

SAFER BUT ALONE

How COVID-19 Protections Affected Older Adults' Mental Health

During the early weeks of the COVID-19 pandemic, it became clear that older Americans faced a higher risk of serious illness and death from infection. As COVID-19 spread rapidly across the country, public health officials focused on containing the virus through unprecedented restrictions on travel and social gatherings. Many older adults were isolated from their families, friends, and caregivers to protect them from the disease.

But protecting older adults' physical health came at a cost. Researchers have linked prolonged social isolation and loneliness to serious physical and mental health issues, including high blood pressure, heart disease, obesity, a weakened immune system, anxiety, depression, cognitive decline, Alzheimer's disease, and even death.¹

Four years after the pandemic’s onset, new research is starting to uncover the effects of social isolation on the mental health of older Americans. This report summarizes key findings by researchers who, with the support of the National Institute on Aging (NIA), studied the impact of the pandemic on the mental health of older adults and their caregivers. The results can help health officials make informed decisions in the event of another public health emergency—and deliver better care to the millions of older adults dealing with lingering mental health issues from the pandemic.

Isolation Made People Feel Lonelier

The pandemic amplified longstanding problems of social isolation and loneliness among older people, according to Eun Young Choi of New York University and colleagues at the University of Southern California.² Their study, based on self reporting from the [2020 Health and Retirement Study \(HRS\) COVID-19 module](#), found that nearly one-third (29%) of

adults ages 54 to 74 felt lonelier in 2020 and 2021 than before the pandemic began.

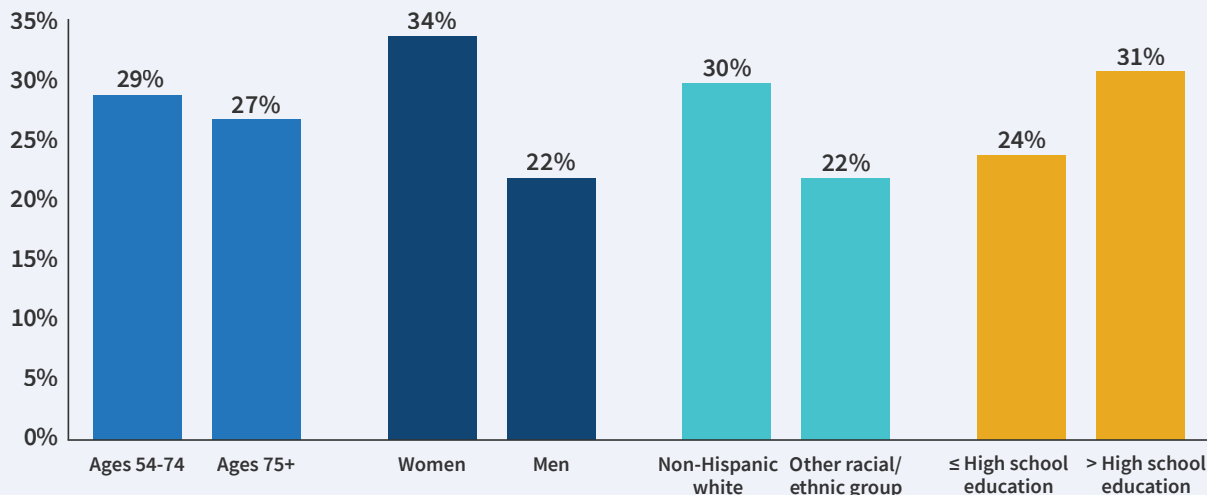
Respondents who said they lacked in-person contact or had poor relationships with family, friends, or neighbors since the pandemic were more likely to report increased loneliness. Older adults tended to feel more “isolated when faced with a sudden social shrink in the availability of social resources and support from everyday interactions,” the researchers observed. They pointed to the social psychology theory of loneliness, which maintains that an “unfulfilled need for social connection leads to loneliness.”

Groups not usually considered at risk—middle-aged adults, women, non-Hispanic whites, and the most educated—were the most likely to report increased loneliness (**Figure 1**). The researchers suggested that older adults without previous experience of social isolation “may lack coping strategies in the face of the removal of social contacts.”

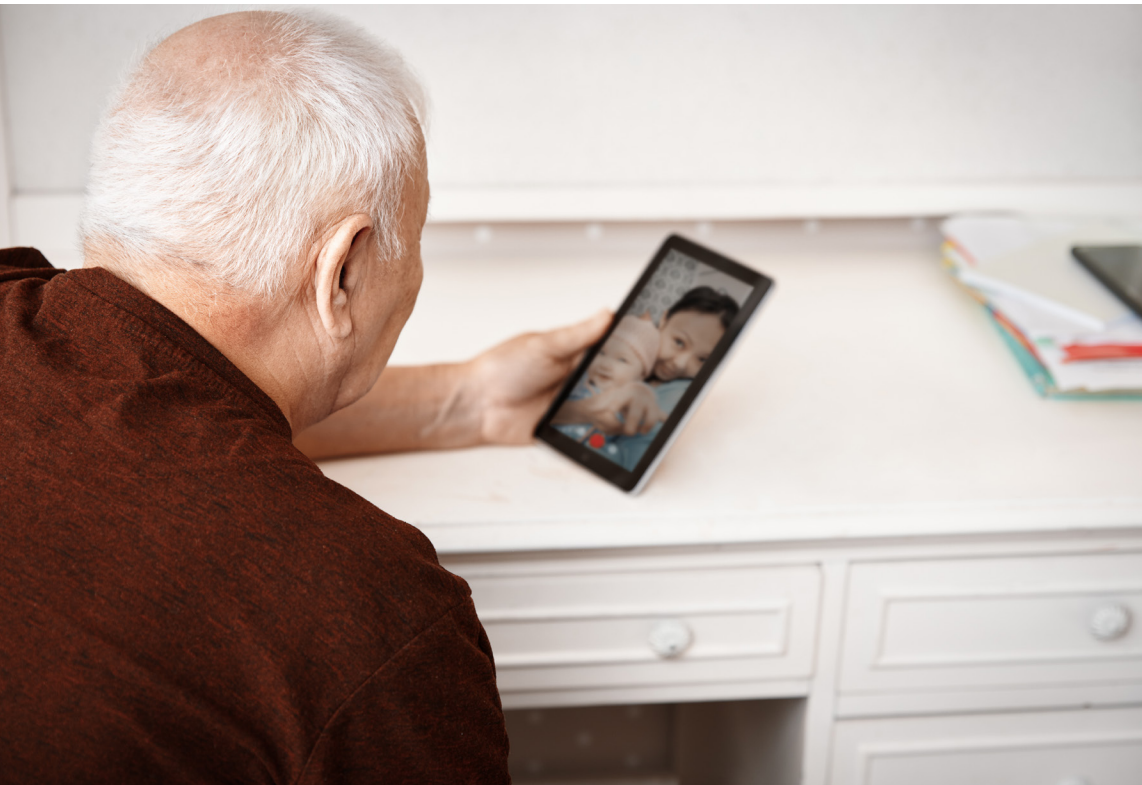
FIGURE 1

Female, White, and Highly Educated Older Adults Were Most Likely to Feel Lonelier During Pandemic

Percent of U.S. Adults Ages 54 and Older Experiencing an Increase in Loneliness in 2020 and 2021, by Characteristic



Source: Eun Young Choi et al., “Changes in Social Lives and Loneliness During COVID-19 Among Older Adults: A Closer Look at the Sociodemographic Differences,” *International Psychogeriatrics* 35, no. 6 (2023): 305-17.



Pandemic protections amplified some older adults' longstanding feelings of social isolation and loneliness.

In a related study, Choi and colleagues found that older adults who avoided close contact with people in their household or who canceled or postponed social activities during the pandemic were more likely to report feeling lonely.³ Data were from the [Understanding America Study](#), a nationally representative online survey.

Given that older adults will likely practice social distancing in future outbreaks, the researchers argued for rethinking public health practices to identify strategies for older adults to be together safely—in ways that protect them from both infection and social isolation.

Deaths, Loneliness, Finances Taxed Mental Health

Around the world, millions of people lost family members during the pandemic. Using data for 26 European countries and Israel from the [Survey of Health, Ageing and Retirement in Europe \(SHARE\)](#), Haowei Wang of Syracuse University and colleagues

found that adults ages 50 and older with spouses who died of COVID-19 were more likely to report feeling depressed or lonely than their peers who lost a spouse before the pandemic.⁴

“Many deaths during the pandemic likely became more traumatic for their loved ones due to fear of seeking medical care and hospitals restricting friends and family from visiting patients, all which likely made it difficult for people to process deaths regardless of its specific cause,” said co-author Ashton Verdery from Pennsylvania State University.

Researchers at the University of Michigan found that older Americans who isolated at home during the first six months of the pandemic faced unique and ongoing mental health risks. Data were from the [COVID-19 Coping Study](#), which tracked the mental health of more than 4,000 Americans ages 55 and older monthly via an online snowball sample, which may overrepresent people with stronger social networks.⁵ University of Michigan researchers Lindsay Kobayashi and Jessica Finlay led the data collection.

Daily isolation at home was tied to elevated symptoms of depression and anxiety, and loneliness that persisted over time, the researchers found. Those who were previously isolated were most likely to experience depressive symptoms in the wake of pandemic isolation.

The Michigan team also found that older adults who were more worried and anxious reported more difficulties with cognitive function and abilities.⁶ They questioned whether such “acute changes in mental health during the pandemic will have long-term implications” for the future burden of dementia, and recommended more research on how a person’s fluctuations in mental health during the pandemic may affect cognitive decline in old age.

Older adults also worried more about their finances, other new research shows. Using data from the

Older adults who were more worried and anxious reported more difficulties with cognitive function and abilities.

Understanding America Study, Fabrice Kämpfen and colleagues at the University of Pennsylvania found that one-third of U.S. adults felt depressed and anxious during the pandemic’s early days—mainly due to economic worries.⁷ This surprised the team, who had predicted that missing family and friends or fear of getting sick would supersede financial concerns.



During the pandemic’s early days, one-third of U.S. adults felt depressed and anxious, mainly due to economic worries.



Older adults eligible for Medicare and Social Security may have felt protected from some of the economic uncertainty of the early pandemic.

In preliminary findings, Emily Wiemers of Syracuse University and colleagues reported that adults ages 50 to 64 were more likely to experience economic and mental health difficulties in the first year of the pandemic than those ages 65 and older, based on data from the nationally representative 2020 HRS COVID-19 module.⁸ The researchers hypothesized that adults eligible for Medicare and Social Security may have felt protected from some of the economic uncertainty of the early pandemic. “Perhaps family members buffered the neediest older adults from the most severe impacts of the pandemic,” they suggested.

People With Impairments, Young Adults Faced Extra Stressors

Older adults with visual and/or hearing impairments demonstrated resilience as they faced mental health challenges due to feeling socially isolated during the pandemic, reported Shu Xu of the University of Massachusetts Boston and colleagues.⁹ Using

HRS data from 2018 and 2020, Xu and team found that older Americans with impairments reported fewer depressive symptoms than they did in 2018, while their peers without impairments reported an increase in depressive symptoms, suggesting that COVID-19 may have “leveled the field” among older adults. The researchers call for a better understanding of the factors that protect older adults’ mental health during public health crises.

According to research by Kira Birditt of the University of Michigan and colleagues, while COVID-19 affected people of all ages, young adults may have experienced the most stress, life changes, and social isolation related to the pandemic.¹⁰ Birditt and team found that older adults reported less life change due to the pandemic, which may explain their lower levels of stress compared with younger adults, who were more likely to experience disruptions in their employment, finances, and schooling. Data were from the nationally representative [Surveys of Consumers](#).

BOX

Concerns About Discrimination in Medical Settings and Threat From the Virus Elevated Psychological Distress Among Older Black Americans

Older Black Americans with more concerns about discrimination in medical settings and about their risks of contracting COVID-19 had higher levels of psychological distress than those less worried about these issues, Ryon J. Cobb of the University of Georgia, Christy L. Erving of Vanderbilt University (now at the University of Texas at Austin), and W. Carson Byrd of the University of Michigan reported based on data from the Pew Research Center's [American Trends Panel](#).¹

Specifically, individuals who perceived COVID-19 as a major threat to their health, and those who perceived that Black Americans received inferior medical care to white Americans, each experienced higher levels of psychological distress. People with both perceptions had the highest levels of distress, the researchers found.

While at the University of Texas at Austin and Michigan State University, respectively, Zhiyong Lin and Hui Liu documented similar dynamics. Older Black Americans reported higher levels of worry about COVID-19 than white Americans, grounded in their unequal exposure to COVID-19 risks, pre-existing health conditions, and higher odds of knowing someone who had died from the virus.²

In their study based on the 2020 HRS COVID-19 module, Lin and Liu found that older Black Americans were twice as likely as their white counterparts to report knowing someone who had died of COVID-19. The distress associated with COVID-19 mortality is extreme, the researchers observe, “marked by physical discomfort, social isolation, and lack of preparation.”

References

- 1 Ryon J. Cobb, Christy L. Erving, and W. Carson Byrd, “[Perceived COVID-19 Health Threat Increases Psychological Distress Among Black Americans](#),” *Ethnic and Racial Studies* 44, no. 5 (2021): 806-18.
- 2 Zhiyong Lin and Hui Liu, “[A National Study of Racial-Ethnic Differences in COVID-19 Concerns Among Older Americans: Evidence From the Health and Retirement Study](#),” *The Journals of Gerontology: Series B, Psychological Sciences and Social Sciences* 77, no. 7 (2022): e134-41.



Older Rural Residents Worried Less About the Pandemic, Despite Greater Challenges

Data from the COVID-19 Coping Study gathered in the early months of the pandemic showed little difference between urban and rural older Americans in reported mental health problems or social well-being, Carrie Henning-Smith of the University of

Minnesota and colleagues documented.¹¹ Rural respondents, however, reported more use of social media and lower levels of concern about the pandemic. Both factors, the researchers noted, may have contributed to greater vaccine skepticism and higher mortality rates among rural residents in 2021.

Shannon Monnat of Syracuse University found more distinct rural-urban differences using data from the

[National Wellbeing Survey](#), gathered among U.S. adults ages 18 to 64 in early 2021.¹² Working-age Americans in rural areas, especially those closer to urban areas, were more likely to report testing positive for COVID-19 and having a close friend or family member hospitalized with the virus. They were also more likely to seek treatment for mental health symptoms and to experience economic hardship, such as being late on rent, mortgage, or other bills.

Both studies suggest important policy implications, from funding mental health services and expanding access to telehealth to ensuring the availability of accurate health information on social media. Monnat underscored the importance of measures to promote economic recovery for rural residents in the wake of the expiration of state and federal programs and measures such as eviction moratoria and unemployment benefits, which cushioned the impact of COVID-19 shutdowns for many.

Family Caregivers Faced Stressful Decisions and Facility Restrictions

To protect older adults from exposure early in the COVID-19 pandemic, many family members and friends changed the amount of time they spent providing unpaid care, Amanda Leggett and colleagues at the University of Michigan found.¹³

Nearly one-third (30.5%) of informal caregivers increased the time spent helping older adults with functional limitations, while 11.5% began providing fewer hours of care, according to their analysis of data from the [National Health and Aging Trends Study \(NHATS\)](#), a nationally representative sample of Medicare-eligible Americans and their unpaid caregivers.

Some adult children and other relatives provided less care “to reduce the risk of spread, whereas others increased care to keep the care recipient in the home and to help with the increasing care needs during the pandemic,” the researchers explained.

Caregivers who increased their hours reported higher levels of anxiety, depressive symptoms, and signs of being overwhelmed than those whose caregiving hours were unchanged. Programs to support caregivers, such as food delivery or in-home nursing services, may “reduce overload and enhance mental well-being” among those who take on additional care tasks, Leggett said.

Caregivers who cut their hours also reported significantly more emotional difficulties than those whose hours stayed stable. One key reason is that many family caregivers also reported losing access to their loved ones who lived in residential facilities during lockdowns, Leggett and colleagues documented.

In more new research, Norma Coe and Rachel Werner at the University of Pennsylvania found that family and friends spend a significant amount of time providing unpaid help to older adults living in institutional settings.¹⁴

On average, older adults with informal caregivers receive 65 hours of care per month if they live in a residential care facility (such as assisted living) and 37.4 hours per month in a nursing home. Even for nursing home residents, the unpaid care hours family and friends provide are nearly equivalent to an extra full-time work week per month, they point out.

Caregivers who increased their hours reported higher levels of anxiety, depressive symptoms, and signs of being overwhelmed.

“Family members are an invisible workforce in nursing homes and residential care facilities, providing considerable front-line work for their loved ones,” they argued, based on their analysis of NHATS data.

“Visitor bans, aimed at protecting residents and staff members from the spread of the virus, prevented informal caregivers from entering facilities for substantial periods of time—more than a year for some residents,” Coe and Werner wrote. Several studies tie more depression and behavioral problems among residents to this lack of family interaction, especially among those with dementia, they reported.

Nursing home and residential care administrators also need to acknowledge that care from family and friends sometimes serves as a substitute rather than a supplement to formal care, they emphasized.

Access to Neighborhood Parks, Outdoors Improved Mental Health and Mood

Older urban residents with greater access to parks and green spaces had fewer symptoms of depression and anxiety early in the pandemic, found a team of researchers including Kobayashi and Finlay and Gabriela Bustamante of the University of Minnesota.¹⁵

By contrast, older suburban and rural residents relied less on public parks and expressed “feeling fortunate to live in areas with ample open space available that facilitated being outside without worrying about social distancing or infection risk,” the researchers reported based on the COVID-19 Coping Study.

“Small greenspaces, private gardens, and other natural environments promoted the mental health



During the pandemic’s early months, older city dwellers with access to parks were less likely to show symptoms of depression and anxiety.

and well-being of older adults and contributed to their coping mechanisms during the first wave of the COVID-19 pandemic,” the researchers concluded. They suggested that urban planners consider the public health benefits of small-scale outdoor spaces along with larger formal parks.

But during 2020, a sizeable share of older U.S. adults limited the time they spent outdoors. Nearly one in three (32%) ages 70 and older went outside less often and 13% rarely or never left their homes, according to Namkee G. Choi, Diana M. DiNitto, and C. Nathan Marti of the University of Texas at Austin.¹⁶ The share of older adults going outside every day fell from 63% in 2019 to 53% a year later (**Figure 2**).

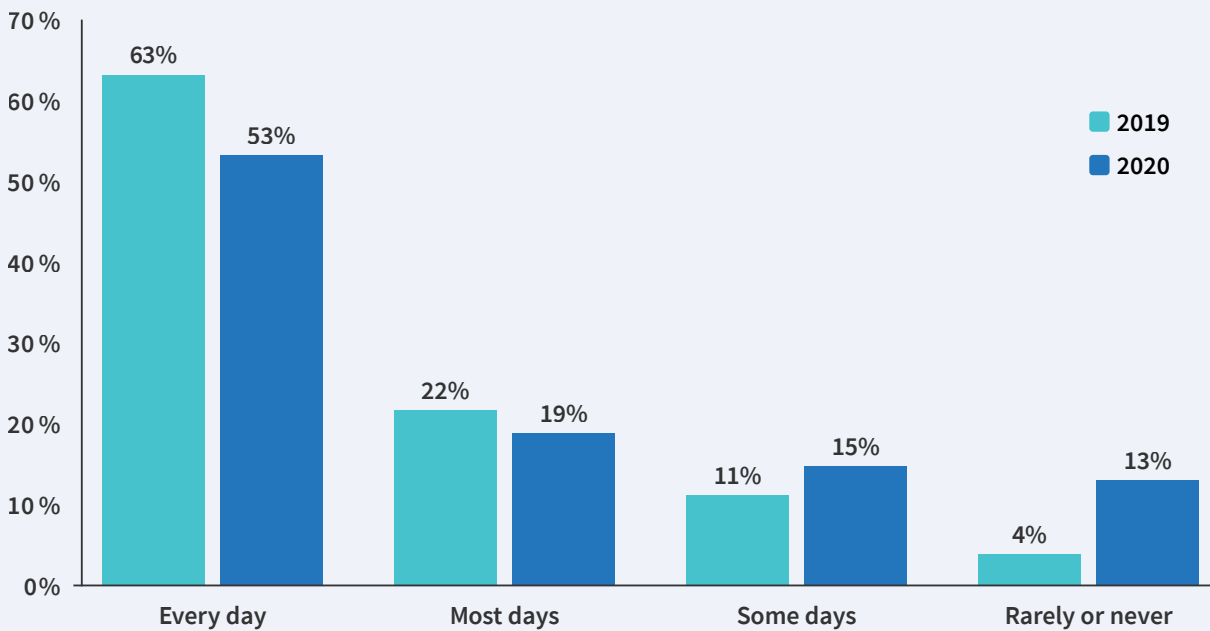
Previously active older adults, women, and Black and Hispanic older adults ventured outside less frequently, they showed based on NHATS data. The top reasons given for not going outdoors included avoiding contact with non-household members and needing to use mobility devices such as walkers or canes.

The researchers recommended that aging services providers seek ways to enable older adults to increase outdoor activities safely, including offering diverse physical and social activities, providing appropriate transportation, and increasing the availability of mobility devices. Service providers should “pay particular attention to racial/ethnic minority older adults and those with mobility and cognitive health challenges,” they noted.

FIGURE 2

One in Eight Older Adults Rarely Went Outside in 2020

Past-Month Frequency of Leaving Home/Building to Go Outside Among U.S. Adults Ages 70 and Older, 2019-2020



Source: Namkee G. Choi, Diana M. DiNitto, and C. Nathan Marti, “Older Adults’ Frequency of Going Outside During the COVID-19 Pandemic: Associations With Physical Distancing, Health Status, and Fall Risk Factors,” *Journal of Applied Gerontology* 42, no. 2 (2023): 324-35.



People with strong family relationships benefited most from virtual contact.

For Some, Virtual Interaction Was No Substitute for In-Person Interaction

Phone calls, Zoom or FaceTime gatherings, and other virtual communications became the norm for many people during the pandemic. Recent research shows that for some older adults, this was a mixed blessing.

Less in-person contact with family and friends and more virtual contact increased the likelihood that some older adults experienced loneliness, found another study from Namkee Choi and colleagues at the University of Texas at Austin.¹⁷

While most older adults did not experience increased loneliness during the COVID-19 pandemic, almost

one-fifth (19%) did, the researchers reported based on NHATS longitudinal data, which allowed them to examine loneliness before and after the COVID-19 social distancing and containment measures.

All participants reported fewer in-person contacts with friends and families during COVID-19 isolation, while respondents experiencing more loneliness had more phone and virtual contacts with family and friends. This association between virtual contacts and loneliness held both for meetings with family and friends and for participation in “clubs, classes, and other organized activities.”

The researchers identified several reasons why increased virtual contacts may fail to counteract

loneliness, including digital stress or burnout (especially for new users), Zoom fatigue, and eye strain. They added that virtual contact lacks the “embodied presence” and experience of human touch, and the opportunity to give or receive instrumental support such as grocery shopping or child care. This led them to a stark conclusion: “Virtual interaction is not an effective substitute for in-person interaction for older adults.”

In a separate study using data from the [National Social Life, Health & Aging Project](#) (NSHAP), Louise Hawkley of NORC at the University of Chicago and colleagues confirmed these findings: Older adults reduced their in-person contact with friends and family, and only a small percentage increased the frequency of remote contact.¹⁸ During the pandemic lockdowns, people experiencing less in-person contact reported lower levels of happiness and more depressive feelings and loneliness, but these negative effects were not improved by more frequent virtual contact after accounting for the effect of less frequent in-person contact.

On the other hand, research by Amanda Zhang and colleagues at the University of Chicago found that video communications may protect older adults with hearing or visual impairments from depressive symptoms.¹⁹ These findings were based on NSHAP data collected between September 2020 and January 2021.

People with these impairments used phone and in-person communication but were much less likely to participate in video calling, email, texts, or social media during the pandemic. Video communications appeared to have strong positive effects on mental health, perhaps because they better simulated real-life contact, offering body language, facial expression, and other cues, Zhang and colleagues found. They recommended steps that improve usability of video-mediated communications for older people with impaired hearing or vision.

While Family Could Be Fraught, Keeping Up With Friends Was Beneficial

A study of pairs of parents and adult children by Woosang Hwang of Texas Tech University and colleagues at Syracuse University suggested another approach to understanding the effects of virtual communication on older adults.²⁰ Adult children and their parents surveyed in 2021 and 2022 reported better mental health outcomes when their relationships were rated as strong—with frequent contact, including virtual communication—than when relationships had limited contact or conflict. In a similar 2022 study of South Korean parent-adult child pairs, those who reported strong relationships benefited most from virtual forms of contact.²¹ Parents reported better well-being and adult children reported higher levels of life satisfaction, compared to those whose relationships were conflicted.

Virtual contact may be particularly ineffective for older people living alone, suggested Karen Fingerma and colleagues at the University of Texas at Austin, based on a small local survey conducted in May and June 2021.²² For the one-third of respondents ages 69 and older who lived alone, phone and other forms of virtual contact did not improve their mood or emotional well-being. In fact, the researchers linked phone contact with higher levels of self-reported loneliness. They found that contact with friends—as distinct from family—was associated with improved well-being, and this link held for both in-person and phone contact.

Older adults who live alone likely spent more time with friends prior to the pandemic, and this contact felt familiar and comforting during the stressful lockdown period, Fingerma explained. “Friendships also tend to be voluntary and enjoyable, mitigating negative emotions during the lockdown, whereas family members can be a source of worry, tensions, and conflict, adding to the stress.”



During the pandemic lockdowns, people who went without in-person activities such as exercise classes reported more depressive feelings and loneliness.

Contact with friends and acquaintances may lead to greater levels of physical activity, contributing to health and well-being, reported Fingerman and colleagues in another study.²³ Data were from the [Daily Experiences in Late Life](#) Study of adults ages 65 and older in the greater Austin, Texas, area. “The results show us that these routine encounters have important benefits for activity levels and psychological well-being,” said co-author Debra Umberson. “This new information suggests the importance of policies and programs that support and promote routine and informal social participation.”

Can Policies Strengthen Social Connection?

Recent NIA-funded research shows that the pandemic affected older adults’ mental health.

However, many older adults were experiencing anxiety, depression, and social isolation before the pandemic, and continued to struggle with mental health issues after social restrictions were lifted. The research presented here shows how having strong social networks can provide a buffer against the effects of pandemic protections and improve mental health. “Older adults with smaller or sparser personal networks may face challenges in receiving needed pandemic support,” said Molly Copeland and Hui Liu from Michigan State University. “Policies or interventions targeting individuals most needing pandemic support should consider risks for such relatively isolated older adults.”²⁴

Providers and policymakers could improve the lives of people in residential care facilities and their caregivers by acknowledging, incorporating, and supporting the informal care workforce, Coe and Werner report. Possible interventions include:

- Integrating family caregivers into the care team, including paying them for their care and providing them with formal training.
- Prioritizing safe visits from family members during emergencies.
- Including family caregivers in prioritization formulas for vaccines during future pandemics.

Developing more user-friendly virtual communication tools could help older adults stay connected with family and friends, but research suggests these tools should supplement—not replace—in-person interactions. Helping older adults participate in outdoor activities could improve mental health, particularly for those living

in neighborhoods lacking green space, research suggests.

Organizing volunteer activities could help older adults stay active in their communities. NIA-supported research by Steve Cole at the University of California, Los Angeles shows that helping others through caregiving or volunteering also helps people feel less lonely.²⁵ “Working for a social cause or purpose with others who share your values and are trusted partners puts you in contact with others and helps develop a greater sense of community,” he notes. The U.S. Surgeon General calls for a “culture of connection” to address the “devastating impact of the epidemic of loneliness and isolation in the United States.” Social connection is the “medicine hiding in plain sight,” he argues.²⁶



Helping others through volunteering bolsters social ties and also helps volunteers feel less lonely.

References

- 1 National Institute on Aging, "[Social Isolation, Loneliness in Older People Pose Health Risks](#)," April 23, 2019.
- 2 Eun Young Choi et al., "[Changes in Social Lives and Loneliness During COVID-19 Among Older Adults: A Closer Look at the Sociodemographic Differences](#)," *International Psychogeriatrics* 35, no. 6 (2023): 305-17.
- 3 Eun Young Choi et al., "[COVID-19 Social Distancing Measures and Loneliness Among Older Adults](#)," *The Journals of Gerontology: Series B, Psychological Sciences and Social Sciences* 77, no. 7 (2022): e167-e178.
- 4 Haowei Wang et al., "[Mourning in a Pandemic: The Differential Impact of Widowhood on Mental Health During COVID-19](#)," *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* 77, no. 12 (2022): 2306-16.
- 5 Carly A. Joseph et al., "[Physical Isolation and Mental Health Among Older US Adults During the COVID-19 Pandemic: Longitudinal Findings From the COVID-19 Coping Study](#)," *Social Psychiatry and Psychiatric Epidemiology* 57, no. 6 (2022): 1273-82; and Lindsay C. Kobayashi, et al., "[Cohort Profile: The COVID-19 Coping Study, a Longitudinal Mixed-Methods Study of Middle-Aged and Older Adults' Mental Health and Well-Being During the COVID-19 Pandemic in the USA](#)," *BMJ Open* 11, no. 2 (2021): e044965.
- 6 Lindsay C. Kobayashi et al., "[Acute Relationships Between Mental Health and Cognitive Function During the COVID-19 Pandemic: Longitudinal Evidence From Middle-Aged and Older US Adults](#)," *SSM Mental Health* 2 (2022): 100097.
- 7 Fabrice Kämpfen et al., "[Predictors of Mental Health During the Covid-19 Pandemic in the US: Role of Economic Concerns, Health Worries and Social Distancing](#)," *PLoS One* 15, no. 11 (2020).
- 8 Emily E. Wiemers et al., "Age Differences in Older Adults' Experiences of Pandemic-Related Health and Economic Challenges," paper presented at the annual meeting of the Population Association of America, New Orleans, April 2023.
- 9 Shu Xu et al., "[Sensory Impairment and Depressive Symptoms Among Older Adults Before and During the COVID-19 Pandemic](#)," *Aging & Mental Health* (2023): 1-9.
- 10 Kira S. Birditt et al., "[Age Differences in Stress, Life Changes, and Social Ties During the COVID-19 Pandemic: Implications for Psychological Well-Being](#)," *Gerontologist* 61, no. 2 (2021): 205-16.
- 11 Carrie Henning-Smith et al., "[Rural/Urban Differences in Mental Health and Social Well-Being Among Older U.S. Adults in the Early Months of the COVID-19 Pandemic](#)," *Aging & Mental Health* 27, no. 3 (2023): 505-511.
- 12 Shannon M. Monnat, "[Rural-Urban Variation in COVID-19 Experiences and Impacts Among U.S. Working-Age Adults](#)," *Annals of the American Academy of Political and Social Science* 698, no. 1 (2021): 111-136.
- 13 Amanda Leggett et al., "[The Changing Tides of Caregiving During the COVID-19 Pandemic: How Decreasing and Increasing Care Provision Relates to Caregiver Well-Being](#)," *The Journals of Gerontology: Series B, Psychological Sciences and Social Sciences* 77, no. S-1 (2022): 86-97.
- 14 Norma B. Coe and Rachel M. Werner, "[Informal Caregivers Provide Considerable Front-Line Support in Residential Care Facilities and Nursing Homes](#)," *Health Affairs* 41, no. 1 (2022): 105-11.
- 15 Gabriela Bustamante et al., "[Mental Health and Well-Being in Times of COVID-19: A Mixed-Methods Study of the Role of Neighborhood Parks, Outdoor Spaces, and Nature Among U.S. Older Adults](#)," *Health & Place* 76 (2022): 102813.
- 16 Namkee G. Choi, Diana M. DiNitto, and C. Nathan Marti, "[Older Adults' Frequency of Going Outside During the COVID-19 Pandemic: Associations With Physical Distancing, Health Status, and Fall Risk Factors](#)," *Journal of Applied Gerontology* 42, no. 2 (2023): 324-35.
- 17 Namkee G. Choi et al., "[COVID-19 and Loneliness Among Older Adults: Associations With Mode of Family/Friend Contacts and Social Participation](#)," *Clinical Gerontologist* 45, no. 2 (2022): 390-402.
- 18 Louise C. Hawkey et al., "[Can Remote Social Contact Replace In-Person Contact to Protect Mental Health Among Older Adults?](#)" *Journal of the American Geriatrics Society* 69, no. 11 (2021): 3063-5.
- 19 Amanda Zhang et al., "[Can Digital Communication Protect Against Depression for Older Adults With Hearing and Vision Impairment During COVID-19?](#)" *The Journals of Gerontology: Series B, Psychological Sciences and Social Sciences* 78, no. 4 (2023): 629-38.
- 20 Woosang Hwang et al., "[Intergenerational Solidarity With Digital Communication and Psychological Well-Being Among Older Parents During the COVID-19 Pandemic](#)," *Family Process* (2023).
- 21 Woosang Hwang et al., "[Intergenerational Solidarity and Digital Communication During the Covid-19 Pandemic in South Korea: Implications for Dyadic Well-Being](#)," *Family Process* 22 (2023):
- 22 Karen L. Fingerma et al., "[Living Alone During COVID-19: Social Contact and Emotional Well-Being Among Older Adults](#)," *The Journals of Gerontology: Series B, Psychological Sciences and Social Sciences* 76, no. 3 (2021): 116-21.
- 23 Karen L. Fingerma et al., "[Variety Is the Spice of Late Life: Social Integration and Daily Activity](#)," *The Journals of Gerontology: Series B: 75*, no. 2 (2020): 377-88.
- 24 Molly Copeland and Hui Liu, "[Who Gets Help? A National Longitudinal Study of Personal Networks and Pandemic Support Among Older Adults](#)," *The Journals of Gerontology: Series B, Psychological Sciences and Social Sciences* 78, no. 2 (2023):341-51.
- 25 Steve W. Cole et al., "[Myeloid Differentiation Architecture of Leukocyte Transcriptome Dynamics in Perceived Social Isolation](#)," *Proceedings of the National Academy of Sciences* 112, no. 49 (2015): 15142-7.
- 26 U.S. Department of Health and Human Services, "[New Surgeon General Advisory Raises Alarm About the Devastating Impact of the Epidemic of Loneliness and Isolation in the United States](#)," May 3, 2023.

Carolina Center for Population Aging and Health (CCPAH)
University of North Carolina, Chapel Hill

Center for Advancing Sociodemographic and Economic Study of Alzheimer's Disease and Related Dementias (CEASES-ADRD)
University of Southern California/University of Texas at Austin/Stanford University

Center for Aging and Policy Studies (CAPS)
Syracuse University/ Cornell University/
University at Albany

Center for Demography of Health and Aging (CDHA)
University of Wisconsin—Madison

Center for Health Aging Behaviors and Longitudinal Investigations (CHABLIS)
University of Chicago

Center for Population Health and Aging (CPHA)
Duke University

Center on Aging & Population Sciences (CAPS)
University of Texas at Austin

Center on Biodemography and Population Health (CBPH)
University of Southern California/University of California, Los Angeles

Center on the Economics and Demography of Aging (CEDA)
University of California, Berkeley

Center to Accelerate Population Research in Alzheimer's (CAPRA)
University of Michigan

Hopkins' Economics of Alzheimer's Disease and Services (HEADS) Center
Johns Hopkins University

Life Course Center for the Demography and Economics of Aging (LCC)
University of Minnesota

Michigan Center on the Demography of Aging (MiCDA)
University of Michigan

NBER Center for Aging and Health Research
National Bureau of Economic Research

Population Aging Research Center (PARC)
University of Pennsylvania

The NIA Centers on the Demography and Economics of Aging and Alzheimer's Disease and Alzheimer's Related Dementias

The National Institute on Aging (NIA) of the National Institutes of Health supports research centers on the demography and economics of aging and Alzheimer's disease and Alzheimer's related dementias at the universities and organizations listed above. This publication summarizes new aging-related research, with emphasis on work conducted at the centers. Our objective is to provide decisionmakers in government, business, and nongovernmental organizations with up-to-date scientific evidence relevant to policy debates and program design.

These reports can be accessed at www.prb.org/todays-research-on-aging/.

This issue was produced by PRB with funding from the Coordinating Center for the Centers on the Demography and Economics of Aging and Alzheimer's Disease and Alzheimer's Dementias, which coordinates the dissemination of findings from the centers and is based at the University of Michigan.

Issue 43 was written by PRB's Paola Scommegna, Senior Writer in U.S. Programs, and Mark Mather, Associate Vice President in U.S. Programs. It was edited by PRB's Raquel Wojnar, Communications Manager, and designed by Anneka Van Scoyoc, Head of Design at PRB.



1111 19th St. NW
Suite 400
Washington, DC 20036



Centers on the Demography & Economics
of Aging and Alzheimer's Disease
and Alzheimer's Related Dementias

426 Thompson Street
P.O. Box 1248
Ann Arbor, MI 48106