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Building Connections to Improve Weather Emergency Preparedness for Socially Isolated Older Adults

This guide describes how health center providers and staff can use a simple visual social mapping tool to help socially isolated older adults build social networks in preparation for a weather emergency. **For more information about the National Center for Equitable Care for Elders, visit ece.hsdm.harvard.edu.**



Introduction

Socially isolated older adults are at high risk for life disruption, serious injury, or death related to a weather emergency. Social mapping is a method providers can use to help this patient population identify and build social networks as critical preparation in advance of a weather emergency.

What Is Emergency Preparedness?

Emergency preparedness refers to preparation for and response to a disaster.¹ Disasters are massive events that have the potential to overwhelm local or regional resources and possibly require external support.² Disasters can be significant weather events, terrorist attacks, pandemics, and many other threats to health and safety. Emergency preparedness and response includes actions taken by governments, health facilities, businesses, and individual citizens.

In this guide, ***emergency preparedness*** will focus on actions taken by individual community health center providers to educate their older adult patients in preparation for an acute weather emergency and its aftermath. For information about general federal emergency preparedness rules, see [CMS Emergency Preparedness Rules](#) and [HRSA Webinar on Emergency Preparedness](#).



What is the difference between living alone, social isolation, and loneliness?

Living alone refers to individuals living without other people in the same home. **Social isolation** is when a person has limited social ties. **Loneliness** refers to the feeling of being alone.³ To learn more, read the NCECE publication [Strengthening Social Connection in Older Adults](#).

All older adults should be screened for social isolation. While some older people living alone do so with robust social connections, they are still more likely to be socially isolated than those who live with others.³ Social isolation is associated with worse health outcomes, depression, loneliness, and substance abuse.



Learn more: [Social Isolation and Loneliness Outreach Toolkit \(NIH\)](#)

Social Isolation Is a Risk Factor During a Weather Emergency

The number of older adults (> 65 years) living alone will skyrocket in the next 20 years. Baby boomers (born between 1946 and 1964) are more likely than previous generations never to have been married, to be divorced, to live geographically separated from relatives and friends, and/or to be childless.⁴ Persons over the age of 85 are the most rapidly expanding subgroup of older adults, often having survived the death of a partner, close relatives, and friends.

Social isolation is an independent risk factor for older adults' ability to manage during a weather emergency (e.g., receiving timely information and ability to depart their residence).⁵ A robust social network underpins preparation and response to weather emergencies. For socially isolated older adults who do not have an established social network for support and rescue before, during, and after a major weather emergency, their situation can quickly deteriorate into a life-threatening or life-altering scenario.⁶

Experiencing a traumatic health outcome during or in the aftermath of a weather emergency is more likely when people have no one to rely on, no one to call, or no one who realizes they may be at risk.⁷

Older adults are more likely than any other age group to be a casualty of a weather emergency.⁸ About half of the deaths during or in the aftermath of Hurricane Katrina in 2005 and Hurricane Sandy in 2012 were individuals over age 65.⁹⁻¹¹ For over two decades, older adults have been at significantly higher risk of dying from heat-related cardiovascular disease than their younger counterparts.¹² These examples underscore the need for comprehensive emergency preparedness plans for this patient population.

Extreme Heat Events and Social Isolation

Social isolation for older adults during an extreme heat event illustrates the relationship between a limited social network and health risks during a weather emergency. An extreme heat event due to weather or a power outage can be devastating for isolated older adults because heat often kills silently and invisibly. Older adults are generally less tolerant of rapid changes in ambient temperatures than younger people.¹³ Surviving extreme temperatures relies on prevention and early recognition. For isolated older adults, lack of social connection to neighbors, health providers, or community supports during an extreme heat event can increase the

chances of irreversible health harm (including kidney failure, falls, heart attack, and brain injury) or death.¹⁴



A variety of factors contribute to poor health outcomes in socially isolated adults during a weather emergency:

Home and Community Safety

Housing complexes with poor maintenance records can contribute to poor outcomes during a weather emergency.¹⁵ For instance, elevator breakdowns, poor ventilation, lack of cooling in community spaces, and disrepair of water systems can worsen breakdowns in critical informal and formal support systems during a crisis. Additionally, a heightened sense of entrapment from fear of neighborhood violence can erode opportunities to build social networks in and around outside housing communities.¹⁶ Older people living in literal isolation behind closed doors are at an increased risk of going unnoticed during a weather emergency.

Rural Environments

Older adults living in rural settings have distinct risks during weather emergencies. Barriers such as lack of public transportation, lack of internet and cellular connections, as well as long distances to health care and mental health facilities can magnify social isolation.

Personal and Cultural Values

Older adults, particularly men, can experience harm during a weather emergency related to American cultural norms prioritizing self-sufficiency, independence, and privacy. Stigma and taboo about asking for help in this patient population can be related to the perception that they are creating a burden for others or that asking for help is sign of character weakness.¹⁷ Some older adults may perceive interactions with emergency personnel, local authorities, or concerned neighbors as intrusive.

Gender

Generally, women live longer than men. Women are distinctly vulnerable to disproportionate verbal, physical, and sexual abuse in the aftermath of a weather emergency.¹⁸ These impacts only heighten in the context of narrow social networks or challenging living environments.

Cognitive Impairment

Disruptions in daily routines caused by weather events can worsen confusion or trigger delirium. Patients with dementia are especially vulnerable in the aftermath of storm-related power outages or lapses in caregiver access.¹⁹

Vision and Hearing Impairment

Weather emergencies and their aftermath can exacerbate the ability to communicate or receive urgent emergency communications for persons with visual and hearing impairment.

Disrupted Access to Healthcare

Socially isolated older adults are less likely to have regular contact with health and social service providers. During weather emergencies, socially isolated people can become disconnected from local emergency resources, regular medical care, and medication access. Adverse health effects in this population can last long past the acute phase of a weather emergency, sometimes precipitating long-term health harm or disability.

Social mapping can help prepare socially isolated older patients for a weather emergency

What Is Social Mapping?

Social mapping is a visual tool that can help people reflect on their relationships and communities. Creating awareness of older adults' social connections can help them understand how they perceive a relationship, as well as their communication style. A simple social map drawing using pen and paper can be done by a patient, with or without the help of a caregiver or clinical provider. This map can encompass the patient's care and safety network during an emergency.

Social Mapping Can Help Health Centers:

- understand a patient's social network
- identify gaps in a social network that are potentially life-threatening during a weather emergency
- start conversations about emergency preparedness

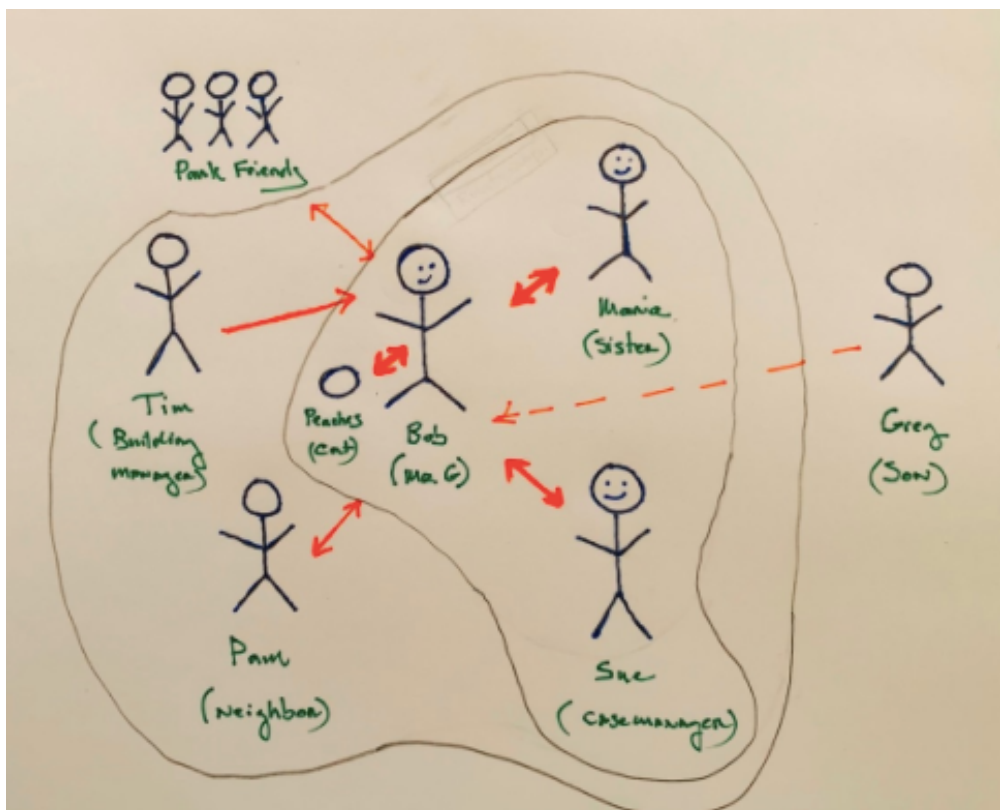
Getting Started With a Map

1. Collect data: Gather basic information about a patient's social network on a data collection sheet. Ideally, the patient fills out the sheet.
2. Draw the map with the patient. We suggest utilizing the Atlas of Caregiving instructions for data collection and drawing.
3. Reflect on the social map with the patient. Use reflection questions suggested by the Atlas of Caregiving guide to assist a patient in exploring their social network. (These questions can be modified as needed.)
 - a. **In creating this drawing, what stood out for you the most?**
 - b. **Who would you rely on most to help you through a weather emergency?**
 - c. **Who may rely on you during a weather emergency? (pets included)**
 - d. **How can I support you to be prepared for a weather emergency?**



Example: Social Mapping Exercise

Mr. G. is an 82-year-old Vietnam veteran with a history of post-traumatic stress disorder (PTSD) and chronic obstructive pulmonary disease (COPD). He lives alone in a third-floor one-bedroom apartment in the city's downtown area. The apartment does not have air conditioning. He relies on the city bus to access pharmacy care and medical visits and uses a cane to walk, due to a war injury. Mr. G. has a son who lives out of state and from whom he has been estranged for seven years. His sister lives one hour away by car. He speaks to his sister on the phone once a week. His next-door neighbor will occasionally give him a ride to the grocery store. The building manager is helpful with repairs in his apartment. Mr. G. occasionally plays cards in the park with locals. He identifies his case manager at the health center as someone he relies on for successful medical care. He has a landline for phone communication.



Circles represent **distance** between connections, which can range from immediate household to hours away

Arrows indicate which **direction** care is given: one way or both ways



Bolder lines indicate a higher **frequency** of care or contact, while lighter or dotted lines indicate a lower frequency



Which aspects of Mr. G's situation place him at a higher risk for life disruption, serious injury, or death related to a weather emergency?

- Limited social network to assist him when regular services are unavailable
- Mobility issues and three flights of stairs may limit independent ability to evacuate quickly
- No identified easily accessible space with air conditioning
- No mobile phone, which may impact his ability to receive important information related to emergency response
- Transportation difficulties, limited access to food, delayed medical care

Based on the above history, here are three possible health care interventions to support Mr. G's preparation for a weather emergency:

1. As a team, outline a plan to ensure Mr. G has an adequate supply of medications to get him through a future weather emergency.
2. Schedule a home safety evaluation and assist Mr. G in identifying an air-conditioned community space.
3. Offer supportive referrals to community services that will allow Mr. G to expand his social network.

Key Takeaways:

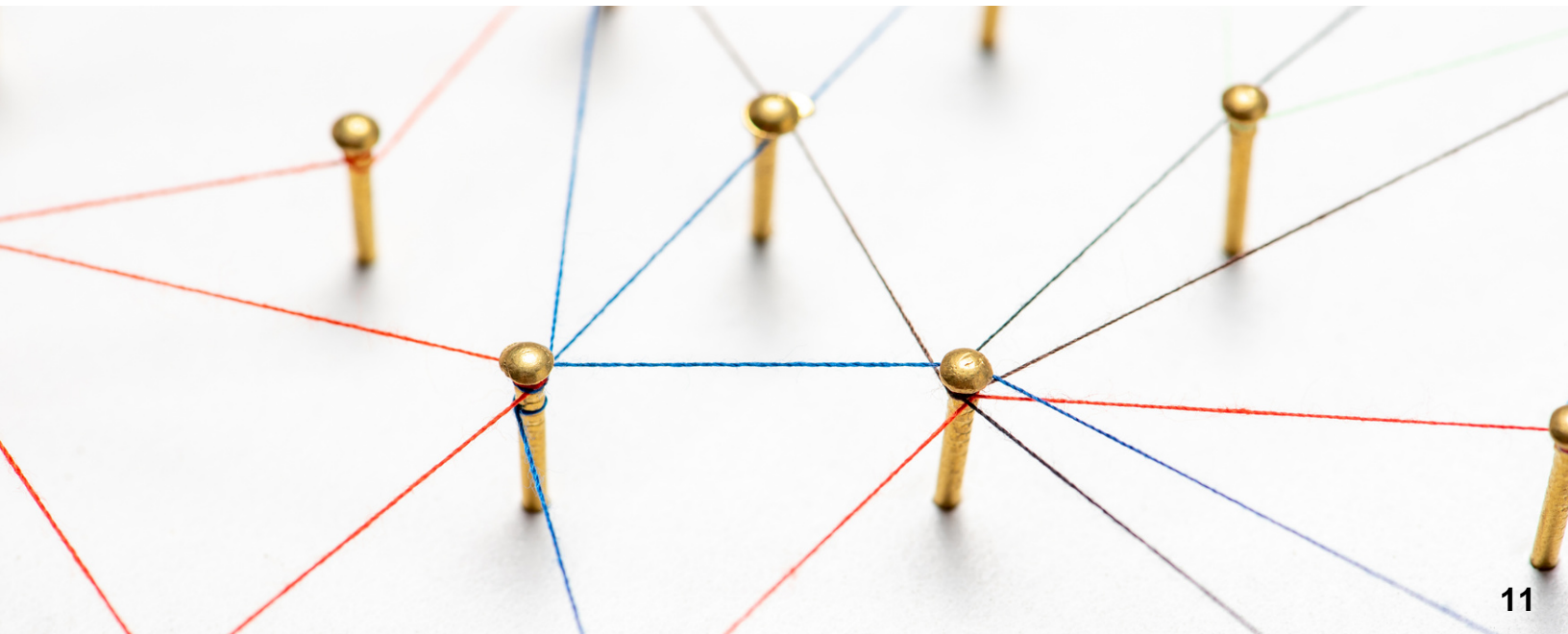
- Social mapping is more than just a list of emergency contacts; it helps to visualize interconnectedness.
- Social mapping is intended to help patients (and their providers) better understand a current social network, which will particularly benefit an older adult who has been identified as socially isolated.
- Social mapping is a patient-centered activity that can be empowering for older adults as they prepare for weather emergencies.

Conclusion

While social mapping can support patients at any age or social circumstance, it can especially help socially isolated older adults identify, build, and reflect on their unique social networks as critical preparation for a weather emergency. Through this approach, health center providers and staff can target areas for patient education about emergency preparedness and leverage community-based resources to address gaps in preparedness.

Resources

- Emergency Preparedness for Older Adults (Red Cross)
 - Disaster and Emergency Preparedness for Older Adults: A Practical Guide to Help Plan, Respond and Recover (Red Cross)
 - Building Your Support Network (Red Cross)
 - Emergency Contact Card (Red Cross)
- Get Ready, Older Adults (Ready Campaign)
 - Make a Plan Form (Ready Campaign)
- Prepare For Emergencies Now: Information For Older Americans (FEMA)
- Mapping Ourselves Guide (Atlas of Caregiving)



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