# **Climate and Health Resilience Initiative**



A Pilot Intervention to Strengthen **Community Resilience to Severe** Weather Events in the Monadnock Region

June 2022

ANTIOCH UNIVERSITY NEW ENGLAND ANTIOCH UNIVERSITY REV ENGLAND Center for Climate Preparedness and Community Resilience

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ANTIOCH UNIVERSITY NEW ENGLAND Center for Climate Preparedness and Community Resilience

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# **Executive Summary**

The changing climate in the Monadnock Region of southwestern New Hampshire, combined with more frequent and severe weather events, and an aging population, is affecting the community health and resilience of the region. The Climate and Health Resilience Initiative (CHRI) implemented an intervention to measure and strengthen the region's community resilience during the winter and spring of 2022. Community organizations, including emergency management, health care, social services, and community leaders, participated in a series of online surveys and virtual workshops. Educational topics included the current trends on climate hazards and their impacts on human health, and community resilience definitions and metrics. The workshops also implemented two evidence-based resilience tools: Assessing Disaster Engagement with Partners Toolkit (ADEPT); and the COPEWELL Toolkit on Social Capital and Cohesion. Through engagement with these tools, participating community organizations assessed current levels of community resilience and identified next steps to increase resilience in the region with a focus on the older adult population. While both toolkits received favorable ratings, the COPEWELL toolkit was more likely to be recommended by participating organizations to other communities engaged in strengthening community resilience. Survey results indicated that the intervention helped to strengthen the resilience of the region by increasing participant understanding of resilience, connecting organizations, building new relationships, and starting conversations about community resilience. We include recommendations for building upon the lessons learned during this intervention to: a) strengthen the resilience of the Monadnock Region; b) build upon this workshop series, and c) advance the field of climate and health resilience research in the Northeast.

# Introduction

The Greater Monadnock Public Health Network (GMPHN), the New Hampshire Department of Health and Human Services (NH DHHS), and Antioch University's Center for Climate Preparedness and Community Resilience (CCPCR) formed a collaborative partnership in 2022 as part of an ongoing effort to strengthen the resilience of New Hampshire's Monadnock Region to flooding and other climate-related severe weather events. The partnership designed and implemented a six-month pilot project to strengthen community resilience: The Climate and Health Resilience Initiative (CHRI). CHRI built upon the region's Climate and Health Adaptation Plan (Greater Monadnock Public Health Network, 2016), the previous success of the Region's Building Resilience Against Climate Effects (BRACE) project to strengthen individual resilience (Greater Monadnock Public Health Network, 2019), and a literature review of evidence-based community resilience interventions implemented in the Northeast (Abrash Walton et al., 2021). The partnership implemented and evaluated the CHRI pilot project between January and May, 2022. This report presents the context for the project, the intervention and its methodology, research results and lessons learned, and recommendations for future projects aimed at strengthening community resilience, at a local scale.

# Background

CHRI's focus on building community health resilience complements and builds upon previous work in the Region. Community health resilience is defined as "the ability of a community to use its assets to strengthen public health and healthcare systems and to improve the community's physical, behavioral, and social health to withstand, adapt to, and recover from adversity" (Assistant Secretary for Preparedness and Response, 2015, para. 1). Within the community health resilience framework, the health and wellbeing of our older adults can be enhanced through actions designed to improve the health, resilience, and sustainability of our communities (Wulff et al., 2015). In our review of the literature (Abrash Walton et al., 2021), we found very few projects in the Northeast that attempted to measure or act to increase community health resilience and reduce the health impacts of severe weather events. By implementing and assessing a community resilience building initiative, this project fills a key gap in the public health literature and addresses a critical need in the Monadnock Region of New Hampshire.

The Monadnock Region is already experiencing the impacts of a changing climate. Increase in rainfall intensity and frequency in the Northeastern United States is higher than in other regions of the contiguous United States, and climate predictions suggest the region will receive an additional one inch of rainfall annually between December and April by the end of this century (Reidmiller et al., 2020). Severe weather events include storms that produce excessive rainfall, wind, snow, coastal storm surge, or riverine flooding (Kunkel, 2022). When combined with or consecutive to a heatwave, a cold snap, or extended drought, severe precipitation events may have a devastating impact on the health and resilience of a community and its resources.

The increasing number of heavy precipitation events in the Northeast have become a leading cause of crop loss and public health concerns where soil erosion, leaching, and runoff of manures, fertilizers, and pesticides contaminate human food and water (Reidmiller et al., 2020). Increased precipitation and resulting runoff can result in flooding is already causing injury and death, disrupting essential services, and damaging private property resulting in cascading financial and human health impacts (Reidmiller et al., 2020). Other physical and mental health impacts associated with extreme precipitation and flooding include loss of power, physical and

social isolation, relocation, spoiled food or medication, contaminated water, and the inability to operate oxygen tanks or other powered medical devices.

Weather records for Keene, New Hampshire, at the center of New Hampshire's Monadnock Region, indicated that the highest precipitation increase was .45 inches per decade from 1895-2012 during the winter months; however, from 1970-2012, the highest increase in precipitation was 1.12 inches per decade during the fall (Wake et el., 2014). The recent increase in precipitation directly impacted communities in the Monadnock Region that experienced more frequent 100-year and 500-year floods; the more-frequent floods led to more frequent disaster declarations by the Federal Emergency Management Agency (FEMA). One of the most notable disaster declarations for New Hampshire and the Monadnock Region in particular, occurred after an extreme precipitation event in October 2005. Nearly 18 inches of rain during a 30-hour period resulted in devastating flooding in the region's towns of Alstead, Walpole, and Langdon, causing seven deaths, and damage or destruction to many miles of roads and more than 100 buildings and homes in the area (City of Keene, New Hampshire, 2007; Olson, 2006). FEMA declared 13 major disaster declarations in New Hampshire, during the period 2010 to 2021, due to severe storms and flooding (FEMA, 2021a, 2021b). Nine of those 13 events, which included rain or snowfall and flooding, directly affected the Monadnock Region.

Flood events, which have become one of the most significant climate-related health hazards in the Monadnock Region, continue to increase in frequency and severity (Wake et al., 2014). We present here examples from the past year. Every town in the Monadnock Region was impacted during the two consecutive heavy rain events in July 2021. Residents of one street in the town of Swanzey, more than one-half mile from the Ashuelot River, had to be evacuated as their homes were surrounded by the rising floodwaters (Swanzey Fire Department, 2021).

Residents in the town of Marlow were evacuated when rising floodwaters from a small brook flooded their home (SWNH Alerts and Information, 2021). A sinkhole at a Marlow dam, hours later, prompted the voluntarily evacuation of 24 homes (Belanger, 2021). A vegetable farm in the town of Antrim reported more than three feet of floodwaters covering the fields in just a few hours (Saari, 2021). The flood waters destroyed nearly all of the tomatoes, pumpkins, squashes, cucumbers, and corn, and more than half of the peas and beans (Tenney Farm LLC, personal communication, May 19, 2022). The farm experienced four flood events during the summer of 2021, and lost both revenue and access to the fields for the control of pests and diseases (Tenney Farm LLC, personal communication, May 19, 2022).

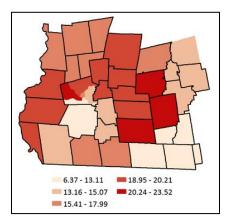
Health impacts of climate-related severe weather events include, death, injury, disease, chronic illnesses, and emotional distress (Ebi & Hess, 2020; Greater Monadnock Public Health Network, 2016). These health impacts can be different among individuals in each community, based upon an individual's sensitivity to climate stressors and the community's capacity to prepare for, respond to, and recover from the events (Ebi & Hess, 2020). Different populations may have a reduced capacity to prepare for, respond to, and recover from the events. These groups may include residents and communities that are physically, technologically, or socially isolated or vulnerable (Martin, 2015).

A New Hampshire social vulnerability index, which used 2008-2012 socioeconomic data, indicated that 12 of the 33 towns in the Monadnock Region were vulnerable to health risks; measures included income, the percentage of older adults, group housing, lack of access to a vehicle, lack of health insurance, and people with disabilities (Holt, 2014). Nine municipalities had multiple risk factors, including the towns of Greenville, Hinsdale, New Ipswich, Rindge,

Sharon, Swanzey, Temple and Winchester, and the City of Keene (Greater Monadnock Public Health Network, 2016).

The Climate and Health Adaptation Plan for the Monadnock Region identified older adults as one of several populations vulnerable to the effects of severe weather (Greater Monadnock Public Health Network, 2016). While older adults vary in health, coping skills, and individual resilience, as a community, they are more likely to be affected by severe events for several reasons: a) they typically have lower or fixed incomes that may limit their ability to move out of harm's way in advance of severe weather (money and transportation); b) they may not have the resources to maintain an emergency kit; c) they may have cognitive or sensory impairments that could hinder their ability to prepare for, cope with, and recover from a severe weather event; d) they may not have access to multiple means of communication (television, land line, cell phone, internet) or transportation (car, public transit, bus, taxi); and e) they may have health issues that increase their vulnerability to the effects of severe weather (Gamble et al., 2013; Rhoades et al., 2018). These reasons, and the fact that the over-65 age group is the largest growing population in the Monadnock Region, highlight the importance of CHRI's efforts to enhance community health resilience by focusing on the over 65 population (Figure 1).

Figure 1. Social vulnerability index map showing the percentage of the population over the age of 65 by town in the Monadnock Region (Greater Monadnock Public Health Network, 2016).



Exacerbating the risks associated with age, people who lived in flood-prone areas, on steep slopes, or in areas that were geographically-isolated were at higher risk, particularly where culverts and bridges can accommodate increased precipitation. Topography and infrastructure can further compound the effects of severe weather by reducing a community's capacity for response and recovery.

Efforts to increase the health resilience of older residents in the Monadnock Region have been ongoing and successful. Based on 2010 census data, the senior population in both Cheshire and Hillsborough counties is expected to increase faster than any other age group, potentially increasing the need for additional resources and emergency personnel during severe weather events (New Hampshire Office of Energy and Planning, 2016). The Building Resilience Against Climate Effects (BRACE) project, a partnership from 2017-2021 with the GMPHN, NH DHHS, Southwest Region Planning Commission (SWRPC), and Antioch University's CCPCR focused on increasing the individual resilience of the over-65 community through workshops and messaging about emergency preparedness, kits, contact lists, and first alert phone apps. Postworkshop surveys, conducted immediately following the workshops as well as 6-8 weeks after, showed an increase in the number of participants who felt prepared for extreme precipitation events (Greater Monadnock Public Health Network, 2019).

#### **Project Overview**

The goal of the CHRI project was to measure and build community health resilience to severe weather events. The project's desired public health outcomes for the Monadnock Region were for communities to be:

- Informed and prepared for severe weather and other emergency events;
- Networked with local support agencies and individuals;

• Aware of and have access to the goods and services necessary to prepare for, respond to, and recover from an event.

We were particularly interested in strengthening the health and resilience of the over-65 community in the Monadnock Region. We also wanted to bolster the work of the agencies that serve this group in an effort to further enhance older adult resilience.

Existing gaps challenged our desired public health outcomes. These gaps included a) local knowledge; b) resilience research; and c) evidence-based interventions, tools, and metrics. Locally, there is a limited understanding of how to identify or support the vulnerable demographic groups and their caretakers. Research knowledge gaps included limitations in available measures of individual or community-level resilience to severe weather and climate change (Holt, 2014), as well as limitations in the ability to associate weather events with specific public health outcomes. Other knowledge gaps included few examples of affordable evidencebased interventions designed to reduce risk of exposure or increase resilience to these hazards. CHRI focused on the research gaps to advance the field of climate and health resilience, and to provide public health agencies with applied research methods that can be used in other communities to reduce health risks associated with severe weather events.

Members of the CHRI team previously have implemented education interventions (n~120 participants) for older adults to improve individual-level knowledge, skills, and confidence to act on emergency preparedness via written plans and home emergency kits (Southwest Region Planning Commission, 2021). In a parallel research project, our team completed a literature review to identify interventions proven effective in building community-level resilience in the Northeast U.S. (Abrash Walton et al., 2021). We identified two resilience indicators that affect

social vulnerability: social cohesion and partnerships. Social cohesion is the feeling of belonging and connectedness to a region. Strong social cohesion in a region can boost response and recovery behaviors in both individuals and organizations, reduce health risks, and increase resilience to severe weather (Links et al., 2018). The COPEWELL model had been shown to successfully highlight the relationship between social cohesion and partnerships. The model was used to strengthen the connections between community organizations and vulnerable target populations (low-income, socially isolated, older and living alone, disabled, immigrants), and to identify actions that would improve mental health first aid (Slemp et al., 2020). The Assessment for Disaster Engagement with Partners Toolkit (ADEPT) was used to build and increase community partnerships through communication outreach, resource mobilization, organizational capacity building, and partnership development (Glik et al., 2014).

With our focus on partnerships and connections among community-based organizations, we chose to adopt the 11 sectors as defined by the Centers for Disease Control and Prevention (CDC) to categorize the organizations involved in our research (Figure 2) (Chi et al., 2015). This climate and health resilience initiative built upon the results of our applied research as well as evidence-based interventions and models from the literature.

In order to bring about the behavioral change we desired to reach our public health outcome for the Monadnock Region, we designed a community resilience intervention with organizations that serve the over-65 community (See work plan and project overview in Appendix A, B). Our goal was to assess and increase the resilience of the Region to severe weather events. The purpose of this intervention was to: a) establish partnerships and strengthen existing networks; b) increase awareness of climate and health risks; c) build social cohesion via an engagement and training process; and d) identify gaps in knowledge, effective communication, and connections and collaboration. In support of these goals, the intervention aimed to answer the following research questions:

- 1. Which CDC sectors are most engaged in community resilience activities in the Region?
- 2. Which metrics best reflect [or measure] our current resilience status?
- 3. What challenges do organizations that serve the over-65 community experience when preparing for or responding to severe weather events?
- 4. Which of the implemented frameworks (ADEPT or COPEWELL) is more likely to be used or recommended by organizations to strengthen community resilience?
- 5. Using the community resilience indicators of social capital, cohesion, and partnerships for the organizations that serve the over-65 community, what is the community health resilience of the Monadnock Region?
- 6. How did the intervention impact the Region's baseline community resilience?

**Organizational Sectors Defined** by the Centers for Disease Control and Prevention (CDC) (Chi et al., 2015) **Businesses** Community leadership Cultural and faith-based groups and organizations Education and child care Emergency management Health care Housing and sheltering Media Mental/behavioral health Organizations serving at-risk populations Social services

Figure 2. Eleven sectors defined by the Centers for Disease Control and Prevention (CDC).

#### Methods

The CHRI pilot intervention consisted of a series of surveys and virtual workshops carried out during January through May 2022. The intervention targeted organizations in the Monadnock Region whose work supported the over-65 community. The workshops were held virtually due to COVID-19 concerns. The proposed research was reviewed and approved by Antioch's Institutional Review Board (IRB). Participants signed a consent and release form. Surveys were administered using SurveyMonkey, and participants were allowed to choose which questions they wished to answer. The workshops, which combined education, toolkit exercises, and group discussions, used the Zoom platform. (See workshop formats in Appendix C.) The intervention consisted of three phases:

- A pre-intervention survey (Appendix D), administered online to local organizations affiliated with the Greater Monadnock Public Health Network, to gauge active partnerships and engagement in community resilience projects in the Region and to serve as a baseline for measuring the resilience of the Region;
- 2. Two virtual workshops in March and April, that combined education, community resilience toolkit exercises, discussion, and networking, and included a pre and post survey (see surveys in Appendix D);
- A post-intervention survey (Appendix D) in May, one month after the final workshop, administered to each person who registered for a workshop; a second survey was administered to each member of the project team.

The project site was the Monadnock Region, located in rural, southwestern New Hampshire. The region consists of 32 towns and the city of Keene and is served by the GMPHN (Figure 3). The region is bordered or dissected by several rivers and smaller tributaries that can contribute to flooding issues, including the Connecticut, Ashuelot, Cold, Contoocook, South Branch Ashuelot River, and the Branch (HTL Inc., 2022). Community resilience in the region is not only challenged by proximity to rivers and streams, but by socioeconomic factors as well. In

2019, the Community Health Outlook for the Monadnock

*Region* reported that residents in Winchester experienced the highest regional rates for poverty (30.4%), unemployment (8.5%), lack of health insurance (22.9%), and COPD-related emergency room visits (101.8 per 10k); Keene had the highest proportion of adults over age 65 living alone (40.8%), and adults with no access to a vehicle (10.4%); and Marlborough and Troy had the highest combined rates for asthma-related emergency room visits (58.5 per 10k) (NH Division of Public Health Services, 2019).

# Monadnock Region Municipalities:

Alstead New Ipswich Antrim Peterborough Richmond Bennington Chesterfield Rindge Dublin Roxbury Fitzwilliam Sharon Stoddard Francestown Gilsum Sullivan Greenfield Surry Hancock Swanzey Temple Harrisville Hinsdale Troy Jaffrey Walpole Westmoreland Keene Marlborough Winchester Windsor Marlow Nelson

Figure 3. Thirty-two towns and one city served by the Greater Monadnock Public Health Network.

#### **Participant Selection**

Participants in this study were organizations that served the Monadnock Region, and in particular, the over-65 community. Their participation was voluntary and participants were recruited through a variety of communication mediums including individual and group emails, press releases, a local radio interview, and social media posts (Table 1). No participants were excluded from participating in the intervention; however, organizations that did not serve the

Monadnock Region were excluded from data analysis and the results of the research.

Solicitation Method	Sectors	Potential #s Reached
Individual emails	Municipalities, health offices, healthcare, senior housing (including assisted living and property management agencies), local media organizations	130 organizations
Group emails/listservs	Local and state public health networks, emergency management groups, community leadership networks focused on healthcare, climate and health, education	4630 individuals representing organizations in healthcare, emergency management, social services, education, government, and policy
Press releases	Local newspapers, radio, television, websites	(One paper reached 40,000 households/businesses per week)
Social media press release posts	Active pages for communities, town government, businesses, media, emergency management, healthcare organizations, and local health and emergency preparedness networks	66+ (One group had a following of 2400 local businesses and residents)
Interviews	Local radio talk show and podcast	30,000+ residents and businesses
Events calendars	Community organizations, local businesses, residents	5000 local residents

 Table 1

 Magnes of Participant Paceruitment

Organizations participated in some or all of the surveys and workshops. A preintervention survey was emailed to members of the local public health network (70 members), and a post-intervention survey was emailed to each person who registered for a workshop. In addition, pre and post surveys were administered at each workshop.

Each workshop was two hours in length, and consisted of brief introductions (staff, participants, workshop agenda); an educational component; a toolkit exercise with break-out rooms for further discussion; and a group discussion and summary (Table 2). The first workshop

introduced participants to community resilience concepts and how community resilience differed from individual resilience. Following their engagement with these foundational concepts, participants worked with the Assessing Disaster Engagement with Partners Toolkit (ADEPT) individually, in small groups, and in a concluding plenary session with the whole group. The second workshop focused on the relationship between climate and health. Following some foundational material on these topics, participants worked with the COPEWELL Social Capital and cohesion Toolkit in a similar progression to their work with ADEPT. During each workshop, participants were asked to identify challenges to strengthening resilience and next steps to improve resilience at the organizational and regional scales.

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Climate and Health Resilience Initiative 2022 Virtual Workshop Agendas

Workshop 1	Workshop 2
Pre-Workshop Survey	Pre-Workshop Survey
Introductions	Introductions
Project Background	Project Background
Agenda & Outcomes	Agenda & Outcomes
Results of Pre-Intervention Survey on Existing Partnerships in Monadnock Region	Results of Workshop 1 ADEPT Tool
What is Community Resilience? (Definitions, community vs. individual resilience, indicators, metrics, goals)	Weather, Climate, & Health: A Focus on Older Adults (Weather & climate trends, health impacts, identifying vulnerable populations, building resilience)
ADEPT Toolkit (Exercise with survey, break-out discussions & group discussion)	COPEWELL Social Capital & Cohesion Toolkit (Exercise with survey, break-out discussions & group discussion)
Group Discussion (Challenges, lessons learned, next steps)	Group Discussion (Challenges, lessons learned, next steps)
Post-Workshop Survey	Post-Workshop Survey

#### **Data Collection and Analysis**

Data collected for analysis included a tally of workshop registrations, participant responses to surveys, toolkit questions, and group discussions; and partner responses to a postintervention feedback survey. Data were analyzed in Excel.

Community health resilience for the Monadnock Region was evaluated by the responses from the pre-intervention survey, the pre and post surveys for each workshop, the resilience scores from each workshop's resilience toolkit, and the post-intervention survey responses.

The Assessing Disaster Engagement with Partners Toolkit (ADEPT) was implemented as a way for organizations to take an inventory of their current partnership activities that contribute to the resilience of the community (Martel et al., 2014). The toolkit's four domains (a) communication outreach and coordination, b) resource mobilization, c) organizational capacity building, and d) partnership development and maintenance) contained a series of questions that resulted in a score for each domain. Participating organizations who did not serve the Monadnock Region were not included in the data analysis. Results were compared by organizational sector. Because the ADEPT Toolkit used different ratings scales for each domain, the points for each domain were converted into a percentage of the highest possible points for that domain for comparative purposes. For example, if 15 responses totaled 30 points for a domain, and the scale for that domain ranged from one to five, then the highest possible points for that domain would have been 15 x 5, or 75 points. The 30 points earned were 40% of the possible 75 points for that domain. The total possible points for all ADEPT domains combined was 60. The percentage of the total points for all domains combined was used to calculate the resilience score for the Monadnock Region.

The COPEWELL Social Capital and Cohesion Toolkit consisted of questions regarding two factors: a) social connectedness and b) community involvement. Participants rated their organization for each factor on a scale of 1-10. The two factors were reviewed in smaller group break-out sessions and again rated by the group on a scale of 1-10. The participants' average score for each factor was added to the average group scores and divided by four for a final regional score from 1-10 on social capital and cohesion.

#### **Results**

Fifty-two individuals representing 42 local organizations from 10 of the 11 CDC sectors participated in this intervention. Thirteen of the 52 participants (25%) represented community leadership organizations (Table 3). Other sectors representing more than 10% of the total participants were: a) social services (15.4%), b) emergency management (13.5%), c) health care (13.5%), and d) agencies serving at-risk/vulnerable populations (11.5%). The media was the only sector that did not participate in the intervention; however, media outlets did promote the workshops.

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Sectors Representing More than Ten Percent of the Participants in the CHRI Project

Total Participants	Percentage	
13	25	
8	15.4	
7	13.5	
7	13.5	
6	11.5	
	Total Participants 13 8 7 7 7 6	13         25           8         15.4           7         13.5           7         13.5

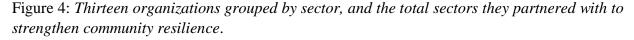
*Note*. N=52 participants.

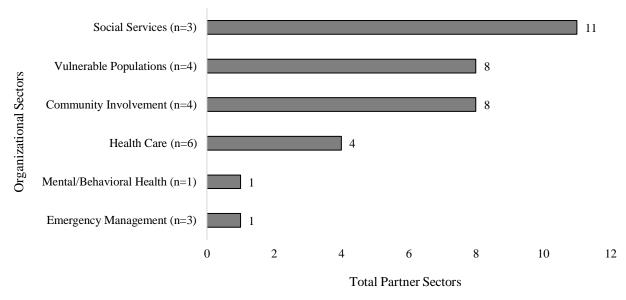
The following results represent the responses from organizations that chose to answer the survey and workshop questions.

# **Research Question 1: Sectors Most Engaged in Community Resilience-Building**

In order to understand which sectors were most engaged in resilience-building activities in the Monadnock Region, we asked organizations about their involvement in active partnerships, activities aimed at strengthening community resilience, climate and health risk messaging, disseminating emergency preparedness/disaster response messages, and resilience indicators contained in the toolkits, such as conducting resource inventories and building organizational self-sufficiency.

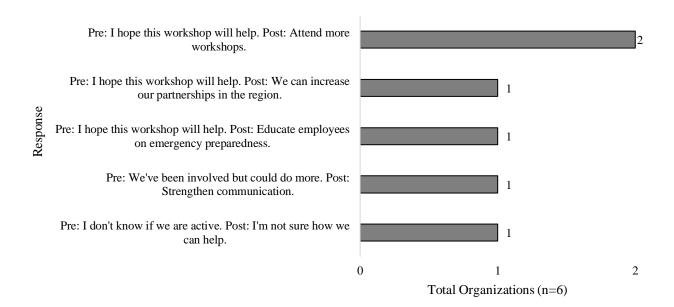
Thirteen of the 24 organizations that responded to our survey question indicated that they partnered with other organizations in the Monadnock Region to strengthen community resilience. At least half of the organizations in health care, community leadership, social services, and mental behavioral health, and all four organizations serving the at-risk/vulnerable populations partnered with regional organizations to strengthen community resilience. A deeper analysis of the 13 organizations with active partnerships revealed that social service agencies were the only respondents that actively partnered with all 11 sectors (Figure 4). Organizations within the at-risk/vulnerable populations and community leadership sectors partnered with eight of the 11 sectors. Emergency management was the only sector that partnered with its own sector exclusively. Social services was the only sector that actively partnered with businesses and educational institutions.





Participant engagement was also measured by comparing responses from participants that completed the pre and post-intervention surveys (n=6). In the pre-intervention survey, organizations were asked to rate their current efforts to strengthen the resilience of the

Monadnock Region to extreme weather events. In the post-intervention survey, organizations were asked to identify which activity they were most likely to engage in to help strengthen the resilience of the Monadnock Region. Only one of the six participant organizations was active in resilience-building activities before the workshops (Figure 5). Four of the six participants were hoping that the workshop would help them answer the question about rating their organization's efforts to strengthen the resilience of the Region. After the workshops had ended, those same four organizations demonstrated clear ideas of activities they would most likely engage in to strengthen resilience. These next steps included: a) increasing partnerships, b) educating employees about emergency preparedness, and c) attending climate and health workshops. Figure 5. *Comparison of six organizations, before and after the CHRI workshops, on their current and future activities to strengthen community resilience*.



Four of the 14 organizations indicated they actively engaged with partners and disseminated climate and health risk information to the over-65 community, while three organizations passed along the information (Figure 6). Only one organization in the community leadership sector actively created materials.

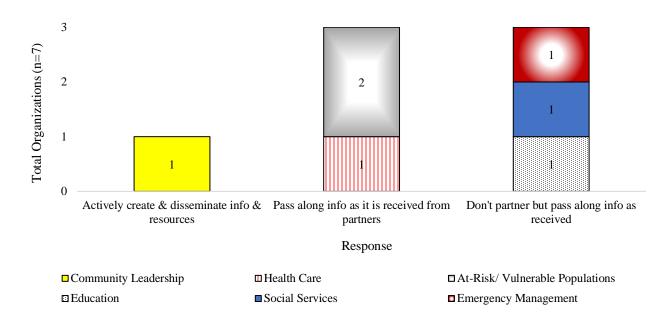
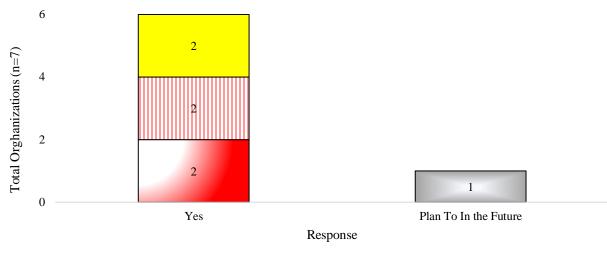


Figure 6. Total organizations surveyed who actively disseminated climate and health information to the over-65 community (n=7).

The number of organizations that partnered with media to disseminate emergency preparedness/disaster response messaging was also low, six of 27 organizations (22.2%). The sectors that partnered with the media included emergency management, health care, and community leadership (Figure 7). Organizations serving at-risk/vulnerable populations were the only sector that planned to partner with the media in the future. Sectors with no media partnerships or no immediate plans to partner with the media included social services, education, business, housing/shelter, and mental/behavioral health.

Figure 7. Seven of the 27 organizations by sector that partnered with media (or planned to) to disseminate emergency preparedness/disaster response information.



■ Emergency Management ■ Health Care ■ Community Leadership ■ At-Risk/Vulnerable Populations

Organizations were asked about their active use of social media to disseminate

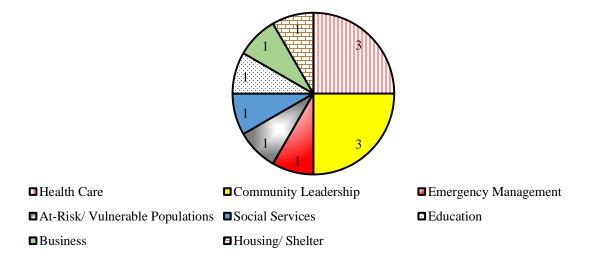
emergency preparedness/disaster response (EP/DR) messages. More than half of the 22

organizations reported that they used social media to disseminate EP/DR information including

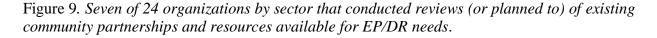
60% of the health care sector, and 75% of the community leadership sector. The

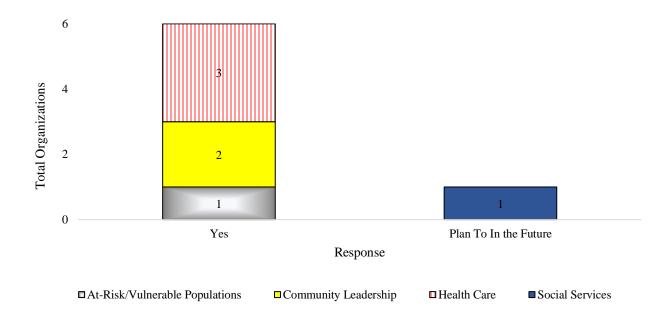
mental/behavioral health sector was the only sector that did not use social media (Figure 8).

Figure 8. Twelve of 22 organizations by sector that actively used social media to disseminate emergency preparedness/disaster response messages.



Participants were asked if their organizations had conducted an inventory of existing community partnerships and the resources that were available for EP/DR needs. Twenty-five percent of the 24 organizations had conducted inventories, including 50% of the health care and community leadership sectors (Figure 9). Only one social service organization had plans to conduct a review in the future. One-fifth of the organization indicated that they did not know how to do a review, including organizations within the health care, social services, emergency management, education, and housing/shelter sectors.

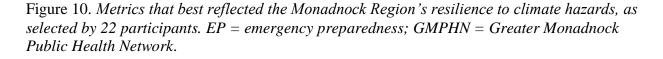


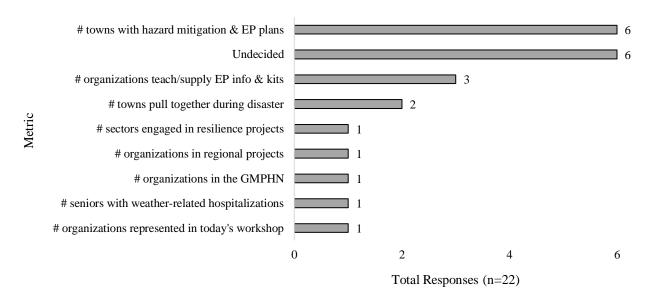


In addition to increasing community resilience through partnerships with other organizations, we were also interested in an organization's commitment to increasing its own resilience. In particular, we wanted to know whether an organization provided staff and volunteer training for self-sufficiency in case the organization ever became separated from its partners during a disaster. Four of the 24 organizations (16.7%) provided training, representing four of the nine sectors surveyed: emergency management (n=3), community leadership (n=4), at-risk/vulnerable populations (n=4), and health care sectors (n=6).

#### **Research Question 2: Metrics That Reflect or Measure Resilience**

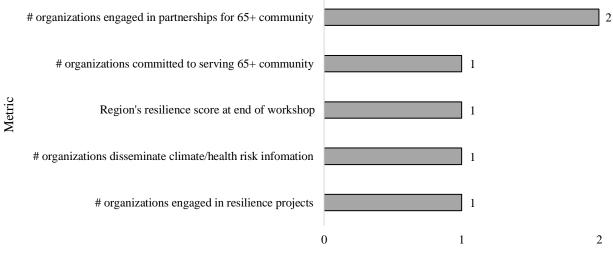
CHRI presented and asked participants about multiple ways to assess the region's resilience. In the combined results from both post-workshop surveys, six of the 22 respondents (27%) indicated that the number of towns with hazard mitigation and emergency preparedness plans was the metric that best reflected the current resilience of the Monadnock Region (Figure 10). An equal number of participants were undecided. Actions such as teaching or supplying the community with emergency preparedness information and kits, pulling together as a community during a severe weather event, and engaging in community resilience projects were less frequently selected.

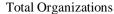




Responses to a similar question one month after the workshops reflected a choice of more actionable metrics. The six responses indicated that the most helpful metric for understanding the resilience of the Region was the number of organizations actively engaged in partnerships and networks that address the health needs of the over-65 community (Figure 11). When asked why, 66.7% of the respondents indicated that the metric they chose demonstrated a real strength or weakness of the Region. One participant stated that the number of organizations currently engaged in community resilience projects was the most helpful metric because it created an "aha" moment.

Figure 11. Six organizations that responded to the post-intervention survey rated the metric most helpful for understanding the current resilience of the Monadnock Region.





# **Research Question 3: Challenges Organizations Experience When Preparing for or Responding to Severe Weather Events**

Organizations identified several needs and challenges when preparing for, or responding to, severe weather events. Overall, the greatest challenge was the need for more resources; 20.8% of the 24 organizations needed more resources when **preparing** for severe weather, while 33.3% of the organizations needed more resources when **responding** to severe weather events (Figure 12). Better communication among emergency services, support organizations, and the public was identified as a need in the emergency management sector, while patience on the part of the public while waiting for help to arrive was a challenge for the health care and emergency management sectors. The availability of an easily accessible emergency plan for organizations and older adults to follow was a challenge in the health care and social services sectors.

Figure 12. Greatest need or challenge identified by 24 organizations when preparing for or responding to severe weather events in the Monadnock Region.



During the ADEPT Toolkit exercise, discussion topics included what was working currently, challenges organizations faced, how to meet resilience goals, and possible next steps to increase resilience. Four key themes emerged: a) resources, b) relationships, c) connections, and d) preparedness. Each theme was seen as a challenge and a possible next step (see examples in Table 4). During the discussion on resources, one organization stated that they did not know who to recommend to assist older adults with specific housing needs; a next step could be to create a resource pamphlet that would guide seniors to all housing-related and social services in the region. Identifying and building relationships with key partners was also a challenge for some organizations and a next step for others to improve communication, increase an organization's own capacity, and strengthen community connections and partnerships. One organization suggested that table top exercises with the region's emergency plan would allow key community partners to determine which partners can help during emergencies and proactively build relationships. Multigenerational emergency preparedness education and practice was also considered a next step to address a general lack of emergency preparedness.

#### Table 4

Strengthening Com	munity Resilience	
Domain	Challenges & Needs	Next Steps to Reach Goals/Improve Resilience
Communication & Outreach	Resources (for organizations & over-65 community)	Connect available tools to people who can use them
Resource Mobilization	Knowing what resources people will need & who will need them	Conduct gap analysis of regionwhat do we have & what are we missing
Organizational Capacity Building	Connecting to state-level partners & resources proactively	Build relationships with network of key partners who know what needs to be done & who needs to be reached in case recovery doesn't go according to plan
Partnership Development & Maintenance	In-person training/education on emergency preparedness before something goes wrong	Increase education & agreements of who is responsible for what during an event

Selected Responses to ADEPT Toolkit Exercise on Current Challenges and Next Steps for Strengthening Community Resilience

During the COPEWELL Toolkit exercise, discussion topics on social connectedness and community involvement included the importance of feeling connected to others and the region, volunteerism, and engagement in emergency planning. Key themes that emerged from the discussions included connections and trust; both were viewed as challenges and opportunities for increasing social connectedness and cohesion (Table 5). Increasing social engagement, outreach, and training opportunities were suggested as next steps to improve the region's social capital and

cohesion rating and strengthen community resilience.

# Table 5

Selected Responses to COPEWELL Toolkit Exercise on Resilience Rating and Next Steps to Improve Rating

Factor	Rating (1-10)	Reasons for Rating	Next Steps to Improve Rating
Social Connectedness	5.3	Older residents have some connections they can trust for help during a severe weather event, but not a lot	Build trust between older adults & those who will help them
		Most people feel connected to the region and would not want to move after a disaster	Provide more social engagement opportunities
		Low level of shelter options to meet diverse language, physical, & emotional needs of over-65 community	Identify what's working & replicate it
Community Involvement	5.5	Some organizations did rely on older adults as volunteers & some did not recover from COVID-19 pandemic	Conduct trainings for seniors (volunteers) on how to help/what to do during an emergency
		Younger people less likely to attend town meetings & vote; older adults who volunteer are more likely to vote	Offer trainings in multiple towns to reach as many people as possible (e.g., those who do not have transportation or travel far during winter)
		Low level of opportunities for residents and businesses to contribute to emergency planning; neighborhood watch is one example that exists	Conduct outreach to help people understand why volunteering is important

# **Research Question 4: Resilience Toolkit Comparison**

Participants were asked, at the end of each workshop, to evaluate the resilience toolkit

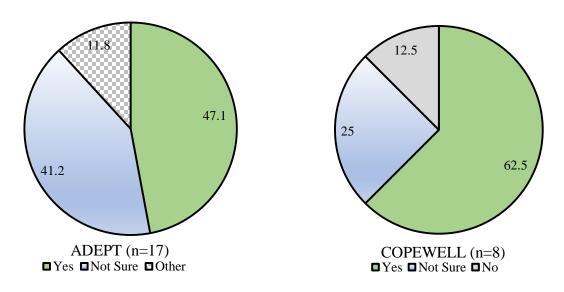
that was implemented. Both toolkits received favorable reviews; however, a higher percentage of

respondents indicated that they would recommend the COPEWELL Tool (62.5%) to other

organizations and communities engaged in strengthening community resilience than the ADEPT

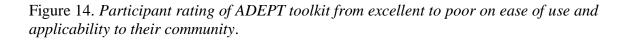
Tool (47.1%) (Figure 13).

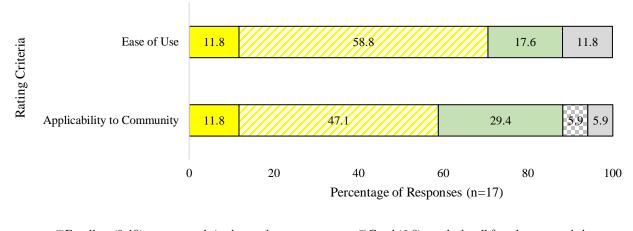
Figure 13. Percentage of organizations that would recommend each resilience tool to other organizations and communities engaged in strengthening community resilience.



# Assessing Disasters with Partners Toolkit (ADEPT)

More than half of the 17 responses to the survey on the ADEPT Toolkit exercise rated it good or excellent on ease of use and applicability to their community (Figure 14). When participants were asked if they would recommend the ADEPT tool to other organizations or communities engaged in strengthening community resilience, 47.1% said yes; 41.2% were unsure, and 11.8 responded "other". All participants who rated the toolkit "excellent" recommended its use to other organizations and communities.



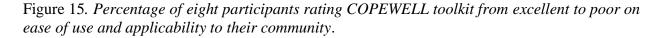


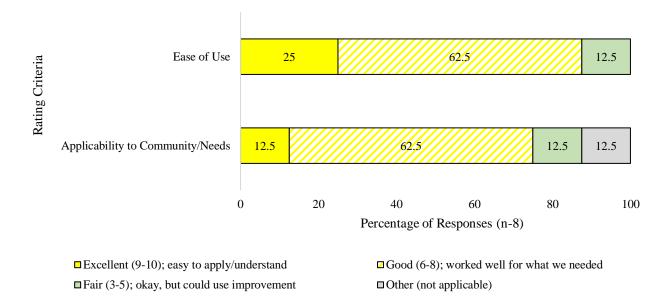
Excellent (9-10); easy to apply/understand
Fair (3-5); okay, but could use improvement
Other

□ Good (6-8); worked well for what we needed □ Poor (0-2); didn't relate to community/needs

### **COPEWELL** Social Capital and Cohesion Toolkit

The majority of the eight responses to the survey on the use of the COPEWELL Toolkit rated it good or excellent (87.5%) (Figure 15). Participants rated the tool higher on ease of use than applicability to the community or its needs; 25% rated the tool "excellent" on ease of use, while only 12.5% rated the tool "excellent" on applicability to the community and its needs. A total of 62.5% of all participants recommended the COPEWELL tool for use by other organizations and communities engaged in strengthening community resilience, including all participants who gave the tool an "excellent" rating.





When participants were asked to compare both toolkits one month after the last workshop, they rated each toolkit's applicability to the Monadnock Region similarly on a scale of 1 (not very well) to 5 (extremely well). Five of the six participants (83.3%) rated both toolkits a "4" out of "5"; one participant (16.7%) rated the toolkits a "3". When asked how the use of the toolkits has affected their work or outreach on community resilience since the workshops, all six participants stated that it had not yet, but it may in the future. The three CHRI partners who completed the post-intervention survey rated the toolkits "4" and "5", and agreed that the toolkits were helpful, handy, easy to use, and easy to understand.

#### **Research Question 5: Community Health Resilience of the Monadnock Region**

The community health resilience of the Monadnock Region was assessed using the partnerships and social capital and cohesion domains via evidence-based toolkits and surveys. As a community, the Region scored in the middle of the range, or average.

#### **Partnerships**

ADEPT Toolkit Rating. When participants implemented the Assessing Disaster

Engagement with Partners Toolkit (ADEPT) to rate their organizations' impact on the resilience of the community, their averaged scores resulted in a relatively low rating in each of the four domains. For example, the partnership development and maintenance domain received an averaged group score of 6.9 out of a possible 20 points (Table 6). One-third of the 15 responses rated that domain a five. The lowest averaged rating was a 4.4 out of 11 possible points for the resource mobilization domain. One-third of the 15 respondents rated their organizations a three in that domain.

#### Table 6

Domain	Rating	Response	Response	Averaged
	Range	Range	Mode	Rating
Partnership Development &	5 to 20	4 to 11	5 (33.3%)	6.9
Maintenance				
Organizational Capacity Building	4 to 16	3 to 10	4, 5 (20% each)	5.7
Communication Outreach &	3 to 12	3 to 12	3, 5 (26.7%	5.1
Coordination			each)	
Resource Mobilization	3 to 12	1 to 11	3 (33.3%)	4.4
<i>Note</i> . N = 15.				

Averaged Rating for Each ADEPT Toolkit Domain

A score was obtained by converting points to a percentage of the highest possible points available for a domain. Communication outreach and coordination achieved the highest percentage of possible points, 42.2% (Table 7). Partnership development and maintenance had the lowest percentage of points possible at 34.3%. When the total points for each domain were combined together, the Region had a score of 330 points out of a possible 900 points. The resilience of the Monadnock Region, based upon the partnerships of the participating organizations, was a mid-range 36.7%.

Community Resilience Rating for the Monadnock Region Using ADEPT Results				
Domain	<b>Combined Points</b>	Possible Points	% Of Possible Points	
Communication Outreach &	76	180	42.2	
Coordination				
Resource Mobilization	66	180	36.7	
Organizational Capacity Building	85	240	35.4	
Partnership Development &	103	300	34.3	
Maintenance				
Total	330	900	36.7	

#### Table 7

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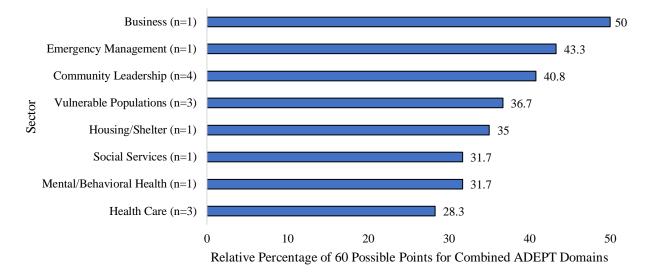
*Note*. Combined points were the total of scores assigned to the domain by the 15 respondents. Possible points were the highest points achievable for the domain multiplied by 15 respondents.

When the combined domains were analyzed by sector, the business sector (n=1) received

50% of the potential 60 points in the combined domains (Figure 16). In contrast, the healthcare

sector (n=3) scored the lowest, with 28.3% of the possible 60 points.

Figure 16. ADEPT scores by sector. Scores represent the percentage of the 60 possible points for the four combined domains (n=15).



**Survey Ratings.** At the end of Workshop 1 on community resilience and partnerships, 56.3% of the 16 respondents rated the community resilience of the Monadnock Region as fair, while 25% rated the resilience as good on a scale of 0 to 10 (Figure 17). Organizations within two of the eight sectors that participated in the survey rated the region's resilience similarly. The two organizations within the emergency management sector rated the resilience as fair and needing improvement, while both organizations within the social services sector rated the resilience as good, with room for improvement.

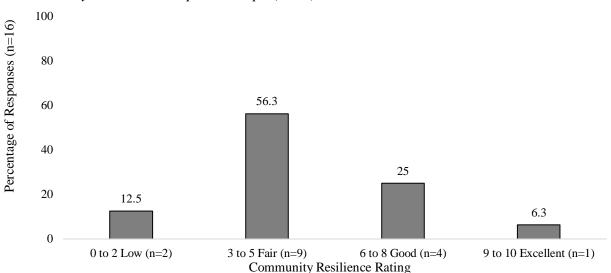


Figure 17. Community resilience rating for Monadnock Region by participants of Workshop 1 on community resilience and partnerships (n=16).

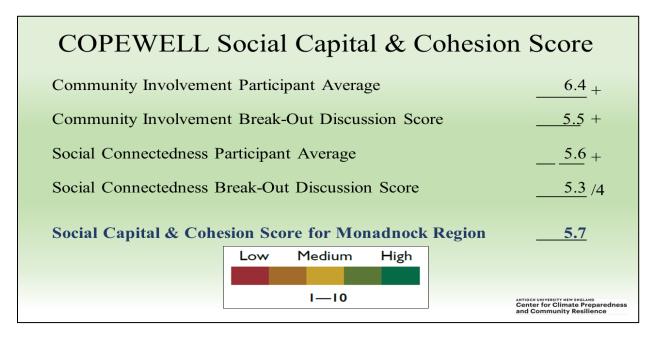
### Social Capital and Cohesion

### COPEWELL Toolkit Rating. When participants implemented the COPEWELL Toolkit

on Social Capital and Cohesion, their individual and group scores resulted in an overall mid-

range rating of 5.7 on a scale of 1-10 (Figure 18).

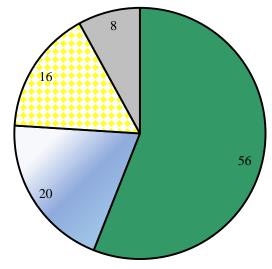
Figure 18. COPEWELL rating for social capital and cohesion, based on averaged participant and group scores.



**Survey Ratings.** Respondents of the pre-intervention survey felt a strong attachment to the Monadnock Region, with more than 75% of the organizations stating they were committed to the region and the community. Fifty-six percent of the organizations would actively engage with emergency personnel and community leaders to help the region pull together, assess damage and needs, and recover from an event, while 20% would offer the use of their personnel, volunteers, and resources to the community in need (Figure 19). Eight percent of the 25 organizations stated that they were unable to help at the community level due to staffing shortages; those organizations were in the social services sector.

Figure 19. *Pre-intervention survey of an organization's most likely response during a severe weather event by percentage of responses* (n=25).

- We feel a connection to the community and respond to calls for help from emergency personnel and community leaders
- ■We are committed to helping the Region and offer the use of our personnel, volunteers, and resources to the community in need
- Other: Lack of staffing for community-level support

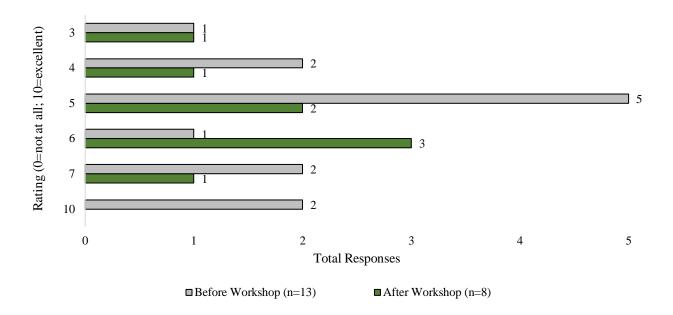


When the participants in Workshop #2 were asked to rate the Region's ability to pull together during a severe weather event as friends, neighbors, and organizations having a shared interest in the community, their responses to the pre and post surveys were different. The ratings ranged from 0 (not at all) to 10 (we feel a sense of connection to the region and work together effectively and efficiently). Before the workshop, five (38.5%) of the 13 participants rated the region 5 out of 10, compared to two (25%) after the workshop (Figure 20). The only rating that

<sup>•</sup> We are committed to helping our community and actively engage with emergency personnel and community leaders to help the Region pull together, assess the damage and needs, and recover from the event

increased after the workshop was a 6 out of 10, from one out of 13 participants (7.7%) before the workshop to three of the eight participants (37.5%) after the workshop. One of the "10" preworkshop ratings was reduced to "7" after the workshop.

Figure 20. Workshop 2 pre-/post-survey responses on social capital and cohesion rating the Region's ability to pull together during a severe weather event (0 = not at all; 10 = excellent).

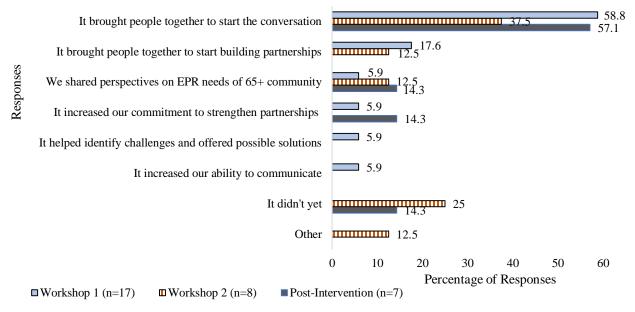


Only two participants (28.6%) did not change their rating after the workshop (one rated the region 5 out of 10 and the other, 6 out of 10). No participant rated the region higher after attending the workshop on social capital and cohesion.

#### **Research Question 6: Impacts of CHRI Intervention on Community Health Resilience**

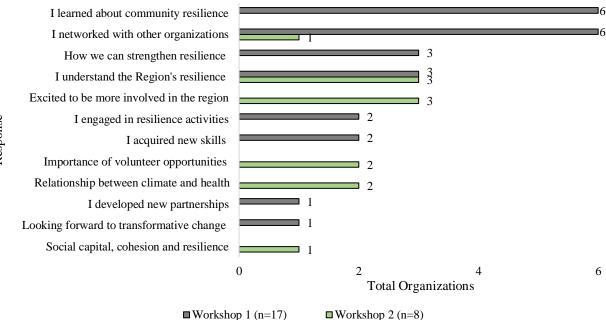
When asked after each workshop and one month later how the intervention (workshop(s), discussions, and networking with participating organizations) affected the Region's community health resilience, the majority of responding participants indicated that the experience brought people together to start the conversation, including 58.8% of the 17 responses after the first workshop and 57.1% of the seven responses one month after the intervention (Figure 21).

Figure 21. Effects of the intervention on baseline community resilience after workshops #1 and #2, and one month later, as reported by participants. EPR = emergency preparedness and response.



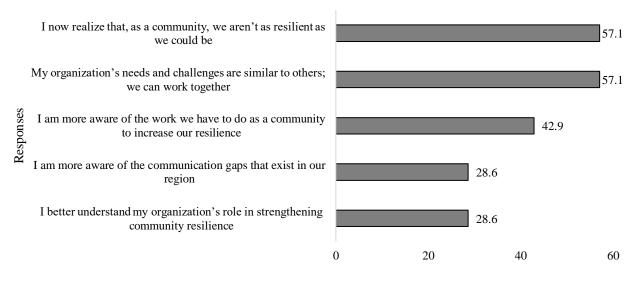
Participants indicated that they had a better understanding of the community resilience of the Monadnock Region after attending the workshops. Six of the 17 participants (35.3%) in the first workshop on partnerships and the ADEPT tool learned about community resilience while they met and networked with other organizations (Figure 22). Three of the eight participants (37.5%) in the second workshop on climate and health and the COPEWELL tool gained an understanding of the Region's resilience and became excited to develop activities that would allow their organization to become more actively involved in the community. As a result of the COPEWELL exercise in Workshop #2, two of the eight respondents (25%) indicated that they learned about the importance of providing and maintaining volunteer opportunities for the Region's residents.





Workshop participants developed an awareness of the current and future needs and challenges of the Region when preparing for, responding to, and recovering from severe weather events. Four of the seven respondents (57.1%) indicated that the Region's resilience was not as strong as it could be (Figure 23). More than half of the respondents also stated that because their organization's needs and challenges were similar to other organizations, they could meet their needs (and those of other organizations) if they worked together. The workshops and toolkit exercises also increased awareness: of the work needing to be done to increase resilience; the communication gaps that exist; and an organization's role in strengthening community resilience.

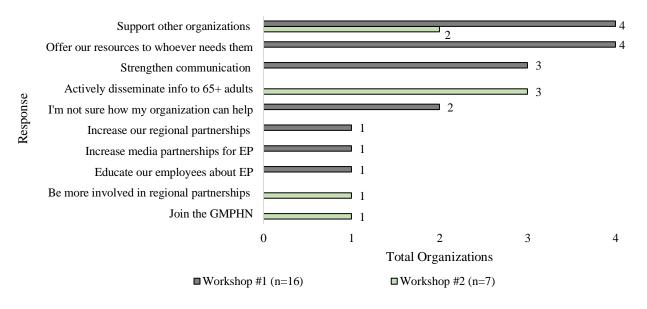
Figure 23. Selected post-intervention responses on the region's needs moving forward and challenges being faced when planning for, responding to, or recovering from severe weather events.



Percentage of Respondents (n=7)

Workshop participants varied in their responses about which activity their organization was most likely to engage after the intervention to strengthen the resilience of the Monadnock Region. Participants who attended the workshop on the ADEPT tool and partnerships were more likely to equally support organizations with resources to make change (25% of the 16 responses), and to offer their resources to whoever might need them (25% of the 16 responses) (Figure 24). Participants in the healthcare sector who attended the workshop on the COPEWELL tool and the relationship between climate and health were more likely to become actively involved in disseminating information to help the over-65 community understand the relationship between climate hazards and health (42.7% of the seven responses).

Figure 24. Responses from workshop participants indicating the activity their organization was most likely to engage in to strengthen the resilience of the Monadnock Region. EP = emergency preparedness; GMPHN = Greater Monadnock Region Public Health Network.



Responses were mixed when participants were asked how to improve the workshop series to benefit other communities wanting to strengthen their own community health resilience. An equal percentage of respondents (28.6%) stated that more resources and guest speakers who had experienced the effects of a changing climate on their health would be helpful (Figure 25). Other participating organizations suggested more opportunities for networking and planning, guest speakers who had implemented resilience toolkits in their communities, and shorter workshops would benefit other communities.

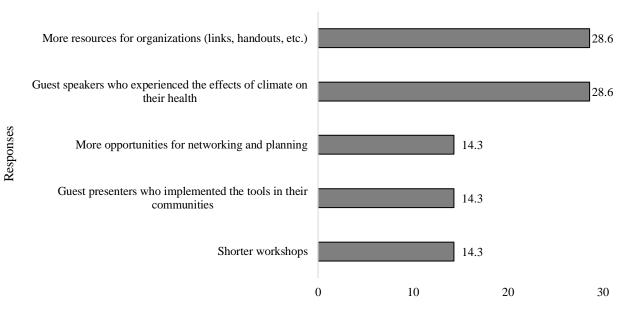


Figure 25. Selected responses (post-intervention) on how the workshop series could be improved to benefit other communities.

Percentage of Respondents (n=7)

#### Discussion

The results of this project offer insights into measuring and building community health resilience. In particular, they shed light on the current landscape of community health resilience in the Monadnock Region, demonstrate the efficacy of the resilience building intervention, and fill key research gaps in our understanding of measuring and promoting community health resilience. Some of the challenges and limitations that the project faced suggest potential refinements for future iterations and additional research questions to pursue.

#### **Community Health Resilience: Current Landscape and Opportunities**

The results paint a mixed picture of resilience in the region. Many organizations are involved in community health resilience. While there are impactful partnerships in the region and ongoing efforts to promote resilience, there are also important opportunities for improvement and to enhance resilience.

Most participating organizations rated the region's resilience as either fair or good. This largely positive rating is supported by the many partnerships in the region focusing on building resilience. In particular, organizations in the social services sector are very well partnered. At the same time, there are opportunities to enhance partnerships. Most notably, emergency management organizations only indicated partnering with other emergency management organizations. Given their vital role in promoting community health resilience, their active engagement in fostering additional partnerships could be very advantageous. Organizations focusing on mental and behavioral health also stood out as an important group to support in building additional partnerships.

This nuanced assessment of overall community resilience and organizational partnerships fits a pattern of mixed results that other indicators also fall into. For example, some groups indicated engaging in various communication and messaging efforts to build resilience like disseminating climate and health risk information to the over-65 community and sharing emergency preparedness messaging. However, overall engagement on this effort was low. This could also be a key area targeted for enhancement. The media, the only CDC sector not to participate in the initiative, could be brought into these efforts as a critical partner.

As organizations consider how to increase their communication efforts targeted at bolstering the resilience of the over 65 community, it is worth noting that more than half of the organizations indicated utilizing social media in sharing messages. While this is an important part of an overarching communication strategy, social media may not be the preferred communication medium for many older adults. It is essential for communication efforts to follow multiple channels including those most preferred by older adults. For example, research by Rhoades et al. (2019) found that older adults preferred to receive communication by phone, on local television and radio stations, and in person.

Efforts to promote internal resilience within organizations also stood out as a relative weak spot within the context of the region's current resilience. Few organizations indicated that they have resilience or emergency management plans in place or engage in resilience trainings and educational initiatives. There is an important opportunity to boost the resilience of key organizations to ensure that they can continue to support the community during a stressor event.

Insights from the use of the ADEPT and COPEWELL toolkits were similar to other communities where these toolkits have been utilized. Previous evaluations of the ADEPT tool, which was built upon actual disaster engagement and outreach activities of local health department emergency coordinators throughout the country, found that higher ADEPT scores in all domains implied that organizations had more active relationships with community and faithbased organizations for emergency preparedness endeavors (Glik et al., 2014). Our ADEPT scores, which were in the middle of the ranges, were similar to the scores derived from our surveys on partnerships; some organizations had many active partnerships, while others were seeking to increase partnership opportunities. The themes that emerged from this exercise focused on resources, partnerships, connections, relationships, key challenges, and valuable opportunities for strengthening community resilience.

We found that our results from the COPEWELL Toolkit exercise on Social Capital and Cohesion were also similar to other communities who implemented the COPEWELL model. In New York City, participants indicated that the model helped them better understand the concept of community resilience (Slemp et al., 2020). Community partners were able to identify and map the locations of their vulnerable populations (Slemp et al., 2020). After our implementation of the COPEWELL tool, organizations also indicated that they had a better understanding of community resilience. Organizations in the Monadnock Region stressed that it was important to know who needed help and where, and were able to identify some of the locations of their vulnerable populations. Trust and additional education and outreach were recognized as important next steps to improve the overall social capital and cohesion scores.

The need for funding was a recurring theme in our results, particularly in relation to resilience challenges. When the COPEWELL Social Capital and Cohesion module was originally field-tested, community partners suggested that the scoring results should lead to natural next steps that include an improvement plan or sources of funding (Schoch-Spana et al., 2019). While our community organizations did not delve into funding sources as potential next steps, they did echo the need for the tool's results to suggest available resources as next steps.

Alongside these results, the specific challenges highlighted by organizations are worth taking into account as we consider the current community health resilience landscape. The difficulties organizations face and the needs they have when preparing for and responding to severe weather events align with the needs and opportunities mentioned above. They include needing more resources for preparing and responding to severe weather and needing better communication among key partners and the public. Echoing earlier insights, respondents also called for greater emergency planning at organization and individual levels. Similar to these needs, the next steps suggested by participants also highlight important opportunities to enhance resilience in the region. These next steps included increasing partnerships, educating employees about emergency preparedness, and attending climate and health workshops.

Taken as a whole, these results offer a picture of a region with many strong partnerships and initiatives engaging key organizations to promote community health resilience. There is also a range of areas that can be prioritized to further enhance community resilience. Importantly, in addition to assessing current levels of community resilience, CHRI was designed to promote resilience as part of the project. The following section shares results on the project's impact.

#### **Project Impact on Community Health Resilience**

Results show that the CHRI project had a positive impact promoting community health resilience in the region in multiple ways. These include bringing key organizations together to engage collaboratively with the issue, supporting organizations in identifying tangible next steps to pursue, and increasing awareness of the many ways in which the region can work to build resilience.

The majority of responding participants indicated that the project succeeded in bringing people together to start a conversation about enhancing community health resilience with a focus

on the older adult population. More than half of respondents noted this as an outcome of the project in surveys after the first workshop and following both workshops. While this may seem a modest outcome, bringing relevant organizations together to begin discussing how to collaboratively enhance community health resilience introduces an important resilience building approach to a region that had previously focused on promoting resilience primarily at the individual scale.

Participants also completed the project with a nuanced understanding of the region's current level of community health resilience as it relates to key indicators. This included a sense of the region's main strengths and weaknesses and how their own organizations did, and could, contribute to the larger landscape of community resilience. As a result of the conversations that occurred during these workshops, organizations recognized that they had similar needs and challenges to other organizations in the area and that they could meet their needs if they worked together, thereby strengthening both individual and community resilience. This regional and organizational assessment provided needed context for organizations to prioritize their future initiatives to further resilience.

Building on this, many of the participating organizations identified tangible next steps they would take to enhance resilience. These included resource-sharing approaches such as supporting organizations with resources to make change and offering resources where needed. Next steps included communication efforts such as disseminating information to help the 65 and older community. Next steps also focused on joining partnerships, including the GMPHN, to promote resilience and educate themselves and their organizations about ways to improve communication, and strengthen existing partnerships to better serve the over-65 community. It is worth noting that these next steps address many of the challenges and weaknesses identified in the section above describing the region's current resilience landscape. Perhaps most importantly, only one respondent from the first workshop indicated that they were unsure about how their organization could help with next steps. This would indicate that almost all participants walked away from the workshops with an appreciation of the role their organization could play and some clearly defined next steps.

While multiple indicators point toward the project's beneficial impact, CHRI did encounter challenges and limitations. The project would have benefited from additional time, which could have been used for planning, promotions and participant recruitment, and providing additional time slots for repeat workshops. Our team reached out to as many organizations in all 11 sectors as possible, but found that there was not enough time to personalize all of the invitations and correspondence to increase attendance. We believe that additional time for public outreach and education about the relationship between public health, severe weather, and community resilience would have increased workshop attendance. One comment from some registrants who were unable to attend the workshops was that work conflicts occurred and that offering the workshops at an additional time or day would have helped. Additional time for the project would have allowed for a longer turn-around for survey completion as well.

The challenges related to recruitment and participation impacted the effectiveness of the toolkits. A critical mass of key organizations is needed to fully realize the benefits of collaboratively working with the toolkits. While the project did have diverse and robust representation, a stronger turnout across all of the 11 CDC sectors could have made the workshops even more impactful.

A challenge we faced during the workshops was how to balance the time needed to share knowledge, implement the toolkits, and allow for discussion and networking; however, both partners and participants indicated that the balance was good.

From a research perspective, difficulties associated with recruitment were compounded by some participants choosing to opt out of answering survey questions, diminishing the amount of data and the diversity of data sources for understanding current vulnerability and the toolkits' impact. An additional challenge analyzing the data resulted from the ADEPT toolkit's scales for measuring resilience. The assessment scales varied for each partnership attribute. For example, some questions asked partners to rank themselves on a scale of 1-4 and other questions used a ranking scale of 1-7. This was addressed by translating the rankings into relative percentages of the total points available to allow for simpler and more consistent comparison between toolkit attributes.

Despite these challenges and limitations, participant responses indicated that they found the workshops useful and the tangible next steps they identified suggested that the CHRI project will result in substantive gains to community health resilience. If seen as part of the long-term resilience-building efforts in the region, this project also represents an important step in convening key organizations to begin collaborative efforts to promote community health resilience. Part of this project's success can be seen as setting the stage for additional collaborations.

#### **Building Community Health Resilience and Contributions to the Literature**

In addition to the regional impacts of the project, CHRI also offers meaningful contributions to the larger fields of climate change adaptation and community health resilience. In particular, by using and assessing two prominent resilience building toolkits, CHRI adds to the

sparse body of evidenced-based research on effective climate change interventions in the Northeast (Abrash Walton et al., 2021). Specifically, this project and its associated research demonstrates the utility of the toolkits and the success of the intervention while also offering a comparison of each toolkit's respective benefits and various indicators of resilience.

First, this project provided a clear example of the utility of the ADEPT and COPEWELL toolkits in helping participants and project partners gain a baseline understanding of key factors affecting community health resilience. This can be seen in respondents' willingness to recommend the project to a friend and their widespread agreement that the toolkits were applicable to their community. When asked to specify which particular metrics best reflected the region's level of community health resilience, the most highly-regarded metrics included the number of: a) towns with hazard mitigation and emergency preparedness plans, b) towns that actively pulled together as a community during a severe weather event, c) organizations that teach or supply the community with emergency preparedness information and kits, and d) organizations actively engaged in partnerships and networks that address the health needs of the over-65 community.

Taken together, these metrics capture distinct yet interrelated facets of community resilience. They could be particularly useful in helping other communities gain a quick understanding of their own community health resilience. It is important to note, however, that the value of resilience indicators is highly context-dependent and so the specific metrics most advantageous to a community could vary. In addition, there is a clear benefit to working through the entire set of questions found in the ADEPT tool as it concerns community partnerships and in the COPEWELL toolkit as it concerns social capital and cohesion. Doing so can provide a more comprehensive baseline assessment of current resilience that could be helpful in informing future efforts to boost resilience.

Second, in addition to offering insights into how to measure community resilience, CHRI demonstrates the value of engaging communities with the ADEPT and COPEWELL toolkits as part of a larger project to enhance resilience. We can see evidence for this in the tangible next steps that participants left the project with and in their appreciation for the project's role in convening key organizations and beginning the conversation on community resilience. These results echoed findings from Slemp et al. (2020) who also found that engaging with the ADEPT toolkit helped participants identify strategies and next steps to strengthen resilience.

Focusing specifically on the toolkits, more than half of participants ranked the ADEPT tool's ease of use and applicability to the community as good or better. Almost half would recommend it to other organizations. The lack of negative comments on the language or context of the questions of the toolkits suggested that the questions were broadly applicable and comprehensible to a diverse group of community members. Scores were higher for the COPEWELL toolkit across the board with close to three-quarters of respondents indicating that ease of use and applicability were good or better and more than half recommending it for use by other communities. This would indicate that the COPEWELL toolkit was better received by participants in the context of this project.

However, each tool focuses on a specific, but inter-related, aspect of community health resilience: the ADEPT toolkit focuses on resilience-building partnerships and COPEWELL focuses on resilience resulting from social capital and cohesion. Partnerships can be understood as a critical component of social capital and cohesion. With this in mind, the choice to use one toolkit or the other in a specific project should most likely be determined by the aspect of community health resilience that is a project's focus. The assertion that both toolkits are effective depending on the context of a project is supported by the generally positive reviews both toolkits were given, with more than 80% of respondents in the follow-up survey ranking both toolkits as a 4 out of 5, with 5 indicating excellent.

While both toolkits were seen as effective and impactful by project participants, they were not without some challenges and limitations. A critical mass of key organizations is needed to fully realize the benefits of collaboratively working with the toolkit. Securing attendance of organizations across the CDC's 11 sectors was challenging. This difficulty was compounded by some participants choosing to opt out of answering toolkit questions, diminishing the amount of data and the diversity of data sources for understanding current vulnerability and the toolkits' impact.

The challenges encountered by this project were not particularly unique to the toolkits and do not undermine their benefits in measuring and supporting efforts to build community resilience. It is our hopes that by publishing our results using these toolkits, public health officials will have a better understanding of the region's resilience to date, and that public health planners in other regions of the country will better understand the value of each tool in connecting community partners and strengthening community resilience.

#### Conclusion

Building community health resilience is a long-term collaborative project. Viewed against this broader backdrop, the Community Health Resilience Initiative has provided a number of valuable contributions. It engaged key organizations in a collaborative self-assessment of the Monadnock Region's community health resilience. It convened these organizations to raise awareness about community health resilience and begin collaborations to increase regional resilience with a focus on the older adult population. Critically, CHRI supported participating organizations in determining tangible next steps that they can take to enhance overall resilience in the region and safeguard vulnerable elders. The project has offered insights into the utility of the ADEPT and COPEWELL toolkits involved. Based on this project, specific recommendations can be made to further build community health resilience in the Monadnock Region, improve future iterations of these workshops, and guide future research investigating interventions to build community health resilience.

### **Recommendations for Advancing Regional Community Health Resilience**

We recommend the following steps to continue advancing community health resilience in the Monadnock Region, based on the results of the workshop sessions and associated surveys:

- Support additional partnerships that engage emergency management organizations and mental and behavior health organizations;
- Enhance communication efforts through media organizations and others and prioritize older adults preferred communication channels;
- Promote internal organizational resilience through the development of organizational emergency management plans, trainings, and educational materials;
- Work collaboratively to secure more resources to prepare for and respond to extreme weather;
- Develop additional community-wide trainings and workshops focusing on climate and health resilience;

• Support volunteer partnerships that connect the over-65 community with needed resources and opportunities to serve before, during, or after a severe weather event.

### **Recommendations for Future Iterations of the Workshops**

We offer the following recommendations for any future iterations of the workshops, based on

this pilot run of CHRI and the subsequent evaluation of the project's impact:

- Hold specific workshops at multiple and diverse times and locations to increase access and participation;
- Engage in initial promotional and educational efforts associated with the workshop well in advance;
- Find ways to engage organizations from underrepresented sectors to ensure broad participation;
- Directly engage older adults in the process and provide opportunities for their feedback at multiple stages throughout the project.

### **Recommendations for Additional Research**

Finally, we suggest the following focus areas for future research:

- Test the impact of the ADEPT and COPEWELL toolkits in additional contexts to see how their efficacy varies based on various factors. In particular, it would be helpful to test the toolkits applicability in an urban environment.
- Conduct a follow-up survey with participating organizations to assess the mid-term impact of the workshops and identify beneficial next steps.

Irrespective of the specific next steps that take root from this project, ongoing

collaborative community engagement in the Monadnock Region and Northeast more broadly will be essential to building community health resilience in those areas. The further application, assessment, and refinement of toolkits and projects such as ADEPT, COPEWELL, and CHRI will help support these efforts and maximize the community level benefits. The continued combination of research and practice to support these aims also stands out as essential. Through these mutually supportive efforts, the Monadnock Region can take steps to safeguard its most vulnerable community members and serve as an exemplary case study for other regions aiming to strengthen their own community resilience.

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Appendices

Goal	Increase community resilience in the Monadnock Region by assessing, understanding, and enhancing baseline partnerships, and social capital and cohesion
Objective #1 Strategic Approach	Increase knowledge and application of community resilience indicators, measures, and tools <b>Evaluation</b>
1. Workshop #1 educational component on community resilience definitions, descriptors, metrics, examples	• #/% participants indicating increased knowledge during post-intervention electronic survey
2. Facilitate focus group #1 on: 1) communication outreach and coordination; 2) resource mobilization; 3) organizational capacity building; and 4) partnership development and maintenance using Assessment for Disaster Engagement with Partners Toolkit (ADEPT) for GMPNH stakeholders in relation to extreme precipitation events and older adults [2.6.3.1.2]	<ul> <li>#/% participants indicating increased knowledge at end of <sup>1s</sup>t workshop</li> <li>#/types of gaps identified in exercise as barriers to strengthening community resilience</li> </ul>
Objective #2	Document baseline community functioning and partnerships as an indicator of community resilience
Strategic Approach	Evaluation
1. Conduct electronic pre-intervention baseline survey to determine which of 11 CDC- recommended community sectors* are active in Greater Monadnock Regional Public Health Network (GMPHN) [2.6.2.1]	<ul> <li>#/% of 11 sectors represented in GMPHN in January 2022 (pre-intervention)</li> <li>#/% active sectors in GMPHN</li> <li>#/% of sectors with strong representation in GMPHN</li> <li>#/% of sectors underrepresented in GMPHN</li> </ul>
2. Determine missing sectors and invite to attend interventions to increase target audience (community organizations serving older adults) and partnerships [2.6.1]	<ul> <li>Specify #/% missing sectors in GMPHN</li> <li>#/type of missing sectors/organizations invited to attend interventions</li> </ul>
3. Redistribute baseline survey as part of post- intervention survey to determine changes in 11 sectors represented in GMPHN	<ul> <li>#/% of 11 sectors represented in GMPHN post- intervention</li> <li>#/% active sectors in GMPHN</li> <li>#/% of sectors with strong representation in GMPHN</li> <li>#/% of sectors underrepresented in GMPHN</li> </ul>
Objective #3	Increase knowledge of climate trends for Monadnock Region and anticipated effects of extreme precipitation events on over-65 population
Strategic Approach	Evaluation
1. Provide educational workshop during second workshop on projected climate trends for Monadnock Region and anticipated health- related effects of extreme precipitation on the over-65 population [2.6.3.2]	#/% participants indicating increased knowledge during post-workshop survey

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Objective #4 Strategic Approach	Document baseline social capital and cohesion as an indicator of community resilience <b>Evaluation</b>
1. Facilitate focus group during second workshop on: 1) social connectedness; and 2) community involvement using COPEWELL Social Capital and Cohesion Toolkit for participants in relation to extreme precipitation events and older adults	<ul> <li>#/% participants in focus group with active partnerships, networks, community connectedness, and community involvement</li> <li>#/% participants not previously part of GMPHN who attended workshop</li> <li>#/types of gaps identified in exercise as barriers to social capital and cohesion</li> </ul>
Objective #5 Strategic Approach	Demonstrate an understanding and application of community resilience tools and metrics <b>Evaluation</b>
1. Incorporate community resilience tools into interventions	<ul> <li># tools and metrics demonstrated during workshop/focus groups</li> <li>#/% participants indicating increased knowledge during post-workshop surveys</li> <li>#/% participants indicating increased knowledge during post-intervention survey</li> </ul>
Objective #6 Strategic Approach	Interpret and share the results of the community resilience assessments <b>Evaluation</b>
<ol> <li>Share results of tool applications with stakeholders in workshop/group discussions</li> <li>Meeting with stakeholders to share results of interventions</li> </ol>	<ul> <li># meetings held post-interventions to share results</li> <li># attending meetings to learn results of interventions</li> <li>Final written report on interventions with methods, metrics, and results</li> <li>Post-interventions survey response</li> <li># mediums (websites, journals, etc.) hosting final report on interventions</li> </ul>

*Note.* CDC sectors include: business, community leadership, cultural/faith-based organizations, emergency management, health care, social services, housing/shelter, media, mental/behavioral health, education/child care, and organizations serving at-risk populations.

### **Appendix B: Project Overview**

<u>Goal</u>: Increase community resilience in the Monadnock Region by assessing, understanding, and enhancing baseline partnerships, and social capital and cohesion

### **Objectives:**

- 1. Increase knowledge and application of community resilience best practices
- 2. Document baseline community functioning and partnerships as an indicator of community resilience
- 3. Increase knowledge of climate trends for Monadnock Region and anticipated effects of extreme precipitation events on over-65 population
- 4. Document baseline social capital and cohesion as an indicator of community resilience
- 5. Demonstrate the use of community resilience tools and metrics
- 6. Interpret and share the results of the community resilience assessments

### Strategic Approach:

### Pre-Intervention (January 2022)

- 1. Conduct electronic pre-intervention baseline survey to determine which of 11 CDCrecommended community sectors\* are active in Greater Monadnock Regional Public Health Network (GMPHN) [Contract 2.6.2.1]
- 2. Determine missing sectors and invite to attend interventions to increase target audience (community organizations serving older adults) and partnerships [Contract 2.6.1]

Workshop #1 (90 minutes) (February 2022) [Contract 2.6.3.1.2]

- 1. Provide results of pre-intervention survey on GMPHN stakeholder community sectors
- 2. Provide educational workshop on community resilience definitions & components
- Facilitate focus group on: 1) communication outreach and coordination; 2) resource mobilization; 3) organizational capacity building; and 4) partnership development and maintenance using Assessment for Disaster Engagement with Partners Toolkit (ADEPT) for GMPNH stakeholders in relation to extreme precipitation events and older adults

Workshop #2 (90 minutes) (March 2022) [Contract 2.6.3.1.2]

- 1. Provide educational workshop on projected climate trends for Monadnock Region and anticipated health-related effects of extreme precipitation on the over-65 population [Contract 2.6.3.2]
- 2. Facilitate focus group on: 1) social connectedness; and 2) community involvement using COPEWELL Social Capital and Cohesion Toolkit for participants in relation to extreme precipitation events and older adults

### Post-Intervention (April 2022)

1. Conduct electronic post-intervention survey to measure changes in partnerships and social capital (measures of community resilience), and overall effectiveness of interventions [Contract 2.6.2.1; 2.6.3.3]

### Project Deliverables

1. Final report on interventions, methods, metrics, and results by 6/30/22 [Contract 2.6.3.4; 2.6.3.5]

# Appendix C: Workshop Outlines

# Workshop #1

Workshop #1: Community Resilience Education			
Activity	Meets:	Desired Outcome(s)	
Brief introductions of participants and agencies in- person (and on-line) and what they want to gain from the workshop (15 min)	Engagement, networking, goal- setting; strengthening partnerships	Participants begin networking to develop connections	
Outline of workshop (slide)	Goal setting	Participants understand purpose and outcomes of workshop	
Community Resilience Definitions & Checklist Exercise (10 minutes)	Self-monitoring; information from credible sources	Baseline understanding of community resilience indicators	
Results of GMPHN sector survey (5 minutes)	Sharing information; identifying gaps and needs	Participants understand which community sectors are strong, and which are underrepresented in network currently with goal for improvement	
Assessment for Disaster	Engagement with Partners Toolk	it (ADEPT) Focus Group	
Activity	Meets:	Desired Outcome(s)	
Slide introduction to ADEPT toolkit (5 min)	Instruction on how to perform behavior; receiving information from credible sources	Participants understand exercise	
Implement ADEPT toolkit on partnerships, collaboration, and communication with discussion and wrap-up (45 minutes)	Feedback and self-monitoring; determining health risks, sharing information, supporting recovery operations, identifying recovery needs, strengthening partnerships, mitigating future impacts	Participants are engaged in resilience-building, information- sharing, and community involvement, and networking exercise Participants create plan of action to increase social capital and cohesion	
Intervention wrap-up questions, comments, lessons learned (15 min)	Feedback and self-monitoring; sharing information	Formative and summative measures of learning and workshop	
Post-Workshop Survey (5 min)	Feedback, self-monitoring, goal- setting, sharing information	Participants can verbalize the lessons learned, and identify future goals	

# Workshop #2

Workshop #2: Climate and Health Education			
Activity	Meets:	Desired Outcome(s)	
Brief introductions of participants and agencies in- person (and on-line) and what they want to gain from the workshop (15 min)	Engagement, networking, goal- setting; strengthening partnerships	Participants begin networking to develop connections	
Outline of workshop (slide)	Goal setting	Participants understand purpose and outcomes of workshop	
Climate and Health education/slides in relation to over-65 population (10 min)	Health consequences for not changing behavior; receiving information from credible sources; identify recovery needs, mitigating future impacts	Participants understand best practices and can utilize information in relation to target population and climate focus	
Results of ADEPT Toolkit partnerships exercise (5 min)	Sharing information; identifying gaps and needs	Participants understand which community partnerships are strong and which need improvement	
COPEWEI	LL Social Capital and Cohesion F	_	
Activity	Meets:	Desired Outcome(s)	
Slide introduction to social capital and cohesion (COPEWELL rubric) group discussion and format (5 min)	Instruction on how to perform behavior; receiving information from credible sources	Participants understand exercise	
Implement COPEWELL rubric on social capital and cohesion with discussion and wrap-up (45 min)	Feedback and self-monitoring; determining health risks, sharing information, supporting recovery operations, identifying recovery needs, strengthening partnerships, mitigating future impacts	Participants are engaged in resilience-building, information- sharing, and community involvement, and networking exercise Participants create plan of action to increase social capital and cohesion	
Intervention wrap-up questions, comments, lessons learned (15 min)	Feedback and self-monitoring; sharing information	Formative and summative measures of learning and workshop	
Post-workshop survey (5 min)	Feedback, self-monitoring, goal- setting, sharing information	Formative and summative measures of learning and workshop	

#### **Appendix D: Surveys**

### **Pre-Intervention Survey for Current Members of GMPHN** THIS SECTION IS FOR THE BODY OF THE EMAIL:

Please take a few minutes to share your knowledge with us regarding how to better understand and help older adults affected by severe weather events in our Monadnock Region. You will benefit in two ways by participating in this research and completing this survey. First, your expertise and knowledge will inform this project, and second, we will share our summary findings with you in a few weeks so you can use the results as you plan and network with other local organizations engaged in serving the health needs of the older adults in our region.

As you know, the Monadnock Region has experienced a variety of severe weather events (such as extreme rain and ice events and floods) in the past two decades, and climate models suggest that our region may experience more events in the future. We are launching this research project to increase resilience to extreme weather in the Monadnock Region. Our goal is to strengthen the Region's capacity to pull together before, during, and after a severe weather event in order to reduce the health impacts. Our team is made up of experts from the Greater Monadnock Region Public Health Network, in partnership with The NH Department of Health and Human Services, and Antioch University's Center for Climate Preparedness and Community Resilience.

This survey contains 14 questions and should take no more than 10 minutes to complete. We would like to have all surveys completed by **Friday, February 18, 2022**. Specific results will be kept confidential, and only a summary of results will be shared with attendees of the first virtual workshop in March. Your participation in this research is voluntary. You have the right to skip any question you choose not to answer or withdraw your participation without any penalty. We appreciate your input!

You can begin the survey by clicking on this link [insert link here].

Sincerely,

Director of Greater Monadnock Public Health Network





ANTIOCH UNIVERSITY NEW ENGLAND Center for Climate Preparedness and Community Resilience [First page of survey]

Researchers at the Climate and Health Resilience Initiative are asking you to complete this survey. This survey is part of a research project designed to better understand how to measure and build community resilience to extreme weather events. Our focus is the relationship between climate and the health of the over-65 population in the Monadnock Region. The research project includes a survey before the interactive workshops, a pre-post survey and discussion session during each of two workshops, and a survey approximately one month after the second workshop. All surveys and workshops will be administered electronically or virtually. Data collected from the surveys and the workshop discussions will be used to highlight the gaps and opportunities that exist for strengthening community resilience. Personal information is not a part of this study and will be de-identified before data analysis. Your name, email address, and the organization you represent will only be used to track the number of surveys and workshops completed. Those records will be kept separate from your responses. Workshop recordings will be used for notetaking purposes only and will be stored separately from the data we collect. Collected data may be used for future presentations or publications without additional informed consent.

There is no risk for completing this survey or participating in this study. Your participation is voluntary. You have the right to skip any questions you choose not to answer without penalty. You have the right to withdraw your participation at any time without penalty.

Benefits for participation include: sharing your knowledge to inform projects in this region and beyond; contributing to shared knowledge that may help your organization and partners engaged in emergency preparedness or public health; and personal experience with resilience-building toolkits included in each workshop. The research project will serve as a model for future projects in the Monadnock region and other areas.

This project has been approved by the Institutional Review Board at Antioch University. If you have any questions about your rights as a research participant, please contact

, IRB Chair, Antioch University New E	England, , or Campus Provost, Dr.
Shawn Fitzgerald, at	. If you have any questions about this research or
the Climate and Health Resilience Initiative, pl	please

By completing the attached survey, you are stating that you understand this consent form and agree to participate in this research. Thank you for your participation! The Climate and Health Resilience Initiative:



*Note*. If you are no longer affiliated with an organization serving the over-65 population, please answer based on your past experience. Indicate the organization you worked for and an updated contact person and email address, if known. Thank you.

Name/organization/email:

[Second page of survey]

Please choose the answer that best represents your organization.

1. Please check the category that best describes the <u>primary</u> services your organization provides to the Monadnock Region (utilizing majority of time and resources):

\_\_\_\_\_ Business (goods and services, including transportation)

\_\_\_\_\_ Community leadership (law enforcement, local government)

\_\_\_\_\_ Cultural or faith-based organization (museum, emotional/spiritual support, volunteers, donations)

\_\_\_\_\_ Education/child care (residential and commercial schools, daycare, camps)

Emergency management (incident command, emergency operations)

\_\_\_\_\_ Health care (hospital, urgent care, health center, private practice, pharmacy, medical equipment)

\_\_\_\_\_ Housing/shelter (assess/provide temporary or long-term housing/shelter)

\_\_\_\_\_ Media: print (magazine, newspaper), broadcast (tv, radio, internet), social

\_\_\_\_\_ Mental/Behavioral Health (inpatient/outpatient clinics, private practice)

\_\_\_\_\_ Social Services (case management, employment, child protection, disability & veteran services)

\_\_\_\_\_ Vulnerable/Senior Support (non-medical services: transportation, nutrition, education/outreach)

\_\_\_\_\_ Other. Please specify: \_\_\_\_\_\_

2. Please check the category that best describes the <u>secondary</u> services your organization provides to the Monadnock Region (utilizing less than majority of time and resources):

provides to the Monadhock Region (utilizing less than majority of time and reso

\_\_\_\_\_ Business (goods and services, including transportation)

\_\_\_\_\_ Community leadership (law enforcement, local government)

\_\_\_\_\_ Cultural or faith-based organization (museum, emotional/spiritual support, volunteers, donations)

\_\_\_\_\_ Education/child care (residential and commercial schools, daycare, camps)

\_\_\_\_\_ Emergency management (incident command, emergency operations)

\_\_\_\_\_ Health care (hospital, urgent care, health center, private practice, pharmacy, medical equipment)

\_\_\_\_\_ Housing/shelter (assess/provide temporary or long-term housing/shelter)

\_\_\_\_\_ Media: print (magazine, newspaper), broadcast (tv, radio, internet), social

\_\_\_\_\_ Mental/Behavioral Health (inpatient/outpatient clinics, private practice)

\_\_\_\_\_ Social Services (case management, employment, child protection, disability & veteran services)

\_\_\_\_\_ Vulnerable/Senior Support (non-medical services: transportation, nutrition, education/outreach)

- \_\_\_\_\_ No secondary services
- \_\_\_\_\_ Other. Please specify: \_\_\_\_\_\_

3. Towns in which your organization serves the over-65 population:

\_\_\_\_\_ All 33 towns in the Monadnock Region

\_\_\_\_\_ All of Cheshire County \_\_\_\_\_ Western Hillsborough County

\_\_\_\_\_Alstead \_\_\_\_\_Antrim \_\_\_\_\_Bennington \_\_\_\_\_Chesterfield

\_\_\_\_ Dublin \_\_\_\_ Fitzwilliam \_\_\_\_ Francestown \_\_\_\_ Gilsum

\_\_\_\_\_ Greenfield \_\_\_\_\_ Hancock \_\_\_\_\_ Harrisville \_\_\_\_\_ Hinsdale

Jaffrey	Keene	Marlborough	Marlow
Nelson	New Ipswich	Peterborough	Richmond
Rindge	Roxbury	Sharon	Swanzey
Stoddard	Sullivan	Surry	Temple
Troy	Walpole	Westmoreland	Winchester
Windsor	None of the ab	oove	

4. Please list three partner agencies your organization collaborated with during the past five years that addressed the needs of the over-65 population (including public health and emergency preparedness): \_\_\_\_\_\_

4a. Please list which of these three agencies were engaged in projects addressing emergency preparedness: \_\_\_\_\_

[I don't have the correct wording on this question.]

5. Is your organization a member of the Greater Monadnock Region Public Health Network?

- \_\_\_\_\_ Yes, and we'd like to participate in the community resilience workshops this winter
- \_\_\_\_\_ Yes, but we don't have the time or personnel to participate in the workshops
- \_\_\_\_\_ Yes, but we're inactive at the moment
- \_\_\_\_\_ No, but we'd like to join and participate in the community resilience workshops
- \_\_\_\_\_ No, but we'd like more information on the Network
- \_\_\_\_\_ No, but we'd like more information on the workshops
- \_\_\_\_\_ No, and we don't have the time or personnel to participate in the Network or workshops

6. Is your organization a member of other health, emergency, or service networks in the Region?

- \_\_\_\_\_ Yes. Please list: \_\_\_\_\_\_
- \_\_\_\_\_No
- \_\_\_\_\_ Not sure

7. In your experience serving the over-65 population, what is the Region's greatest need when preparing for extreme weather events?

\_\_\_\_\_ More education about extreme weather and public health

\_\_\_\_\_ More public outreach about emergency preparedness and/or extreme weather

\_\_\_\_\_ More resources (personnel, funding, emergency supplies, etc.)

\_\_\_\_\_ More collaboration among organizations (including local government)

\_\_\_\_\_ A better understanding of which organizations can provide necessary services

\_\_\_\_\_ A better understanding of the emergency preparedness needs of our over-65 population

\_\_\_\_\_ More time to devote to emergency preparedness activities

\_\_\_\_\_ Other. Please specify: \_\_\_\_\_\_

8. In your experience serving the over-65 population, what is the Region's greatest need when responding to extreme weather events?

\_\_\_\_\_ More resources (personnel, funding, emergency supplies, etc.)

\_\_\_\_\_ More collaboration among organizations (including local government)

\_\_\_\_\_ A better understanding of which organizations can provide necessary services

\_\_\_\_\_ A better understanding of the emergency preparedness needs of our over-65 population

\_\_\_\_\_ Better communication among emergency services, support organizations, and the public

\_\_\_\_\_ More patience on the part of the public while waiting for help to arrive

\_\_\_\_\_ Other. Please specify: \_\_\_\_

9. Please indicate the most likely response of your organization during a severe weather event.

\_\_\_\_\_ We are committed to helping our community and actively engage with emergency personnel and community leaders to help the Region pull together, assess the damage and needs, and recover from the event

\_\_\_\_\_ We are committed to helping the Region and offer the use of our personnel, volunteers, and resources to the community in need

\_\_\_\_\_ We feel a connection to the community and respond to calls for help from emergency personnel and community leaders

\_\_\_\_\_ We are based outside the community and let the emergency personnel and community leaders organize the assessment and recovery efforts

\_\_\_\_\_ Other. Please specify: \_\_\_\_\_\_

Thank you for your responses!

If you wish to be removed from this email list regarding the Community Resilience Pilot Initiative in the Monadnock Region, please indicate by checking the box below and stating which email you'd like deleted from the list:

#### Workshop #1 Pre-Survey

Thank you for registering for Workshop #1 in the Strengthening Community Resilience to Severe Weather Events in the Monadnock Region series!

Researchers at the Climate and Health Resilience Initiative are asking you to complete this preworkshop survey. This survey is part of a research project designed to better understand how to measure and build community resilience to extreme weather events. Our focus is the relationship between climate and the health of the over-65 community in the Monadnock Region. The research project includes a survey before the interactive workshops, a pre-post survey and discussion session during each of two workshops, and a survey approximately one month after the second workshop. All surveys and workshops will be administered electronically or virtually. Data collected from the surveys and the workshop discussions will be used to highlight the gaps and opportunities that exist for strengthening community resilience. Personal information is not a part of this study and will be de-identified before data analysis. Your name, email address, and the organization you represent will only be used to track the number of surveys and workshops completed. Those records will be kept separate from your responses. Workshop recordings will be used for notetaking purposes only and will be stored separately from the data we collect. Collected data may be used for future presentations or publications without additional informed consent.

There is no risk for completing this survey or participating in this study. Your participation is voluntary. You have the right to skip any questions you choose not to answer without penalty. You have the right to withdraw your participation at any time without penalty.

Benefits for participation include: sharing your knowledge to inform projects in this region and beyond; contributing to shared knowledge that may help your organization and partners engaged in emergency preparedness or public health; and personal experience with resilience-building toolkits included in each workshop. The research project will serve as a model for future projects in the Monadnock region and other areas.

This project has been approved by the Institutional Review Board at Antioch University. If you have any questions about your rights as a research participant, please contact

, IRB Chair, Antioch University New England, or Campus Provost, Dr . If you have any questions about this research or

the Climate and Health Resilience Initiative, please contact

By completing the attached survey, you are stating that you understand this consent form and agree to participate in this research. Thank you for your participation!

The Climate and Health Resilience Initiative:





Name/organization/email:

*Note.* During this workshop, you will be asked to participate in one of four break-out room discussions. Please indicate below if you have a preference.

Break-out room discussions:

\_\_\_\_\_ Communication outreach and coordination (How can your organization become more involved in producing and sending media messaging and emergency preparedness materials to our region?)

\_\_\_\_\_ Resource mobilization (What resources are available, needed, or disseminated by your organization during and after a severe weather event?)

\_\_\_\_\_ Organizational capacity building (How can your organization be better prepared to withstand a public health emergency and/or provide disaster services to vulnerable or hard-to-reach populations?)

\_\_\_\_\_ Partnership development and maintenance (How can your organization become more actively engaged in partnerships that serve the over-65 community before, during, and after a severe weather event?)

I have no preference. Assign me to a break-out room.

#### [NEXT PAGE FOR PRE-SURVEY QUESTIONS]

### Strengthening Community Resilience to Severe Weather Events in the Monadnock Region Pre-Workshop Survey: Community Resilience

Please choose the answer that best reflects your organization and its efforts to serve the 33 towns within the Monadnock Region (Cheshire and western Hillsborough counties).

1. Which CDC sector does your organization represent through its primary services to the Monadnock Region?

Business (goods and services, including transportation) Community leadership (law enforcement, local government) Cultural & faith-based groups & organizations (museum, emotional/spiritual support, volunteers, donations) Education & child care (residential and commercial schools, daycare, camps)

Emergency management (incident command, emergency operations)

Health care (hospital, urgent care, health center, private practice, pharmacy, medical equipment)

Housing & sheltering (assess/provide temporary or long-term housing/shelter)

Media: (magazine, newspaper), broadcast (tv, radio, internet), social

Mental/behavioral health (inpatient/outpatient clinics, private practice)

Organizations serving at-risk/vulnerable populations (non-medical services: transportation, nutrition, education/outreach)

Social services (case management, employment, child protection, disability & veteran services)

Other:

2a. In your experience serving the over-65 community, what is the <u>Region's</u> greatest need when <u>preparing</u> for extreme weather events?

More education about extreme weather and public health More public outreach about emergency preparedness and/or extreme weather

More resources (personnel, funding, emergency supplies, etc.)

More collaboration among organizations (including local government)

A better understanding of which organizations can provide necessary services

A better understanding of the emergency preparedness needs of our over-65 community

More time to devote to emergency preparedness activities

Other:

2b. What is your organization's greatest need when preparing for extreme weather events?

More education about extreme weather and public health More public outreach about emergency preparedness and/or extreme weather

More resources (personnel, funding, emergency supplies, etc.)

More collaboration among organizations (including local government)

A better understanding of which organizations can provide necessary services

A better understanding of the emergency preparedness needs of our over-65 community

More time to devote to emergency preparedness activities

Other:

3a. In your experience serving the over-65 community, what is the <u>Region's</u> greatest need when <u>responding</u> to extreme weather events?

More resources (personnel, funding, emergency supplies, etc.)

Availability of an easily-accessible emergency plan for organizations and seniors to follow

More collaboration among organizations (including local government)

A better understanding of which organizations can provide necessary services

A better understanding of the emergency needs of our over-65 community

Better communication among emergency services, support organizations, and the public

More patience on the part of the public while waiting for help to arrive

Other:

3b. What is your organization's greatest need when responding to extreme weather events?

More resources (personnel, funding, emergency supplies, etc.)

Availability of an easily-accessible emergency plan for organizations and seniors to follow

More collaboration among organizations (including local government)

A better understanding of which organizations can provide necessary services

A better understanding of the emergency needs of our over-65 community

Better communication among emergency services, support organizations, and the public

More patience on the part of the public while waiting for help to arrive

Other:

4a. Has your organization partnered with other organizations in the Region to strengthen community resilience?

Yes No Not sure 4b. If yes, which sectors did you partner with?

Business (goods and services, including transportation) Community leadership (law enforcement, local government) Cultural & faith-based groups & organizations (museum, emotional/spiritual support, volunteers, donations) Education & child care (residential and commercial schools, daycare, camps) Emergency management (incident command, emergency operations) Health care (hospital, urgent care, health center, private practice, pharmacy, medical equipment) Housing & sheltering (assess/provide temporary or long-term housing/shelter) Media: (magazine, newspaper), broadcast (tv, radio, internet), social

Mental/behavioral health (inpatient/outpatient clinics, private practice)

Organizations serving at-risk/vulnerable populations (non-medical services: transportation, nutrition, education/outreach)

Social services (case management, employment, child protection, disability & veteran services)

Other:

N/a

4c. If yes, who was your target population?

Adults over 65 Women & children People with physical or mental impairments Homeless or low-income Addictions & dependencies Other:

5. Does your organization partner with media companies to disseminate emergency preparedness. disaster response (EP/DR) messaging?

Yes We plan to in the future We should, but have no immediate plans No Other: 6. Does your organization use social media to disseminate emergency preparedness/disaster response (EP/DR) messaging?

Yes We plan to in the future We should, but have no immediate plans No Other:

7. Has your organization conducted a review of your existing community partnerships and their resources available for emergency preparedness/disaster response (EP/DR) needs?

Yes We plan to in the future We should, but have no immediate plans I'm not sure how to do such a review No Other:

8. Does your organization provide training to build self-sufficiency should it become isolated from partner organizations due to a disaster?

Yes We plan to in the future We should, but have no immediate plans I don't know No Other:

9. Does your organization recruit and retain active and diverse membership within its network?

Yes We plan to in the future We should, but have no immediate plans We're not part of any network yet No Other:

10. How do you define community resilience?

I'm not sure. The community is strong and can bounce back after a disaster. The community has everything it needs to recover from a disaster--food, personnel, and community commitment.

The community has a series of networks and partnerships to help it through a disaster.

It's the ability of a community to prepare for, respond to, and recover from disaster.

It's all about the connections--the more connected we are as a community, the better we will be able to resist the effects of a severe weather event.

We communicate effectively and share knowledge so that we all know who to go to when we need help.

Other:

11. Based on your organization's active partnerships, how would you rate the community resilience of the Monadnock Region?

Low (rating 0-2; there's a lot of work to do!) Fair (rating 3-5; needs improvement) Good (rating 6-8 with some room for improvement) Excellent (rating 9-10) Other:

12. Which metric do you feel would best measure and reflect the region's current resilience to climate-induced health impacts?

I don't know what a metric is.

I'm not sure.

Number of older adults who are hospitalized with weather-related injuries or illnesses Number of vulnerable people who visit the ER after a severe weather event Number of organizations that teach or supply community with emergency preparedness information and kits Number of organizations in the Greater Monadnock Region Public Health Network Number of CDC sectors engaged in community resilience projects Number of towns with hazard mitigation and emergency preparedness plans Number of towns in the region requesting federal aid assistance after a disaster Number of organizations represented in today's workshop Other:

13. How do you rate your organization's efforts to strengthen the resilience of the Monadnock Region to extreme weather events?

I'm not sure how building resilience pertains to my organization.

We don't know how to build resilience to severe weather.

I don't know if my organization is active in resilience-building activities.

I'm not sure how my organization can help.

I need more information about community resilience.

We are waiting for other organizations to ask us for help.

I am hoping today's workshop will help answer this question,

My organization supports community resilience activities but doesn't know what to do or have the resources to get involved.

We have been involved in some projects, but we could do more.

We have worked on building resilience at the individual scale, but not at the community scale.

My organization supports community resilience activities and is actively engaged in looking for ways to strengthen connections in the region.

My organization actively engages with local partners on projects to strengthen community connections.

Other:

14. What do you hope to learn/accomplish at today's workshop?

I want to learn about community resilience.

I want to better understand the current resilience of the Monadnock Region.

I want to learn how my organization can help strengthen the resilience in this Region.

I want to acquire new skills (networking, resilience-building, toolkit use, etc.) I want to meet and network with other organizations.

I want to be involved in resilience-strengthening activities.

I want to develop new partnerships.

Other:

#### Workshop #1 Post-Survey

Strengthening Community Resilience to Severe Weather Events in the Monadnock Region Post-Workshop Survey: Community Resilience

Thank you for attending this workshop on community resilience and partnerships using the ADEPT tool (Assessment for Disaster Engagement with Partners Toolkit). Researchers at the Climate and Health Resilience Initiative are asking you to complete this post-workshop survey.

Your responses will be used to highlight the gaps and opportunities that exist for strengthening community resilience. Personal information will be de-identified before data analysis. You have the right to skip any questions you choose not to answer without penalty.

Name \_\_\_\_\_

Organization \_\_\_\_\_

*Note.* Your name and organization will be de-identified from the data collected.

\_\_\_\_\_

Break-out room session I attended:

\_\_\_\_\_ Communication outreach and coordination (How can your organization become more involved in producing and sending media messaging and emergency preparedness materials to our region?)

\_\_\_\_\_ Resource mobilization (What resources are available, needed, or disseminated by your organization during and after a severe weather event?)

\_\_\_\_\_ Organizational capacity building (How can your organization be better prepared to withstand a public health emergency and/or provide disaster services to vulnerable or hard-to-reach populations?)

\_\_\_\_\_ Partnership development and maintenance (How can your organization become more actively engaged in partnerships that serve the over-65 community before, during, and after a severe weather event?)

\_\_\_\_\_ I have no preference. Assign me to a break-out room.

Please choose the answer that best reflects your organization and its efforts to serve the 33 towns within the Monadnock Region (Cheshire and western Hillsborough counties).

1. Which CDC sector does your organization represent through its primary services to the Monadnock Region?

Business (goods and services, including transportation)

Community leadership (law enforcement, local government)

Cultural & faith-based groups & organizations (museum, emotional/spiritual support, volunteers, donations)

Education & child care (residential and commercial schools, daycare, camps) Emergency management (incident command, emergency operations) Health care (hospital, urgent care, health center, private practice, pharmacy, medical equipment)

Housing & sheltering (assess/provide temporary or long-term housing/shelter)

Media: (magazine, newspaper), broadcast (tv, radio, internet), social Mental/behavioral health (inpatient/outpatient clinics, private practice) Organizations serving at-risk/vulnerable populations (non-medical services: transportation, nutrition, education/outreach)

Social services (case management, employment, child protection, disability & veteran services)

Other:

2a. Which sector would you like to see better represented in the resilience-building activities in the Monadnock Region?

Business (goods and services, including transportation)

Community leadership (law enforcement, local government)

Cultural & faith-based groups & organizations (museum, emotional/spiritual support, volunteers, donations)

Education & child care (residential and commercial schools, daycare, camps) Emergency management (incident command, emergency operations)

Health care (hospital, urgent care, health center, private practice, pharmacy, medical equipment)

Housing & sheltering (assess/provide temporary or long-term housing/shelter) Media: (magazine, newspaper), broadcast (tv, radio, internet), social

Mental/behavioral health (inpatient/outpatient clinics, private practice) Organizations serving at-risk/vulnerable populations (non-medical services: transportation, nutrition, education/outreach)

Social services (case management, employment, child protection, disability & veteran services)

Other:

2b. Why?

It's under-represented.

It's should have a dominant role in resilience-building activities. It includes organizations that have the resources we need.

It includes organizations with the experience or knowledge we need. It would increase the diversity of our local partnerships. Other: 3a. Based on what you learned at today's workshop, what is the Region's greatest need when preparing for extreme weather events?

More education about extreme weather and public health

More public outreach about emergency preparedness and/or extreme weather More resources (personnel, funding, emergency supplies, etc.)

More collaboration among organizations (including local government) A better understanding of which organizations can provide necessary services

A better understanding of the emergency preparedness needs of our over-65 community

More time to devote to emergency preparedness activities

Other:

3b. What can your organization do to address that need?

I'm not sure.

Collaborate with partners and stakeholders engaged in resilience-building activities

Assist with the development of trainings and materials about emergency preparedness and response

Assist other organizations focused on reducing the health impacts of severe weather events on the over-65 community

Work with media partners to provide more public outreach on climate and health resilience issues

Engage the over-65 community in our resilience-building activities

Engage the over-65 community in conversations about their emergency preparedness and response needs

Other:

4a. Based on what you learned at today's workshop, what is the Region's greatest need when responding to extreme weather events?

More resources (personnel, funding, emergency supplies, etc.)

Availability of an easily-accessible emergency plan for organizations and seniors to follow

More collaboration among organizations (including local government) A better understanding of which organizations can provide necessary services

A better understanding of the emergency needs of our over-65 community

Better communication among emergency services, support organizations, and the public

More patience on the part of the public while waiting for help to arrive

Other:

4b. What can your organization do to address that need?

I'm not sure.

Collaborate with partners and stakeholders engaged in resilience-building activities

Assist with the development of trainings and materials about emergency preparedness and response

Assist with the development of a regional emergency plan for seniors and supporting agencies

Assist other organizations focused on reducing the health impacts of severe weather events on the over-65 community

Work with media partners to provide more public outreach on climate and health resilience issues

Engage the over-65 community in our resilience-building activities

Engage the over-65 community in conversations about their emergency preparedness and response needs

Other:

5. How do you define community resilience?

I'm not sure.

The community is strong and can bounce back after a disaster.

The community has everything it needs to recover from a disaster--food, personnel, and community commitment.

The community has a series of networks and partnerships to help it through a disaster.

It's the ability of a community to prepare for, respond to, and recover from disaster.

It's all about the connections--the more connected we are as a community, the better we will be able to resist the effects of a severe weather event.

We communicate effectively and share knowledge so that we all know who to go to when we need help.

Other:

6. Based on the results of this workshop and the discussion on partnerships, how would you rate the community resilience of the Monadnock Region?

Low (rating 0-2; there's a lot of work to do!) Fair (rating 3-5; needs improvement) Good (rating 6-8 with some room for improvement) Excellent (rating 9-10) Other:

7. Which metric do you feel best measures and reflects the Region's current resilience to climate hazards?

I don't know what a metric is.

I'm not sure.

Number of older adults who are hospitalized with weather-related injuries or illnesses Number of vulnerable people who visit the ER after a severe weather event Number of organizations that teach or supply community with emergency preparedness information and kits Number of organizations in the Greater Monadnock Region Public Health Network Number of CDC sectors engaged in community resilience projects Number of towns with hazard mitigation and emergency preparedness plans Number of towns in the region requesting federal aid assistance after a disaster Number of organizations represented in today's workshop Other:

8. How did this workshop affect the Region's baseline community resilience?

It didn't yet.

It brought people together to start the conversation.

It increased our ability to communicate.

It increased our knowledge of the resources needed to prepare for or respond to an event.

It gave us an opportunity to share our perspectives on the emergency preparedness and response needs of the over-65 community.

It brought people together to start networking and building partnerships.

It increased our commitment to build and strengthen partnerships that address the health impacts of severe weather.

It helped identify challenges and offered possible solutions. It helped us identify specific roles that our organizations could adopt to strengthen partnerships.

Other:

9. How did this workshop affect your understanding of community resilience?

It didn't yet.

I understand the concepts much better now.

I'm not sure--I understand the concepts, but I'm not sure what I can do to help.

It improved my understanding and I hope it can be offered to other organizations in the future.

It helped me understand that community resilience is a tool for keeping our community healthy.

I now understand my organization's role in strengthening the resilience of the Region.

I think we're doing a great job in the Monadnock Region!

Other:

10. What did you learn or accomplish at today's workshop?

I learned about community resilience.

I understand the current resilience of the Monadnock Region.

I learned how my organization can help strengthen the resilience in this Region.

I acquired new skills (networking, resilience-building, toolkit use, etc.)

I met and networked with other organizations.

I engaged in resilience-strengthening activities.

I developed new partnerships.

Other:

11. What would you like to see as a next step to build on the knowledge and networking that occurred during this workshop?

Another workshop to continue the work accomplished at this one.

Organizations continue to build the partnerships developed at this workshop.

Organizations join existing networks in the Region.

Participants get together to form new partnerships.

The development of a regional emergency preparedness plan with a focus on the needs of the over-65 community.

Other:

12. Based on the results of this workshop, what one activity is your organization most likely to engage in to help strengthen the resilience of the Monadnock Region?

I'm not sure how my organization can help.

We can support other organizations with the resources to make change.

We can offer our resources to whomever needs them.

We can increase our partnerships in the region.

We can strengthen the communication between organizations and the older adults who might need help.

We can increase our partnerships with media organizations to help disseminate emergency preparedness campaigns and education.

We can conduct an inventory of our resources and those of our partners before the next severe weather event.

We can focus on building our own self-sufficiency (and our clients) in case we are stranded during a flood or other disaster while waiting for help to arrive.

We can educate our employees about emergency preparedness, and how it relates to our organization's target population(s).

We can actively recruit new organizations into our network to build active and diverse partnerships.

We can attend more workshops like this to learn more about climate and health, and building partnerships for a healthier and more resilient community.

Other:

13a. In which domain did you score lowest? Communication outreach and coordination Resource mobilization Organizational capacity building

Partnership development and maintenance Other:

13b. In which domain did you score highest? Communication outreach and coordination Resource mobilization Organizational capacity building Partnership development and maintenance Other:

13c. Which domain is your organization most likely to focus on for improvement? Communication outreach and coordination Resource mobilization Organizational capacity building Partnership development and maintenance Other:

13d. Why?It's the easiest.It's where we need the most improvement.

It's the domain in which we have the most resources. It's a domain we understand. Other:

14. In this workshop, you used the Assessment for Disaster Engagement with Partners Toolkit (ADEPT). How would you rate this tool on ease of use? Poor (rating 0-2; it's hard to use or understand)

Fair (rating 3-5; it's okay, but could use some improvement) Good (rating 6-8; it worked for what we needed) Excellent (rating 9-10; it worked well for our use/it was easy to understand) Other:

15. How would you rate the ADEPT tool on applicability to your community?

Poor (rating 0-2; it doesn't really relate to our community or needs) Fair (rating 3-5; it's okay, but could use some improvement) Good (rating 6-8; it worked well for what we needed) Excellent (rating 9-10; it was easy to apply to our community and needs) Other:

16. Would you recommend the ADEPT tool to other organizations or communities engaged in strengthening community resilience?

Yes Not sure No Other:

17. What other workshop opportunities would you like the Climate and Health Resilience Initiative to offer to build upon today's workshop? Strengthening community resilience

Using community resilience assessment tools

Climate impacts on public health

Emergency preparedness and disaster response

Increasing the health resilience of the over-65 community

Other:

N/a

Thank you for your participation! The Climate and Health Resilience Initiative:



ANTIOCH UNIVERSITY NEW ENGLAND Center for Climate Preparedness and Community Resilience

### Workshop #2 Pre-Survey

Thank you for registering for Workshop #2 in the Strengthening Community Resilience to Severe Weather Events in the Monadnock Region series!

Researchers at the Climate and Health Resilience Initiative are asking you to complete this preworkshop survey. This survey is part of a research project designed to better understand how to measure and build community resilience to extreme weather events. Our focus is the relationship between climate and the health of the over-65 community in the Monadnock Region. The research project includes a survey before the interactive workshops, a pre-post survey and discussion session during each of two workshops, and a survey approximately one month after the second workshop. All surveys and workshops will be administered electronically or virtually. Data collected from the surveys and the workshop discussions will be used to highlight the gaps and opportunities that exist for strengthening community resilience. Personal information is not a part of this study and will be de-identified before data analysis. Your name, email address, and the organization you represent will only be used to track the number of surveys and workshops completed. Those records will be kept separate from your responses. Workshop recordings will be used for notetaking purposes only and will be stored separately from the data we collect. Collected data may be used for future presentations or publications without additional informed consent.

There is no risk for completing this survey or participating in this study. Your participation is voluntary. You have the right to skip any questions you choose not to answer without penalty. You have the right to withdraw your participation at any time without penalty.

Benefits for participation include: sharing your knowledge to inform projects in this region and beyond; contributing to shared knowledge that may help your organization and partners engaged in emergency preparedness or public health; and personal experience with resilience-building toolkits included in each workshop. The research project will serve as a model for future projects in the Monadnock region and other areas.

This project has been approved by the Institutional Review Board at Antioch University. If you have any questions about your rights as a research participant, please contact

, IRB Chair, Antioch University New England, or Campus Provost, Dr. Shawn Fitzgerald, at . If you have any questions about this research or the Climate and Health Resilience Initiative, please contact

By completing the attached survey, you are stating that you understand this consent form and agree to participate in this research. Thank you for your participation! The Climate and Health Resilience Initiative:





Name/organization/email:

*Note.* During this workshop, you will be asked to participate in one of two break-out room discussions. Please indicate below if you have a preference.

Break-out room discussions:

- \_\_\_\_\_ Social connectedness
- \_\_\_\_\_ Community Involvement
- \_\_\_\_\_ No preference

### [NEXT PAGE FOR PRE-WORKSHOP SURVEY QUESTIONS]

Climate & Health Resilience Initiative Pre-Workshop Survey: Climate & Health. COPEWELL Social Capital & Cohesion Toolkit

Please choose the answer that best reflects your organization and its efforts to serve the 33 towns within the Monadnock Region (Cheshire and western Hillsborough counties).

1. Which sector does your organization represent through its primary services to the Monadnock Region?

\_\_\_\_Business (goods and services, including transportation)

<u>Community leadership (law enforcement, local government)</u>

Cultural & faith-based groups & organizations (museum, emotional/spiritual support, volunteers, donations)

Education & child care (residential and commercial schools, daycare, camps)

Emergency management (incident command, emergency operations)

\_\_\_\_\_Health care (hospital, urgent care, health center, private practice, pharmacy, medical equipment)

\_\_\_\_\_Housing & sheltering (assess/provide temporary or long-term housing/shelter)

\_\_\_\_Media: (magazine, newspaper), broadcast (tv, radio, internet), social

\_\_\_\_Mental/behavioral health (inpatient/outpatient clinics, private practice)

Organizations serving at-risk/vulnerable populations (non-medical services: transportation, nutrition, education/outreach)

\_\_\_\_\_Social services (case management, employment, child protection, disability & veteran services)

\_\_\_\_Other:

2. During today's workshop, we'll discuss making and strengthening connections between the over-65 community and local organizations that serve them to reduce isolation and climate-related health risks. How connected do you feel your organization is to the Monadnock Region and its residents?

\_\_\_\_\_Very connected. We feel obligated to the people of the region.

\_\_\_\_\_We're connected, but we'd probably not feel a strong sense of loss if we moved out of the area.

\_\_\_\_\_We contribute to our residents and customers as best we can, but we have no strong ties to the region.

\_\_\_\_\_We serve the region but we're not connected to it.

3. What population do you feel most connected to in the Monadnock Region?

\_\_\_\_Adults over-65

\_\_\_\_\_Women & children

\_\_\_\_\_People with physical or mental impairments

\_\_\_\_Homeless or low-income

\_\_\_\_\_Addictions & dependencies

Emergency management authorities

\_\_\_\_\_Infrastructure experts

\_\_\_\_\_Healthcare professionals

\_\_\_\_Business community

\_\_\_\_Other:

4. Is this population the primary population you serve as an organization?

\_\_\_\_Yes \_\_\_\_No

\_\_\_\_Other:

5. In your experience serving the over-65 community, how do you rate the region's capacity to pull together during an extreme weather event as friends, neighbors, and organizations having a shared interest in the community? (0 = not at all; 10 = We have a sense of connection to the region and work together effectively and efficiently.)

6. How connected is your organization to the Monadnock Region? (0= Not at all--we serve the region but have no ties to it; 10= We are a part of the region and feel an obligation to serve its residents as our family, friends, and neighbors)

\_\_\_\_0 \_\_\_\_1 \_\_\_\_2 \_\_\_\_3 \_\_\_\_4 \_\_\_\_5 \_\_\_\_6 \_\_\_\_7 \_\_\_\_8 \_\_\_\_9 \_\_\_\_10 \_\_\_\_0ther: 7. During today's workshop, we'll discuss strengthening community involvement as a way to increase the ability of our region to pull together before, during, or after a severe weather event. How active is your organization in the region?

\_\_\_\_\_Very active. We belong to regional networks, partner with other organizations, and contribute to the region in any way we can.

\_\_\_\_\_We're active, either in networks, partnerships, or as a resource for the community, but there's room for improvement.

\_\_\_\_\_We want to be active and contribute more to the region but need help to get started.

\_\_\_\_\_We're not active; our contribution to the region is what we do as an organization.

\_\_\_\_Other:

8. Does your organization offer opportunities for people to volunteer before, during, or after a severe weather event to serve the over-65 community?

\_\_\_\_Yes

\_\_\_\_No

\_\_\_\_Not sure

\_\_\_\_Other:

9. Does your organization partner with other organizations to disseminate emergency preparedness/disaster response (EP/DR) information and resources?

\_\_\_\_Yes

\_\_\_\_\_We plan to in the future

\_\_\_\_\_We should, but have no immediate plans

\_\_\_\_No

\_\_\_\_Other:

10. Does your organization partner with other organizations to disseminate climate and health risk information to the over-65 community?

\_\_\_\_\_Yes--we actively create and disseminate information and resources

\_\_\_\_\_Yes--we pass along information as it is received from other partner agencies

\_\_\_\_\_No--we don't partner with other agencies but pass along information as it is received

\_\_\_\_\_No--we don't disseminate that type of information or to that population

\_\_\_\_Not sure

\_\_\_\_Other:

11. Which metric do you feel would best measure and reflect the region's current resilience to climate-induced health impacts?

\_\_\_\_I don't know what a metric is.

\_\_\_\_I'm not sure.

\_\_\_\_\_Number of older adults who are hospitalized with weather-related injuries or illnesses

\_\_\_Number of vulnerable people who visit the ER after a severe weather event

\_\_\_\_\_Number of organizations that teach or supply the community with emergency preparedness information and kits

\_\_\_\_\_Number of organizations in the Greater Monadnock Region Public Health Network

\_\_\_\_\_Number of business sectors engaged in community resilience projects

\_\_\_\_\_Number of towns with hazard mitigation and emergency preparedness plans

\_\_\_\_\_Number of towns in the region requesting federal aid assistance after a disaster

\_\_\_\_\_Number of organizations represented in today's workshop

\_\_\_\_\_Number of community organizations actively involved in regional projects

\_\_\_\_Number of local organizations committed to serving the over-65 community in the Region

\_\_\_\_\_Number of towns in the region that actively pull together as a community during a severe weather event

\_\_\_\_Other:

12. What do you hope to learn/accomplish at today's workshop?

\_\_\_\_\_I want to better understand the current resilience of the Monadnock Region.

\_\_\_\_\_I want to learn how my organization can help strengthen the resilience in this Region.

\_\_\_\_\_I want to learn about the relationship between climate hazards and human health.

\_\_\_\_\_I want to learn what social capital is and how it relates to community resilience.

\_\_\_\_\_I want to learn how increasing social connections will reduce health risks in our over-65 community.

\_\_\_\_\_I want to learn how increasing social capital and cohesion will enhance our disaster response efforts.

\_\_\_\_\_I want to acquire new skills (networking, resilience-building, toolkit use, etc.)

\_\_\_\_\_I want to meet and network with other organizations.

\_\_\_\_\_I want to develop new partnerships.

\_\_\_\_\_I want to be involved in resilience-strengthening activities.

\_\_\_\_\_I want to find new ways for my organization to become more involved in the community.

\_\_\_\_\_I want to discover ways that my organization can offer opportunities for the over-65 community to be more involved in our community.

\_\_\_\_Other:

## Workshop #2 Post-Intervention Survey for All Participants

Thank you for attending Workshop #2 in the Strengthening Community Resilience to Severe Weather Events in the Monadnock Region series!

Researchers at the Climate and Health Resilience Initiative are asking you to complete this postworkshop survey.

Your responses will be used to highlight the gaps and opportunities that exist for strengthening community resilience. Personal information will be de-identified before data analysis. You have the right to skip any questions you choose not to answer without penalty.

Name	
Organization	
Email	
<i>Note</i> . Your name and organization will be de-identified from the data collected.	

\_\_\_\_\_I would like to have my contact information shared with the participants of this workshop so that we can continue connecting, networking, and working together to strengthen resilience in the Monadnock Region. By checking this box, I give my permission to have my contact information shared as listed above.

Break-out room session I attended:

\_\_\_\_\_ Social connectedness

\_\_\_\_\_ Community Involvement

# [NEXT PAGE FOR POST-WORKSHOP SURVEY QUESTIONS]

Climate & Health Resilience Initiative Post-Workshop Survey: Climate & Health. COPEWELL Social Capital & Cohesion Toolkit

Please choose the answer that best reflects your organization and its efforts to serve the 33 towns within the Monadnock Region (Cheshire and western Hillsborough counties).

1. Which sector does your organization represent through its primary services to the Monadnock Region?

Business (goods and services, including transportation)

\_\_\_\_\_Community leadership (law enforcement, local government)

\_\_\_\_Cultural & faith-based groups & organizations (museum, emotional/spiritual support, volunteers, donations)

Education & child care (residential and commercial schools, daycare, camps)

Emergency management (incident command, emergency operations)

\_\_\_\_\_Health care (hospital, urgent care, health center, private practice, pharmacy, medical equipment)

\_\_\_\_\_Housing & sheltering (assess/provide temporary or long-term housing/shelter)

\_Media: (magazine, newspaper), broadcast (tv, radio, internet), social

\_\_\_\_Mental/behavioral health (inpatient/outpatient clinics, private practice)

Organizations serving at-risk/vulnerable populations (non-medical services: transportation, nutrition, education/outreach)

\_\_\_\_\_Social services (case management, employment, child protection, disability & veteran services)

\_\_\_\_Other:

2. Based on the results of this workshop and your experience serving the over-65 community, how do you rate the region's capacity to pull together during an extreme weather event as friends, neighbors, and organizations having a shared interest in the community? (0 = not at all; 10 = We have a sense of connection to the region and work together effectively and efficiently.)

- \_\_\_\_0
- \_\_\_\_1 2
- \_\_\_\_2
- \_\_\_\_\_9
- \_\_\_\_\_5
- 6
- \_\_\_\_7
- \_\_\_\_8
- \_\_\_\_9
- \_\_\_\_10

\_\_\_\_Other:

3. How did this workshop affect your understanding of social capital and cohesion?

\_\_\_\_\_It didn't yet.

\_\_\_\_\_I understand the concepts much better now.

I'm not sure--I understand the concepts, but I'm not sure what I can do to help.

\_\_\_\_\_It improved my understanding and I hope it can be offered to other organizations in the future.

\_\_\_\_\_It helped me understand that social capital and cohesion are tools that strengthen the resilience of our community.

\_\_\_\_\_I now understand my organization's role in strengthening the resilience of the Region.

\_\_\_\_\_I think we're doing a great job in the Monadnock Region!

\_\_\_\_Other:

4. In which sub-domain did you score the lowest?

\_\_\_\_Social connectedness

\_\_\_\_Community involvement

\_\_\_\_\_We scored the same in both sub-domains.

\_\_\_\_Other:

5. What were your reasons for a low rating?

\_\_\_\_We don't feel a connection to the Region.

\_\_\_\_\_We're not actively involved in the community.

\_\_\_\_Other:

\_\_\_\_N/A

6. In which sub-domain did you score the highest?

\_\_\_\_Social connectedness

\_\_\_\_Community involvement

\_\_\_\_\_We scored the same in both sub-domains.

\_\_\_\_Other:

7. What were your reasons for a high rating?

\_\_\_\_\_We have a strong connection and obligation to the Region.

\_\_\_\_\_We are actively involved in the community.

\_\_\_\_Other:

\_\_\_\_N/A

8.. Which sub-domain is your organization most likely to focus on for improvement?

Social connectedness

\_\_\_\_Community involvement

\_\_\_\_Other:

9. Why?

\_\_\_\_\_It's the easiest.

\_\_\_\_\_It's where we need the most improvement.

\_\_\_\_\_It's the sub-domain in which we have the most

resources.

\_\_\_\_\_It's a sub-domain we understand.

\_\_\_\_Other:

10. Based on the results of this workshop, what one activity is your organization most likely to engage in to help strengthen the resilience of the Monadnock Region?

\_\_\_\_\_I'm not sure how my organization can help.

\_\_\_\_\_We can support other organizations with the resources to make change.

\_\_\_\_\_We can become more actively involved in partnerships in the region.

\_\_\_\_\_We can join the Greater Monadnock Region Public Health Network.

\_\_\_\_\_We can strengthen the communication between organizations and the older adults who might need help.

\_\_\_\_\_We can offer more volunteer opportunities so our residents can become more involved in our region.

\_\_\_\_\_We can become more actively involved in disseminating information to help our over-65 community understand the relationship between climate hazards and health risks. \_\_\_\_\_We can attend more workshops like this to learn more about climate and health, and building partnerships for a healthier and more resilient community.

\_\_\_\_Other:

11. What did you learn or accomplish at today's workshop?

\_\_\_\_\_I learned about the relationship between climate hazards and human health.

\_\_\_\_\_I learned about social capital and cohesion and how it relates to community resilience.

\_\_\_\_\_I understand the current resilience of the Monadnock Region.

\_\_\_\_\_I learned how my organization can help strengthen social connections and community involvement in this Region.

\_\_\_\_\_I learned how increasing social capital can help disaster response efforts.

\_\_\_\_\_I learned about the importance of providing and maintaining volunteer opportunities for our residents.

\_\_\_\_\_I acquired new skills (networking, resilience-building, toolkit use, etc.)

\_\_\_\_\_I met and networked with other organizations.

\_\_\_\_\_I engaged in resilience-strengthening activities.

\_\_\_\_I developed new partnerships.

\_\_\_\_\_I am excited to develop activities for my organization to become more involved in the community.

\_\_\_\_Other:

12. In this workshop, you used the COPEWELL Social Capital & Cohesion Toolkit. How would you rate this tool on ease of use?

\_\_\_\_\_Poor (rating 0-2; it's hard to use or understand)

\_\_\_\_\_Fair (rating 3-5; it's okay, but could use some improvement)

\_\_\_\_\_Good (rating 6-8; it worked for what we needed)

\_\_\_\_\_Excellent (rating 9-10; it worked well for our use/it was easy to understand)

\_\_\_\_Other:

13. How would you rate the COPEWELL tool on applicability to your community?

\_\_\_\_\_Poor (rating 0-2; it doesn't really relate to our community or needs)

\_\_\_\_\_Fair (rating 3-5; it's okay, but could use some improvement)

\_\_\_\_\_Good (rating 6-8; it worked well for what we needed)

\_\_\_\_\_Excellent (rating 9-10; it was easy to apply to our community and needs)

\_\_\_\_Other:

14. Would you recommend the COPEWELL tool to other organizations or communities engaged in strengthening community resilience?

\_\_\_\_Yes

\_\_\_\_Not sure

\_\_\_\_No

\_\_\_\_Other:

15. Which metric do you feel best measures and reflects the Region's current resilience to climate hazards?

\_\_\_\_I don't know what a metric is.

\_\_\_\_I'm not sure.

\_\_\_\_\_Number of older adults who are hospitalized with weather-related injuries or illnesses

\_\_\_\_\_Number of vulnerable people who visit the ER after a severe weather event

\_\_\_\_\_Number of organizations that teach or supply community with emergency preparedness information and kits

\_\_\_\_\_Number of organizations in the Greater Monadnock Region Public Health Network

\_\_\_\_\_Number of business sectors engaged in community resilience projects

\_\_\_\_\_Number of towns with hazard mitigation and emergency preparedness plans

\_\_\_\_\_Number of towns in the region requesting federal aid assistance after a disaster

\_\_\_\_\_Number of organizations represented in today's workshop

\_\_\_\_\_Number of community organizations actively involved in regional projects

\_\_\_\_\_Number of local organizations committed to serving the over-65 community in the Region

\_\_\_\_\_Number of towns in the region that actively pull together as a community during a severe weather event

\_\_\_\_Other:

16. What other workshop opportunities would you like the Climate and Health Resilience Initiative to offer to build upon today's workshop?

\_\_\_\_Strengthening community resilience

\_\_\_\_\_Using community resilience assessment tools

\_\_\_\_Climate impacts on public health

Emergency preparedness and disaster response

\_\_\_\_\_Increasing the health resilience of the over-65 community

\_\_\_\_Other:

17. What would you like to see as a next step to build on the knowledge and networking that occurred during this workshop?

\_\_\_\_\_Another workshop to continue the work accomplished at this one.

Organizations continue to build the partnerships developed at this workshop.

\_\_\_\_Organizations join existing networks in the Region.

\_\_\_\_Organizations become more involved in the Region.

\_\_\_\_\_Participants get together to form new partnerships.

\_\_\_\_\_The development of a regional emergency preparedness plan with a focus on the needs of the over-65 community.

\_\_\_\_Other:

18. How did this workshop affect the Region's baseline community resilience?

\_\_\_\_\_It didn't yet.

\_\_\_\_\_It brought people together to start the conversation.

\_\_\_\_\_It increased our ability to communicate.

\_\_\_\_\_It increased our knowledge of the resources needed to prepare for or respond to an event.

\_\_\_\_\_It gave us an opportunity to share our perspectives on the emergency preparedness and response needs of the over-65 community.

\_\_\_\_\_It brought people together to start networking and building partnerships.

\_\_\_\_\_It increased our commitment to build and strengthen partnerships that address the health impacts of severe weather.

\_\_\_\_\_It helped identify challenges and offered possible solutions.

\_\_\_\_\_It helped us identify specific roles that our organizations could adopt to strengthen partnerships.

\_\_\_\_\_It brought us together and reinforced our need to be actively involved in our community.

\_\_\_\_Other:

Thank you for your participation!

The Climate and Health Resilience Initiative:



ANTIOCH UNIVERSITY NEW ENGLAND Center for Climate Preparedness and Community Resilience

### **Post-Intervention Survey**

Thank you for participating in the workshop series, Strengthening Community Resilience to Severe Weather Events in the Monadnock Region!

Researchers at the Climate and Health Resilience Initiative are asking you to complete this survey, which is part of a research project designed to better understand how to measure and build community resilience to extreme weather events. Our focus is the relationship between climate and the health of the over-65 community in the Monadnock Region. The research project includes a survey before the interactive workshops, a pre-post survey and discussion session during each of two workshops, and a survey approximately one month after the second workshop. All surveys and workshops will be administered electronically or virtually. Data collected from the surveys and the workshop discussions will be used to highlight the gaps and opportunities that exist for strengthening community resilience. Personal information is not a part of this study and will be de-identified before data analysis. Your name, email address, and the organization you represent will only be used to track the number of surveys and workshops completed. Those records will be kept separate from your responses. Workshop recordings will be used for notetaking purposes only and will be stored separately from the data we collect. Collected data may be used for future presentations or publications without additional informed consent.

There is no risk for completing this survey or participating in this study. Your participation is voluntary. You have the right to skip any questions you choose not to answer without penalty. You have the right to withdraw your participation at any time without penalty.

Benefits for participation include: sharing your knowledge to inform projects in this region and beyond; contributing to shared knowledge that may help your organization and partners engaged in emergency preparedness or public health; and personal experience with resilience-building toolkits included in each workshop. The research project will serve as a model for future projects in the Monadnock region and other areas.

This project has been approved by the Institutional Review Board at Antioch University. If you have any questions about your rights as a research participant, please contact

, IRB Chair, Antioch University New England, , or Campus Provost, Dr. Shawn Fitzgerald, at . If you have any questions about this research or the Climate and Health Resilience Initiative, please contact

By completing the attached survey, you are stating that you understand this consent form and agree to participate in this research. Thank you for your participation! The Climate and Health Resilience Initiative:

GREATER MONADNOCK PUBLIC HEALTH NETWORK

Name/organization/email:

I participated in the following. (Please check all that apply.)

- Pre-intervention survey from Greater Monadnock Regional Public Health Network Workshop 1 on community resilience and partnerships
- \_\_\_\_\_ Break-out room discussion from Workshop 1 on communication outreach and coordination
- \_\_\_\_\_ Break-out room discussion from Workshop 1 on resource mobilization
- \_\_\_\_\_ Break-out room discussion from Workshop 1 on organizational capacity building
- \_\_\_\_\_ Break-out room discussion from Workshop 1 on partnership development and maintenance
- \_\_\_\_\_ Workshop 1 pre and post surveys

Workshop 2 on climate & health and social capital & cohesion:

- Break-out room discussion from Workshop 2 on social connectedness
- \_\_\_\_\_ Break-out room discussion from Workshop 2 on community involvement
- \_\_\_\_\_ Workshop 2 pre and post surveys

I registered for one or more events but did not participate because:

\_\_\_\_\_ I forgot

- \_\_\_\_\_ I had a scheduling conflict
- \_\_\_\_\_ I wasn't able to devote two consecutive hours
- \_\_\_\_\_ I sent someone else in my place
- \_\_\_\_\_ I was no longer interested
- \_\_\_\_\_ I didn't feel that the workshops addressed my needs
- \_\_\_\_\_ Other. Please specify:

If you did not attend either workshop, please stop here. Thank you for your time.

# [NEXT PAGE FOR SURVEY]

Strengthening Community Resilience to Severe Weather Events in the Monadnock Region Post-Intervention Participant Survey

Please choose the answer that best reflects your organization and its efforts to serve the 33 towns within the Monadnock Region (Cheshire and western Hillsborough counties).

- 1. Which CDC sector does your organization represent through its primary services to the Monadnock Region?
- \_\_\_\_\_ Business (goods and services, including transportation)
- \_\_\_\_\_ Community leadership (law enforcement, local government)
- \_\_\_\_\_ Cultural & faith-based groups & organizations (museum, emotional/spiritual support, volunteers, donations)
- \_\_\_\_\_ Education & child care (residential and commercial schools, daycare, camps)
- \_\_\_\_\_ Emergency management (incident command, emergency operations)
- \_\_\_\_\_ Health care (hospital, urgent care, health center, private practice, pharmacy, medical equipment)

- \_\_\_\_\_ Housing & sheltering (assess/provide temporary or long-term housing/shelter)
- \_\_\_\_\_ Media: (magazine, newspaper), broadcast (tv, radio, internet), social
- \_\_\_\_\_ Mental/behavioral health (inpatient/outpatient clinics, private practice)
- \_\_\_\_\_ Organizations serving at-risk/vulnerable populations (non-medical services: transportation, nutrition, education/outreach)
- \_\_\_\_\_ Social services (case management, employment, child protection, disability & veteran services)
- \_\_\_\_ Other:

## Community resilience:

2. Based on your knowledge and experience of how to strengthen community resilience to severe weather events, how do you rate the resilience of the Monadnock Region in each of these areas? (Please assign a number to each item.)

RATINGS SCALE	0-2 3-5 6-8 9-10 X	Low (there's a lot of work to do!) Fair (needs improvement) Good (some room for improvement) Excellent (optimal capacity) Unsure
------------------	--------------------------------	--

- Partnerships (climate and health resilience, emergency preparedness and disaster risk reduction, over-65 and vulnerable populations)
- Communication and outreach, including the dissemination of information on climate and health risks
- \_\_\_\_\_ Training provided for staff and volunteers to increase emergency preparedness and build self-sufficiency
- \_\_\_\_\_ Knowledge and mobilization of available resources for response and recovery
- \_\_\_\_\_ Social connectedness among organizations, individuals, and neighborhoods
- \_\_\_\_\_ Active community involvement in formal and volunteer organizations
- \_\_\_\_\_ Overall community resilience
- 3. After attending this workshop series, what changed in your understanding of our Region's needs moving forward, and the challenges we face, when planning for, responding to, and recovering from severe weather events? (Check all that apply.)
  - \_\_\_\_\_ No real change--the workshops and discussions supported my previous understanding.
- \_\_\_\_\_ I now realize that, as a community, we aren't as resilient as we could be.
- \_\_\_\_\_ I have a better picture of our resilience, which is better than I previously thought.
- \_\_\_\_\_ I have a better understanding of our needs as a community and how my organization can contribute to meeting those needs.
- \_\_\_\_\_ I am more aware of the communication gaps that exist in our region.
- \_\_\_\_\_ I now understand how strengthening partnerships is critical for building community resilience.
- I wasn't aware of the ways in which climate affects the health of our over-65 community and now I am.

- I am much more sensitive to the needs of our over-65 community and the challenges they face during a severe weather event, especially those who live alone or are isolated from the community.
- I am more aware of the work we have to do as a community to increase our resilience to severe weather events.
- I learned that my organization's needs and challenges are similar to those of other organizations; we can address our needs if we work together.
- I have a better understanding of my organization's role in strengthening the resilience of this community.

\_\_\_\_ Other. Please specify:

- 4. During the workshops and discussions, we talked about metrics, or units of measure, that can be used to assess our resilience to severe weather. Which one metric was most helpful to you in understanding the current resilience of the Monadnock Region?
- \_\_\_\_\_ The number of organizations currently engaged in community resilience projects
- \_\_\_\_\_ The variety of business sectors currently engaged in community resilience projects
- The number of organizations actively engaged in partnerships and networks that address the health needs of the over-65 community
- The variety of organizations that are members of the Greater Monadnock Regional Public Health Network
- The variety of organizations, including town governments, that donate their services and resources to help the community pull together and recover from a severe weather event
- The number of organizations that actively produce and disseminate climate and health risk information for the Monadnock Region
- \_\_\_\_\_ The number of organizations committed to serving the needs of the over-65 community
- The number of organizations, including town governments, that maintain and/or update emergency preparedness and/or hazard mitigation plans, memorandums of understanding, and partnership agreements on a regular basis
- \_\_\_\_\_ The number of organizations that attended the CHRI workshops
- \_\_\_\_\_ The variety of business sectors represented at the CHRI workshops
- The number of organizations that committed to a list of next steps for strengthening resilience after the CHRI workshops
- \_\_\_\_\_ The number of older adults hospitalized with weather-related illnesses
- \_\_\_\_\_ The number of older adults who were or were not prepared for emergencies
- \_\_\_\_\_ The resilience score for my organization using the toolkit
- \_\_\_\_\_ The resilience score assigned to the region at the end of the workshop
- \_\_\_\_\_ Other. Please specify:
- 5. Why was that metric the most helpful to your understanding of the Region's community resilience?
  - \_\_\_\_\_ It was talked about in the workshops
  - \_\_\_\_\_ It was used as examples in the workshops
  - \_\_\_\_\_ It was the easiest for me to understand
  - \_\_\_\_\_ It created an "aha moment" for me
  - \_\_\_\_\_ It seemed like simple data to collect

- \_\_\_\_\_ It demonstrated a real strength or weakness of the Region
- \_\_\_\_\_ Other. Please specify:
- 6. Based on your experience and what you learned in the workshop discussions, which one factor do you feel is most challenging for our region in reducing the health risks associated with severe weather events for the over-65 community?
  - \_\_\_\_\_ Not enough education about extreme weather and public health
  - \_\_\_\_\_ Not enough public outreach about emergency preparedness and/or extreme weather
  - \_\_\_\_\_ No easily-accessible emergency plan for organizations and seniors to follow
  - \_\_\_\_\_ Not enough resources (personnel, funding, emergency supplies, etc.)
  - \_\_\_\_\_ Not enough collaboration among organizations (including local government)
  - \_\_\_\_\_ Not enough understanding of which organizations can provide necessary services
  - \_\_\_\_\_ Not enough understanding of the emergency preparedness needs of our over-65 community
  - \_\_\_\_\_ Not enough time to devote to emergency preparedness activities
  - \_\_\_\_\_ Not enough patience on the part of the public while waiting for help to arrive
  - \_\_\_\_\_ Other. Please specify:
  - 7. Which <u>one</u> activity is your organization <u>most likely</u> to engage in to help strengthen the resilience of the Monadnock Region?
  - \_\_\_\_\_ I'm not sure how my organization can help.
- \_\_\_\_\_ We can support other organizations with the resources to make change.
- \_\_\_\_\_ We can offer our resources to whomever needs them.
- \_\_\_\_\_ We can increase our partnerships in the region.
- We can strengthen the communication between organizations and the older adults who might need help.
- We can increase our partnerships with media organizations to help disseminate emergency preparedness campaigns and education.
- We can conduct an inventory of our resources and those of our partners before the next severe weather event.
- We can focus on building our own self-sufficiency (and our clients) in case we are stranded during a flood or other disaster while waiting for help to arrive.
- \_\_\_\_\_ We can educate our employees about emergency preparedness, and how it relates to our organization's target population(s).
- \_\_\_\_\_ We can actively recruit new organizations into our network to build active and diverse partnerships.
- We can attend more workshops like this to learn more about climate and health, and building partnerships for a healthier and more resilient community.
- \_\_\_\_\_ Other. Please specify:

### The workshop experience:

8. What was your biggest takeaway from the workshop(s) you attended and why?

9. How would you rate <u>each</u> workshop component, from 1 (not helpful) to 5 (extremely helpful)?

- 1 2 3 4 5 Educational presentations (community resilience; climate & health)
- 1 2 3 4 5 Self-assessment survey tools (ADEPT on partnerships; COPEWELL on social capital & cohesion)
- 1 2 3 4 5 Break-out discussions on specific topics (community outreach, resource mobilization, organizational capacity building, partnership development, social connectedness, community involvement)
- 1 2 3 4 5 Large group discussion and summary
- 1 2 3 4 5 Networking with other organizations focusing on health and resilience
- 1 2 3 4 5 Sharing knowledge and experience among regional organizations

10. What feedback do you have on the workshop component that you rated lowest?

11. How do you feel the workshops, discussions, and networking of participant organizations affected the Region's baseline community resilience? Check all that apply.

- \_\_\_\_\_ They didn't yet.
- \_\_\_\_\_ They brought people together to start the conversation.
- \_\_\_\_\_ They increased our ability to communicate.
- \_\_\_\_\_ They increased our knowledge of the resources needed to prepare for or respond to an event.
- They gave us an opportunity to share our perspectives on the emergency preparedness and response needs of the over-65 community.
- \_\_\_\_\_ They brought people together to start networking and building partnerships.
- They increased our commitment to build and strengthen partnerships that address the health impacts of severe weather.
- \_\_\_\_\_ They helped identify challenges and offered possible solutions.
- \_\_\_\_\_ They helped us identify specific roles that our organizations could adopt to strengthen partnerships.
- \_\_\_\_\_ Other. Please specify:

12. How could this workshop series be improved to benefit other communities serving populations vulnerable to the impacts of a changing climate?

- \_\_\_\_\_ More workshops in the series
- \_\_\_\_\_ Shorter workshops
- \_\_\_\_\_ Longer or more in-depth workshops
- \_\_\_\_\_ Workshops at different times of the day
- \_\_\_\_\_ Shorter presentations and longer discussions
- \_\_\_\_\_ More opportunities for networking and planning
- \_\_\_\_\_ More resources for organizations (links, handouts, etc.)
- \_\_\_\_\_ Guest presenters who implemented the tools in their communities
- \_\_\_\_\_ Guest speakers who experienced the effects of climate on their health
- \_\_\_\_\_ No suggestions
- \_\_\_\_\_ Other. Please specify:

13. What future workshops would be helpful to inform or support your work with the over-65 community, emergency preparedness, and strengthening community resilience?

## Toolkits:

14. In the first workshop, you experienced the *Assessing Disasters with Partners Toolkit* (ADEPT). On a scale from 1 (difficult) to 5 (extremely easy), how would you rate the ADEPT toolkit on its ease of use?

1 2 3 4 5 N/A ADEPT Assessing Disasters with Partners Toolkit

15. Why?

16. The second workshop incorporated the *COPEWELL Social Capital and Cohesion Toolkit*.
On a scale from 1 (difficult) to 5 (extremely easy), how would you rate the COPEWELL toolkit on its ease of use?
1 2 3 4 5 N/A COPEWELL Social Capital and Cohesion

17. Why?

18. On a scale from 1 (not very) to 5 (extremely), how well did the questions from each toolkit relate to the Monadnock Region?

1 2 3 4 5 N/A Assessing Disasters with Partners Toolkit (ADEPT)

1 2 3 4 5 N/A COPEWELL Social Capital and Cohesion Toolkit

19. How has the use of the toolkit(s) affected your work or community outreach on community resilience?

\_\_\_\_\_ It hasn't yet, but it may in the future

\_\_\_\_\_ I have new concepts to apply to my work

\_\_\_\_\_ I have questions and guidelines that will help prioritize my resilience projects

I have a better idea of next steps to pursue

\_\_\_\_\_ Other. Please specify:

#### Activities since the workshops:

20. Have you focused on any next steps that you identified during the workshops?

\_\_\_\_\_Yes

\_\_\_\_ No

If yes, please describe those next steps:

21. What types of support do you need (and from whom) to successfully implement your next steps?

22. Would you be interested in participating in a "community of practice" that meets on a regular monthly basis for support and networking as you implement your next steps?

Yes Yes, if it's virtual Maybe—I don't have much time for any more meetings No

\_\_\_\_\_ Other. Please specify:

23. Have you developed any long-term goals related to climate and health resilience since the workshops?

\_\_\_\_Yes

\_\_\_\_ No

If yes, please describe those goals:

24. Have you taken any steps since the workshops to increase the health resilience of the over-65 community, or the community's resilience to extreme weather events?

\_\_\_\_Yes

\_\_\_\_\_ No

25. If yes, which activities have you participated in since the workshops? Please check all that apply.

\_\_\_\_\_ Sharing concepts from the workshops with colleagues or partners

\_\_\_\_\_ Contacting workshop attendees to stay connected

\_\_\_\_\_ Forming new partnerships with local organizations to strengthen community resilience

\_\_\_\_\_ Forming new partnerships with local organizations serving the over-65 community

\_\_\_\_\_ Joining the GMPHN or other regional networks focused on health, climate, or resilience

Learning more about climate hazards and health risks for this region

- \_\_\_\_\_ Conducting an inventory of my organization's resources
- \_\_\_\_\_ Researching new ways for my organization to increase community outreach about climate and health issues

Planning a new project related to emergency preparedness, climate and health, or community resilience

\_\_\_\_\_ Other. Please specify:

26. Please share any additional comments or suggestions you have here:

# Thank you for your participation!

The Climate and Health Resilience Initiative:



ANTIOCH UNIVERSITY NEW ENGLAND Center for Climate Preparedness and Community Resilience