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**THESIS**

**DIMENSIONS OF PUBLIC ENGAGEMENT  
FOR INCLUSIVE EMERGENCY PLANNING**

by

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September 2019

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**DIMENSIONS OF PUBLIC ENGAGEMENT FOR INCLUSIVE  
EMERGENCY PLANNING**

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## **ABSTRACT**

Vulnerable populations suffer disproportionate impacts in disasters. The Federal Emergency Management Agency (FEMA)'s whole-community approach addresses this disparity in the emergency planning process. An inclusive planning process is needed to operationalize FEMA's whole-of-community concept. This thesis focuses on public engagement as foundational to inclusive planning. This research first analyzed whether prior research translated into useful whole-community planning processes in large urban areas with different hazard profiles. Then, a structured, systematic case examination of four projects—in Hertford, North Carolina; the Commonwealth of Massachusetts; Los Angeles County, California; and San Antonio, Texas—confirmed the efficacy of the five dimensions of public engagement identified in prior research. In addition to these dimensions, this thesis offers eight new findings. One set identifies factors that affect public engagement: jurisdictional size, poverty and disability, a community's ethnic make-up, and a history of disasters. The other set adds three key dimensions of public engagement: trust among partners, addressing language barriers, and community-specific strategies. The thesis concludes with recommendations for emergency planners, and future research. This thesis supports emergency planners in implementing FEMA's whole-community planning within their varied jurisdictions and contributes to a definition for an inclusive emergency planning process.

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## LIST OF ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act
ASL	American Sign Language
CBO	community-based organization
CERT	Community Emergency Response Team
CPR	cardiopulmonary resuscitation
CR	community resilience
DHHS	Department of Health and Human Services
DHS	Department of Homeland Security
EPD	emergency preparedness demonstration
EPT	Emergency Preparedness Team
FEMA	Federal Emergency Management Agency
GIS	geographic information system
IC	information and communication
LACCDR	Los Angeles County Community Disaster Resilience
LACDPH	Los Angeles County Department of Public Health
PSP	partnerships and social preparedness
REDI	Roanoke Economic Development Inc.
UD	universal design
CURS	Center for Urban Research Studies
VP	vulnerable populations

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## EXECUTIVE SUMMARY

A disproportionate number of people with disabilities and older adults die in disasters due, in part, to a lack of planning with the community to meet their specific needs.<sup>1</sup> Outcomes for vulnerable populations in recent disasters have shown that this gap in planning has not yet been adequately addressed. The Federal Emergency Management Agency (FEMA) has officially acknowledged the disproportionate impact on vulnerable populations. Its guidance, framed as a *whole-of-community* approach to emergency management practices, incorporates all sectors of a community into planning, training, and exercise processes and activities.<sup>2</sup> Including vulnerable populations in emergency planning requires specific, targeted community engagement activities. To operationalize FEMA's whole-of-community concept, an *inclusive planning process* must be defined.

Previous research has informed the development of an inclusive planning process. Six small rural communities on the East Coast were the sites of emergency preparedness demonstration (EPD) projects beginning in 2004, designed to test public engagement strategies within an emergency planning process.<sup>3</sup> The projects targeted engagement with vulnerable communities, including people with disabilities and older adults. An analysis performed by researchers Berke et al. in 2008 centered on the participatory processes utilized, identifying critical factors in the successes or failures of each project. Their study identified five dimensions of public engagement relevant to inclusive emergency planning: diverse participation, collaboratively developed information, the use of a coach to facilitate

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<sup>1</sup> Glen W. White et al., *Assessing the Impact of Hurricane Katrina on Persons with Disabilities* (Lawrence, KS: University of Kansas, 2007), 14, <https://www.hsdl.org/?view&did=470742>; Robyn Powell and Sheldon Gilbert, *The Impact of Hurricanes Katrina and Rita on People with Disabilities: A Look Back and Remaining Challenges*. (Washington, DC: National Council on Disability, 2006), 8–9; and National Council on Disability, *Saving Lives: Including People with Disabilities in Emergency Planning* (Washington, DC: National Council on Disability, 2005), 18, <https://www.hsdl.org/?view&did=457018>.

<sup>2</sup> Federal Emergency Management Agency, *A Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action*, FDOC 104-008-1 (Washington, DC: Department of Homeland Security, 2011), <https://www.fema.gov/media-library/assets/documents/23781>.

<sup>3</sup> Philip Berke et al., *Building Capacity in Six Disadvantaged Communities Vulnerable to Natural Disasters* (Chapel Hill: University of North Carolina, 2008), [https://web.archive.org/web/20140223140353/https://ie.unc.edu/cscd/pdf/Cross\\_case\\_report.pdf](https://web.archive.org/web/20140223140353/https://ie.unc.edu/cscd/pdf/Cross_case_report.pdf).

change, collaboratively developed strategies meeting local needs, and capacity-building for strategy implementation and sustainment.<sup>4</sup>

These initial EPD project case studies are instructive for small rural jurisdictions. However, are their public engagement strategies similarly effective in large urban environments? That is the primary research question of this thesis. Using a cross-case analysis method, this thesis confirms and extends the findings of Berke et al. Additional research questions address jurisdictional size and population demographics and other co-factors that impact community engagement.

The five dimensions of public engagement identified by Berke et al. can also be effective in large urban environments. This was shown through a cross-case analysis of three additional cases with differing geographic and demographic characteristics and in comparison with the pilot site from the EPD study. The analysis identified significant co-factors that affected community engagement with vulnerable populations within an emergency planning context. Together, the four cases reveal examples of successful public engagement strategies that can be adapted and replicated in most U.S. communities.

The findings and recommendations presented contribute to the development of a replicable, inclusive emergency planning process. This research revealed eight specific findings:

1. All the selected cases exhibited the five dimensions of public engagement, regardless of population size.
2. Jurisdictional size influences public engagement—in both positive and negative ways.
3. Poverty and disability are significant co-factors influencing community engagement.

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<sup>4</sup> Berke et al., 5–6.

4. A community's ethnic make-up influences risk-based disaster decision-making.
5. A history of disaster experiences impacts the motivation for inclusive emergency planning.
6. Establishing trust among partners is crucial and influenced by a community's past disaster history.
7. Words matter—and addressing language barriers is crucial to successful inclusive planning.
8. Community-specific strategies are key to successful inclusive emergency planning activities and building community resilience.

The research also led to four specific recommendations. The first three are aimed at emergency management, specifically emergency planners. The final recommendation concerns further research to continue informing this critical area of emergency planning.

1. Ground-truth planning assumptions with the local community.
2. Develop a systematic process for inclusive emergency planning.
3. Use a universal design approach for emergency management.
4. Conduct follow-up research to confirm the efficacy of previous emergency planning projects.

Building trusted relationships with community members increases their knowledge, their preparedness, and the chance that they will follow protection and life-safety instructions. These relationships may even allow them to serve as force multipliers for preparedness and response actions.

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## I. INTRODUCTION

A disproportionate number of people with disabilities and older adults die in disasters due, in part, to a lack of planning with the community to meet their specific needs.<sup>1</sup> After Hurricane Katrina, researchers found that people with disabilities who survived the initial event then faced multiple barriers to receiving critical communications, evacuation, and sheltering assistance. These barriers were due to the way those systems were designed and managed.<sup>2</sup> After the 2017 California wildfires, the average age of identified victims was 79. Both the swift-moving fire and the inadequacy of emergency communications planning were identified as factors in the outcomes.<sup>3</sup> The Federal Emergency Management Agency (FEMA) has officially acknowledged this disproportionate impact on vulnerable populations. Its guidance is framed as a *whole-of-community* approach to emergency management practices, incorporating all sectors of a community into planning, training, and exercise processes and activities.<sup>4</sup>

Some sectors of the whole community have integrated more successfully into emergency management activities than others. Most emergency management planning around utilities is now done along with private-sector stakeholders. These stakeholders represent companies such as power and water utilities, telecommunications companies, and internet service providers. Private-sector business partners often have the capacity—and experience—to engage in planning, training, and exercising with emergency management.

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<sup>1</sup> Glen W. White et al., *Assessing the Impact of Hurricane Katrina on Persons with Disabilities* (Lawrence, KS: University of Kansas, 2007), 14, <https://www.hSDL.org/?view&did=470742>; Robyn Powell and Sheldon Gilbert, *The Impact of Hurricanes Katrina and Rita on People with Disabilities: A Look Back and Remaining Challenges*. (Washington, DC: National Council on Disability, 2006), 8–9; and National Council on Disability, *Saving Lives: Including People with Disabilities in Emergency Planning* (Washington, DC: National Council on Disability, 2005), 18, <https://www.hSDL.org/?view&did=457018>.

<sup>2</sup> Laura Hemingway and Mark Priestley, “Natural Hazards, Human Vulnerability and Disabling Societies: A Disaster for Disabled People?,” *Review of Disability Studies* 2, no. 3 (2006): 64, <http://hdl.handle.net/10125/58182>.

<sup>3</sup> Alene Tchekmedyan and Esmeralda Bermudez, “California Firestorm Takes Deadly Toll on Elderly; Average Age of Victims Identified So Far Is 79,” *Los Angeles Times*, October 13, 2017, <http://www.latimes.com/local/lanow/la-me-ln-norcal-fires-elderly-20171012-story.html>.

<sup>4</sup> Federal Emergency Management Agency, *A Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action*, FDOC 104-008-1 (Washington, DC: Department of Homeland Security, 2011), <https://www.fema.gov/media-library/assets/documents/23781>.

They share some common language, practices, and assumptions and are available to meet during the workday in professional settings. FEMA highlights the whole-community planning work being accomplished by the Colorado Emergency Preparedness Partnership. Its success is an example of the collaborative possibilities and advantages of working with stakeholders in the business, philanthropic, and academic communities.<sup>5</sup>

Emergency managers have begun integrating the “general public” into disaster training and exercise activities. Fire departments traditionally embrace Community Emergency Response Team (CERT) training for their communities. CERT training imparts critical life/safety skills such as first aid and cardiopulmonary resuscitation (CPR), light search and rescue, and fire suppression. CERTs are capable of joining emergency services’ first-responder teams as backup and support.<sup>6</sup> It is not uncommon to involve both trained and untrained community members in large-scale functional exercises. These “actors” simulate victims of a plane crash or active shooter, for example. However, they are usually relegated to playing the roles of victims and not actively participating in response activities. Even with these examples, disability organizations and those serving older adults are rarely asked to participate.<sup>7</sup> Meanwhile, in real-life situations, older adults and people with disabilities have shown they can—and do—assist injured people by administering first aid, performing CPR, and assisting with rescues and evacuations.<sup>8</sup>

Emergency-planning processes are not easily relatable to the general public. Emergency planners experience barriers to engaging the public in the planning stage. Barriers can range from a reluctance to “set expectations” with the public about disaster

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<sup>5</sup> Federal Emergency Management Agency, 10.

<sup>6</sup> “Community Emergency Response Team,” Department of Homeland Security, accessed May 27, 2019, <https://www.ready.gov/community-emergency-response-team>.

<sup>7</sup> Elizabeth Davis and Jennifer Mincin, *Nobody Left Behind: Incorporating Special Needs Populations into Emergency Planning and Exercises* (Lawrence: University of Kansas, 2005), 24, <https://www.hsdsl.org/?abstract&did=28208>.

<sup>8</sup> William Oriol and Diana Nordboe, *Psychosocial Issues for Older Adults in Disasters* (Washington, DC: Center for Mental Health Services, 1999), 41, <https://ce-credit.com/articles/100113/psychosocialOlderAdultsDisasters.pdf>; and Tatevik Aprikyan, “In a Wheelchair, Deaf? No Problem: People with Disabilities Learning Emergency Response Training,” FOX Channel 13 News (Bellevue, WA), October 1, 2017, <http://q13fox.com/2017/10/01/in-a-wheelchair-deaf-no-problem-people-with-disabilities-learning-emergency-response-training-in-bellevue/>.

response to a lack of wherewithal to answer basic planning questions—With whom do we plan? In what ways can we engage them? Where do we meet with them? And how do we form relationships and create sustainable resilience? If the community includes people with access and functional needs, the barriers may seem more daunting—What if they can’t hear me speak, see the maps I am showing, or understand the concepts I want to discuss? Yet it is with this last community—people with access and functional needs—that emergency planners should be planning, for they are the ones most disproportionately impacted by a disaster. Researchers McGaffigan, Oliveira, and Enochs reached this conclusion in their 2009 study: “It is recommended that a systematic process be developed to integrate involvement of people with functional limitations within the broad range of emergency planning activities that may exist rather than creating a parallel yet separate process for planning for special populations.”<sup>9</sup>

To operationalize FEMA’s whole-of-community concept, an *inclusive planning process* needs to be defined. Previous research by Berke et al. has informed the development of an inclusive planning process. Six small rural communities on the East Coast were the sites of emergency preparedness demonstration projects beginning in 2004, designed to test public engagement strategies within an emergency planning process.<sup>10</sup> This research continues and contributes to defining such an inclusive community-based process. Inclusive planning should meaningfully include representative members of the community, including those with access and functional needs, in emergency planning activities. How that meaningful community engagement is achieved can be documented, studied, and incorporated into an inclusive community-based planning process.

The benefits of inclusive emergency planning run in both directions. Emergency planners write informed plans that better meet the needs of the whole community. Community members, including people with access and functional needs, gain information

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<sup>9</sup> Erin McGaffigan, Chris Oliveira, and Diane Enochs, “Emergency Planning and People with Disabilities: Massachusetts’ Lessons Learned,” *Journal of Emergency Management* 7, no. 3 (2009): 73, <https://doi.org/10.5055/jem.2009.0013>.

<sup>10</sup> White et al., *Assessing the Impact of Hurricane Katrina on Persons with Disabilities*, 18.

that can improve their disaster resilience and potentially mitigate some disaster impacts.<sup>11</sup> Through a planning process, relationships are built that become key to disaster response.<sup>12</sup>

Fulfilling FEMA’s guidance and supported by growing research, emergency planners and all stakeholder groups should be actively planning, training, and exercising *together*—but too often, they are not. In most jurisdictions, emergency plans are largely written by professional emergency planners (or paid consultants). For these planners, sitting at office desks and writing in isolation, community engagement is not part of their planning process. Examples of successfully including community members in emergency preparedness, public health, and disaster mitigation planning projects exist. However, currently, there is no basic “inclusive planning process” defined and operationalized for emergency planners to follow. All emergency planning would benefit from such a process—none more so than human service planners, who deal with the very basics of sustaining human life in the face of disaster.

In addressing the barriers to inclusive planning, there are concrete solutions to many of the basic problems. Assistive listening equipment, interpreters, and simple techniques make printed materials available to people who are blind or conversations accessible to the deaf. However, identifying community engagement resources and strategies to recruit stakeholder partners may be more difficult. Designing informative activities, allowing for meaningful input, and making that input a part of the planning process are more daunting challenges.

Part of developing an inclusive emergency planning process includes addressing these challenges. Emergency planners would benefit from a study of previous inclusive community engagement projects with goals of (or similar to) emergency planning. This thesis uses a comparative analysis of case studies to inform the development of an inclusive emergency planning process. Through this research, we can also begin to understand some

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<sup>11</sup> Federal Emergency Management Agency, *A Whole Community Approach to Emergency Management*, 4, 13, 16; and Davis and Mincin, *Nobody Left Behind*, 17, 18, 20.

<sup>12</sup> Federal Emergency Management Agency, *A Whole Community Approach to Emergency Management*, 3.

important influencers of community engagement and move closer to an operationalized inclusive emergency planning process.

## **A. RESEARCH QUESTIONS**

Research by Berke et al. has examined inclusive emergency planning activities in small, rural, coastal areas with histories of storm and flooding events. Their work focused on public engagement strategies within vulnerable communities. However, research is lacking to demonstrate similar efficacy in jurisdictions of different community profiles, including size and population demographics. This research first aims to analyze whether the identified methodologies and public engagement strategies of Berke et al. translate into useful whole-community planning processes in larger urban areas with different hazard profiles. By expanding this work, this thesis extends FEMA's whole-community concept to larger urban communities.

### **1. Primary Research Question**

This study began with the following primary research question: Does additional case analysis confirm or change the Berke et al. model for public engagement with vulnerable populations?

### **2. Sub-Questions**

In addition to answering the primary question, this thesis seeks to expand on current research in two ways. The first objective is to identify significant co-factors that can impact community engagement within an inclusive emergency planning process. The second is to explore additional factors that might influence planning outcomes. The following sub-questions are asked within an inclusive emergency planning context:

- How do jurisdictional size and population demographics impact community engagement?
- What additional factors impact community engagement?

## **B. CONTRIBUTION**

This study aims to confirm and extend the work done in 2009 by Berke et al. through the analysis of additional cases representing a diversity of planning jurisdictions. Answers to these research questions can expand our knowledge of community engagement with vulnerable populations within an inclusive emergency planning process. This thesis supports emergency planners in their work to implement FEMA’s guidance of whole-community planning in their varied jurisdictions.

## **C. TERMINOLOGY**

There are three pairs of terms used in this work whose use deserves clarification. The terms *community engagement* and *public engagement* are used interchangeably. Similarly, the terms *whole community* and *inclusive* are used to describe the same type of planning processes. The third instance is a substitution: the term *specific needs* is used in place of the less-favored term describing people with “special needs.” As is discussed in Chapter V, the term *vulnerable populations*, though increasingly unpopular, is used in this thesis as it is still common in emergency management vernacular. Within this context, a “vulnerable population” is one disproportionately impacted by disaster.

## **D. CHAPTER OVERVIEW**

Chapter II provides background information and a framework within which emergency planning is performed. The chapter summarizes the legal background for including vulnerable populations in emergency planning as well as FEMA’s guidance documents. The chapter then examines the current state of community involvement in emergency planning, training, and exercises. Chapter II ends with a review of the 2008 research completed by Berke et al. Chapter III outlines the research design, including the research questions, case selection criteria, study methodology, and scope.

Chapter IV lays out the within-case analysis. It contains background information on the original case studied by Berke et al. and each of the three additional cases selected for this study. The cases are described in terms of the five dimensions of public engagement identified by Berke et al.

Chapter V contains a cross-case analysis using the aforementioned dimensions of public engagement. It also presents eight specific findings from the cross-case analysis and a chapter summary. Chapter VI concludes with an overall summary, conclusions, and four specific recommendations, including further research in this area.

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## II. BACKGROUND AND FRAMEWORK

This chapter provides background and a framework, setting the context for an inclusive emergency planning process. The chapter begins with a summary of the legal mandates that underpin the need for inclusive emergency planning. It is followed by an examination of FEMA’s whole-community principles and their relation to vulnerable populations. The next section examines previous research on community engagement by emergency management. The chapter ends with an introduction to the 2008 Berke et al. study that serves as the basis for the comparative analysis documented in this thesis.

### A. LEGAL MANDATES

Since the passage of the Americans with Disabilities Act (ADA) in 1990, there has been a legal mandate for providing equivalent services to people with disabilities, including during emergencies.<sup>13</sup> Despite this mandate, emergency management continues to rely on its general plans to cover the needs of people with disabilities in communities. After devastating events such as September 11, 2001, and catastrophic storms (e.g., Hurricanes Katrina and Rita in 2005) *demonstrably* impacted people with disabilities, emergency planners began to take notice of both the needs of—and their responsibility to—people with disabilities and other vulnerable populations in disasters.<sup>14</sup> A review of literature on the subject reveals the importance of including people with disabilities in planning and exercise activities.

Numerous legal mandates exist that support the inclusion of vulnerable people, particularly those with disabilities, beginning with the ADA in 1990. This law was further updated by Executive Order 13347, signed by President George W. Bush in 2004, which mandates people with disabilities be included in emergency planning at the federal level.<sup>15</sup>

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<sup>13</sup> “Americans with Disabilities Act of 1990,” Pub. L. No. 101–336, § 328 (1991).

<sup>14</sup> Davis and Mincin, *Nobody Left Behind*, 13; and Powell and Gilbert, *The Impact of Hurricanes Katrina and Rita on People with Disabilities*.

<sup>15</sup> Exec. Order No. 13347, 69 Fed. Reg. 44571 (July 26, 2004), <https://www.federalregister.gov/documents/2004/07/26/04-17150/individuals-with-disabilities-in-emergency-preparedness>.

Two landmark court cases, one involving Los Angeles, California (2011), the other, New York City (2013), outline what have since become the standards reinforced by every subsequent court case.<sup>16</sup> They include using the *ADA Checklist for Emergency Shelters* provided by the Department of Justice, ensuring emergency plans address the issues and needs of people with disabilities and other specific needs, and identifying an emergency management staff position that is responsible for ensuring emergency planning meets those needs.

Project Civic Access, a project of the Department of Justice, has been a focused effort to ensure that localities across the United States, including Washington, DC, and Puerto Rico, are complying with provisions of the ADA that remove barriers to participating fully in community life. Since 1999, with one court victory, the project has successfully brought legal cases in virtually every state and territory, 223 separate cases between 1999 and 2016.<sup>17</sup> Not all of these cases have centered around emergency management; however, that trend has emerged in the aftermath of Hurricane Katrina, Superstorm Sandy, and California wildfires, with over three dozen cases already through the courts directly related to emergency planning.<sup>18</sup> As Elizabeth Webster states in her 2014 *Journal of Emergency Management* study, “Failing to inclusively plan is increasingly viewed by the courts and the public as an active decision to let these members of our community suffer injury or death during and following disasters.”<sup>19</sup>

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<sup>16</sup> *Communities Actively Living Independent and Free v. City of Los Angeles*, No. 09-cv-0287 (C.D. Cal. filed Feb. 10, 2011); and *Brooklyn Center for Independence of Disabled v. Bloomberg*, No. 11-cv-06690 (S.D.N.Y. filed Nov. 7, 2013).

<sup>17</sup> “Project Civic Access,” Department of Justice, accessed July 22, 2018, <https://www.ada.gov/civicac.htm#chron-list>.

<sup>18</sup> Department of Justice.

<sup>19</sup> Elizabeth M. Webster, “Emergency Planning for People with Disabilities and Others with Access and Functional Needs to Ensure Inclusiveness,” *Journal of Emergency Management* 12, no. 3 (2014): 211, <http://dx.doi.org/10.5055/jem.2014.0173>.

## B. FEMA'S WHOLE-COMMUNITY APPROACH

In 2011, FEMA published guidance meant to support the implementation of a whole-of-community approach to emergency planning.<sup>20</sup> Whole-community planning is FEMA's recommended strategy for ensuring that emergency management accounts for the "needs, capabilities, and resources" of the entire community.<sup>21</sup> FEMA's supporting documents contain strategies, examples, and best practices meant to inform emergency management practitioners in their efforts to engage with all sectors of their communities. The documents outline strategies such as understanding community complexity, fostering relationships with community leaders, and building and maintaining partnerships.<sup>22</sup> They are not, however, a guide or checklist of required steps, and they do not contain concrete goals for whole-community planning. Nor do they define an inclusive emergency planning process.<sup>23</sup>

Starting with the recognition that many communities cannot adequately accomplish whole-community planning, a study by researchers Franks and Seaton examined the actual emergency planning process. They understood that "the process [was] just as important as the actual document."<sup>24</sup> Their work, titled "Utilizing Strategic and Operational Methods for Whole Community Disaster Planning," was based on a plan being written by the Harris County Office of Homeland Security and Emergency Management, still in early draft form when the study was published in 2017. They proposed four keys to connecting whole-community engagement with real, actionable emergency plans: an understanding of (1) the

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<sup>20</sup> Federal Emergency Management Agency, *A Whole Community Approach to Emergency Management*.

<sup>21</sup> "Whole Community Program: Building a Learning Community and Body of Knowledge by Implementing 'Whole Community' Approach to Emergency Management," Centers for Disease Control and Prevention, accessed September 5, 2019, [https://www.cdc.gov/cpr/whole\\_community\\_program.html](https://www.cdc.gov/cpr/whole_community_program.html).

<sup>22</sup> Federal Emergency Management Agency, *A Whole Community Approach to Emergency Management*, 4-5.

<sup>23</sup> Federal Emergency Management Agency, 6.

<sup>24</sup> Steve Franks and Ellen Seaton, "Utilizing Strategic and Operational Methods for Whole-Community Disaster Planning," *Disaster Medicine and Public Health Preparedness* 11, no. 6 (December 2017): 744, <https://doi.org/10.1017/dmp.2017.6>.

emergency planning process, (2) the goals of the plan, (3) the right planning tools, and (4) “the community *for which* the plan is being created” (emphasis added).<sup>25</sup>

It is within Franks and Seaton’s statement that several conflicts arise, throwing in doubt whether their approach achieves inclusive planning. At a macro level, Franks and Seaton’s approach relies on current planning processes and strategies, proposing that simply *understanding* the community supports whole-community involvement. It also focuses on understanding the goals to be accomplished without examining or revising the goals based on community input. On the micro level, the very words used to describe their final key to success conflicts with their stated goals: inclusive emergency planning means planning *with* a community, not “for” it, as this study’s approach advocates. In attempting to operationalize whole-community planning within the traditional emergency planning paradigm, their work relies heavily on maintaining current processes as opposed to adapting them to identify and meet the needs of the community. Franks and Seaton’s study illustrates a discrepancy between the goal of whole-community planning and its accomplishment.

This discrepancy has been noted elsewhere. In a critical study published in 2017 in *Technological Forecasting and Social Change*, Koch et al. conclude, “Major discrepancies persist between ‘Whole Community’ ideal and application.”<sup>26</sup> Their work examined community-based organizational involvement in emergency planning as a critical component of community resilience. Their study analyzed Milwaukee, Wisconsin, a “mid-sized, socially complex city,” with an estimated population of 600,000.<sup>27</sup> Their research first presented a strong case for collaborative planning, engaging community-based organizations that were familiar and work with vulnerable populations on a micro level.<sup>28</sup>

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<sup>25</sup> Franks and Seaton, 742.

<sup>26</sup> Heather Koch et al., “Community Views of the Federal Emergency Management Agency’s ‘Whole Community’ Strategy in a Complex US City: Re-Envisioning Societal Resilience,” *Technological Forecasting and Social Change* 121 (2017): 31, <https://doi.org/10.1016/j.techfore.2016.12.009>.

<sup>27</sup> Koch et al., 32.

<sup>28</sup> Koch et al., 32.

This strategy aligned with approaches often recommended to begin engaging with many diverse communities.<sup>29</sup>

Franks and Seaton’s research then came to another critical conclusion: the capacity of community-based organizations to respond in a disaster is inherently low to non-existent. Their inability to respond involves multiple factors related to day-to-day missions and resources, not to mention the impacts of disasters on facilities, staff, and volunteers.<sup>30</sup> In other words, agencies serving vulnerable populations are susceptible to the same impacts of disaster and are as likely as their clients to have inadequate resources to address them. This finding led to the critical question of how to motivate the involvement of community-based organizations (CBOs) in their communities’ emergency planning. The conclusion of Koch et al. is advice to be heeded:

CBOs’ priorities must also be taken into account when considering community disaster planning, with recognition that asking for focus on seemingly abstract major disasters may not be practical. All these factors suggest more attention needs to be paid to the motivations of CBOs and their ability to serve as fundamental partners in community disaster preparedness in collaboration with government.<sup>31</sup>

A gap, then, is how whole-community, or *inclusive*, emergency planning can successfully occur and through which lens successful strategies might be identified.

### **C. COMMUNITY ENGAGEMENT**

A considerable amount of work has evaluated the effectiveness of community engagement as a strategy for improving outcomes. A research paper released in 2015 by BMC Public Health sought to evaluate metadata on public health community interventions

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<sup>29</sup> National Association of County and City Health Officials et al., *Capacity-Building Toolkit for Aging & Disability Networks in Emergency Planning* (Washington, DC: Department of Health and Human Services, 2019), 9, <https://www.naccho.org/uploads/downloadable-resources/Capacity-Building-Toolkit-for-Aging-and-Disability-Networks-2-5-19.pdf>.

<sup>30</sup> Koch et al., “Community Views,” 32.

<sup>31</sup> Koch et al., 32.

that addressed a range of health outcomes across diverse health issues.<sup>32</sup> By using data on community engagement interventions, the study's results validated the community engagement approach as having a positive impact on health outcomes. The paper additionally sought to identify whether any particular model or models of community engagement were more effective than others; however, the researchers found insufficient evidence to make that determination. This systematic study validated the community engagement approach as an overall method to improve desired health outcomes.

In 2015, the non-profit Pomegranate Center published a guidebook outlining a model for community engagement, including a methodology for organizing, communicating, and accomplishing a community-identified goal.<sup>33</sup> The guidebook was built on years of community organizing experiences, lessons learned, and successes achieved. This organization's vision of and focus on inclusive community planning have supported the aim of this thesis in defining an inclusive emergency planning process. While useful, the Pomegranate Center's model could not adequately account for the complexities of emergency planning but might be a useful resource within an inclusive emergency planning process.

More recently, a 2016 policy paper from the Australian Strategic Policy Institute's Risk and Resilience Program has outlined the benefits of building resilient Australian communities, including strategies and indicators.<sup>34</sup> While the report contains information on including the community in the program's resilience work, neither useful information on the processes involved nor examples of activities or outcomes were incorporated. Nonetheless, based on the success of community engagement as a strategy to improve programmatic outcomes, it seems logical to approach an examination of an inclusive planning process through the lens of public engagement strategies.

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<sup>32</sup> Alison O'Mara-Eves et al., "The Effectiveness of Community Engagement in Public Health Interventions for Disadvantaged Groups: A Meta-Analysis," *BMC Public Health* 15, no. 129 (2015): 1–23, <https://doi.org/10.1186/s12889-015-1352-y>.

<sup>33</sup> Milenko Matanovic and Alison Orseman, *Building Better Communities: Thoughts and Ideas for Bringing People Together to Make Your Community Work* (Seattle: Pomegranate Center, 2015), <http://pomegranatecenter.org/wp-content/uploads/2015/03/BuildingBetterCommunities2015.pdf>.

<sup>34</sup> Paul Barnes, *Bolstering National Disaster Resilience: What Can Be Done?* (Barton: Australian Strategic Policy Institute, 2016), <https://www.hsdl.org/?abstract&did=792285>.

#### **D. FIVE DIMENSIONS OF PUBLIC ENGAGEMENT**

In 2004, a collaborative multi-agency team of the non-profit MDC Inc., FEMA, and the University of North Carolina at Chapel Hill developed an emergency preparedness demonstration (EPD) project. The project focused on testing public engagement strategies within an emergency planning process.<sup>35</sup> It was ultimately carried out in six vulnerable communities in the eastern United States. These communities were vulnerable in two ways. First, their locations and geography made them more susceptible to severe weather-related disasters. Second, they were seen as vulnerable due to the disproportionate disaster impacts they had experienced. The six communities chosen were Chester County, Pennsylvania; Hampshire County, West Virginia; Wilmington, Delaware; Hampton City, Virginia; Dorchester County, Maryland; and Hertford County, North Carolina. The team's primary goal was to test public engagement strategies in an emergency planning process. To achieve this goal, it brought emergency planners and policymakers as well as individuals with disabilities and older adults together to inform community emergency preparedness activities and plans.<sup>36</sup>

The EPD project began with an 18-month pilot in Hertford County, North Carolina, and was then carried out in the remaining five communities. The subsequent projects were shorter than the pilot but included the same basic project activities and goals. All the project sites were given access to information and resources, including some funding for staff support.

At the conclusion of the six EPD sub-projects in 2008, researchers at the University of North Carolina's Center for Urban Research Studies performed an in-depth analysis of the entire EPD project. The research performed by Berke et al. focused on the participatory processes used to identify critical factors contributing to their successes and failures.<sup>37</sup> Their overall study performed a cross-project analysis, comparing public engagement

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<sup>35</sup> Philip Berke et al., *Building Capacity in Six Disadvantaged Communities Vulnerable to Natural Disasters* (Chapel Hill: University of North Carolina, 2008), [https://web.archive.org/web/20140223140353/https://ie.unc.edu/cscd/pdf/Cross\\_case\\_report.pdf](https://web.archive.org/web/20140223140353/https://ie.unc.edu/cscd/pdf/Cross_case_report.pdf).

<sup>36</sup> Berke et al., 1.

<sup>37</sup> Berke et al.

strategies and outcomes to form a picture of the common dimensions for successful public engagement.<sup>38</sup> Their study identified five dimensions of public engagement found relevant to inclusive emergency planning: diverse participation, collaboratively developed information, the use of a coach to facilitate change, collaboratively developed strategies meeting local needs, and capacity-building for strategy implementation and sustainment.<sup>39</sup>

As part of the EPD analysis, Berke et al. conducted a second, more in-depth study of the pilot project in Hertford, North Carolina.<sup>40</sup> That case study, as representative of the EPD project and the identified five dimensions of public engagement, is used in this thesis as the basis of comparison and analysis to three additional case studies. The results of the analysis form a set of findings against which additional cases can be compared and analyzed.

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<sup>38</sup> Berke et al.

<sup>39</sup> Berke et al., 5–6.

<sup>40</sup> Center for Sustainable Community Design, *Emergency Preparedness Demonstration Project: Hertford County Case Study* (Chapel Hill: University of North Carolina, 2008), [https://web.archive.org/web/20140223140340/https://ie.unc.edu/cscd/pdf/Hertford\\_Case\\_Aug\\_3-08-2.pdf](https://web.archive.org/web/20140223140340/https://ie.unc.edu/cscd/pdf/Hertford_Case_Aug_3-08-2.pdf).

### III. RESEARCH DESIGN

This thesis builds on and extends the work of Berke et al., who performed a cross-case analysis of six capacity-building EPD projects.<sup>41</sup> These EPD projects were conducted over two years in different states, all with populations more vulnerable to disasters—people with disabilities and the elderly.<sup>42</sup> Their study assessed the success of several community engagement strategies.

The research design uses dimensions based on five principles that Berke et al. developed to evaluate planning program designs and elements along those lines.<sup>43</sup> An application of these five dimensions allowed for a useful, comprehensive analysis of the various public engagement strategies in each selected case. The following outlines the five dimensions, along with contextual definitions of each:

1. **Diverse participation:** Planning groups represent the widest set of community demographics possible, including language, age, race, ability, economic status, education level, and homeowners/renters. Businesses, non-profits, and individuals, along with sectors such as government, education, health care, legal, and social services, should also be included.
2. **Collaboratively developed information:** Planning groups develop and verify information together instead of relying on one source to produce accurate, useful information. They do this by sharing their individual and collective expertise and “ground-truthing” information by confirming it with lived-experiences and local knowledge.
3. **Use of a coach to facilitate change:** The planning team includes someone in a “community coach” role, who actively supports the community’s participation, balances the team’s power dynamics, and encourages

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<sup>41</sup> Berke et al., *Building Capacity in Six Disadvantaged Communities*.

<sup>42</sup> Berke et al.

<sup>43</sup> Berke et al., 5–6.

positive change. This role likewise may ensure that meetings and all planning activities and materials are accessible to all participants. This includes arranging for American Sign Language (ASL) and language interpretation as well as ensuring digital communications are accessible to screen readers, for example.

4. **Collaboratively developed strategies meeting local needs:** Planning team members work together to identify the specific needs of their local communities and potential strategies to meet them. Community participants are part of the strategy prioritization and final decision-making process.
5. **Capacity-building for strategy implementation and sustainment:** The goals of the planning team's work include elements that support building the capacity to implement their chosen strategies and sustain the work and/or relationships built over time. These might include the development of funding mechanisms to implement chosen strategies or formally organized groups that continue to meet and work together toward common goals.

These five dimensions were a useful way for Berke et al. to analyze preparedness community engagement projects in small rural communities with similar disaster profiles. Would these same dimensions be useful in analyzing preparedness projects in larger urban jurisdictions with different disaster profiles? Would further comparison yield additional strategies or factors to inform inclusive emergency planning practices? These questions framed the case analysis in this thesis. The case analysis began with the selection of three additional cases for comparison with the Hertford County EPD study analyzed by Berke et al. A within-case analysis was performed on the additional cases, followed by a cross-case analysis of all four cases.

## **A. CASE SELECTION CRITERIA**

The three additional cases were selected to add variables for comparison, such as population size and jurisdictional characteristics (e.g., urban versus rural). The first case selected was a 2009 study by Erin McGaffigan, Chris Oliveira, and Diane Enochs.<sup>44</sup> The second case chosen was a 2013 study by Kenneth B. Wells et al.<sup>45</sup> The third case, an inclusive emergency planning project being carried out in San Antonio, Texas, was derived from public source-material notes from community meetings and a 2018 personal interview with a project lead, the accessibility compliance manager in the San Antonio, Texas, Disability Access Office.<sup>46</sup>

The original study cases by Berke et al. were intentionally chosen for being small rural jurisdictions. This study extends the comparative analysis by adding projects in three larger urban (or urban/mixed) jurisdictions. This allowed for additional comparisons and a deeper analysis across the five dimensions of public engagement. The additional cases chosen represent a secondary city (population > 1.5 million), a state (population > 6.5 million), and a mega-metropolitan jurisdiction (population > 9.8 million). These cases add variants of strategies, resources, and barriers, which led to a richer set of answers to the research questions.

## **B. RESEARCH QUESTIONS**

The primary research question is as follows: Does additional case analysis confirm or change the Berke et al. model for public engagement with vulnerable populations? This question is addressed through a comparative analysis of additional cases with diverse variables such as jurisdictional size, population demographics, and disaster profiles. Using

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<sup>44</sup> McGaffigan, Oliveira, and Enochs, “Emergency Planning and People with Disabilities.”

<sup>45</sup> Kenneth B. Wells et al., “Applying Community Engagement to Disaster Planning: Developing the Vision and Design for the Los Angeles County Community Disaster Resilience Initiative,” *American Journal of Public Health* 103, no. 7 (July 2013): 1172–80, <https://doi.org/10.2105/AJPH.2013.301407>.

<sup>46</sup> “Emergency Plan for People with Disabilities,” City of San Antonio, accessed August 24, 2018, <https://www.sanantonio.gov/DAO/EmergencyPlan>; and Deborah Scharven (accessibility compliance manager at San Antonio, Texas, Disability Access Office), interview with author, September 14, 2018.

the same five-dimensional model developed by Berke et al., each case was analyzed for similarities and differences.

On the way to answering the primary question, additional questions became relevant, starting with the basic—“Does size matter?” In comparing cases from jurisdictions of varying sizes, this question became more nuanced. Rather than *whether* it mattered, *how* size mattered became more interesting. As the cross-case analysis progressed, common factors that might have impacted engagement with the public emerged. Finally, as the analysis was taken as a whole, it was clear that planning with “vulnerable populations” brought its own set of factors that influenced inclusive planning.

Within the specific focus of emergency planning, three additional questions were developed and addressed in this research:

1. How do jurisdictional size and population demographics impact community engagement?
2. What additional factors impact community engagement?
3. How might planning with vulnerable populations change the planning process of community engagement?

## **C. RESEARCH METHODOLOGY**

This research used a structured, systematic case examination that was appropriate for comparative analysis. The methodology examined the four selected cases using the same five dimensions of public engagement, looking for evidence of similarities and differences. This approach could confirm conclusions of previous research and potentially extend that work with additional findings. The use of this research method systematically assessed patterns or differences in public engagement strategies that might have impacted their success. A graphic depiction of the research process appears in Figure 1.

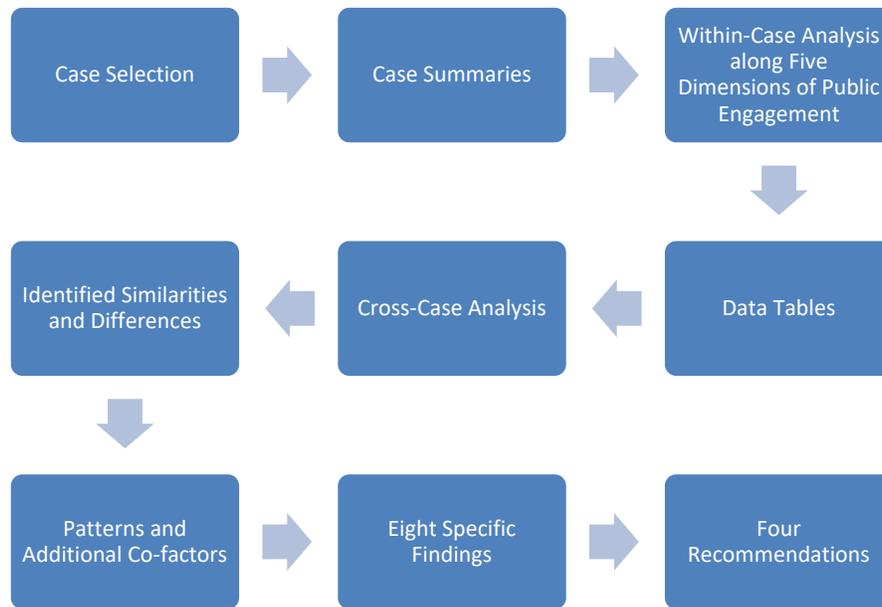


Figure 1. Depiction of Research Process Undertaken

Cases for comparison were selected for population, jurisdictional size, and public engagement activities. Each of the additional cases chosen for comparison had conducted one or more inclusive planning projects within an emergency management context. Using published case information, community engagement meeting notes, and an informational interview, a case summary was compiled. The within-case analysis was performed, using the five dimensions of public engagement identified by Berke et al.

Results were captured in a series of tables, which allowed for a cross-case analysis of the four cases. Similarities and differences were identified along each of the five dimensions of public engagement. Patterns emerged, and additional co-factors were identified that might also impact public engagement and the process of inclusive emergency planning. The results of the analysis include eight specific findings, beginning with a validation of the original study by Berke et al. Recommendations, which are based on the new analysis, appear in the final chapter of this thesis.

#### **D. SCOPE**

This research is limited in scope in that it analyzes four specific cases of inclusive planning within an emergency management sector. This study compares them with prior

work done by Berke et al. in 2008 to confirm and extend the findings. It is not intended, nor does it attempt, to judge the effectiveness of the inclusive planning accomplished by any jurisdiction, past or present. This research, like the Berke et al. study, examines factors associated with the challenges and successes of inclusive emergency planning processes.

## IV. WITHIN CASE ANALYSIS

This chapter provides a within-case analysis of the four selected case studies: the EPD pilot project conducted in Hertford County, North Carolina, and planning projects in the Commonwealth of Massachusetts; Los Angeles County, California; and San Antonio, Texas. The analysis begins by looking at each case along the five dimensions of public engagement identified by Berke et al.<sup>47</sup> The five dimensions are diverse participation, collaboratively developed information, the use of a coach to facilitate change, collaboratively developed strategies meeting local needs, and capacity-building for strategy implementation and sustainment. A summary of the cases, using the framework of the five dimensions, follows.

### A. EMERGENCY PREPAREDNESS DEMONSTRATION PROJECT— HERTFORD COUNTY, NORTH CAROLINA

In 2004, MDC, a non-profit organization in Chapel Hill North Carolina, partnered with the University of North Carolina’s Center for Urban and Regional Studies (CURS) to design and carry out the EPD project. FEMA also provided support for this project. After a year of project design work, Hertford County, North Carolina, became the pilot site for the first of six EPD projects. This pilot began in 2005 and ran for 18 months. The pilot project was designed to test the effectiveness of various emergency planning program elements “to increase awareness and preparedness in socially vulnerable communities.”<sup>48</sup> Among the objectives was to test an emergency planning process that would “link a community’s vision and data to strategic action.”<sup>49</sup> Hertford County was an appropriate test site owing, in part, to its recent history of disaster events, including three federally declared disasters in 1999, 2001, and 2003.<sup>50</sup> Additionally, there were significant numbers of various vulnerable populations residing in the county, including the highest rate of

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<sup>47</sup> Berke et al., *Building Capacity in Six Disadvantaged Communities*.

<sup>48</sup> Center for Sustainable Community Design, *Emergency Preparedness Demonstration Project*, 2.

<sup>49</sup> Center for Sustainable Community Design, 2.

<sup>50</sup> Center for Sustainable Community Design, 5.

poverty (18.3 percent), older adults (15.8 percent), people with disabilities (31.9 percent), and those without access to vehicles (13.1 percent) in the state.<sup>51</sup> A rural area with small towns and a total population of 23,280, Hertford was in the bottom quartile of North Carolina's 100 counties in terms of density.<sup>52</sup>

Like many small communities across the United States, Hertford County's emergency management capabilities struggled with few staff and resources available to perform their functions, often at the cost of community engagement activities with vulnerable populations. As often happens in similar jurisdictions, emergency plans were written by consultants—fulfilling federal Stafford Disaster Relief and Emergency Assistance Act requirements. However, this practice resulted in templated plans that did not address the unique and specific needs of the area's most vulnerable residents.<sup>53</sup> Recognizing this, the county's emergency management director believed the demonstration project might support the desire to improve communication with and outreach to these communities.<sup>54</sup>

The pilot project planning process was carried out in four phases: community entrée and building connections; constructing the current reality, the county's self-assessment process; data to action; and implementation.<sup>55</sup> MDC performed a detailed analysis of the project activities and outcomes. It used a variety of data sources, including personal interviews, field notes, project staff interviews, reports from the community coach, and post-project planning team interviews.<sup>56</sup>

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<sup>51</sup> Center for Sustainable Community Design, 8.

<sup>52</sup> "North Carolina Counties by Population," Cubit, accessed September 5, 2019, [https://www.northcarolina-demographics.com/counties\\_by\\_population](https://www.northcarolina-demographics.com/counties_by_population).

<sup>53</sup> Center for Sustainable Community Design, *Emergency Preparedness Demonstration Project*, 10.

<sup>54</sup> Center for Sustainable Community Design, 11.

<sup>55</sup> Center for Sustainable Community Design, 14, 16, 21.

<sup>56</sup> Center for Sustainable Community Design, 2.

## 1. Diverse Participation

Phase one of the project focused largely on including diverse stakeholders to participate in the process. This began with engaging the “gatekeepers” to Hertford’s governmental structure: the county manager and assistant manager. Their involvement not only signaled approval of the project but also provided key linkages to both governmental and community-based organizations already engaged in emergency preparedness, both directly and indirectly.<sup>57</sup> As part of their agreement to participate, the emergency management leadership “offered to incorporate suggested actions into the official emergency mitigation and response plans.”<sup>58</sup> This was a sign of meaningful participation.

To support the engagement of the community, MDC drew on previous positive experiences with Roanoke Economic Development Inc. (REDI), an established, well-respected key community-based organization in Hertford County. REDI agreed to act as the host organization and, as such, was funded with a planning grant of \$15,000 to support its work on the project. REDI hired dedicated staff—a part-time project coordinator and a skilled facilitator to act as a community coach.<sup>59</sup> Together, MDC and REDI compiled a list of diverse community organizations and leaders and began outreach efforts to build an emergency preparedness team (EPT). The staff directly involved in the initial outreach work had either long-standing or specific ties to the community. The EPT participants recruited included individual community members, along with organizational representatives.<sup>60</sup>

As the project activities proceeded, EPT members, supported by the community coach, frequently asked who was missing from their team. They identified a lack of political representatives, for example, noting that the invited county manager and commissioners chose not to attend meetings. Other groups they perceived to be under-represented included the school district, local faith-based organizations, law enforcement,

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<sup>57</sup> Center for Sustainable Community Design, 14.

<sup>58</sup> Center for Sustainable Community Design, 14.

<sup>59</sup> Center for Sustainable Community Design, 14–15.

<sup>60</sup> Center for Sustainable Community Design, 15.

and Hispanic community members. MDC’s post-project findings included several reasons why some participants stopped attending team meetings, largely centering around conflicting time and work/family commitments.<sup>61</sup>

MDC’s final project analysis revealed that each stakeholder group maintained some representation throughout the project. The stakeholder groups represented included local government agencies (e.g., emergency management, elderly services, and law enforcement), community-based organizations (e.g., churches, childcare centers, and neighborhood groups), unaffiliated residents, small businesses, elected officials, and other local institutions (e.g., hospitals and schools). No one from state agencies (e.g., social services or health) or non-governmental organizations (e.g., the American Red Cross or Salvation Army) participated, although they were invited.<sup>62</sup>

## **2. Collaboratively Developed Information**

The Hertford County EPD officially began with a meeting of community members as well as MDC and CURS representatives and staff. They broke into small-group discussions with community members sharing their personal experiences and the kinds of information they thought residents needed during emergency situations. The discussions generated a number of topics that revolved around four major themes: inflexibility of the current emergency system, communications, shelters, and past emergency experiences.<sup>63</sup>

Next, the team held a two-day retreat, inviting all the EPD project partners. One of the retreat’s main goals was to collaboratively develop relevant and accurate information on the area and its residents. For example, CURS provided a variety of geographic information system (GIS)–created maps, pulled from various sources, including hazard information and census data. The team members broke into groups to engage in “ground-truthing,” allowing them to assess the accuracy of the mapping data based on their community knowledge and experience. This activity resulted in updated hazard maps with

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<sup>61</sup> Center for Sustainable Community Design, 16.

<sup>62</sup> Berke et al., *Building Capacity in Six Disadvantaged Communities*, 35.

<sup>63</sup> Center for Sustainable Community Design, *Emergency Preparedness Demonstration Project*, 16–17.

corrected locations for critical facilities, revised flood plain areas, and information about roads that were impacted during Hurricane Isabel.<sup>64</sup>

The team members also examined the social vulnerabilities of their community, identifying the characteristics they thought might impact it. They identified, for example, communities of lower socioeconomic status and those households in the more rural parts of the county, isolated from urban centers.<sup>65</sup> All of this collaborative examination and updating resulted in a better quality of information for emergency planners from many sectors and laid the groundwork for better-coordinated disaster mitigation and response.

Another example of collaboratively developed information was the input of the EPD team on a planned community survey. At the retreat, concerns were expressed about the way the survey was to be administered. The planned outreach method was to send a letter and then require interested parties to contact the researcher to schedule an appointment. However, community members thought that would be ineffective due largely to literacy issues. Additionally, community members shared that previous studies done in their communities had engendered some distrust because they were never given access to the findings or results.<sup>66</sup>

Together, the EPT developed a more community-informed survey process. Surveys were administered in pairs—an EPD member with a researcher—to garner trust, and therefore participation, in the survey. EPD team members also made individual contact with potential interviewees and did outreach in community settings (e.g., the social services office). This new approach resulted in the completion of 39 interviews within the research timeframe (one week).<sup>67</sup> Additionally, the research findings were presented to the EPD in an open forum, which included the interview respondents and community leaders not already part of the project.<sup>68</sup>

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<sup>64</sup> Center for Sustainable Community Design, 17–18.

<sup>65</sup> Center for Sustainable Community Design, 18.

<sup>66</sup> Center for Sustainable Community Design, 18.

<sup>67</sup> Center for Sustainable Community Design, 19.

<sup>68</sup> Center for Sustainable Community Design, 20.

Finally, using the information gained from the community surveys and issues identified during EPD discussions, the project team collaboratively developed a vision statement to guide their next steps. It laid out the principal tasks and benchmarks to hold subsequently developed strategies and goals to the overall vision developed.<sup>69</sup>

### **3. Use of a Coach to Facilitate Change**

During post-project debriefings, EPT members repeatedly identified the inclusion of the community coach as a key part of the process for both mediation and documentation. At the start of the project, the coach helped the team establish ground rules for their work together, setting a tone of respect and “agreeing to disagree.” This process was identified by participants as crucial to keeping the discussions civil, particularly during difficult exchanges surrounding long-standing community concerns from the 1999 Hurricane Floyd event. As a facilitator, the coach remained unbiased as the team worked through disagreements and permitted equal time for all viewpoints.<sup>70</sup>

The coach also organized several activities during the process that received high marks from participants, including the use of small-group discussions. This approach allowed for more sharing and deeper conversations, which one participant described as follows: “People don’t want to be talked to, they want to be talked with.”<sup>71</sup> Team members praised the coach’s use of sticky notes to facilitate prioritization work, allowing for a more democratic process and reducing domination issues. Participants likewise identified the value of the documentation kept as a way of focusing their efforts. Poster boards with notes and previous discussion points made it possible to see where the group was in its process and what areas needed more work.<sup>72</sup>

The community coach was especially valuable at specific points in the process. During the second night of the team’s retreat, the coach adjusted the mapping activity to include the locations of the members’ homes and workplaces. This team-building activity

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<sup>69</sup> Center for Sustainable Community Design, 20.

<sup>70</sup> Center for Sustainable Community Design, 23–24.

<sup>71</sup> Center for Sustainable Community Design, 24.

<sup>72</sup> Center for Sustainable Community Design, 24.

served to identify connections between team members and became an ongoing ritual of joining the project team. As the two-day retreat came to a close, the value of the coach was evident as participants were eager to move forward into finding solutions. The coach, nevertheless, encouraged members to allow more time to grasp the challenges they faced.<sup>73</sup> In the third and final phases of the project, the team widely recognized the value of the community coach. As team members did the challenging work of developing potential goal-implementation strategies, the coach effectively used inclusive facilitation skills to guide discussions productively and provide critical documentation of the group's decisions.<sup>74</sup>

#### **4. Collaboratively Developed Strategies Meeting Local Needs**

Phase Three of the EPD project moved from data-gathering to identifying gaps and the strategies to address them. This work was done within the vision developed in the previous phase of work. The team accomplished this in specific steps and all with collaborative methods. First, drawing upon team members' own experiences and information from the community survey, the team began identifying the challenges people faced in emergency preparedness. The identification process included small-group discussions and facilitated meeting times. This was followed by the second step: creating goals that illustrated the desired results for the community.<sup>75</sup>

The development of strategies to accomplish these goals was step three and resulted from the extensive team discussion. The value of the team's diverse participation was obvious in the number and variety of strategies developed for each goal. One team member commented, "It was amazing for me to see how each different organization saw things."<sup>76</sup> Next, each strategy was prioritized according to the agreed-upon factors of a focus on vulnerable populations, potential impact, and feasibility.

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<sup>73</sup> Center for Sustainable Community Design, 18.

<sup>74</sup> Center for Sustainable Community Design, 21–22.

<sup>75</sup> Center for Sustainable Community Design, 21.

<sup>76</sup> Center for Sustainable Community Design, 21.

Team members emphasized the effectiveness of the collaborative process during post-project reflections. Although both community and agency participants had various reasons for being part of the project, there was a common thread of “‘a desire to help’ and improve the situation in Hertford County.”<sup>77</sup> This shared purpose led to some interesting conscious choices: agency representatives endeavored to level the power dynamics by not dominating conversations and treating community members as equals. At the same time, community participants refrained from negative comments toward government officials and agency responders, recognizing that this work was to benefit the citizens and must focus on solutions, not finger-pointing.<sup>78</sup>

## **5. Capacity-Building for Strategy Implementation and Sustainment**

To accomplish their stated goals, the team developed short-, medium-, and long-range approaches that also fit with the timeline of the EPD project. They likewise considered potential projects that could be accomplished after the pilot project. This involved investigating available resources, starting with funding that might be available through the EPD itself. The group looked for financial or in-kind resources that could be provided by community agencies and possible state funds. The EPT ultimately chose four strategies for further development and submission to MDC for funding consideration.<sup>79</sup>

As part of the larger EPD project, additional grant funds supported project sites in implementing outcomes. The EPT applied for and received funding to support the development and distribution of 5,000 magnets, printed in both Spanish and English, which relayed information to families about what to take—and not take—to emergency shelters. The EPT also formed a Citizen Corps Council that trained 17 members to form a Community Emergency Response Team (CERT). The group likewise applied to be a StormReady community through the National Weather Service.

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<sup>77</sup> Center for Sustainable Community Design, 23.

<sup>78</sup> Center for Sustainable Community Design, 23.

<sup>79</sup> Center for Sustainable Community Design, 22.

One of the interesting strategies proposed as a long-term approach to improving outcomes for vulnerable populations in emergencies directly related to the plan to become a StormReady community. Team members also proposed creating a mechanism through which the community could continue to provide input into county emergency plans—a local StormReady Advisory Board. This would provide a forum to continue meeting together regularly and focusing on building community capacity for disaster preparedness.<sup>80</sup>

## **B. MASSACHUSETTS INCLUSIVE TASK FORCE**

In 2009, researchers McGaffigan, Oliveira, and Enochs studied a Massachusetts project designed to enhance current emergency planning processes in the Commonwealth. The work undertaken in Massachusetts was a direct result of recognition by the U.S. Departments of Health and Human Services (DHHS) and Homeland Security (DHS) of a gap in the planning capabilities among emergency management professionals. On all levels of government (federal, state, and local), there was little active involvement of people with disabilities, the elderly, or their advocates in emergency planning. A joint DHHS/DHS national conference in June 2006 brought over 400 of these constituencies together to begin conversations and cross-discipline relationship building, hoping ultimately to lead to a more responsive emergency management system.<sup>81</sup>

In attendance at the national conference were representatives from Massachusetts. Those state agency staff, upon returning, planned a state-wide summit, beginning with a Task Force made up of those same conference constituencies. The result brought nearly 100 emergency management, public health, and aging and disability partners together in a working Task Force.

The state-wide summit led to the formation of five formal workgroups, each working on a significant issue: “effective communication strategies, the development of registries, opportunities for personal preparedness, use of accessible shelters, and effective

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<sup>80</sup> Center for Sustainable Community Design, 30.

<sup>81</sup> McGaffigan, Oliveira, and Enochs, “Emergency Planning and People with Disabilities,” 68–69.

evacuation strategies.”<sup>82</sup> Meeting numerous times over six months, the workgroups identified barriers experienced by the community in these issue areas and made recommendations. The co-chairs of each workgroup were formed into a steering group to keep things organized and compile each workgroup’s recommendations into one draft report. Their work together led to a set of recommendations for the governor designed to expand existing emergency planning work and improve outcomes for vulnerable populations.<sup>83</sup> A second summit was held to review and gather feedback before finalizing the report to the governor.<sup>84</sup>

### **1. Diverse Participation**

A key indicator of successful public engagement is diverse participation, although that can be achieved in several ways. Several key decisions and actions were taken early in the process of planning the initial summit that spoke to diverse participation. Planning started with intentionally taking an inclusive approach to formulating the invitee list. The summit’s organizers directly invited individuals with functional limitations and elders in the community, along with their advocate organizations. Staff from state agencies and those from disability and elder advocacy organizations jointly identified key stakeholders to include on the invitation list. The developed invitation list included immigrant and family advocate organizations. Also invited were public health, state emergency management, and aging and disability policymakers.<sup>85</sup>

Another strategy was the utilization of a co-chair system for workgroups, which paired a state partner with an individual who had access and functional needs, ensuring both a diverse and equal partnership.<sup>86</sup> This arrangement had the added benefit of a closer working relationship and brought valuable insights to the emergency management co-

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<sup>82</sup> McGaffigan, Oliveira, and Enochs, 69.

<sup>83</sup> McGaffigan, Oliveira, and Enochs, 69.

<sup>84</sup> McGaffigan, Oliveira, and Enochs, 69.

<sup>85</sup> McGaffigan, Oliveira, and Enochs, 69.

<sup>86</sup> McGaffigan, Oliveira, and Enochs, 70.

chairs. They saw first-hand the barriers faced and resources used by people with disabilities in their day-to-day lives.<sup>87</sup>

There were, however, unforeseen obstacles to participation by other vulnerable groups, which decreased the overall diversity. For example, while there was an effort to recruit immigrant organizations and limited-English speakers, it appeared to be unsuccessful. In the final project evaluation, it was noted that, while well-intentioned, the heavy influence of disability and aging partners likely branded the project as focusing on disability. This perception lessened the motivation to participate for other vulnerable populations who could also benefit from inclusive planning.<sup>88</sup>

To support diverse participation in this project, stakeholders recognized there was a need for some accommodations to ensure meaningful engagement. These needs included accessible meeting locations, advance scheduling, and the use of multi-modal methods of communication. Providing those accommodations required planning, coordination, and additional funding and staffing resources. To make up for a lack of capacity within the Commonwealth, staff and funding provided by the E. K. Shriver Center at the University of Massachusetts Medical School and Centers for Disease Control and Prevention facilitated these accommodations for the project.<sup>89</sup>

## **2. Collaboratively Developed Information**

The Task Force prioritized working collaboratively to develop information used throughout the process. It began by identifying stakeholders to invite to the table and defining the areas of emergency planning to address. The workgroups discussing each planning topic collaboratively identified barriers and decided on recommendations to address them.<sup>90</sup>

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<sup>87</sup> McGaffigan, Oliveira, and Enochs, 68.

<sup>88</sup> McGaffigan, Oliveira, and Enochs, 69.

<sup>89</sup> McGaffigan, Oliveira, and Enochs, 70.

<sup>90</sup> McGaffigan, Oliveira, and Enochs, 69.

This collaboration was tested early in the process when some of the terminology used in the discussions was viewed as offensive by community members participating. While there may be a tendency in larger society to dismiss terminology issues as efforts to be “politically correct,” for many people, they are critical issues, symbolic of deeper problems. Largely due to federal mandates and funding, emergency management still uses the term “special populations.” This use persists, despite the widespread removal of that phrase within disability and social services programs after years of advocacy work.<sup>91</sup> Community participants advocated for the use of terminology that focused on the *needs* of people in emergencies and did not label individuals. An agreement was reached after much discussion to use instead the phrase “people who require additional assistance in emergencies.”<sup>92</sup>

The opportunity to develop information collaboratively had an added benefit of allowing the two groups to learn directly from each other and share apprehensions about unrealistic expectations and limited resources. For example, there was little understanding of the role of the Commonwealth in emergencies. Also unclear were the limitations of local community resources available to meet the expectations of the disability community. Through workgroup and steering group meetings, state partners were able to counter myths and explain roles and responsibilities. The group was likewise able to share ideas on utilizing scarce resources.<sup>93</sup> Equally beneficial, emergency management professionals learned first-hand what people with disabilities deal with daily, along with additional barriers faced during emergencies. In one particularly impactful moment, a community member shared his fear of not being able to evacuate from a new tunnel—part of a major highway system—because the emergency route could not accommodate his wheelchair.<sup>94</sup>

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<sup>91</sup> McGaffigan, Oliveira, and Enochs, 70.

<sup>92</sup> McGaffigan, Oliveira, and Enochs, 70.

<sup>93</sup> McGaffigan, Oliveira, and Enochs, 71–72.

<sup>94</sup> McGaffigan, Oliveira, and Enochs, 72.

### **3. Use of a Coach to Facilitate Change**

The Massachusetts Task Force model did not include the use of a community coach in the same way as the EPD project in Hertford County, North Carolina, but elements of that coach's role were present in the Task Force's work. The Task Force's ability to successfully hold a tense conversation around terminology referring to vulnerable populations (as "special needs") is one example. Its agreement on a mutually agreeable alternative speaks highly of the meeting facilitation and conflict resolution skills used. The co-chair model of leadership allowed for workgroup facilitation that had both perspectives represented and respected, balancing the power dynamics. It was also to the Task Force's credit that the group recognized the need to provide accommodations that supported equal access and participation for all members.

Another role of a community coach was seen in developing and sustaining the capacity for diverse participation in emergency planning. This participation sometimes required resources to support the community members' ability to come to the table. For some individuals with functional limitations, for example, financial or practical support was needed, such as transportation options or logistical support (e.g., arranging rides or other accommodations). The Commonwealth had not prioritized resources for this community engagement and lacked the infrastructure to provide the needed support. This problem was resolved by developing a partnership with the E. K. Shriver Center at the University of Massachusetts Medical School and the Department of Public Health, which provided temporary staffing and financial resources to meet community participants' accessibility needs. The staffing support became a critical variable in the project's success throughout, starting with making the public participation possible.<sup>95</sup>

### **4. Collaboratively Developed Strategies Meeting Local Needs**

Collaboratively developed strategies require cooperation from both emergency management partners and the engaged community. Building trust is a key component of successful community engagement, and it takes time. Well before this project,

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<sup>95</sup> McGaffigan, Oliveira, and Enochs, 69.

Massachusetts elders, people with disabilities, and community advocates had been working to ensure their involvement in the development of social service agency policies that impacted their lives. This involvement led to building trusting relationships between these communities and staff to craft such policies. This history and the relationships built were essential to the success of the Task Force and workgroups.<sup>96</sup> Such was the observation of McGaffigan, Oliveira, and Enochs: emergency management recognized the effectiveness of this prior collaboration work and therefore supported this approach in its arena.<sup>97</sup> Without emergency management support for the process, there would be little chance of working together collaboratively to develop needed strategies.

Emergency management, however, had some additional barriers to overcome as it fully engaged in the collaborative process. Traditionally, emergency management processes require a high degree of control in emergency response, which leads to a desire for tightly controlling the planning process.<sup>98</sup> This practice clashes with the disability principle of “nothing about us without us,” which demands equal participation in decisions that affect such populations. This tension was resolved by establishing the co-chair system, used for the workgroups and the steering committee, of pairing a community member with functional needs with an emergency manager. As the Task Force moved to develop strategies collaboratively to meet identified needs, this co-chair system provided two advantages. It leveled the power dynamics between the two groups and required the leaders to work together as equals.

## **5. Capacity-Building for Strategy Implementation and Sustainment**

The Task Force and workgroups established for this project worked at the state level; however, it is widely understood within emergency management that disaster response is local. Disability partners in the Task Force were largely unaware that in their Commonwealth, local emergency personnel were often in those roles only part-time or had

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<sup>96</sup> McGaffigan, Oliveira, and Enochs, 69–70.

<sup>97</sup> McGaffigan, Oliveira, and Enochs, 69.

<sup>98</sup> McGaffigan, Oliveira, and Enochs, 70.

other duties in the emergency field.<sup>99</sup> In Massachusetts, the Commonwealth takes on the coordination and provision of technical expertise and training for local communities. Its representatives were clear that implementation and sustainment of any recommendations would require the cooperation of local authorities.<sup>100</sup> In support of this aim, local town and city representatives were included in the workgroups and attended the two summits. McGaffigan, Oliveira, and Enochs concluded, “Successful implementation of pending recommendations [would] be dependent on creation of new resources as well as the continued involvement and buy-in of local communities.”<sup>101</sup>

### **C. LOS ANGELES COUNTY COMMUNITY DISASTER RESILIENCE INITIATIVE**

In 2010, the Los Angeles County Department of Public Health (LACDPH) began work to develop the Los Angeles County Community Disaster Resilience (LACCDR) initiative. The initial partners included a team of academic and community members. The work was based on national health strategy principles and began by formalizing into the LACCDR Steering Council to oversee the project.<sup>102</sup> The goal was to develop a pilot project to test the use of a community resilience toolkit model vis-à-vis a best practices–based emergency preparedness toolkit that targeted individuals. The work was informed by the use of a “community-partnered participatory research” framework, which engaged the community in the vision/planning stages of the pilot project.<sup>103</sup>

In March 2011, the council hosted a conference, attended by representatives of the LACDPH, volunteer organizations that were actively engaged in disaster work, local jurisdictional and community-based organizations (CBOs), and individual community members. The goal was to acquaint the attendees with the initiative and gather feedback. Small-group discussions, centered around community disaster resilience, resulted in

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<sup>99</sup> McGaffigan, Oliveira, and Enochs, 72. This part-time, dual-role paradigm is common practice in smaller jurisdictions across the United States.

<sup>100</sup> McGaffigan, Oliveira, and Enochs, 72.

<sup>101</sup> McGaffigan, Oliveira, and Enochs, 72.

<sup>102</sup> Wells et al., “Applying Community Engagement to Disaster Planning,” 1172.

<sup>103</sup> Wells et al., 1172.

recommendations for further workgroup attention.<sup>104</sup> Three workgroups, co-led by council members, each met regularly over seven months to address a specific area. The workgroups addressed information and communication (IC), partnerships and social preparedness (PSP), and vulnerable populations (VP).<sup>105</sup>

The council, in October 2011, hosted another “community response conference” to share project goals and solicit feedback and ideas. This also allowed an opportunity to share data gathered about the community from project research, allowing community members to see the impact of their input. Participants, through a collaborative exercise, prioritized the developed strategies and tools for inclusion in the developed community resilience (CR) toolkit. Through community and workgroup meetings, a series of strategies were developed for implementing and evaluating the test project and the toolkits themselves.

At the end of the process, a three-year demonstration project was outlined, including a strategy for local community development of the implementation plan in each pilot site. By utilizing a public participatory process, the resulting three-year demonstration project was designed to meet local needs with collaboratively developed strategies. The process also included a component of information exchange between the emergency management personnel involved and community members, providing an opportunity for building trust and seeing the community as an asset.

### **1. Diverse Participation**

The LACCDR CR project benefited from attention given to the diversity of its participants at the beginning of their work. As the steering council was developing the project, it looked for existing models of success in building community resilience but found nothing operationalized. The approach decided upon was community-partnered participatory research in conjunction with common community engagement principles.<sup>106</sup>

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<sup>104</sup> Wells et al., 1173.

<sup>105</sup> Wells et al., 1173.

<sup>106</sup> Wells et al., 1172.

The initial Community Kick-Off Conference included both public- and private-sector representatives. The conference included community members unconnected with any particular group or organization. The working groups developed were populated with participants of this initial conference. The feedback provided in break-out discussions defined the parameters of the three workgroups subsequently tasked with addressing specific areas.<sup>107</sup> A second conference held in October 2011 had a similarly diverse set of participants and resulted in several recommendations for specific outreach strategies for older adults and people with disabilities.<sup>108</sup>

The workgroups also comprised a variety of stakeholders, drawn from the initial kick-off event, and were co-led by members. There was a particular diversity in the make-up of the co-chair pairs: two community members headed the IC group, the PSP group co-chairs were both academics, and the VP group shared co-chair duties between two academics and two community members. The final design of the CR toolkit pilot was influenced by diverse stakeholders engaged across a series of workgroup and broader community meetings and agency surveys.<sup>109</sup>

## **2. Collaboratively Developed Information**

At the initial conference, breakout groups discussed three questions: “What is your organization doing now to build community disaster resilience?,” “What challenges do you see in increasing community disaster resilience?,” and “What would make your community more resilient?”<sup>110</sup> Information gathered in response helped to inform the needs the CR toolkit would address. The bulk of the collaboratively developed information was done within the three workgroups. To support the collaborative development of information, participant knowledge gaps were filled through readings and presentations. These activities explained the jurisdictional roles and responsibilities of those tasked with emergency preparedness and added more information about relevant preparedness topics. Council

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<sup>107</sup> Wells et al., 1173.

<sup>108</sup> Wells et al., 1173.

<sup>109</sup> Wells et al., 1173.

<sup>110</sup> Wells et al., 1173.

leadership also developed a resource guide with a glossary of terms that allowed the group to share a common understanding and language.<sup>111</sup>

As part of the October 2011 gathering, a group exercise was conducted, designed “to demonstrate that collaboration is essential to building CR.” This exercise resulted in wide support from participants for the proposed action plans of the project. The exercise added ideas that could be further developed and incorporated into the toolkit pilot. Participants commented, for example, that for agencies to have the capacity to implement CR, funding support might be necessary. This led to the development of a funding mechanism of mini-grants focusing on CR. It was also noted that it would be important to obtain the buy-in of the LACDPH staff, which led to a specific conference for that group in January 2012.<sup>112</sup>

An identified barrier to community participation was addressed proactively by the workgroups. Mistrust could develop if communities have a history of one-way interactions with researchers. Reports and presentations were shared with community participants throughout the visioning stage, allowing them to see how their input impacted the project’s design.<sup>113</sup> This was one of the project strategies used to support trust-building.

### **3. Use of a Coach to Facilitate Change**

The LACCDR project did not use the specific model of a community coach. However, there was evidence that some of the functions of that role occurred through other forms of support. For example, the steering committee members responded to a recognized need for educational support for community members to meaningfully participate in project activities.<sup>114</sup> By providing readings and presentations by emergency management professionals about disaster preparedness, there was a greater understanding of the challenges faced by their communities. Support and accommodations such as language

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<sup>111</sup> Wells et al., 1173.

<sup>112</sup> Wells et al., 1173.

<sup>113</sup> Wells et al., 1174.

<sup>114</sup> Wells et al., 1173.

translation, accessible meeting venues, and assistance with transportation arrangements were not documented for this project.

#### **4. Collaboratively Developed Strategies Meeting Local Needs**

The workgroups assisted with planning and preparations for the demonstration project. The VP group worked together with community participants who were members of at-risk groups or advocates who served them to create plans for engaging those communities. They also worked together to map hazards and assets within those communities. The demonstration plans and strategies developed by all three workgroups were reviewed at a council-hosted workshop in June 2012. Workgroup and community members attended the workshop.<sup>115</sup> Additional feedback gathered at this workshop was incorporated into the final project's outputs.

The PSP workgroup also engaged community participants in prioritizing CR capabilities developed by the Centers for Disease Control and Prevention. Its highest priorities were ensuring the community's ability to recover from disasters without government help, developing relationships between CBOs and jurisdictional agencies, and fostering trust between community members.<sup>116</sup> These priorities became part of the evaluation elements of the pilot.

#### **5. Capacity-Building for Strategy Implementation and Sustainment**

A clear example of attention to capacity-building and sustainment was the funding stream made available to agencies to support the CR toolkit's implementation. While only small amounts of money (mini-grants) were available, such funding indicated consideration of these critical components for success. Another example came from the LACDPH conference, which included discussions of overcoming implementation challenges (in public health). Conference participants recommended shifts from traditional bioterrorism priorities and top-down planning processes.<sup>117</sup>

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<sup>115</sup> Wells et al., 1173.

<sup>116</sup> Wells et al., 1173.

<sup>117</sup> Wells et al., 1173.

As a result of the extensive work accomplished, the steering council was able to develop a three-year pilot project designed to demonstrate the usefulness of a community-based CR toolkit. Additional steps served to identify potential test communities and the selection criteria used to make the final choices.<sup>118</sup> Some other community input assisted with implementation details, including training for government responders to address a lack of trust by some communities.<sup>119</sup> Government response agencies commented that it was a significant shift to refocus on relationships with agencies, community awareness, and long-term engagement activities.<sup>120</sup>

**D. DISABILITY ACCESS OFFICE AND OFFICE OF EMERGENCY MANAGEMENT—SAN ANTONIO, TEXAS**

In 2017, the accessibility compliance manager in the San Antonio, Texas, Disability Access Office held a series of community listening sessions to hear concerns. What she heard, especially from people with hearing and/or vision loss, centered around emergencies—specifically, emergency communications. As she had some experience in emergency management, she took these issues to the city’s emergency manager to garner interest in addressing the community’s concerns. The emergency manager was willing, so together, they decided to work to improve San Antonio’s emergency plans and involve the community in making them better.<sup>121</sup>

Around the same time, Hurricane Harvey stalled over Texas. Although San Antonio was not directly impacted, its neighbors were, and horror stories abounded in social media and by word of mouth. People with disabilities were left to fend for themselves, and emergency communications were woefully inadequate. The San Antonio community, hearing stories from people with disabilities in communities who were affected by the storm, stepped up to help even though the city was not officially asked to respond.

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<sup>118</sup> Wells et al., 1176.

<sup>119</sup> Wells et al., 1178.

<sup>120</sup> Wells et al., 1179.

<sup>121</sup> Scharven, interview with author.

Once the storm had ended, the two San Antonio staff members met again, sharing stories they had heard and beginning to develop a long-range strategy to involve the community in addressing the issues. They asked, “How do we do this over the course of two years?” However, community members reacted strongly to the disproportionate impacts: they did not want a two-year process—they wanted immediate resolution.

The Disability Access Office and the Office of Emergency Management were given their marching orders—start the process in January. With a busy fall storm season and other events both locally and nationally, staff were unable to do as much pre-planning as they might have liked. They began holding community meetings in February and March 2018. Each community meeting started with a presentation: an admission they had inadequate plans in place for people with disabilities.<sup>122</sup> The intent was there, but plans that met the community’s needs had not been developed or operationalized.

The original idea was to write a separate plan to address the needs of people with disabilities in a disaster, but that idea was eventually discarded. They realized that a “separate” concept was not the right solution; what they needed was to do more whole-community planning, not a separate plan development process. They also decided to look into how other jurisdictions were addressing these capability gaps to determine the best path forward in their city.

In June 2018, the Disability Access Office and the Office of Emergency Management held a meeting with professional stakeholders—disability and social services advocates—and asked, “What can we do to address these gaps?” It was a difficult conversation. As Deborah Scharven, accessibility compliance manager, related, “Some of these issues are really complicated—transportation, registries, information-sharing,” and others. There was venting on both sides, “a cycle of what’s wrong,” but the conversation never led to possible solutions.<sup>123</sup>

City staff realized they needed to take a step back and start over with more community engagement and learning. As this research interview was being conducted, San

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<sup>122</sup> City of San Antonio, “Emergency Plan for People with Disabilities.”

<sup>123</sup> Scharven, interview with author.

Antonio staff were ready to start the second phase of the planning project with the goal of moving the conversations toward discussing solutions. Their approach will be to present the identified issues and their plans to move forward. The outcome will not be a formal emergency plan but rather short- and long-term strategies for addressing the issues. The project was scheduled to conclude by December 2018 with a final set of community meetings to present the developed strategies for feedback.

### **1. Diverse Participation**

The community meeting outreach strategies centered on people with disabilities, starting with the community disability advocates who already had relationships with the Disability Access Office. Flyers were developed in English, with ASL and Spanish translations. The flyers were sent out to disability service organizational partners, although there was no way to determine how widely they were shared within the community. The meeting information was also spread by word of mouth. The city does not have a standard outreach policy. Some city staff largely rely on digital communications, while others are unfamiliar with those methods.

Community participation was somewhat diverse, particularly from the community of people with disabilities. This included people who were blind or with vision loss, deaf or with hearing loss, deafblind, and those with mobility and other physical challenges. It included people whose first language was Spanish, but no other language groups were represented. Few African Americans and even fewer members of the Asian community participated, although there is a fairly large South Asian population in the area due to a military presence.<sup>124</sup>

From within the various disability communities, the intellectual/developmental disability community was usually represented by professional advocates or family members. Members of the general disability community largely participated for themselves. Missing completely from the conversation were voices from the mental health

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<sup>124</sup> City of San Antonio, “Emergency Plan for People with Disabilities.”

community (professionals or individuals). Nor were there representatives of those lacking access to housing, whether living with a disability or otherwise.

The planning project's community meetings were held in various locations throughout the city, including in each of the council districts. Accommodating all the logistical needs of the diverse group was difficult, and limited resources were available. ASL and Spanish-speaking interpreters were utilized as needed, and all meeting locations were ADA-compliant for accessibility.<sup>125</sup>

The city staff working on the planning project found it challenging to identify who should be included in their internal team. It was unclear who within the city's structure was best suited to lead work specific to emergency response and recovery tasks. The city's planning project staff continued to revisit the makeup of their internal team.<sup>126</sup>

## **2. Collaboratively Developed Information**

Although both members of the community and city staff (the Disability Access Office and the Office of Emergency Management) were present at all meetings, they were largely listening sessions. Information flowed one way—from the community to the city staff. The issues identified all came from the community, for example. There were times when the discussions turned to past disaster experiences and historical grievances. There were questions for city staff, who then took the opportunity to provide information about governmental responsibilities in disasters.

Even this limited collaborative discussion proved fruitful for city staff. From these discussions, the staff gained insight into how even the emergency management definition of “emergency” may differ from what the community experiences as an emergency. As the meeting facilitator related, “We were there to talk about disaster preparedness, but what the community wanted to know was ‘What do I do in a gang shooting? I have to know what to do with my daughter!’” The staff began to understand that this community experienced emergencies every day. The public sessions illustrated the widely different

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<sup>125</sup> City of San Antonio.

<sup>126</sup> Scharven, interview with author.

perceptions of each group that would need to be addressed. The accessibility compliance manager also came to see the reality of the situation:

We can do some things in response, but what I really worry about is recovery. What systems will be there to help transition out of shelters, for example? There aren't enough resources now. What happens to the most vulnerable when their support systems are gone or disrupted? [If] we can't solve that problem now in [the] day-to-day, what happens in a large event?

This recognition brings a whole new set of complex capability gaps that also need addressing.

The second set of meetings was held with professional community advocates. Again, the conversations turned into venting about historical experiences—from both the advocates and city staff. The conversation never reached the point of discussing solutions. These combined community engagement experiences caused city staff to realize they needed to take a step back. They decided to start again with more community engagement and learning—on both sides.<sup>127</sup>

One of the barriers to collaboration identified by project staff were issues of trust. The city was being hit hard with the issue of people who lacked documentation, and that had contributed to an overall growing mistrust in government. Community members even expressed a lack of trust in the Disability Access Office. Staff had historically focused on physical access, not communications access. Staff were unsure how to rebuild that community trust moving forward.<sup>128</sup>

### **3. Use of a Coach to Facilitate Change**

The accessibility compliance manager from the Disability Access Office facilitated the meetings although other city staff also participated. In that facilitation role, she ensured that people were heard, arranged accommodations as needed, and took meeting notes. At community meetings, small-group discussions were held, and the facilitator made a point

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<sup>127</sup> Scharven.

<sup>128</sup> Scharven.

of walking around the room to monitor conversational progress. When a group got stuck on an issue, she could prompt the discussion with an example.<sup>129</sup>

The accessibility compliance manager provided another key function of the community coach role. Prior emergency management experience allowed her to bridge the gap between emergency staff and the community. A passionate advocate for accessibility, she spoke the language of both disability advocates and emergency managers. She also displayed the ability to translate foreign concepts for both groups. By understanding the disability mantra—“Nothing about us without us”—she remained committed to the concept of whole-community planning and the community engagement that required, even when barriers arose. She could also recognize when the process was not working, take a step back, and re-evaluate. Understanding that the community was not yet ready to move on to discussing solutions, the process was revised to allow for additional community meetings, discussions, and learning.

It is unclear to the accessibility compliance manager whether this “opportunity for learning” served the needs of both groups, however. By focusing discussions largely between community members—and not between the community and the emergency management staff—she observed less of an opportunity for learning on the staff side. No time was provided to ask questions about the barriers people with disabilities experience in day-to-day life, for example. Also lost was a chance to begin to balance the power differences between the government and the community. The accessibility compliance manager felt that gaining some balance might have started to address the mistrust in government that was expressed by the community.<sup>130</sup>

#### **4. Collaboratively Developed Strategies Meeting Local Needs**

With the “sped up” timeline for the project, the staff agreed the best way to accomplish project goals was to internally develop strategies that addressed the community-identified issues. City staff planned to hold another series of community

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<sup>129</sup> Scharven.

<sup>130</sup> Scharven.

meetings when that process was completed.<sup>131</sup> They intended to present the developed strategies and ask for feedback. It was unclear to what extent that feedback could be incorporated as final strategies were selected.

One collaboratively developed idea was accepted and made available to the public. The deaf community strongly advocated for the use of DeafLink, an accessible emergency alert system that includes ASL videos as part of alert messaging. The City of San Antonio has signed a contract with that service, which began October 1, 2018.<sup>132</sup>

## **5. Capacity-Building for Strategy Implementation and Sustainment**

At the end of 2018, the city staff planned another set of community engagement meetings to present their developed strategies to the public and solicit feedback. To increase the diversity of participants, they hoped to increase the outreach activities and add additional strategies. One idea was to leverage the work that the city was doing to prepare for Census 2020. Staff from the Disability Access Office has met with the Census 2020 project team and found those staff represented a more diverse background. This diversity could help expand the emergency planning project's community outreach efforts.<sup>133</sup>

An identified concern was the focus they had in the previous outreach. The planning project had been focused on people with disabilities. City staff have recognized that they may not have addressed the wider access and functional needs within the community. The current strategy to address these gaps is to write such plans separately. However, the Disability Access Office believes it may not be the appropriate agency to lead that work, as its focus has historically been only on disability.<sup>134</sup>

The Disability Access Office has already established a set of relationships with service organizations, and with the community through its Disability Advisory Board and well-established networks. However, it is unsure whether relationships have burgeoned

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<sup>131</sup> Scharven.

<sup>132</sup> Scharven.

<sup>133</sup> Scharven.

<sup>134</sup> Scharven.

between the community and emergency management staff. It remains to be seen whether a sustainable, inclusive planning process will be established by the time this planning project ends.<sup>135</sup>

## **E. CONCLUSION**

Despite the varying community characteristics, such as jurisdictional and population sizes, each of the four cases displayed all of the five dimensions identified by Berke et al. This within-case analysis described the inclusive emergency planning project carried out in each of the four jurisdictions with enough detail to perform additional comparisons across the four cases. The comparison between the cases is described in a cross-case analysis in the following chapter.

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<sup>135</sup> Scharven.

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## **V. ACROSS CASE ANALYSIS**

This chapter provides analysis across the four selected case studies: the EPD pilot project conducted in Hertford County, North Carolina, and planning projects in the Commonwealth of Massachusetts; Los Angeles County, California; and San Antonio, Texas. This cross-case analysis seeks to validate the dimensions outlined by Berke et al. and extend their work to jurisdictions of differing characteristics.

### **A. FIVE DIMENSIONS OF PUBLIC ENGAGEMENT**

This study began with the primary research question: Does additional case analysis confirm or change the Berke et al. model for public engagement with vulnerable populations? This research was able to verify the work done by Berke et al. in identifying public engagement strategies as useful to inclusive emergency planning activities. This research validates the usefulness of the five public engagement strategies identified by Berke et al. in jurisdictions that are larger and more diverse than the populations represented in the original EPD study.

This thesis examines four cases, including the original EPD pilot site in Hertford County, and three additional cases. The additional cases explore public engagements in San Antonio (a secondary city), Los Angeles County (a mega-metropolis), and the Commonwealth of Massachusetts (mixed rural and urban-area state). Table 1 compares the characteristics of each case community. These additional cases were chosen specifically for their differing characteristics of the population and geographic size. Each has undertaken one or more inclusive planning processes with significant public engagement.

Table 1. Jurisdictional Demographic Characteristics of Four Selected Study Cases<sup>136</sup>

Population profile	Hertford County	San Antonio	Massachusetts	Los Angeles County
Census Area	Rural County	Metropolitan (Secondary City)	Mixed	Mega-Metropolitan
Population Size	23,659	1,532,233	6,902,149	10,105,518
White Persons	33.0%	25.1%	71.4%	26.1%
Black Persons	61.0%	7.0%	8.9%	9.0%
Hispanic Persons	3.8%	64.0%	12.3%	48.6%
Other Persons	2.2%	3.9% <sup>137</sup>	7.4%	16.3%
Median HH Income	\$35,806	\$49,711	\$74,167	\$61,015
Poverty Rate	24.4%	18.6%	10.5%	14.9%
Geographic Size (m <sup>2</sup> )	353	461	7,800	4,058

The examination of larger and more diverse jurisdictions within this work extended the Berke et al. study. It identified additional factors of public engagement.

### 1. Diverse Participation

While developing the EPT in Hertford, North Carolina, one of the strategies used was to continually assess whose voices were missing from the team. The case data revealed that some representatives on the team disengaged from the process before the project ended. The final project report indicated there were a variety of reasons, largely centering

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<sup>136</sup> Adapted from “QuickFacts: Hertford County, North Carolina,” U.S. Census Bureau, July 1, 2018, <https://www.census.gov/quickfacts/fact/table/hertfordcountynorthcarolina/PST045218>; “QuickFacts: San Antonio, Texas,” U.S. Census Bureau, July 1, 2018, <https://www.census.gov/quickfacts/fact/table/sanantoniocitytexas,US/PST045218>; “QuickFacts: Massachusetts,” U.S. Census Bureau, July 1, 2018, <https://www.census.gov/quickfacts/fact/table/MA,US/PST045218>; and “QuickFacts: Los Angeles County, California,” U.S. Census Bureau, July 1, 2018, <https://www.census.gov/quickfacts/fact/table/losangelescountycalifornia,US/PST045218>.

<sup>137</sup> 2.7 percent of residents include persons identifying as Asian. “San Antonio,” U.S. Census Bureau.

around conflicting time and work or family commitments. As this information was not brought to light until after the project ended, there was no opportunity to address real or perceived barriers to increase the likelihood of continued participation. This speaks to the need for not just asking who is missing, but *why*—and what barriers might be removed to support involvement.

While the Massachusetts Task Force targeted outreach toward a wide range of community members and advocacy organizations, it was unsuccessful in bringing immigrants and limited-English speakers to the table. McGaffigan, Oliveira, and Enochs’s study saw this as evidence of a failure of diversity. A different approach entails holding additional stakeholder meetings with communities whose workgroup participation needs are different. This was a strategy used in San Antonio, where city officials held meetings with ASL interpreters exclusively for the deaf community. They also held meetings using Spanish-language interpreters for targeted Hispanic community participation.<sup>138</sup>

An interesting realization occurred among the Massachusetts Task Force early in the project. It could use a planning process that met the needs of all residents, whether or not they would require additional assistance in emergencies, by applying a universal access approach to planning.<sup>139</sup> By applying universal access principles across the planning process, it was possible to achieve diversity of participation even while meeting with some stakeholder groups individually. This approach allowed the Task Force to more effectively address barriers and discuss needs.

The Los Angeles County CDR project used a community-partnered participatory research strategy, engaging a wide range of community representatives. This included community-based organizations and individual community members. There is some question, however, about the depth of diverse participation it achieved. Vulnerable populations were one of the key communities targeted for inclusion in the pilot test. However, there was no clear indication in the project report of their specific inclusion in the workgroups or community meetings. For example, descriptions of the meetings and

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<sup>138</sup> City of San Antonio, “Emergency Plan for People with Disabilities.”

<sup>139</sup> McGaffigan, Oliveira, and Enochs, “Emergency Planning and People with Disabilities,” 69.

conference proceedings did not mention the utilization of ASL interpreters, which would have indicated participation from the deaf community. There was also no indication that the CR toolkit ultimately developed was provided in any language other than English. The original study noted that one outcome of the LACDPH staff conference was a set of recommended outreach strategies to engage older adults and people with disabilities. Nevertheless, those voices were missing from the project planning tables.

In contrast, the Massachusetts planning team recognized a need for accommodations and support for community participation. They developed a partnership with a foundation that provided staff and resources to arrange for interpreters, transportation, and other needed supports. Notes from the San Antonio community meetings documented the provision of ASL and other language interpreters to support community participation. Meeting locations chosen were in public facilities that were legally obligated to be ADA compliant.

All projects sought diverse participation, and most employed various means both to achieve diversity and to accommodate the unique needs of different communities.

## **2. Collaboratively Developed Information**

As the project work of the EPD Project Team began in Hertford County, the initial meeting did not include the entire team. Community members met solely with the project staff. They divided into small groups and discussed past experiences in disasters and what kinds of information the community needs in times of emergency. That first meeting resulted in a set of four priority areas the community saw as important to address, setting the focus for the team's work. It should be noted, however, that this approach did not meet the dimensional criteria of "collaboratively developed," which is defined as emergency management and the community *working together* to develop information.

An opportunity may have been missed by not inviting emergency management EPD team members as participants in the initial meeting. Including emergency management would have allowed community members to hear—first-hand—the real-life experiences of the vulnerable populations with whom they needed to be planning. That was the experience of the Task Force in Massachusetts. The emergency managers on the Task Force developed

relationships with people with disabilities starting at the first meeting. They saw and heard for themselves the challenges faced by that community, especially in emergencies. In San Antonio, which made the same choice as the EPD team, project staff ultimately regretted the missed opportunity for learning. That decision, they reported, let slip an opportunity to build needed trust between planning partners.

As part of its work to develop information collaboratively, the Massachusetts Task Force also addressed some long-held frustration on the part of the community. People with disabilities resented the terminology being used to identify and classify them as “special needs.” For the community members, this old terminology evoked a picture of helplessness and victimhood—far from the view they held of themselves. It also served to keep emergency management “stuck” in an ineffective paradigm. Emergency managers had ignored the capabilities, resilience, and creativity present in these individuals and groups. By collaboratively working through this issue, both sides came to a better understanding. The discussions allowed for openness to new ways of looking at vulnerable communities.

The Los Angeles County CDR steering committee specifically designed its process to engage the community at the visioning (or planning) stage of the project design. Its goals were to solicit community input into several areas, including gathering community information to inform goal-setting and focusing areas for CR elements. This dynamic shared information both ways. Workgroup members also requested educational activities to fill in their knowledge gaps around disasters and community resilience. This information-sharing led to valuable input into the pilot project design. One additional positive result of this part of the process was active support from the participants for the strategies and recommendations proposed.

The same active support resulted from the Hertford County EPD project’s involvement of the community in designing the community survey methodology. Community members on the project team first informed the specific outreach strategies used to recruit survey participants. That involvement led to teaming up with researchers to contact and engage people in taking the survey.

All project cases contained examples of collaboratively developed information, although each group experienced that dimension in different ways and at different times. Ultimately, collaboratively developed information contributed positively to each project's outcomes.

### **3. Use of a Coach to Facilitate Change**

The use of the community coach was a unique element of Hertford County's EPD project strategy. The person in this role clearly contributed positively to the project's outcomes. The success came, in part, because of the coach's ability to play a bridging role between emergency planners and the community. Community and emergency management representatives both found themselves facing fears and unresolved issues. The community coach empowered the group to continue working through unfamiliar processes together.

Although not addressed within the MDC study of the EPD project, a clear set of skills are needed in the role of a community coach. Some of the specific characteristics experienced by participants in the project included the ability to provide unbiased facilitation, conflict resolution skills, an understanding of team building, and knowledge of creative participation strategies. It may be inferred from this particular coach's success that such an individual should also bridge the gap between emergency management's "professional speak" and the local community's nomenclature. This was a skill also exhibited by San Antonio's accessibility compliance manager and was critical in getting that project off the ground. As the community meeting facilitator, she also used conflict resolution skills.

There was no evidence that the LACCDR project utilized anyone in the role of a coach in the engagement process. If no one person was responsible for supporting the community through the participatory process, that could explain the seeming lack of accommodations provided. In order for the deaf community to fully engage, ASL interpretation would be needed. Not until many months into the project did the public health staff attending a conference recognize the lack of community participation by older adults and people with disabilities. They responded by recommending specific outreach strategies to engage those populations.

Not all of the four project cases used a community coach, even though all would have used someone in the role of meeting facilitator. Many of the skillsets needed in meeting facilitation are part of the role of a community coach, as seen in the EPD project. Having someone responsible for meeting logistics and participation increased the likelihood of supports such as ASL and other language interpretation.

#### **4. Collaboratively Developed Strategies Meeting Local Needs**

By the time the EPT in Hertford County moved to the stage of developing strategies to meet identified needs, it had collected a large amount of community data to inform its discussions and decisions. Together, team members brainstormed strategies then assessed each against agreed-upon criteria. The emphasis was placed on vulnerable populations, potential impact, and feasibility.<sup>140</sup> The data collected informed the priority-setting and decision-making processes. The data also provided valuable information to emergency planners for use in future planning and response activities.

By this stage of the project in Massachusetts, the Task Force had worked through multiple challenges together. Therefore, it might be assumed that collaborating to develop strategies that met local needs was a natural progression in the working relationship. However, there were still cultural differences to resolve. An emergency management tradition of tight control over the emergency response—and planning—processes was tough to overcome. Within the Task Force, members of the disability community and their advocates were not willing to back down from their closely held value of inclusion. This value is embodied in their mantra: “nothing about us without us.” The culture clash could have posed an intractable barrier to meeting the Task Force’s goals. However, an advantage of its co-chair system was a growing trust between the two groups, along with a power-sharing relationship that modeled cooperation. The group came to a consensus on the priorities and recommended strategies that were ultimately sent to the governor as a jointly supported report.

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<sup>140</sup> Center for Sustainable Community Design, *Emergency Preparedness Demonstration Project*, 22.

The council for the LACCDR project used the information obtained from the workgroups, at-large community meetings, and organizational surveys to design the pilot demonstration.<sup>141</sup> However, that work did not include participation from others outside the council. Including others might have improved the collaborative nature of that work and the resulting product. To its credit, however, the steering council planned several opportunities to solicit larger community feedback throughout the project.

The resulting CR pilot greatly benefited from the strategy of community engagement in the planning of the various project elements. Community input resulted in plans to engage “at-risk” populations and map community hazards and assets. Both these elements added value to the strategies and tools ultimately developed to meet the resilience-building needs of the community. Their input also informed the training provided to the project staff charged with implementing the pilot demonstration. The input enhanced the staff’s understanding of and engagement with the targeted communities. The evaluation of the pilot was also influenced by community input, which ensured that the things of true value to the community were used as benchmarks for success.

Collaboratively developed strategies to meet local needs were present in different ways in each project case. In North Carolina and Massachusetts, where a collaborative dimension was already deeply embedded in the project process, co-developed strategies were achieved. In Texas and California, the projects’ activities were not designed to be as collaborative in the area of strategic development, and that dimension was not as clearly exhibited.

## **5. Capacity-Building for Strategy Implementation and Sustainment**

One key EPD project element also contributed to the capacity for sustainment: the community coach’s role. The coach supported and empowered the team to work through differences, long-held grievances, and a lack of understanding and empathy. Trusted relationships were being built through the EPD process that had the potential to continue improving the resiliency of the community. Even though the role of the coach ended with

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<sup>141</sup> Wells et al., “Applying Community Engagement to Disaster Planning,” 1173.

the EPD project, the relationships built and the trust won—on both sides—were outcomes that could outlive the project’s lifespan. Both the use of a community coach and the willingness of the team members to set aside past feelings were key. Those elements empowered the whole team to work together toward a more positive future. Those outcomes have the potential for lasting value.

An interesting strategy proposed in Hertford County was the plan to become a StormReady community through the National Weather Service.<sup>142</sup> Team members also proposed creating a mechanism through which the community could continue providing input into county emergency plans—a local StormReady Advisory Board. This was viewed as a long-term approach to improving outcomes for vulnerable populations in emergencies. The advisory board would provide for a mechanism to continue meeting together regularly and maintain focus on building community capacity for disaster preparedness.<sup>143</sup>

Like the EPT, the Massachusetts Task Force members also understood that additional local resources and continued community involvement would be needed to implement identified strategies. Federal and state funding sources provide opportunities for planning, preparedness activities, and mitigation projects. Those funds also come with complicated funding applications and (often) required community matching. Matching requirements also present an opportunity. In most cases, volunteer time and donated in-kind resources can provide the needed funding match required. Through continued community engagement and partnering, local jurisdictions may more easily qualify for critical emergency resources.

In Los Angeles County, extensive time and energy were dedicated to the planning and development of the three-year pilot demonstration. This investment brought significant interest in and energy behind seeing the project come to fruition and success. The overall goal was to test a tool designed to build community resilience to disasters. This goal, by its

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<sup>142</sup> “NWS StormReady Program,” National Weather Service, accessed June 15, 2019, <https://www.weather.gov/StormReady>.

<sup>143</sup> Center for Sustainable Community Design, *Emergency Preparedness Demonstration Project*, 30.

very nature, required sustainment strategies. As seen in Hertford County, securing financial resources became a goal.

Indications of capacity-building for strategy implementation and sustainment for the LACCDR included the acquisition of funding for implementing pilot activities. Funding also supported staff training needs and built trust between community partners. Another key sustainment indicator was the shift by emergency response agencies to refocus on building relationships with community agencies. They also began to prioritize increasing community awareness and long-term engagement activities.

Building capacity for strategic implementation and sustainment was seen in most of the project cases. The implementation of developed strategies would require resources of time and money. Working together, the community and local emergency management in North Carolina, Massachusetts, and California pursued funding to support the chosen activities. North Carolina and Massachusetts found—or created—opportunities to sustain the valuable relationships built through their project work.

## **B. COMPARISON OF FOUR SELECTED CASES ACROSS FIVE DIMENSIONS OF PUBLIC ENGAGEMENT**

The comparative analysis resulted in eight specific findings detailed within these next three sections. The first finding confirms the applicability of the five dimensions of public engagement identified by Berke et al. This section includes a description of each of the five dimensions and provides examples from the cases analyzed in this study.

Findings 2 through 5 identify additional factors that appear to impact the public engagement for emergency management and vulnerable populations. These findings extend the work of Berke et al. While the first five findings describe factors that influence public engagement, the last three factors, Findings 6 through 8, are keys to successful inclusive planning.

**Finding 1: All the selected cases exhibited the five dimensions of public engagement, regardless of population size.**

### **1. Diverse Participation**

A basic tenet of inclusive planning is to include the widest community diversity possible within outreach activities. With each new voice comes a new perspective, set of lived-experiences, and additional information that informs local disaster planning. It is critical to reach beyond normal planning partners to include those from the community who are not normally given a voice. This is a basic premise underlying FEMA's whole-community planning guidance.<sup>144</sup>

Partnering with an existing, trusted community organization or agency provided emergency managers with connections to community stakeholders. These partnerships also provided guidance for successful public engagement. This held true regardless of jurisdictional size. In Hertford County, a long-established and trusted community-based nonprofit service organization became the first key partner in the EPD project. Planning staff leveraged their partner's community standing and established relationships with other community organizations and individuals. Because of these connections, staff were able to successfully engage each targeted community.

Similar strategies were used in all additional cases. In Massachusetts, existing partners from social and health service agencies with a history of successful community engagement were among the first to be recruited. Planners in San Antonio, Texas, successfully engaged people with disabilities by partnering with their city's Disability Access Office. Regardless of jurisdiction or community size, partnering with an established, trusted organization or agency paved the way for community engagement to begin. These partnerships bring key resources to emergency managers who may be unsure of how and with whom they need to engage.

Community-specific strategies were needed for engaging some populations. Specific strategies used included alternate-language materials, place-specific outreach

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<sup>144</sup> Federal Emergency Management Agency, *A Whole Community Approach to Emergency Management*, 3.

events, and personal outreach and requests for involvement. Just as “disaster response is local,” so, too, must disaster planning be localized. There is no one-size-fits-all community engagement strategy that will meet the needs of every community. Community organizational partnerships in each of the study cases provided key information and outreach assistance, specifically addressing their communities’ needs and preferences. In Los Angeles County, it was through conversations with public health staff that the need for specific strategies to reach older adults was identified. In Hertford County, partners helped identify community locations that served as outreach venues, such as daycare centers, to engage specific “hard-to-reach” audiences.

In larger, more diverse communities, it becomes even more important to partner with a diverse set of organizations, each with its own constituencies. In San Antonio, emergency managers relied solely on the partnership with the city’s Disability Access Office, which led to a “branding” of the project within the community as targeting only people with disabilities. Ethnic-based communities, such as people of Hispanic descent, did not view themselves as included in the outreach and largely did not participate. A similar situation occurred in Massachusetts, where project leadership roles were held by people with disabilities. This may have lessened engagement with cultural-based groups, who could have also benefitted from the work.<sup>145</sup> Through diversified partnerships and outreach strategies, a larger, more representative group of stakeholders may be engaged.

The goal of engaging diverse, vulnerable populations brings obligations of accommodations for access and functional needs. Meeting these accommodation needs requires creative solutions when resources are scarce. These obligations are often cited as a barrier to inclusive emergency planning that excuses a jurisdiction from even trying. However, recent legal rulings under Title II of the ADA have clearly dismissed those assumptions and validated the rights of people with disabilities to be part of the emergency planning process.<sup>146</sup> In Massachusetts, planners partnered with a foundation that could

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<sup>145</sup> McGaffigan, Oliveira, and Enochs, “Emergency Planning and People with Disabilities,” 70.

<sup>146</sup> Department of Justice, *Settlement Agreement between the United States and Madison County, New York, under the Americans with Disabilities Act*, No. DJ 204-50-256 (October 16, 2014), [https://www.ada.gov/madison\\_co\\_ny\\_pca/madison\\_co\\_ny\\_sa.html](https://www.ada.gov/madison_co_ny_pca/madison_co_ny_sa.html).

provide funding for interpretation and staff for meeting facilitation. San Antonio used resources available through the Disability Access Office for interpreters to support community engagement.

One key to successfully engaging people with access and functional needs was ensuring that a staff member was tasked as responsible for identifying and providing needed accommodations. In most of the cases studied, that person also served as the meeting facilitator. This linkage tied accommodations to the success of the meeting and provided an incentive to attend to the many details. The facilitator ensured that members could fully participate in a meaningful way in all planning activities. The strategies included selecting an accessible meeting location and paying attention to the schedule needs of the community participants. The facilitator also provided for ASL, language translations, and accessible materials. These strategies were particularly successful in Hertford County and San Antonio for increasing engagement with older adults and the deaf community.

## **2. Collaboratively Developed Information**

A key element of inclusive planning is the *collaborative* nature of the work, which Oxford University Press defines as “produced by or involving two or more parties working together.”<sup>147</sup> This definition is starkly different from the more traditional emergency planning model of developing in-house information without the benefit of community input. Collaborative work demands that informational products, such as flood plain maps, planning assumptions, outreach strategies, and community characteristics, be developed *with* the input of the community.

Both emergency management and the public hold misconceptions about the other that must be addressed for successful collaboration. Partnerships between emergency management and vulnerable populations must navigate past experiences, expectations, and trust issues. In each its own way, all the cases utilized some version of ground-truthing as

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<sup>147</sup> Lexico, s.v. “collaborative,” accessed September 10, 2019, <https://www.lexico.com/en/definition/collaborative>.

a strategy for overcoming barriers to collaborative planning. Ground-truthing, in this context, refers to the process of testing assumptions against real-lived experiences.

In Hertford County, emergency planners and the community met to ground-truth GIS maps produced to visualize recent flooding incidents. Community elders shared historical knowledge of the localized effects of flooding and its impacts on critical infrastructure. This new, collaboratively developed information substantially updated emergency maps and contributed to better regional flood plans. The Massachusetts Task Force used ground-truthing to make clear the responsibilities of the various levels of government (local, county, and state) in disasters, dispelling community misconceptions.

The Task Force also paired community members who have access and functional needs alongside emergency managers, serving as workgroup co-chairs. The co-chair model allowed for emergency managers to learn first-hand the lived experiences of people with disabilities and other access needs. This opportunity led to a greater understanding of abilities and needs, testing current planning assumptions. The co-chair model supported the group to work together by modeling collaboration.

### **3. Use of a Coach to Facilitate Change**

The original study by Berke et al. identified a specific role played by some project staff as a coach who worked directly with the community to facilitate change. At times, more than arranging and leading meetings, these staff might also become cheerleaders for participation in the work or catalysts for specific community-led change.

Specific titles and roles varied, but the use of a “community coach” was seen in the studied cases. Successful public engagement in the emergency planning projects used staff or methodologies that provided similar functions and support for project goals. Staff worked with partner agencies and key contacts to develop the relationships necessary for the planning process to begin. Specific strategic partnerships provided key resources such as funding and logistical support for needed accommodations. It could be argued that the key role in all successful community engagement across these cases turned out to be that of the *facilitator*.

An inclusive planning project requires support from a facilitator with specific skillsets. The Berke et al. study identified four core skills that were successful to “coaching” an inclusive emergency planning process: a catalyst for change, flexibility, the “ability to translate multiple sources of information (grassroots and scientific/technical),” and the ability to balance group power dynamics for equal participation.<sup>148</sup> The use of this role was mirrored in the additional cases studied here, validating these key coaching attributes. In San Antonio, this role was filled by staff from the city’s Disability Access Office. The staff had subject-matter expertise in working with people with disabilities, enhanced by previous emergency management experience. In Massachusetts, this role was not initially planned for; however, a need to arrange and fund needed accommodations led to a partnership with a community foundation that provided both funding and staff to serve as facilitators.

#### **4. Collaboratively Developed Strategies Meeting Local Needs**

Following collaboratively developed information, formulating strategies to meet the identified local needs should also be done in a collaborative fashion. Rather than emergency managers proposing traditional tactics, these strategies should be developed together with the impacted communities. This collaboration allows for non-traditional, new, or unique approaches to be considered.

In Hertford County, the group continued working collaboratively to identify challenges to community and individual preparedness. The group then created specific goals outlining their desired results and the strategies needed to meet them. In Los Angeles County, the collaborative group created plans to engage at-risk groups and map community hazards and assets. Together, group members prioritized community resilience capabilities for their communities.

It was within this collaborative stage of developing strategies to meet local needs that Massachusetts ran into trust and power dynamics issues that threatened to derail the process. By working through these challenges, the group members moved forward and

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<sup>148</sup> Berke et al., *Building Capacity in Six Disadvantaged Communities*, 16.

worked together to develop strategies and policies that eventually were submitted to the governor.

Of the projects studied, only San Antonio deviated from the five dimensions at this point in the process. The team moved from a collaborative model to a plan-present-feedback model, a decision driven largely by time pressures. At the time of the research interview, its strategy was to develop in-house draft plans. It would then hold a community forum to present the drafts and receive feedback before developing full plans. It remains to be seen whether the change away from collaboratively developed strategies and solutions impacts the ability to successfully implement them community-wide.

## **5. Capacity-Building for Strategy Implementation and Sustainment**

Beyond the work of collaboratively identifying needs and plans to address them, the implementation of developed strategies demands continued work and community involvement.<sup>149</sup> Community-based organizations and individuals are most likely under-resourced in both time and money to take on significant additional work. Building the capacity for sustained work and ongoing engagement within the community will benefit from intentional strategies.

Building ongoing engagement mechanisms into project goals and activities can sustain and strengthen relationships. Building and sustaining relationships among community members, community-based organizations, and emergency management were held as a concurrent goal in all the cases studied. The initial EPD project was specifically designed to include relationship-building and sustainment as outcomes of the overall project. Grants of up to \$25,000 were available to EPD projects that met the funding criteria. Approved projects in Hertford County included mobilizing community-based organizations to engage in disaster planning, delivering CERT training, and creating and distributing magnets to raise disaster preparedness awareness.

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<sup>149</sup> Center for Sustainable Community Design, *Emergency Preparedness Demonstration Project*, 24–25.

Implementing developed strategies required at least some resource investment but did not always require ongoing funding. In smaller rural communities, chosen strategies involved organizing the community as volunteers, such as forming a CERT. Others included organizing a neighborhood-based education campaign and providing 4-H club training in schools.<sup>150</sup> In larger, more diverse communities, developed strategies often acted upon the higher, jurisdictional structure. In Massachusetts, a set of collaboratively developed strategies was presented to the governor for action and possible funding at the state level. Los Angeles County created a mini-grants program to support the CBO and public health agency implementation of the collaboratively developed community resilience project. They also collaboratively created evaluative criteria for the toolkit field test and successfully applied for funding of the larger three-year project. All of these strategies served to support and strengthen the collaborative relationships formed.

### C. ADDITIONAL FACTORS THAT IMPACT ENGAGEMENT

Two additional research questions were asked as this work began. How do jurisdictional size and population demographics impact community engagement? And what additional factors impact community engagement? This section addresses those questions. The analysis of the four cases showed that several factors might impact community engagement. In addition to geographic size, there are co-factor combinations that may significantly affect public engagement in emergency planning activities. Population size, density, poverty level, ability levels, and ethnic make-up all are co-factors that may be significant. Furthermore, the jurisdiction's level of resources dedicated to emergency management plays an important role in the overall ability to successfully engage and include community stakeholders in emergency planning.

**Finding 2: Jurisdictional size influences public engagement—in both positive and negative ways.**

All regions, regardless of demographic characteristics, experienced two common difficulties with community engagement: identifying with whom to engage and developing targeted engagement strategies for hard-to-reach populations. Both of these challenges

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<sup>150</sup> Berke et al., *Building Capacity in Six Disadvantaged Communities*, 22.

relate to jurisdictional size. Smaller jurisdictions have fewer people, but they are more geographically dispersed. Emergency management staff in smaller jurisdictions often comprise just one person—and sometimes this role is only one part of their larger job responsibilities. Larger urban metro areas can have more emergency management staff and resources but often less-established relationships with CBOs and local community groups. They have significantly more people with increasing ethnic diversity.

In Hertford, North Carolina, the limited emergency management staff recognized a gap in their ability to reach vulnerable populations. They used the EPD project as one means to increase their outreach. The community members engaged in the project identified households within their community as being more vulnerable in emergencies. Those households were more isolated in the rural areas of the county. This locally specific data helped identify where additional strategies for relaying emergency communications might be needed.

Some small southern communities experience higher poverty and lower educational rates, along with high rates of people with disabilities. The community in Hertford identified these characteristics as contributing to vulnerability in times of disaster. One consequence can be a loss of younger generations, who move to other places for more opportunity. This creates older, less-resourced communities.<sup>151</sup> All these conditions create barriers to successful public engagement.

On the positive side, people in smaller jurisdictions can be a tighter-knit community. Together, they hold significant historical knowledge and lived-disaster experience. They may have one or more CBOs playing trusted leadership roles within their community. This was the case in Hertford, where project participants from the community shared critical lived-experience and historical knowledge with emergency planners. That information improved emergency planners' assumptions and GIS mapping tools used in

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<sup>151</sup> Frank M. Howell, "Rural Education Reform and Rural Youth in the United States: Some Thoughts with Special Reference to the South," in *Rural Education: A Changing Landscape*, ed. Carson Daly and Joyce D. Stern, PIP-89-840 (Washington, DC: Office of Educational Research and Improvement, 1989), 11, <https://files.eric.ed.gov/fulltext/ED312110.pdf#page=17>.

disaster mitigation and response planning. They also identified key community gathering places where public outreach could be accomplished.

In comparison, large metro areas may have more emergency management staff and resources. However, they likely have less-established relationships with CBOs and local community groups. In San Antonio, the Office of Emergency Management staff had not developed relationships with its communities of people with disabilities and relied on another city office to identify and make those connections.

Urban metro areas may have much larger groups of vulnerable populations, including those with disabilities and those for whom English is not a primary language. Table 1 illustrated the differences in Hispanic populations between the four cases. Hertford County at 3.8 percent is significantly lower than Massachusetts (12.3 percent), Los Angeles County (48.6 percent), and San Antonio (64 percent). While Hispanics can and do speak English, providing materials and communications in Spanish was identified specifically as a need in both Los Angeles County and San Antonio.

Secondary cities have the same social problems as larger cities but may have fewer resources with which to address them. As with larger cities, they do have, however, formal agencies with whom they might work (e.g., human services departments). They can often tap into a wider network of community-based social service organizations as partners. In Massachusetts, state agency staff were able to identify and engage approximately 100 such organizations. They became partners from a range of social service agencies to support outreach and planning work. Los Angeles County's project council initially engaged over 50 agencies and CBO representatives as they began its community resilience work.

**Finding 3: Poverty and disability are significant co-factors influencing community engagement.**

More than just the population of the region, it is a combination of factors that seemed to impact successful inclusive planning more strongly. When considering community engagement strategies for people with access and functional needs, two of the greatest barriers were poverty and disability. These challenges revealed themselves in both large and small ways and were often conjoined. Living in poverty in the United States comes with a frayed and sometimes-broken safety net on “blue-sky” days. Combine that

with a disaster, and poverty holds few options for either preparedness or recovery. With or without monetary resources, disability can bring barriers to mobility, communications, understanding, and maintaining independent lives.

While designing strategies to engage a diverse community, it is not uncommon for jurisdictions to fail to prioritize resources for meeting accommodation needs. That was the case in the Commonwealth of Massachusetts. Its ability to recognize this failure and work to partner with an organization that could provide needed assistance was a responsible solution. Court findings in ADA cases indicate that a lack of financial resources is not, pro forma, an acceptable excuse for failing to provide requested accommodations to support equal participation in public activities. This has been particularly true for larger jurisdictions (e.g., states). A lack of accommodations is not a matter of insufficient funding but inadequate prioritization and will not absolve jurisdictions from legal responsibility. The Department of Justice has issued direct guidance supporting public participation for people with disabilities in emergency planning, training, and exercising.<sup>152</sup> It is in the best interests of all jurisdictions to prioritize budgeting the resources necessary to meet those obligations, including the staffing necessary to support this capability.

All the cases studied addressed barriers related to access and functional needs, supporting the community's participation in planning activities. In San Antonio, meetings were held out in community locations, as opposed to downtown government buildings. All locations were accessible to people with mobility challenges. Meeting days and times were planned for non-working hours to allow greater attendance. ASL was provided to promote the full participation of members of the deaf community. Spanish-language interpreters were available to support the participation of their Hispanic community.

In Massachusetts, an issue arose of paying stipends to community participants and disability subject-matter experts in return for their involvement in planning meetings. While recognizing that participants' time was valuable, funding their ongoing participation was beyond the ability of the project. Support for arranging transportation, however, was

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<sup>152</sup> Department of Justice, "Title II Checklist (Emergency Management)," in *ADA Best Practices Tool Kit for State and Local Governments* (Washington, DC: Department of Justice, July 26, 2007), 1–12, <https://www.ada.gov/pcatoolkit/toolkitmain.htm>.

provided by a project partner's staff. Staff also assisted with other needed logistical and accommodations support. The decision not to provide stipends was not ultimately seen as negatively impacting community participation. It allowed for the project to continue even when funding support was unavailable.

**Finding 4: A community's ethnic make-up influences risk-based disaster decision-making.**

Wherever ethnic-based communities form, whether in small, medium, or large jurisdictions, they bring specific challenges for emergency managers. These new residents often come into the United States from areas with very different conditions and disaster histories. These communities require disaster-specific information that orients them to the risks in their new communities. Both Hertford County and San Antonio have Hispanic communities whose members have largely come from areas at risk of earthquakes and droughts. However, their new community most often sees tropical storms, high winds, and flooding. In Los Angeles County, residents of ethnic communities used to tropical storms are unfamiliar with the earthquake and wildfire risks of living in California. Preparedness must begin with a primer on the disaster conditions and risks they now face.

Diverse communities bring communication challenges. In any disaster, a jurisdiction's primary responsibility is to provide critical life-safety information to its residents. Timely and accurate information will assist them in making risk-based decisions. The storm path, evacuation orders, and the location of emergency shelters must be communicated clearly and promptly. For people with limited English proficiency, that means in their native language and through channels likely to be heard and understood. In Hertford County, specific disaster preparedness materials were developed and distributed in its Spanish-speaking communities. In San Antonio, outreach strategies for engagement included producing meeting flyers in Spanish. Its project manager noted, however, that in the Hispanic community, "word of mouth became the best communication channel."<sup>153</sup>

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<sup>153</sup> Scharven, interview with author.

**Finding 5: A history of disaster experiences impacts motivation for inclusive emergency planning.**

Areas with a history of disasters have some advantages over those whose disaster experiences are few and far between or historically have not been severe. Areas along the southern and eastern U.S. coasts have historically been hit with tropical storms, hurricanes, and related flooding time after time. The final six EPD project sites were all specifically chosen from communities in these regions with such a history. The EPD project developers believed that communities would likely be motivated to participate in self-interest. Indeed, Hertford County’s project participants from the community were motivated to work together in collaboration. One interviewed EPT member spoke of the motivation as “the opportunity to focus on the common goal of what Hertford residents ‘can do to survive and help.’”<sup>154</sup>

Previous disaster experience can influence local and federal government to engage the public in emergency planning. In San Antonio, public and political pressures directly related to emergencies influenced the timing and schedule of its planning project. Although Hurricane Harvey did not directly strike San Antonio, its residents watched as neighboring jurisdictions were affected. While rushing to provide support, San Antonio communities of people with disabilities heavily lobbied their own city’s emergency management program. They demanded the city address their community’s access and functional needs before a future disaster hit them directly. FEMA provided funding support to the EPD projects in recognition of the importance of inclusive planning in previously disaster-impacted areas.

Alternately, if a region has not experienced recent or severe disasters, motivation may need to be built, sometimes on both sides. With social and visual media now common, world-wide disasters provide “teachable moments” as people see the devastation and its impacts on people. Los Angeles County is generally known to be earthquake-prone, yet there is some evidence that because the public has become used to earthquake preparedness

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<sup>154</sup> Center for Sustainable Community Design, *Emergency Preparedness Demonstration Project*, 15.

messaging, it is now less effective.<sup>155</sup> Wildfires have more recently had significant impacts on California communities, providing another timely incentive for residents and emergency managers to plan together for future events.<sup>156</sup>

The definition of a disaster may be different from community to community and from the definition held by emergency management. The Los Angeles County planning project recognized that a connection must be made within vulnerable communities to their “every-day disasters.” Staff carried out a sub-project to paint over graffiti in a disadvantaged community. This served to address an every-day concern and build community trust. In a San Antonio community meeting, this point was brought starkly home. A participant commented that her immediate “disaster” was concern over how to keep her daughter out of gangs. For many vulnerable communities, their every-day disasters are their primary concern out of necessity.

#### **D. ADDITIONAL DIMENSIONS FOR INCLUSIVE EMERGENCY PLANNING**

In addition to the five dimensions of public engagement identified by Berke et al., this extended analysis revealed four additional dimensions that should be considered for successful inclusive emergency planning. Issues of trust, the perceived language used, and locality-specific strategies are all important factors that influence meaningful community engagement in an emergency management context.

**Finding 6: Establishing trust among partners is crucial and influenced by a community’s past disaster history.**

Trust in local governmental jurisdictions may be influenced by many things. A lack of, or bad experience with, previous community engagement activities may be a factor. There may be issues surrounding people who lack documentation or simply an overall mistrust in governmental power. On the local level and in the context of disasters, it is the

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<sup>155</sup> Tracy N. Thomas et al., “Influences of Preparedness Knowledge and Beliefs on Household Disaster Preparedness,” *Morbidity and Mortality Weekly Report* 64, no. 35 (2015): 966, <https://www.jstor.org/stable/24856763>.

<sup>156</sup> Kristin Lam, “Death Toll Drops to 85 at Camp Fire; 11 People Remain Missing,” *USA Today*, December 3, 2018, <https://www.usatoday.com/story/news/2018/12/03/camp-fire-death-toll-california-deadliest-wildfire/2199035002/>.

community's history with local disaster response that influences its trust in the government's capabilities. A lack of trust was a barrier faced in each of the cases studied here.

In Hertford County, North Carolina—and all the subsequent EPD project sites—mistrust related to past disaster experiences was high among communities most vulnerable to their impacts. Communities in these project sites experienced several rounds of significant flooding in past years. People had lived-disaster experiences that proved local disaster plans were inadequate to their needs. Local emergency management would have to prove to the community that its input would result in enhanced emergency response capabilities.

In San Antonio, mistrust in government came from a lived-experience perspective of those who were in the United States without documentation. In ethnic-based communities, it is a common practice to avoid interaction with government systems when one is living in the United States undocumented. Outreach efforts to these populations were largely unsuccessful in San Antonio. In the future, specific cultural-based outreach will be planned within its Spanish-speaking communities.

Overcoming community mistrust required community-specific strategies that either directly addressed a specific grievance or worked to build overall trust in government. The solution found in each case was community-specific. In Hertford County, emergency managers were open to learning from residents' past disaster experiences, with the result of updated flood maps that improved planning assumptions and mitigation decisions. This collaborative activity served to improve the community's trust in local government.

In Los Angeles County, staff had to overcome mistrust in both government and the academic project partners. These partners had a history of engaging the public in research activities without following up with the communities to share the results and impacts of the work. The project planned follow-up activities to rectify those past experiences; other activities addressed a general governmental distrust based on daily lived experiences. One highlighted sub-project was an anti-graffiti effort that sought to clean up (literally) a beleaguered community.

Education played a role in overcoming both community and emergency management mistrust of each other and the process. Each of the cases utilized educational activities to some extent in overcoming trust issues. In all but the Los Angeles County project, planning teams used educational materials and presentations to clarify the various roles of local, county, state, and federal governments in emergency response. This served to dispel myths and build trust in the emergency management system itself. In Massachusetts, people with access and functional needs worked alongside state partners in the project. This exposure gave emergency managers a close-up look into the experiences and barriers faced on a day-to-day basis—and magnified in times of disaster. In Hertford County, newly “educated” emergency managers came to a critical realization: the planning assumptions about vulnerable populations under which they had been operating were inadequate, unrealistic, and in need of update. In San Antonio, education on the current disaster plans in place became a standard component of community meetings in its inclusive planning project.

A key element of the trust-building process is balancing power differences between the community and emergency management staff. An excellent example of one side of this pervasive barrier was seen in Massachusetts. A lack of trust was experienced by the emergency managers, who saw little value in time spent soliciting input from people with disabilities or older adults. While acknowledging they have no control over disasters themselves, emergency managers are accustomed to a high degree of control over disaster *response*. This leads to a desire for strong control over the emergency planning process itself. However, disability advocates have, for years, lived by the axiom of “nothing about us without us.” They demand that their community have equal participation in decisions that impact their lives. In the Commonwealth, project partners resolved this cultural standoff with the adoption of a co-chair model that paired a state partner with a person with access and functional needs. This model balanced the power within the group dynamics and created a shared responsibility for the work to succeed.

In Hertford County, project staff serving as community coaches and meeting facilitators became the key to balancing power dynamics. Post-project interviews with

participants frequently highlighted their value in “allowing all voices to be heard” within the project activities and decisions.

**Finding 7: Words matter—and addressing language barriers is crucial to successful inclusive planning.**

The language used when reaching out and engaging vulnerable populations can become a major barrier in several ways. Most obviously, emergency communications with vulnerable populations must be in a language and context that the recipients understand. In larger, more diverse jurisdictions, that can be problematic when faced with literally dozens of languages now spoken across the United States. In Los Angeles County, more than 26 languages are spoken. In San Antonio, 43.8 percent speak a language other than English at home, representing Spanish and a variety of Pacific Islander, Asian, and Indo-European languages.<sup>157</sup> Additionally, an estimated 5.9 percent of adults in the United States are deaf, requiring visual communications, and 4.6 percent are blind, requiring auditory communications.<sup>158</sup> Both outreach and disaster communications require a multi-modal approach to adequately reach everyone in a given community. Communication strategies must utilize a variety of methods and channels, all delivering the same messaging promptly.

Another way that language matters is illustrated by a reaction to the words used in describing communities being engaged in inclusive planning. In Massachusetts, the community objected to the use of the phrase “special populations” as a pejorative label. Although officially used in most government circles, disability advocates have spent years changing the terms used by social service providers and funders. Many are beginning to understand the impacts of these labels as a barrier to engagement. As community members began participating in discussions with emergency managers, their concerns quickly became an obstacle to trust. The use of this label has cast people with disabilities, for example, as helpless victims waiting to be rescued—a view opposite of their self-identity. If true collaboration was to occur, emergency management professionals needed to

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<sup>157</sup> “San Antonio, Texas,” Data USA, accessed May 21, 2019, <https://datausa.io/profile/geo/san-antonio-tx/>.

<sup>158</sup> Catherine A. Okoro et al., “Prevalence of Disabilities and Health Care Access by Disability Status and Type Among Adults—United States, 2016,” *Morbidity and Mortality Weekly Report* 67, no. 32 (August 17, 2018): 882–87, <https://doi.org/10.15585/mmwr.mm6732a3>.

reconsider the terms that created barriers for people with disabilities and older adults. It took a significant amount of dialogue, but eventually, all parties agreed to use the phrase “people who require additional assistance in emergencies.” By focusing on what people need instead of negatively labeling them, meaningful engagement became possible.

In both Massachusetts and San Antonio, the language used in outreach communications led to the exclusion of some groups who did not see themselves as included. In Massachusetts, the initial stakeholder group was heavily influenced by disability and aging partners. Outreach messaging served to brand the project as focusing on disability and lessened the motivation for other vulnerable populations to participate. This was especially true for immigrants and others for whom English was not their primary language. A similar experience in San Antonio occurred when the city’s Disability Access Office took the lead in community outreach activities for its inclusive planning project. Although it targeted multiple groups of vulnerable populations, the project mainly attracted the participation of people with disabilities. This result was due, in part, to pre-existing relationships within that community but also because the office’s name was listed as a project organizer. Members of the Hispanic community, for example, did not realize they were meant to be included in the project.

**Finding 8: Community-specific strategies are key to successful inclusive emergency planning activities and building community resilience.**

It is an axiom within emergency management that “all disaster response is local.” This idea relates not only to the fact that disaster response is foremost the responsibility of the local jurisdiction; it further recognizes that every local community is different and requires locality-specific emergency strategies. A significant benefit of locality-specific, inclusive emergency planning is the identification of resources and strategies that can strengthen a community’s resilience to disaster. For example, the various ways in which communities need to receive emergency information must be addressed.

A benefit of working directly with local community stakeholders was the identification of both successful strategies and new resources for achieving timely emergency communications. Community stakeholders in all four case study jurisdictions identified the same top priority in a disaster—communications. An excellent example of

the locality of disaster planning, communities in each of the cases studied identified *different* specific ways to communicate successfully in times of disaster. In San Antonio, the deaf community requested that the city contract with DeafLink, a deaf-specific communications service with experience providing multi-modal disaster communications. In Hertford County, specific non-traditional communication channels were identified as participating members “ground-truthed” the literacy levels within pockets of their community. They learned that printed materials could not always be read and understood, and many people had no access to television or internet. Word of mouth was often the only means by which information was passed around; that realization helped to inform the development of additional communication strategies. Los Angeles County heard feedback from its county public health partners on specific outreach and communication strategies for engaging older adults and people with disabilities within its communities.

In addition to communications, locality-specific strategies become important in addressing patterns of disasters. For example, flood mitigation in coastal areas with a history of tropical storms was identified as a planning gap. In Hertford County, the community wanted to increase the capacity to assist its neighbors and decrease reliance on an overburdened government response system. They applied for and received a grant to support the creation of a CERT. They submitted an application to become a StormReady community through the National Weather Service. This strategy also included the formation of a local StormReady Advisory Board. The board became a mechanism to continue meeting, supporting the building and sustainment of relationships with local emergency management staff.

## **E. CROSS-CASE ANALYSIS SUMMARY**

There are five specific dimensions of public engagement that play roles in meaningful whole-community—or inclusive—emergency planning, regardless of jurisdictional size. A successful inclusive emergency planning process will include elements that address diverse participation. This is done by including the full range of whole community—including community-based organizations and unaffiliated community members—that will likely be impacted by the emergency plans being

developed. Information used to develop emergency plans should be collaboratively developed with both emergency managers and the community contributing. Having someone in the role of facilitator or a community coach specifically supports inclusive planning through skillful facilitation, relationship-building, and project management. Collaboratively developed solutions that meet local needs have a stronger chance of being implemented with the active support of the community. Capacity-building strategies developed concurrently with those solutions provide built-in support for long-term sustainability of the work.

However, jurisdictional size is but one determinant. Population co-factors such as disability and poverty also play key roles in a community's capacity and resources for engagement in emergency planning activities. Populations disproportionately impacted by disasters are already struggling daily. Rather than assuming they cannot prepare for emergencies at all, it is instead critical to involve them in the planning process. Emergency managers learn what the community's needs may be in emergencies, and the community gains knowledge that leads to better risk-based decisions. Additional characteristics, such as community ethnicity and history of disaster experience, may be factors that need addressing for successful engagement. Communities of immigrants and refugees who settle in the United States may not have the same disaster experiences in their counties of origin, so they may be unfamiliar with the risks and hazards of their adopted communities. These communities may also bring issues of distrust of government to the table, particularly around immigration and documentation issues. Even U.S. citizens can hold a distrust of government, particularly when they have previous negative lived-disaster experiences.

The analysis identified three additional dimensions, in the areas of trust, language, and locality, that support meaningful and successful public engagement with emergency management. Trust must be established on both sides—the community and emergency management. The activities that lead to building trust, such as ground-truthing, power-sharing models, and educational opportunities, also bring benefits themselves. Emergency managers can gain improved community risk information and vetted planning assumptions. The community gains a realistic understanding of its jurisdiction's disaster

response structure and plans and better information with which to make life/safety risk decisions.

Language barriers exist on two fronts. Within increasingly diverse communities are people with limited English skills who require communications to be in a language and context they understand. Second, the historical lexicon referring to some groups of people as having special needs has been roundly rejected by people with disabilities as needlessly—and damagingly—pejorative. Outreach and meeting communications must be provided in the native languages of target populations. The labels used to categorize people matter greatly to the people about whom they are used. It will be necessary to address language concerns in both of those areas to engage meaningfully with the whole community.

## VI. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Vulnerable populations across the United States, notably people with disabilities and older adults, are disproportionately impacted by disasters. By including these community members in emergency planning activities, the resulting plans are more likely to meet their needs in a disaster. Whole-community emergency planning has been adopted by FEMA and supported by the law and court settlements. Whole-community inclusive planning has not yet been implemented consistently or standardized to the degree necessary, as evidenced by continued poor outcomes for vulnerable populations in disasters.

Work published in 2008 by Berke et al. identified five dimensions of public engagement found to influence the success of emergency planning with vulnerable communities. Their data were drawn from cases in six small, largely rural communities. By performing a comparative analysis using four cases with different demographic characteristics, this thesis project could confirm and extend the findings of Berke et al. Four inclusive emergency planning projects—carried out in Hertford County, North Carolina (a rural county); the Commonwealth of Massachusetts (a state); Los Angeles County, California (a mega-metropolitan jurisdiction); and San Antonio, Texas (a secondary city)—were selected for this analysis.

All the selected cases exhibited the five dimensions of public engagement identified by Berke et al. Paying attention to *diverse participation* ensured that voices normally missing from planning tables were heard and valued. When emergency managers and the community worked together to *collaboratively develop information*, both groups gained valuable information. The *use of a coach* in a facilitator role helped ensure meaningful community participation and balance uneven power dynamics. Results of inclusive planning activities included *collaboratively developed strategies to meet local needs* in all the study cases. Each emergency planning project contained elements intended to *build capacity for strategy implementation and sustainment*, such as funding mechanisms.

In addition to confirming the work of Berke et al., this thesis contributes seven new findings. These new factors appear to affect public engagement for emergency management and vulnerable populations. Population size, density, poverty level, ability levels, and ethnic make-up all are significant co-factors. A jurisdiction's level of resources dedicated to emergency management plays an important role in the overall ability to successfully engage and include community stakeholders in emergency planning. A community's experiences in prior disasters can also influence motivation for participating in emergency planning with local authorities. Therefore, establishing trust among planning partners is the key to successful engagement. The language used when reaching out and engaging vulnerable populations can influence planning activities and must be carefully considered. Lastly, community-specific strategies are crucial to successful inclusive emergency planning activities and the building of community resilience.

## **A. CONCLUSIONS**

“Relationships matter” is a core principle universally accepted by emergency management. Building relationships during the “steady state” is recognized as crucial to a successful response when disaster strikes. These valuable relationships are already being regularly built with private-sector partners such as those in transportation and utilities. The same commitment must be made to prioritizing relationship-building with vulnerable communities. This is particularly true for people with disabilities, older adults, and those with limited English proficiency.

The findings from this research support building and sustaining trusted relationships. The second finding—that jurisdictional size does influence community engagement, both positively and negatively—can help emergency management staff determine ways to identify and engage their vulnerable communities. Larger jurisdictions may have a more complex demographic profile, but they are rife with examples of successful community engagement in inclusive emergency planning projects. Their lessons learned and successful strategies can be drawn upon for any size jurisdiction.

Findings 3 and 4 relate to the significance of disability and poverty as co-factors and the ethnic make-up of a community influencing a community's risk-based decision-

making. As emergency management staff begin to plan community engagement and inclusive planning activities, the disability, poverty, and ethnic make-up of their communities become part of the relationship-building process. Acknowledging the barriers that come with poverty and disability, as well as the needs of ethnically diverse communities, bolsters trust.

The disaster history of a community and its residents plays a role in the motivation for inclusive emergency planning, as seen in Finding 5, and a role in establishing trusted relationships, as seen in Finding 6. When a community has a history of disasters, it can both motivate community involvement in planning and provide a political will for emergency management to dedicate resources for community engagement. Previous disaster experience, when negative, can impact the community's trust in local government and its ability to engage in emergency planning. By paying attention to past disaster experiences, emergency management can form a better understanding of its community's issues, needs, and capabilities. This understanding can contribute to building and sustaining trusted relationships that provide value in disaster preparedness and response.

Relationship building is not possible without a common language that meets the needs of both parties. Finding 7 directly addresses this need. Language barriers can be as simple as English speakers and Spanish speakers trying to communicate without translation. When emergency messages are translated from English into another language, they must also be put in a cultural context that the non-native English speaker can clearly understand. Community members need to be comfortable with the words used to describe them. In Massachusetts, people with disabilities expressed a strong negative reaction to being labeled a "vulnerable population." This affected their ability to develop a trusted, working relationship with emergency management staff. Emergency managers had to revisit their terminology, understand the impacts of language on the population, and be receptive to new ways of classifying people who may need specific assistance during emergencies.

In the end, the work by Berke et al. on dimensions of community engagement and the additional research performed in this thesis combine to strongly support collaborative, community-specific strategies for emergency planning. Finding 8 supports the axiom that

“all disaster response is local” with examples of how inclusive emergency planning benefits both the emergency plans developed and the community’s disaster resilience. When emergency managers work collaboratively with the community, they can develop locality-specific strategies to meet identified needs. This increases the likelihood that communities that are historically disproportionately impacted by disaster may improve their preparedness and resilience and experience an improved emergency response when disaster strikes again.

Building trusted relationships with the community increases their knowledge, preparedness, and the chance that they will follow protection and life-safety instructions. These relationships may even allow them to serve as force multipliers for preparedness and response actions. FEMA’s directive of whole-community planning supports this principle and encourages relationship-building between the community and emergency management as a sustainable asset. Despite challenges to engaging vulnerable populations in the emergency planning process, successful strategies have been identified to support engagement and inform inclusive planning.

## **B. RECOMMENDATIONS**

The research performed and conclusions reached in this thesis lead to several recommendations. The first three are aimed at emergency management, specifically emergency planners. The final recommendation concerns further research to continue informing this critical area of emergency planning.

### **1. Ground-Truth Planning Assumptions with the Local Community**

One of the benefits of involving local communities of vulnerable populations in emergency planning is the opportunity to confirm planning assumptions. If confirmed, these assumptions eventually become the basis of operational plans and decisions that can save—or cost—lives. The direction of scarce resources in emergency response relies on accurate information about the needs of the community. Ground-truthing that information directly with members of vulnerable populations through inclusive planning improves decision-making before, during, and after a disaster.

The benefits of emergency planners working with the community to ground-truth planning assumptions flow both ways. Ground-truthing activities can relate to both realistic expectations and building community trust in government. Residents benefit from knowing what to expect from the government in disaster response—and what not to expect. With knowledge, they can make better-informed preparedness and mitigation decisions. One way to support the development and implementation of realistic emergency plans is to involve the community in exercising them. As part of the Los Angeles County project, an exercise was conducted to demonstrate the value of collaboration. The exercise resulted in community support for—and trust in—the plans and helped to develop ideas for the community resiliency toolkit.

In Hertford County, the team worked together in ground-truthing GIS maps that defined where flood plains existed in neighborhoods. The maps were produced by the University of North Carolina, but long-time community members saw flaws. They shared lived experiences that corrected inaccurate locations of critical infrastructure and areas of previous flooding. The improved flood maps supported better government decision-making, such as which mitigation investments should be made.

## **2. Develop a Systematic Process for Inclusive Emergency Planning**

In examining the Massachusetts planning project, researchers McGaffigan, Oliveira, and Enochs made a strong recommendation based on their findings: “A systematic process [should] be developed to integrate involvement of people with functional limitations within the broad range of emergency planning activities that may exist rather than creating a parallel yet separate process for planning for special populations.”<sup>159</sup> The findings in this thesis support this recommendation. “Systematic” in this context relates to two distinct aspects of emergency planning. One is creating a consistent, replicable process with inclusive planning occurring on a regular cyclical basis. The second relates to embedding public engagement *within* the regular emergency planning process as opposed to a separate planning process. For example, creating a systematic,

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<sup>159</sup> McGaffigan, Oliveira, and Enochs, “Emergency Planning and People with Disabilities,” 73.

inclusive planning process could include the identification and consistent use of specific public engagement strategies. Such an inclusive process would support developing information and strategies collaboratively, as illustrated in FEMA’s whole-community concept. A single inclusive planning process would incorporate vulnerable populations into all emergency planning, training, and exercise activities, thereby building in sustainment strategies.

### **3. Use a Universal Design Approach to Emergency Management**

In Massachusetts, the concept of applying universal design principles to the emergency planning process was discovered early in the project’s work. Researchers McGaffigan, Oliveira, and Enochs described the realization in their 2009 published study of the Massachusetts project: “Task Force participants soon realized that following principles of universal access when planning for emergencies would benefit all residents, including those who may or may not require additional assistance during emergencies.”<sup>160</sup>

Increasingly, “disability” has been recognized as a subset of a larger group of access and functional needs. Within the emergency management context, a “vulnerable population” is defined as those who experience disproportionate impacts in disasters. It is common to think of people with disabilities as a vulnerable population, and past disaster experiences have starkly illustrated the need to plan for their life-safety needs. However, these same disasters—Hurricane Katrina being a watershed moment—also highlighted other access and functional needs that belong in the vulnerable population’s category.

“Universal access,” more commonly known as universal design (UD), uses a set of principles that call for designing programs, processes, services, and products that meet the needs of people of all abilities.<sup>161</sup> This is the foundation of an inclusive planning process meant to involve *all* stakeholders. An example of UD application to a planning process might include making all planning materials accessible. Accessible documents are formatted to be read by screen readers, videos have captions and audio descriptions, and

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<sup>160</sup> McGaffigan, Oliveira, and Enochs, 69.

<sup>161</sup> “What Is Universal Design,” Centre for Excellence in Universal Design, accessed September 5, 2019, <http://universaldesign.ie/What-is-Universal-Design/>.

materials are translated into other languages. Additionally, technical terms and acronyms are translated into common language. Moreover, meetings are held in locations accessible to people using mobility devices, close to public transportation, and during times that do not conflict with common working hours. UD also includes the idea of “multi-modal” delivery systems, meaning they employ multiple ways to give and receive information. This would support the idea of holding multiple meetings with the same content and goals but with different audiences who may have different access needs.

#### **4. Conduct Follow-up Research to Confirm the Efficacy of Previous Emergency Planning Projects**

In support of increasing the amount of inclusive emergency planning undertaken, research should be done to inform the practice. A frustration of emergency planning work is that the soundness of a plan cannot be completely confirmed until after a disaster strikes. In the years since the publishing of the Berke et al. study, for example, the six EPD project sites have each experienced one or more disaster events. There would be tremendous value in returning to those communities to study the impacts of the project on outcomes for vulnerable populations. That follow-up research could provide additional confirmation of the soundness of specific strategies as well as new information to inform additional best practices in inclusive emergency planning.

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