Prospectus

A Comparison of Regional Approaches to Emergency Preparedness and Disaster Response among Health Care Organizations in Urban and Non-Urban Settings

Public Policy and Administration – Homeland Security Policy and Coordination

Walden University
Prospectus: A Comparison of Regional Approaches to Emergency Preparedness and Disaster Response among Health Care Organizations in Urban and Non-Urban Settings

**Problem Statement**

Federal funds provided to state health agencies and health care organizations, through formula-based grants, require health care coalitions to be established as the structure for coordination of regional health care system emergency preparedness and disaster response (United States Health and Human Services, Assistant Secretary of Preparedness and Response, 2012a; United States Health and Human Services, Assistant Secretary of Preparedness and Response, 2012b). The requirement for coalitions as a mechanism for regional health care disaster coordination is not based on scholarly practice and established studies, but rather has been introduced following the failed regional coordination of the 2005 hurricane season, most notably the New Orleans City health care system response to Hurricane Katrina (United States Health and Human Services, 2009).

To date, no empirical evidence concludes that formalized healthcare coalitions have demonstrated significant results in emergency preparedness and disaster response either in an exercise or real-world incident. The scholarly literature available for this field of inquiry is limited to practice-based or case studies and primarily focus on coalitions in large metropolitan statistical areas with generalized statements and conclusions (McHugh, Staiti, & Felland, 2004; Rambhia, Waldhorn, Selck, Mehta, & Toner, 2012; Stoto, 2008). There is a gap in the literature about health care coalitions, specifically the efficacy based on urban or non-urban classification, risks, threats, and specific preparedness and response roles. The requirement to expend resources to develop a regional health care preparedness and response system that is not based on
research may be creating a less efficient and less effective system of preparedness and response among acute care hospitals. This inquiry will study the differences in participation, membership, and responsibilities among health care coalitions in urban and non-urban communities based on the American Hospital Association (AHA) classification of urban and non-urban acute care hospitals. The study also will compare the responsibilities of health care coalitions from geographic areas that have had a FEMA-declared disaster since 2001 with those hospitals that have not been directly involved in a FEMA-declared disaster.

**Significance**

This research will contribute to an emerging field of study about health care coalitions as the architecture for regional coordination for emergency preparedness and disaster response. The results of this research will provide to the literature field initial information about non-urban coalitions and contribute to limited articles about urban coalitions. This study will provide information about unique differences between urban and non-urban health care coalitions for emergency preparedness. Positive social change will result to increase and sustain efficacious health care system resilience and disaster response and thereby reducing loss of life and injury and increasing community resilience.

**Background**

The scholarly literature and practice articles focused on regional, jurisdictional and public-private collaboration and networks for emergency preparedness and disaster response, and specifically, health care coalitions are described here:

2. Militello, Patterson, Wears, and Ritter (2005) conducted a tornado-response simulation with representatives from 21 different agencies to evaluate regional, multi-discipline disaster coordination and response.


4. Caruson and MacManus (2008) and MacManus and Caruson (2011) conducted a series of surveys and analysis of jurisdictional authorities in Florida to examine the different contributing factors of multi-jurisdictional and multi-discipline regional emergency preparedness and disaster coordination.

5. Grieb and Clark (2008) described the structure, variation and experience of seven public health networks for public health preparedness in Massachusetts highlighting the Boston metropolitan area.


7. Rambhia et al. (2012) provided an assessment of current membership, governance, financial structures and roles of established health care coalitions.
Framework

Two theories will serve as the foundation for this study. The sociological infrastructure established with social action theory aligns with coalitions as a construct for regional partnership development (Netedu, 2010, p. 57). Social action theory, rooted in utilitarian philosophy, provides a sociological explanation of why humans engage in collective rule-following and serves as the basis for other theories, including rational choice theory (King, 2009; Schnabel, 2006). The theory of rational choice portends that human beings consider both individual and societal implications along with the costs and benefits of a particular action (Netedu, 2010, p. 57). Both the social action theory and rational choice theory align with the notion of expending resources to ensure resiliency and readiness among all health care organizations within a community (Netedu, 2010, p. 57).

Research Questions

RQ1 – What is the relationship between the number of disciplines represented in a health care coalition and the number of accepted roles and responsibilities of health care coalitions?

RQ2 – What is the difference in the accepted roles and responsibilities among organizations in regional health care coalitions that have responded to a federally-declared, weather-related disaster since 2001 as compared to health care coalitions in communities that have not been directly affected by a federally-declared disaster?

RQ3 – What is the difference in the accepted roles and responsibilities among organizations in regional health care coalitions in non-urban settings as compared to coalitions in urban settings?

Nature of the Study
The quantitative study will gather self-reported information from hospital emergency preparedness personnel and use a non-experimental survey design to research the differences between urban and non-urban health care coalitions.

**Sources of Information**

The sources of information for this study will include the following:

1. An American Hospital Association endorsed survey sent to emergency preparedness personnel in 4,632 acute care hospitals from which 477 participants self-selected and responded (Rambhia et al., 2012, p.2).


**Proposed Analytical Strategies**

Secondary data analysis will be conducted from the survey previously described. The proposed variables developed for this study include nominal and interval level of measurement. Two of the independent variables 1) rural versus metropolitan/urban communities, and 2) communities that have experienced a federally-declared emergency since 2001 include nominal identification of community size and previous disaster declaration. The third independent variable, number of disciplines represented in the health care coalition and the dependent variable, roles and responsibilities assumed by the health care coalition, are interval levels of measurement obtained by summing the responses of roles and responsibilities and placing the sum of responses on a continuous scale from 0 – 15 for roles and 0 – 13 for responsibilities (Rambhia et al., 2012).
**Descriptive analysis.** Several descriptive statistical tests will be conducted to examine the study sample against the population. The standard deviation and standard error for distribution of participating hospitals based on community size, geographic location, and hospital size will be compared to the descriptive statistics of the finite acute care hospital population using the American Hospital Association database.

**Inferential analysis.** The study proposed will determine the differences between health care coalitions using the following variables: 1) in rural versus metropolitan/urban communities (nominal-level independent variable (IV)); 2) in communities that have experienced a federally-declared emergency since 2001 (nominal-level IV); 3) the number of disciplines represented in the health care coalition (interval-level IV). The dependent variable (DV) will be the roles and responsibilities assumed by the health care coalition (interval-level).

Two statistical tests are proposed for this analysis. The first will be a bivariate (simple) linear regression to determine if there is a linear relationship between the number of disciplines represented in the health care coalition and the number of roles and responsibilities assumed by the health care coalition. This analysis will address the first research question and hypothesis: the relationship between the number of disciplines represented in a healthcare coalition and the number of accepted roles and responsibilities of that healthcare coalition.

The second statistical analysis will be a 2-way independent, non-hierarchical, factorial analysis of variance to identify differences in the number of roles and responsibilities assumed by the health care coalition based on community size (rural vs. metropolitan/urban) and prior disaster declarations. This analysis will address the second and third research questions and hypotheses related to the difference in accepted roles and responsibilities between urban and
non-urban healthcare coalitions, and the difference in accepted roles and responsibilities between coalitions that have responded to a federally-declared disaster as compared to coalitions that have not been directly affected.

It also may be possible to conduct a hierarchical linear model as the singular statistical inferential test to answer all three research questions.
References


United States Health and Human Services, Assistant Secretary of Preparedness and Response (2012b). Funding and grant opportunities. Retrieved June 16, 2012 from website: [http://www.phe.gov/Preparedness/planning/hpp/Pages/funding.aspx](http://www.phe.gov/Preparedness/planning/hpp/Pages/funding.aspx)