

# The World Has Changed: Emerging Challenges for Health Care Research to Reduce Social Isolation and Loneliness Related to COVID-19

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The National Academies of Sciences, Engineering, and Medicine (NASEM) released a consensus study report titled “Social Isolation and Loneliness in Older Adults: Opportunities for the Health Care System” on February 27, 2020 [1]. The report summarized research evidence on the health effects of social isolation and loneliness and made recommendations for potential roles the health care system could play in reducing those effects in older adults. The report included recommendations for future research, predominately in the areas of shared measurement strategies, interventions, and impact on vulnerable populations. In the months since the report, the COVID-19 pandemic altered social interactions among people around the world. Some of the new interactional norms will need to continue for months or years, depending on how the pandemic progresses. These norms continue to evolve amid the current widespread protests against systemic racism and police brutality. The world has changed, almost overnight. In this paper, the authors offer a preliminary outline of proposed research priorities to inform strategies to mitigate the health effects of social isolation and loneliness during the COVID-19 pandemic and beyond.

## What Do We Need to Know?

New physical distancing guidelines have reduced not only disease transmission pathways, but also many of the pathways through which people express love, care, and social support. As people return to work in person and businesses and schools reopen, the authors expect everyday life will be punctuated with returns to physical distancing, stay-at-home guidelines, prolonged recommendations for facial coverings, and limited face-to-face interactions. People will be increasing-

ly aware of the government and institutional controls that ebb and flow with the pandemic’s trajectory and will be required to develop their own interpretations of social risks during times of conflicting or minimal guidance. Our society must consider the consequences for people who were socially isolated and/or lonely prior to the new interactional norms and for those newly at risk. Data need to be collected now to deepen researchers’ and health professionals’ understanding of public and private life in this new era. In order to identify research and practice implications, the authors propose five overarching questions to guide thinking about future priorities:

1. How have physical distancing, stay-at-home guidelines, and reduced or altered interactions impacted those who were experiencing social isolation and loneliness prior to the onset of the pandemic, and how will the role of the health care system need to change to meet their needs?
2. Which populations are newly at risk for social isolation and loneliness, given new social practices and risks related to COVID-19?
3. How are people assessing risks in the transitions between life prior to COVID-19, the current practice of physical distancing, and an uncertain future?
4. How do social determinants of health contribute to social isolation and loneliness in the context of the pandemic and social upheaval?
5. Given the context of the COVID-19 pandemic, what social and institutional infrastructures are needed to minimize social isolation and loneliness and their negative health effects?

These and other issues must be addressed by the research community in order to ensure compassionate and humanistic ways of fostering a sense of connection.

### **How have physical distancing, stay-at-home guidelines, and reduced or altered interactions impacted those who were experiencing social isolation and loneliness prior to the onset of the pandemic, and how will the role of the health care system need to change to meet their needs?**

The NASEM report focused on ways health care professionals can reach out to older adults to reduce social isolation and loneliness [1]. That report also addressed strategies that health care systems can institute to prevent or mitigate the impact of social isolation and loneliness, including prompts to ask about social isolation and loneliness in the electronic health record and partnerships with social care providers in the community. However, the role of health professionals and the health care system will need to change in the context of the COVID-19 pandemic. Those who were experiencing social isolation and loneliness have likely been impacted by COVID-19 and others are feeling the effects on social connection as well. This means health care providers should pay particular attention to social isolation and loneliness as care delivery strategies change.

As an example, the adoption of telehealth strategies has been dramatic [2], and this rapid adoption may change the full array of therapeutic interactions [3]. However, consideration is needed for the situations in which telehealth is effective and those in which it is not. For example, the NASEM report highlighted the fact that clinician visits may serve as the only touchpoint to identify those who are isolated or lonely. The use of telehealth may therefore either improve connection by providing more opportunities for interaction, or may exacerbate isolation or loneliness if it is unable to provide the same quality of interaction as an in-person visit. Furthermore, if policies are adapted to enable more lasting, widespread implementation of telehealth, understanding the consequences for health disparities is essential. Some populations do not have access to telehealth technologies [4], and there may be others unable to take advantage of it because of logistical issues or physical constraints such as hearing or vision impairment.

### **Which populations are newly at risk for social isolation and loneliness, given new social practices and risks related to COVID-19?**

The NASEM report highlighted the knowledge gaps about who is most at risk for social isolation and loneliness, and current understanding of how best to intervene with these populations [1]. The report focused on ways the health care system and health professionals could mitigate risks and impact of social isolation and loneliness on adults ages 50 and older. While not all older people are socially isolated or lonely, various aspects of aging might heighten risks of becoming socially isolated or lonely. Similarly, new groups of people may feel socially isolated or lonely because of the way they now need to work or other sequelae of physical distancing. Such populations now at risk for social isolation and loneliness may never have been previously on the radar of researchers and policy makers as being vulnerable to this issue. An example might be people living alone whose primary social interactions came with their daily working life. With many working at home now, video conferencing may not function in the same way as the office break room, and therefore may not satisfy an individual's need for social connection.

Another example includes health care workers and other essential workers who incur risks of infection to perform their jobs [5]. For healthcare workers especially, the stigmatizing experience of being perceived as infected by the general public has been exacerbated by the trauma of witnessing the suffering of patients, high workloads, and the complex clinical needs of people suffering with COVID-19 [6]. In a study of healthcare workers in Italy, Ramaci et al. [7] found that stigma related to caring for COVID-19 patients was associated with higher levels of burnout and fatigue, and lower levels of job satisfaction. For other essential workers, variable access to personal protective equipment or testing may affect their confidence that they are being supported by the public, leading to social isolation and loneliness due to similar stigmatization. Overall, researchers need to consider whether there is an increase in stigmatization of certain populations because of fear of contagion, creating new populations at risk for social isolation and loneliness.

Tull and colleagues [8] reported correlations between social distancing, perceived impact of COVID-19, and increases in anxiety, depression, and loneliness among a national sample of adults in the United States. Stay-at-home guidelines, physical distancing, and reduced or altered interactions may accelerate feelings of anxiety, but it is not clear if that is the case, which

populations have higher levels of risk, and how to optimally address these concerns while managing the non-pharmacologic interventions required by the pandemic. Whether stress and anxiety originate in economic concerns, worry about health or vulnerability to risk, or reductions in personal freedoms, researchers should examine how pervasive anxiety influences feelings of loneliness and decision-making tactics.

### **How are people assessing risks in the transitions between life prior to COVID-19, the current practice of physical distancing, and an uncertain future?**

Social interaction is a key preventive and remedy for social isolation and loneliness. In the initial weeks of COVID-19 spread in the United States, everyday interactions changed profoundly. Family members who did not live together had to weigh the risk of infection against traditional expressions of greeting and love when deciding whether or not to hug one another [9]. The everyday role and importance of smiling became apparent when, wearing masks, people realized only their eyes reflected their emotions. Over time, the risk-benefit calculation seems to have altered as people have begun entering the public sphere more regularly, and subsequently experiencing “caution fatigue” [10] in their adherence to preventive measures. People’s willingness to enter public settings and engage with others may change again with fluctuations in the spread of the pandemic. However, the public may also be left with uncertainty about how to assess risk, and epidemiological models offer little support to someone deciding whether to ride in the car with an elderly parent or drive separately. Previous experience tells individuals to be careful around other people when actively ill, such as when one has a severe cold. However, with COVID-19, the risks to others are more significant than those of a cold, and it is hard for people to interpret risks with which they have had no experience. Individual actions have always reflected an unconscious risk calculation [11,12], but now the calculation needs to be more available to thinking and planning.

Decision making is often guided by habits and routines [13], and people are creating new habits to accommodate COVID-19. These new habits beg the question: how do individuals and the general public perceive risk in the context of rapid change and high uncertainty? Society is already entering a period where trade-offs are being discussed about the risks to personal and public health with reductions in non-pharmacologic measures (such as mask-wearing) to control the pandemic versus the risks of economic collapse.

Crowds are now being perceived as a public health risk. Therefore, another key area of research is to examine perceptions of risk [14]. In particular, how will norms of acceptable public behavior change as the public rethinks what is risky and how will those norms affect feelings of social connection?

It seems likely that perceptions of time are changing [15]. The pace of life has slowed in some cases, and in others (e.g., for health care workers and essential workers in other industries), it may have increased dramatically. Time affects decision biases and may alter choices [16]. These changes in the perception of time raise several key questions for researchers: How might the early experience of physical distancing and other nonpharmacologic interventions and their expected duration influence feelings of loneliness, or development of depression and anxiety? What impact might hearing that these strategies may need to continue in various ways for up to two years [17] influence willingness to follow these guidelines? Does the projected length of these measures result in people discounting their importance? Petas and Ehmer [18] noted that ability to sustain disaster recovery efforts over a long period of time depended upon the strength of social connections in the community mounting the effort. Their argument suggests that in order to successfully maintain the non-pharmacologic measures needed to reduce the incidence of COVID-19, finding ways to support social connections is critical. However, temporal changes in public and private life may influence decision making and stress, particularly in high risk groups such as health care workers and other essential workers. Experts are anticipating symptoms of PTSD among essential workers, including health care workers [19]. If this occurs, more research is needed to answer key questions such as: will symptoms worsen over time and periods of recovery lengthen? What implications would these patterns have for interventions?

### **How do social determinants of health contribute to social isolation and loneliness in the context of the pandemic and social upheaval?**

The new ways of physically distancing from others and the economic consequences of physical distancing mandates and subsequent shut-down orders are having disproportionately negative impacts on those who are already in underserved communities or have fewer resources, including populations who rely on public transportation, who work in industries in which work from home is not possible, who live in food deserts, who are low wage earners [5,20] and who have limited access to the internet. Not enough is known

about risks and interventions with underserved populations such as those with lower socioeconomic status, rural populations with variable internet access, people living in underserved urban areas, racial and ethnically diverse populations, and the LGBTQ population. Key research questions include: To what extent is the current pandemic exacerbating risk factors for social isolation and loneliness in these groups? For example, given the widespread reliance on technology for communication, work, and learning, at what additional disadvantage might groups be who are without adequate access to broadband [4]?

### Given the context of the COVID-19 pandemic, what social and institutional infrastructures are needed to minimize social isolation and loneliness and their negative health effects?

New social and institutional infrastructures may be needed to minimize social isolation and loneliness in this changing reality. Western cultural norms may shift to include non-contact greetings more common in cultures around the world (such as bowing), rather than handshakes. Institutionally, gathering in smaller groups may become the norm as well as working from home whenever possible. Some companies have already signaled they may reduce their real estate expenses and rely more on remote working arrangements. If this occurs, more consideration will be needed for what companies and organizations need to do to ensure employee engagement and sense of connection. Local non-profits and community groups may play an increasing role in these efforts. Key research questions include: How does social isolation fit into the existing concept and regulatory infrastructure of occupational safety and health? What are the best ways to work with business and industry to address the impact of social isolation and loneliness on worker well-being?

### Conclusion

The dramatic changes to social life from the non-pharmacologic measures instituted to control the COVID-19 pandemic seem likely to alter experiences of social isolation and loneliness. It is impossible to think of quality of life, health, and health care without considering the potential impact of much more widespread prevalence of social isolation and loneliness in the population. Scientists have an opportunity and a responsibility to consider these issues as they relate to key areas of research. When possible, researchers need to add questions specific to the impact of the pandemic to current studies and to target these questions for additional investigation. Similarly, funders should continue the flex-

ibility many have already demonstrated and develop ways to add such questions to active research and call for full proposals on these topics.

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None to disclose.

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