

This document focuses on the processes used in current citizen preparedness research. Looking at the patterns in the research protocols, the methodologies used, the population segments sampled, and the content of the surveys, reveals the strengths of the current research approaches. As importantly, this review reveals new opportunities for research that will help achieve greater levels of individual preparedness education and activities.

BACKGROUND

Since the events of September 11, 2001, much important research has been conducted to understand the landscape of preparedness in the United States. As of July 2006, the Citizen Preparedness Surveys Database (the Database) contained 37 surveys related to individual, family, and community preparedness.¹ The breadth of this research reflects a deep commitment from government, academia, nonprofit organizations, the media, and private companies to assess current levels of and attitudes toward preparedness and to seek improvements.

Issues 1 and 2 of the *Citizen Preparedness Review* provided summaries of major findings across these surveys. One key theme emerges from the research contained in the Database: despite the highly publicized and catastrophic events of Hurricanes Katrina and Rita, individuals have not become more motivated to prepare for disasters.

The National Center for Disaster Preparedness surveys conducted before and after Hurricane Katrina found that the percentage of Americans with all components of a family emergency plan increased by only 1 percentage point. As previously shown in the Citizen Preparedness Reviews Issues 1 and 2, significant strides have been made in the understanding of citizen preparedness. Additional research into barriers and effective outreach strategies is needed, however, to engage Americans in adopting a culture of preparedness.

Citizen Corps is the Federal Emergency Management Agency's (FEMA) grassroots strategy to strengthen collaboration between government and community leaders from all sectors to engage the full community in preparedness, planning, mitigation, response, and recovery. To support this mission, FEMA's Community Preparedness Division has tasked Macro International Inc. (Macro), an Opinion Research Corporation company, to conduct and analyze research and to develop tools for Citizen Corps Councils and others to help achieve greater community resiliency nationwide. The Citizen Preparedness Review (CPR) is published periodically to summarize research findings and to support local efforts to achieve greater community resiliency.

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¹ Macro. 2006 Citizen Preparedness Surveys Database. Available at <http://www.citizen corps.gov/ready/research.shtm>

EXECUTIVE SUMMARY OF TRENDS AND OPPORTUNITIES

“ Future household survey research can provide a deeper understanding of barriers and motivations for preparedness. ”

Examining patterns in the research provides valuable insight on citizen preparedness and identifies opportunities to fill existing gaps and to develop more effective citizen preparedness initiatives in the future.

1. Nearly all of the quantitative surveys have focused on national and regional samples of the population segmented only with basic demographic information such as gender, race, income levels, and education. **Future household survey research can provide a deeper understanding of barriers and motivations for preparedness by asking respondents to provide more demographic and contextual characteristics, such as prior experience with disasters, disability/ability, and community engagement.**
2. More than half of past surveys have investigated individuals’ perceptions of preparedness in their homes only. As disasters can occur at any time of day or night, **future surveys should examine individuals’ preparedness in other locations as well, such as the school, workplace, and community.**
3. Nearly all of the survey questions have asked participants about their perceptions of and preparedness for disasters, where the term disaster encompasses a wide array of terrorist threats, natural disasters, and public health threats. The range of hazards being examined using the single term “disaster” makes it more difficult to gauge citizen preparedness for any one hazard. **Future research must more fully explore participants’ knowledge of the correct preparedness measures for each type of hazard.**

4. The majority of the surveys have explored limited aspects of preparedness—specifically, the presence of a plan and supplies for the home. **Future surveys should investigate other aspects of being prepared, including knowledge of the warning systems and the potential personal impact of different hazards, the appropriate response to different hazards, training for specific skills, and volunteerism.**
5. Only about one-quarter of the surveys looked at reasons why people have not become prepared (i.e., barriers to preparation) and fewer surveys have researched specifically how people are motivated to be prepared. **Future studies should more fully:**
 - **analyze the perceived and actual barriers to preparedness, such as knowledge of the appropriate preparedness measures, uncertainty about the ability to perform the recommended measures, or the perception that the recommended measures will not make a difference in a disaster situation;**
 - **examine internal motivating factors, such as lack of trust in government, past experience with disasters, and household or occupational characteristics; and**
 - **focus on external motivating factors, such as policies, school/workplace initiatives, and other incentives (e.g., tax-free purchases and insurance benefits).**

METHODOLOGY

Citizen Preparedness Review Issue 3 concentrates on the research studies themselves, rather than the findings of the research. Qualitatively examining patterns in the overall methodology and content of disaster preparedness research reveals the strengths of current research approaches, helps categorize which preparedness constructs are consistently being explored, and identifies potential gaps in the research process. This information can help Citizen Corps and other organizations involved in citizen preparedness better understand the current body of research and focus future efforts to fill critical research gaps.

In July 2005, Macro began development of a Citizen Preparedness Surveys Database, a collection of surveys on citizen disaster preparedness conducted since September 11, 2001. A survey is included in the Database if it is a household survey and examines individual concerns about, or preparedness for, any type of disaster, including natural disasters, hazardous materials accidents, disease outbreaks, and all forms of terrorist attack. As of July 2006, the Database contained 45 surveys that met the selection criteria. Many of these surveys were conducted in multiple years and a few were conducted multiple times in the same year. The surveys come from many different sources, including state and local governments, academic and nonprofit organizations, news organizations, and private corporations.

KEY PATTERNS IN EXISTING RESEARCH

Who are the people surveyed?

The Database includes surveys that sampled the national population and surveys that sampled regional/local population samples. Three surveys included both national and local samples, such as the Council for Excellence in Government's (CEG's) Homeland Security Public Survey, which studied adults nationwide with specific samples in New York and California. Two surveys—the National Capital Region Emergency Preparedness Campaign Research in 2005 and CEG's *From the Home Front to the Front Lines: America Speaks Out About Homeland Security* in 2004—compared the data collected from citizen samples to quantitative and qualitative data collected from community leaders and disaster responders.

It is important to understand the sampling strategy used in these quantitative surveys in order to understand how to apply the survey findings. When the sample is focused on a local population, the results cannot necessarily be generalized for populations in other locations or the country at large. For example, it is neither appropriate nor statistically valid to use data about New York City's preparedness and assume that all Americans are prepared in the same manner. Therefore, when decisions are being made about preparedness campaigns based on survey data, communicators should know whether the level of sampling data reflects the public with whom they are communicating.

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Only a few surveys focused on specific populations. Two surveys sampled people who had specifically been affected by Hurricane Katrina—the Harvard Medical School’s Hurricane Katrina Community Advisory Group and the Washington Post/Kaiser Family Foundation/Harvard University Survey of Hurricane Katrina Evacuees. Another national study conducted by The National Organization on Disability surveyed people with and without disabilities to examine their differences in perceptions of preparedness and their confidence in disaster response organizations.

Future research should also more extensively study the perspectives of specific population segments in order to better understand these different groups’ expectations, barriers, and actual preparedness and response behaviors. Surveys that are representative of the U.S. population often lose the ability to assess findings for sub-segments because of the small number of respondents in a given sub-segment. By focusing a survey on specific population segments (e.g., disadvantaged individuals, individuals with disabilities, and those living in urban or specific high hazard areas), analyses can assure reliable data on these specific audiences. This insight is critical for developing targeted communication and outreach initiatives.

In addition to variances in sampling protocol, only about one-third of the surveys in the Database reported gathering demographic information or incorporated that information into the analysis. When these kinds of data were collected, the questions focused on basic demographics, such as gender, education level, income level, and race. The 2003 Citizen Corps Survey of U.S. Households indicated that certain preparedness characteristics are not explained by demographic factors alone.

FUTURE RESEARCH OPPORTUNITIES:

Researchers should increase the number of surveys that have a sufficient sample size to allow analysis relative to different population segments, such as demographic and sociographic distinctions, geography, and other contextual factors. Surveys should also focus on specific audience segments so that campaigns and other preparedness initiatives can be better tailored to the needs of disparate individuals and communities.

No defining demographic characteristics appeared associated with either the 12% of the population that reported being prepared for all three types of disasters (terrorism, natural disasters, household emergencies) or the 39% that reported not being prepared for any disaster. Future surveys should include additional demographics as well as contextual dimensions such as trust in government and prior experience with disasters in order to provide a better understanding of how these factors may correlate with preparedness perceptions, attitudes, and behaviors.

What kinds of disasters, hazards, or threats have the surveys investigated?

The Database contains surveys that question respondents on their preparedness for a variety of disasters, including terrorist and natural hazards. In general, the national surveys tended to focus on terrorist preparedness, with post-Katrina surveys including a focus on natural disasters. A couple of national surveys focused on bioterrorism—the Harvard School of Public Health/Robert Wood Johnson

Foundation Survey Project on Americans' Response to Biological Terrorism and Temple University's Pennsylvania Quality of Life Survey—to examine perceptions of susceptibilities to bioterrorism using anthrax and smallpox. Local surveys tended to focus on natural disasters appropriate for the area with a few local surveys also including questions of perceptions of terrorism.

Because terrorism is often used as a monolithic term, it is difficult to gauge citizens' perceptions of, and preparedness for, specific types of terrorism. Furthermore, research findings on preparedness for a particular type of natural hazard do not necessarily indicate preparedness for other types of natural hazards or for events caused by terrorism. This complicates the ability to use the results to measure levels of preparedness relative to specific threats and to design targeted messages and campaigns.

FUTURE RESEARCH OPPORTUNITIES:

Future surveys should focus more on specific types of threats. Also, terms that describe the disasters and define the preparedness measures should be consistently used across surveys so that participants' responses are based on a similar understanding of the terms.

What aspects of preparedness have the surveys explored?

Across the surveys, there were two main aspects of preparedness explored: developing a disaster plan and gathering supplies. The surveys generally referred to a disaster plan as one that identifies locations for a family to meet and determines how to regain contact after a disaster. The majority of surveys also asked specifically about home-related supply kits, including a flashlight, batteries, and extra food and water. Few surveys asked about supplies at work, in cars/vehicles, or about items routinely carried by the individual. The emphasis on a disaster plan and home-related supplies limits our understanding of other aspects of preparedness and may imply to individuals that a plan and home-based supplies are sufficient to achieve personal preparedness.

A few surveys did assess other preparedness actions, such as knowing what to do in the first few moments of an unexpected disaster, becoming trained in emergency response, volunteering for or participating in preparedness activities in the community, and learning first aid and CPR. But, these activities were included in only one or two surveys each.

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Quantitative research also needs to be supplemented with qualitative research that can more fully explore the explanations people give for their attitudes, perceptions, and behaviors about disaster preparedness.

Although many surveys asked about perceptions of susceptibility toward future attacks, only a few asked about the actual knowledge participants held about specific threats and associated preparedness measures. For example, the Harvard School of Public Health/Robert Wood Johnson Foundation Survey Project on Americans' Response to Biological Terrorism asked participants what they knew about smallpox symptoms, availability of a vaccination, and a cure (e.g., "To the best of your knowledge, is smallpox a disease that is contagious, meaning that it can be passed from one person to another, or is it not contagious?").

FUTURE RESEARCH OPPORTUNITIES:

More surveys should investigate additional preparedness measures beyond developing supply kits in the home and creating plans. Surveys should look at knowledge of specific hazards, appropriate immediate response actions, relevant response skills, and adequate supplies in multiple locations. Citizens' knowledge of community plans and their willingness and ability to contribute to community preparedness through volunteer service should also be explored.

Are barriers and motivations to preparedness being adequately explored?

Only about one-fourth of the surveys looked at reasons why people have not become prepared. These surveys explored barriers to preparedness more extensively than motivations. Even fewer surveys researched specifically how or why people are motivated to become prepared for various disasters (i.e., the reasons why people take action). Motivations addressed in these surveys included the predicted proximity of an emergency, keeping family safe from harm, the possibility that a disaster would happen for which they were not prepared, incentives for being prepared (e.g., tax breaks, insurance or mortgage discounts), and feelings of personal responsibility for being prepared.

FUTURE RESEARCH OPPORTUNITIES:

The barriers and motivations to preparedness need to be explored in greater detail. In addition, surveys need to analyze population segments by demographic and other contextual factors to more fully understand the characteristics of those who are and are not prepared. Quantitative research also needs to be supplemented with qualitative research that can more fully explore the explanations people give for their attitudes, perceptions, and behaviors about disaster preparedness.

How much confidence do people have in organizations involved in disaster response?

Studying citizens' confidence in an organization's readiness can be useful to:

- 1) assess citizens' belief in the organization's ability to meet individual and community needs in the event of a disaster, and
- 2) determine citizen perception of the organization's credibility and, consequently, the likelihood that citizens will adopt the preparedness behaviors suggested by that organization.

About half of the surveys in the Database examined citizens' perceptions of organizations involved in disaster preparedness or response. These surveys generally looked at organizations that citizens might rely on in the event of a disaster, such as Federal and local government emergency responders and nongovernmental organizations, such as the American Red Cross. Some surveys asked how participants felt local public health systems, such as hospitals, doctors, and emergency rooms, were prepared to handle bioterrorist hazards. Very few studies investigated citizens' reliance on other organizations such as their schools, workplace, and local faith-based or community-based organizations.

It is important to note that most of the perceptions about organizations involved in disasters preparedness or response were from surveys that focused on terrorist threats rather than natural disasters. Only a few surveys examined confidence relative to both terrorist and natural disasters.

FUTURE RESEARCH OPPORTUNITIES:

Additional research is needed to fully explore attitudes and perceptions related to emergency responder organizations. Aspects to be further explored include trust, reliability, experience, and satisfaction. A better understanding of these attitudes is critical for developing effective messages and materials that encourage preparedness and appropriate action during a crisis. Other types of organizations that play a role in disaster response and recovery should also be a part of this research, including schools, workplaces, and faith-based organizations. Studies should also explore people's perceptions of organizations' abilities to respond to different types of disasters.

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SUMMARY

While there have been significant developments in the field of preparedness research, much more needs to be done to accomplish the goal of developing a true and sustained culture of preparedness. By examining the landscape of citizen preparedness research, gaps and opportunities to further explore critical dimensions of perception and behavior have been identified.

These *Citizen Preparedness Reviews* seek to present the broadest scope of studies in this critically important field. Organizations are encouraged to assist this effort by providing their research for inclusion. If you are aware of survey research that meets the stated criteria that is not listed here, please contact Macro at citizenpreparedness@mail.orcmacro.com or Citizen Corps at citizencorps@dhs.gov. And please also be sure to read the Citizen Preparedness Reviews, posted on the Internet at www.citizencorps.gov/ready/research.

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The Citizen Corps mission is to bring community and government leaders together to involve community members and organizations in all-hazards emergency preparedness, planning, mitigation, response, and recovery.

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