



Report to Mayor AC Wharton, Jr.

Community and Regional Resiliency Initiative

Memphis Urban Area

Opportunities for Resilience Focus and Improvement

January 2009

Introduction

An important part of the CARRI research work has been to identify areas of focus that, when addressed, will enhance the resilience of the Memphis Urban Area (MUA). Focus areas presented here represent themes, topics, concerns, and issues that were raised by community partners and project participants. Those that are listed below were taken from various community meetings and in sector-specific groups. The thirteen were vetted by the Advisory Group and publicly discussed and refined at the Capstone Event on November 12, 2008. At that time, the community participants added two additional topics for consideration, (items 14 and 15). Some of these opportunities have already begun to be implemented by various MUA agencies since the Capstone meeting. The focus areas for resilience opportunities are (the order of presentation does not indicate priority):

1. Mentor small businesses in business continuity and disaster recovery practices
2. Formalize and expand coordination with community stakeholders
3. Increase resident preparedness
4. Improve coordination, specifically with the faith-based community
5. Reduce vulnerabilities in mass sheltering and care project
6. Increase involvement of the transportation sector in the community-wide planning and exercise efforts
7. Re-establish the Volunteers Active in Disasters (VOAD) in the Memphis Urban Area
8. Formalize planning for at risk and special needs population residents
9. Structurally mitigate schools
10. Structurally mitigate health care centers
11. Encourage private-sector/ non-governmental organizations (NGO) participation in exercises and planning
12. Utilize private practice medical professionals in disruptions and crisis
13. Develop staff and family care plans
14. Prepare for communication between disaster responders/officials and the public when conventional communications methods have been damaged
15. Sustain an adequate blood supply

Prioritization of focus areas and the allocation of resources are important community choices. A first effort toward prioritization was an exercise undertaken at the Capstone Event to roughly gauge the resilience enhancement benefit of each focus area as well as the total resources required to achieve that benefit. Participants worked individually and in small groups to plot each of the focus areas in the two-dimensional investment-return space (see Figure 1). The plot for each participant was collected and coordinates for each focus area recorded. Mean values for the coordinates of each focus area were calculated and plotted as depicted in Figure 1. Criteria described included: existing opportunities that could be leveraged, long-term versus short-term investments and results, and potential to maximize the benefits of actions already in progress. The beginnings of a tiered approach, balancing long- and short-term investments and returns with existing opportunities, emerged in this discussion.

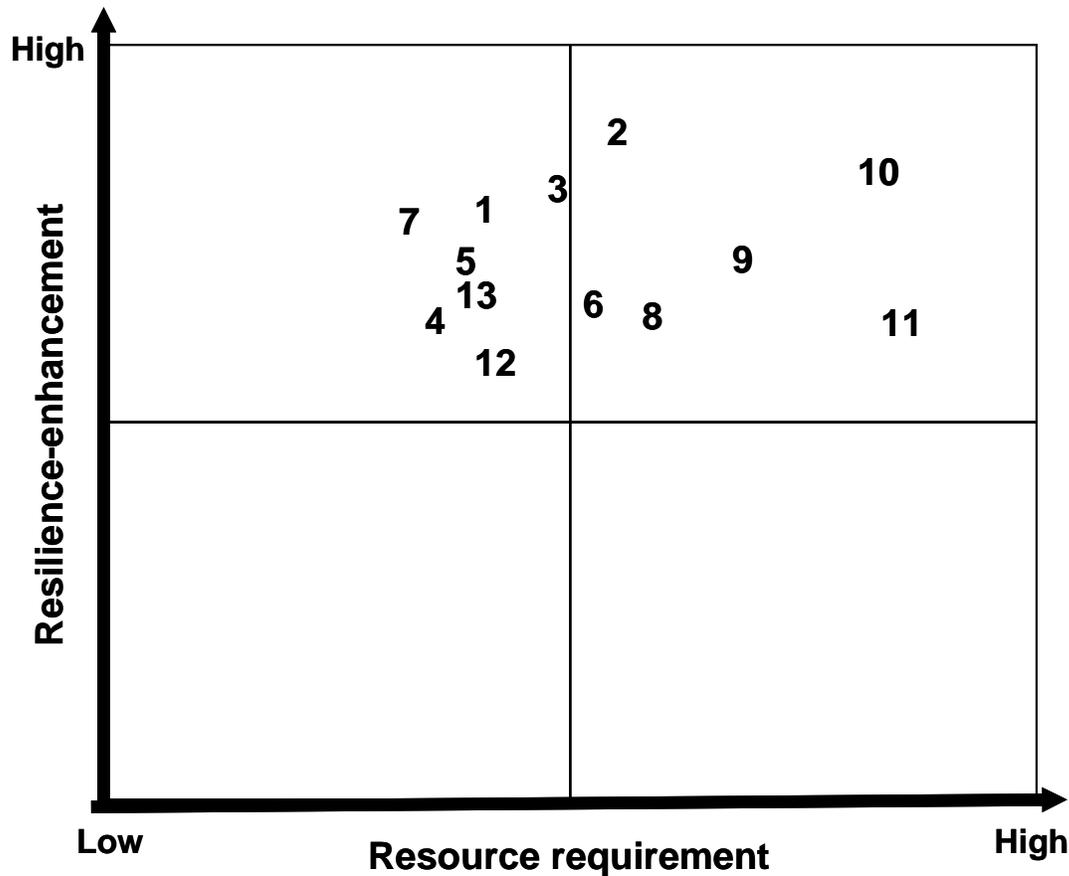


Figure 1

These focus area descriptions that follow have been developed by the CARRI Team based on observations during 2007-2008 and will be refined by community partners as they take ownership of the focus areas. In the remainder of this report, we describe each focus area in some detail. Each focus area is presented in a format, which highlights key information to be completed and/or fleshed out by interested stakeholders from the community in the future. In the format we have attempted to describe the issue behind the focus area as it was found in the CARRI research, any activity that may have taken place or is in planning, who might be a community leader for the focus area, who might be supporting participants, other related efforts to coordinate with, and potential funding sources, where there were known or identified.

1. Mentor Small Businesses in Business Continuity and Disaster Recovery Practices

Issue:

Experience reveals that small businesses are vital components of a local economy and in many cases are linked through supply chains to large companies and to residents. These businesses are often less resilient in time of emergency and tend to be at risk of not reopening. Small businesses' vulnerability is magnified by competing demands for limited resources in the pre-disruption environment (precluding necessary preparation). This circumstance can be addressed by fostering peer learning and education.

Action to Date and Planned:

The Mid-South Association of Contingency Planners (MSACP) will lead a partnership to mentor small businesses in the area of business continuity and disaster recovery. MSACP has a mission of peer-to-peer education and outreach and is a well-established and respected MUA organization and resource. The MemphisFirst education and outreach subcommittee is working to coordinate small business peer-to-peer learning with MSACP and the Chambers of Commerce in the MUA.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: Mid-South Association of Contingency Planners

Supporting Community Participants:

- MUA Chambers of Commerce
- MemphisFirst

Other Related Efforts to Coordinate With: TBD

Potential Funding Sources/Resources: TBD

2. Formalize and Expand Coordination with Community Stakeholders

Issue:

Coordination of the many groups and efforts that address the phases of the emergency cycle is a large problem, concerning when much has already been accomplished. Key relationships have been built and maintained. There is a need to create additional, and further strengthen existing, linkages and connections between stakeholders and segments of the community active in preparedness, response, recovery, planning, education and outreach, all of which are integral components of resilience. A critical component of this issue is technological interoperability. A closely related concern is preparing for communication between disaster responders/officials and the public when conventional communications methods have been damaged.

Action to Date and Planned:

The Memphis/Shelby County Emergency Management Agency and MemphisFirst include coordination in their missions and cross-sector roles. An area of opportunity is to strengthen and institutionalize this coordination.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: Memphis/Shelby County Emergency Management Agency

Supporting Community Participants:

- MemphisFirst
- Shelby County Office of Preparedness
- Memphis UASI

Other Related Efforts to Coordinate With: Assisi Foundation

Potential Funding Sources/Resources: TBD

3. Increase Resident Preparedness

Issue:

Reaching all residents with needed information and guidance on preparedness is an ongoing challenge. Booklets and Community Emergency Response Team (CERT) training are already available, but there are insufficient distribution mechanisms to reach most residents. Outreach, education, and training must be tailored to reach all demographics, in both content and delivery format. A particular challenge is reaching residents who do not read newspapers or own/use computers. Strategies to reach households identified for further exploration include: teaching students about preparedness, publishing messages on grocery bags, and encouraging employers to require individual preparedness of employees.

Action to Date and Planned:

A new program in 2008 has been participation of leading retailers to sell emergency preparedness kits in conjunction with a campaign to give kits as gifts. This is a result of the Assisi Foundation outreach and has been supported and guided by the Mayors' roundtable message of preparedness, resident surveys, and focus group discussions.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: Assisi Foundation

Supporting Community Participants: TBD

Other Related Efforts to Coordinate With: TBD

Potential Funding Sources/Resources: TBD

4. Improve Coordination, Specifically With the Faith-based Community

Issue:

The faith-based community is a vital and necessary part of the community's response to a disruption, providing shelter, meals, and material necessities to those in need. Many houses of worship are natural points of collection and therefore good centers both for provision of care and the organization and distribution of assistance. Across the MUA, larger agencies and organizations in the faith-based community participate in the formal emergency management planning process. At the same time, other faith-based community agencies and organizations do not participate in this formal planning process either by omission or by choice, though they provide services to residents at the time of disruptions. In such cases, these valuable community resources must be accredited during a disruption, further stressing the emergency response system at its time of greatest need.

Action to Date and Planned:

It has been suggested that the Emergency Management Agency increase outreach to all leaders within the faith-based community as well as find a mutually acceptable process to accredit faith-based agencies' and organizations' response and recovery resources.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: TBD

Supporting Community Participants: TBD

Other Related Efforts to Coordinate with: Memphis Interfaith Association

Potential Funding Sources/Resources: TBD

5. Reduce Vulnerabilities in Mass Sheltering and Care Project

Issue:

A catastrophic earthquake impacting the Mid-South and West Tennessee will require mass sheltering and care within the damage zone. MUA is not sufficiently prepared to do so.

Action to Date and Planned:

A public-private partnership funded Mass Sheltering and Care Project is working to reduce vulnerabilities in the immediate after-math of a disaster by anticipating and planning for the rapid screening of facilities to open mass shelter locations based on access, need, and structural integrity following an earthquake. The effort focuses on ensuring that needs are identified and defined prior to a crisis and that the most vulnerable special needs and marginalized population are not placed more at risk during the response phase of a disaster. Public and private expertise and funds are matched with University of Memphis engineering, public health, non-profit and public administration, and vulnerability faculty expertise to conduct a study to support Memphis Shelby County EMA revision of ESF-6 and ESF-8 as well as to develop a database of potential mass shelter facilities to support decision-making in the aftermath of a catastrophic event.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: Memphis/Shelby County EMA

Supporting Community Participants:

- American Red Cross
- Faith-based community agencies and organizations
- The University of Memphis (Drs. Pezeshk, Camp, Levy, Norris-Tirrell, Waldron and Hill)
- Shelby County Division of Community Services/Community Services Agency

Other Related Efforts to Coordinate with: TEMA

Potential Funding Sources/Resources: WTSSC funding project, with support from the Assisi Foundation.

6. Increase Involvement of the Transportation Sector in the Community-Wide Planning and Exercise Efforts

Issue:

The transportation sector, while coordinating well among themselves, is not well integrated into the community wide planning and exercise efforts. There are two on-going efforts that may assist this opportunity. The Center for Intermodal Freight Transportation at the University Memphis, with support from Canadian National Railroad, has selected emergency preparedness and recovery as one focus area for work in the next year. MSACP and MemphisFirst have also included outreach to the transportation sector as a priority for both organizations.

Action to Date and Planned:

With support from Canadian National Railroad, the Center for Intermodal Freight Transportation at the University Memphis will address emergency preparedness and recovery as one focus area. MemphisFirst and MSACP have both set outreach to the transportation sector as a priority.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: The University of Memphis and Mid South Association of Contingency Planners

Supporting Community Participants:

- MemphisFirst
- Memphis-Shelby County EMA
- Shelby County Office of Preparedness
- Memphis UASI
- Tennessee Department of Transportation

Other Related Efforts to Coordinate with: TBD

Potential Funding Sources/Resources: TBD

7. Re-establish the Volunteers Active in Disasters (VOAD) in the MUA

Issue:

A large number and wide variety of volunteer groups contribute to community resilience. The number and diversity can make coordination and integration into the formal emergency response and recovery systems challenging. Training of volunteers is needed for effective coordination of community-wide emergency response and recovery.

Action to Date and Planned:

Volunteer Memphis and the Assisi Foundation initiated an effort in 2008 to re-energize local volunteer coordination through VOAD with links to other VOAD in the central United States.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: Assisi Foundation

Supporting Community Participants:

- Volunteer Memphis
- American Red Cross
- TBD - based on focus group participation with Assisi Foundation

Other Related Efforts to Coordinate With: TBD

Potential Funding Sources/Resources: Assisi Foundation

8. Formalize Planning for At Risk and Special Needs Population Residents

Issue:

The idea of connecting residents from vulnerable communities more effectively and directly with CERT training as a way of increasing community resilience germinated at the February 11, 2008 Community Resilience and Earthquake Preparedness Summit. At the Summit, the value of CERT training to organizations, schools, and in other settings was raised in almost every presentation. Proving CERT training to individuals in communities and neighborhoods of marginalized and vulnerable citizens was specifically identified as a way increase the resilience of those communities.

Aging residents with special needs are increasingly being cared for at home. Effectively training family members and volunteers through programs like CERT is needed to protect this population and preserve the capacity of emergency services at the time of disruption. In addition, volunteer organizations serving this vulnerable segment of the MUA population need to be more comprehensively included in planning, decision-making and preparedness initiatives.

Action to Date and Planned:

An awareness and preparedness campaign to better communicate with particularly vulnerable residents funded by the Assisi Foundation is underway. Improved communication of opportunities and resources related to preparedness and expectations during an emergency have been prioritized.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: TBD

Supporting Community Participants:

- Sierra Club, Environmental Justice Program
- TBD

Other Related Efforts to Coordinate with: TBD

Potential Funding Sources/Resources: TBD

9. Structurally Mitigate Schools

Issue:

The 2008 earthquake sequence in China reminded residents and public officials alike that schools are to be safe places for children. A hazard analysis has been done for each school in the system that addresses both earthquakes and the possibility of nearby chemical releases and explosions (e.g., for schools near to train lines or highways). Almost all of them are vulnerable, and little has been done to address structural issues (this would be costly and it may be more cost-effective to build new schools). Ensuring the structural integrity of schools also preserves their ability to provide shelter and a point of service during disruptions. A significant opportunity for vulnerability reduction, preparedness, response and recovery lies in addressing the social and structural vulnerability of schools and school systems.

Action to Date and Planned:

A change in the leadership of several MUA schools systems in 2008 has delayed full exploration by the CARRI team of this critical opportunity for resilience building across the MUA. The new superintendent of Memphis Public Schools is particularly sensitive to disaster preparation. An ongoing priority is to train school employees in how to properly plan and conduct earthquake drills in city schools and a key focus is orienting and training new principals and staff. Memphis Public Schools uses a “train-the-trainer model” and has prepared easy-to-use instructional materials. Former CERI Associate Director Dorman and others worked with Mid-South schools to explore vulnerability reduction.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: TBD

Supporting Community Participants: TBD

Other Related Efforts to Coordinate with: TBD

Potential Funding Sources/Resources: TBD

10. Structurally Mitigate Health Care Centers

Issue:

A structural mitigation option for hospitals, such as the regional trauma center in Memphis, The Med, was widely advocated by community participants. Either through the refit of existing structures or build new seismically mitigated structures, stakeholders in the medical and healthcare sector all agreed that the safety of medical facilities is a priority.

Action to Date and Planned: TBD

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: TBD

Supporting Community Participants: TBD

Other Related Efforts to Coordinate with: TBD

Potential Funding Sources/Resources: TBD

11. Encourage Private-Sector /Non-Governmental (NGO) Participation in Exercises and Planning

Issue:

Annually more than twelve exercises are coordinated through the Shelby County Office of Preparedness/Memphis-Shelby County Emergency Management Agency. Encouraging participation by non-traditional agencies, private sector and NGO groups is an opportunity to address vulnerabilities.

Action to Date and Planned: TBD

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: TBD

Supporting Community Participants: TBD

Other Related Efforts to Coordinate With: TBD

Potential Funding Sources/Resources: TBD

12. Utilize Private Practice Medical Professionals in Disruptions and Crisis

Issue:

Private practice medical professionals not associated with hospitals are an under-engaged source of resilience. In the event of a major disruption, the capacity of EMTs to reach all who need services may well be insufficient, due to the volume of need and/or the reduced capacity. In addition, hospital capacity may be insufficient. And transportation to hospitals may be impossible. It is critical to have medical professionals prepared to assist *in situ*, in their offices and clinics, and in shelters. One area of acute need is the extremely limited capacity of hospitals and emergency services to provide mental health services during a disruption. It has proven challenging to engage private medical professionals in preparation for emergency response. While the Medical Reserve Corps (MRC) has 2,600 volunteers on its rolls, most are non-professional volunteers not able to provide medical care. To ensure the effectiveness of those volunteer medical professionals that are mobilized, direction and leadership from knowledgeable medical authorities are needed; this has not been the case in recent disruptions. Proactive guidance and training in advance of events is essential to better ensuring the effectiveness of volunteer physicians. Finally, lack of clear arrangements with local governments and EMS has limited involvement of private physicians in emergency response.

Action to Date and Planned:

For Hurricane Gustav, the Medical Society of Memphis (which has 75% of local physicians on its roster) requested and obtained some private physician volunteers who opened their private practices to receive evacuees who needed medical care. The Society also manned a medical hotline to support evacuees in the shelters who had health care questions. MRC has attempted to recruit more nurses from local nursing schools.

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: TBD

Supporting Community Participants:

- Medical Society of Memphis
- City and County Health Departments
- Medical Reserve Corps

Other Related Efforts to Coordinate with: TBD

Potential Funding Sources/Resources: TBD

13. Develop Staff and Family Care Plans

Issue:

Focus groups of medical and public health professionals (including EMA responders) in the MUA have revealed that virtually no health organizations have established plans to care for staff and the families of staff during a major disruption. There is little cross training of medical personnel, and even with all personnel present, there is little “back bench” from which to draw to allow for resiliency of critical personnel. Current policy is that EMT drivers and paramedics should take care of their families first and then report to work. Both medical organizations and personnel need education regarding the importance of developing and implementing plans to ensure continuity of medical services.

Action to Date and Planned: TBD

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: TBD

Supporting Community Participants:

- Hospitals
- EMS
- EMS Council
- City and County Health Departments
- Medical Society of Memphis
- Medical Reserve Corps

Other Related Efforts to Coordinate With: TBD

Potential Funding Sources/Resources: TBD

14. Prepare for Communication Between Disaster Responders/Officials and the Public When Conventional Communications Methods Have Been Damaged

Issue:

This focus area was added by community participants at the November 12, 2008 Capstone Meeting. The community participants felt there needed to be plans and procedures developed that would be implemented in the event that normal communications means were damaged or not available in a disruption. During the CARRI research in the MUA, it was noted in numerous meetings that effective communications between leadership and the public was critical.

Action to Date and Planned: TBD

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: TBD

Supporting Community Participants: TBD

Other Related Efforts to Coordinate With: TBD

Potential Funding Sources/Resources: TBD

15. Sustain an Adequate Blood Supply

Issue:

This focus area was added by community participants at the November 12, 2008 Capstone Meeting.

Action to Date and Planned: TBD

Priority: TBD

Timeframe: TBD

Community Focus Area Leader: TBD

Supporting Community Participants: TBD

Other Related Efforts to Coordinate With: TBD

Potential Funding Sources/Resources: TBD