Locating and Communicating With At-Risk Populations About Emergency Preparedness: The Vulnerable Populations Outreach Model

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ABSTRACT

Vulnerable populations tend to have the worst health outcomes during and after disasters; however, these populations are rarely included in the emergency planning process. In Philadelphia, the Department of Public Health and the Office of Emergency Management have reached out to community-based organizations that serve vulnerable populations to include these key stakeholders in emergency planning. In this article, we outline strategies for locating, engaging, and communicating with vulnerable populations about both organizational and personal emergency preparedness. Such strategies include creating a method for bidirectional communication via a free quarterly health newsletter that is distributed to community-based organizations serving vulnerable populations. We also note successes and next steps from engaging vulnerable populations in the planning process in Philadelphia.

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Vulnerable populations and agencies that have strengths and skills in serving these populations traditionally have not been included in emergency planning.[1,2] Disaster preparedness and emergency response systems are designed typically for populations that are able to receive, understand, and respond to mainstream messages.[3,4] Most emergency public warnings, notifications, and preparedness materials are not designed for communities that do not understand or speak English, have visual or hearing impairments, or are otherwise isolated due to medical or economic circumstances. In addition, there is inadequate training of emergency responders, planners, and providers in the special considerations of vulnerable populations during these events. This article describes the vulnerable populations outreach model that Philadelphia's Department of Public Health (PDPH) and Office of Emergency Management (OEM) have used to engage vulnerable populations in emergency planning and offers lessons learned and recommendations for other locations interested in implementing such a model.

Philadelphia defines populations that are most vulnerable to adverse outcomes after a disaster as "the segment of the community with increased risk in a disaster."[5] The term encompasses groups that may not be able to access (or have reduced access to) the information, resources, or services offered by the government and community in disaster preparedness, response, and recovery. Traditionally, vulnerable populations have included subgroups such as those with physical, mental, or cognitive disabilities (eg, people who rely on augmentive hearing or mobility devices); those with low levels of literacy or who are non-English speaking; homeless people; people who depend on continuous care from a hospital, nursing facility, drug rehabilitation facility, prison facility, or home health care; individuals or families living at or below the federal poverty level; unemployed people; older and frail adults; pets and service animals and the people who depend on them; and children.[5]

According to the 2000 US Census, more than 18% of Philadelphians aged 5 years and older have some type of disability status, defined as long-lasting sensory, physical, mental or self-care disability, and difficulty going outside the home or working because of a physical, mental, or emotional condition lasting longer than 6 months[6]; this definition excludes people who live in group homes or institutions. In addition, 17.7% speak a language other than English at home, and 22.9% of Philadelphians live below the federal poverty level.[7] This population represents just a fraction of the total number of vulnerable people in Philadelphia. The PDPH and OEM have made it a priority to conduct outreach to vulnerable populations throughout the city to improve emergency preparedness and response planning. Fundamental to the city's process is collaboration with key stakeholders in the community, including government and nonprofit service providers and community-based organizations (CBOs). A key goal for this collaboration is the development of accessible and tailored emergency prepared-

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ness and alert messages and the dissemination of these messages to hard-to-reach populations.

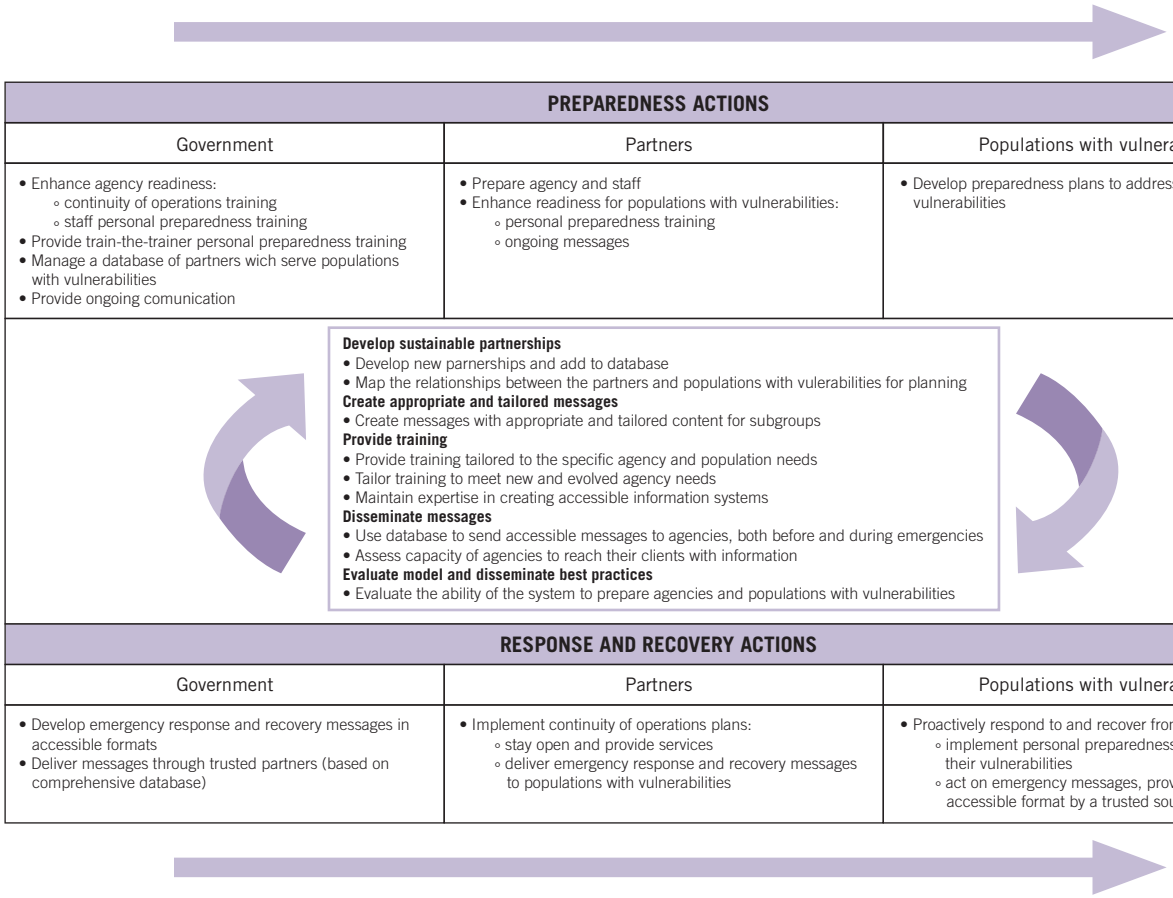
The inclusion of vulnerable populations in the planning process is critical for emergency management because it ensures that all issues and concerns are addressed, but it also raises the level of respect for, trust in, and acceptance of emergency plans within vulnerable population communities. There has not been a structure in place for emergency management and vulnerable populations to coordinate and improve emergency planning and response specifically for those who need it most. On the basis of recommendations from the Centers for Disease Control and Prevention[8] and other planning models for vulnerable populations that have been successful in reaching vulnerable populations through small networks of community agencies and leaders,[9] the city of Philadelphia has used a participatory, collaborative approach to ensure key stakeholder participation, including government (health departments and emergency management agencies), service providers, CBOs, and vulnerable populations to inform the development of accessible and tailored emergency preparedness messages and to enhance the dissemination of this information to hard-to-reach populations.

The VP model (Figure 1) was developed and refined during a period of 3 years by PDPH and Temple University's Center for Preparedness Research, Education, and Practice (C-PREP) with input from the Vulnerable Populations Workgroup, which comprised city and nonprofit organizations and service providers including the Philadelphia Corporation for Aging, the American Red Cross, the Pennsylvania Immigration and Citizenship Coalition, Temple University, the Philadelphia Department of Health, the Philadelphia Department of Human Services, the Philadelphia Department of Recreation, and a variety of other entities. The project received PDPH and Centers for Disease Control and Prevention funding. The project has continued under the auspices of the Outreach Subprogram of the PDPH Division of Disease Control, Bioterrorism, and Emergency Preparedness Program.

The VP model is innovative because it provides a framework with 5 major components that address population vulnerabilities. First,

FIGURE 1

Vulnerable populations outreach model.



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the model is grounded in the ability to coordinate and sustain new and existing partnerships with CBOs that represent or serve specific populations. Second, the model solicits active participation from community experts in the development of appropriate messages for unique planning considerations (eg, special medical needs) and media considerations (eg, document translation). Third, training and education provided to CBOs increase emergency preparedness and local capacity to both prepare for and respond to the needs of vulnerable populations in an emergency. Fourth, the communication mechanisms to disseminate information to service agencies during times of emergencies are maintained through regular nonemergency, accessible health messages. Fifth, this model includes conducting evaluations, assessments, and revisions of messages and training programs to sustain relationships and develop best practices, some of which are described below.

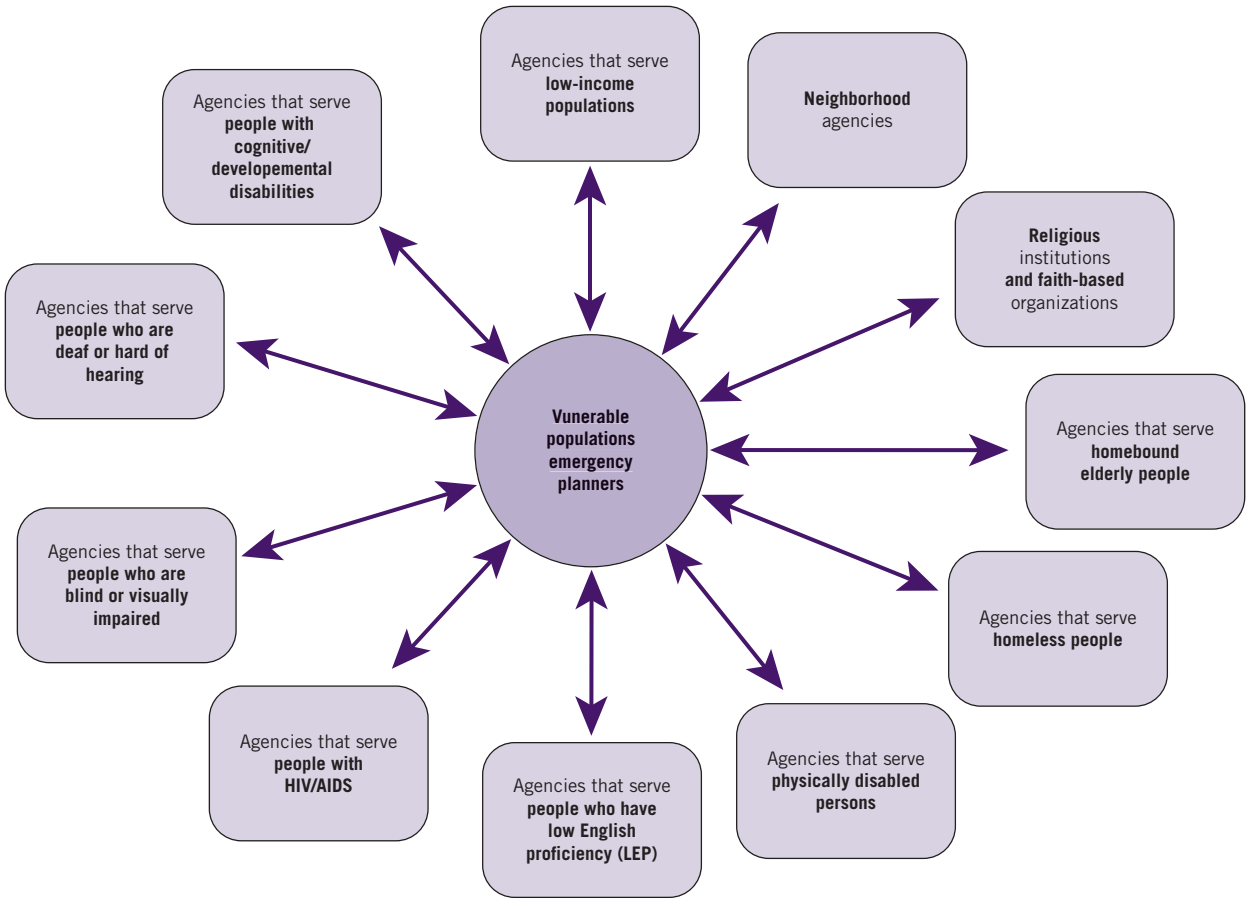
CREATING PARTNERSHIPS

The planners in Philadelphia recognize the value that community partners who serve vulnerable populations bring to emergency planning efforts.[4,10-14] CBOs are most familiar with the populations with whom they work and their unique needs. Agencies are trusted sources of information and know how best to communicate with the populations that they serve. Moreover, they are likely to be the first source of information and assistance for vulnerable populations during disasters and may have both staff and supply resources to support their clients during an event. As such, activities are geared toward agencies and their staff and their clients.

Through the Workgroup, PDPH and OEM have established relationships with regional agencies, including the American Red Cross of Southeastern Pennsylvania, Voluntary Organizations Active in Disaster of Southeastern Pennsylvania, and the United Way of Southeastern Pennsylvania; all of these agencies are crucial to informing and disseminating the work of planners. PDPH and OEM have engaged these agencies in developing appropriate materials and train-the-trainer activities to increase their capacity to serve vulnerable populations (Figure 2). Regional workshops were held to familiarize CBOs and service providers with emergency preparedness concepts and tools. A database of partner CBOs has been established, and there were more

FIGURE 2

Community-based organization outreach model.



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than 150 listed in the first year. The number of CBOs reached serves as a tool for evaluating partnerships. Relationships have been sustained through continuing education opportunities and have increased access to both emergency and nonemergency health information.

CREATING APPROPRIATE AND TAILORED MESSAGES

An identified gap in emergency preparedness planning for vulnerable populations is the lack of appropriate educational and alert messages that are tailored to address specific communication barriers experienced by different vulnerable populations.[1] The VP model recognizes the need to make relevant messages and materials available during initial agency outreach phases to communicate effectively what emergency preparedness actually involves. Because of limited resources, many service agencies cannot develop and maintain their own educational materials for emergency preparedness. Providing these materials is an important component of maintaining relationships and ensuring that consistent messages exist throughout the city. Through partnerships with key agencies that serve vulnerable populations, program staff created tailored materials to ensure that individuals address their needs for preparedness before an emergency occurs in their community. All of the materials were evaluated via focus groups comprising CBO representatives to ensure that messages were clear and appropriate for target populations.

TRAINING AND EDUCATION

The training and education components of the VP model for CBOs support the collaborative approach to preparing and protecting vulnerable populations in an emergency. There are several important goals of agency training programs related to emergency preparedness:

- To increase the awareness of agency staff about their need for personal emergency planning
- To ensure that agencies have plans in place for continuity of operations during emergencies
- To address clients' needs for personal preparedness in advance of emergencies
- To ensure that clients have access to support services during emergencies

PDPH and C-PREP worked with the United Way, the American Red Cross, and the Philadelphia OEM to develop and host a continuity of operations and personal preparedness training sessions for agencies that serve vulnerable populations. An emergency preparedness handbook was created and evaluated by focus groups consisting of public health practitioners, emergency managers, and representatives from CBOs. Outreach and training was conducted with CBOs and service providers in classes that lasted 2 to 3 hours. Although knowledge-specific evaluations were not undertaken, evaluation surveys were conducted to assess participant satisfaction with the training sessions. This and other similar training sessions directly enable participating organizations to continue to serve their clients and possibly save lives during emergencies. Indirectly, each agency has been better able to train new staff, collaborating agencies, and their clients, thereby extending the impact of the training. Additional specialized training sessions are being developed to address the personal preparedness needs that are specific to populations served by partner agencies. Training sessions are evaluated via participant satisfaction surveys and participant feedback. Through continuous evaluation and assessment, the training sessions are modified to meet additional planning considerations for vulnerable populations and to accommodate the specific needs of newly formed agency partnerships.

MESSAGE DISSEMINATION

An important component of the VP model is the actual mechanism for communicating with service agencies and vulnerable populations. CBO contact information is maintained in a database, and each agency is coded according to the population it serves to enable targeted information dissemination. As a first step to addressing the communication gap, PDPH developed the *Health Bulletin*, a quarterly newsletter distributed to the public through CBOs, providers, and local community health centers in the database. To effectively reach all populations, the *Health Bulletin* is provided in several languages and large-print and text versions for people with visual impairments or who are blind. Advocates and professionals in the limited English proficiency, blind, and older adult communities advised PDPH on these issues before the newsletter was distributed. The newsletter is now a vehicle for a variety of health promotion messages, including personal preparedness, and special issues of the *Health Bulletin* will be disseminated during emergencies. Health bulletins are vetted through telephone and e-mail survey processes, which allow CBO leaders to offer feedback and suggestions to ensure that messages are understood and appropriate for their targeted populations.

In addition to funneling information to vulnerable populations through trusted sources, it is important to ensure that the information is accessible. Personal preparedness presentations relevant to specific populations including provider staff, clients with physical and cognitive disabilities, and clients with limited English proficiency have been created. Print materials including flyers and brochures and the *Health Bulletin* were vetted by focus groups in conjunction with CBO leaders to ensure that messages are appropriate and can be understood. The *Health Bulletin* and other materials also have been translated into multiple languages and produced in large print for people with visual impairments. PDPH is addressing the technological aspects of making online information accessible, and, with C-PREP, has begun a process of both evaluating Web sites and providing training to government staff to improve accessibility of Web-based information and Section 508 compliance (Section 508 of the Rehabilitation Act [29 USC 794d], as amended by the Workforce Investment Act of 1998 [Public Law 105-220], August 7, 1998).

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EVALUATION OF VP MODEL AND ACTIVITIES

Throughout the program activities of partnership building, message development, training, education, and dissemination approaches, the PDPH conducts ongoing evaluations to ensure that the VP model is achieving the program's goals and objectives. Program staff work closely with agencies and the populations that they serve to evaluate program materials, training content, and message dissemination mechanisms via focus groups, surveys, and stakeholder feedback. Input and feedback are used to modify content and format and revise the approach so that best practices emerge, which ensure the preparedness of vulnerable populations before and during emergencies. A major outcome of program evaluation is to disseminate promising practices and lessons learned through available methods, channels, and venues that include alternative formats for message dissemination.

SUCCESSES AND LESSONS LEARNED

When outreach to community agencies began, PDPH and OEM did not have educational materials in languages other than English. Materials now exist in 12 different languages. In addition, there was a clear need to connect many CBOs with resources such as the American Red Cross, United Way, and other umbrella organizations to provide more emergency preparedness direction to these agencies. It became evident quickly that emergency preparedness was not necessarily a priority for many CBOs because many were understaffed and addressing major health issues affecting their consumers every day. Adding additional responsibilities to their jobs was considered a burden. It was clear that Philadelphia needed to find a way to engage community leaders, build trust, and gain buy-in from CBOs. The *Health Bulletin* was an important mechanism for building trust and bidirectional communication between PDPH and CBOs (see supplementary material at http://www.dmphp.org/misc/SDC.pdf and http://www.dmphp.org/misc/SDC2.pdf).

One of the biggest challenges to outreach to vulnerable populations was initially being able to incorporate only a small number of CBOs. The project started with the participation of 3 key organizations—the United Way, the American Red Cross, and the Philadelphia Corporation on Aging. Working with umbrella groups has offered a solution to the problem by connecting PDPH to smaller CBOs, but there are many agencies that are not represented by umbrella groups and reaching out to them will take additional time and resources. There are 287 partner CBOs, which are estimated to represent 50% of all of the CBOs in Philadelphia.

Another benefit to the VP model has been the development of sustainable working relationships with relevant CBOs that previously had limited interaction with government agencies. This model includes community leaders in planning and implementation, addresses participant issues such as providing community education in personal preparedness, and is flexible enough to fit local circumstances and capacities. A variety of community contacts are used so that even the hardest-to-reach communities can be reached. This model focuses on working with agencies that serve various vulnerable populations and who are trusted sources to their respective communities.

NEXT STEPS

A sense of trust has been built between many organizations that have been apprehensive about working with PDPH and OEM. For example, because of the distribution of the *Health Bulletin* by PDPH, community leaders now call the Department of Health for information about a variety of health issues that are important to their constituents. Many communities that were previously unreachable, such as undocumented workers, are now included in emergency planning. Developing connections with vulnerable populations that are not formally served by an agency or provider is achieved by reaching out to neighborhood and grassroots groups, such as faith-based organizations and leaders of limited-English-speaking communities. Although these local groups or individuals may not have actual data on the groups that they serve, they are conduits for information dissemination and can assist with planning efforts through their extensive knowledge of their communities.

In terms of potential data collection, a number of advantages lie in this model of community outreach. Agencies that provide services to elderly adults, people with physical or cognitive disabilities, and other vulnerable populations already have extensive information about their clients in secure and private systems that are routinely updated. Using the data that agencies already collect can allow for centralized data management. Initial steps in that process have included identifying a minimum data set with participation from community representatives who take responsibility for stripping the data of identifying or confidential information. Technical capacity will be a factor in any agency's willingness to participate in a centralized data system; however, achieving buy-in from other agencies increases the likelihood that new organizations will participate.

Future steps for monitoring and evaluating this model include implementing tabletop and emergency scenario exercises to assess the impact of the relationships that have been built. To date, evaluation methods have focused on the satisfaction of activities and materials developed by PDPH and OEM among community members. Now that relationships are further solidified through the building of trust over time, more rigorous evaluation methodologies can be used with buy-in from CBOs to assess their knowledge and the impact of their outreach.

CONCLUSIONS

Community planning for emergencies should include vulnerable populations. Working with representatives from these groups on advisory boards and workgroups has allowed the city of Philadelphia to better understand the needs and expectations of vulnerable populations. In addition, outreach to individual organizations has allowed for an ongoing dialogue between PDPH, OEM, and communities that were previously unreachable. These interactions have led to a more prepared government, public,

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and city. Outreach and communication must be bidirectional, and feedback from CBOs must be taken into consideration when creating and practicing emergency plans. Philadelphia's experience offers other locations a model for community outreach, which may assist preparedness planners in reaching previously hard-to-reach communities.

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