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Community views of the federal emergency management agency's "whole community" strategy in a complex US City: Re-envisioning societal resilience



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ABSTRACT

Background: Disaster preparedness is a national priority, with vulnerable communities disproportionally exposed to risk. After Hurricane Katrina, the Federal Emergency Management Agency (FEMA) identified "Whole Community" response as risk reduction strategy. Community-based organizations (CBOs), government, and healthcare were identified as critical sectors for capacity building to optimize community resilience.

Objective: Evaluate community factors that contribute to resiliency in disaster aftermath in a mid-sized, socially complex city through collaboration with government, CBOs, and healthcare.

Methods: An environmental scan engaging diverse communities in Milwaukee, Wisconsin, examined local crisis cooperation. Interviews with CBOs, government, and healthcare explored familiarity with FEMA's "Whole Community" approach, inter-sector relationships, and disaster experience. These were followed up with a community table-top exercise (World Café format) with 77 CBO and response agency representatives, plus continued focus-group meetings.

Results: One-size-fits-all disaster plans are not productive, but incorporating community assets is limited by CBO operational constraints. Concerns about CBO/government interrelationship strength, abstract event relevance to CBOs, and planning priorities.

Conclusions: Major discrepancies persist between "Whole Community" ideal and application. CBO involvement in preparedness is critical to optimize community resilience. Developing sustainable, mutually beneficially, practical partnerships with socially marginalized communities are key to resilience, but overlooked in disaster planning.

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1. Introduction

Large-scale disasters result in devastating consequences. Research evaluating effective management to limit aftermath is expanding and becoming increasingly nuanced to specific contexts. Diverse regions in the United States face context specific obstacles based on location, resources, socioeconomic status, and cultural variation (Elliott and Pais, 2006), with vulnerable communities often disproportionally affected (Ahmed et al., 2012). Even though lessons from previous natural disasters and after-action reporting should improve response, mistakes are often repeated (Gheytanchi et al., 2007; Powell et al., 2012; Turner, 1976).

In the aftermath of significant failures with Hurricane Katrina Response, the Federal Emergency Management Agency (FEMA) identified "Whole Community" disaster response as an important arena for advancement (FEMA, 2011a, 2011b). Key principles include understanding the actual needs and assets of the community, engaging all parts

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of the community, and strengthening current infrastructure. "Whole Community" recognizes community-based organization (CBO) leaders as important partners due to their comprehensive understanding of surrounding communities. These meaningful partnerships can increase the perceived relevance of emergency management and preparedness (FEMA, 2011a, 2011b).

Community resilience is defined as the sustained ability of a community to withstand and recover from adversity. This represents a dramatic shift to emphasize community strengths and important "leaps forward" in resilience, not just vulnerabilities (Plough et al., 2013; Cox and Perry, 2011). According to FEMA's Whole Community approach, "disaster-resilient communities are, first and foremost, communities that function and solve problems well under normal conditions" (FEMA, 2011a, 2011b). Focus on resilience brings on new challenges in objectively measuring and comparing different communities, as the defining conditions are dynamic with disagreement in the literature (Cutter et al., 2008, 2014). Two main approaches to studying resilience exist: 1) psychosocial, which encompasses asset identification and the adaptive process of recovery from a mental health perspective (Norris et al., 2008)

and 2) systems-based, which focuses on social-ecological networks, situation drivers, and outcomes (Berkes and Ross 2013). Cutter et al. (2008) explains several types of resilience, with social resilience being a main focus in disaster response, benefitting from community-engaged (CE) disaster plans that encompass population assets.

While populations demonstrate community resilience after an event occurs, vulnerability to disaster also affects a community's response. Vulnerability is defined as "the pre-event, inherent characteristics or qualities of social systems that create the potential for harm" (Cutter et al., 2008). Fothergill et al. (1999) highlighted that US racial and ethnic communities are vulnerable to less efficient large-scale disaster recovery due to language barriers, housing patterns, community isolation, less disaster education, limited natural disaster insurance, and cultural insensitivities. Ahmed et al. (2012) summarized several sources that point to geographical vulnerabilities, such as proximity to hazardous facilities and elevation differences, which are often found in lower socioeconomic neighborhoods.

1.1. Milwaukee: contextualizing the discussion on community resilience for secondary cities

This paper explores US domestic resilience in the complex urban environment of secondary cities, which are defined as "hav[ing] between 500,000 to 3 million inhabitants, but are often unknown outside of their national or regional context" (Brillembourg and Klumpner, 2013), Since 9/11, research has focused been on "megacities" (metro areas with populations of 10 million or more) with greater levels of resources (Cross, 2001). However, with over one-fourth of America's population residing in mid-sized cities (Bunting et al., 2007), and secondary cities throughout the world poised for growth, CE resilience strategies tailored for these cities will be crucial. The Greater Milwaukee Metro Region is one example of a secondary city that can be used to explore the role of mid-sized cities in overall US domestic disaster preparedness and how improving adaptive capacity in these cities can strengthen disaster response. The city of Milwaukee has a population of ~600,000, and the metropolitan area has an estimated population of 1.57 million (US Census Bureau, 2013), the largest metro population in the State of Wisconsin, and 40th in the US.

Secondary cities experience many of the ethnic and socioeconomic segregation problems common in large cities, but have fewer key response resources in a disaster event. For example, Milwaukee ranked as the second most segregated city in the US by ethnic background, and the first by economic status (Cooper et al., 2012). Segregation makes citywide protocols and resource dispersal challenging, leading to potential interference with compliance, safety, and overall post-disaster resilience. In addition, these mid-sized cities are often centers of industry and key commercial activity, but are not high on the threat/ population density index (Wallechinsky and Biederman, 2013). Although Wisconsin's risk for natural disaster is low, significant disasters have occurred including severe ice storms, citywide floods, and tornados (Mac Kenzie et al., 1994; Fox and Lytle, 1996; Sear and Fowler, 2006; Yang et al., 2014). In the 2015 edition of the Wisconsin Emergency Response Plan, Whole Community planning is recognized as a priority and encourages the "coordination and cooperation between governmental, private sector, and non-governmental agencies to facilitate response efforts".

Our previous work investigated barriers to articulating community-level information into formalized incident command systems during crisis events. Collaboration across stakeholders has been discussed as a critical shift away from rigid, centralized command/control systems (Waugh and Streib, 2006; Sulek et al., 2007). These issues suggest that truly resilient communities must be able to meaningfully articulate what is tacit, informal, and local knowledge to larger, highly structured systems in order to facilitate optimal disaster response (Franco et al., 2013). To accomplish this, an organizational social network analysis was used to illuminate linkages between 318 social service CBOs and government agencies in the greater Milwaukee metro region (for a

detailed discussion, see: Franco et al., 2015). The present work offers a grounded, multi-sector conversation with many stakeholders of the Milwaukee community.

1.2. Objectives

The research presented here evaluates community factors that contribute to resiliency in disaster aftermath in a mid-sized, socially complex city through collaboration with government, CBOs, and healthcare (GOCBOHC). CBOs are essential and untapped resources for effective disaster response; therefore factors that would increase collaboration and planning efforts were investigated. CBOs are critical given their interfaces with diverse communities through existing, culturally tailored outreach methods, as well as the services offered for overall public health (food security, emergency housing, faith-based services, healthcare, education, etc.) (Chandra et al., 2011; FEMA, 2011a, 2011b; Norris et al., 2008; UNISDR, 2007; Luna, 2001; Joshi, 2010; Persell, 2008). O'Sullivan et al. (2013) highlighted the importance of not only planning at the macro level for disasters, but the micro level as well, encompassing community knowledge about resources and continuity planning, and how these considerations align. Incorporating CBOs that know and work with at-risk populations can bridge the gaps between large-scale response and community-specific needs. However, stability and business continuity of CBOs is tenuous when crises of any type occur (Vickery, 2015), often due to budget constraints, inability to perform the type of business hardening that larger agencies can, and reliance on personnel drawn from the communities likely to be impacted by the disaster. 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 and healthcare systems.

Evidence from a multi-sector dialogue involving GOCBOHC is provided to explore the interface between CBOs and formal disaster response agencies, while focusing on strengths critical for community resilience, as well as identifying barriers to multi-sector alignment during disaster and potential solutions. This research was carried out in the context of a city with deep divisions, but also unique strengths in terms of community-academic partnerships.

Background theory on complex urban environments in secondary cities has been presented in the introduction. Next described is an initial environmental scan and then the main study, involving a World-Café cross-sector dialogue. Finally, implications taken from community, healthcare, and response agency feedback are discussed as part of the community resilience framework.

2. Methods

2.1. Preliminary environmental scan

An environmental scan was conducted to better understand Milwaukee's current approach to disaster preparedness, the key players, and different communities' concerns. The scan created an effective "snapshot" of the community, including political, cultural, religious, and socioeconomic conditions (Choo, 2001; Rowel et al., 2005). A first step included review of Milwaukee's disaster response plans and one-on-one interviews with key informants identified from three sectors of interest: GOCBOHC, a total of six interviews. Healthcare systems are traditionally involved in disaster management planning and response since access is a top priority. Local government agencies that focus on disaster management were targeted due to their experience in planning, response strategy, and implementation. Lastly, CBOs were recognized as crucial to community disaster resilience due to their knowledge, understanding, and trust of the populations they serve, as

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