell



Olfactory dysfunction predicts 5-year mortality in older adults.
Pinto JM, Wroblewski KE, Kern DW, Schumm LP, McClintock MK. *PLoS One*. 2014

Olfactory Dysfunction Predicts Subsequent Dementia in Older US Adults in NSHAP



Each error on the smell test increased the odds of developing dementia in 5 years

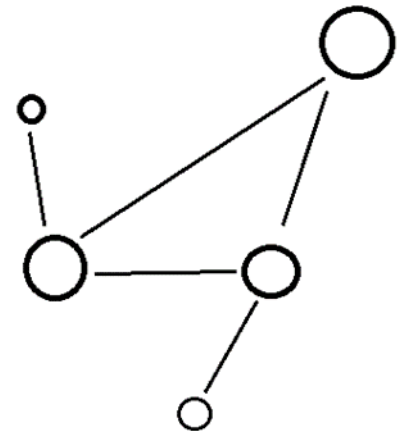
Social Networks and Health

Understanding social networks is a crucial part of understanding health

Social Isolation is associated with poorer:

- Health behaviors
- Sleep
- Physiological functioning

Loneliness is a predictor of **morbidity** and **mortality**





Social Networks and Health

Social Support is associated with better health

Social Support has a **protective effect** against Elder Mistreatment

Social cohesion and neighborhood cohesion are associated with increased wellbeing

- **Subjective Quality of Life**
- **Vitality**
- **General Interest**

Acknowledgements

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- NSHAP is directed by: Linda Waite (Principal Investigator), Kathleen Cagney, William Dale, Louise Hawkley, Elbert Huang, Diane Lauderdale, Edward Laumann, Martha McClintock, Colm O'Muircheartaigh, Phil Schumm.
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Thank you!

Summary of Wave 4 Measures

	W1	W2	W3	W4
Social Connectivity ^(86, 87, 89, 120, 121)				
Social Networks: Size, Structure, Composition & Change	⊙	●	●	●
Dyadic and Extra-Dyadic Social Resources	●	●	●	●
Relationship Quality	●	●	●	●
Care Giving and Receiving	⊙	●	●	●
Social Support and Strain	⊙	⊙	●	●
Participation in Social Activities	⊙	⊙	⊙	⊙
Community Engagement	⊙	⊙	⊙	⊙
Perceived Social Isolation / Loneliness	⊙	⊙	⊙	⊙
Elder Mistreatment	⊙	—	●	●

Key: ⊙ Core Measures; ● Augmented Measures; (—) data not collected



Summary of Wave 4 Measures

	W1	W2	W3	W4
Intimate Partnership and Sexuality^(91, 101, 122)				
Current Partnership; ● Concurrent Data for Dyads	⊙	●	●	●
Sexual Motivation, Behavior and Function	⊙	●	●	●
Marital, Cohabitation and Sexual History	●	●	●	●

Key: ⊙ Core Measures; ● Augmented Measures; (—) data not collected



Summary of Wave 4 Measures

	W1	W2	W3	W4
Household and Neighborhood Context^(88, 123)				
Household Composition and Disorder	⊙	●	●	●
Neighborhood Social Cohesion	—	●	●	●
Neighborhood Physical and Social Characteristics	—	●	●	●

Key: ⊙ Core Measures; ● Augmented Measures; (—) data not collected



Summary of Wave 4 Measures

	W1	W2	W3	W4
Cognition ^(17, 113)				
Memory and Orientation (SPMSQ, MoCA-SA)	⊙	●	●	●
Cognitive Domains (MoCA-SA)	—	●	●	●
Task Completion Times	⊙	●	●	●
Dementia Report by Proxy	—	●	●	●
Dementia-MCI Questionnaire (AD8 by Houshld Memb)	—	—	—	●

Key: ⊙ Core Measures; ● Augmented Measures; (—) data not collected



Summary of Wave 4 Measures

	W1	W2	W3	W4
Biomeasures ^(92, 93, 100, 102, 103, 105, 108, 112, 124-126)				
Sensory Function	⊙	⊙	⊙	●
Actigraphy: Sleep and Daytime Activity	—	●	●	●
Physical Performance and Frailty	⊙	●	●	●
Estradiol, Progest, Testost, DHEA, Cortisol (saliva)	⊙	●	●	●
hs-CRP, HbA1c, Hemoglnb, EBV, Cholest, HDL (DBS)	⊙	●	●	●
Lipidomics and Cytokines	—	●	⊙	⊙
Genetics: ⊙DNA Extraction; ● Global Screening Array	⊙	⊙	●	●
Systolic/Diastolic Blood Pressure, Heart Rate	⊙	⊙	⊙	⊙
Anthropometrics: BMI, Height, Weight, Ctrl Adiposity	⊙	●	●	●

Key: ⊙ Core Measures; ● Augmented Measures; (—) data not collected



Summary of Wave 4 Measures

	W1	W2	W3	W4
Physical Health ^(90, 97, 110, 114, 118, 119)				
Disease Diagnoses	⊙	⊙	●	●
Medication Log: Rx, Alternative, OTC	●	●	●	●
Surgeries and Procedures	⊙	⊙	●	●
Self-rated Physical Health	⊙	⊙	⊙	⊙
Health Behaviors	⊙	⊙	⊙	⊙
Functional Health (ADL/IADL): Self-rated and Interviewer	⊙	●	●	●
Pain	—	⊙	⊙	⊙

Key: ⊙ Core Measures; ● Augmented Measures; (—) data not collected



Summary of Wave 4 Measures

	W1	W2	W3	W4
Mental Health and Personality^(98, 107, 115)				
Depression, Anxiety, Perceived Stress	⊙	⊙	⊙	⊙
Happiness and Life Satisfaction	⊙	⊙	⊙	⊙
Self-rated Mental Health	⊙	⊙	⊙	⊙
Personality	—	⊙	⊙	⊙

Key: ⊙ Core Measures; ● Augmented Measures; (—) data not collected