Utilizing Strategic and Operational Methods for Whole-Community Disaster Planning

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ABSTRACT

Analysis of response and recovery efforts to disasters over the past 2 decades has identified a consistent gap that plagues the nation in regard to persons with access and functional needs. This gap can be highlighted by Hurricane Katrina, where the majority of those killed were a part of the access and functional needs population. After a disaster, many individuals with access and functional needs require assistance recovering but often have difficulty accessing services and resources. These difficulties are due to a combination of issues, such as health problems and the disruption of community support services. We sought to help bridge this gap by focusing on strategic and operational methods used while planning for the whole community. This article highlights the many partnerships that must be fostered for successful whole-community planning. These partnerships include, but are not limited to, local government departments, health agencies, nonprofit and nongovernmental organizations, and other volunteer organizations. We showcase these methods by using a developmental Post-Disaster Canvassing Plan to highlight planning methods that may aid jurisdictions across the United States in disaster planning for the whole community. (*Disaster Med Public Health Preparedness*. 2017;page 1 of 6)

Key Words: post-disaster canvassing, access and functional needs, seniors and disaster planning, whole community

Events over the last few decades have highlighted many gaps in the ability of communities in the United States to adequately prepare for, respond to, recover from, and mitigate the effects of disasters. This article outlines community planning methods, both strategic and operational, that may aid many jurisdictions in their whole-community planning processes. It is important for communities to be prepared for any incident or disaster that may affect their jurisdiction. In order for the community to be successful in this endeavor, persons who are in charge of implementing processes and procedures meant to create a more prepared and resilient community must first identify and assess the risks or problems facing their community.

PROBLEM STATEMENT

One of the most prominent issues that has affected the United States for years is the inability of many communities to adequately plan for the whole community, especially the access and functional needs (AFN) population, which is defined as "persons who may have an additional need which includes maintaining independence, communication, transportation, supervision and medical care (sensory, physical, cognitive or intellectual impairment)."[1] Because of this, the United States has seen many disasters and incidents disproportionately affect the AFN community. For example, it is the population of older adults that has made up the majority of those killed or adversely affected by disasters during the last 2 decades.[2]

BACKGROUND

Statistics have shown that individuals with AFN are disproportionately and negatively affected by disasters. For example, 70% of those killed during and in the aftermath of Hurricane Katrina were considered elderly. To illustrate this fact, below are 2 key incidents that occurred in recent history that disproportionately affected those with AFN. Both incidents and the subsequent response and recovery have prompted policy overhauls in regard to how communities in the United States, at all levels of government, handle disasters.

First, in 2006, almost a year after Hurricane Katrina hit the US Gulf Coast, a policy overhaul was enacted known as the Post-Katrina Emergency Management Reform Act (PKEMRA). As a result of the terrorist attacks on September 11, 2001, in subsequent years, much of the disaster preparedness, response, recovery, and mitigation attention as well as an inordinate amount of resources were focused toward terrorism instead of natural disasters. Unfortunately, as illustrated by Hurricane Katrina, natural disasters can be just as deadly and devastating as an intentional attack. Because of this, the PKEMRA amended the

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Homeland Security Act of 2002, which made "extensive revisions to emergency response provisions" and "sets forth provisions regarding FEMA's mission," among many other notable things.[3]

Second, in the aftermath of Superstorm Sandy, the Sandy Recovery Improvement Act of 2013 was enacted. The Sandy Recovery Improvement Act of 2013 greatly amended the Stafford Act, "which is the primary source of authorities for disaster assistance programs…," which now "improves the efficiency and quality of disaster assistance provided by FEMA."[4]

These policy addendums and changes have illustrated that as a nation, the United States is still learning and willing to change in order to best prepare for, respond to, recover from, and mitigate any and all disasters that may affect the nation. Again, to do this, learning from past disasters and adequate disaster planning are major components of a better prepared and more resilient nation.

BRIDGING THE GAP

How does the community fix an identified problem whereby persons with AFN, for example, older adults, are disproportionately affected by disasters? There are multiple ways to do this, but for the purposes of this article, the focus will be on adequately planning for the whole community as well as engaging the whole community in planning processes. Bridging the gaps between the community and public servants, especially those creating the disaster plans for the community, is a key component to building a more prepared and resilient community.

Community resiliency is a common topic in emergency management and can be defined as the "ability of a community to utilize available resources to respond to, withstand, and recover from adverse situations."[5] This is an important concept because a community, especially in the United States, is not a homogeneous entity that requires the same exact resources and provisions for every incident that occurs. Harris County comprises people with vastly different backgrounds, views, beliefs, and ethnicities. The only way for a community to become more resilient and effectively prepare for, respond to, recover from, and mitigate all hazards is to involve the *whole* community.[6] This is a concept that is prevalent throughout most emergency management frameworks and guidance.

The whole-community concept:[7]

> …is a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interest. By doing so, a more effective path to societal security and resilience is built. In a sense, Whole Community is a philosophical approach on how to think about conducting emergency management.

Utilizing the whole-community concept while planning involves engaging individuals from the entire community in the actual planning processes, creating a dialogue as well as ensuring all players are appropriately represented and "reflected in the content of the materials." This means bringing representatives from that whole community including the AFN community to the planning table, talking and listening to individuals, while ensuring that their needs, along with the needs of the entire community, are accounted for and represented as much as possible.[6]

PLANNING METHODS

How do we connect this idea of engaging the whole community and planning into real, actual processes and documents that actively meet the needs and reflect an entire community? We can do this by utilizing a combination of practical experience as well as knowledge gained through literature, federal and state guidelines, and sociological perspectives. Understanding the planning process, understanding the goals of a plan (what is the plan trying to accomplish), utilizing the appropriate planning tools, and understanding the community for which the plan is being created are key. We use a plan that is currently being drafted by the Harris County Office of Homeland Security and Emergency Management (HCOHSEM) as a way to illustrate planning for the whole community.

After Superstorm Sandy impacted the northeast, a class action lawsuit (*Brooklyn Center for Independence of the Disabled v City of New York*) came about and was later settled. One of the agreements in the settlement was that the City of New York would "…create a Post Disaster Canvassing Operations (PECO) plan designed to rapidly survey households after a disaster to assess and identify the critical needs of people with disabilities. During a canvassing operation, canvassers will go door-to-door carrying a mobile survey tool to input resource requests and refer those requests to appropriate partners for resolution."[8]

HCOHSEM planners were tasked with utilizing this PECO concept to create a plan that was inclusive to the whole community and unique to Harris County. The result was the Harris County Post-Disaster Canvassing Plan (PDCP), which is still in draft form. While untried in the field, it has been successful in bringing many community stakeholders together to discuss the goals of the plan and to identify the gaps that the plan attempts to bridge. The PDCP is a collection of plans, standard operating guidelines, job aids, field guides, flow charts, and other documents that have been drafted to meet the needs of Harris County as a community, post disaster. The purpose of the PDCP is as follows: "to ensure the safety and security of Harris County residents following a

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disaster and to ensure that certain critical necessities are available to them during the short-term recovery phase. The PDCP is intended to outline the processes for systematically gathering information by conducting door-to-door canvassing operations and assessing the needs of affected Harris County residents following a disaster."[9]

HCOHSEM planners utilized strategic and operational planning methods in combination with the Federal Emergency Management Agency (FEMA) planning process as well as Harris County planning processes while creating the PDCP. The following planning process is outlined in FEMA's *CPG 101, Developing and Maintaining Emergency Operations Plans: Version 2*.[10]

1. Form a collaborative planning team
2. Understand the situation
3. Determine goals and objectives
4. Plan development
5. Plan preparation, review, and approval
6. Plan implementation and maintenance

The PDCP has both strategic and operational components. Strategic plans are documents that "describe how a jurisdiction wants to meet its emergency management or homeland security responsibilities over the long-term. These plans are driven by policy from senior officials and establish planning priorities."[10] Operational plans are plans that "provide a description of roles and responsibilities, tasks, integration, and actions required of a jurisdiction or its departments and agencies during emergencies."[10]

STRATEGIC METHODS

Following the CPG 101 planning process, HCOHSEM utilized different strategic methods to begin and later continue the process of creating the PDCP. As strategic plans establish priorities and objectives from a senior official's perspective for meeting long-term responsibilities, the HCOHSEM planners utilized the following methods in conjunction with the planning process outlined in CPG 101.[10]

1. **Form a collaborative planning team.**
   a. The HCOHSEM planners held an initial meeting with other members of their department to aid in the determination of those individuals who should initially be a part of the planning team. At first, it was not necessary to have representation from the whole community because this would have led to confusion and over-saturation of information. Instead, it was important to bring together a few leaders and decision-makers from inside Harris County who were subject matter experts to guide initial conversations on post-disaster canvassing.
   b. The planners evaluated the different Harris County agencies and discussed the need for input from agencies that had already done some sort of door-to-door canvassing. The input from these agencies as subject matter experts would play a key role in PDCP planning. Some of these agencies included Harris County Community Services Department, which conducted public outreach canvassing after disasters, as well as Harris County Public Health, which conducted health-based surveys. The input from agency participants shaped the future of the PDCP, led discussions on what gaps the PDCP was trying to meet, and began to formulate goals that should be met. These Harris County canvassing subject matter experts also identified the necessary individuals in the community who should later be involved in the PDCP planning process.
2. **Understand the situation.** HCOHSEM planners researched, analyzed, and reviewed the identified issues that PDCP was intended to address (via the settlement after Superstorm Sandy). It is important to note that while each disaster can be devastating in its own way, disasters can and should also be used as learning experiences.
   a. The planners conducted in-depth research of the original incident that perpetuated the initial solution or plan: the PECO from New York City. After researching Superstorm Sandy and its effects on the impacted community, the planners conducted additional research (going back through history) on the effects disasters have had on the AFN population as a whole. This meant doing more in-depth research and analysis in order to find common gaps, the subsequent solutions, and the outcome of those solutions, a few of which were outlined above in the Background.
   b. After studying disasters and the subsequent effects that precluded the need for post-disaster canvasing, the planners were better able to understand and identify similar gaps in their own community. This in turn allowed the planners to better create a PDCP that suited the needs of Harris County as a community while bridging gaps that were consistent across other jurisdictions. The research and results of in-depth analysis were presented to the initial planning team for review and input. At this stage, the HCOHSEM planners who were authoring the Harris County PDCP began the initial draft of the PDCP.
   c. It was important for the planners to have some type of deliverable to present to the growing executive committee (also known as the PDCP planning team). Even though the PDCP would undergo multiple revisions, additions, and rewrites, having something tangible to work with allowed the planning team and the PDCP authors to progress in the appropriate direction.
3. **Determine goals and objectives.** Harris County is much different from New York City in a multitude of ways: politically, geographically (urban and rural), demographic makeup, customs, traditions, etc. What worked for New York City would not necessarily work for Harris

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County. While the concept for the PDCP originated from the New York City Post-Emergency Canvassing Plan and the authors of the PDCP received input from the individuals charged with creating and implementing the PECO plan, the Harris County PDCP was developed as a completely different project. For example, according to their planners, New York City relies heavily on city employees for PECO operations, whereas Harris County will rely moderately on Harris County agencies and very heavily on nonprofit organizations for PDCP operations. This phase of the planning process was a good time for the planners to seek the input of other community leaders, such as the chair for the local Voluntary Organizations Active in Disasters (VOAD) chapter.

a. According to the Harris County Community Services Department Annual Plan, "Harris County, Texas is the third largest county in the United States by population. While classified as an urban county because of its large population…..about 29 percent of the county is not classified as urban area and portions do retain a rural atmosphere."[11] This in turn creates a different planning atmosphere than what might have originally been found in New York City. Because of this, Harris County has different strategic goals and objectives for the PDCP. Presenting this information to the PDCP planning team allowed for new perspectives to be brought to the planning table. For example, New York City is heavily urban, but only covers a small geographic footprint, ie, they built *up*. By contrast, Harris County spans 1777 square miles of land, which means Harris County also built *out*.
b. Utilizing the knowledge base of the subject matter experts from other Harris County departments, as well as input from an identified, select group of leaders in the nonprofit realm, strategic goals and objectives were created. Goals and objectives at the strategic level are meant to relay how a community will bridge gaps and meet the needs of the community over the long term; they also tend to be policy driven. The strategic goals and objectives for the PDCP were purposefully written to be relatively broad and long-term, such as:
   i. keeping the plan inclusive for the whole community;
   ii. developing a PDCP that was scalable, per federal planning guidance;
   iii. meeting the needs for all the residents of Harris County with the knowledge that the AFN population is disproportionately disadvantaged during a disaster due to the disruption of community and social services on which the AFN community relies; and
   iv. establishing an executive committee of community leaders (public, private, and nonprofit) who were involved in the PDCP processes and will aid in the creation, implementation, and maintenance of the PDCP (ie, the planning team).

4. **Plan development.** Understanding the problem as well as keeping the goals and objectives in mind, the authors of the PDCP, with input from the planning team, began to develop the PDCP with solutions for the identified problems and gaps. At the strategic level, plan development should focus on elements such as context (who, why, where) and process (what and when), as well as how the respective jurisdiction is supposed to meet the needs of disaster survivors utilizing post-disaster canvassing.
   a. Context
      i. Who: Residents of Harris County, ensuring inclusiveness of those with AFN.
      ii. Why: The PDCP was developed to bridge a gap and meet the needs of Harris County as a community.
      iii. Where: Those areas impacted by a disaster, utilizing the input of Harris County departments as well as input from community leaders to identify affected areas with a heavy concentration of individuals with AFN. Owing to limited personnel availability for post-disaster canvassing, there will be some level of prioritization.
   b. Process
      i. When: Utilizing the input of Harris County departments as well as input from New York City, the Harris County planners decided that the PDCP could be activated whenever the Harris County Director or Emergency Management Coordinator (EMC) of Homeland Security and Emergency Management activated the plan. In the event that the Director or EMC wanted a "trigger" for activation, the trigger that may prompt the activation of the Harris County PDCP occurs if an incident will last more than three, 24-hour operational periods and/or if 2500 residences in Harris County are impacted.
      ii. What: Door-to-door canvassing to assess the needs of each disaster survivor.
      iii. How: Plans should not be developed in a vacuum. Dependent on the type of plan being created, certain entities in a community will be affected or involved. If so, then those entities should be involved in the planning processes to ensure they have a voice and are adequately represented in community response and recovery plans.
   c. The plan development was kept on a relatively flexible timeline; the planning team met monthly to discuss the progression of the PDCP and where it should go next. Strategic goals and objectives were broadened and changed throughout the entire development process.
5. **Plan preparation, review, and approval.** The planning process is just as important as the actual document itself, and this is especially true for the PDCP. The development of the PDCP was and is still an iterative process that requires continued review and input from the planning team and stakeholders, especially the leadership from the agencies that play a key role in PDCP development and

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implementation. From a strategic standpoint, the planning team should continuously review and revise the goals and objectives of the plan.

6. **Plan implementation and maintenance.** The PDCP is not yet ready for implementation (the plan is still in draft format), although planning for an initial tabletop of the communications portion of PDCP is underway as of winter 2016. Continued reviews, updates, and exercising are a part of the plan maintenance process. Both the strategic and operational components will be evaluated and adjusted accordingly.

OPERATIONAL METHODS

Again following the planning process of the CPG 101, HCOHSEM utilized different operational planning methods for steps 1 through 4 of the planning process. To further develop the PDCP and its operational components, the operational planning methods focus on finer and more in-depth details than the strategic planning methods. Operational plans outline the specific roles and responsibilities of the agencies and organizations that will be involved in a specific plan, actions and tasks that should be completed, and how these agencies will work together to meet the goals and objectives of the plan.[10]

1. **Form a collaborative planning team.** In the initial PDCP planning stages, a collaborative planning team was formed mainly of strategic, key decision-makers. As the whole process of the PDCP is iterative and consistently evaluated, it was crucial to continue adding stakeholders as warranted.
   a. As the PDCP was developed and more operational planning occurred, it was imperative to bring in operational personnel and subject matter experts such as the Harris County Fire Marshal's Office, various law enforcement agencies, nonprofit organizations, and others who had experience with disaster canvassing after an incident. In short, the planning team expanded as the scope of the plan expanded.
   b. Operational planning requires knowledge of how ground operations should work. For example, setting up a post-disaster canvassing center, which will act as a central hub for all post-disaster canvassing activities and personnel, is not something that a small group of government coordinators can decide for the whole community. Entities such as the American Red Cross have a better understanding of what equipment, personnel, and supplies it takes to set up a location that can accommodate a large number of individuals. Input from these entities during the planning process is a requirement to create an accurate document with operational components that are feasible.
2. **Understand the situation.** During the strategic planning portion, the risk and gaps were already identified and assessed. At this point in the PDCP development process, it was important to conduct more research on the actual operational processes of the PDCP versus the strategic view that had been previously used.
   a. Not only utilizing the expertise of the planning team but also reaching out to organizations familiar with post-disaster canvassing as well as to community leaders to receive input on the best courses of action is key to whole-community planning. This refers to those individuals who have actual experience conducting door-to-door canvassing or data entry and referral. Harris County utilizes nonprofits and VOAD organizations as a force multiplier after disasters. To have the volunteer organizations utilize their database of individuals, their leaders must be brought to the planning table to aid in collaboration and coordination. These individuals have in-depth knowledge of field work and have a more practical idea of how field operations will actually be carried out.
   b. This also means utilizing the planning team and other subject matter experts to write specific standard operating guidelines that deal more with the operational side of the PDCP, such as the standard operating guidelines for canvassing for persons requiring assisted-living services. Because of the nature of most assisted-living services, such as home care services for older adults, the planning team insisted on creating a standard operating guideline for this portion of the Harris County population, utilizing the subject matter expertise of nurses, community service personnel, and a representative for the aging adult community.
3. **Determine goals and objectives.** During operational planning, the overall goals and objectives for the PDCP remained relatively the same, although for operational purposes, a more refined and detailed set of objectives was created to accompany each original goal. Components were added to the goals and objectives that were more detailed and nuanced to better meet the operational needs of the PDCP (ie, what plans, documents, and processes needed to be created or implemented to meet these overall goals and objectives). For example:
   a. The PDCP is made up of multiple documents. After outlining what was needed to meet PDCP goals and objectives, subsequent documents were created. These included the following:
      i. Transportation and Distribution of Operational Resources Standard Operating Guidelines
      ii. Post-Disaster Canvassing Notification and Communication Plan
      iii. Information Flow Charts
      iv. Developing and Maintaining Post-Disaster Canvassing Teams Plan
      v. Post-Disaster Canvassing Job Aids
   b. One overall objective was for the PDCP to remain inclusive to the whole community of Harris County, which meant ensuring that all components of the overall PDCP took into account those persons with AFN. Whereas the entire PDCP is intended to address the needs of the entire community, especially the AFN

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population, for operational purposes, it was deemed necessary to create an additional document that would address canvassing for persons requiring assisted-living services. This was because those individuals requiring assisted-living services, such as in-home care services, may require additional accommodations that another individual may not.

4. **Plan development.** As mentioned before, plan development for the PDCP is iterative, although the methods used for the operational side of this plan had a more detailed focus. Again, the planning process is just as important as the plan, but engaging the whole community in the planning process is equally important. To accurately represent the whole community in plan development, the authors of the PDCP collaborated with key agencies and organizations that were represented, affected, or would participate in the operational side of the PDCP to discuss roles and responsibilities.
   a. Understanding the roles and responsibilities is key to developing any plan because they define how each entity will participate in operations as well as their subsequent responsibilities.
   b. For example, HCOHSEM has a custodian for the State of Texas Emergency Assistance Registry (STEAR) data. STEAR is a registry of residents in Texas who self-identify that they need assistance (like transportation) during a disaster situation. In the PDCP, under the HCOHSEM roles and responsibilities, the STEAR data custodian is tasked with identifying those STEAR registrants located in the affected areas of a disaster. The Harris County Community Services Department also has a map layer that identifies those "target areas" of Harris County where a large number of residents may reside who live at or below a certain socioeconomic level. If the PDCP is activated, this information can be overlaid on a map that illustrates those areas impacted by a disaster. This information will allow decision-makers to make better informed decisions when dispatching post-disaster canvassing personnel. Knowing roles and responsibilities not only allows those respective agencies and organizations to be aware of their role in PDCP or other plans, but also allows them to actively participate in the planning process so they are accurately represented and increases interorganizational communication.
5. **Plan preparation, review, and approval.** Step five remains the same throughout the entire planning process. See the strategic method section above for more information.
6. **Plan implementation and maintenance.** Although most exercises will focus heavily on the operational components of PDCP, step six will also remain the same throughout the entire process. See the strategic method section above for more information.

CONCLUSION

For years, the United States has made strategic, operational, and policy-oriented adjustments and changes in order for communities to better prepare for, respond to, recover from, and mitigate against hazards that could affect a community. Analysis of recent disasters and subsequent solutions and legislature has consistently identified a gap: that of individuals with AFN being disproportionately and negatively affected by disasters. By combining different planning methods, such as strategic and operational methods, with the appropriate planning tools, as well as planning for the whole community, today's emergency managers and stakeholders can better prepare the whole community for any disaster.

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