

# Building, Enhancing & Leveraging Interorganizational Relationships for Disaster Preparedness and Response: a Study of Community-based Organizations Serving Vulnerable Populations; a Focus on the Homeless



Donata C. Nilsen MPH, Tomás Aragón MD, DrPH  
University of California Berkeley ~ Center for Infectious Diseases & Emergency Readiness ~ Berkeley, CA



## Overview

### KEY ISSUES

Despite the significant resources that have been allocated to disaster preparedness, preparedness and response for vulnerable and special needs populations is still largely lacking.

Public health agencies cannot possibly meet the disaster preparedness and response needs of all vulnerable and special needs populations especially in inner cities where populations are often quite diverse.

Community-based organizations (CBOs) are trained and trusted messengers, their access and intimate knowledge of their clients makes them invaluable in helping vulnerable groups prepare for emergencies and thus likely public health system partners; a key link between public health and other preparedness and response organizations and vulnerable populations.

### RESEARCH QUESTIONS

Is there a relationship between the number of interorganizational relationships (IORs) and an organization's capacity for disaster preparedness and response?

Is there a relationship between an organization's general capacity to serve its clients to its capacity for disaster preparedness and response?

This study explores the relationship between the number and types of IORs that CBOs exercise with respect to their general capacity to serve clients and thus the number of IORs, their disaster preparedness and response capacities, and the communication mechanisms employed.

In addition, how these relationships may be increased, enhanced and/or leveraged for disaster preparedness and response activities is an integral part of enhancing the overall level of community preparedness and response.

### RESEARCH

Mixed methods are employed to better understand the number and type of interorganizational relationships, organizational capacities and communication mechanisms associated with and influencing the disaster preparedness and response capacity of CBOs serving vulnerable and special needs populations.

Experiences during the H1N1 crisis are also being explored with respect to relationships with other organizations including disaster preparedness and response organizations.

These results are intended to inform the organizations themselves as well as public health and other disaster response agencies in the context of public health disaster management and systems.

## Methods

### Literature Review

Existing literature and interviews with Alameda County, CA stakeholders and project partners<sup>1</sup> invested in serving the homeless, informed the metrics and key domains:

- interorganizational relationships (IORs)
- relationships with response organizations
- organizational capacity
- disaster preparedness & capacity
- communication mechanisms

### Cross-sectional Survey

- CBOs serving the homeless in Alameda County, CA
- Database created using Eden I&R Database and other public sources

### Semi-structured Follow-up Interviews

Qualitative follow-up interviews will be used to gain insight into strengths as well as vulnerabilities with respect to disaster preparedness and response of 10 selected organizations:

- unique capabilities
- promising-practices
- potential of leveraging interorganizational relationships for disaster preparedness and response

### Analyses

Using R statistical software:

- Linear regression, logistic regression, univariate analysis
- Vertical & horizontal analyses of transcribed follow-up interviews

## Key Concepts

Community-based organizations may not place much emphasis on disaster preparedness and response activities with respect to their overall organizational capacity. They may therefore not realize their need for increased capacity. Made aware of such matters, organizations may attempt to enhance and/or leverage existing relationships or create new relationships to increase their capacity for disaster preparedness and response.

Figure 1. Homeless needs and thus the capacities of CBOs drive interorganizational relationships through resource dependence and exchange facilitated by collaboration and communication. These same relationships facilitated by enhanced communication and collaboration can be enhanced and/or leveraged to increase an organization's capacity for disaster preparedness and response.



An organization's **capacity** to deliver resources such as services, goods, space, time and the people who provide these essential resources varies widely and is strongly influenced by the organization's mission bearing upon its deliverables. As not all organizations have the internal capacity to meet all their clients' needs, let alone disaster preparedness and response capacities, **interorganizational relationships (IORs)** play a significant role in meeting them. The concept of **resource dependence**, a driving factor of why organizations become involved in IORs, and the **exchange of resources** between organizations may play particularly important roles in the disaster preparedness and response activities of CBOs serving vulnerable populations. Facilitated by **communication** and **collaboration**, such voluntary activities may allow CBOs to achieve additional capacities that could not be achieved unilaterally. **Interorganizational relationships** are flexible, adaptable, expandable and thus capable of being leveraged for increased capacity. The **leverage potential** of IORs may ultimately lead to **increased organizational capacity for disaster preparedness and response**, and allow CBOs to develop new capabilities and increased awareness. The desire to serve clients in times of crises and thus increase organizational capacity for disaster preparedness and response may lead to existing IORs being enhanced or leveraged and new IORs being formed.

## How CBOs Leverage their Relationships

### Organizations were asked:

For each of the organizational relationships that are also used for disaster preparedness and response activities, what is provided or shared (n=14)?

- Provide Space for Food Bank
- Provide Space for Flu Vaccinations
- Share Information on Evacuation Routes
- Discuss Communication Strategies
- Transportation to Evacuate Staff and/or Clients in an Emergency
- Transportation of People to Shelters or Medical Care Facilities in the Event of an Emergency
- Collaborate to Stockpile Supplies Such As Water, Food, Medical Supplies
- Share Disaster Plans
- Provide Medical/Mental Health Services
- Discuss Common Issues
- Share New Information & Ideas
- Discuss & Share Available & Necessary Resources

## Characteristics of Participating CBOs

**Population:** Community-based organizations (CBOs) serving the homeless in Alameda County, California

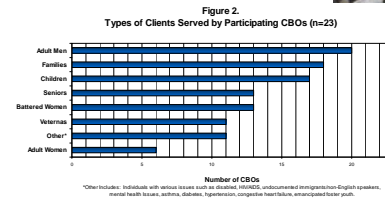
**Types of Organizations:** Faith-based, Multi-service, Food Service, Shelter, Long-term Housing, Sub-units of governmental organizations

**Current Response Rate:** 36% (23 CBOs)

**Anticipated Response Rate:** 55 - 60%

**Clients Served Per Year:** 50 - 30,000

**Years in Operation:** 9 - 120



## Preliminary Results

### ❖ Relationship Between Number of IORs & General DPR Capacity\*\*

Preliminary results indicate that there may be a positive relationship between an organization's number of IORs and its capacity for disaster preparedness and response (n=23).

Spearman Rank Correlation Coefficient\*:  $\rho = 0.530$  p-value = 0.0093

### ❖ Relationship Between General Organizational Capacity & General DPR Capacity

Preliminary results indicate that there may be a positive relationship between an organization's general capacity and its capacity for disaster preparedness and response (n=23).

Spearman Rank Correlation Coefficient\*:  $\rho = 0.584$  p-value = 0.0034

\*The Spearman Rank Correlation assesses the relationships between two variables. As the value of rho approaches 1, a greater positive correlation is indicated.

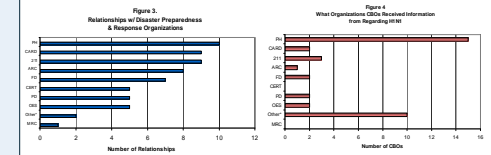
## General CBO Disaster Preparedness & Response Capacities

Given a checklist of 34 general disaster preparedness and response capacities, CBOs indicated which capacities they have in place now and which ones they plan to have in place at a later date. Table 1 indicates the capacities in place at the time the survey was completed.

Table 1. **General CBO Disaster Preparedness & Response Capacities (n=23)	% of CBOs (n)
Food: Grant writing experience	61 (14)
Basic First Aid: Contact lists with emails, phone numbers, etc.	56 (13)
Clothing: Disaster supplies for employees: Exercised written plans: Staff dedicated to preparedness and response activities	52 (12)
Awareness of local natural hazards: Shelter: Disaster evacuation routes: Disaster supplies for clients: Information for staff regarding emergency shelter locations: Information for staff regarding evacuation routes: Training for preparedness and response	48 (11)
Concept of preparedness & response is part of organizational culture: Evacuation of Personnel: Information for clients regarding emergency shelter location: Talking points or key messages: Transportation/Evacuation Services	39 (9)
Budgeting for disaster preparedness: Exercises or drills with staff: Formal Agreements in place (e.g. MOUs with other organizations providing essential services): Information for clients regarding evacuation routes: Information for staff regarding situation status: Phone scripts	35 (8)
Off-site documentation backup	30 (7)
Information for clients regarding situation status: More interorganizational relationships	26 (6)
Budgeting (securing funds) for disaster response services: Press release templates	22 (5)
Post disaster services	17 (4)
Information for staff regarding routes/road closures	9 (2)
Other (Mobile clinic: Crisis counseling)	9 (2)

## Relationships with Disaster Response Organizations

CBOs were asked to provide their response capacities based on a checklist provided to indicate which public response organizations or groups they work with to meet their disaster preparedness and response (DPR) capacities. In a later question, organizations were asked whether they received information from public health or any other emergency response organizations during the H1N1 crisis given the same list of response groups.



Legend for Figure 3:  
 ■ DPR (n=17)  
 \* State of California Department of Alcohol and Drug Programs, Alameda Behavioral Health Care Services  
 ■ H1N1 Info. (n=18)  
 \* Alameda County Healthcare for the Homeless Program, Living Medical, Renaissance Family Health Center, Centers for Disease Control and Prevention, Local Hospital, WISDM Internet Site, Office of AIDS Administration, California Department of Public Health, National Healthcare for the Homeless Program

Although CBOs seem to have relationships with disaster preparedness and response organizations such as PH, CARD and 211 (Figure 3), during the H1N1 crisis organizations turned to a variety of additional sources for information (Figure 4).

## Discussion

The preliminary results indicate a positive relationship between an organization's number of IORs and its disaster preparedness and response capacity. A higher response rate would possibly strengthen these preliminary findings and clarify the roles that response organizations play in the disaster preparedness and response activities of CBOs. An increased response rate may additionally highlight how CBOs have leveraged some of their relationships. Additional analyses will be incorporated into the final results and will be fully reported.

## Project Partners<sup>1</sup>

### Project Partners in Alameda County, California

- **CARD**  
Collaborating Agencies Responding to Disaster
- **FESCO**  
Family Emergency Shelter Coalition
- **EveryOne Home**  
Alameda County's Regional Advocate to End Homelessness
- **Eden I&R (211)**  
Alameda County's Information & Referral Service
- **ACPHD**  
Alameda County Public Health Department
- **City of Berkeley Health Services Department, Public Health Division**

### What Project Partners Provided

- Input and recommendations into the survey instrument
- Recommendations on what CBO representatives to interview
- Interest in project and understanding of research project and goals
- Organizations' name during recruitment to enhance response rate
- Participation in a community forum which will be the outlet for research

## Contact Information

### Center for Infectious Diseases & Emergency Readiness

UC Berkeley School of Public Health  
1918 University Ave., 4th Floor  
Berkeley, California 94704-7350

Donata C. Nilsen, MPH, DrPH(c)  
Research Associate  
Office: 510-643-4922  
Email: [dnilsen@berkeley.edu](mailto:dnilsen@berkeley.edu)

Phone: 510-643-4939  
Fax: 510-643-4926  
URL: [idready.org](http://idready.org)