

Social Isolation & Loneliness: Relationships to Health and a Call to Action

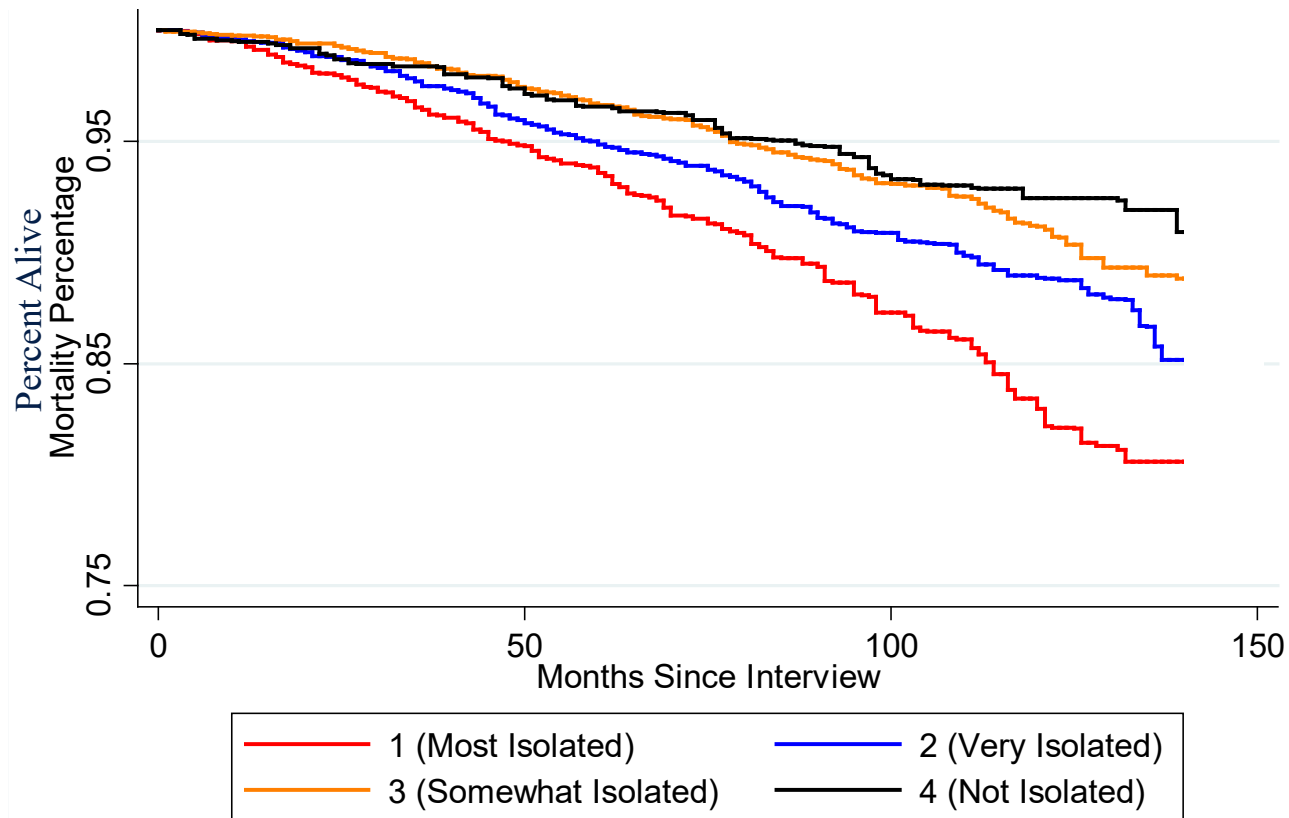


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Definitions

- Social isolation
 - The objective lack of (or limited) social contact with others
- Loneliness
 - The perception of social isolation or the subjective feeling of being lonely
- One can be lonely even if not socially isolated, and vice versa
- Distinct concepts with implications for interventions

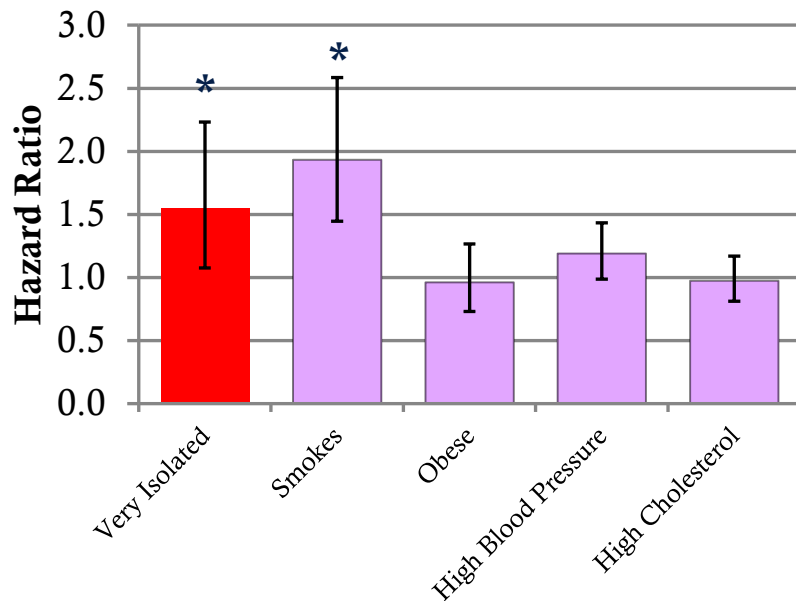
Social Isolation and Mortality among Women



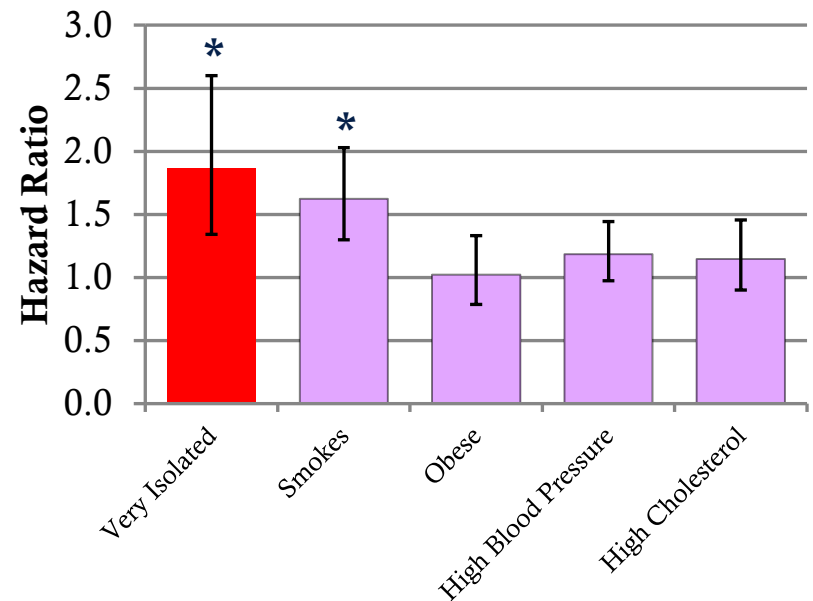
Log-rank $P < 0.01$

Social Isolation is an Equally Strong Risk Factor as Traditional Clinical Risk Factors

Women



Men

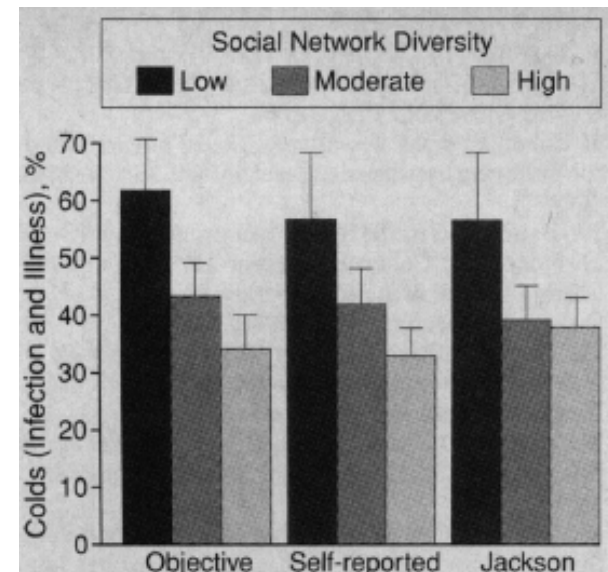


Adjustments: Age, race/ethnicity, and socioeconomic status

* $P < 0.05$

Inflammation and Immunology

- Loneliness is associated with
 - Altered genome transcriptional activity¹
 - Under-expression of genes promoting anti-inflammatory response
 - Over-expression of genes promoting pro-inflammatory receptors
- Social isolation is associated with
 - Increased levels of C-reactive protein²
 - A marker for inflammation associated with cardiovascular disease
 - Increased susceptibility to the common cold³



¹ Cole S, Hawkey L, Arevalo J, Sung C, Rose R, Cacioppo J. Social regulation of gene expression in human leukocytes. *Genome Biol.* 2007;8(9):R189. ²

⁵ Ford E, Loucks E, Berkman L. Social integration and concentrations of C-reactive protein among US adults. *Ann Epidemiol.* 2006;16(2):78-84. ³ Cohen S, Doyle W, Skoner D, et al. Social ties and susceptibility to the common cold. *JAMA.* 1997;227(24):1940-1944.

Populations with Increased Risk

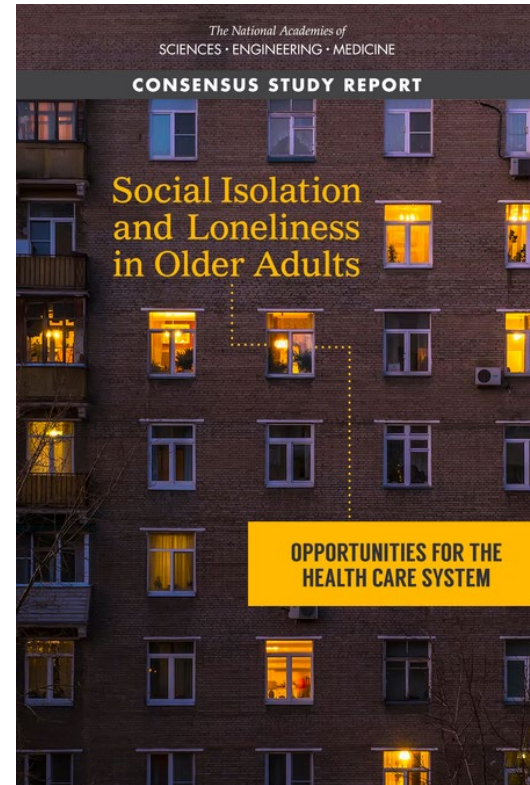
- NASEM 2020 Report¹
 - Certain immigrant communities
 - LGB individuals
 - People living with chronic diseases
 - People who have experienced hearing loss
- Tung et al.²
 - People experiencing financial strain
 - People experiencing intimate partner violence
- Understudied population: youth and young adults

¹ National Academies of Sciences, Engineering, and Medicine (NASEM) 2020. *Social Isolation and Loneliness in Older Adults: Opportunities for the Health Care System*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25663>. ² Tung E, De Marchis E, Gottlieb L, Lindau S, Pantell M. Patient experiences with screening and assistance for social isolation in primary care settings. Under review.

Endorsement of Screening



National Academy of Medicine, 2014



NASEM, 2020

NASEM 2020 Report

- Goal 1: Develop a more robust evidence base
- Goal 2: Translate current research into health care practices
- Goal 3: Improve awareness of the health and medical impact of social isolation and loneliness across the health care workforce and among members of the public
- Goal 4: Strengthen ongoing education and training related to social isolation and loneliness in older adults for the health care workforce
- Goal 5: Strengthen ties b/w the health care system and community-based networks and resources

Lessons Learned from National and International Stakeholders

- Social isolation and loneliness are cross-sectoral issues
- The health care system should be proactive rather than reactive
- Enthusiasm for government involvement and accountability
- Increasing recognition of the importance of social isolation and loneliness to health care plans

Recommendations During the COVID-19 Era

- Maintain social contact – physical vs. social distancing
- Support those unfamiliar with ways to connect through technology
- Initiate new connections
- Know when to ask for help
- Providers should screen for social isolation and loneliness and refer patients to appropriate resources

- Acknowledgments
 - The Commonwealth Fund
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