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Development of a Disaster Preparation Toolkit to Improve Community Resilience

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DISASTER PREPARATION TOOLKIT

Development of a Disaster Preparation Toolkit to Improve Community Resilience

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Abstract

Problem: Natural and man-made disasters happen in all communities and negatively impact the health and safety of populations. Vulnerable populations, such as older adults with comorbidities and disabilities or those aging in place, face greater challenges and have specific needs when faced with disasters. The physical, psychosocial, and cultural characteristics of older adults place them at greater risk during disasters. Emergency preparedness is necessary to build and improve community resilience, as well as to ensure older adults aging in place have the necessary supplies and support to respond to a disaster. Without a proper action plan, recovery efforts during disaster response for this targeted population can exacerbate disparities. A collaborative effort is needed to build community resilience to withstand and recover from disasters.

Context: Global climate change has and is affecting the San Francisco Bay Area. The Neighborhood Empowerment Network is a cohort of organizations focused on positioning communities around San Francisco to be resilient during any time of stress. The organization provides numerous resources and programs to community leaders to improve the quality of life among their neighborhoods. Disaster preparedness resources, such as a shelter-in-place assessment, are tools necessary for community leaders to build and implement plans to care for their community before, during, and after a disaster.

Intervention: The Doctor of Nursing Practice (DNP) student developed and introduced a disaster toolkit into practice to help community leaders implement and improve current disaster preparation and management action plans. Video interviews were conducted with leaders who were experienced and knowledgeable on the health needs of older adults aging in place. A toolkit was created based on a review of the literature and best practice recommendations. Due to the COVID-19 pandemic and its restrictions, the implementation of the toolkit and training for

Neighborhood Empowerment Network Block Champions was deferred to a future date.

Subsequently, the project was implemented with graduate students and healthcare clinicians.

Outcome Measures: Outcome measures included pre-and post-surveys to evaluate the change in disaster preparedness knowledge for older adults.

Results: Data analysis revealed an increase in overall knowledge and confidence regarding disaster preparedness for older adults among participants after reviewing the toolkit.

Respondents also indicated the toolkit was easy to use, which scored a mean value of 4.83 out of 5 on the Likert Scale, as well as the toolkit provided the necessary strategies and resources to make their community safer and better prepared.

Conclusion: A disaster preparedness toolkit for older adults is an effective strategy to prevent consequences endured during and after an emergency. Enhancing the skills and knowledge of community members can improve community resilience and help communities recover from disasters.

Keywords: disaster, emergency, preparation, toolkit, assessment, older adults, comorbidities

SECTION II: INTRODUCTION

Problem Description

The plethora of natural and man-made disasters around the world has exponentially increased in the past decade. According to the World Health Organization (2011), 4.6 billion people have been affected by mass casualty incidents. In 2018, a series of deadly, large wildfires erupted in California, injuring and killing many civilians. Similarly, the aftermath of the Tohoku earthquake in Japan and the Boston Marathon Bombing has illuminated the need for disaster preparedness. Disasters negatively impact the health and safety of the communities affected. Effective disaster response and management on a national, state, and community level can improve the clinical and psychological outcomes of the individuals affected (Centers for Disease Control and Prevention [CDC], 2020).

The novel coronavirus disease (COVID-19) pandemic has presented many challenges in day-to-day life, as shelter-in-place orders have been issued around the country. On March 16, 2020, Mayor London Breed declared a stay-at-home order in San Francisco to prevent the spread of COVID-19. With numerous hospitalizations and climbing rates of COVID-19, vulnerable populations, especially older adults with chronic diseases and comorbidities, are at an increased risk of being severely affected by the virus. Older adults aging in place are not only faced with accessibility limitations, but also the consequences of emotional separation from familial interaction and support. The pandemic has further compounded feelings of isolation and loneliness, especially for senior residents living on their own. Sheltering-in-place is critical to the health of older adults during a pandemic, and with proper and sufficient preparation, many unexpected hardships can be prevented.

Older adults with chronic diseases and disabilities are disproportionately affected by disasters (Parker et al., 2016). Disaster-related mortality rates also increase for older adults with comorbidities. Vulnerable populations are more at risk during all phases of a disaster, from life-threatening challenges during an evacuation due to negative psychological consequences during the recovery period. Extreme temperatures, lack of food and clean water, and physical and mental stress can further exacerbate existing health issues. Research has also demonstrated a lack of disaster preparedness and self-efficacy among people with disabilities (Bethel, Foreman, & Burke, 2011). The vulnerability of older adults demonstrates the importance of addressing their disaster-related needs.

Disaster management and recovery require a collaborative effort on a government, community, and individual level. According to the Federal Emergency Management Agency (2012), a Whole Community Approach, which includes government officials, organizational and community leaders, emergency practitioners, and residents, can increase disaster preparedness and build more resilience among communities. Community engagement leads to a deeper understanding of the unique and diverse needs of a population, such as its demographics, values, community structures, and relationships. Engaging and empowering community members can help identify and increase potential resources to better prepare and respond to the specific needs during a disaster.

Setting

San Francisco is a city committed to the fight against climate change, one of the greatest threats to an individual's health and well-being. The Neighborhood Empowerment Network (NEN) is a cohort of organizations and agencies working to build safer, healthier, and stronger communities within the city of San Francisco (NEN, 2020). The Empowered Communities

Program (ECP) is an NEN initiative developed to build disaster resilience among neighborhoods. The mission of the ECP program is to develop tools, trainings, and strategies with the communities to create a culturally competent plan during times of stress (NEN, 2020). The Block Champion Program identifies existing and emerging leaders committed to their neighborhood's overall well-being. NEN provides these individuals with resources and programs to support their day-to-day challenges, as well as to prepare for any unexpected stressors, such as disasters. Currently, there are 14 communities in San Francisco involved in the Empowered Communities Program.

Disaster preparation has solely been the responsibility of San Francisco residents. Information regarding expectations can be found on major public health organizations' websites, such as the Centers for Disease Control and Prevention. The resources provided simply show what information should be utilized by individuals to develop their own plan. Minimal information is provided to support specific populations, such as older adults or individuals with chronic diseases, with disaster action plans. Furthermore, there are currently no national policies for specialty care in disaster situations for vulnerable populations. Communities are left responsible to prepare and initiate their own disaster management action plan.

Available Knowledge

PICO Question

The population/problem, intervention, comparison, and outcome (PICO) model is a search strategy tool utilized to formulate a review question for research (Eriksen & Frandsen, 2018). A well-focused clinical question facilitates the search for relevant literature by developing key terms to be used in the research. The PICO question ascertains a comprehensive search is conducted for the best evidence that can inform practice. The guiding PICO question

for this literature review was: In communities with older adults with comorbidities (P), how does the use of a shelter-in-place toolkit (I) compared to status quo (C) improve community preparedness and resilience (O) during disaster management?

Literature Review

Disaster Preparedness among Older Adults. According to a survey conducted by the Federal Emergency Management Agency (2012), only 65% of Americans with a disability reported knowing how to be prepared for a disaster. The survey also found that individuals with comorbidities were less likely to believe in the effectiveness of preparedness behaviors. Research has demonstrated a lack of disaster preparedness and self-efficacy among older adults.

Bethel, Foreman, & Burke (2011) evaluated the association of health status with disaster preparedness. Data was collected from the Behavioral Risk Factor Surveillance System (BRFSS) survey from 2006 to 2008. The authors assessed household preparedness by analyzing a household's provision of a 3-day supply of water, 3-day supply of nonperishable food, battery-operated radio, and a flashlight. Other dependent variables included a written household emergency plan and a 3-day supply of prescription medication. The results showed that participants who reported fair or poor health and have disabilities or multiple chronic diseases were less likely to have a complete set of disaster preparedness supplies and more likely to have a 3-day supply of medication.

Utilizing a cross-sectional survey design, Kyunghee (2014) examined the association of chronic disease status with disaster preparedness among older adults. The participants comprised of 165 individuals who were taking a health course for chronic disease management at a public health center in Incheon, Korea. Questionnaires were distributed to collect demographic and health-related information. The second part of the questionnaire assessed disaster preparedness

data, such as the presence of an emergency evacuation plan or a three-day supply of water or prescription medication. An estimated 10.9%, 15.2%, and 59.4% of the participants had a complete set of disaster preparedness supplies, an emergency evacuation plan, and a three-day supply of medications, respectively. Respondents with poorer health and multiple chronic diseases were less likely to have a complete set of disaster preparedness supplies. The study demonstrates the need to improve preparedness among older adults with comorbidities by assessing their views and needs.

Effectiveness of Disaster Preparedness. Ardalan et al. (2013) studied the effectiveness of an educational intervention related to hazard awareness and preparedness in three provinces of Iran. A total of 9,200 and 10,010 households were included in the intervention and control group, respectively. The intervention included a training session and resources necessary for emergency planning. Pre- and post-assessments were conducted to assess awareness and readiness scores after the intervention. Results showed that providing information about emergency preparedness is effective at enhancing disaster readiness at the community level. Disaster resilience among communities requires community participation and empowerment.

Semien and Nance (2019) conducted a pre-and post-intervention study to evaluate the significance of disaster training for high-risk communities. Residents of Geismar, Louisiana (n = 34) participated in six training sessions that consisted of an interactive lecture and a practical simulation. Toolkits were utilized during the simulations to provide participants with the necessary skills for disaster response. The pre-and post-questionnaire were developed using pre-validated questions to evaluate the training, disaster knowledge, and demographics. The results demonstrated an increase in individual knowledge, attitudes, preparedness, and skills. The study also showed the effectiveness of the instructional content and training for high-risk communities.

The importance of community participation in disaster preparedness is crucial to the response and recovery. Jamshidi et al. (2016) evaluated a community-based participatory intervention on earthquake preparedness in Tehran, Iran. Results showed an improvement in knowledge, attitudes, and practice toward disaster preparedness after a community-level participatory intervention. The study further supports the need to tailor a culturally appropriate educational intervention to ensure sustainability.

The available knowledge review validates the significance of creating a disaster preparedness toolkit for older adults with comorbidities. A comprehensive toolkit provides a collection of best practices and resources to empower community leaders to assist older adults with disaster preparedness. By improving their knowledge, attitudes, and skills for disaster preparedness, not only are better recovery responses and patient outcomes expected, but communities are also strengthened when brought together.

Shelter-in-Place. Shelter-in-place (SIP) is a protective measure during any disasters posing external hazards (Zhang et al., 2020). Residents are ordered to stay home, except for permitted work, local shopping, or permitted errands in order to stay safe from external threats, such as wildfires or disease pandemics. Other emergency events that may prompt SIP orders include hazardous air quality, toxic chemicals, or a public safety power shut off. The length of time required to shelter may range from a few hours to weeks, which requires residents to wisely manage their water, food, and medical supplies.

Dave et al. (2020) studied the impact of shelter-in-place orders on health during the COVID-19 pandemic. Data was collected using smartphone devices with location tracking in the population studied to measure social mobility. Following the shelter-in-place orders, the results demonstrated cumulative cases of COVID-19 fell by approximately 53.5%. Although the study

poses some limitations, such as the preliminary information about COVID-19, shelter-in-place orders can prevent serious illness and deaths, as well as shortages in hospital beds and medical supplies.

The protective action of shelter-in-place is critical in disasters requiring staying indoors to remain safe. Most recently, the COVID-19 pandemic has further demonstrated the importance of shelter-in-place preparedness. The lack of basic necessities can worsen existing health conditions, resulting in an increase of emergency visits and hospitalizations among older adults. A disaster preparedness toolkit with a focus on shelter-in-place can provide essential instructions to reduce risks when a disaster strikes, ultimately keeping residents, especially older adults, safe while remaining at home.

Rationale

The conceptual framework used for the development of the project is Jacqueline Fawcett's Conceptual Model of Nursing and Population Health (CMNPH). The focus of the model is achieving the highest quality of life through nursing directed activities by promoting and maintaining a lifetime of wellness (Fawcett & Ellenbecker, 2015). The model focused on four interconnected social determinants of health: upstream factors, population factors, health system factors, and nursing activities. The upstream factors included the socioeconomic and physical environment. Population factors are referred to as genetic, behavioral, physiologic, resilience, and health status elements. The healthcare system factors were providers, organizations, payers, and policies. Each of these factors was operationalized through population-based nursing processes and culturally sensitive practice. The model highlights nursing contributions to population health (Fawcett & Ellenbecker, 2015). The essential elements

of this model provide a framework for this project to develop an effective toolkit that builds community resilience.

Specific Aims

The overall goal of this quality improvement project was to improve disaster resilience among older adults by developing a comprehensive shelter-in-place toolkit by December 2020. One of the objectives of the project was to design and publish a toolkit that would assist community leaders to support and prepare their communities, especially vulnerable individuals, before or during a disaster. After the development and implementation of the toolkit, another objective was to evaluate and improve the knowledge and comfort level of at least 50% of community leaders in the use of the toolkit and disaster preparation.

SECTION III: METHODS

Context

The current disaster preparedness resources provided to block champions from the Neighborhood Empowerment Network addresses the general population. However, research has demonstrated older adults are disproportionately affected by disasters. The need for a toolkit focused on older adults is crucial to protect this population. It was also identified that block champions lack knowledge of sheltering-in-place strategies. Access to resources focused on sheltering-in-place for older adults is limited, as major organizations provide crucial information aimed at the general public. As a result, older adults face barriers to disaster preparedness, leading to negative health outcomes and increased medical costs when a disaster strikes.

The development of an evidence-based disaster preparedness toolkit with a focus on sheltering-in-place for older adults can build community resilience by better preparing residents in the neighborhood. The toolkit can provide necessary information for block champions to properly communicate and assess older adults in their neighborhood, which can further ensure that the residents are prepared for any upcoming, potential disasters.

Stakeholders

The key stakeholders of the proposed project include the leadership of the Neighborhood Empowerment Network, partner agencies including non-governmental organizations, and community leaders. Residents of San Francisco may also be interested in the outcome of the project, as the toolkit will be utilized in their communities for disaster preparation. The project entailed partnering and collaborating with the leadership from Livable City to develop and deliver a final shelter-in-place toolkit. Throughout the project, stakeholders provided their

feedback during regular meetings to ensure the developed resource met the specific needs of their constituents.

Intervention

The development of a comprehensive shelter-in-place toolkit based on evidence-based practices was intended to better prepare community leaders in supporting their communities with disaster preparation and management. The toolkit consisted of available evidence on how to prepare for disasters and shelter-in-place and is a practical guide for block champions. A component of the toolkit was a checklist of basic supplies necessary for a disaster preparedness kit. Local community organizations and agencies were also provided as resources to assist residents to stay informed. Additional considerations for vulnerable populations, such as individuals with chronic disease or disabilities, were also included in the toolkit.

The disaster preparation toolkit was initially to be introduced following the recruitment of community leaders. Furthermore, through NEN's Neighborfest Program, block champions can utilize the toolkit to help residents acquire the skills, resources, and partnerships needed to stay prepared. However, given the current situation of the pandemic, the introduction and implementation of the toolkit through the Neighborfest Program were postponed to a future date. Disaster preparedness education and the toolkit, along with PowerPoint slides, were introduced virtually and reviewed with participants.

Gap Analysis

As previously discussed, communities, especially individuals with chronic diseases or disabilities, are rarely prepared prior to a disaster. Better disaster preparation and management is needed to ensure San Francisco residents are fully aware of the potential adverse consequences, as well as are equipped with the necessary tools and resources. Collaboration among individual

members to support and assist one another during these situations builds resilience among communities. Another gap is the need to build partnerships and maintain communication with agencies and businesses to improve information sharing and increasing community engagement (FEMA, 2012). Expanding training for community leaders is also needed to improve overall community resilience. Increased evaluation of current resources and services can further address improvements needed for better resiliency.

GANTT

The timeline of the project is illustrated using a GANTT chart (Appendix E). The GANTT chart identifies important milestones and the expected time of completion in order to ensure the necessary deadlines are met. Updates to the GANTT chart was made as changes occurred to reflect the new tasks or deadline. The duration of the project was nine months, from March 2020 to December 2020. Assessing and identifying the needs of NEN's ECP was the first task to be completed. A literature review related to the topic was conducted at the beginning of the project. Deliverables, such as the shelter-in-place toolkit, were created prior to introducing and implementing the toolkit in November 2020. Following the introduction of the toolkit, data from pre-and post-surveys regarding the feasibility and utilization of the toolkit was collected and analyzed. The completion of the project with a final presentation took place in December 2020.

Work Breakdown Structure

The work breakdown structure (WBS) is a deliverable that facilitates the necessary tasks to accomplish the project (Appendix F). The five phases of development in the WBS are initiation, planning, execution, control, and closeout.

Initiation. The GAP analysis demonstrated the need for disaster preparation and management toolkit directed at community leaders to help support their neighborhoods. NEN's leadership proposed the project and created a team to help develop and publish the resource. Approval to participate in the project from NEN's leadership was received.

Planning. The team developed a preliminary scope statement and solidified team members' responsibilities during the planning phase. The project kickoff meeting helped determine the goal of the project, encouraged communication, set expectations, and initiated the process. The project plan was also reviewed by the team involved.

Execution. The execution phase included gathering the content required to develop the toolkit and creating the final product. Introducing the toolkit to the leadership team and the community members was also included in this phase.

Control. The control phase of the WBS included project management and project meetings. Project updates were provided during these meetings to ensure that team members and stakeholders were well-informed regarding the progress of the project. Changes based on feedback were also made.

Closeout. Evaluation of the project was conducted during this phase to determine if the goals and objectives were met. Formal acceptance of the toolkit as a resource for community leaders was determined by stakeholders.

Responsibility/Communication plan

Developing a disaster preparation toolkit requires interdisciplinary responsibility and ongoing communication. A responsibility matrix was created to summarize the necessary task and to clearly determine the roles and responsibilities of team members (Appendix G). The interprofessional collaboration for this project occurs primarily with leaders from the

Neighborhood Empowerment Network, leaders from the Livable City, community block champions, and members from the University of San Francisco. The leadership team from NEN served as experts of the communities being served and the needs that must be met. Livable City team members play a role in developing and revising the disaster toolkit. The DNP candidate collaborated with the team to develop, implement, and evaluate the toolkit. The DNP candidate's advisor provided feedback and guidance throughout the duration of the project. Updates regarding the development and implementation of the project were communicated between all members.

SWOT Analysis

Prior to initiating the proposed intervention, the strengths of the project were identified, and any potential barriers were addressed and mitigated. The strengths, weaknesses, opportunities, and threats (SWOT) analysis can be utilized to assess these factors (Appendix H).

Strengths. NEN's team leaders have expressed a need to better support community leaders with a shelter-in-place response plan. Developing a toolkit provided members with best-quality evidence on disaster preparation, as well as determining specific needs and resources related to their communities. The project has an opportunity to enhance community disaster preparedness, increase and strengthen community relationships, and provide community leaders empowerment in supporting and responding to shelter-in-place orders.

Weaknesses. Issues that existed and challenged the project's success included a lack of a current existing shelter-in-place toolkit. The development of a toolkit required time to research and formulate. Differing views of team members on toolkit components also created barriers for the project.

Opportunities. Given the opportunities offered by the project, overcoming the challenges presented ultimately improved disaster preparedness and response among communities. The most important opportunity is the ability to empower and enhance community leaders to better prepare their communities, which will result in better disaster management knowledge and skills. Another opportunity is the possibility of distributing and implementing the toolkit among several neighborhoods.

Threats. One of the threats was the loss of funding for this project by the end of 2020. Another barrier is that community leaders may be dissatisfied or disagree with the toolkit content. Lastly, despite the development and implementation of the toolkit, community leaders may be unable to communicate with their residents regarding disaster preparation and management.

Budget

The primary cost for the project was related to the time investment to develop, implement, and evaluate the shelter-in-place assessment. The project lead was responsible for assessing current practices and developing the toolkit and pre-and post-assessment surveys, as well as working on data collection and analysis. Hours worked were also dedicated to team meetings, interviews, and communication. Based on an average hourly rate of \$65 for a registered nurse in San Francisco and a total of 135 hours worked towards the project, the total cost was \$8,775. The additional cost of paper and supplies would be needed for the distribution of the shelter-in-place toolkit during Neighborfest for subsequent years. The total cost of the project was \$9,475.

Return on Investment Plan

Disaster preparedness produces a significant cost-avoidance in disaster recovery and response. According to the National Oceanic and Atmospheric Administration (2020), the cost of damages and associated losses from weather disasters were estimated at \$45 billion in 2019. The toolkit may not necessarily prevent costs associated with infrastructure damages as a result of a disaster. However, disaster preparedness can help avoid medical-related costs, such as emergency visits and hospitalization. The average cost of an emergency room visit is \$2,000, whereas the average cost of hospitalization is \$10,700 (Walker, 2013). When individuals, especially older adults, are prepared for disasters, these medical costs can be prevented. The cost of the project in subsequent years would further be reduced, as the toolkit and associated resources have already been created. The only expenses would be producing and distributing the toolkit. Besides the financial benefits of the toolkit, there are also benefits related to a higher likelihood of survival, better-coping methods, and reduced psychological stress accompanied by disasters, such as fear, anxiety, and depression. By engaging the whole community and educating neighbors regarding disaster preparedness and management, community leaders utilizing the toolkit can build relationships among households and increase community resiliency efforts. Emergency preparedness is beneficial for all individuals and can mitigate costs associated with disaster recovery.

Study of the Intervention

Implementation

The Neighborhood Empowerment Network communicated their need for a disaster preparedness toolkit with a focus on older adults and shelter-in-place for their block champions. Along with conducting a literature review and researching for best practices, four individuals with decades of experience working with the aging population were interviewed to obtain crucial

information regarding their procedures and current work with older adults (Appendix J). A written disaster preparedness toolkit (Appendix L) was developed based on evidence-based practices and feedback from community leaders. The toolkit was introduced and received approval from major stakeholders from NEN. The initial plan was the implementation of the toolkit at one of NEN's Neighborfest events. However, due to the COVID-19 pandemic, all future events were canceled. In response to the pandemic, PowerPoint slides (Appendix K) were created to further support the toolkit and enhance knowledge regarding disaster preparedness and response for older adults. Participants of the study were sent a link to the pre-survey to assess knowledge and confidence in disaster preparedness for older adults prior to receiving education about the toolkit. Following, the toolkit and the associated PowerPoint slides were provided and reviewed with each participant. Lastly, a link to the post-assessment was sent to participants to assess the effectiveness of the toolkit.

Measures

The outcome measures to evaluate the effectiveness of the toolkit and the associated education were a pre-and post-survey. The pre-and post-survey was distributed using Google Forms and was composed of questions with responses using the Likert Scale, with the following responses: Strongly agree, agree, neutral, disagree, and strongly disagree. Google Forms was utilized to distribute the evaluations, as web surveys allow for rapid distribution and are cost-effective. Furthermore, data can be stored and analyzed in a timely manner. The pre-survey consisted of six questions (Appendix M) and the post-survey consisted of ten questions (Appendix O). Questions about communication and disaster preparedness for older adults, as well as feedback about the effectiveness of the toolkit, such as regarding the ease of use, usefulness, and feasibility, were evaluated.

Analysis

Quantitative analytical methods were used for the evaluation of the project. Data analysis was conducted using the built-in system program on Google Forms, as well as using an Excel spreadsheet. Microsoft Excel is a long-standing software program widely used in accounting, statistics, and the sciences. The results of each outcome measure were inputted and calculated as means, which were then utilized to generate comparison graphs. The data generated allowed for drawing inferences about the effectiveness of disaster preparation and management toolkit.

Ethical Considerations

An overview of the project was submitted to the Doctor of Nursing Practice (DNP) faculty for approval. No identifying information was recorded from any individuals. The privacy of individuals was not affected by the proposed quality improvement project. Through the University of San Francisco School of Nursing and Health Professions, the project was evaluated and approved as an evidence-based change project and did not involve research with human subjects that would require Institutional Review Board (IRB) approval for implementation.

By developing a disaster toolkit with the goal of improving the preparation and management of the community, the project relates to both the Jesuit values of *cura personalis* and the *American Nurses' Association Code of Ethics* (2015). One of the core values of the University of San Francisco is belief and commitment to advancing social responsibility in achieving the university's mission to create, communicate, and apply knowledge to a world shared by all people (University of San Francisco, n.d.). Providing a resource in an environment ensuring the needs of the participants are met with support and assurance is consistent with the core values. According to Provision 2.3 of the *Code of Ethics for Nurses With Interpretive Statements*, the complexity of health care requires an interdisciplinary effort and participation of

all health professions (American Nurses Association, 2015). Nurses are at the center of this collaborative effort and foster multidisciplinary care that is safe, high-quality, and patient-centered. Ethical principles of beneficence, non-maleficence, and distributive justice are prevalent throughout this project. By providing services that benefit and reduce harm to elders while providing equal community services, these principles are leveraged into action by this project and the DNP student conducting it.

SECTION IV: Results

Eighteen participants including graduate students from the University of San Francisco and healthcare clinicians completed the pre-and post-toolkit survey. The pre-assessment survey consisted of six questions evaluating the participants' knowledge on disaster preparedness and sheltering-in-place for older adults. The topics assessed were communication with older adults, the Vial of Life, supplies for a disaster kit, basic necessities, and living environment assessment. The results of the pre-toolkit survey are displayed in Table 1 below.

Table 1

Pre-Toolkit Survey Results

Question	Mean	Standard Deviation
I know how to communicate with older adults.	1.78	0.94
I know what information to gather about the older adults in my neighborhood to help them prepare for sheltering-in-place.	2	0.77
I am knowledgeable about the Vial of Life.	1.39	0.50
I know what supplies should be included in a disaster kit for older adults.	1.83	0.86
I know what basic necessities to assess for when required to shelter-in-place.	2	1.19
I know what to assess in the residence/living environment of an older adult to ensure safety when required to shelter-in-place.	1.83	0.79
1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree		

The mean score for all six questions was less than 2, indicating an inadequate level of knowledge and potential competence on sheltering-in-place for older adults. Participants were least knowledgeable about communication with older adults and the Vial of Life, which are essential components of effective disaster preparedness. Prior to the toolkit, only 44.4% of

respondents agreed that they knew how to communicate with older adults (Appendix N). In the pre-survey, all of the participants were not knowledgeable about the Vial of Life as 38.9% disagreed and 61.1% strongly disagreed with the statement, “I am knowledgeable about the Vial of Life.”

The post-toolkit survey included the pre-assessment survey questions with four additional questions assessing the effectiveness and feasibility of utilization of the toolkit. The results of the first six questions of post-survey are displayed in Table 2 below.

Table 2

Post-Toolkit Survey Results

Question	Mean	Standard Deviation
I know how to communicate with older adults.	4.56	0.51
I know what information to gather about the older adults in my neighborhood to help them prepare for sheltering-in-place.	4.72	0.46
I am knowledgeable about the Vial of Life.	4.67	0.49
I know what supplies should be included in a disaster kit for older adults.	4.78	0.43
I know what basic necessities to assess for when required to shelter-in-place.	4.78	0.43
I know what to assess in the residence/living environment of an older adult to ensure safety when required to shelter-in-place.	4.61	0.50
1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree		

Data analysis revealed an increase in knowledge as demonstrated by the improvement in response scores for questions 1 through 6 after reviewing the toolkit and the PowerPoint slides. The largest score improvements were questions 1 and 3, which indicated the participants felt more knowledge regarding communication with older adults and the Vial of Life (Appendix P).

The last four questions of the post-toolkit survey measured the overall effectiveness and feasibility of the toolkit. The questions assessed whether the toolkit improved the participant's knowledge and confidence about disaster preparedness in older adults, as well as the usability and practicality of the toolkit. The results of the last four questions of the post-survey are displayed below in Table 3.

Table 3

Post-Toolkit Survey Results

Question	Mean	Standard Deviation
The toolkit improved my knowledge about disaster preparedness for older adults.	4.83	0.38
The toolkit was easy to use and understand.	4.83	0.38
The toolkit provided step-by-step directions along with resources that I would use for making my community, safer, more resilient, and better prepared.	4.67	0.49
The toolkit improved my confidence to prepare older adults for sheltering-in-place.	4.78	0.43
1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree		

The mean scores for all questions were 4.6 or greater, which indicates the toolkit is effective at improving knowledge and confidence. Not only was the toolkit easy to use and understand, but it also provided the necessary instructions and resources for participants to build community resilience, as demonstrated by the mean values of 4.83 and 4.67, respectively. The toolkit is a practical guide that provides strategies that can be utilized to prepare older adults for disasters.

Change of practice among older adults over time could have been measured with the initial implementation plan. After receiving assistance from a block champion who has been

educated about the toolkit, the older adults in the community could be surveyed to determine if they initiated any disaster preparedness strategies.

SECTION V: Discussion

Summary

Disasters occur unexpectedly and can have long-term negative effects. Disaster preparedness is essential to reduce the impact of the disaster, especially if assistance is unable to be provided immediately. Improving disaster preparedness for older adults can positively impact disaster response and recovery. A disaster preparedness toolkit and education can provide guidance on preparing, responding, and recovering from disasters.

The goal of this DNP project was to develop and implement a disaster preparedness toolkit with a focus on shelter-in-place for older adults. The leadership of NEN expressed the need for a toolkit and was supportive of the project. The toolkit was intended to provide guidance and support for block champions of NEN's Neighborfest program to better prepare the older adults in their neighborhoods for disasters, as well as to enhance their knowledge regarding best practices. However, the unprecedented changes due to the pandemic and time constraints prevented the implementation of the toolkit at a Neighborfest event. In response, implementation of the toolkit and associated education was completed virtually.

The specific aims of the project were met as greater than 50% of participants reported increased knowledge of disaster preparedness for older adults as a result of the toolkit and education received. After learning and reviewing the toolkit, 100% of the participants agreed or strongly agreed that they knew how to communicate with older adults. Likewise, all of the respondents were also more knowledgeable about the Vial of Life and the supplies needed in a disaster kit. The results also indicated that the toolkit was easy to use and understand, as well as provided instructions and strategies on how to better prepare older adults for disasters and build community resilience.

Interpretation

The data collected demonstrated an essential need for guidance and education on disaster preparedness for older adults. The results of the pre-assessment indicated a need for a toolkit that can enhance knowledge and provide instructions on how to prepare for disasters. The expected outcomes of the project were increased knowledge and confidence regarding disaster preparedness, with the utilization of the toolkit. The results of the post-survey indicated improved knowledge and confidence with disaster preparedness for older adults after receiving and learning about the toolkit.

The sustainability of the toolkit depends on its adoption and utilization by block champions in the future. Further, the ability to change practices among older adults needs to be measured to ensure the effectiveness of the toolkit. With climate change, natural disasters are occurring more than ever before and becoming more intense. The essential need and importance of disaster preparedness are more apparent than ever.

Limitations

The current pandemic of COVID-19 has been a major limitation for this project. With shelter-in-place orders mandated by the City of San Francisco at the beginning of 2020, competing priorities within the Neighborhood Empowerment Network delayed the planning and respective components of the project. Another challenge of the toolkit is its applicability to specific populations. The toolkit was created with a focus on the average older adult. The generalizability to older adults with special needs or specific diseases and comorbidities may not be feasible and requires further strategies and resources. Furthermore, NEN is an organization that specifically serves the neighborhoods in San Francisco. San Francisco is a unique city with its own diversity of cultures. In addition to the specificity of the population for this project, the

small sample size and convenience sampling may limit the generalizability of the project findings.

Disasters as a subject matter is a difficult research topic, as disasters are unexpected, and the aftermath can be chaotic. The lack of research limits the availability of supporting evidence. Another limitation of the study is the lack of longitudinal data due to time constraints. Despite individuals being aware and knowledgeable about emergency preparedness, the reliability of demonstrated immediate behavior changes after training is limited.

Conclusions

Unexpected disasters, such as earthquakes, hurricanes, and terrorism, can negatively impact the lives of those affected. The increased occurrence of disasters demonstrates the essential need to plan and be prepared for a sudden emergency. Due to functional limitations, limited knowledge, and lack of social support, older adults are more vulnerable and at a higher risk of life-changing consequences and death in disasters. Disaster preparedness for vulnerable older adults with chronic disease or disabilities is essential to disaster recovery and response and to reduce complications related to the disaster. Given the limited resources tailored specifically for older adults, it is important to create a disaster preparedness toolkit appropriate for this vulnerable population.

A disaster preparedness toolkit will benefit community leaders to increase disaster knowledge, awareness, preparedness, and skills. Enhanced preparedness can lead to preventable hardships and complications, as well as increased confidence to withstand and rebound when a disaster strikes. The implementation of a disaster toolkit can also further improve community disaster resilience. The growing population of older adults combined with increasing climate

changes demonstrates the essential need to better protect and prepare this population for the unexpected.

Section VI: Other Information**Funding**

The DNP student received no specific funding for this project. The DNP student has no competing conflicts of interest to disclose.

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SECTION VIII: APPENDICES**Appendix A**

Signed Statement of Non-Research Determination Form

DNP Statement of Non-Research Determination Form

Student Name: Tiffany Wong

Title of Project:

Development of a Disaster Preparation Toolkit to Improve Community Resilience

Brief Description of Project:

The plethora of natural and man-made disasters around the world have exponentially increased in the past decade and have negatively impacted the health and safety of populations. The goal of this DNP project is to develop and introduce a shelter-in-place assessment to help community leaders improve current disaster preparation and management action plans.

A) Aim Statement:

By December 2020, the Doctor of Nursing Practice student will develop and implement a shelter-in-place toolkit for community leaders to effectively care for their household and neighbors and building community disaster resilience.

B) Description of Intervention:

The shelter-in-place assessment will enhance the knowledge, skills, and awareness of community members about disaster preparation and management.

C) How will this intervention change practice?

Developing a shelter-in-place toolkit will assess the readiness of older adults and provide education on how to cope with unexpected disaster. Being prepared for disaster can minimize the impact of a disaster and its associated complications.

D) Outcome measurements:

Pre- and post-assessments will be conducted about the shelter-in-place toolkit to measure perception, knowledge, and behavior changes.

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used:

(<http://answers.hhs.gov/ohrp/categories/1569>)

This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.

This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:

EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST *

Instructions: Answer YES or NO to each of the following statements:

Project Title:	YES	NO
The aim of the project is to improve the process or delivery of care with established/ accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.	x	
The specific aim is to improve performance on a specific service or program and is a part of usual care . ALL participants will receive standard of care.	x	
The project is NOT designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does NOT follow a protocol that overrides clinical decision-making.	x	
The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does NOT develop paradigms or untested methods or new untested standards.	x	
The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does NOT seek to test an intervention that is beyond current science and experience.	x	
The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.	x	
The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.	x	
The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., not a personal research project that is dependent upon the voluntary participation of colleagues, students and/ or patients.	x	
If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: <i>“This project was undertaken as an Evidence-</i>	x	

<i>based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.”</i>		
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ANSWER KEY: If the answer to **ALL** of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to ANY of these questions is **NO**, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

STUDENT NAME (Please print): Tiffany Wong
Signature of Student: Tiffany Wong **DATE** 8/8/2020

SUPERVISING FACULTY MEMBER (CHAIR) NAME (Please print): Nancy Selix
Signature of Supervising Faculty Member (Chair):

DATE _____

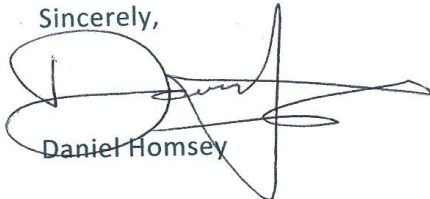
Appendix B*Letter of Support from Organization***DNP Project Letter of Support from
The Neighborhood Empowerment Network**

To whom it may concern,

This is a letter of support for Tiffany Wong to implement her DNP Comprehensive Project The NEN Shelter In Place Playbook at the Neighborhood Empowerment Network.

We give her permission to use the name of our agency in their DNP Comprehensive Project Paper and in future presentations and publications.

Sincerely,



Daniel Homsey

Appendix C

Evaluation Table

Citation	Conceptual Framework	Design/Method	Sample/Setting	Variables Studied	Measurement	Data Analysis	Study Findings	Appraisal
Ardalan, A., Mowafi, H., Abolhasanai, F., Zanganeh, A., Safizadeh, H., Salari, S., & Zonoobi, V. (2013). Effectiveness of a Primary Health Care Program on Urban and Rural Community Disaster Preparedness, Islamic Republic of Iran: A Community Intervention Trial. <i>Disaster Medicine and Public Health Preparedness</i> , 7(5), 481–490.	None	Randomized controlled trial	The study was conducted in 2011 in Iran with 9,200 households in the intervention group and 10,010 households in the control group.	The outcome variables included household awareness and readiness regarding natural disasters. Awareness components included evacuation plan, vulnerable group planning, emergency personal information, and supply kit. The readiness component assessed preparedness activities.	Questionnaires and interviews were utilized to collect quantitative and qualitative data. The validity of the questionnaire was assessed using the Cronbach alpha.	SPSS 11.0 and a $P < 0.05$ was used to analyze the results. Linear and logistic regression models were also applied.	A primary health care educational intervention can effectively improve disaster awareness and readiness.	Level I B Limitation includes the generalizability of the results globally.
Bethel, J. W., Foreman, A. N., & Burke, S. C. (2011).	None	Retrospective study	Data was obtained	The dependent	Quantitative data	Stata 8.0 was	Only 42.4% and	Level III B

<p>Disaster Preparedness Among Medically Vulnerable Populations. <i>American Journal of Preventive Medicine</i>, 40(2), 139–143. https://doi.org/10.1016/j.amepre.2010.10.020</p>			<p>d from the Behavioral Risk Factor Surveillance System survey. A total of 37,303 respondents from 2006 through 2008 were included in the study.</p>	<p>variables studied a household’s provision, which included a 3-day supply of water, 3-day supply of nonperishable food, a battery-operated radio, and a flashlight with battery. General health was also measured, such as the presence of physical limitations or chronic diseases.</p>	<p>from the survey results were collected</p>	<p>utilized to analyze the results. Both univariate and bivariate analysis was performed to examine the relationship between the dependent and independent variables.</p>	<p>2.8% of the household had disaster preparedness supplies and an emergency evacuation plan, respectively. The study also demonstrated individuals with poorer health and disabilities were less likely to have disaster preparedness supplies.</p>	<p>Limitations of the study include self-reported data and low response rates. The results may also not be generalizable, as survey respondents were limited to individuals with a landline telephone in the six states studied.</p>
<p>Jamshidi, E., Majdzadeh, R., Majdzadeh, B., Namin, M. S., Ardalan, A., & Seydali, E. (2016). Effectiveness of Community</p>	<p>None</p>	<p>Randomized controlled trial</p>	<p>Systematic cluster sampling was utilized to enroll</p>	<p>Knowledge about earthquake preparedness, attitude toward</p>	<p>A questionnaire verified with Cronbach’s alpha</p>	<p>SPSS 18 was used for data analysis.</p>	<p>Disaster preparedness at the community level</p>	<p>Level I B The results of this study may</p>

<p>Participation in Earthquake Preparedness: A Community-Based Participatory Intervention Study of Tehran. <i>Disaster Medicine and Public Health Preparedness</i>, 10(2), 211–218. https://doi.org/10.1017/dmp.2015.156</p>			<p>households into the study. 305 and 314 households participate in the intervention and control group, respectively.</p>	<p>earthquake preparedness, and practice of the participants were evaluated</p>	<p>over 0.7 was used.</p>	<p>Pearson’s chi-square test and covariance regression were also used to evaluate the effectiveness of the intervention. A P value of <0.05 was considered statistically significant</p>	<p>can be improved with a participatory intervention tailored to the needs of the population.</p>	<p>not yield similar results in another country</p>
<p>Kyunghee, K. (2014). Disaster preparedness among vulnerable older adults with chronic diseases: Results from a cross-sectional study in Incheon, Korea. <i>Nursing and Health Sciences</i>, 16(1), 46–51. https://doi.org/10.1111/nhs.12133</p>	<p>None</p>	<p>Cross-sectional study</p>	<p>165 individuals in taking a chronic disease management course participated in the study. The study took place in Incheon</p>	<p>Sociodemographic and health-related data were collected using a questionnaire. The second part of the questionnaire included</p>	<p>Quantitative data, such as percentages, was collected for data analysis</p>	<p>Univariate and bivariate analysis was performed to evaluate the relationship between the variables.</p>	<p>Individuals with chronic health diseases or poorer health were less likely to have an evacuation</p>	<p>Level II B Self-reported data for the survey is one limitation of the study. The generalizability of the study is</p>

			, Korea from March to April 2012.	survey questions related to disaster preparedness. The questionnaire was created based on the Behavioral Risk Factor Surveillance System Survey.		Logistic regression analysis were also generated to examine the data. SPSS 19 and a P value of <0.05 was used for statistical analyses.	plan. The study also found that these individuals were more likely to have a 3-day supply of medications than those who were healthier.	also limited as the study was conducted in Korea and participants were voluntarily taking a health course.
Semien, J., & Nance, E. (2019). K.A.P.S.: A Disaster Training Approach for High-Risk Communities. <i>International Journal of Mass Emergencies & Disasters</i> , 37(3), 264–285.	The Muttrak and Lutz Framework	Pilot study	34 residents of Geismar, Louisiana (79.4% African American) participated in the study	A disaster training was designed to evaluate the effectiveness of increasing knowledge, attitude, preparedness, and skills.	Survey questions were drawn from pre-validated questions. The Likert scale was used to assess disaster preparedness attitudes	Descriptive statistics using chi-square tests paired t-tests, and McNemar tests were utilized to analyze changes in disaster	The study demonstrated the effectiveness of disaster training in increasing community resilience regarding disaster prepar	Level II B Unwillingness of participants to enroll in the study was one limitation of the study, which resulted in a low response rate.

						<p>knowledge. A P-value <0.05 was considered statistically significant.</p>	<p>edness .</p>	<p>Findings of the study would have been more representative if randomized sampling was utilized .</p>
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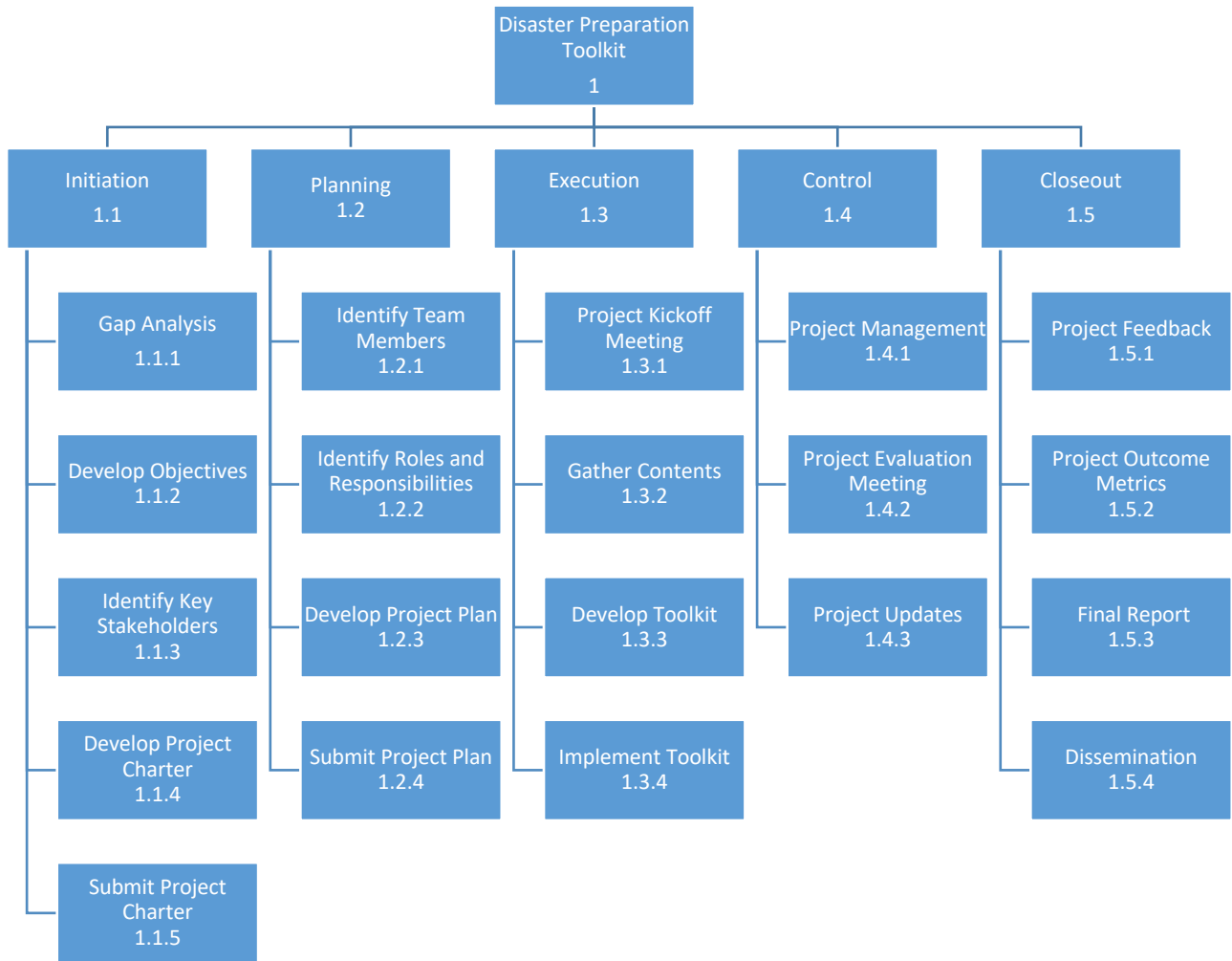
Appendix D

Gap Analysis

Current State	Desired State	Action Plan
<ul style="list-style-type: none"> • Increase in frequency and intensity of disasters due to climate change • Growing population of older adults • Older adults are more vulnerable during and after disasters • Older adults are less prepared and knowledgeable about disaster preparedness 	<ul style="list-style-type: none"> • Enhance knowledge, awareness, and skills of older adults to foster better outcomes and reduce complications from disasters • Improve knowledge of community resources 	<ul style="list-style-type: none"> • Literature review of current evidence and best practices • Develop comprehensive shelter-in-place toolkit • Identify community leaders and block champions with interest within each neighborhood

Appendix F

Work Breakdown Structure



Appendix G

Responsibility/Communication Matrix

Role	Responsibility
Project Lead	<ul style="list-style-type: none"> • Design and plan the DNP project • Perform a gap analysis • Create a budget for the project • Develop and implement the shelter-in-place toolkit • Evaluate and perform data analysis of the project • Maintain communication and provide project updates to stakeholders
Director of Neighborhood Empowerment Network	<ul style="list-style-type: none"> • Approve change of practice proposal • Approve shelter-in-place toolkit content
Community Leaders/Block Champions	<ul style="list-style-type: none"> • Participate in interviews • Participate in shelter-in-place review • Complete pre- and post-surveys

Appendix H

SWOT Analysis

<u>STRENGTHS</u>	<u>WEAKNESSES</u>
<ul style="list-style-type: none"> • NEN's mission is to empower communities • Team leaders expressed need for disaster toolkit • Knowledgeable and experienced team members • Simple intervention • Ability to enhance disaster preparedness and strengthen community relationships 	<ul style="list-style-type: none"> • Lack of existing shelter-in-place toolkit • Time constraint to research and develop a toolkit • Differing views of team members
<u>OPPORTUNITIES</u>	<u>THREATS</u>
<ul style="list-style-type: none"> • Ability to empower community leaders to better prepare their communities • Increased knowledge and skills with disaster management • Possibility of distributing and implementing the toolkit at several neighborhoods 	<ul style="list-style-type: none"> • Loss of funding • Community leaders dissatisfied with toolkit • Inability to communicate with community residents

Appendix I*Budget*

Item	Cost	Quantity	Total
Project Lead Salary	\$65	135	\$8,775
Paper	\$200		\$200
Misc. Supplies	\$500		\$500
Total			\$9,475

Appendix J

Interview Summaries

Patti Spaniak

Patti Spaniak is the Director of Cayuga Community Connectors. Her background is in marketing and public relations, with a focus on hospitality, and she holds a Bachelor's degree in Education. Patti has been working with seniors and individuals with access and functional needs for 7 years. She serves approximately 700 seniors between the ages of 62 and 98.

Patti recognizes the importance of disaster readiness, especially among the seniors. She has provided safety discussions, fire safety lectures, and exercises to her community. Safety information was also posted on bulletin boards. Patti believes in constant discussions and education about emergency preparedness to better prepare her seniors. Initially, her clients were interested because it provided them with something to do, but over time and with an increase in wildfires, more individuals became involved. Her clients feel more empowered and have demonstrated immediate behavior changes, such as preparing an emergency kit. Patti feels confident in her clients' readiness as a result of her efforts.

The clients with the fewest barriers in her community are individuals who are still mobile and have a support group. These individuals have technology that allow them to read and pay attention to disaster preparedness essentials. The members with the largest barriers are those who are older and do not have access to technology. They also usually have some impairment, such as visual or hearing changes.

The essential components to increase disaster readiness is continuing education and communication. Patti has found campaigns, workshops, and mail to be effective ways to engage her seniors in emergency preparedness. She has partnered with other agencies such as Project Open Hand, Department of Aging, and district supervisors to support her clients.

Shelter-in-place

As a result of the wildfires, Patti had discussed and prepared her clients about sheltering in place. The fire department and police chief had provided lectures about steps to take during a disaster, such as who to call. She has also provided her clients with the necessary resources, such as masks and gloves. Her clients also were prepared with hand sanitizers.

Patti was initially upset about the shelter-in-place orders declared by Mayor London Breed. As a result, in-person staff meetings transitioned into Zoom meetings. She also hosted weekly Zoom meetings with a gerontologist to discuss stress management. Information also began to be disseminated through Facebook, NextDoor, and email. Patti also had to begin making phone calls to her clients.

Her organization began conducting wellness calls to check in with her clients. Patti also communicated with her clients through email and mail. A standard list of questions were utilized to collect information about her clients, ensuring they had food, transportation, masks, and that any of their other needs were met. Discussion topics, such as voting and the census, would also change depending on the local environment. She did not have much difficulty reaching her clients. Calls were made weekly and logged accordingly, with some information shared with the Department of Aging. The wellness calls were conducted by staff members who were trained. She emphasized listening to clients during the wellness calls to cater to their needs.

Sheltering in place has create a sense of fear and loneliness for her clients. Patti has provided constant reassurance that they have been through tough times before and that they can get through this together.

As a result of her efforts, her clients felt a sense of ease and that there is someone there to help them if needed. The biggest success of the wellness check system is the continuity of care for the clients. However, not being able to reach people that may have needed help is one of the biggest barriers of the process. In the future, Patti hopes to increase disaster preparedness by gathering and maintain emergency kits, as well as providing a source of technology to her seniors.

Darlene Ramlose

Darlene Ramlose is a Community Connector for Miraloma Park Improvement Club. Miraloma Park is a neighborhood development of 2,200 single homes in San Francisco, where one-third of the population are seniors and the most vulnerable, such as individuals with disabilities or mothers with children. She also is a co-coordinator for the NERT program and involved with Resilient MiraLoma Park. Her background is in healthcare, where she worked as a medic on an ambulance and in the emergency room. She has also provided disaster training for the fire department. Her experiences caring for her grandparents and family motivated her to become more prepared, leading her to obtain her Master's in Emergency Management and Services. Darlene has also worked with seniors and individuals with access functional needs for about 30 years.

As a Community Connector, Darlene discusses emergency preparedness with her neighborhood. The purpose of emergency training for individuals is to help prepare for the next unexpected disaster. Darlene has provided a vast amount of disaster preparedness investments in her community for the past 8 years. By combining the resources provided by the district supervisor, such as gloves and masks, and the participation of seniors, her community has been prepared. She has also implemented an annual disaster training program for seniors. Her clients have been very engaged and interested in emergency preparedness. The seniors are serving as Block Champions of the neighborhood and are also involved in the NERT program. Despite the initial fears when a disaster occurs, Darlene believes her trained clients will have the knowledge and skills to take the first steps to survive, before first responders arrive on the scene. Developing partnerships with local agencies, such as food banks, have provided essential resources for her clients.

Darlene's clients were not initially interested, but she offered an incentive to increase participation in her trainings. For example, one of the first incentives was a hand crank radio. As a result of her efforts, participation in the trainings has increased over the years. Trainings are provided on a regular basis throughout the year. The disaster preparedness training has expanded to a 3-day online training, which allows for more participation, especially for those who were unable to attend in-person sessions. Her clients feel empowered and more knowledgeable after attending the trainings.

Individuals who have completed the trainings and have further become Block Champions or NERT team members have the fewest barriers. She has witnessed first-hand how an initial small step can lead to more involvement around the community. Darlene has noticed more comradery around the neighborhood, with community members helping and empowering one another.

However, Darlene's successful journey has not been without barriers. One obstacle is information dissemination, as new families have moved into the neighborhood. She has been working closely with the homeowner's association to increase awareness by distributing a newsletter. The newsletter informs the community about accessibility and availability of help if needed. Combined with disaster readiness training, the newsletter has fostered increased social cohesion among the neighborhood.

Shelter-in-place

Prior to the pandemic, Darlene has discussed sheltering in place with her clients due to the increase in wildfires and unhealthy air. The seniors have also had to endure seasons of heat waves and allergies throughout the year. As a result, Darlene has provided tips about sheltering-in-place. Although there is room for deeper learning, Darlene is very confident in her clients' readiness levels as a result of the trainings.

Although Darlene understood the reason for the shelter-in-place orders, she was aware about the potential negative impact it would have on her community. Darlene implemented wellness calls into her practice as it was noninvasive. She also received support from Norman Yee, who is the District 7 Supervisor. He implemented A Seniors Who Needed Services (SOS) program to reach out to seniors in the community. Due to previous efforts of collecting contact information, wellness calls were conducted immediately following the announcement of the shelter-in-place orders to establish an immediate contact with her clients. It also allowed for the organization to establish their presence during the pandemic. Darlene was able to check in with her clients and inquire if any support was needed. In addition to volunteers and NERT team members who were making the calls, Darlene and her assistant began building relationships with clients through their conversations. Wellness calls gradually became more personal while ensuring the needs of her seniors were met. The calls were conducted weekly, with certain individuals requiring a daily call. Clients were also given a choice of how often they would like to be called. Darlene discovered that individuals who were previous involved and engaged in various activities were beginning to feel isolated as a result of sheltering-in-place. These individuals preferred frequent calls as it provided a form of connection. A standard set of questions, which inquired about the clients' exact location, medication, and grocery needs, were utilized to collect information. A Google Doc was used to collect information about the clients, with certain information remaining confidential. The information collected was used to conduct any follow-ups and call backs as needed, such as if the clients' initial issue was resolved. Any acute physical or mental changes recognized by the staff members initiated an increase level of contact. Darlene also communicated with her community about the pandemic through the newsletter and email. Volunteers began participating in providing grocery delivery, prescription delivery, and any other assistance to the seniors on a regular, individualized basis. Darlene has acknowledged that shelter-in-place is not ideal and can be difficult, especially for the most vulnerable, but it is for the greater good and safety of all. The wellness calls have created a new connection to clients who were not previously involved. Her clients had the resources to adjust to the shelter-in-place well, especially since there were no physical or structural damage from the pandemic.

To reduce the risk of exposure, the Community Living Campaign temporary closed all programs. However, Darlene and her staff members continued to keep in touch and provide support to her clients. Virtual daily enrichment and programs, such as nutrition classes and arts

and crafts, are being offered on a weekly basis through On-Lok. Furthermore, Darlene encouraged her clients to share their contact information with one another for communication.

The biggest success of the wellness check system was the immediate response because of the availability of the established information about her clients. One barrier was the inability to know if someone was not receiving the information and if the information was reaching the target population.

The most important factors for seniors sheltering-in-place is accessibility to food and medication and communication with family, friends, and healthcare providers. To this day, the inability to move freely is a major impact that her clients deal with as a result of shelter-in-place. To increase success during future disasters, Darlene will host online disaster trainings to which she hopes will be used nationwide. She believes awareness and interest in emergency preparedness is important for survival during a disaster. By sharing information and learning from one another, communities will be more prepared and less afraid when a disaster occurs.

Patty Clement

Patty Clement is the Director of Client Services for Catholic Charities. She holds a Bachelor of Science degree in Organizational Behavior from the University of San Francisco and has been working with seniors for 40 years. Patty has also worked with children and emancipated teenagers, but found a passion and a love for seniors with disabilities, especially those with dementia. She enjoys helping seniors age in place and thrive.

Her service provides care across the lifespan, from birth to death, but she focuses specifically on overseeing the aging support services and child youth development programs. With her older adults, Patty strives to provide the support to help them thrive and age well in their community, which includes case management services, meals connection, and programs for clients with Alzheimer's and dementia. She strongly believes that aging is not a burden, but rather an opportunity for new adventures and the ability to be physically and mentally healthy.

About 12 years ago, Patty started incorporating disaster preparedness into her program due to its importance. She understood the complications and burdens of any one major disaster on human lives. Patty acknowledges that education, including the availability of classes and refresher courses, is an essential component to increase readiness. She offers a variety of training, such as first aid and cardiopulmonary resuscitation (CPR). Patty has also held a annual community health fair that she developed 7 years ago. She has also conducted earthquake and fire drills at the senior center.

Her clients are extremely interested about emergency preparedness. The amount of interest in participation surpasses the capacity for training, which results in a waitlist for the activities. For example, she had over 40 senior clients attend a 12-week session about disaster preparedness. Her clients are prepared with questions regarding their own neighborhood to better prepare themselves for an emergency. Her seniors feel more confident in general, as well as in their abilities to care for themselves if any disasters were to occur. Patty is confident in her clients to know what to do and where to go in times of stress. Although the seniors may not have everything, she believes that they are resourceful and will know how to take care of themselves.

Her organization partners with many local community agencies, such as Self-Help for the Elderly, On-Lok, and SF Marin Food bank. Computer and technology classes and the meal programs are possible because of these collaborations. Although many of her clients attended the computer classes at the senior center, she had to assist them with getting email address as a point of contact.

In her community, the well-independent seniors have the fewest barriers, as they have the time to get trained, practice, and prepare their kits and supplies. However, many of them are not aware about the programs and classes. In contrast, seniors with physical or mental disabilities have the largest barriers to advance their readiness level. Individuals with physical barriers have the challenge of mobility, which may limit their ability to attend classes and/or gather supplies for an emergency kit.

Shelter-in-place

Although it is still a learning process, Patty had discussed shelter-in-place with her clients, as a result of SARS and MERS in the past. She had discussed with her clients about the proper type of mask to use, as well as the importance of staying inside. In February, she recognized the needs of her clients and prepared her seniors to stock up on items early, to have a plan to communicate with family and friends, and to find activities to do at home while sheltering in place. Patty provided her seniors with activities, such as gardening and cleaning around the house, as well as started virtual classes.

With the shelter-in-place orders, she needed to close her program, but remained connected by phone and email. In addition to phone calls and emails, she communicated with her clients through letters, flyers, and word of mouth. Patty encouraged her clients to tell their friends and learned that her seniors were communicating with each other through WeChat. Although it was a learning process for her organization, it was important to connect with her clients in the most effective way. As a result, she adapted her communication methods by starting a WeChat account as a way to connect with them. Ultimately, she was able to reach a good amount of her clients with these methods. However, Patty was most concerned about the seniors who she could not immediately connect with, especially those who were already not well connected.

A wellness check system was also in place to connect with her clients. Staff members of the senior center made phone calls to every client that has been served in the last year. Staff members were also able to connect and conduct wellness checks with clients who were present during meal distributions. Wellness checks were conducted daily, weekly, or monthly depending on the point of contact with the client. Individuals who were also in need of more help were contacted more often. A standard set of questions was utilized to collect information needed, and some information was collected on the Department of Aging database. Wellness calls became more personalized over time and follow-ups on previous issues would be conducted. It was also of importance to reassure the clients that the information was confidential, which allowed them to be more open and honest with the staff members. A lack of response, inability to get in contact with emergency contacts, or feedback from a caregiver triggered an increase level of contact, such as a home visit. Furthermore, meal deliveries exposed additional insight, such as if seniors were having incontinence or dental issues.

The seniors in her community had the most issues with loneliness and access to food. She noticed that wellness calls were taking much longer than usual. As a result, certain programs were adjusted and were offered online. Her clients had missed the personal connection but were now able to share stories over Zoom. While it may not be the same experience as an in-person visit, Patty believes the current pandemic has opened up a whole new world to connect virtually.

Her organization continued food distribution each week, as well as added meals to-go. Patty needed to keep the meal program running, as many of clients depended on the lunch program or food pantry that was provided. Furthermore, her organization began grocery

deliveries, especially for individuals who were most vulnerable and needed to stay safe at home. She was also able to purchase toiletry kits for her clients, which provided additional personal care supplies. As a result of her efforts, she developed a trusting relationship with her clients, who felt more prepared and knew that her organization was accessible by phone any time they needed.

The biggest success of her organization during shelter-in-place is connecting with new individuals. Patty was able to ensure the day-to-day needs of her seniors were being met. If a client was unable to physically pick-up a medication, her staff was able to provide the delivery. The biggest barrier was the initial contact, as they did not foresee the difficulty of being able to reach her clients.

In the future, Patty hopes to provide more disaster preparedness training to increase her clients' confidence level. She plans to include more discussions about unhealthy air, extreme heat or cold, and a healthy home environment. It is also of importance to ensure that the seniors have the proper equipment in advance and to update them as needed. Despite the necessity of emergency preparedness, Patty believes it is also of importance to remind her seniors that they are never alone, and that help is available.

Felisia Thibodeoux

Felisia Thibodeoux is the Executive Director of the I.T. Bookman Community Center. She has been working with seniors aging in community for 20 years, with a focus on the African American population. Her clients are marginalized from one capacity to another. Felisia acknowledges a disaster can occur unexpectedly any time, which has prompted her to include community response in everything that she does. She strongly believes in disaster preparedness, especially for individuals aging in place.

Felisia emphasizes the importance of every second during a disaster. Over the past year, her community has experienced hunger, impaired food access, and smoke. She provides training opportunities, such as first aid, psychological first aid, CPR, and community readiness to prepare for any potential hazard. Felisia has also provided simulations for her clients rather than just providing information. For example, in the case of a mobility impaired individual, she helps empower them by planning ahead scenarios to evacuate in the case of a fire. She has confidence in her residents to be prepared for a disaster. Felisia aims to provide more planning and education to increase disaster readiness in the future.

The most important factor of emergency preparedness is developing a relationship prior to a disaster. By creating a community network, it can increase engagement and build resilience. Due to her efforts, her clients are very interested in disaster readiness and have increased their awareness. By equipping the seniors with essential items, such as masks and first aid kits, Felisia hopes to mitigate hazards as they appear.

One strategy to help every individual's preparedness is to avoid complacency. Felisia has had to deal with community members leaving the network and new members coming in, which adds to the challenge of fully preparing her community. By approaching them as if no one is prepared, it will keep everyone prepared. However, Felisia is aware that information overload can lead to loss of interest and engagement. By learning about her clients and their knowledge deficits, she has been able to alter her approaches to ensure every individual is still engaged and well-prepared.

Individuals in her community with the fewest barriers are those who are isolated, as barriers are not financially related. She believes those who feel financially sheltered from

barriers may quickly realize that a disaster may expose their lack of preparedness in the case of the loss of access to an ATM or unfamiliarity of their neighborhood.

Shelter-in-place

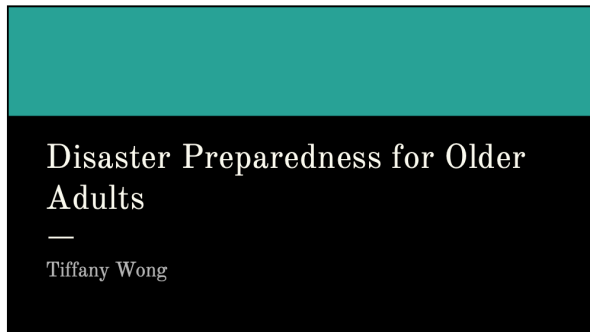
Felisia had discussed sheltering in place with her clients prior to the pandemic. However, shelter-in-place has introduced a new challenge for Felisia and her network. By having a strict lockdown-type statewide guideline, access to community members became more challenging. With grocery stores having empty shelves and inflated prices, essential items became scarce. The current pandemic has introduced new vulnerabilities to be addressed in order to find the best practices.

With shelter-in-place orders, Felisia was concerned about the seniors who relied on her organization for their daily lunches, as it was some of the clients' only meal for the day. She was also concerned about her clients' access to food, as many already had mobility disabilities. As her community center was an essential operation, it remained opened while practicing the social distance guidelines. She and her staff members also became front-line workers, as they provided meal delivery services and other essential items to their seniors. Partnerships with local community agencies, such as case managers or churches, provided extra support for her organization and clients. Through a grant with a partner organization, Felisia was also able to provide tablets and internet connection to some of her clients.

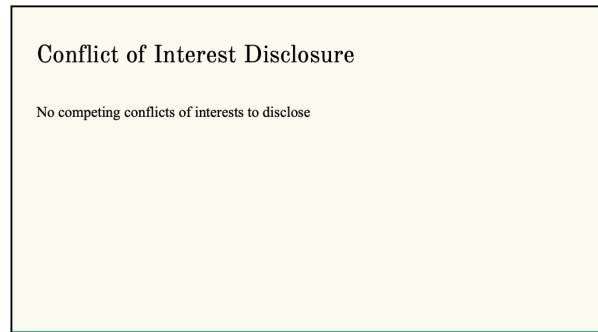
Wellness calls were also conducted to continue the connection with her clients. Felisia reached out to the seniors to make them aware about the services her organization provided and to ensure their needs were met. The program manager, certain staff members, and volunteers were responsible for conducting the calls. Calls were made daily, weekly, or monthly depending on the client's needs. For example, daily phone calls were made to individuals who were suspected to be depressed. A standard set of questions were used to conduct the calls and a Google Doc was utilized to track and collect information about the clients. Felisia believes in the importance of building a rapport with her client, rather than following a script, to obtain the necessary information. Modifications, such as updating questions and removing content, have been made to the wellness check system to provide individualized care. As mandated reporters, Felisia and her staff members screened and assessed each client to ensure he or she were not being abused and were receiving proper care from their caregiver.

Although some of her clients were easy to reach, she did have some difficulty with some seniors who were turning off their phones because of constant spam calls. Another challenge was calls were being conducted by volunteers, which led to unrecognizable numbers for the seniors who simply ignored the call. It is important to recognize local situations and be adaptable to the environment, as it can change day-to-day. Some other barriers included some clients had a home phone, but not a cellphone, and vice versa. Another barrier was recruiting volunteers to help conduct wellness calls.

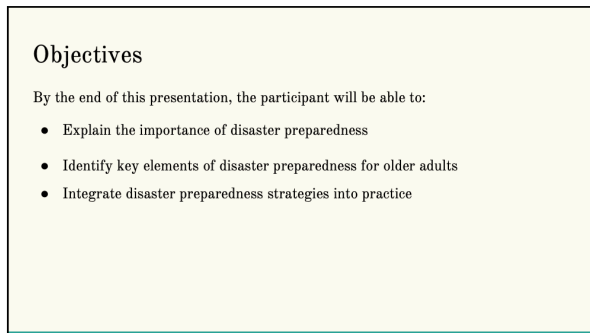
Felisia believes that the most common impact of sheltering-in-place for her clients is isolation. It was difficult for seniors as they felt lonely and isolated from their social network. However, they have found more adaptability over time. The biggest impact her organization made were the clients never felt forgotten during the pandemic. The seniors looked forward to the phone calls and anticipated grocery delivery every week. Felisia hopes to grow her workforce in order to better serve her clients in the future.

Appendix K*Disaster Preparedness PowerPoint Slides*

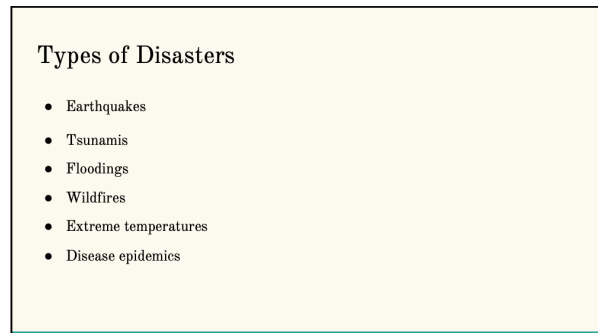
1



2



3



4

Disaster Preparedness

5

Importance of Disaster Preparedness

- Emergency resources may be limited
- Increases chance of survival
- Reduces fear and anxiety

6

3 Steps to Disaster Preparedness

- Get a kit
- Make a plan
- Be informed

7

Get a Kit

8

Get a Kit

- Assemble enough supplies to last for at least three days
- Store supplies in one or more easy-to-carry containers
- Place kit in easily accessible area

9

Basic Needs and Supplies

- Water
 - One gallon per person per day
- Food
 - Canned or dried
- Flashlight with extra batteries
- Battery-operated or hand-crank radio
- First aid kit and manual
- Medications
 - 7-day supply
- Multi-purpose tool
- Sanitation and personal hygiene items
 - Toilet paper, plastic garbage bags
- Copies of personal documents
- Cell phone with an extra battery and charger(s)
- Family and friends' emergency contact information
- Cash and coins
- Emergency blanket
- Map(s) of the local area
- Whistle
- One change of clothing
 - Jacket or coat
 - Long pants and long-sleeve shirt
 - Hat, mittens, and scarf
 - Sturdy shoes
- Manual can opener
- Pet supplies
- Extra set of keys

10

Maintain Kit

- Check disaster supply kit and replace all expiring items every six months



11

Make a Plan

12

Make a Plan

- Meet with family and friends to explain concerns and arrange support
- Carry family contact information in wallet
- Choose an out-of-town contact person
- Ask about community emergency plans and procedures
- Keep support items, such as wheelchairs and walkers, in a designated place
- Talk to utility company about emergency procedures
- Test smoke alarms and carbon monoxide alarms regularly

13

Practice Plan

- Review emergency plan with all family and friends
- Conduct emergency evacuation drills on a regular basis

14

Be Informed

15

Community Warning Systems

- Know how local authorities will notified community of a pending or current disaster situation
- Connect with local neighborhood emergency teams
- Determine local emergency alert system
 - Television
 - Radio stations

16

Disaster Response

17

Immediately After a Disaster

- Check for damages using a flashlight
- Check for fires, chemical spills and gas leaks
- Shut off any damage utilities
- Call out-of-town contacts
- Check on neighbors if deemed safe by local authorities
- Monitor local broadcasts for information

18

Emotional and Psychological Effects

<p>Physical reactions</p> <ul style="list-style-type: none"> - Stomachaches - Fatigue - Headaches - Appetite disturbances 	<p>Mental reactions</p> <ul style="list-style-type: none"> - Disorientation - Confusion - Memory problems - Lack of focus and concentration - Difficulty making decisions
<p>Emotional reactions</p> <ul style="list-style-type: none"> - Anxiety - Depression - Irritability and anger - Sadness 	

19

Older Adults

20

Facts

- Adults aged 65 or older made up almost **two-thirds** of fatalities after the heat wave in Chicago in 1995
- During Hurricane Katrina in 2005, **roughly 71%** of those who died were aged 60 or over
- During the Great East Japan Earthquake in 2011, **56%** of those who died were aged 65 or over
- **Less than a quarter** of older adults have made disaster preparedness plans

21

Challenges of Older Adults

- Sensory, Physiological, and Cognitive Changes
 - Visually impaired
 - Hearing impaired
 - Mobility impaired
- Chronic conditions
- Risk of trauma
- Transportation
- Limited resources
- Reluctance to seek assistance
- Nutrition
- Fraud and abuse

22

Disaster Strategies

23

Communication with Older Adults

- Speak slowly, clearly, and loudly
- Use short, simple words and sentences
- Stick to one topic at a time
- Maintain eye contact
- Listen
- Simplify and provide written instructions especially if hearing impaired

24

Vial of Life

- Program allowing individuals to provide complete medical information in their home for emergency personnel
 - Fill out the Vial of Life form
 - Place the decal on front of a plastic bag
 - Place the bag on refrigerator door
 - Place the second decal on front door

25

The image shows a 'VIAL OF LIFE' Medical Information Form and a 'How to Set Up Your VIAL OF LIFE KIT' instruction sheet. The form includes fields for patient name, date of birth, gender, race, and medical conditions. The instruction sheet lists four steps: 1. Fill out the Vial of Life Form, 2. Prepare Your Plastic Bag, 3. Place Bag on Fridge Door, and 4. Place the Second Decal on Your Front Door. It also includes a warning to 'PLEASE DO NOT REMOVE THE VIAL OF LIFE KIT FROM YOUR REFRIGERATOR'.

26

Daily Routines

- Access to essential needs
 - Food
 - Medication
 - Healthcare Services
- Participation in senior centers/programs

27

Assessment of Residence

- Water
- Natural Gas
- Electricity
- Windows/Glass
- Appliances

28

Wellness Check

- Contact and connect with residents through preferred method of communication
- Establish a rhythm for wellness checks
- Conduct wellness calls and checks to ensure residents receive essential needs and services
- Address loneliness, feelings of isolation, and signs of depression if present

29

Wellness Check Questions

- Do you have someone who is helping you in the home who is getting you what you need in terms of food and supplies?
- Do you need any additional support in the home or with delivering things that you may need, like food, medication and supplies?
- Are you experiencing any medical issues, including, have you fallen, had headaches, a sore throat, fever or any other symptoms in which you are concerned?
- Do you feel you are able to maintain your safety during this time?

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Disasters Don't Wait.
Make a Plan Today.

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Appendix L

Shelter-in-Place for Older Adults Toolkit

Natural and man-made disasters happen in all communities and negatively impact the health and safety of populations. Vulnerable populations, such as older adults with comorbidities and disabilities or those aging in place, face greater challenges and have specific needs when faced with disasters. The physical, psychosocial, and cultural characteristics of older adults place them at a greater risk during disasters. Emergency preparedness is necessary to build and improve community resilience, as well as to ensure older adults aging in place have the necessary supplies and support to respond to a disaster.

- *Adults aged 65 or older made up almost **two-thirds** of fatalities after the heat wave in Chicago in 1995.*
- *During Hurricane Katrina in 2005, **roughly 71%** of those who died were aged 60 or over*
- *During the Great East Japan Earthquake in 2011, **56%** of those who died were aged 65 or over*
- ***Less than a quarter** of older adults have made disaster preparedness plans*

What is Shelter-in-Place

Shelter-in-place means finding a safe location indoors during an emergency and staying put until officials say that it is safe to leave. Individuals are ordered to stay home, except for permitted work, local shopping or permitted errands.

When to Shelter-in-Place

Shelter-in-place orders will be enforced by local officials during or immediately after an emergency. The orders may come through public warning systems or route alerts by local law enforcement. Emergency events that may prompt a shelter-in-place may include flooding, hazardous air quality or a public safety power shut off.

Shelter-in-Place Readiness Strategies


Get to know the seniors in your neighborhood

- Identify individual(s) who can provide translation if needed
- Dress for success
- Knock on doors
- Smile
- Introduce yourself
 - Name
 - Residence address
 - Purpose
- Speak slowly, clearly, and loudly
- Use short, simple words and sentences
- Stick to one topic at a time
- Maintain eye contact
- Listen
- Simplify and provide written instructions especially if hearing impaired
- Inquire about number of individuals in the household
- Exchange contact information

- Home and/or mobile phone numbers
- Email
- Social Network (i.e. Nextdoor, Facebook)
- Collect and track information using spreadsheets or forms

Pertinent medical background

- Encourage participation in the Vial of Life Program allowing individuals to provide complete medical information in their home for emergency personnel
 - <https://www.vialoflife.com>




How to Set Up Your VIAL OF LIFE Kit:

- 1. Fill Out the Vial of Life Form**
 - Fill out the form located on reverse side. Answer all or any pertinent questions. All fields are optional.
 - Make blank copies of this form to keep information current or go to [Vialoflife.com](https://www.vialoflife.com) to maintain and store updated information online.
- 2. Prepare Your Plastic Baggie**
 - Place one Vial of Life decal on the front of a plastic baggie. Fold filled out form and place in the baggie.
 - You may also consider adding the following items: Copy of EKG, DNR (Do Not Resuscitate), Living Will or Equivalent, Recent Picture of Self.
- 3. Place Baggie on Fridge Door**
 - Securely tape the plastic baggie to the front of your fridge. Place the baggie at eye level so that first responders can easily find your complete medical information.
- 4. Place the Second Decal on Your Front Door**
 - Place the second decal on your front door at eye level. This lets your local first responders know where your medical information is located.

Thanks to the Vial of Life, first responders will have all the medical information they need to best treat you...

Advocates for Medication Management for Dementia and Antipsychotics
Doctors Name and Telephone Number
Dr. David Johnson 550-668-7787



VIAL OF LIFE Medical Information Form

VialofLife.com • 1-888-724-1200

DATE COMPLETED:							
FIRST NAME	INITIAL	LAST NAME		SSN			
STREET		CITY	STATE	ZIP	TELEPHONE		
DOB	MALE/FEMALE	HEIGHT	WEIGHT	HAIR COLOR	EYE COLOR	BLOOD TYPE	RELIGION
List Hearing Difficulties						DEAFNESS	UNABLE TO SPEAK
List Vision Difficulties						UPPER	LOWER
<small>PRIMARY LANGUAGE (IF NOT ENGLISH)</small>							
Identifying Marks							
Current Medical Conditions							
Past Medical Conditions							
Current Medications: Dosage & Frequency							
Allergies to Medications							
Doctor's Name & Phone Number							
Last Hospitalization							
Special Instructions (Such as Health Directives, Etc.)							
Health Insurance Policy							
Emergency Contact - Name, Address, Phone Number, & Relationship							
PRINT CLEARLY • FOLLOW DIRECTIONS ON BACK TO STORE ON REFRIGERATOR							

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- Provide support to complete Vial of Life form if needed
- Ensure form is securely placed in appropriate location (i.e. refrigerator)
- Reassure confidentiality of shared information
- Obtain medical history and current disease states if needed
- Note any vulnerabilities of resident (i.e visually impaired, hearing impaired, wheelchair-bound)
- Observe or inquire about use of assistive device(s)
- Ask about emergency/family contact(s) or caregivers
- Ensure other member(s) of household are informed about all aspects of care needed for each resident (i.e. medications, disaster readiness)

Daily routines

- Gather information about transportation to essential needs
 - Groceries
 - Pharmacy
 - Healthcare Services
- Ask about access to local news and notifications/updates

- Radio
- Television
- Computer/Tablet
- Internet Access
- Phone
- Inquire about hobbies and interests (i.e. exercise habits, book club)
- Encourage participation and enrollment in senior programs

Emergency Preparedness

- Check for updated basic disaster preparedness supplies kit
 - <https://www.ready.gov/kit>
 - https://www.redcross.org/content/dam/redcross/atg/PDF_s/Preparedness___Disaster_Recovery/Disaster_Preparedness/Disaster_Preparedness_for_Srs-English.revised_7-09.pdf
 - Ensure supplies last for at least three days and are updated
 - Keep emergency kit store in a designated, dry place within the home
 - Make sure all household members are aware of the location
- Create an emergency contact list and communication plan
- Review and discuss emergency plan
- Share community disaster plan and procedures
- Ensure other members of the household are informed about emergency and communication plan
- Practice the planned actions
- Sign-up for local resources to stay informed
 - www.SF72.org
 - www.alertSF.org
 - Text your zip code to 888-777
- Ask about additional assistance if and when required to shelter in place
- Inquire if household members are aware how to provide medical support or operate medical equipment if needed
- Inform resident about local aid agencies and organizations that can provide support
 - Encourage participation and enrollment in local senior programs (i.e. On Lok, Self-Help for the Elderly, Meals on Wheels)
 - <https://sfgov.org/dosw/senior-services>

Encourage residents to refine safety skills if possible (i.e. First Aid class, how to use a fire extinguisher)

Sheltering-in-Place Strategies

- Stay calm and stay inside as much as possible, including pets
- Contact and connect with residents through preferred method of communication
- Check-in with residents' overall state (i.e. How are you?)
- Inquire about any emergent needs
 - Shelter
 - Water
 - Food
 - Medication

- Psychological needs
 - Connect with family/friend and emergency contacts
 - Inquire about any access to assistance while sheltering in place
 - Ensure sufficient resources and supplies are available
 - Assist with getting essential needs if needed
 - Assess ability to perform activities of daily living (i.e. Toileting, bathing, dressing, cooking, feeding)
 - Quickly assess place of residence to ensure safety and shut off any utilities if required
 - Water
 - Natural Gas
 - Electricity
 - Windows/Glass
 - Appliances
 - If unsafe situation, make necessary arrangements accordingly (i.e. temporary housing)
 - Ensure senior Go-bag is available if needed to evacuate from residence
 - Address loneliness, feelings of isolation, and signs of depression if present
 - Establish a rhythm for wellness checks (i.e. once a day, five times a week)
 - Regularly connect with neighbors via phone calls or virtually and provide social support
 - Conduct wellness calls and checks to ensure residents receive essential needs and services
 - Encourage residents to stay informed for new updates from local authorities
 - Escalate care and initiate increased level of care if any concerning indicators
- *Do not leave your home to check on other residents unless deemed safe by local authorities

Appendix M*Pre-Toolkit Survey*

1. I know how to communicate with older adults.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

2. I know what information to gather about the older adults in my neighborhood to help them prepare for sheltering-in-place.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

3. I am knowledgeable about the Vial of Life.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

4. I know what supplies should be included in a disaster kit for older adults.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

5. I know what basic necessities to assess for when required to shelter-in-place.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

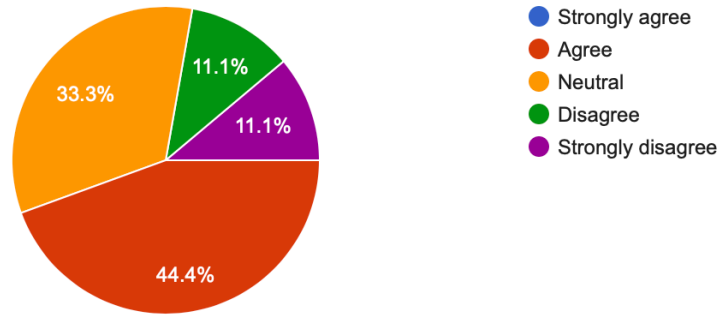
6. I know what to assess in the residence/living environment of an older adult to ensure safety when required to shelter-in-place.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

Appendix N

Pre-Toolkit Results

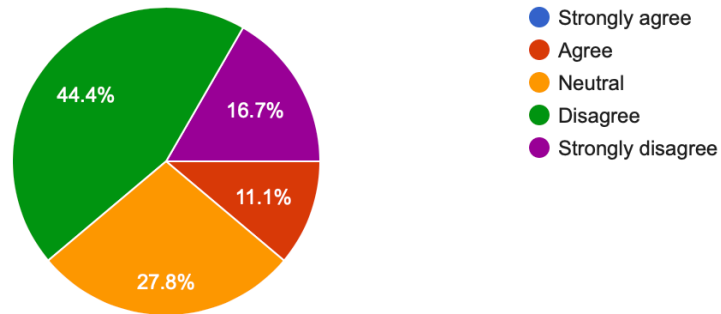
I know how to communicate with older adults.

18 responses



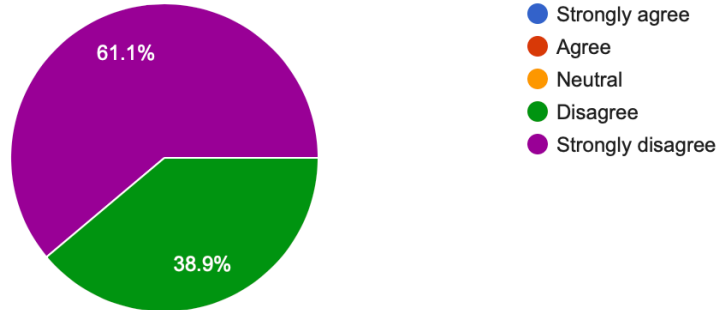
I know what information to gather about the older adults in my neighborhood to help them prepare for sheltering-in-place.

18 responses



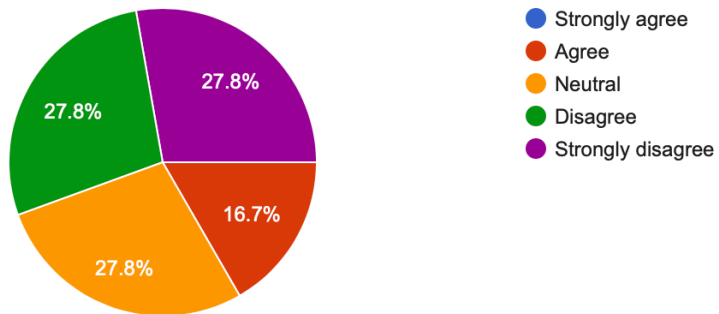
I am knowledgeable about the Vial of Life.

18 responses



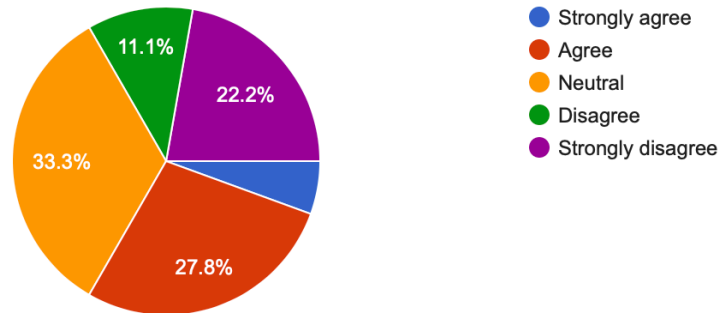
I know what supplies should be included in a disaster kit for older adults.

18 responses



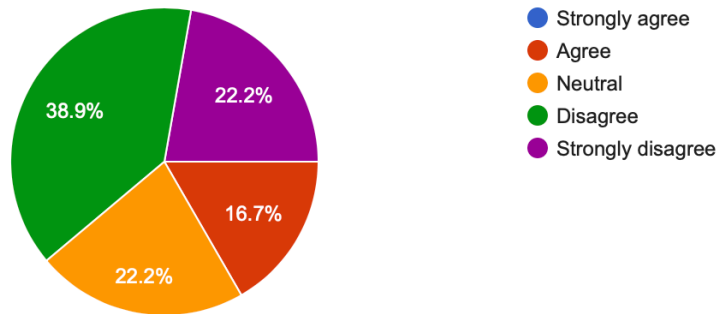
I know what basic necessities to assess for when required to shelter-in-place.

18 responses



I know what to assess in the residence/living environment of an older adult to ensure safety when required to shelter-in-place.

18 responses



Appendix O*Post-Toolkit Survey*

1. I know how to communicate with older adults.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

2. I know what information to gather about the older adults in my neighborhood to help them prepare for sheltering-in-place.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

3. I am knowledgeable about the Vial of Life.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

4. I know what supplies should be included in a disaster kit for older adults.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

5. I know what basic necessities to assess for when required to shelter-in-place.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

6. I know what to assess in the residence/living environment of an older adult to ensure safety when required to shelter-in-place.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

7. The toolkit improved my knowledge about disaster preparedness for older adults.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

8. The toolkit was easy to use and understand.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

9. The toolkit provided step-by-step directions along with resources that I would use for making my community, safer, more resilient, and better prepared.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

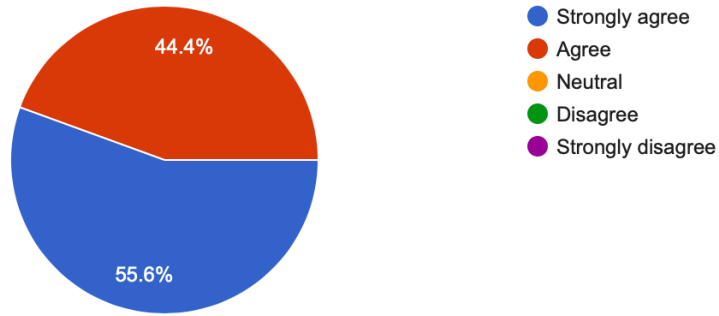
10. The toolkit improved my confidence to prepare older adults for sheltering-in-place.
 - Strongly Agree
 - Agree
 - Neutral
 - Disagree
 - Strongly Disagree

Appendix P

Post-Toolkit Results

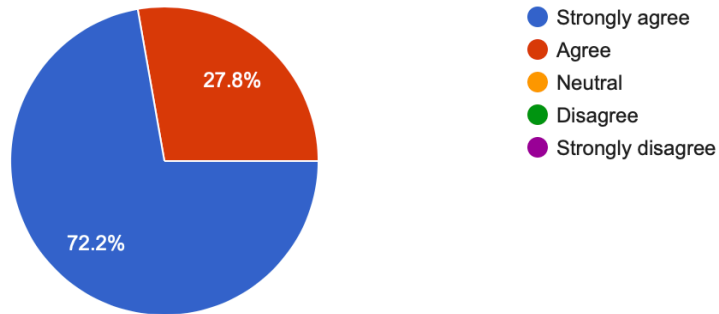
I know how to communicate with older adults.

18 responses



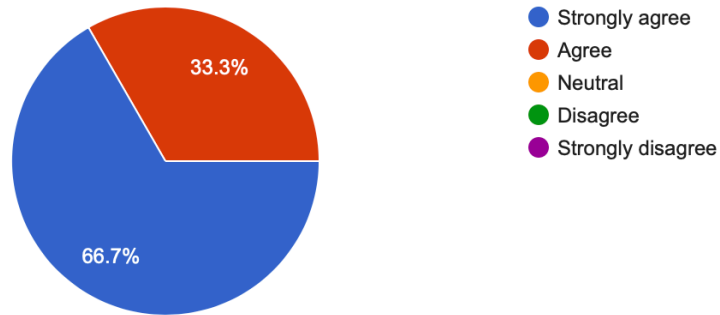
I know what information to gather about the older adults in my neighborhood to help them prepare for sheltering-in-place.

18 responses



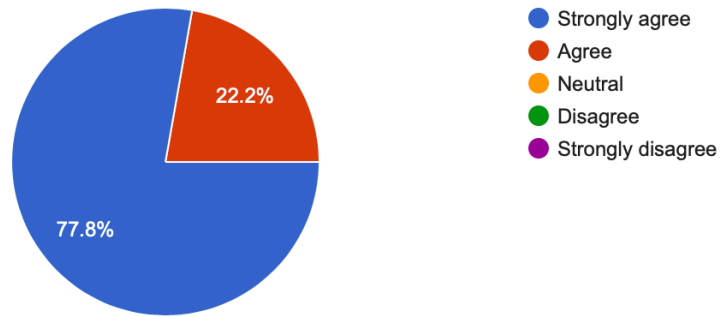
I am knowledgeable about the Vial of Life.

18 responses



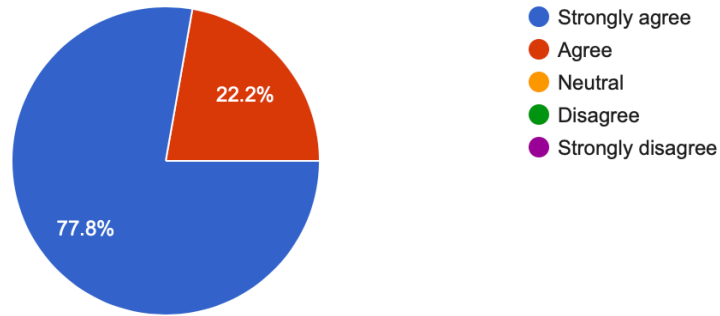
I know what supplies should be included in a disaster kit for older adults.

18 responses



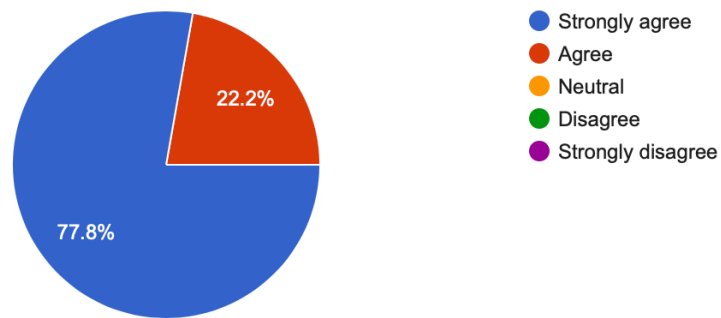
I know what components and necessities to assess for when required to shelter-in-place.

18 responses



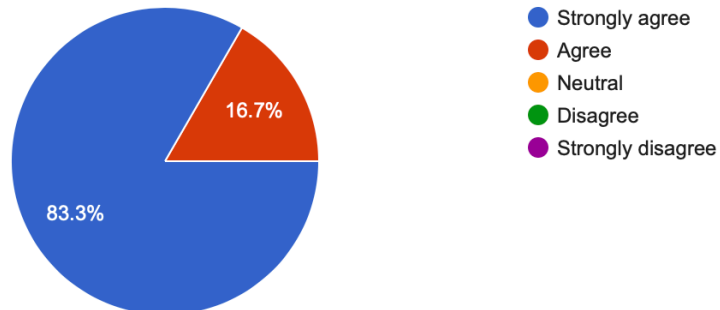
The toolkit improved my confidence to prepare older adults for sheltering-in-place.

18 responses



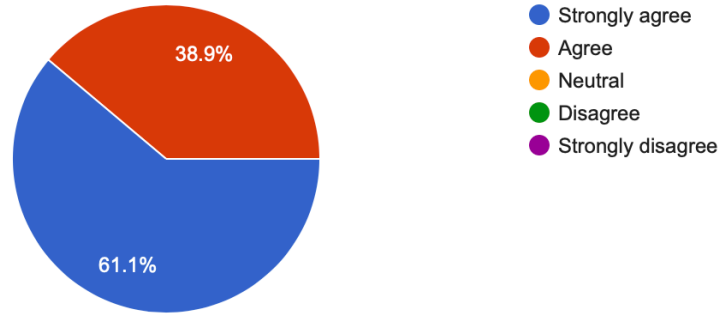
The toolkit was easy to use and understand.

18 responses



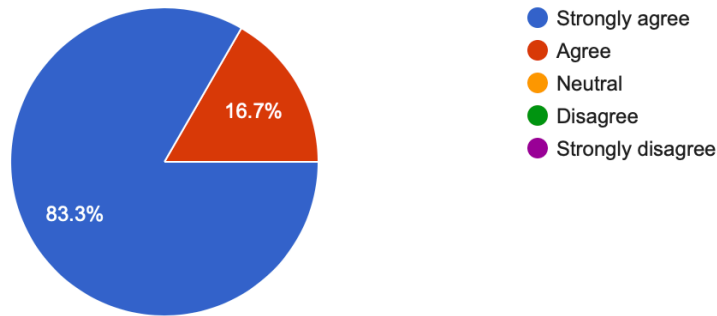
I know what to assess in the residence/living environment of an older adult to ensure safety when required to shelter-in-place.

18 responses



The toolkit improved my knowledge about disaster preparedness for older adults.

18 responses



The toolkit provided step-by-step directions along with resources for making my community, safer, more resilient, and better prepared.

18 responses

