Contents

Introduction ............................................................................................................................................................................. 2

Chapter 1. Introduction to the Enhancement of Community Resilience to Disasters .......................................................... 3

Disasters .................................................................................................................................................................................... 3
Resilience .................................................................................................................................................................................... 3
Community Resilience ............................................................................................................................................................... 4
Enhancement ............................................................................................................................................................................... 6

Chapter 2. The Community Resilience Enhancement Team and Process ............................................................................ 8
Assembling an Enhancement Team ........................................................................................................................................... 8
Project Management .................................................................................................................................................................. 10
Team Organization ..................................................................................................................................................................... 14
Team Communication Plan ......................................................................................................................................................... 15

Chapter 3. Assessing the Current Community Resilience ...................................................................................................... 16
Using the CART Assessment Survey ....................................................................................................................................... 16
Preparing the Initial Community Resilience Narrative .......................................................................................................... 17
Analyzing Community Resilience ......................................................................................................................................... 17
Preparing the Structured Community Resilience Narrative ................................................................................................... 24

Chapter 4. Moving Toward the Desired Community Resilience ............................................................................................ 24
Defining the Desired Community Resilience ............................................................................................................................ 24
Finding Actions to Move Toward Objectives ........................................................................................................................ 26
Reviewing Actions for Feasibility ........................................................................................................................................... 27
Selecting the Critical Set of Actions ..................................................................................................................................... 28

Chapter 5. Implementing Actions to Enhance Community Resilience ................................................................................. 29
Disseminating Information and Building Support .................................................................................................................. 29
Taking Action .............................................................................................................................................................................. 30
Monitoring, Evaluation, and Corrective Action ........................................................................................................................ 31

Appendix A. Case Study: Enhancement for Community Resilience to Disasters .................................................................. 33
Appendix B. CART Instruments .................................................................................................................................................... 40
Appendix C. Checklist and Guidelines for Session Facilitators ................................................................................................. 42
Appendix D. Training Materials for Team Members ................................................................................................................. 47
Appendix E. References ............................................................................................................................................................... 48
Introduction

The Community Resilience Enhancement Intervention is designed for use with community groups interested in learning about and improving their community’s resilience to disasters and other forms of adversity – the community’s ability to deal with adverse events. The intervention builds around three key concepts: (1) disasters and adversities – the threat, (2) resilience – the ability to deal with the threat, and (3) enhancement – a process to improve resilience. This handbook focuses on disasters, but the concepts apply to many other forms of threats or adversities such as crime, economic problems, and social/emotional stresses. The handbook’s content addresses mostly action-oriented topics. A large number of scholarly materials deal with disaster, community resilience, and problem solving in more depth. To maintain an action-oriented focus, the body of the handbook omits references. People interested in exploring these topics in more depth will find selected references in Appendix E of the handbook.

Each chapter is designed to address the topics that are most relevant for a community group interested in learning about and improving community resilience to disasters.

Chapter 1 provides an overview of the key elements relevant to enhancement of community resilience to disasters. Enhancement builds on concepts drawn from an in-depth understanding of community resilience to disasters, teams, social networks, the difference reduction model of problem solving, strategic impact, and agile planning. The chapter provides the framework for the action-oriented chapters that follow.

Chapter 2 offers guidance on assembling an enhancement team, communicating with team members, creating an agile plan for an enhancement project, scheduling project tasks, monitoring progress, and taking corrective action.

Chapter 3 describes the first part of the resilience enhancement model: defining the current community resilience. The chapter covers both the initial community narrative and a structured assessment of current community resilience.

Chapter 4 addresses two additional aspects of the resilience enhancement model: developing the objectives that define the desired community resilience and creating actions that move the community toward the objectives. The chapter also addresses the review of each proposed action for feasibility and selecting the most important or critical set of strategic actions for implementation.

Chapter 5 outlines processes for implementation of the most important, critical, or strategic actions as well as processes for evaluation of progress and revision of the action plan if and as needed.

This enhancement intervention is part of the Communities Advancing Resilience Toolkit (CART)©, a product of the Terrorism and Disaster Center at the University of Oklahoma Health Sciences Center. More information on CART products is available at the TDC website: http://www.oumedicine.com/psychiatry/research/terrorism-and-disaster-center.
Chapter 1. Introduction to the Enhancement of Community Resilience to Disasters

The chapter begins with a discussion of disasters since dealing with adversity is the focus of the material in this handbook. The ability to deal effectively with adversity is referred to in this handbook as resilience. Both personal resilience and community resilience are discussed. The chapter sets forth the rationale and basic model for enhancement related specifically to community resilience. Factors that can influence the success of enhancement for community resilience are identified.

Disasters. A disaster is an adverse event with severe undesirable consequences (e.g., death, major injuries including emotional trauma, extensive property damage) that begins relatively rapidly (e.g., perhaps a second for a terror bombing or an earthquake, minutes for a tornado, minutes to days for a flood) and affects a large number of people. Disasters result from three major causes: (1) natural events including hurricanes, floods, tornadoes, wildfires, earthquakes, tsunamis, volcanism, and meteor impacts; (2) unintentional events including industrial accidents, aircraft or train crashes, and failure of structures such as buildings or bridges; and (3) intentional events including terrorist attacks and mass shootings. One or more disasters of some kind have affected almost everyone either directly (e.g., a person witnessed or experienced death, injury, and/or extensive property damage) or indirectly (e.g., a person learned about a disaster from television and worried about being involved in a similar disaster in the future).

Disasters affect large numbers of people and have widespread consequences. For example, between 1980 and 2013 in the United States alone, 170 weather/climate disasters (e.g., hurricanes, tornadoes, floods) occurred with overall damages/costs of $1 billion or more per event (inflation adjusted to 2013). The total cost of the 170 disasters exceeded $1 trillion. One of the worst industrial accidents occurred in 1947 in Texas City when a ship loaded with fertilizer exploded killing over 400 people and injuring as many as 4,000. The worst terrorist attack on the U.S. on September 11, 2001, killed thousands of people, traumatized millions, and caused billions of dollars of destruction. More than 2,600 people died at the World Trade Center, 125 died at the Pentagon, and 246 died on the four airplanes involved in the disaster. The death toll surpassed that at Pearl Harbor in December 1941. More than 150,000 people were killed or missing following the 2004 Indian Ocean Tsunami. Hurricane Katrina in 2005 was not only devastating to those involved, it also raised many questions about this country’s infrastructure, policies, and political will. In 2011, the Great East Japan Earthquake and Tsunami killed almost 16,000 people, swept millions of tons of debris offshore, and released radioactivity over a large area. Citations for disaster information are in Appendix E (References).

Resilience. Resilience in the context of disasters is the ability of a person or group of people to function effectively (1) when faced with the threat of a disaster and (2) during and after the occurrence of a disaster. Effective functioning with the threat of a disaster consists of maintaining a normal personal and work life while taking reasonable actions to mitigate and/or prepare for disasters. Mitigation might involve taking action to reduce the likelihood of a disaster such as establishing airline security checks and preparation might involve creating a disaster plan or working with the Red Cross or many other things. Effective functioning during a
disaster consists of taking action to minimize the risk of death, injury, and property damage. Effective functioning in the aftermath of a disaster consists of taking action to return to a normal life as quickly as practical – in the short term, obtain medical care, food, water, and housing; and in the longer term, return to a life as close as possible to, or better than, life before the disaster.

Many resilience discussions focus on personal resilience – the ability of a person to function effectively with respect to disasters. Personal resilience derives from a person’s knowledge, skills, and emotions; and from access to disaster relevant resources either directly or from community or disaster support services. Many factors such as health, education, economic status, and life experiences can contribute to personal resilience.

In most disaster situations, people function both as individuals and as part of one or more groups or communities. A community can represent many things – a family, a group of friends or colleagues, members of a church or other organization, neighbors or a neighborhood, and cities or towns.

Community Resilience. A community may exhibit greater resilience than the sum of the members’ personal resilience. The potential additional resilience or synergy that occurs in community resilience results from the community groups working as teams. A group is any collection of people assembled in some place or for some purpose – people who live in a neighborhood, attend a concert or athletic event or a church service, or participate in an on-line chat room. Many dictionaries define a team as people working together toward some common goal. In this handbook, a community team consists of members characterized by the following features:

- Have a task or set of tasks to perform – for example, in the disaster context, prepare for a disaster, evacuate people from the community, protect people from harm, and rescue people;
- Hold one or more common goals related to performing the tasks – for example, personal survival and well-being and concern and caring for the welfare of other members of the community;
- Communicate to share information and coordinate actions;
- Share resources such as information, skills, and physical assets that are useful in performing the tasks;
- Cooperate - team members help each other perform the tasks; and
- Learn from the experience of working together on the task.

Because teams can improve performance, organizations such as athletics, military, and business ones, often use teams. The basic ideas of a team go back to primitive people who learned through experience that working together could increase their chance of survival. Many families, extended families, and perhaps groups of friends or colleagues may function, at least in part, as teams and thus provide an additional base for community resilience. In disaster situations, many community members instinctively function as team members in that they communicate, cooperate, and share to help themselves and others in the community.
A network consists of a set of things that are connected – often by communication links. For example, the electronic components in a computer network are connected by circuits that carry electrical pulses. A social network consists of social actors, for example, community residents and organizations that are connected. A community resilience team also can be viewed as a social network. In a community resilience social network, people and organizations are connected by more than communication links; these stronger connections may include having tasks to perform jointly, pursuing common goals, sharing, cooperating, and learning. This social network is open because any member of the community is encouraged and may choose to join the network. Communities also may connect with other communities or people or organizations to expand this social network. Participation in a social network generates value or social capital, the collective benefits, in this case, additional resilience, derived from the collaborations between the people and organizations in the network.

Another component of resilience comes from the disaster system of care. The disaster system of care is a loosely structured, open social network that includes organizations that provide disaster related services. These organizations exist at the national level, for example, the Federal Emergency Management Agency (FEMA), the Substance Abuse and Mental Health Services Administration (SAMHSA), and the American Red Cross (Red Cross); at the state level, for example, the National Guard and the state health department; and at the community level, for example, police, fire, emergency management, medical services, social services, churches, charities, schools, and some businesses. All of these organizations and many more may choose to participate in the network to provide support in preparing for, responding to, and recovering from a disaster. Some of these organizations, such as FEMA and the Red Cross, focus primarily on disasters and always belong to the network. Many community organizations, such as churches, charities, and social service agencies, have their own primary missions, but also may provide disaster related services and become part of the disaster system of care when and as needed. When a major disaster threatens or strikes a community, many of the resources to deal with the disaster will come from the disaster system of care. The disaster system of care can contribute to both personal and community resilience. Thus, a person or a community team or network can increase both personal and social capital components of resilience by improving its links with the disaster system of care.

A simplified schematic of the overall Disaster Resilience Network (DRN), an instance of a very large social network, might look as shown in Figure 1.1. The actors in the DRN include the people in the communities, community organizations, and the people and organizations in the disaster system of care network. While many of the actors in the DRN will connect using strong community team type connections, some actors may use less strong connections, for example, ones that consist mostly of communication. In the figure, people connect with each other in community teams or networks and also connect with community organizations such as churches and social services. Many organizations are connected in the disaster system of care network. People are, or can become, connected to organizations in the disaster system of care as needed. Note that people who are not part of a community team also can connect with community organizations and organizations in the disaster system of care.
In summary, **community resilience** builds on three components of resilience: (1) the personal resilience of community members; (2) the added resilience of the community team – people pursuing common goals, communicating, cooperating, sharing, and learning; and (3) the support provided by the disaster system of care. The **mission** of enhancement for community resilience to disasters is to improve community resilience by: (1) reinforcing and strengthening the ability of people in a community to work as teams; (2) enhancing the community’s knowledge about, access to, and use of the disaster system of care; and (3) increasing the personal resilience of community members.

**Enhancement.** The **community resilience enhancement** process builds on and adapts the concepts of resilience, teams, networks, agile management, and strategic impact to communities, and community resilience. While this handbook tailors these concepts to fit the community resilience mission, many of the principles that have worked well for businesses and not-for-profit organizations apply. For example, strategic impact is a concept derived from strategic planning. Strategic planning evolved in the business environment as a way for one business to gain a competitive advantage over similar businesses. The major goal was to increase profits or perhaps sales. Over time, strategic planning spread to not-for-profit organizations with a modified framework of trying to improve the performance of the organization with respect to its mission and goals. This handbook sets out a further modification: the use of strategic impact to improve community resilience.

A first underlying principle of resilience enhancement, and of a number of problem-solving approaches, is **difference reduction**: finding a way to move from the current situation to a more desirable situation. Figure 1.2 illustrates that enhancement is a process that moves an organization from the current situation to, or closer to, the desired situation.
Figure 1.2. The Resilience Enhancement Process

The diagram suggests the necessary steps for application to community resilience: (1) assess the current community resilience, (2) identify the characteristics of the desired community resilience, (3) determine the differences between the current and desired situations, (4) find actions to reduce the differences (i.e., to move the current situation closer to the desired situation), and (5) implement these actions. Chapters in this handbook discuss each of these steps in detail.

A second underlying principle of community resilience enhancement is the **criticality** or **strategic impact** of differences and actions. Not all differences are equal; some will have much more impact on community resilience than others. Similarly, not all actions have the same impact. Community resilience enhancement tries to focus effort on differences and actions that have the most significant strategic impact. The handbook discusses how to identify these differences and actions.

A third underlying principle of enhancement is **agile management**. Agile management encourages project teams to consider: (1) having clear goals; (2) focusing on the most important issues; (3) emphasizing action with only summary documentation; (4) minimizing the time to get results by limiting scope, performing activities in parallel when practical, and implementing actions as soon as possible; and (5) being responsive and flexible – for example, taking action when progress slows or new issues arise. In some situations, agile management may suggest dividing a large project into components and working on one component at a time.

Resilience enhancement addresses a number of issues that can cause problems for community groups when using traditional strategic planning. These include too broad a mission, too long a time period before implementing any actions, and too much time and effort spent on documentation. Large businesses may employ a number of people who work full time on strategic planning, and businesses can use a variety of incentives and sanctions to encourage participation from employees throughout the business. To carry out enhancement for community resilience, most communities will rely primarily or entirely on volunteers with limited available time, effort, and experience.

The processes and procedures set out in this handbook provide a structure and methodology to improve the likelihood of a successful outcome while using an agile approach to minimize demands on the time and effort of community members. This handbook focuses specifically on the mission of enhancing community resilience and emphasizes simplicity and flexibility to better fit the resources available to community groups. For example, using an analysis of strategic impact allows communities to limit scope by focusing on only a small number of important actions.
This handbook is a guide not a mandate. An agile enhancement effort may modify, combine, or leave out some or many of the activities described in the handbook and may add activities not in the handbook. The goal is to make a significant contribution to community resilience. The enhancement team can and should focus its activities on tasks with the greatest likelihood of making a difference. A plan that leads to a few important improvements this year may be better than one that may eventually do more but produces no improvement for several years. With disasters, being prepared sooner is better.

**Chapter 2. The Community Resilience Enhancement Team and Process**

Good enhancement starts with a plan. This chapter describes how to create the plan for a resilience enhancement project. The first part of the chapter specifies how to assemble the enhancement team and who to include on the team. The second part of the chapter describes how to structure and manage the enhancement project – how to identify who will do what when, how to track progress, and how to take corrective action when needed. A final section of the chapter discusses the use of various electronic communication tools to facilitate team activities and, if desired, to share team progress with the entire community.

**Assembling an Enhancement Team.** To do enhancement for community resilience, the community needs a group of people or a team to carry out the enhancement activities. Communities will follow different choices for selecting a team. A small community might include every community member on the team. When a community organization, for example a church or a neighborhood association or the Red Cross, leads the community resilience enhancement effort, the organization’s representatives may select all or a number of the members of the team. A common approach is to assemble a small group of steering committee members and let these members select the full team. Or an informal group of people in a community might gather on their own and decide to undertake a resilience enhancement effort for the community. In short, team members may be selected in a wide variety of ways.

In whatever manner the team is selected, the organizers of the team should consider some governing principles. First, the team should be representative of the entire community. Some communities are largely homogenous – for example, everyone in the community is middle income, Catholic, and Hispanic or Anglo-American non-Hispanic or African American or whatever. But most communities contain a mix of demographic sub-groups. One approach is to start by identifying the different geographic, age, gender, religious, economic, ethnic, racial, cultural, and other demographic sub-groups that constitute the community. Then select members so that all of the major sub-groups are represented. Note that each person on the team may belong to a number of sub-groups and thus 10 or so carefully selected team members may represent many different sub-groups. Some people may believe that they can represent sub-groups of which they are not members and they may be right. But sometimes this representation is based on stereotypes. Avoid stereotypes; ask and learn from the people in the community.
Ideally, the team composition should track directly the composition of the community. Members of the different sub-groups may have different concerns and priorities. For example, a person who lives next to a river may worry about floods, while one who lives on a cliff top may be more concerned with landslides. Men and women may have different concerns. If evacuation becomes necessary, higher income, middle-aged people can drive out in their cars and relocate to hotels. Lower income or elderly or handicapped or young people may not own cars and may not be able to afford an extended hotel stay. Enhancement plans for community resilience can quickly fail if one or more of the major socioeconomic, ethnic, cultural, or other sub-groups in the community feel that the plan is insensitive or hostile with respect to their concerns. A representative enhancement team can help to avoid these problems.

In practice, team composition often is influenced heavily by who is willing to serve. But once a tentative team is identified, the team organizers can improve the likelihood of a successful outcome by making sure the major demographic groups in the community are represented on the team. The time and effort spent getting a representative team can pay large dividends in the final results.

A second guide for selecting team members is strategic impact. An underlying goal of enhancement is to identify the most critical or important issues related to resilience for the specific community and to bring about changes that can enhance resilience. While all community members can make significant contributions to the enhancement effort, some people may have special skills, knowledge, or influence. For example, a person with planning expertise or with emergency preparedness, response, and recovery experience or with in-depth knowledge of the community might be especially helpful. Other people may be known for active involvement in the community, commitment, and high energy. Adding some people with these characteristics will help to assure that the enhancement plan is completed. Some community members, possibly a pastor or a community elder, might be respected by many other community members and thus able to secure participation in, and acceptance of, the enhancement effort. If an enhancement effort will require support from an organization or a government agency to implement its recommendations, then adding representatives from these organizations or agencies to the team can help to bring about success.

The size of the team can vary. Groups of 10 to 30 people tend to work well as resilience enhancement teams, but other size teams also can work. With a smaller team, representing the key demographics of the community may be more difficult and each person may need to do more work, but communication and coordination among team members is simpler. With a larger team, for example 50 people, the organizers can more easily select members to represent key community demographics and find members to do the needed tasks, but coordination and communication become more difficult. Both the representative and the strategic impact guidelines often result in adding additional members to the enhancement team.

Many people when asked to serve on an enhancement team will ask about, or at least think about, the costs and benefits of participation. The most obvious cost is the time and effort required to participate. For this reason, organizers will want to think carefully about the
number of meetings and other team activities. Fortunately, participation in an effort to enhance community resilience offers a number of benefits. Team members will learn about community resilience and about disaster mitigation, preparedness, response, and recovery. This information can directly benefit the members and their families in the event of a disaster. In addition, a more resilient community helps all community members including the team members. Some members will value the indirect benefits – the good feeling of helping their community and the people who live there and the social enjoyment of participating in a group effort. Occasionally, the sponsoring organization will have funds or perhaps a grant that will cover refreshments, meals, or some expenses for participants.

**Project Management.** Good community resilience enhancement efforts do not happen automatically. To improve prospects for success, the team must invest work into structuring and managing the effort. These activities are called “project management.” The basic ideas of *project management* are simple: (1) identify the jobs or tasks that need to be performed, (2) assign a desired start time and finish time for each task, (3) assign people (and other resources if needed) to work on each task, (4) monitor or compare actual accomplishments against the scheduled ones, and (5) take corrective action when the actual differs from the schedule.

**Figure 2.1. The CART Enhancement Model for Community Resilience to Disasters**

Building a Project Plan. To identify tasks, the team can start with the CART Enhancement Model shown in Figure 2.1. Each of the boxes in the model identifies a major task in the process for enhancing community resilience to disasters. Each major task may consist of a number of sub-
tasks. These sub-tasks are discussed in more detail in the chapters that follow. The team may wish to consider the tasks from several boxes in the figure above during team meetings. The double headed arrows connected to the Corrective Action box illustrate that the team can take corrective action at any point which may involve changing some of the decisions made earlier. For example, if a particular action cannot be implemented, the team can go back, try to find an alternative action, change the plan, and try to implement the new action. The project plan is a tool not a contract; changes often are needed and beneficial.

With an agile approach, the team does not include every possible task that anyone can think of in the plan. The time and effort available from team members is limited. A focus on the tasks most likely to improve community resilience can reduce the workload for team members and can improve the likelihood of a successful outcome. One helpful approach is to keep the initial plan comprehensive but relatively short and simple. The enhancement team can add more tasks, if appropriate, as the work progresses. Many enhancement efforts produce little of value because they select too large a set of too complicated tasks. As a result, people become tired or discouraged and wander off to other more interesting or promising efforts before implementing any actions. Words like small, simple, understandable, important, and fast are adjectives that describe an agile plan.

Once the team identifies a set of tasks, the team can assign start and end times for each task. Sometimes, the organizer of the enhancement effort assigns the times for some of the initial tasks such as administering the community resilience assessment survey and holding the first meeting to organize the team. Meetings end a couple of hours after they begin, but some tasks may continue for a number of days, for example, compiling a community email and telephone number directory to facilitate communication about disasters may take several weeks. A final step is to assign people to work on each task. For team meetings, all members may participate, but sub-teams or individual members may have specific assignments in preparation for the meetings or after the meetings.

Using the CART Enhancement Model and the material in the chapters of this handbook, the team can construct an initial project schedule. Figures 2.2 and 2.3 show two sample project schedules. The schedule in Figure 2.2 shows a traditional plan. The team follows the sequential structure of the Enhancement Model in that the team first defines the current situation; then moves on to establish a vision, goals, and objectives; and finally develops actions to move the community closer to the desired situation. At each meeting, the team may wish to modify the schedule to reflect new information and/or ideas.

**Figure 2.2. A Sample Traditional Schedule**

<table>
<thead>
<tr>
<th>Begin</th>
<th>End</th>
<th>Activities</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 10</td>
<td>Jan 10</td>
<td>Convene a meeting of the steering committee for the community to identify potential members of the enhancement team. Prepare a project schedule. Agree to conduct a survey.</td>
<td>Red Cross will select and convene</td>
</tr>
<tr>
<td>Feb 1</td>
<td>Feb 15</td>
<td>Administer the CART Assessment Survey to members of the community. Invite people to serve on the team.</td>
<td>Contract to a survey firm</td>
</tr>
</tbody>
</table>
First team meeting. Discuss survey results. Assign roles. Prepare the initial community narrative. Create sub-teams. Assign part of the assessment of current community resilience to each sub-team.

Feb 25  Feb 25

Feb 26  Mar 15

Mar 16  Mar 16

Mar 17  Apr 2

Apr 3  Apr 3

Meet to review progress and decide what further steps are appropriate. Set or confirm date for the next meeting.

Meet electronically or in person as desired. Modify plan to reflect input from community meetings. Write up and distribute the enhancement plan for community resilience. Send out revisions in implementation if needed.

Implement actions. Review progress electronically or in small meetings. Modify actions and implementation plans as needed via electronic communications.

Hold community meetings to review plan.

All team members

Members of each sub-team

All team members

Members of each sub-team

All team members

Sub-team hosts and community members

One person from each sub-team

Members of each sub-team

All team members

Some features of more traditional approaches are that the team:

- Has an orderly, easy-to-follow process for reaching the enhancement goal;
- Can assure that the current community resilience, the desired community resilience, and the actions are integrated and consistent;
- Can review the full set of actions for strategic impact and focus implementation on the most critical ones; and
- May lose interest before reaching the action selection and implementation stage if the process takes too long.

The schedule in Figure 2.3 suggests a more agile approach that performs some activities in parallel, uses a partially phased approach, and strives for early implementation of actions. Only the activities at each of the first three team meeting are shown. This plan develops initial versions of the current and desired situations and the actions in parallel. To use this more agile approach, the team divides into three sub-teams. Each sub-team refines its work based on
ideas presented by the other sub-teams. With this partially-phased approach, the team uses the first two meetings to complete a brief analysis of the current and desired community resilience and to identify one or several actions for immediate implementation to improve community resilience. At each subsequent meeting, the team can review results, refine the analysis of the current and desired resilience, generate additional actions, and decide if and when to meet again. This process can continue indefinitely or until the team decides to stop.

**Figure 2.3. A Sample More Agile Schedule**

<table>
<thead>
<tr>
<th>Begin</th>
<th>End</th>
<th>Activities</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 25</td>
<td>Feb 25</td>
<td>First team meeting. Discuss survey results. Assign roles. Prepare the initial community narrative. Create sub-teams. Assignments: Sub-team 1. Assess current resilience, Sub-team 2. Define desired resilience, Sub-team 3. Identify actions. Set or confirm date for the next meeting.</td>
<td>All team members</td>
</tr>
<tr>
<td>Mar 16</td>
<td>Mar 16</td>
<td>Second team meeting. Review input from each sub-team and consolidate into a consistent plan. Identify additional work needed and assign tasks to sub-teams. If practical, select some actions for immediate implementation. Set or confirm a date for the next meeting.</td>
<td>All team members</td>
</tr>
<tr>
<td>Apr 3</td>
<td>Apr 3</td>
<td>Third team meeting. Review progress. Refine, modify, and add to the plan as appropriate. Add more actions to the implementation plan. Set or confirm a date for the next meeting.</td>
<td>All team members</td>
</tr>
<tr>
<td>......</td>
<td>......</td>
<td>Additional meetings as desired.</td>
<td></td>
</tr>
</tbody>
</table>

Some features of more agile approaches are that the team:

- Can shorten or eliminate parts of the process;
- Can acquire an early, broad overview of the enhancement effort;
- May have the opportunity to hear and reconcile different ideas and assumptions presented by different sub-teams (reconciliation and revision may take some extra work);
- May be able to start implementing actions earlier and make more rapid progress;
- May expend time and effort on implementing actions that interfere with and/or have less impact on enhancement than more critical actions developed after better analysis and understanding; and
- May become tired or distracted and never identify and/or implement some or a number of the actions with the most strategic impact on community resilience.

Either a traditional or an agile approach, or various combinations, can work. Agile approaches tend to work better the more the team possesses the following:

- Knowledge about the community;
- An understanding of community resilience;
- Agreement on important issues to address; and
- Experience in community problem-solving.
A team whose members know little about the community or about community resilience, have not identified important community issues, and have little experience in community problem-solving may fare better with a more traditional approach. The schedules shown in Figures 2.2 and 2.3 are just two examples of many possible ones. Each community team should devise its own tailored approach that feels most comfortable or stimulating.

Monitoring the Project Plan and Taking Corrective Action. Developing a project plan is the beginning, not the end, of project management. The plan is much more useful when the team sets up a mechanism to monitor progress against the plan, to note differences between desired progress and actual progress, and to initiate corrective action to reduce the differences between actual and desired progress. In short, just as the enhancement effort uses difference reduction to improve community resilience, the team also can use difference reduction to improve progress in the enhancement effort. As noted in the next section, the team may wish to assign the role of project monitor to one or several team members.

When actual progress does not match desired progress, the team needs to take corrective action. All too often, a team recognizes that a problem exists but does nothing about the problem. Project management can help the team when, and only when, the team takes corrective action. Actions might include changing the schedule, working harder, eliminating some activities, getting more help, and so forth.

Team Organization. Team organization addresses three areas: (1) assigning roles to team members, (2) using sub-teams, and (3) dealing with work issues. Often enhancement teams for community resilience are self-organizing – the members decide how to organize and who should do what. Sometimes the sponsoring organization, when one exists, may wish to suggest specific roles for people. Some examples of roles that team members might undertake include:

**Coordinator** – sets meeting times, notifies members, arranges for a meeting place, and so forth; **Recorder** – keeps a record of what happens at each meeting with emphasis on key points, decisions, actions, and assignments; **Records manager** – keeps track of all documents and reports in use by the team and makes them available to team members. If the team has a website, the records manager may keep the website up to date; and **Project monitor** – tracks progress against the project schedule and facilitates discussions of corrective actions as needed.

After discussing what needs to be done, a team may wish to add and/or combine roles and to rearrange responsibilities. A good organization for a team is one that the members feel comfortable with and that works.

An important role for the team is a **facilitator** who runs the group meetings, keeps focus on the agenda topics for the meeting, and tries to make sure that everyone who wishes to make a contribution to any of the topics discussed has the opportunity to do so. The facilitator often is an outside person with experience in running enhancement groups, but the facilitator may be a
team member with some enhancement experience and/or good interpersonal skills. Appendix C of this handbook contains a checklist and guidelines for session facilitators.

With large teams, and even with small teams, forming sub-teams can improve progress and provide each member with a better opportunity to contribute. With self-organizing teams, the members decide whether to use sub-teams and, if so, which sub-teams to create. Often each person decides on which sub-team he or she wishes to serve. If the resulting sub-team sizes do not match the work to be done, during the discussions of the sub-teams some members may agree to move to the sub-teams that need them. The team sponsor or organizer also may suggest sub-teams and their membership.

Sub-teams may work on different aspects of one major task. For example, sub-teams might work on different parts of understanding the current situation or sub-teams may work on different major tasks at the same time. The team might divide into three sub-teams: one for understanding the current situation; a second for vision, goals, and objectives; and a third to develop and evaluate actions. In this situation, sub-team two’s work depends in part on the work of sub-team one and sub-team three’s work depends on sub-team two. Working independently at the same time may result in some duplication of effort, but it also can provide a broader set of ideas when the sub-teams meet to discuss what each has done. For example, some proposed actions may suggest problems that were missed by the team looking at the current situation and/or the list of objectives may suggest needed actions that are missing from the work of sub-team three.

With teams of volunteers, dealing with work issues can pose difficult and sensitive issues. With business, military, or sports teams, people who present work issues – for example, do not attend team sessions or attend but do not contribute much or attend and are disruptive – sometimes incur fines, loss of salary or bonus, loss of promotion, suspension, dismissal, or other undesirable actions, especially when the behavior interferes with team performance. With a team of community volunteers, the team has to use encouragement, challenges, and peer-pressure to try to change behavior (often military, business, and sports teams find these approaches helpful as well). Removing a community member from a team is unusual. If someone does not respond to encouragement to attend meetings or participate, normally the other team members just continue on. The inactive member may be learning and/or may participate at a later time. Disruptive members may need more structure or more involvement. One option is to assign the disruptive member a specific role or set of duties. With volunteer community teams, negative comments or actions directed at a problem member generally do as much, or more, harm than good. In short, teams work best when the active, constructive team members try to stay positive and focus on getting the job done.

**Team Communication Plan.** The team communication plan specifies how the team members will communicate with each other. At, or even before, the first meeting, the team should create a team communication plan, make sure all team members understand the plan, and then use the communication plan on a regular basis. Many people have access to electronic communications. If many team members have access to the Internet, the team may wish to set up a team website, either a stand-alone website or a team page on a social media site. The team records manager and other team members can post progress reports and documents on
the website. Other team members and all community members can comment as desired. In this way, any community member who wishes can follow all of the ongoing work. A website can provide significant help in team building and learning. Members who do not have access to the Internet may wish to meet periodically with a member who does have access to review progress and comment. Activities that bring the members together and encourage communication help the team make progress and, equally important, can increase community resilience. The same communication paths that develop during the resilience enhancement process can help the community to function better before, during, and after a disaster.

Other electronic communication modes also can help. Many people read emails or texts, and many have a cellphone. Sending emails and texts to the team or the community is fast and simple (if an email and/or text list exists). Text messages may work as well, or better than, email for meeting reminders or notices for other events. If some team members do not have email or a cellphone with text capability, the team communications plan can designate specific members to talk with them either periodically or when a significant event is scheduled.

If electronic communication appears infeasible, communication may consist of handing out reports on progress at meetings and mailing reports to members who are unable to attend. The team also can use a person-to-person communications pyramid in which one member contacts several others who in turn each contact several more people and so on. Setting up a communications pyramid in a community may serve well in a disaster as well when electronic communications may be damaged or destroyed by the disaster. When the pyramid is designed well, a large number of people can be contacted in a short time.

Chapter 3. Assessing the Current Community Resilience

As noted in Chapter 1, the resilience enhancement process strives to move the community from the current situation with respect to community resilience to a more desirable situation. Thus understanding the current situation is a good starting point for identifying actions to improve community resilience. In many communities, the members of the enhancement team already will hold a number of thoughts and observations about the current situation when they arrive at the first meeting. Once discussion starts, the members often can use the joint knowledge of the team to construct a good view of the current situation. The main challenge is to focus on those aspects that relate to community resilience. Community resilience may represent concepts that are not familiar to many of the team members. Some approaches covered in this chapter that emphasize community resilience include using the CART Assessment Survey, preparing a community narrative, and conducting a structured analysis of the current situation.

Using the CART Assessment Survey. The CART Assessment Survey© is a questionnaire for the team members and, when possible, other community members. The survey attempts to obtain and describe community members’ perceptions on aspects of community resilience. The purposes of the survey include: introducing people to the concepts of community resilience, involving and interesting people in the enhancement process, and generating data to define and refine the current situation with respect to community resilience. Community members
with access to the Internet can complete the survey online; others can fill out and submit paper versions of the questionnaire.

Often, the organizers of the enhancement effort arrange for the survey to be given to community members prior to the first meeting of the enhancement team. This option allows both enhancement team members and other community members to complete the survey. Data from the survey can be analyzed and reported to the enhancement team at the first team meeting and emailed or mailed to other community members along with a progress report on the enhancement effort. Another approach is to administer the survey to only the team members at the beginning of the first meeting. More information on the survey appears in Appendix B and an illustration of survey results appears in Appendix A.

**Preparing the Initial Community Resilience Narrative.** Once the team has discussed the results of the survey or has discussed the concepts of resilience and community resilience to disasters, the team may wish to generate an initial version of the *community resilience narrative*. This activity offers an opportunity to obtain and record the members’ views on important and relevant issues and features in the community with respect to disaster resilience. To encourage participation, this discussion should be completely unstructured. Team members can bring up points about the current situation, about visions and objectives, about actions, or about other topics, for example, implementation. Each member of the team should be encouraged and should feel free to bring up any points that he or she feels are relevant. Sometimes the facilitator starts the discussion by going around the room giving each member in turn a chance to talk. The facilitator may write the points on a whiteboard or sheets of paper and try to organize the points under headings. At intervals during the discussion or near the end of the discussion, the facilitator may summarize what he or she thinks was said and may give team members the opportunity to comment and suggest modifications, additions, or deletions. The recorder for the team should make sure the points are preserved for feedback to the team in written (or electronic) form at a later time. The recorder and facilitator may wish to further organize and refine the points before sending them back to team members.

The unstructured and open format of the initial narrative discussion can help to develop a pattern of broad member participation and also can pre-identify many of the points relevant to the various steps or parts of the community resilience enhancement process. If the available time is very limited, however, a team might wish to skip the initial community resilience narrative and proceed directly to the subsequent more structured tasks in the enhancement plan.

**Analyzing Community Resilience.** The team can perform a *structured analysis of the current community resilience*. In this context, *structured* means that the team follows a set of steps or guidelines. In this chapter, the structured analysis of the current community resilience situation focuses on three steps: (1) Threat Analysis, (2) Resource Analysis, and (3) Opportunity Analysis.

**Threat analysis** consists of identifying threats that might cause a disaster, assigning a likelihood measure to each threat, and describing the possible consequences of the disaster that can result from the threat. Community resilience relates to potential or actual disasters, and disasters result from threats. Because threats are the catalysts for disasters, threat analysis
offers a good starting point for a structured analysis of the current community resilience. For example, in Kansas and Oklahoma, tornadoes are a threat with a high likelihood (multiple tornadoes happen every year) with possible consequences of death, injury, and property damage that can displace many people from their homes, can occur anywhere in the region, and normally affect a limited area from a few feet to several miles wide and a few feet to 20 or more miles long. A list that contains a sample of possible threats appears in Figure 3.1.

**Figure 3.1. Examples of Threats that can Cause Disasters**

**Natural Causes**

**Avalanches and landslides** – can cause injury, death, and property damage. Affect a limited area with higher terrain nearby.

**Earthquakes** – can cause injury, death, and property damage. Can affect a small to very large area with possible extensive damage to residences and to infrastructure such as roads, businesses, utilities, police, fire, and medical facilities.

**Floods** – can cause injury, death, and property damage. Can affect a small to a large area with extensive damage to residences and to infrastructure such as roads, businesses, utilities, police, fire, and medical facilities. Effects limited to low-lying areas.

**Hurricanes** – can cause injury, death, and property damage. Often affect a large area with extensive damage to infrastructure such as roads, businesses, utilities, police, fire, and medical facilities. A problem mainly in coastal areas but can cause flooding inland.

**Ice storms and snow** – can down power lines resulting in a loss of electricity, collapse roofs, and make travel difficult. Can affect a small to a large area.

**Meteor strikes** – can cause injury, death, and property damage. Most likely to affect small areas, but a large meteor might affect a very large area with extensive damage to infrastructure such as roads, businesses, utilities, police, fire, and medical facilities. May have global impact.

**Sinkholes** – can cause injury, death, and property damage. Affect a limited area.

**Strong winds** – can down power lines, damage trees and buildings, overturn trucks, and make travel difficult. Can affect a small to a large area.

**Tornadoes** – can cause injury, death, and property damage. Can affect a small area or a strip that can run for many miles. Can destroy most of the infrastructure in small towns but normally affects only a small part of large metropolitan areas. Most prevalent in the U.S. southern plains area but can occur anywhere.

**Tsunamis** – can cause injury, death, and property damage. Can affect a small to a large area with extensive damage to infrastructure such as roads, businesses, utilities, police, fire, and medical facilities. Limited to coastal areas.

**Volcano eruptions** – can cause injury, death, and property damage. Can affect a small to very large area around the volcano with extensive damage to infrastructure such as roads, businesses, utilities, police, fire, and medical facilities. May have global impact.

**Wildfires** – can cause injury, death, and property damage. Can affect a small to a large area. Most effects occur in rural areas or at the boundary between rural and urban areas.

**Unintentional**

**Bridge collapses** – can cause injury and death in the immediate area. Disrupt travel.

**Building collapses** – can cause injury, death, and property damage in the immediate area.

**Chemical releases** – can cause injury and death for up to several miles or more around the source. May pollute land, water, and air.
Industrial explosions – can cause injury, death, and property damage for up to several miles around the plant or vehicle.

Natural gas or propane leaks – can cause injury and death in the immediate area.

Nuclear plant accidents – can cause injury, death, and property damage in the immediate area.
   Radiation and escaping radioactive gases and other materials may make large areas uninhabitable for long periods of time.

Oil or gas well blowouts – can cause injury, death, and property damage in the immediate area. May pollute land and water.

Pipeline breaks – can cause injury, death, and property damage in the immediate area. May pollute land and water.

Residential fires – many affect a person, family, or small group, but some (e.g., an apartment fire) may affect many families.

Train or truck accidents – can cause injury and death in the immediate area. May result in fire, explosions, and chemical leaks that affect a wider area.

Intentional

Atomic and thermonuclear weapons – can cause injury and death and damage buildings, roads, businesses, utilities, police, fire, and medical facilities over a large to very large area. Radioactive fallout may make up to a thousand or more square miles dangerous or uninhabitable.

Biological weapons – can cause injury and death. Effects could range from very local to globally catastrophic.

Chemical weapons – can cause injury and death for up to several miles around the release site or more if released in water.

Dirty bombs – can cause injury, death, and property damage in the immediate area. Radioactive dust and debris may make large areas uninhabitable for a period of time.

Explosive devices – can cause injury, death, and property damage. Most affect a limited area, but some may affect an area of several blocks.

Shootings – can cause injury and death in the immediate area.

Non-disaster Threats

Economic disruption – can result from plant closings, job loss, and loss of businesses, and can interfere with preparation for, response to, and recovery from adversity.

High crime rates – can cause economic disruption, social disruption, injury, and death; can make a community a less desirable place to live; and can interfere with communication, cooperation, and sharing.

High poverty rates – can lower resilience by reducing the availability of resources (e.g., economic, social, human) needed to prepare for, respond to, and recover from adversity.

Inadequate housing – can result from dilapidated housing or a lack of housing. Can reduce caring and connectedness in the community and lead to social disruption.

Lack of infrastructure – can result from inadequate police, fire, social services, transportation, and so forth and can interfere with preparation for, response to, and recovery from adversity.

Lack of job skills in the workforce – can increase the poverty rate; contribute to economic disruption; and interfere with preparation for, response to, and recovery from adversity.

Lack of jobs – can increase the poverty rate; contribute to economic disruption; and interfere with preparation for, response to, and recovery from adversity.
Some or many of the threats in Figure 3.1 do not relate to every community. The community resilience enhancement team can identify the threats that are most relevant for its community and prepare a threat analysis table similar to the one shown in Figure 3.2. The enhancement team for the sample community described by Figure 3.2 selected only a few of the many possible threats, but if the community increases its disaster resilience for the threats in Figure 3.2, the community will have greater resilience to many other adversities that might occur. Note that the community treated “Residential Fires” as a threat separate from other unintentional threats because the team believed there was a high risk of residential fires. Residential fires often are not included as a disaster threat, but fires are common and can severely impact the residents of the structure that burns. Communities should have the option of addressing the adversities they believe are important in their resilience enhancement effort.

Figure 3.2. Threat Table for a Sample Community in the U.S. Southern Plains

<table>
<thead>
<tr>
<th>Threat</th>
<th>Risk</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tornadoes</td>
<td>High</td>
<td>Can affect any member of the community</td>
</tr>
<tr>
<td>Ice storms</td>
<td>High</td>
<td>Loss of electrical power in freezing weather can be serious</td>
</tr>
<tr>
<td>Strong winds</td>
<td>High</td>
<td>Mainly causes property damage</td>
</tr>
<tr>
<td>Residential fires</td>
<td>High</td>
<td>Can cause death, property damage, displacement, and trauma</td>
</tr>
<tr>
<td>Flooding</td>
<td>Varies</td>
<td>Can affect homes in lower areas</td>
</tr>
<tr>
<td>Earthquakes</td>
<td>Medium</td>
<td>Small ones occur regularly; no data on risk of a major one</td>
</tr>
<tr>
<td>School shootings</td>
<td>Low</td>
<td>Unlikely but might happen</td>
</tr>
<tr>
<td>Wildfires</td>
<td>Low</td>
<td>Urban area, good fire protection, damage possible but unlikely</td>
</tr>
<tr>
<td>Unintentional</td>
<td>Low</td>
<td>No railroads, highways, bridges, or industrial plants nearby</td>
</tr>
<tr>
<td>Terrorism</td>
<td>Low</td>
<td>Terrorism acts unlikely but better to be prepared</td>
</tr>
</tbody>
</table>

In addition to identifying specific threats, the team should consider common elements of disasters, elements that occur often in many disaster situations. Common elements of disasters include:

1. **Evacuation** – some disasters make it necessary or highly desirable for people to leave their residences and their neighborhoods in advance. When warning is available for threats such as floods, hurricanes, and wildfires, people often choose to, or are directed to, leave danger areas before the disaster occurs.
2. **Displacement** – The actual occurrence of a number of disasters (e.g., tornadoes, hurricanes, fires, floods) may displace people from their homes for anywhere from a few hours to permanently. After Hurricane Katerina, many New Orleans residents were displaced for months and some never were able to return. Enhancement plans for community resilience should address displacement as appropriate.
3. **Rescue** – many disasters result in the need to rescue people from unsafe circumstances (e.g., collapsed buildings, high water). Police, fire, and other emergency workers are trained for rescue work which may be very dangerous. In the immediate aftermath of a disaster, community members may be the only people available to help, but use caution not to become another casualty while trying to help. Knocking on a neighbor’s door to
warn of a fire may be a safe way to help, but going into a burning building may make things worse. A community plan to identify and provide safe rescue assistance can improve resilience.

4. **Life essentials: medical care, shelter, food, and water** – the Red Cross, FEMA, local churches, and other organizations respond to these needs, but sometimes, especially when roads are impassable, the only available immediate help comes from neighbors. Enhancement projects that aid neighbors to help neighbors with life essentials when necessary can improve community resilience.

5. **Emotional stress** – the anticipation of, experience of, and recovery from any disaster can cause some emotional stress in many people and a high level of stress in some people. Deaths; injuries; property and infrastructure damage (e.g., residences, roads, utilities, medical care); job loss; and lack of shelter, food, and water all are important stressors associated with disasters. Negative events that directly affect the person or his or her family members or friends are the most stressful, but general knowledge and media coverage also can cause stress in people with no direct exposure to the disaster. A community plan to help members deal with emotional stress can improve community resilience.

**Resource analysis** looks at the resources, both human and physical, that are available to deal with threats and disasters. Some of these resources exist within the community; some may reside in organizations such as churches or the Red Cross while others may come from government agencies such as local police and fire departments, state National Guard units, or FEMA. Human resources are people. The focus here is on people skills of caring, cooperation, communication, and learning relevant to disaster resilience. Physical resources consist of a broad range of items within the community such as money, shelters, food, water, transportation, and communications.

Resources are needed to deal with different aspects of disasters. FEMA defines four phases of disaster management:

1. **Mitigation** – resources and actions taken to prevent or reduce the seriousness of disasters. Most natural disasters are difficult or impossible to prevent. Dams and other control structures do prevent some flooding. Keeping people from living in disaster-prone areas is a good prevention strategy but often very difficult to implement. A number of processes can reduce the impact of disasters, for example, building sea walls may mitigate the effects of storm surge associated with hurricanes and building storm shelters can mitigate injury and death for people during tornadoes. Unintentional disasters are more preventable. We often know how to prevent industrial accidents, but sometimes financial constraints or carelessness cause people to ignore the steps needed for prevention. Prevention is a high priority for intentional and terrorists acts, but clearly some terrorist-caused disasters do happen despite all the human and physical resources devoted to preventing them.

2. **Preparedness** – resources and actions taken to prepare for the possible occurrence of a disaster. For example, a community warning system may alert people to take shelter when a tornado approaches.

3. **Response** – resources and actions taken once a disaster happens to protect people and
property. For example, after a tornado, police and fire units rescue people from collapsed buildings while FEMA, the Red Cross, and other organizations provide food, water, and shelter for survivors.

4. **Recovery** – resources and actions taken to help the community to return to “normal.” For example, FEMA and other agencies or organizations may supply counseling for people traumatized by the disaster, funds for rebuilding, and assistance in finding jobs.

The community resilience enhancement team might start by looking at the most significant threat and asking what resources exist or could exist to deal with each of the four phases of disaster management associated with the threat. The team can identify community **strengths** – the areas where good or adequate levels of physical and/or human resources currently exist and also note areas where helpful or important resources to deal with the threat are either not available or are limited. The team then can proceed to look at additional threats. Many resources, especially human resources related to communicating, cooperating, caring, and sharing, will apply equally well to a number of different threats, but some threats may require special resources. Boats might provide valuable help with floods, but boats normally have little relevance to tornadoes or school shootings.

**Opportunity Analysis** examines potential resources outside the direct control and/or the geographical boundaries of the community that the team members may explore for inclusion in their enhancement plan for community resilience. Many of these resources can come from the disaster system of care. Some opportunities represent resources within the community that are controlled by others such as businesses or not-for-profit organizations. For example, the community may contain churches and religious facilities that might agree to play important roles in a disaster. Some commercial buildings and establishments may be made available to serve as shelters or to provide other resources. Local television stations may make telephone calls warning of tornadoes to community members who sign up, and most stations will broadcast warnings about threats that might cause disasters. Community clinics or medical facilities may agree to open and provide medical services in the event of a disaster.

Local governments provide police and fire services including first responders to disasters and may have specialized equipment and services for disasters. For example, some cities have equipment for detecting radiation, biological, and chemical hazards. Local governments also may operate emergency management centers or functions. State governments may provide National Guard support and other assistance in time of disasters. FEMA, the Red Cross, the Salvation Army, Catholic Charities, and similar national organizations will provide a wide range of assistance for all phases of disaster management.

A major task of the resilience enhancement team during the analysis of the current situation is to identify strengths and weaknesses with respect to resources within the community and opportunities outside the control of the community. Note that using these opportunities and, indeed, all resources involves answering two questions: (1) when or under what circumstances are the resources available to community members and (2) do community members know how to access the resources?
Since the sample community in Figure 3.2 identified tornadoes as the highest risk threat, Figure 3.3 illustrates an analysis of resources and opportunities related to a tornado threat.

**Figure 3.3. Resource and Opportunity Analysis for Tornadoes for a Sample Community**

Tornadoes occur when and where weather conditions are right for their formation. At present, no one knows how to prevent tornadoes or lessen their intensity. Shelters can prevent injury and death.

**Mitigation. Resources.** Our community of over 200 people has only seven underground shelters (all privately owned) with a capacity to hold up to 45 people – a weakness. The city has said that schools in the community are not suitable as public tornado shelters and will not be open in the event of a tornado. The community has sirens that sound when a tornado is nearby and all residents can hear the sirens. However, late at night many people do not wake up when the sirens sound. **Opportunities.** When tornadoes threaten, several local TV stations will make automated telephone calls to warn households that have signed up and most people will wake up when called. Some of the businesses and churches in the community may have areas that could serve as shelters.

**Preparedness. Resources.** Most of the families in the community have not taken steps to prepare for a tornado – a weakness. Many families, however, are interested in developing a plan of what to do and where to go in the event of a tornado. Evacuation is not a recommended preparedness option because tornadoes are unpredictable – a family might leave a safe place and go directly into the path of the tornado. Many families in the community know each other and are willing to warn and help each other – a strength. **Opportunities.** Representatives of the fire department, the local emergency management office, and the Red Cross are willing to work with the community to help plan and prepare for a tornado.

**Response. Resources.** Some residents in the community have invited neighbors to join them in their shelter when a tornado approaches, but no general plan exists and, as noted, capacity is limited. Most people know to go to the safest place in the house but most do not know how to identify the safest place. In the past, following a tornado, many residents go out to check on their neighbors and, in some cases, have helped rescue neighbors – a strength for our community that we can build on. Many people have friends or relatives who they can stay with for a while if their home is damaged or destroyed. **Opportunities.** Police and fire can respond and help almost immediately if a tornado hits our community. But the community at present has no plan to help the police and fire responders find the people or areas with the most critical needs. The fire department encourages people to register their shelters so the fire department can check the shelters for survivors, but we found only one family that had registered their shelter. A number of hospitals and clinics around our community are available to help injured people. With significant damage, the Red Cross and other agencies probably would show up within hours to provide food, water, living spaces, and trauma counseling, but the community knows little about what to expect and how to take advantage of these opportunities.

**Recovery. Resources.** Many of the people who live in our community have lived here for years and identify strongly with the community. In the aftermath of a disaster, most families will wish to remain and rebuild – a strength. Many have insurance. People are concerned about how to find contractors in the event of widespread damage and destruction of houses. **Opportunities.** The team believes that FEMA and perhaps some state and local agencies and local foundations
might assist with recovery, but the team has no information on what kinds of assistance might be available and how to access it.

Once the team finishes with the resource and opportunity analysis of the most critical threat, tornadoes in this example, the team can proceed to examine each of the remaining threats – a sequential approach. Many similarities will appear so each new threat that the team considers involves less work. FEMA uses an all hazards approach which seems reasonable for an organization with a national mission. If the team so wishes, the team can conduct an all local hazards analysis by focusing on strengths and weaknesses associated with resources and opportunities for all of the likely threats to the community at the same time.

The CART Instruments Manual© contains tools that can help the team to assess and analyze the current situation and to carry out other tasks in the project plan. The toolkit includes tools such as the CART Assessment Survey, Key Informant Interviews, Data Collection Framework, Community Conversations, Neighborhood Infrastructure Maps, Community Ecological Maps, Stakeholder Analysis, and Capacity and Vulnerability Assessment. Using these tools can generate substantial insight but requires additional time, effort, and training. See Appendix B.

Preparing the Structured Community Resilience Narrative. The structured community resilience narrative refines the initial community narrative, if one exists, and adds structure by organizing the narrative around the three analytic steps of the current situation—threats, resources, and opportunities—across the four phases of disaster management—mitigation, preparedness, response, and recovery. This structured narrative serves as an executive summary of the current situation. The structured narrative can contain the following sections:

1. Introduction to the current situation in the community;
2. Specific threats considered for the community;
3. Resources and opportunities for the set of threats in the community’s threat table related to (a) mitigation, (b) preparedness, (c) response, and (d) recovery; and

By reading this summary, a community member can learn about the key aspects of the current situation. Appendix A contains an example of a structured community resilience narrative.

Chapter 4. Moving Toward the Desired Community Resilience

The core of an enhancement plan for community resilience comes from two activities: (1) defining the desired situation for community resilience and (2) finding actions to move from the current situation to as close to the desired situation as practical. This chapter recommends developing a vision, goals, and objectives as an approach to defining the desired situation. Once the desired situation is defined, the team can compare the desired situation to the current situation to identify differences. The team then can develop a set of actions that attempt to move the community closer to the desired situation for community resilience.

Defining the Desired Community Resilience. Typically, the goal of enhancement for community resilience is straightforward: improve community resilience for the community. But community
resilience represents a broad concept that, while very important to deal with disasters, is difficult to measure or change directly. Instead, the team can define and focus on a set of community sub-goals and objectives: targets that are consistent with the goal but are more specific and measureable. Sub-goals and objectives look at what is desired; actions look at how to achieve objectives. For example, a team might have an objective to provide shelter for every community member in the event of a tornado – the “what” is desired. The team can then discuss actions that improve shelter options – the “how” to move closer to the objective. The community objectives can build on strengths and address any issues noted during the analysis of the current situation and can specify desired levels or features for human resources, physical resources, and opportunities.

Chapter 1 noted that community resilience builds on three components of resilience: (1) the personal resilience of community members, (2) the added resilience of the community team, and (3) the support provided by the disaster system of care. These three components of community resilience suggest the following three sub-goals:

1. Help the community to function as a more effective team;
2. Improve knowledge about and access to the disaster system of care; and
3. Reinforce personal resilience.

As noted in Chapter 1, a team is a group of people who: (1) have a task or set of tasks to perform; (2) have one or more common goals related to performing the tasks; (3) share resources such as information, skills, and physical commodities that are useful in performing the tasks; (4) communicate with each other to share information and coordinate actions; (5) cooperate or help each other perform the tasks; and (6) learn from the experience of working together on the tasks. To help the community function as a more effective team, the enhancement effort might come up with objectives that facilitate resource sharing in the event of a disaster or improve communication with and among community members in preparing for, surviving, and recovering from disasters. Many other objectives can help the community to function as a team.

Objectives related to the sub-goal of learning more about the disaster system of care might address learning more about the disaster related services provided by members of the disaster system of care such as the Red Cross, FEMA, police and fire, state and local emergency management agencies, churches, the Salvation Army, Catholic Charities, businesses, and many other organizations as appropriate for the community. Objectives related to the sub-goal of reinforcing personal resilience might include learning about what resilience is, improving community members’ understanding of disaster preparedness, obtaining training to improve resilience, or preparing a disaster plan. Another objective might be to, whenever possible, provide warning of an impending disaster to every community member.

The three sub-goals often are interrelated. For example, an objective to identify all tornado shelters or safe rooms available to, and easily reachable by, members of the community relates to both community team and personal resilience sub-goals. An objective to identify sources of shelter, food, and water in the event of a disaster might involve increasing supplies of these
resources and/or sharing more effectively the resources already in the community – an objective that relates to team and personal resilience and to the disaster system of care.

Once the team identifies a set of objectives, the team can review them to arrive at the critical set. **Critical objectives** are understandable, measureable, relevant to a substantial part of the community, and reasonably likely to improve community resilience. Some objectives may be very similar and can be combined into one. Other objectives may not be relevant. For example, improving health care in the United States and stopping global climate change may be good ideas, but these ideas sound more like national goals than objectives for improving resilience in a specific community. Getting a better house for the Smith family probably would help the Smiths, but this target appears too specific to a single person or family to represent a community resilience objective. The final set of objectives essentially is a partial definition of the desired situation. Appendix A identifies a set of objectives for one sample community.

As part of defining the desired community resilience, the team may wish to prepare its **vision statement** for the community – a summary of how the community will look and feel if and when the objectives selected to improve community resilience are achieved. Sometimes teams prepare an initial vision statement, then develop objectives, and finally revise the vision statement to reflect the objectives that were chosen. Other teams wait until the work on objectives is complete and then write the vision statement. In any event, the vision statement is a way for the team to communicate its vision of the desired community resilience to the community.

**Finding Actions to Move Toward Objectives.** Actions to increase community resilience can cover a broad range of activities from sending informative emails to holding training meetings to purchasing physical resources to strengthening a relationship with an outside organization such as the Red Cross that responds to disasters. The team might proceed by looking at each objective in turn. For each objective the team might ask if it can move the community closer to the objective by:

- Further strengthening or making better use of one or more of the community’s resource strengths;
- Making better use of one or more external opportunities; or
- Correcting one or more of the resource weaknesses.

The lists below give a few examples of actions that might address objectives related to community resilience. Of course, the actions the team actually selects for its enhancement plan should depend on the community objectives as discussed above.

**Examples of Human Resource Actions**

- Form a neighborhood association to encourage communication, caring, cooperation, and sharing in preparation for disasters;
- Prepare and disseminate a community directory with names, street addresses, telephone numbers, and email addresses to facilitate communication about disasters;
Hold neighborhood seminars on disaster mitigation, preparedness, response, and recovery;
Hold neighborhood seminars on psychological first aid – a relatively simple, straightforward approach to help neighbors help each other deal with disaster stress; and
Arrange for community members to participate in exercises that increase coping and resilience skills and decrease stress. Organizations such as the Red Cross and the National Child Traumatic Stress Network can make information available about, and assist with, psychological first aid and with coping and resilience exercises. Working with these organizations is an example of making better use of external opportunities.

Examples of Physical Resource Actions

- Develop and disseminate a list of tornado shelters and safe areas in the community and in nearby areas; and
- Develop and disseminate an evacuation transportation plan that uses personal vehicles, church buses, and other vehicles to safely evacuate every community resident in the event that evacuation is needed.

Examples of External Opportunity Actions

- Contact organizations such as the local chapter of the Red Cross to learn about the Red Cross and arrange for help with a number of disaster related services;
- Work with local churches, schools, and other community organizations to determine how they can help with disaster services;
- Contact the city and local television stations to see if a service is available to warn community members of impending disasters by way of automated telephone calls; and
- Meet with city or county police, fire, and emergency managers to understand the services available related to disasters and how best to obtain the services.

As noted, each team may find many other and/or different actions to address the specific objectives for its community.

**Reviewing Actions for Feasibility.** Most of us can think of a large number of actions that might be helpful in the face of disasters. Unfortunately many of our best ideas may not be feasible. For example, providing a very safe, comfortable in-residence tornado shelter for every community member is a great action idea, but alas, many families have more urgent uses for their own money and so do governments. As a result, many people have no shelter in their residence against a very strong tornado. Actions should pass multiple feasibility tests including economic, technical, and political tests. A completely safe shelter in everyone’s residence is not economically feasible for homeowners to build and not politically feasible for governments to build because voters have other priorities such as schools and roads. Building earthquake-proof buildings is another good idea for earthquake-prone areas, but the idea raises both technological and economic feasibility issues – we do not know how to construct buildings that will survive a really severe earthquake and trying to do so is very costly. In selecting actions to improve community resilience, as with many things in life, doing the best we can within the
limits of what is feasible may take us a long way toward the goal and greatly benefit the community.

**Selecting the Critical Set of Actions.** Teams and communities have limited amounts of time and energy. In general, a team that tries to implement 1,000 actions probably will accomplish less than a team that selects 10 really important actions to implement. The **strategic impact** or **criticality** of an action represents a measure of the likely impact that the action will have on long-term community resilience. A critical action should have a high likelihood of making a long-term, meaningful improvement to community resilience and a high likelihood of successful implementation. Every community situation is different, but some general guidelines to think about include:

1. **Timely long-term impact.** Actions that will improve long-term community resilience in the near future may be more critical than actions that take many years to have an effect. Most people in the community will get little comfort in knowing that they may be better off in 10 years. And 10 years from now, changes in threats, resources, opportunities, costs, and feasibility may suggest a different set of critical actions;
2. **Broad impact.** Actions that help a lot of people in the community may be more critical than actions that help only a few people;
3. **Cost-effective impact.** Among actions that can have a major impact on improving community resilience, the ones that cost the least and can be done the soonest may be the most critical. Actions that cost little or nothing and are easy and fast to implement may make the critical list if they provide at least some improvement to community resilience; and
4. **Consensus impact.** Useful, feasible actions that enjoy widespread support in the community may make the critical list because they are more likely to be implemented successfully.

The enhancement team might come up with a weighting scheme that assigns points to each proposed action for each of the four considerations. One possibility is to assign between zero and three points for each consideration where three is best. For example, an action that has a timely long-term impact, affects everyone in the community, costs very little and has widespread support in the community might receive a 3 in each of the four areas for a total of 12. The enhancement team then adds up the points assigned to each action by each team member and implements the ones with the highest score. An alternative scheme is give each enhancement team member five or ten votes and ask each person to vote for the actions that they believe are most critical. The enhancement team then focuses implementation efforts on the actions with the most votes. Sometimes enhancement teams just discuss the actions to try to arrive at a consensus on the most critical ones. By one of these approaches or by some other approach, the team can and should focus attention on implementing the most critical actions.

Controversial objectives and actions can cause problems for the plan and the team. An objective or action can become controversial due to legal, ethical, political, or social concerns. Almost any issue can come up during enhancement team meetings. The team is wise to think about how to identify and deal with controversial issues if one or more arise. Any action that benefits some people by reducing benefits for others raises ethical concerns. For example, a
community might reduce flooding problems by building a drainage ditch to route water into a nearby community. If this action results in an increased risk of flooding in the nearby community, the action is ethically questionable. In many places, the action also might be illegal. An objective to promote a social agenda item (e.g., to legalize the sale of marijuana) raises two concerns. First, the relevance to community resilience is unclear. Second, including a controversial social issue in the plan can create conflict within the community and interfere with team-building goals. In most cases, the team will make more progress toward improving community resilience by selecting less controversial, more relevant objectives and actions for the plan and leaving out the more controversial, less relevant objectives and actions.

Chapter 5. Implementing Actions to Enhance Community Resilience

Many actions and experiences can contribute to community resilience. The enhancement activities by themselves tend to improve community resilience because the team members learn about resilience; about disaster mitigation, preparedness, response, and recovery; and about working together as a team. But the main purpose of enhancement for community resilience is to implement the set of critical actions selected by the team to improve community resilience. Implementation consists of four tasks: (1) disseminating information about the plan and building support for the actions, (2) taking actions, (3) monitoring and evaluating progress, and (4) taking corrective action if and as needed.

Disseminating Information and Building Support. Once the team completes the objectives and action tasks of an enhancement plan for community resilience, a good next task is to share the plan with as many members of the community as practical. The community members themselves and their abilities to work together as a team in a disaster situation will influence to a large extent the level of community resilience. Sharing the plan with community members can bring four benefits:

1. **Learning** – all members of the community who participate in the review will learn more about community resilience and about disaster mitigation, preparedness, response, and recovery;
2. **Improvement** – community members may offer good suggestions for improving the plan and may identify topics or wording that might offend or antagonize some members of the community;
3. **Support** – members who learn about the plan and have the opportunity to contribute to it are more likely to support implementation of the plan; and
4. **Teamwork** – the process of participating in a review of the plan helps to build the foundation for the community to function as a team.

The team has many options for sharing the plan. Meeting with groups of community members probably is the best approach. Where practical, the team might distribute copies or summaries of the plan in print or by email prior to the meetings. In some communities, posting the plan on a website and inviting community members to comment is a possibility. However, in-person meetings to discuss the plan probably contribute more to building teamwork in the community.
When other people and groups, for example community agencies or police, fire, or other city, state, or federal officials, hold important roles in implementing actions, the team can include representatives in the community meetings or hold separate meetings with them. People are more likely to support implementation when they have an opportunity to participate in reviews of the plan.

**Taking Action.** In many cases, the enhancement team members can directly implement many actions to encourage teamwork in the community and to build closer relationships with external organizations. The team also can recruit other volunteers to help implement the actions. The Red Cross and a number of other organizations interested in disaster issues may be willing to provide substantial time and skill support to the community for implementation of actions. Actions that involve acquiring new physical resources may pose the most difficult implementation issues because they require a funding source. Sometimes funding is available from government, foundations, or other donors and occasionally community members are willing and able to self-fund some actions and new resources. Hopefully during feasibility screening, actions with large funding needs and no identifiable sources of funds were eliminated from the critical action set.

Each action can benefit from its own mini-plan for implementation. Each plan can address briefly some or all of the following issues as appropriate:

- Describe the action and what the action is intended to do or accomplish;
- Identify the key stakeholders for implementing the action. Who will the action affect if implemented and who needs to agree or cooperate for implementation to occur? For many actions, the community members are key stakeholders since they are affected by the action and often need to help in some way for the implementation to succeed. For some actions, organizations and governments also may be key stakeholders;
- Find ways to get the needed participation from the key stakeholders. For example, contact people who have access to, and influence with, key stakeholders and ask these people to help obtain participation;
- Develop a list of steps to implement the action and assign start and end times for each step;
- Decide who is responsible for and who will perform the work needed at each step;
- Identify obstacles to implementation and develop ways to overcome the obstacles;
- Devise a plan for communicating about progress and problems with the stakeholders; and
- Monitor progress and revise plans as needed.

**Example 1:** Implement an action to have all community members receive warning via automated telephone calls from a local television station about severe weather threats. The obvious stakeholders are community members and the television station. The television station presents no obstacles. The warning service is provided for free to anyone who signs up. Obstacles for community members may include (1) lack of information about the service, (2) inertia due to having many other things to do and not placing a high priority on the service, and (3) lack of a telephone for some people. The implementation plan might include holding
community meetings and reviewing the service as part of the meeting agenda. An alternative approach might be to set up an action group to call each person in the community, explain the service and its benefits, and request permission to add their phone number to the service. The action requires a community phone directory – a possible obstacle and perhaps another action item. The action group also may need to get an agreement from the television station for the action group to sign up other people – another possible obstacle. The team agreed to establish the action group and succeeded in registering most residents. This approach offers the additional benefit of monitoring the implementation progress. The action group kept records of how many people it registered for the service (71%), how many said they already were registered (23%), and how many declined or were unable to register (6%).

Example 2: Implement an action to provide a community shelter at a trailer park. Tornadoes can do great damage and cause many injuries and deaths when they strike a trailer park. The residents’ association identified tornado protection as a critical objective to improve community resilience and selected build a community tornado shelter as a critical action. The initial stakeholders are the residents and the park owner. When asked, the park owner declined to build a shelter because it cost too much. The residents contacted their state representative (a person with access and influence to another stakeholder: state government) and asked him to introduce a law to mandate shelters at trailer parks. The representative agreed, but the law died in committee. A resident found a federal agency (another stakeholder) that makes low-cost loans for disaster prevention, and the agency agreed to consider a low-cost loan to the trailer park owner to build the shelter. The owner declined to apply, saying he could not raise rental rates enough to pay off the loan. The residents asked the local elementary school to let them shelter in the school (a new action added to their enhancement plan). The school declined to serve as a shelter. The residents explored an evacuation plan (another new action), but decided that tornadoes are too unpredictable to make evacuation to avoid the tornado a good option (evacuation is not feasible).

In example 1, the team prepares an implementation plan for its selected action and the plan works. In example 2, the team comes up with an implementation plan and makes several different efforts to secure implementation of the action without success. The team then tries several alternative actions, again without success. Teams probably will encounter a number of different implementation situations. Some will work the first time, others will work after revision, and some will never work. A team that addresses each of the suggested implementation issues in its mini-plans for each action should have the best chance for success.

**Monitoring, Evaluation, and Corrective Action.** After a reasonable period of time devoted to implementation, perhaps six months, the team can meet again in person or electronically to review progress. Some actions may be implemented completely, others may be in progress, and a final group may have made no progress or been outright rejected. After review, the team can discuss a number of possible decisions and new actions including:

- Drop any further activity on actions that prove unfeasible to implement;
- Hold an action for a later time when implementation looks more promising;
- Revise an action to make it more feasible to implement;
- Identify new actions to better address existing objectives; and
- Change objectives to reflect changes in the community, threats, or the team’s understanding of the issues and generate new actions to address the new objectives.

The team also can prepare an evaluation of progress that describes how well, or to what extent, the community achieved progress in moving toward the desired situation. One option is to re-administer the CART Assessment Survey. If possible, the progress report should be shared with all community members and with external people and organizations involved with the creating the plan.

The enhancement process for community resilience can serve well as a continuing vehicle for community involvement and development. If the community is pleased with the initial results, the community may wish to get together every year to prepare a revised or updated plan to further improve community resilience to disasters.
Appendix A. Case Study: Enhancement for Community Resilience to Disasters

[Note: the following text provides one example of how the community resilience enhancement activities might proceed. Every community will have its own issues and ideas which may differ from this example.]

A group of neighbors living in the community of Village Meadow discussed doing something to better prepare the community for potential disasters. One person in the group contacted the local Red Cross and inquired about help. A Red Cross field representative suggested conducting an enhancement exercise to improve community resilience to disasters and agreed to help with the activity. The group liked the suggestion and worked with the local Red Cross to schedule a steering committee meeting for January 10. At the meeting, the Red Cross representative distributed materials prepared by the Terrorism and Disaster Center at the University of Oklahoma Health Sciences Center and conducted a brief information session on the purpose of, and steps involved in conducting, enhancement for community resilience.

The steering committee suggested the names of over 50 people as potential members for the enhancement team. Each committee member agreed to contact a subset of the people to request participation. The suggested members were distributed geographically throughout the community and were representative of the community. The Red Cross representative agreed to serve as the facilitator for the enhancement process. During the final part of the meeting, the committee prepared the initial project schedule that follows.

<table>
<thead>
<tr>
<th>Begin</th>
<th>End</th>
<th>Activities</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 10</td>
<td>Jan 10</td>
<td>Convene a meeting of steering committee for the community to identify potential members of the enhancement team. Prepare a project schedule. Agree to conduct a survey.</td>
<td>Red Cross and steering committee</td>
</tr>
<tr>
<td>Jan 15</td>
<td>Feb 15</td>
<td>Administer the CART Assessment Survey to members of the community. Steering committee members will invite people to serve on the team.</td>
<td>Survey firm and steering committee</td>
</tr>
<tr>
<td>Feb 26</td>
<td>Mar 25</td>
<td>Work on sub-team tasks – members communicate electronically.</td>
<td>Members of each sub-team</td>
</tr>
<tr>
<td>Mar 25</td>
<td>Mar 25</td>
<td>Second team meeting. Review input from each sub-team. Consolidate and refine the work. Identify some initial actions for implementation. Make assignments as appropriate.</td>
<td>All team members</td>
</tr>
<tr>
<td>Mar 26</td>
<td>Apr 25</td>
<td>Work on sub-team tasks – members communicate electronically and/or meet as desired.</td>
<td>Members of each sub-team</td>
</tr>
<tr>
<td>Apr 25</td>
<td>Apr 25</td>
<td>Third team meeting. Refine and adopt the initial enhancement plan. Develop an implementation plan. Assign implementation tasks to sub-teams. Decide on dates for additional meetings or activities as needed or desired.</td>
<td>All team members</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hold additional meetings if and as needed.</td>
<td></td>
</tr>
</tbody>
</table>
The committee contacted 41 community members and 23 agreed to serve on the enhancement team. Most of the people contacted expressed support for the effort, but some had too many other commitments to serve. The Red Cross representative arranged for a survey of community members using the CART Assessment Survey to learn about community members’ perceptions of resilience for the Village Meadow community. The committee decided to invite all community members to observe the first meeting. Each team member was asked to read the Community Resilience Enhancement Intervention User Guide [a condensed version of this intervention handbook]. At the first meeting, 18 members of the enhancement team and 11 additional community members attended. The team reviewed the results of the CART Assessment Survey shown in the following table.

<table>
<thead>
<tr>
<th>Assessment Survey Item</th>
<th>% positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>B4. People in my community help each other.</td>
<td>80.3</td>
</tr>
<tr>
<td>B1. People in my community feel like they belong to the community.</td>
<td>77.2</td>
</tr>
<tr>
<td>B2. People in my community are committed to the well-being of the community.</td>
<td>77.2</td>
</tr>
<tr>
<td>B3. People in my community have hope about the future.</td>
<td>76.5</td>
</tr>
<tr>
<td>B19. My community can provide emergency services during a disaster.</td>
<td>75.8</td>
</tr>
<tr>
<td>B6. My community supports programs for children and families.</td>
<td>69.4</td>
</tr>
<tr>
<td>B21. My community keeps people informed (for example, via television, radio, newspaper,</td>
<td>69.1</td>
</tr>
<tr>
<td>Internet, phone, neighbors) about issues that are relevant to them.</td>
<td></td>
</tr>
<tr>
<td>B8. My community has effective leaders.</td>
<td>68.8</td>
</tr>
<tr>
<td>B17. My community tries to prevent disasters.</td>
<td>68.5</td>
</tr>
<tr>
<td>B13. People in my community work together to improve the community.</td>
<td>67.8</td>
</tr>
<tr>
<td>B12. People in my community communicate with leaders who can help improve the community.</td>
<td>67.1</td>
</tr>
<tr>
<td>B23. I get information/communication through my community to help my home and work life.</td>
<td>65.8</td>
</tr>
<tr>
<td>B9. People in my community are able to get the services they need.</td>
<td>61.1</td>
</tr>
<tr>
<td>B24. People in my community trust local officials.</td>
<td>59.4</td>
</tr>
<tr>
<td>B5. My community treats people fairly no matter what their background is.</td>
<td>58.1</td>
</tr>
<tr>
<td>B10. People in my community know where to go to get things done.</td>
<td>58.1</td>
</tr>
<tr>
<td>B15. My community develops skills and finds resources to solve its problems and reach its goals.</td>
<td>58.1</td>
</tr>
<tr>
<td>B7. My community has resources it needs to take care of community problems (resources include for example, money, information, technology, tools, raw materials, and services).</td>
<td>57.7</td>
</tr>
<tr>
<td>B16. My community has priorities and sets goals for the future.</td>
<td>53.8</td>
</tr>
<tr>
<td>B22. If a disaster occurs, my community provides information about what to do.</td>
<td>46.4</td>
</tr>
<tr>
<td>B11. My community works with organizations and agencies outside the community.</td>
<td>44.4</td>
</tr>
<tr>
<td>B20. My community has services and programs to help people after a disaster.</td>
<td>41.0</td>
</tr>
<tr>
<td>B14. My community looks at its successes and failures so it can learn from the past.</td>
<td>38.3</td>
</tr>
<tr>
<td>B18. My community actively prepares for future disasters.</td>
<td>32.6</td>
</tr>
</tbody>
</table>

Items are listed in order of the percentage of agreement with each statement as assigned by the community members. The statements about which people were most in agreement are shaded in green and the statements with the least agreement are shaded in yellow. A number of enhancement team members said that the survey results and discussions gave them ideas for enhancement of community resilience.

Working with the facilitator, the team assigned roles to team members and divided into three sub-teams: Sub-team 1 – Current Situation, Sub-team 2 – Desired Situation, and Sub-team 3 –
Actions. Two members agreed to serve also as a communication sub-team. Community member observers were invited to join the sub-team of their choice. The team allocated 45 minutes for the sub-teams to meet and identify first thoughts on their assignments. At the end of the 45 minutes, each sub-team reported on its initial work. Other team members and the community member observers commented and made suggestions. The team recorder gave a brief summary of what he saw happening at the meeting. Working with two colleagues, he will prepare a written summary and distribute it to members. The facilitator invited the observers to join the enhancement team and eight people agreed to join. The sub-teams will work more on each assignment over the next several weeks either in small meetings or online. Each sub-team will prepare a report for the next meeting.

The two team members of the communication sub-team notified all team members on March 3 that the team website is up and working. The website contains: (1) The Community Resilience Enhancement Intervention User Guide; (2) a directory of team members with names, phone numbers, and email addresses; (3) the updated project schedule; (4) minutes from the February 25 meeting with the CART Assessment Survey results; and (5) the latest versions of the reports from each of the three other sub-teams. As decided by the team, all community members have access to and can download any of the materials on this site. Only the two communications sub-team members can upload material onto the site. Revised versions of sub-team reports and all other team materials will be sent to the communication sub-team members for posting to the website.

At the second meeting on March 25, the 19 people present reviewed the materials from each sub-team. As expected during the discussion, the team suggested a number of revisions. Sub-team 2 generated objectives to address two weaknesses not mentioned in the Sub-team 1 report on the current situation and did not generate objectives to build on three of the strengths noted in the report. Similarly the actions from Sub-team 3 needed some modification to match with the objectives. Once the team members finished the modifications, they reviewed the actions for feasibility and criticality. Of 28 suggested action items, 13 were selected as feasible and likely to have a significant effect on resilience.

The team members agreed that more work and refinement is needed, but all also agreed that they wanted to begin implementing actions at this point. In about six months, the team hopes to reconvene, review progress, and update its analysis and actions.

The team selected the following assignments for work to be completed before the third meeting on April 25: Sub-team 1 will incorporate the comments and suggestions from this meeting into a brief draft report on the current situation, the desired situation, and actions to reduce the difference; Sub-team 2 will prepare first draft mini-plans for implementation of each of the initial action items; and Sub-team 3 will meet with representatives of the Red Cross, the city emergency management director, and a FEMA contact to learn more about disaster services that might be available to the community. Sub-teams will post the results of their efforts on the website.
A total of 29 people attended the third meeting on April 25. After Sub-teams 1 and 2 presented their reports, a community member not on the team expressed concern about what was going on. The team coordinator noted that all team materials were available to everyone on the team website, the team planned to hold community meetings as a first action, and all community members will be invited to attend the meetings. The facilitator suggested that she and the coordinator for the team would be happy to meet with concerned community members. The main protestor responded that she had made her point and no special meeting was necessary.

The team then heard the report of Sub-team 3 on disaster support from external sources. This report generated a number of new ideas. A team member said the team should have set up a sub-team to work with the disaster system of care at the first meeting and a number of members seemed to agree. The team used the remaining time to agree on a version of the plan to be presented at the community meetings. Following agile management practices, the team agreed that the written plan should be as brief as practical and probably should be in an outline format. The emphasis in the community should be on actions and implementation. The team then assigned people to arrange and conduct the community meetings if possible during the last two weeks of May.

People who attended the community meetings were asked to sign in with a name and address. One or more people (including team members) from about 30% of the residences in the community came to the meetings (along with some people who were present who did not sign in). Most attendees seemed positive; several made good suggestions to improve the plan. One person was concerned that the flooding problem of the creek near his home was not addressed. Six of the attendees, including the fire department liaison and a state representative, volunteered to help with implementation.

After the community meetings, the team agreed to meet again on June 25 to review the outcome of the community meetings and to finalize the initial set of actions to implement. At the meeting, the team agreed to place the revised version of the Village Meadow’s Plan to Enhance Community Resilience for Disasters on the website. The team set up six sub-teams and assigned implementation responsibilities to each sub-team. The implementation sub-teams will send monthly progress reports to the communications sub-team for posting on the team website. The team will continue to meet monthly as part of other activities. Time will be allocated at each meeting as needed to monitor and review progress on enhancement actions and to modify the plan if and as appropriate. In December, the survey firm will conduct another CART Assessment Survey to compare with the first.

A copy of the Village Meadow’s Plan to Enhance Community Resilience for Disasters as posted on the website follows.
Village Meadow’s Plan to Enhance Community Resilience for Disasters

This plan includes a community narrative, identifies desired community resilience, and specifies actions and implementation.

Initial Community Resilience Narrative. The goal of Village Meadow’s plan is to bring about a significant increase in our community’s resilience to disasters over the next year. People in Village Meadow help each other, feel like they belong to the community, are committed to the well-being of the community, and have hope about the future. In the event a disaster occurs, people believe that some combination of police, fire, FEMA, the Red Cross, and other service providers would provide emergency services in response to the disaster. However, there appears to be little preparation for disasters, little attempt to learn from disaster experiences in our community, and no real plan for recovery. The community lacks information about, and a plan to work with, organizations in the disaster system of care. Possible actions discussed by team members included preparing a community disaster plan, setting up street or block organizations, learning more about the disaster system of care, finding out what other communities are doing with respect to community resilience, finding ways to help people in the community with jobs and homes, and a community crime watch program.

Threats. To better understand the threats facing our community, the team developed the following threat table.

<table>
<thead>
<tr>
<th>Threat</th>
<th>Risk</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tornadoes</td>
<td>High</td>
<td>Can cause death, injury, and property damage</td>
</tr>
<tr>
<td>Ice storms</td>
<td>High</td>
<td>Loss of electrical power in freezing weather can be serious</td>
</tr>
<tr>
<td>Strong winds</td>
<td>High</td>
<td>Mainly causes property damage, some risk of injury</td>
</tr>
<tr>
<td>Crime</td>
<td>High</td>
<td>Burglary and home invasion are the main concerns</td>
</tr>
<tr>
<td>Flooding</td>
<td>Varies</td>
<td>Can affect homes in lower areas</td>
</tr>
<tr>
<td>Earthquakes</td>
<td>Medium</td>
<td>Small ones occur regularly, no data on risk of a major one</td>
</tr>
<tr>
<td>School shootings</td>
<td>Low</td>
<td>Unlikely but might happen</td>
</tr>
<tr>
<td>Wildfires</td>
<td>Low</td>
<td>Urban area, good fire protection, damage possible but unlikely</td>
</tr>
<tr>
<td>Unintentional</td>
<td>Low</td>
<td>No railroads, highways, bridges, or industrial plants nearby</td>
</tr>
<tr>
<td>Terrorism</td>
<td>Low</td>
<td>Terrorism acts unlikely but better to be prepared</td>
</tr>
</tbody>
</table>

Resource and Opportunity Analysis. Our plan focuses on tornadoes, ice storms, strong winds, and crime as the threats most likely to cause disaster-type problems in our community. However, the plan also should provide increased resilience for other disasters as well. Tornadoes can result in some people becoming homeless; so our plan deals with providing life essentials and counseling as needed to those affected.

Disaster Preparedness. Resources and opportunities related to preparedness are listed below.

- Many people in our community know each other.
- People are willing to warn each other about impending disasters.
- People are concerned about, and want to, prevent crime.
- Many people and families are interested in developing a plan of what to do and where to go in the event of a disaster.
- Most of the families in the community have not taken any steps to prepare for a disaster.
- About 25% of households have approved tornado shelters.
- Representatives of the fire department, the local emergency management office, the Red Cross, and possibly other organizations are willing to work with the community to help plan and prepare for a disaster.
- Often, TV stations provide warning about possible flooding.
• When severe weather threatens, several local TV stations will make automated telephone warning calls to households that sign up.
• Some of the businesses and churches in the community have areas that can serve as shelters.

Disaster Response. Resources and opportunities related to response are listed below.
• In the past, following a disaster, many residents checked on their neighbors and in some cases helped rescue neighbors.
• Police and fire can respond and help if a disaster hits our community.
• Some residents in the community have invited neighbors to join them in their shelter when a tornado approaches.
• Most people know to go to the safest place in the house, but many do not know how to identify the safest place.
• Many people have friends or relatives who they can stay with for a while if their home is flooded, damaged, or destroyed.
• The community at present has no plan to help the police and fire responders find the people or areas with the most critical needs.
• The fire department will register tornado shelters and in the event of a disaster, will check them for survivors, but most shelters are not registered.
• A number of hospitals and clinics around our community are available to help injured people.
• With significant damage, the Red Cross and other agencies probably would show up within hours to provide food, water, living spaces, and trauma counseling, but the community knows little about what to expect and how to take advantage of these opportunities.

Disaster Recovery. Resources and opportunities related to recovery are listed below.
• Many of the people who live in this community have lived here for years and identify strongly with the community.
• In the aftermath of a disaster, most families wish to remain and rebuild.
• Many homes have insurance for tornadoes and for hail and wind damage but with a large deductible. Some have flood and/or earthquake insurance.
• People are concerned about how to find contractors in the event of damage and destruction of houses.
• The team believes that FEMA and perhaps some state and local agencies and local foundations might assist with recovery, but the team has no information on what kinds of assistance might be available and how to access it.

Desired Community Resilience. The team’s overall goal is to improve community resilience. A sub-goal is to help the community function as a more effective team. Objectives include:
1. Inform all community members about disasters, resilience, and community resilience.
2. Inform community members about the disaster system of care, what it does, and how to access it.
3. Provide the best possible advance warning of pending disasters to community members.
4. Increase community members’ knowledge and ability to communicate and work together with neighbors.
5. Increase awareness of potential crime situations and improve relationships with the police.
6. Improve awareness of, and access to, a safe place to go in the event of an approaching tornado.
7. Identify sources of shelter, food, water, and medical care in the event of a disaster and inform the community of them.
8. Increase the level of planning and preparation for disasters.
Actions and Implementation

The team assigned responsibility for each action to one or several team members. The assignments are not shown here.

Immediate action:
- Conduct neighborhood meetings to review results of the CART Assessment Survey and the enhancement plan and seek comments. The team believes that this action is needed before any other actions are implemented. The meetings and discussions should by themselves begin the process to improve community resilience. The team divided the community into six areas and selected a team member to take responsibility for setting up a meeting for each area.

Possible next actions (as modified based on feedback from community meetings):
- Form or reactivate neighborhood associations to encourage communication, caring, cooperation, and sharing in preparation for disasters.
- Publicize the use of a social media site for Village Meadow’s community resilience news.
- Prepare and disseminate a community directory with names, street addresses, telephone numbers, and email addresses to facilitate communication about disasters. Many people have only cellphones and are not listed in commercial telephone directories. While phones are important in emergencies, we think email, texting, and social media are the best forms of routine communication in our community.
- Recruit volunteers to serve as block coordinators for every block in the community.
- Work with the school system to use the Terrorism and Disaster Center’s Resilience and Coping Intervention with all students to improve their daily coping skills as well as their longer-term resilience to disasters.

Use neighborhood associations, block coordinators, social media, texting, and email to implement the following actions:
- Provide every family or residence with instructions of how to create a disaster plan and a form to use.
- Notify and encourage every community member to sign up with a local TV station to receive warnings about impending disasters by way of automated telephone calls.
- Develop and disseminate a list of possible tornado shelters and safe areas in the community and in nearby areas.
- Develop and disseminate an evacuation transportation plan that uses personal vehicles, church buses, and other vehicles to safely evacuate every community resident in the event that evacuation is needed.
- Hold neighborhood meetings on disaster mitigation, preparedness, response, and recovery. Arrange for participation by representatives of the Red Cross, FEMA, police, fire, emergency managers, churches, and other community organizations as appropriate. At each meeting, get feedback from attendees on what other information or activities they want.
- Hold neighborhood meetings on psychological first aid – a relatively simple, straightforward approach to help neighbors help each other deal with disaster stress.
- Work with the Red Cross to teach coping and resilience skills to community members.

Monitoring, Review, and Follow-Up. This initial enhancement plan is only a beginning. The team will revisit the entire situation about every six months or when new information becomes available. We want to observe, to learn, and to be adaptive. We will monitor progress on implementation and community resilience. We will discard actions that are too expensive or time consuming or do not work as expected. We also expect to find new actions that better address our objectives. When disasters do happen in our community or elsewhere, we will try to learn from them and use the new insight to improve resilience in our community.
Appendix B. CART Instruments

The CART Instruments Manual© (available at the TDC website: http://www.oumedicine.com/psychiatry/research/terrorism-and-disaster-center) includes the rationale, instructions, templates, and a discussion of special considerations for using a variety of CART tools described below. Aspects of a number of these tools appear as part of the processes described in this handbook. Time and effort are required for training on and using these tools.

**CART Assessment Survey.** The CART Assessment Survey is a field-tested questionnaire for assessing a community’s resilience. It can be used to obtain baseline information about a community, identify relative strengths and challenges, and re-examine a community after an intervention or disaster. The survey can be administered in person, over the telephone, through the Internet, or via postal or electronic mail. Teams can add questions to address local concerns.

**Key Informant Interviews.** Key Informant Interviews produce information from people who are knowledgeable about a community or an issue. Interview findings can be used to supplement survey or other information; determine needs; identify and address problems; develop goals, objectives, and action steps; and evaluate activities and programs. Instructions for this tool include guidelines for selecting and contacting key informants and conducting interviews. Questions available as part of the CART Instruments Manual address various aspects of community resilience, disaster and terrorism preparedness, and how to encourage public involvement. These questions can be adapted for the community and type of disaster under consideration.

**Data Collection Framework.** The Data Collection Framework identifies some types and sources of available information that may be used in enhancement to build community resilience. This information can be collected at any time to learn more about a community and should be updated when significant changes occur within the community. The framework can help a team identify local resources, discover community limitations, and anticipate complications that may arise as part of community resilience enhancement and disaster management. The information collected can help tell the story of a community, thus contributing to the community narrative.

**Community Conversations.** Community Conversations involve the sharing of information, ideas, and opinions among individuals who are knowledgeable about a specific issue. Engaging these individuals in a group setting enables a team to collect a lot of information at one time. Individual participants may benefit from the input of others in the group, resulting in new ideas. The CART Instruments Manual includes recommendations regarding logistics for holding conversations (e.g., selecting a location for the conversation) and guidelines for facilitating conversations.

**Neighborhood Infrastructure Maps.** Neighborhood Infrastructure Maps detail the physical infrastructure of a neighborhood with a focus on features and structures that are important for disaster management. In addition to improving a team’s awareness of a neighborhood, infrastructure maps can introduce team members to their neighbors (e.g., households,
businesses, agencies) and initiate networking with them. Guidelines for the use of this tool describe what and how to map.

**Community Ecological Maps (Eco-Maps).** The Community Ecological Map is a visual tool for describing the nature and strength of relationships within a community. A team can use the eco-map to identify potential concerns related to communication and interaction among individuals, groups, and organizations within the community. Information gathered through eco-mapping can help the team create partnerships, improve relationships, and reduce tensions. Eco-maps can be especially useful when a team feels disconnected from its community, plans to undertake outreach efforts, or wants to build support for a project.

**Stakeholder Analysis.** Stakeholder Analysis is used to identify people and organizations within the community that can help with a project, describe their influence, and develop strategies to gain their support and limit their opposition. Stakeholder analysis can help a team frame and shape its enhancement plan, anticipate reactions, uncover potential conflicts, identify consequences and unintended outcomes, recognize possible advocates, and gain and maintain support. Involving stakeholders in enhancement can help develop a sense of ownership.

**SWOT Analysis.** SWOT Analysis assesses the internal Strengths and Weaknesses and the external Opportunities and Threats associated with a community or an initiative. It can be used to develop strategies for maximizing and utilizing strengths, limiting and overcoming weaknesses, identifying and exploiting opportunities, and identifying and protecting against threats. A team can conduct a SWOT analysis prior to undertaking an initiative to determine its feasibility, while the initiative is in progress to identify changes that might affect the outcome, and/or upon completion of the initiative to determine how the initiative may have affected the community.

**Capacity and Vulnerability Assessment.** Capacity and Vulnerability Assessment is a way to analyze the long-term strengths and weaknesses of individuals and groups within a community which help to determine the different effects of a disaster on them. This tool assists teams to identify natural and physical resources and their limitations, social and organizational assets and deficiencies, and motivations and attitudes that reduce or create challenges for a community. The assessment generates information for community development.
Appendix C. Checklist and Guidelines for Session Facilitators

The session facilitator strives to keep the enhancement team focused on an orderly approach to performing the enhancement tasks needed to improve community resilience. The materials that follow provide a checklist that identifies steps and choices in the enhancement process and guidelines for working with the enhancement team members.

Checklist

The checklist that follows provides a starting point. The facilitator can add, delete, change the order, and modify steps as desired to best fit the team and community needs and desires.

1. Assemble an enhancement team to carry out the community resilience enhancement activity. Consider selecting a set of team members representative of the community and also consider adding members for strategic impact.
2. Decide if you wish to administer the CART Assessment Survey and, if so, how and when?
3. Identify a meeting place and arrange a first meeting (or several if preferred).
5. At the first meeting, possible activities include: review the results from the assessment survey; discuss disasters, resilience, and enhancement; form sub-teams and make assignments; set up a project schedule; and select or confirm a time and place for the next meeting or meetings.
6. During the team meetings: describe the current community resilience, define the desired resilience, and identify feasible actions with critical impact. What happens at each specific meeting depends on the approach/schedule that the team selects.
7. When the team has made sufficient progress, consider meeting with community members to discuss the team’s work and to receive input from the community.
8. For each feasible action with strategic impact, develop a mini-plan for implementation of each action. The mini-plan specifies assignments for team members, identifies other key stakeholders who may need to be involved in implementation, and sets out a time schedule for implementation. Mini-plans can be brief and in outline form.
9. After allowing time for implementation, the team may meet to evaluate progress and decide on corrective action if and as needed.
10. The team can continue to meet, review, refine, implement, and add to the enhancement plan for as long as team members consider the sessions productive. Some teams may stop after several sessions; others may go on for years.

The Roles of the Facilitator

The facilitator manages and facilitates the enhancement process. Process items include such things as the topic to be discussed and the timing of the discussions. Topics include the project plan, community resilience, disasters, threats, the current situation, human or physical resources, strengths, weaknesses, opportunities, objectives, actions, implementation, and so forth. The team members supply the plan’s content. Content can include such items as specific
strengths, weaknesses, objectives, and actions. The enhancement plan should contain the community’s content, not the facilitator’s content.

The facilitator stimulates and guides discussion. The facilitator asks process questions and makes process statements. Possible process questions might include the following. *Is xxx a strength or a weakness? Can you come up with some more objectives? What actions could move us closer to objective xxx?* Possible process statements might include the following. *Let’s talk now about the initial community narrative. I suggest that you determine objectives before you identify actions. Before we adjourn today, we should select a time for our next meeting.* The questions and statements stimulate and guide the discussion, and they leave the content for the team members.

The facilitator conducts training as needed. Training may be needed to provide guidance on process, that is, how to perform each set of tasks on the agenda. This handbook comes with handouts that the facilitator can use for training (see Appendix D). As a result of the examples and text in the handouts and in the handbook, training also introduces some content ideas for the team to consider. Training as part of the working sessions is preferred to separate training sessions. Brief training may occur at several points during each meeting – for each major new task set.

The facilitator always tries to help the team. Sometimes, the only apparent way to make progress is for the facilitator to introduce possible content. The facilitator should wait until the team appears at an impasse before suggesting content; a moment of silence while team members struggle to find ideas is not bad. Often the facilitator can focus the team on content by a process question – for example, *Do you want some objectives to address displacement?* If the process hints are not enough, leading questions are a way to suggest specific content – for example, *Is xxx a possible objective to address displacement concerns?* In summary, to the extent practical, the content of the work to improve community resilience should come from the enhancement team members. The facilitator often has spent more time thinking about the issues, and sometimes a little content direction or suggestion is a good way to help.

The facilitator may represent the sponsor’s interests. Most sponsors want to be kept informed about progress, especially about any activity or content that might cause controversy or embarrassment for the sponsor. Many sponsors want visibility and recognition for their organization. A church sponsor might want the plan to feature roles for the church, and a neighborhood association sponsor might want to feature the association officers and resources in the plan. When team members understand the sponsor’s expectations, the members often are pleased to incorporate the sponsor’s wishes. The facilitator also can note that including the sponsor’s items might help with support and implementation. But a statement by the facilitator to the effect that: *You must include objective or action xxx in your plan* can damage the process and alienate team members.

The facilitator can assist the team with legal, ethical, or controversial concerns. If the team suggests ideas, objectives, or actions that the facilitator believes might raise legal or ethical questions or involve a highly controversial subject not directly related to resilience, the facilitator may express concern and ask the team to reconsider. The facilitator might encourage
the team to seek advice from a knowledgeable person – perhaps an attorney or a community leader. In most cases, the facilitator and team can arrive at a mutually agreeable solution. In rare cases where no agreement is reached, the facilitator can discuss the issue with the sponsor and let the sponsor decide on the next steps.

Some other guidelines for facilitators follow. Many of these guidelines apply to meetings and group activities in general although some are more specific to enhancement for community resilience.

**Pre First Meeting Actions**

- If the sponsor sets up a steering committee meeting, the facilitator should attend if possible and, if agreed to by the sponsor, conduct the meeting.
- Review the composition of the team for representation and strategic impact and recommend changes if appropriate.
- See that an agenda is prepared for the first meeting and distribute it in advance to team members. The agenda should show the time and place for the meeting. Participants may lose focus or decline to attend when meetings last more than two hours.
- Arrange for training and information materials to be available for team members in advance of, or at, the first meeting.
- Make the results of the CART Assessment Survey available at the first meeting if the survey is administered in advance.

**Team Meeting Actions**

- Arrive at least 30 minutes prior to the start time of the meeting to check that the facility is open, the lights and heat or air conditioning are on, and the room is set up for the meeting.
- Bring any needed materials or check to see that someone is bringing them.
- With community groups (and with most meetings and events), something “always goes wrong.” Have a contingency plan. Bring backup copies in case someone forgets to bring the handouts. Ask the first couple of arrivals to help if the room is not set up. In short, be flexible and try to do whatever it takes to make the meeting a success.
- Try to greet and welcome each person as they arrive and introduce yourself. If needed, ask one or several team members to help with the greetings. Think about greeting protocol – at a business meeting, people often do not shake hands.
- Start the meeting at the announced start time. Let each person introduce him or herself so everyone knows who is present. Name tags can help the people who may not know everyone.
- Ask or find out by what name people wish to be called. Many people use first names even for strangers, but some people may not want to go by a first name. The pastor may wish to be Reverend Jones, not Bill. One approach is to let everyone fill out a place card. The facilitator can then refer to each person by the name he or she chooses.
- At the beginning of every meeting, remind the group of your role. You are there to facilitate process. You are not there to supply or make judgments on content.
• Proceed to facilitate the enhancement process for community resilience.
• Save time near the end of the meeting to determine (or confirm) a time, place, and agenda for the next meeting and to identify work needed to be done in between meetings.
• End the meeting by the scheduled time. Obtain team consensus if the meeting needs to run past the scheduled end time, and offer any member with other obligations or needs the option to leave.

General Facilitator Activities

• Remember that courtesy to, respect for, and encouragement of team members are important processes for a facilitator to demonstrate.
• Welcome every team member’s comments and provide feedback. When a member makes a point and no other team member comments on it, write the point on the board, repeat it back, or ask a clarifying question.
• Let the other team members, not the facilitator, identify poor, irrelevant, or incorrect comments if they so choose. The weaker and less important points may get eliminated when the team gets to a review of feasibility and strategic impact.
• If a team member makes a point that might offend some people, ask the team for their opinion – *Do you think xxx might offend some people in the community?*
• As long as comments are constructive and relate to the current task, let the discussion flow. Intervene if the discussion goes off track, time limits dictate moving on, or you need to balance participation.
• Do try to balance participation. Some people succeed in making many comments, often one after another. Other people try to comment but seem unable to get a word in. Watch the team members to identify any member who seems to want to contribute but gets shut out by the more assertive members. Ask members by name if they wish to contribute a comment.
• Tell the team when there appears to be a process problem – a missing task, no one assigned to do a task, no start time for a task, and so forth.
• When reasonable process options exist – for example, a sequential or parallel schedule for work, the facilitator can talk about pros or cons and even make a suggestion, but let the team make the decision.
• When team focus wanders away from the agenda, try to bring the focus back to the appropriate process task – for example, *can we look some more at objectives (or actions or whatever)?* The agenda, training materials, and handbook are your friends. Refer to them as needed to keep the process on track.
• After a reasonable set of ideas comes forth, if ideas stop coming or when the allotted time runs out, try to move the team to the next task. Remind members that they can review, modify, and add at the next meeting (or online or by email).
• If asked a direct question by a team member – for example, *is xxx a good objective,* the facilitator can express an opinion, but avoid taking sides in an argument between factions of team members (see next item in this list).
• When a disagreement impedes progress, the facilitator can explore dispute resolution processes with the team – perhaps deciding to include several views or no view on a point, coming up with criteria on what to include, or letting each faction briefly state its case and take a vote on what to include.
• The facilitator should suggest combining similar ideas, but let the team members keep items separate if they so wish.
• Make sure that someone, perhaps the team recorder, is recording the ideas put forth at the meeting. Stop occasionally and ask the recorder to summarize.
• Rarely, if ever, tell stories about yourself and your experiences unless asked to comment on relevant knowledge or experience by a team member. Keep the focus on the plan and process, community resilience, and the team members’ ideas.
• Take great care not to introduce your racial, ethnic, socioeconomic, political, or religious views into the discussion.
Appendix D. Training Materials for Team Members

*Community Resilience Enhancement Intervention User Guide*© – a condensed version of the intervention handbook with no appendices.

*Village Meadow’s Enhancement of Community Resilience for Disasters* – a case study of how one community conducted a resilience enhancement effort (Appendix A of this handbook).

Discussion Handouts for Team Members
1. An Overview of Enhancing Community Resilience to Disasters
2. Community Resilience Enhancement Steps and Schedules
3. Organizing the Team
4. Generating the Initial Community Resilience Narrative
5. Identifying Threats to the Community
6. Analyzing Resources and Opportunities
7. Moving Toward the Desired Community Resilience
8. Checking Actions for Feasibility and Strategic Impact
9. Selecting Actions for Implementation
10. Developing Mini-plans for Implementation

These training materials are available at the TDC website: [http://www.oumedicine.com/psychiatry/research/terrorism-and-disaster-center](http://www.oumedicine.com/psychiatry/research/terrorism-and-disaster-center)
Appendix E. References

Disaster information in this handbook comes from the sources that follow. Unless otherwise noted, internet citations were retrieved and verified on October 23, 2014.


A number of approaches and structures for this handbook are adapted from:

Every dictionary and encyclopedia defines team and teamwork. The web also contains extensive materials on teams and teamwork. Forming into a team generally improves the performance for a group of people, but sometimes dysfunctional teams reduce performance. The definition of teams in this handbook is specialized for relevance to the community resilience mission. For additional information on teams, see the selected publications that follow.


Selected references for social capital and social networks follow. Unless otherwise noted, internet citations were retrieved and verified on October 23, 2014.


The concepts for strategic impact come from strategic planning. Many works describe strategic planning in business. Selected references follow.


Strategic planning has been applied to non-profit organizations and to communities. Selected references follow.


Agile planning concepts first appeared in the area of software development, originally under the term “rapid development.” Agile concepts then moved into other planning and management areas. Selected references follow.


A number of the concepts and ideas for understanding, assessing, and enhancing community resilience used in this handbook derive from the publications related to the Communities Advancing Resilience Toolkit (CART) that follow.


Additional selected publications related to community resilience follow:


