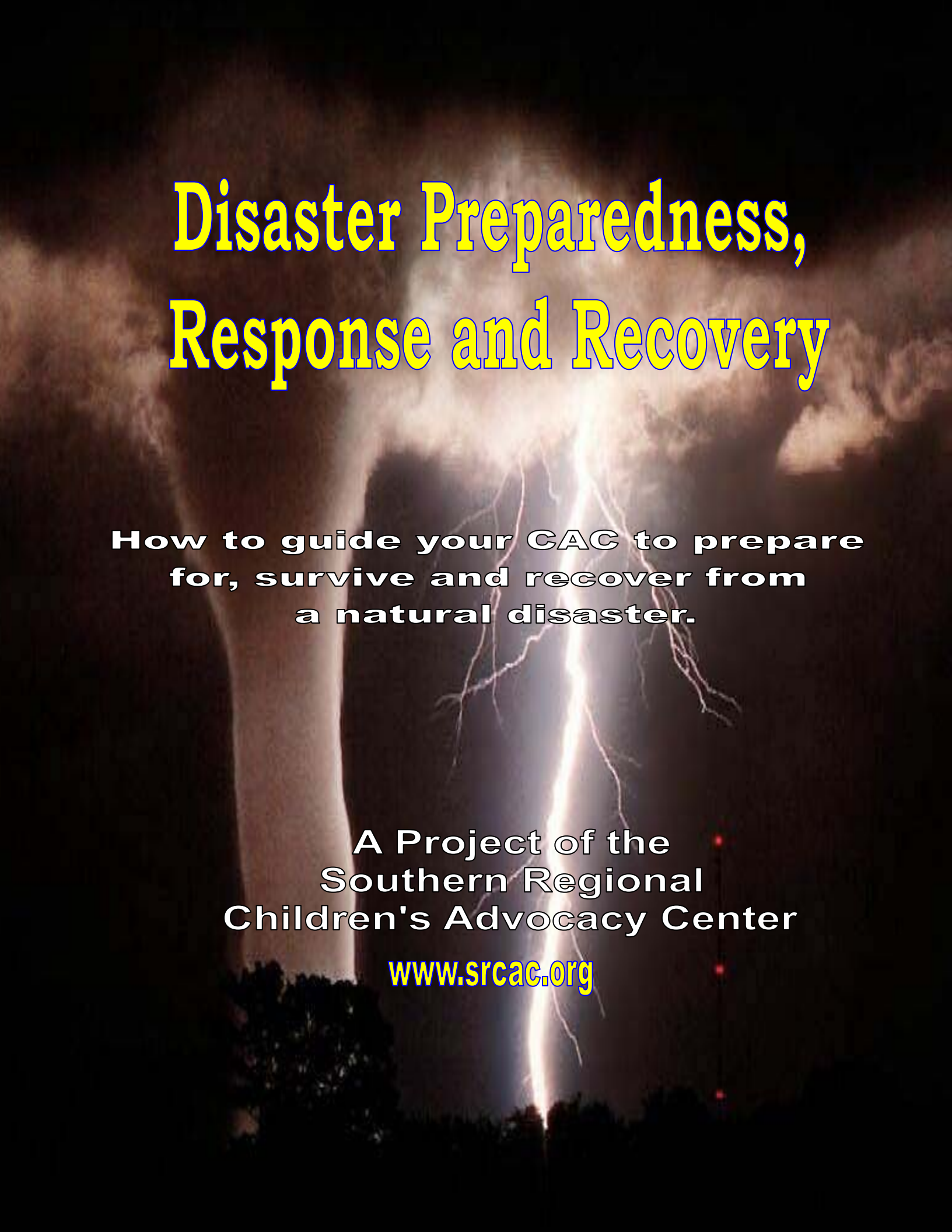

Disaster Preparedness, Response and Recovery

How to guide your CAC to prepare for, survive and recover from a natural disaster.

A Project of the
Southern Regional
Children's Advocacy Center

www.srcac.org

Disaster Preparedness, Response and Recovery

Prepared by the

Southern Regional Children's Advocacy Center

A program of the
National Children's Advocacy Center

Chris Newlin
Executive Director

Cym Doggett
Project Director

Yvette Kubik
Outreach Coordinator

Karen Hangartner
Communications & Project Coordinator

Darlene Woodard
Training Coordinator

Training and Technical Assistance for Communities ESTABLISHING and STRENGTHENING Children's Advocacy Centers

210 Pratt Avenue
Huntsville, Alabama 35801
1.800.747.8122
www.srcac.org

This project was supported by grant # 2006-CI-FX-K002, awarded by the Office of Juvenile Justice and Delinquency Prevention, Office of Justice Programs, U.S. Department of Justice. Points of view or opinions in this document are those of the author and do not necessarily represent the official position or policies of the U.S. Department of Justice.

Disaster Preparedness, Response and Recovery
Table of Contents

The Disaster Summit

Children's Advocacy Centers (CACs) are being recognized in an increasing number of communities across the country as the preferred model for responding to child abuse. CACs are hubs for the work of law enforcement, child protection workers, medical professionals, mental health practitioners, advocates, prosecutors and child advocacy center staff for child abuse cases. With this growth in status and numbers comes the responsibility for CACs to be fully prepared with contingency plans to continue providing critical services in unusual circumstances.

We usually do not expect a natural disaster to interrupt our work within a CAC; however, natural forces are never selective in the organizations they impact. In the relatively short history of CACs, there have been numerous incidences of disasters impacting the work of the centers. Some of these centers planned for this contingency and were able to respond in a manner that minimized damage and recovery efforts began immediately. Other CACs impacted by disasters were not so fortunate. Without adequate planning, they suffered losses that may have been lessened by more adequate preparation.

Southern Regional Children's Advocacy Center (SRCAC) is supported by funding from the United States Department of Justice and serves as a training and technical assistance resource center for CACs in a 16 state region of the southeastern and Atlantic seaboard of the United States. In an effort to assist CACs in contingency planning so as to assure continued services to children in the wake of natural disasters, SRCAC convened a panel of representatives from CACs across the southern region who had been previously impacted by disasters or who had a particular knowledge in disaster preparedness. This panel met at a "Disaster Summit" to discuss what would need to be included in a manual that could serve as a template for CACs to establish their own disaster plans specific to their centers. This manual is the result of those efforts.

It is our intent that the contents of this manual guide and inform the efforts of others in establishing their own disaster plans. All communities are different and the responses to similar circumstances may vary widely depending upon location and resources but we hope this document will assist CACs in initiating their own work to prepare for the possibility of a natural disaster.

Our sincerest thanks goes to all those participants in the Disaster Summit: to Yvette Kubik for coordinating the summit, to Darlene Woodard for her assistance in editing and to Karen Hangartner for taking all the great ideas and pulling them together for this document. Special thanks to Chris Newlin who originated the idea for this project.

Disaster Summit
Participants

Michelle Shows
Pascagoula, Mississippi
Executive Director
South Central Mississippi Child Advocacy Center

David Duplechian
Lake Charles, Louisiana
Executive Director
Lake Charles CAC

Cathy Purvis
High Point, North Carolina
Chapter Director
CAC's of North Carolina

Bonnie Beneke
Nashville, Tennessee
Executive Director
Tennessee Chapter of CAC's

Elaine Stolte
Houston, Texas
Executive Director
Children's Assessment Center

Tom Dunn
Niceville, Florida
Case Advocate & Disaster Specialist
Emerald Coast CAC

Dorothy Garcia
Covington, Louisiana
Executive Director
Hope House CAC

Julie Hurst
Niceville, Florida
Executive Director
Emerald Coast CAC

Paula Yevincy
Henderson, Kentucky
Executive Director
The Children's Advocacy Center of Green River District

Randy McDaniel
Destin, Florida
Director
Okaloosa County Emergency Management Agency

Joe Saladino
Nashville, Tennessee
Coordinator
Tennessee Chapter of CAC's

Chris Newlin
Huntsville, Alabama
Executive Director
National Children's Advocacy Center

Sissy Burge
Ardmore, Oklahoma
Executive Director
CAC of Southern Oklahoma

Cym Doggett
Huntsville, Alabama
Project Director
Southern Regional CAC

Jackie Stephens
Naples, Florida
Executive Director
Collier County Child Advocacy Council, Inc.

Yvette Kubik
Huntsville, Alabama
Outreach Coordinator
Southern Regional CAC

Preparing for a Disaster

Where to begin?

When a Children's Advocacy Center begins the process of developing a disaster plan it can be an overwhelming task. This manual is designed for you to use to begin the process of preparing for, responding to and recovering from a **natural disaster**. The intent is to expand this manual in the future to include other types of disasters such as: technological, manmade, medical or public relations.
This manual is organized around three major areas:

PREPAREDNESS: How to develop a plan to prepare for any natural disaster.
RESPONSE: Surviving the event.
RECOVERY: What to do after the event to respond to community needs and resume services.

Each of these areas are divided into sections covering information and resources related to: Human Resources, Facilities, Records, Finances, Information Technology, and the Media.

Within each section you will find information and resources to assist you as you establish a disaster plan for your CAC. We hope you will use this document and adapt it to meet the specific needs of your CAC.

The first thing to consider is how to begin. Let's start with the three major steps in developing and implementing the plan.

Step 1
The Disaster Planning Team

The Disaster Planning Team will be responsible for designing a comprehensive Disaster Plan for the agency by analyzing the current status and vulnerabilities, determining needed action steps, gathering information and documents, establishing relationships and putting resources into place for future use. Identify who needs to be on your Disaster Planning Team. Developing a Disaster Planning Team is a vital first step in preparing for a disaster. In order to put an effective and efficient process in place, the right people need to be identified and included in the planning process. Ideally, this team should be a combination of "thinkers" and "doers". The thinkers are integral in providing ideas and thoughts on a large scale and the doers will be an integral part of training, implementing and keeping the plan up to date. Here are some suggestions of how to go about developing your team.

- ❑ Think about including representatives from finance, IT, the Board of Directors, facilities management and personnel. These people will be integral in creating policies and procedures during this process.

- ❑ Once the Disaster Planning Team is assembled, someone will need to be identified as the Disaster Planning Coordinator. Their responsibilities include keeping the plan updated and making changes as necessary and communicating the various roles and functions of employees during a disaster. They may also be tasked with planning an exercise to practice your emergency plan. Make sure this person is on board from the beginning.

- ❑ You will need to decide who will "hold" the disaster plan. Ideally, several people will need to have copies of the actual plan. Additionally, you will need a place off-site to keep a copy of your plan.

- ❑ Identify essential functions that require continuous performance during a disaster and designate managers and alternate staff to oversee those functions.

- ❑ Clearly define the roles and responsibilities of managers who have been given authority to make certain decisions for the agency. Be sure these are clearly articulated in the plan.

- ❑ Once the plan is complete, present it to your Board of Directors or up other chains of command, for their approval.

- ❑ Finally, review and update the plan annually.

Step 2
Developing Your Disaster Response Team

The Disaster Response Team is the group of people who will actually put the plan into action during a disaster, as opposed to the Disaster Planning Team discussed in Step 1, who actually writes the plan. Some things to consider when choosing a Disaster Response Team:

- ❑ When assigning tasks for Disaster Response Team members, think in terms of positions rather than persons. This is important when establishing a clear chain of command in case some key members are not available.

- ❑ It is essential that the chain of command and lines of authority are clearly articulated so there is no question of who has the authority to make decisions during the event.

- ❑ Be sure to identify someone on the team who is responsible for providing testing and training on your plan. It is during tests and drills that operational problems with your plan can be identified and resolved.

Step 3
Assessing Your Risk

An important beginning step is to identify the risks for your CAC, specific to your community. This manual is designed to prepare for a natural disaster. Some universal risks include **wind**, **fire and water damage**. Some other considerations:

- Do you live in a community at risk of hurricanes or tornadoes?
- Are snow and ice storms prevalent in your area?
- Do you live in an area prone to flooding?

The answers to these questions can help you begin to formulate a plan specific to your risks. Depending on the risks associated with your location, you may have days to prepare for an oncoming disaster or mere minutes. Natural disasters include:

- Earthquake
- Fire
- Flood
- Heat Wave
- Hurricane
- Landslide or mudslide
- Thunderstorm
- Tornado
- Wildfires
- Winter Storm; including ice and snow

Disaster Preparedness
Human Resources

For most organizations and certainly CACs, human resources are their most important, valuable assets. It is important to take steps to protect your employees and create plans and processes to enable communication before, during and after a disaster. Some important areas of consideration are:

- ❑ Put together a Disaster Planning Team:
  - Assign tasks.
  - Be sure that the chain of command is clearly articulated.
  - Disseminate information about the plan to all employees.
  - Be sure to incorporate disaster preparedness as a part of new employee orientation.
  - When an employee leaves the agency, be sure that whatever responsibilities he/she has in the disaster plan are reassigned.

  Date Completed _____

- ❑ Develop a Disaster Response Team:
  - Assign responsibilities.
  - Articulate clear chain of command and decision making authority.
  - Provide training and drills for staff.
  - Rehearse the plan.

  Date Completed _____

- ❑ Incorporate Disaster Preparedness responsibilities and expectations into your employee handbook and/or personnel policies.

  Date Completed _____

- ❑ Have each employee complete an Employee Information Sheet. Establish a schedule to have employees update the information each year, perhaps at employee evaluation time. (Appendix 1)

  Date Completed _____

- ❑ Encourage employees to develop a family disaster plan for their own family. The Department of Homeland Security has a great Family Emergency Plan on their website. www.ready.gov

  Date Completed _____

- ❑ Employees might want to have their own personal safety kit available which contains items such as:
  - Toiletries
  - Medications
  - Tennis shoes
  - Extra clothing
  - Blanket
  - Important personal information
  - Emergency family contact information

  Date Completed _____

- ❑ Create and maintain an updated communication roster that has home phone numbers, cell phone numbers, alternate emergency numbers, text messaging capacity and email addresses. Be sure that each employee is aware of his/her responsibility in contacting fellow employees in case of emergency. (Appendix 2)

  Date Completed _____

- ❑ Develop a list of core agency contact information, including MDT and Board information. (Appendix 3)

  Date Completed _____

- ❑ Develop a list of community contacts that might be needed during an emergency. (Appendix 4)

  Date Completed _____

- ❑ Develop payroll policies:
  - Will employees be paid if they are unable to report to work?
  - Will you pay employees if the primary job after a disaster is clean-up or volunteer community work?
  - Will overtime policies apply?
  - Will you give employees cash advances or loans, if needed?
  - Will you be able to release payroll in advance of an impending disaster?

  Date Completed _____

- ❑ Establish policies regarding returning to work following the disaster.
  - If employees are suffering hardships, how will you handle their leave?
  - What if they evacuated but no disaster happened?

  Date Completed _____

- ❑ Develop a relationship with a "sister" agency. This can service multiple functions:
  - If your sister agency is outside of the disaster area, you can remove equipment and records to their facility.
  - It can provide an alternate meeting location for employees, if within a reasonable proximity.
  - Make sure all employees know who your sister agency is and have all relevant contact information.
  - Sister agency may also be able to provide services to your clients until you are able to resume operation.

  Date Completed _____

- ❑ Designate key employees to take laptops offsite. They should know this prior to disaster so they know to take laptops. Critical information to be stored on these laptops should be predetermined.

  Date Completed _____

- ❑ Plan on debriefing the disaster with your staff. Write the debriefing into the plan so that it does not get pushed to the side afterwards.

  Date Completed _____

- ❑ Develop a plan for staff care. This may include time off to take care of their own needs or the needs of their family, including access to counseling or support.

  Date Completed _____

- ❑ Develop a plan for Executive Director self care. Including time to care for their needs, rest, or gain needed support.

  Date Completed _____

- ❑ Prepare letters for re-entry to your facility.
  - Have a letter on agency letterhead outlining key individuals who may need access to the agency and giving permission to access facilities. Distribute to designated people.
  - Have proof of identity on hand to accompany re-entry letter.

  Date Completed _____

- ❑ Create a telecommuting plan.
  - Develop a plan for employees to work from home if your facility is closed for an extended period of time.
  - Include clear expectations for the handling of confidential materials and records.
  - It is not recommended that any direct client services be delivered from the employee's home; however, it may be possible to deliver services in the client's home. Develop a clear plan with written guidelines and expectations for this possibility.

  Date Completed _____

- ❑ Often, following a disaster, there is a great flood of generosity. Prepare a plan to manage volunteers and donations.
  - Develop policies of how and when you will utilize volunteers.
  - Put policies in place on how to handle donations of cash and resources.
  - Utilize sister agency for delivery and storage if needed.

  Date Completed _____

- ❑ Put together a Disaster Response Team.
  - This will be made up of person who will make initial assessment of facilities and/or status of operation immediately following the disaster.
  - If the CAC is a small agency with few staff, it may include everyone. If it is a large agency, it may include key personnel such as ED, facilities management personnel & department heads.

  Date Completed _____

Preparedness
Facilities

Preparing your facilities for a disaster is an integral part of the process. Here are some considerations:

- ❑ Identify your facilities' vulnerabilities. What are the disasters that are most likely to impact your agency?

  Date Completed _____

- ❑ Develop a relationship with a contractor who can help you identify your facilities' vulnerabilities and can be a resource during the recovery process.
  - Contractor may be able to point out some structural issues that could be a problem with wind, water, etc.
  - They could help identify safest room, driest room, etc.
  - Include the contractor's contact information in your plan and assure that they are aware of the plan.

  Date Completed _____

- ❑ Verify that your facility meets building codes.

  Date Completed _____

- ❑ Photograph or video tape your facilities. Include all interior rooms and the exterior. Store photos or videos offsite so they will be available for insurance purposes later.

  Date Completed _____

- ❑ Keep an updated inventory and clearly label all equipment. Assign someone the task of updating the inventory regularly. Be sure to capture any equipment that might be located off site. (Appendix 5)

  Date Completed _____

- ❑ If you move inventory off-site in preparation for a disaster, be sure to update the inventory log to include the new location. (Appendix 6)

  Date Completed _____

- ❑ Keep insurance coverage up to date and be familiar with the specifics of your policy. If you are unsure of the adequacy of your coverage, use the Insurance Information form (Appendix P-7) to discuss with insurance provider.

  Date Completed _____

- ❑ Determine flood zone designations for planning and insurance purposes.

  Date Completed _____

- ❑ Identify "safe rooms" to which you could move equipment and records if necessary. This may be obvious, or you may solicit input from your contractor.

  Date Completed _____

- ❑ Develop an employee safety plan for emergencies during business hours.
  - Disseminate and practice the plan periodically.
  - Make sure the plan is included in employee orientation packet.

  Date Completed _____

- ❑ Identify and prepare "safe rooms" in your facility that employees can use in case of an emergency. Practice evacuating to these rooms. Be sure employees understand their responsibilities to help clients who are present, but may not be familiar with emergency plans.

  Date Completed _____

- ❑ Create safety and first aid kit. Include such items as:
  - Basic first aid supplies
  - Bottled water (*1 gallon of water per day and food for all essential employees.)*
  - Flashlight
  - Batteries
  - Battery powered radio
  - Laptop with extra battery pack (fully charged)
  - Consider purchasing a satellite phone
  - Consider purchasing a generator

  Date Completed _____

- ❑ Inspect all emergency equipment such as fire extinguishers on a regular basis. Make sure employees know where emergency equipment is stored and how to use it. Consider adding this information into your new employee orientation process.

  Date Completed _____

- ❑ Acquire and store on site, emergency repair tools/tool kit and materials that may be needed immediately after the disaster. Examples include: chainsaws, shovels, glue, caulking compounds, lumber, duct tape, etc.

  Date Completed _____

- ❑ Create a building site map and provide a copy of this to the local fire department and Emergency Management Agency. Include the following: (Appendix 8)
  - Utility shutoffs
  - Water hydrants
  - Water main valves
  - Water lines
  - Gas main valves
  - Gas lines
  - Electrical cutoffs
  - Electrical substations
  - Storm drains
  - Sewer lines
  - Floor plans
  - Alarms
  - Fire extinguishers
  - Fire suppression systems
  - Exits
  - Stairways
  - Designated escape routes
  - Restricted areas
  - Hazardous materials (including cleaning supplies and chemicals)
  - High-value items
  - Location of first aid kits
  - Location of emergency equipment

  Date Completed _____

- ❑ Develop a plan for contacting clients and partner agencies to notify about closings and reopening.

  Date Completed _____

- ❑ Plan for Multidisciplinary Team members to access building. Establish procedures for them to access their equipment, records, etc. in a way that it may be documented as with CAC staff.

  Date Completed _____

- ❑ Make plans to secure the building.

  Date Completed _____

- ❑ Identify areas which are prone to flooding. Prioritize items with regard to water vulnerability. Elevate and cover inventory by priority.

  Date Completed _____

- ❑ Arrange for an alternative site to move equipment and records, if possible. Your identified sister agency is a possible location to utilize.

  Date Completed _____

- ❑ Establish a plan to continue services at an alternate site, including a means to communicate the alternate site to clients and partner agencies.

  Date Completed _____

- ❑ Develop a plan to contact all necessary partners and MDT members to ensure communication and ability to provide services. (Appendix 3)

  Date Completed _____

- ❑ Ensure that you have any items necessary for emergency evaluations such as:
  - Camera
  - Rape kit
  - Recording equipment for Forensic Interviews

  Date Completed _____

Preparedness
Records

It is imperative that your agency identify and plan for the protection of vital business records. Some important steps to take are:

- ❑ Store one set of back up records on-site in an evacuation box that is fireproof and water-tight.

  Date Completed _____

- ❑ Store another set of back up data offsite. All records should be clearly labeled. Keep a log of what records are stored offsite and where they are stored. (Appendix 6)

  Date Completed _____

- ❑ Back up and update information frequently, including onsite and offsite records. Include copies of important documents in this binder. Also keep copies of important documents offsite. Examples include: (See Appendix 9)
  - Financial statements
  - Payroll
  - Insurance policies*; Flood, Fire, Directors & Officers, Property, Liability, etc.*
  - 501c3 documentation, if applicable
  - 990 and 1099 tax information
  - Board records
  - Personnel records
  - Employee Manuals
  - Audits
  - Articles of Incorporation
  - Interagency Agreements
  - Contracts and Grants information, including deadlines, due dates and information about possible extensions.
  - Donor lists and records.

  Date Completed _____

- ❑ Assess your property insurance coverage. Some things to consider:
  - What are the proper limits of coverage for your agency?
  - Do you want/need replacement cost or actual cash value?
  - See Appendix 7
  - Include copies in this binder.

  Date Completed _____

- ❑ Keep photos/videos of facility and all inventory records stored on-site and off-site.

  Date Completed _____

- ❑ Establish policies to secure forensic interview recordings and medical records in a manner that will maintain chain of evidence. Clearly communicate these policies with all partnering agencies.

  Date Completed _____

- ❑ Develop a plan regarding the handling and storing of confidential client information and records.

  Date Completed _____

Staff from the Children's Advocacy Center Naples, FL. following Hurricane Wilma, October 24, 2005

Preparedness
Finances

- ❑ Be sure to have a back up of your accounting system that is kept off-site.
  Date Completed _____

- ❑ Consider opening a line of credit.
  Date Completed _____

- ❑ Establish an emergency petty cash amount and accounting process.
  Date Completed _____

- ❑ Establish a policy on alternative lines of authority regarding signature requirements.
  Date Completed _____

- ❑ Establish an alternate decision-making process for Board of Directors, for circumstances that may arise where full Board access is not possible.
  Date Completed _____

- ❑ Create accounting codes specifically for disaster incomes and expenses.
  Date Completed _____

- ❑ Keep an updated list of banks and account information, including all relevant contact information. Have these records in hard copy and digital back up. (Appendix 11)
  Date Completed _____

- ❑ Have a plan in place to handle payroll offsite.
  Date Completed _____

Preparedness
Information Technology

Most records are now kept in digital format which means that great care must be taken to preserve your information technology. Because of the nature of records and technology, there is some overlap between the previous sections and this section.

- ❑ Identify those records that you must be able to walk away with in the event of a major disaster. Are there hard copies that need to be transferred to a digital format for easy storage?
  Date Completed _____

- ❑ Maintain a working back up system on flash drives, CD, DVD, or external hard drive. Store these files on-site in reinforced containers and off-site in a safe, remote location.
  Date Completed _____

- ❑ Be sure to include a computer and software inventory in your facility inventory records.
  Date Completed _____

- ❑ Maintain an updated list of vendors and relevant contact information.
  Date Completed _____

- ❑ Keep IT security information available with your disaster plan.
  Date Completed _____

- ❑ Designate employees to take laptops with them. Make sure to include extra fully charged battery packs.
  Date Completed _____

- ❑ Create a back up plan for evidence collection and medical records.
  Date Completed _____

- ❑ Create a plan to check email remotely and disseminate process to all employees.
  Date Completed _____

- ❑ Create a plan for updating website remotely.
  Date Completed _____

- ❑ Create an alternate plan for accessing information, email and website if the server is down. This may be as simple as maintaining a temporary public email address, such as hotmail, as an alternate means of online communication should the agency's server be non-operational.
  Date Completed _____

- ❑ Talk with your IT department/support to add additional action items specific to your agency.
  Date Completed _____

Preparedness
Media Plan

- ❑ Develop a relationship with local media outlets.
  Date Completed _____

- ❑ Create a list of media contacts to include in the disaster plan. (Appendix 12)
  Date Completed _____

- ❑ Identify a designated spokesperson who will interface with the media.
  Date Completed _____

- ❑ Communicate to staff the process of referring media requests to the designated spokesperson.

  Date Completed _____

- ❑ Prepare a script in advance. This can serve multiple purposes: (Appendix 12)
  - Articulate agency missions and services in the wake of disaster.
  - Ensure that you have crafted a statement that will diplomatically state why you cannot address certain issues.
  - Provide a means of communicating the arrangements that have been made for continuing services.
  - Take advantage of the opportunity to educate the public about your agency and its mission.
  - Explain how your agency can meet community needs during the disaster.

  Date Completed _____

- ❑ Details to include in your script:
  - Condition of facility
  - Condition of staff
  - Provision for services until agency reopens
  - Reopening information
  - Specific needs the agency has; this will prevent being inundated with things that you do not need, but would take employee time to process.
  - Specific things you do not need.

  Date Completed _____

- ❑ Things to consider regarding sharing information with the media:
  - How often you will speak to the media.
  - When you will speak to the media.
  - Why you will share information with the media.

  Date Completed _____

- ❑ Keep a contact log of what information you have shared and who you have shared it with. (Appendix13)

  Date Completed _____

Children's Advocacy Center, Naples, FL following Hurricane Wilma October 24, 2005

48 Hours Prior to Evacuation

For some natural disasters, there is time to prepare. Here are some things to think about:

Tasks	Person Responsible	Completed
Gather Emergency Supplies: ▪ Fully stocked emergency kit ▪ Bottled water and food (1 gallon of water per day for three days) ▪ Battery operated radio ▪ Flashlights ▪ Extra Batteries ▪ Satellite Phone ▪ Generator & fuel ▪ Laptops (w/fully charged batteries)		
Gather emergency repair tools that might be needed for clean up following the event such as chainsaws, duct tape, lumber, heavy gloves, boots, etc.		
Remind employees, board leadership, clients and partner agencies of communication plan, check-in times and methods.		
Remind employees and MDT members of disaster policies, procedures and any responsibilities they have in preparation.		
Confirm gathering time and response functions for each employee.		
Prepare client records for safety.		
Secure forensic interview and medical records to preserve chain of evidence.		
Identify equipment to be evacuated if necessary.		

24 Hours Prior to Evacuation

Tasks	Person Responsible	Completed
Gather evacuation boxes: ▪ Disaster manual ▪ Most recent digital backups ▪ Print out of recent client list ▪ Update payroll information		
Distribute laptops to designated employees		
Record new voicemail message for office and post information on website regarding: ▪ Agency closing and reopening policies ▪ Contact for questions		
Post sign on the door with opening and closing information and contact information.		
Notify media of closing information.		
Raise electronics off the floor, away from windows. Cover if possible.		
Withdraw petty cash.		
Pack up equipment to be evacuated.		
Secure facility.		
Ensure adequate fuel for service and personal vehicles for key personnel.		

Preparedness

Websites for More Disaster Information

U.S. Environmental Protection Agency	www.epa.gov/naturalevents/
Centers for Disease Control and Prevention	www.bt.cdc.gov/preparedness
National Child Traumatic Stress Network	www.nctsnet.org/nccts/
U.S. Department of Homeland Security	www.ready.gov
Federal Emergency Management Agency	www.fema.gov/
Florida Institute for Family Involvement	http://www.fifionline.org/disaster_plan.php
Substance Abuse & Mental Health Services Administration	http://mentalhealth.samhsa.gov/cmhs/katrina/
Psychological First Aid	http://www.ncptsd.va.gov/ncmain/index.jsp

Community Preparedness

Because of the collaborative nature of CACs, we can be a natural catalyst to coordinate nonprofit response for the community. The Louisiana Association of Nonprofit Organizations noted that after Hurricanes' Katrina and Rita, nonprofit sectors intuitively understood that, when needed, every nonprofit becomes a disaster responder. Nonprofits moved quickly, organized and reacted, and stepped up in dramatic, collaborative, creative ways.

Some people to include in the community preparedness planning process:

- Local Emergency Management Agencies
- Other Local Nonprofit Agencies
- Red Cross
- Local Churches and Religious Leaders
- Volunteer Agencies

When working with Emergency Management Agencies, some key recommendations to consider are:

- Setting up a system to connect local nonprofits and churches in the emergency planning process.
- Ways the nonprofit community can respond to community needs in the wake of a disaster.
- Clearly acknowledge opportunities and challenges.

Response
Surviving the Event

Safety must be the first consideration for surviving a natural disaster. Remember to keep this idea central as you are planning your response.
Focus on:

- Keeping safe.
- Assessing damage during the event.
- Thinking through which parts of the plan need to be activated.

Response
Human Resources

- ❑ Implement system to ensure staff and client safety.
  - Do staff and clients need to move to identified safe rooms?
  - Are you going to release staff early?
  - Contact clients to inform them of any change in operating hours.

  Date Completed _____

- ❑ Assess the emergency needs of staff.

  Date Completed _____

- ❑ Activate call roster/email or text messaging plan.
  - Communicate clear expectations to employees.
  - Inform them of who they should expect to hear from and when they should expect information.
  - Provide constant updates and communication as possible.
  - Be sure to remind all employees of the designated meeting place if communication immediately following event is impossible.

  Date Completed _____

- ❑ Follow prepared procedures and time frames.

  Date Completed _____

- ❑ Communicate with sister agency to put on alert and inform of the needs you anticipate.

  Date Completed _____

- ❑ Notify Stakeholders and MDT that emergency procedures are in effect.

  Date Completed _____

- ❑ Convene your Response Team.

  Date Completed _____

- ❑ Implement the plan for client notification.

  Date Completed _____

Response

Facilities

- ❑ Be sure you have picture ID and your re-entry letter. Your re-entry letter should be on agency letter head and specify who should have access to your facilities.
  Date Completed _____

- ❑ Secure the facility.
  Date Completed _____

- ❑ Consider the safety of those employees who will be re-entering facility after the event.
  Date Completed _____

- ❑ Do not call 911 for information. Listen to the radio or watch T.V. for information pertaining to the accessibility of impacted areas.
  Date Completed _____

- ❑ Enlist professional help or support where necessary. Be aware of "scavenger" companies who do not comply with building codes.
  Date Completed _____

- ❑ Post message on door with key contact and operating information.
  Date Completed _____

Response
Records/Information Technology/Finances

- ❑ Access, preserve, and secure records to protect confidentiality and chain of evidence.
  Date Completed _____

- ❑ Assess phone service and all communication equipment.
  Date Completed _____

- ❑ Assess IT capabilities.
  Date Completed _____

- ❑ Access offsite financial information.
  Date Completed _____

- ❑ Obtain emergency cash.
  Date Completed _____

- ❑ Implement plan of acquiring vital information that has been stored off-site and might be needed in the immediate aftermath.
  Date Completed _____

- ❑ Implement alternate meeting location if communication is down so that you can inform employees about the status of your agency and plans for recovery and reopening.

  Date Completed _____

- ❑ Assess effects on other agencies serving on your MDT so you are able to answer relevant questions about service delivery.

  Date Completed _____

- ❑ Use media to get the word out on the status of your agency and the plan for reopening and resuming services.

  Date Completed _____

Recovery
After the event. . .Where to start?

Safety must be your primary consideration as you prepare to reenter your facility and begin to assess the damage and start the clean up process. Your Disaster Response Team will convene at a predetermined location to assess the damage and implement your recovery plan. Listed below are a few contacts to initiate, as needed, during the recovery period.

- ❑ Inform Stakeholders of your status.

  Date Completed _____

- ❑ Work with your sister agency to help fill gaps in services within the community.

  Date Completed _____

- ❑ Contact resources outside of your immediate area and let them know of your immediate needs.

  Date Completed _____

- ❑ Contact your Regional CAC to let them know your needs so they can relay them to other CACs.

  Date Completed _____

- ❑ Re-examine your mission statement.

  Date Completed _____

Recovery
Human Resources

- ❑ Begin by contacting your staff and assessing their needs.
  - Make sure their homes and families are secure and safe.
  - Provide opportunity for debriefing – short-term and long-term.
  - Remember that your staff has undergone a crisis. Remind them of the importance of self-care even as they seek to provide care to clients and the community.
  - Inventory your staff and see what services you can provide and when you can begin providing them.
  - Review your policies and expectations regarding work schedules.

  Date Completed _____

- ❑ Engage your Disaster Response Team
  - Assess physical damage to facilities.
  - Assess damage to equipment.
  - Assess communication capabilities
  - Assess damage to greater community and how that will impact services.
  - Determine immediate needs of staff.
  - Clarify responsibilities and chain of command.
  - Work your plan.

  Date Completed _____

- ❑ Contact your clients to see if they need help or resources
  - Make arrangement to provide any crisis management services needed.
  - Maintain a detailed log of your contact with clients and the families.

Date Completed _____

- ❑ Evaluate contracts in relation to current status.
  - Will you be able to fulfill your obligation?
  - Do you need to negotiate change in terms?

Date Completed _____

- ❑ Implement telecommuting if needed and possible. Can people work from their homes to carry out services and duties?

Date Completed _____

Recovery
Facilities

- ❑ Remember "safety first" as you re-enter your facility.

Date Completed _____

- ❑ Go through a complete safety checklist to make sure you are aware of the hazards.

Date Completed _____

- ❑ Take pictures and/or video the damage.

Date Completed _____

- ❑ Assess the damage and determine what needs to be done to reduce further damage to the facility.

Date Completed _____

- ❑ Begin clean up.

Date Completed _____

- ❑ Contact insurance company to report the damage and determine when you may expect someone from the insurance company to contact you.

Date Completed _____

- ❑ Discuss with the insurance company what immediate actions you need to take to prevent further losses.

Date Completed _____

- ❑ Create list of needs and repairs and send to your Regional CAC so they can rally other CACs to help.

Date Completed _____

- ❑ Make decision about relocating services temporarily or reopening.

Date Completed _____

- ❑ Work with sister agency regarding deliveries, storage, sharing space, providing services, etc.

Date Completed _____

- ❑ Get all forms of communication up and running as quickly as possible. Keep staff informed of operational communications.

Date Completed _____

- ❑ Get on the list for the contractor to begin repairs.
  - If the disaster affected a large portion of the community, there will be a waiting list and you will want to be up and running as soon as possible.
  - Stress to the contractor the importance of your work and the need to be accessible to the community and to urgency to resume service delivery.

Date Completed _____

- ❑ Make sure media, stakeholders, staff and clients know your plans for providing services.

Date Completed _____

- ❑ Maintain a detailed log with
  - Important contact information.
  - Details of conversations you have with people.
  - Decisions that are made.
  - Actions that are taken.

Date Completed _____

- ❑ Develop a work plan to get facility up and running.

Date Completed _____

Recovery
Finances

- ❑ Assess financial needs to determine plan of action.

Date Completed _____

- ❑ Use donations from community and other CACs for
  - Immediate needs.
  - Cash match purposes.

Date Completed _____

- ❑ Tap into donors and continue to assess where you can access funds.

Date Completed _____

- ❑ Notify your regional CAC of your needs so they may assist in getting the word out to other CACs.

  Date Completed _____

- ❑ Make a very specific wish list for community help and donations.

  Date Completed _____

- ❑ Look to your local United Way for help.

  Date Completed _____

- ❑ In case of facility damage, apply for deferments on mortgage or review leases.

  Date Completed _____

- ❑ Notify grantors of disaster if deadlines are imminent.

  Date Completed _____

Recovery
Information Technology

- ❑ Assess your IT capacity.

  Date Completed _____

- ❑ Inventory IT equipment.

  Date Completed _____

- ❑ Restore backups and communication systems.

  Date Completed _____

- ❑ Update website as soon as possible and keep the information as current as possible.

  Date Completed _____

- ❑ Make sure data entry gets done when you are back up and running.

  Date Completed _____

- ❑ Remove equipment for salvage or storage.

  Date Completed _____

- ❑ If possible begin to replace any lost or damaged equipment.

  Date Completed _____

- ❑ Coordinate with sister CAC for deliveries.

  Date Completed _____

- ❑ Contact leasing company about leasing equipment.

  Date Completed _____

Recovery
Records

- ❑ Restore backups

  Date Completed _____

- ❑ Contact funders and let them know what you lost.

  Date Completed _____

- ❑ Recreate records and update data entry.

  Date Completed _____

- ❑ Notify NCA of the event and your anticipated date of resuming services.

  Date Completed _____

Final Thoughts

Our hope is that the contents of the manual will help your CAC take the first steps to prepare for a natural disaster. The work of a Children's Advocacy Center is vital to its community; especially to the children and families it serves. It is imperative that we position our agencies so that services are able to be delivered with as little disruption as possible. The ability to provide consistent, prompt follow-up to abuse reports and consistent, compassionate support for children and families can be adversely effected by an agency that has not made provisions for catastrophic events.

Feel free to adapt this manual to meet the needs of your agency and let us know how it helped you in the process of preparation. Please provide us any lessons learned from your experience so that we can share your wisdom with other Children's Advocacy Centers across the nation.

Provide feedback to:

Karen Hangartner
Communications & Project Coordinator
Southern Regional Children's Advocacy Center
210 Pratt Avenue
Huntsville, AL 35801
1.800.747.8122
256.327.3754
khangartner@nationalcac.org

Psychological Impact of Disaster on Children

Selected Resources on Diagnosis and Treatment

prepared by

David N. King, Ph.D., M.S.L.S.
Director, Research Library
National Children's Advocacy Center

September 2005 (revised)

Part One of this document is an annotated bibliography. The bibliography compiles a collection of English language resources pertaining to psychological trauma experienced by children as a result of natural disaster. Most of these publications deal with the psychological impact on children as victims, short- and long-term, and strategies for treatment.

This bibliography does not include publications addressing physical injury or the practicalities of disaster relief. The primary emphasis of the bibliography is on victims of hurricanes, especially children, although a selection of more general publications on disaster-related traumatic stress and working with families are included.

This bibliography is organized alphabetically by last name of the primary author, not chronologically.

Part Two of this document is a guide to selected Internet resources and Web sites. This list is of an ephemeral nature, since new sites appear frequently and established sites are reorganized or updated with more current resources.

This resource guide along with copies of especially appropriate guides and publications have been made available to the many Children's Advocacy Centers throughout the southeast that are providing services to victims and refugees. Please consult the web site of the Southern Regional Children's Advocacy Center for timely information regarding the status of Children's Advocacy Centers affected by hurricanes and other natural disasters. The Southern Regional Children's Advocacy Center web site is located at
http://www.nationalcac.org/professionals/srcac/index.html

Part One: Selected Annotated Bibliography

1) Aptekar, L. and J. A. Boore (1990). "The emotional effects of disaster on children: A review of the literature." *International Journal of Mental Health,* 19(2): 77-90.

Examines the issues surrounding the mental health of children who are disaster victims. The review focuses on findings and problems associated with the nature and extent of the disaster trauma; influence of family and community; resilience or vulnerability of the child; and symptoms, their onset and duration. Predisaster level of functioning, cross-cultural differences, therapeutic approaches, and methodological considerations are discussed.

2) Bahrick, L. E., J. F. Parker, et al. (1998). "The effects of stress on young children's memory for a natural disaster." *Journal of Experimental Psychology: Applied*, 4(4): 308-331.

The effects of stress on children's long-term memory for a major hurricane were studied. Stress was objectively defined as low, moderate, or high according to the severity of damage to the child's home. One hundred 34 and 4-year-old children received a structured interview 2-6 months following the hurricane. Older children recalled and elaborated more than younger children. Prompted recall was greater than spontaneous recall. There was a quadratic function, consistent with an inverted U-shaped curve, relating storm severity with overall as well as spontaneous recall. These findings can be applied to the effects of stress on the amount recalled by children giving retrospective accounts of temporally extended, naturalistic events.

3) Ball, J., & Allen, K. (2000). "Consensus recommendations for responding to children's emergencies in disasters." *National Academies of Practice Forum: Issues in Interdisciplinary Care,* 2(4): 253-257.

Discusses consensus recommendations for responding to children's emergencies in disasters that emerged from the 1998 Children's Emergencies in Disasters: A National Emergency Medical Service for Children Workshop in Orlando, Florida. Emergency physicians, pediatricians, nurses, emergency medical service and disaster planners, school representatives, and mental health professionals developed the pediatric disaster recommendations. The consensus recommendations include information on medical capabilities, managed care, mental health, community planning, data collection, volunteer services, school and child care, public awareness, and family empowerment.

4) Bolton, D., O'Ryan, D., Udwin, O., Boyle, S., & Yule, W. (2000). "The long-term psychological effects of a disaster experienced in adolescence: II: General psychopathology." *Journal of Child Psychology & Psychiatry,* 41(4): 513-523.

Children and adolescents exposed to trauma can suffer major adverse psychological effects including not only post-traumatic stress but also other psychological disorders. This study investigates the long-term course of general psychopathology following trauma in adolescence using a standardized diagnostic interview and comparisons with a matched control group. Young people (*N*= 216) who as teenagers had survived a shipping disaster—the sinking of the “Jupiter” in Greek waters—between 5 and 8 years previously and 87 young people as matched controls were interviewed. The survivors showed raised rates of diagnosis in a range of anxiety and affective disorders during the follow-up period. The highest rates were among the survivors who had developed Post-Traumatic Stress Disorder (PTSD), and those survivors who had not were generally similar to the controls. Onset of anxiety and affective disorders varied between being indefinitely close to the disaster to years later. Differences in rates of disorder between the survivor and control groups had lessened by the time of follow-up but were still apparent, due to continuing distress among the survivors still suffering from PTSD, and to a lesser extent among those who had recovered from PTSD. Generalisability of the findings are discussed.

5) Bradburn, I.S. (1991). "After the earth shook: Children's stress symptoms 6-8 months after a disaster." *Advances in Behaviour Research & Therapy*, 13(3): 173-179.

Studied 22 children's (aged 10-12 yrs) response to an earthquake 6-8 mo after the event, particularly subjects' traumatic stress-related symptoms and factors mediating individual response. Principal variables examined were (1) experience of and proximity to loss of life and

severe property damage, (2) family reactions, and (3) psychological vulnerability to having an adverse response, based on previous experience of psychological trauma. Measures administered during interview included a posttraumatic stress reaction index for children. Subjects reported experiencing traumatic stress-related symptoms that appeared associated with the seismic event. Subjects who lived closer to a heavily damaged area were more likely to experience a greater degree of stress than subjects who lived farther away.

6) Bravo, M., Rubio-Stipec, M., Canino, G.J., Woodbury, M.A., & Ribera, J.C. (1990). “The psychological sequelae of disaster stress prospectively and retrospectively evaluated.” *American Journal of Community Psychology*, 18(5): 661–80.

Aimed to document the psychological sequelae of a disaster in the adult (17-68 years) population of the Caribbean island of Puerto Rico, by surveying 912 persons (including 375 previously interviewed) with a Spanish version of the Diagnostic Interview Schedule. A rigorous methodology, which included both retrospective and prospective designs, was used, enabled by the occurrence of a catastrophic disaster only a year after a comprehensive survey was completed. Framed in a stress theoretical perspective, disaster effects for new depressive, somatic, and posttraumatic stress symptoms were identified, even after adjusting for demographic and methodologic factors. All the effects, however, were relatively small, suggesting that most disaster victims were rather resilient to the development of new psychological symptoms. Comparison of results with previous findings and its implications for both disaster and stress research are discussed, as well as the role of community psychologists in disaster action.

7) Briere, J., & Elliot, E. (2000). “Prevalence, characteristics, and long-term sequelae of natural disaster exposure in the general population.” *Journal of Traumatic Stress,* 13: 661–78.

A sample of 935 participants from the general population completed a mail-out questionnaire containing the Trauma Symptom Inventory (J. Briere, 1995) and the Traumatic Events Survey (D. M. Elliott, 1992). The lifetime self-reported prevalence of natural disasters in this sample was 22%. Although time from the last disaster to involvement in the study was an average of 13 years, previous disaster was associated with significantly higher scores on 6 of 10 symptom scales. Disaster characteristics (especially the presence of physical injury, fear of death, and property loss) were better predictors of symptomatology than was disaster type. Disaster exposure continued to predict symptomatology after controlling for interpersonal violence history, although interpersonal violence accounted for more overall symptom variance.

8) Bulut, S. (2004). "Factor structure of posttraumatic stress disorder in children experienced natural disaster." *Psychologia: An International Journal of Psychology in the Orient,* 47(3): 158-168.

Because Oklahoma has more tornadoes per square mile than any region in the world, children in Oklahoma and other disaster prone areas are at risk for developing posttraumatic stress disorder (PTSD) due to exposure to and threat of tornadoes. Given the gaps in the literature and the risk to children living in Oklahoma, the present study was undertaken to factor analyze items representing underlying dimensions of PTSD. This factor analysis of the responses of children who experienced a tornado indicates that it may be more useful to re-align the DSM-IV symptoms into five underlying dimensions. These dimensions appear to be: (1) blocking/vigilance, (2) affective/adjustment difficulties, (3) re-experiencing/ intrusion, (4) somatic/attachment and (5) sense of foreshortened future. Items of avoidance stimuli, loaded across factors, with avoiding places associated with vigilance, avoiding people associated with adjustment problems, and television stimuli associated with re-experiencing. Psychologists should consider these results when developing interventions.

9) Burke, J.D., Jr., Borus, J.F., Burns, B.J., Millstein, K.H., & Beasley, M.C. (1982). “Changes in children's behavior after a natural disaster.” *American Journal of Psychiatry,* 139(8): 1010-1014.

Five months after a severe winter storm, a survey of children whose behavior had been assessed by means of a parent rating scale during a Head Start program 6 months before the disaster showed that some problem-behavior scores had increased significantly. The subgroups of children at higher risk were boys, whose Anxiety scale scores increased, and children accepted for Head Start only because their parents said they had special needs, whose Aggressive Conduct scale scores increased. For the entire group of children, school behavior

improved. The findings support previous impressions that parents deny their children's problems after a natural disaster.

10) Burke, J.D., Jr., Moccia, P., Borus, J.F., & Burns, B.J. (1986). "Emotional distress in fifth-grade children ten months after a natural disaster." *Journal of the American Academy of Child Psychiatry,* 25(4): 536-541.

Ten months after a blizzard and flood disaster struck their town, 19 5th-grade children in a church wrote stories about the coming winter. Stories were also written by 28 5th graders from a nearby but unflooded town. These were assessed blindly by 6 mental health clinicians for signs of distress, including fear, depression, and anxiety. Children from the flooded area demonstrated more distress than those from the nonflooded area. Only girls showed this effect; for boys, there was no difference between flooded and nonflooded groups. These results, which suggest that distress can persist as long as 10 months after a natural disaster, corroborate and extend the findings of an earlier study of younger children in this community conducted by J. D. Burke et al.

11) Chemtob, C. M., J. Nakashima, et al. (2002). "Brief treatment for elementary school children with disaster-related posttraumatic stress disorder: A field study." *Journal of Clinical Psychology*, 58(1): 99-112.

Evaluated the effectiveness of a brief intervention for disaster-related posttraumatic stress disorder (PTSD). At 1-yr follow-up of a prior intervention for disaster-related symptoms, some previously treated children were still suffering significant trauma symptoms. Using a randomized lagged-groups design, 3 sessions of Eye Movement Desensitization and Reprocessing (EMDR) treatment were provided to 32 of these children (ages 6-12 yrs) who met clinical criteria for PTSD. The Children's Reaction Inventory (CRI) was the primary measure of the treatment's effect on PTSD symptoms. Associated symptoms were measured using the Revised Children's Manifest Anxiety Scale (RCMAS) and the Children's Depression Inventory (CDI). Treatment resulted in substantial reductions in both groups' CRI scores and in significant reductions in RCMAS and CD1 scores. Gains were maintained at 6-mo follow-up. Health visits to the school nurse were significantly reduced following treatment. Psychosocial intervention appears useful for children suffering disaster-related PTSID. Conducting controlled studies of children's treatment in the postdisaster environment appears feasible.

12) Curtis, T., Miller, B., & Berry, E. (2000). “Changes in reports and incidence of child abuse following natural disasters.” *Child Abuse & Neglect,* 24:1151–62.

Objective The aim of this research was to investigate if there is a higher incidence of child abuse following major natural disasters. *Methodology* Child abuse reports and substantiations were analyzed, by county, for 1 year before and after Hurricane Hugo, the Loma Prieta Earthquake, and Hurricane Andrew. Counties were included if damage was widespread, the county was part of a presidential disaster declaration, and if there was a stable data collection system in place. *Results* Based on analyses of numbers, rates, and proportions, child abuse reports were disproportionately higher in the quarter and half year following two of the three disaster events (Hurricane Hugo and Loma Prieta Earthquake). *Conclusions* Most, but not all, of the evidence presented indicates that child abuse escalates after major disasters. Conceptual and methodological issues need to be resolved to more conclusively answer the question about whether or not child abuse increases in the wake of natural disasters. Replications of this research are needed based on more recent disaster events.

13) Dollinger, S. J., & Cramer, P. (1990). "Children's defensive responses and emotional upset following a disaster: A projective assessment." *Journal of Personality Assessment*, 54(1-2): 116-127.

Tested the validity of P. Cramer's Defense Mechanism Manual (1982, unpublished manuscript) by using it to evaluate children's reactions to a life-threatening traumatic event (lightning strike). The defense mechanisms of 27 boys (aged 10-13 yrs) who were victims of a lightning strike were assessed. subjects were interviewed 1-2 mo following the incident (in which one boy died), rated on degree of emotional upset based on behavior in the interview, and constructed projective stories from pictures of lightning bolts. Denial, projection, and identification,

in combination, were inversely related to clinical upset, as was the age and sex-appropriate individual defense of projection. Results provide evidence for the validity of the Defense Mechanism Manual and support the hypothesis that defense mechanisms protect children from emotional upset.

14) Durkin, M.S., Khan, N., Davidson, L.L., Zaman, S.S., & Stein, Z.A. (1993). "The effects of a natural disaster on child behavior: Evidence for posttraumatic stress." *American Journal of Public Health*, 83(11): 1549-1553.

Objectives. A prospective study of children examined both before and after a flood disaster in Bangladesh is used to test the hypothesis that stressful events play a causal role in the development of behavioral disorders in children. *Methods*. Six months before the disaster, structured measures of selected behavioral problems were made during an epidemiological study of disability among 2- to 9-year-old children. Five months after the disaster, a representative sample of 162 surviving children was reevaluated. *Results*. Between the pre- and postflood assessments, the prevalence of aggressive behavior increased from zero to nearly 10%, and 45 of the 134 children who had bladder control before the flood (34%) developed enuresis. *Conclusions*. These results help define what may be considered symptoms of posttraumatic distress in childhood; they also contribute to mounting evidence of the need to develop and evaluate interventions aimed at ameliorating the behavioral and psychological consequences of children's exposure to extreme and traumatic situations.

15) Flynn, B.W., & Nelson, M.E. (1998). "Understanding the needs of children following large-scale disasters and the role of government." *Child & Adolescent Psychiatric Clinics of North America,* 7(1): 211-227.

No one who experiences a disaster is untouched by it. Children and their families are often among the most affected. This article explains how mental health and medical professionals can assist families and communities in dealing with common disaster-related stress reactions in children. An overview of disaster research and examples of special concerns about children are given. In addition, an overview of the role of local, state, and federal governments, as well as other organizations, is provided.

16) Frederick, C.J. (1985) “Children traumatized by catastrophic situations.” In: Eth, S. and Pynoos, R.S., eds. *Post-Traumatic Stress Disorder in Children* (p. 73-99). Washington, DC: American Psychiatric Press.

This book chapter discusses post-traumatic stress disorder in a variety of traumatic and catastrophic situations, with particular emphasis upon problems occurring in children. The experiences discussed are based upon a wide spectrum of calamitous events including natural disasters.

17) Galante, R., & Foa, D. (1987). "An epidemiological study of psychic trauma and treatment effectiveness for children after a natural disaster." *Annual Progress in Child Psychiatry & Child Development,* 349-364.

The authors surveyed 300 4th-6th grade earthquake victims in 6 Italian villages. In one village, a treatment program was introduced as a series of steps that led to a replaying of the earthquake. The hypothesis that the number of subjects shown to be at risk for developing neurotic or antisocial problems would be positively correlated with the amount of destruction in a village was not supported. The hypothesis that treatment would reduce earthquake fears and the number of children at risk was verified. The village where treatment was carried out for 1 academic year showed a significant drop in the at-risk scores. It is concluded that treatment alleviated symptoms but that the number of children at risk seemed to be related to the length of time needed for the community to reorganize after the disaster.

18) Green, B.L., Korol, M., Grace, M.C., Vary, M.G., Leonard, A.C., Gleser, G.C., & Smitson-Cohen, S. (1991). "Children and disaster: Age, gender, and parental effects on PTSD symptoms." *Journal of the American Academy of Child & Adolescent Psychiatry*, 30(6): 945-951.

Psychiatric reports of 179 children aged 2 to 15 who were exposed to the Buffalo Creek dam

collapse in 1972 were rated for post-traumatic stress disorder (PTSD) symptoms 2 years after the disaster. Age and gender effects and the impact of the level of exposure and parental functioning were examined according to a conceptual model addressing factors contributing to adaptation to a traumatic event. Results showed fewer PTSD symptoms in the youngest age group and higher symptom levels for girls than boys. Approximately 37% of the children were given a "probable" diagnosis of PTSD. Multiple regression analysis showed that life threat, gender, parental psychopathology, and an irritable and/or depressed family atmosphere all contributed to the prediction of PTSD symptomatology in the children.

19) Green, B.L., Lindy, J.D., Grace, M.C., & Leonard, A.C. (1992). “Chronic posttraumatic stress disorder and diagnostic comorbidity in a disaster sample.” *Journal of Nervous and Mental Disorders,* 180(12): 760-766.

Research has indicated significant comorbid psychopathology with chronic posttraumatic stress disorder (PTSD) in samples of war veterans. The present paper examines the issue of comorbidity in a disaster sample to learn whether findings from veterans generalized to this event. A total of 193 subjects exposed to the Buffalo Creek dam collapse of 1972 were examined 14 years later using diagnoses derived from the Structured Clinical Interview for DSM-III (SCID). Past and present PTSD was found in a significant portion of the sample. Major depression was the next most common diagnosis and was highly related to PTSD. Anxiety disorders were also common. The overlap with other diagnoses was quite similar to that found in a sample of Vietnam veterans we studied earlier, except that the disaster sample had fewer dysthymic disorders, substance abusers, and antisocial personality disorders. Possible explanations for comorbidity in chronic PTSD were discussed and it was suggested that the morphology of PTSD may be quite stable in at least some other nonveteran trauma populations.

20) Gurwitch, R.H., Sullivan, M.A., & Long, P.J. (1998). "The impact of trauma and disaster on young children." *Child & Adolescent Psychiatric Clinics of North America,* 7(1): 19-32.

In the past few decades, the study of the impact of trauma and disaster on children has grown; however, information about the effects on very young children is still scarce in the literature. In some regards, the characteristics of stress in young children are similar to those of older children and adults; in other ways, their reactions are unique. These characteristics, as well as mediating factors and interventions with young children, are discussed. Suggestions for future research are offered.

21) Gurwitch, R.H., Silovsky, J.F., Schultz, S., Kees, M., & Burlingame, S. (2002). "Reactions and guidelines for children following trauma/disaster." *Communication Disorders Quarterly,* 23(2): 93-99.

What to expect following trauma among elementary school students, middle school students, high school students, and teachers, and guidelines for response.

22) Gurwitch, R.H., Kees, M., Becker, S.M., Schreiber, M., Pfefferbaum, B., & Diamond, D. (2004). “When disaster strikes: responding to the needs of children.” *Prehospital Disaster Medicine,* 19(1): 21-28.

When a disaster strikes, parents are quick to seek out the medical advice and reassurance of their primary care physician, pediatrician, or in the case of an emergency, an emergency department physician. As physicians often are the first line of responders following a disaster, it is important that they have a thorough understanding of children's responses to trauma and disaster and of recommended practices for screening and intervention. In collaboration with mental health professionals, the needs of children and families can be addressed. Policy-makers and systems of care hold great responsibility for resource allocation, and also are well-placed to understand the impact of trauma and disaster on children and children's unique needs in such situations.

23) Hamada, R.S., Kameoka, V., Yanagida, E., & Chemtob, C.M. (2003). "Assessment of elementary school children for disaster-related posttraumatic stress disorder symptoms: The Kauai recovery index." *Journal of Nervous & Mental Disease*, 191(4): 268-272.

Reports the first and second stage results of a project to establish the psychometric properties of a PTSD symptom scale for children designed to be used communitywide after disasters. This analysis confirms the psychometric soundness of the Kauai Recovery Index (KRI). The KRI can be readily used as a brief instrument to screen disaster-exposed children in schools to identify those in need of psychological intervention and to plan and monitor effects of those interventions. It can also be used to monitor over time the psychological recovery of children after a disaster.

24) Jeney-Gammon, P., Daugherty, T.K., Finch, A.J., Jr., Belter, R.W., & Foster, K.Y. (1993). "Children's coping styles and report of depressive symptoms following a natural disaster." *Journal of Genetic Psychology,* 154(2): 259-267.
The present study examined the relationship between children's coping styles (Spirito, Stark, & Williams, 1988) and self-reported levels of depressive symptoms (Kovacs, 1983) following a major stressor. 257 third- to fifth-grade children consented to participate in the study, 5 months following a hurricane. The number of coping strategies employed was positively related to depression scores, whereas coping efficacy was negatively related to depression scores. Social withdrawal, self-blaming, and emotional regulation were associated with more severe depressive symptoms. Lower levels of symptomatology were found among children who sought social support and engaged in cognitive restructuring. The overall symptom level in the sample did not exceed that of normative samples. Results are discussed in terms of competing theories of childhood depression.

25) Johnson, K. (1998). *Trauma in the Lives of Children: Crisis and Stress Management Techniques for Counselors, Teachers, and Other Professionals.* 2nd Ed. Alameda, CA: Hunter House.
This book discusses the impact of traumatic events upon children and strategies for addressing the problems they experience. Chapters include: what we know about crisis, children's reactions to trauma, what schools can do, and what therapists can do. It also addresses the impact of disaster mental health impact on workers and methods for managing professional stress.

26) Jones, R. T., Ribbe, D.P., Cunnningham, P.B., Weddle, J.D., & Langley, A.K.. (2002). "Psychological impact of fire disaster on children and their parents." *Behavior Modification* 26(2): 163-186.
Six weeks following a major wildfire, children's psychosocial functioning was examined. Employing a multimethod assessment approach, the short-term mental health consequences of the fire were evaluated. Individual adjustment was compared between families who reported high levels of loss as a result of the fire (high-loss group) and families who reported relatively low levels of loss resulting from the fire (low-loss group) . Standardized assessment procedures were employed for children and adolescents as well as their parents. In general, high-loss participants reported slightly higher levels of post-traumatic stress disorder (PTSD) symptoms and significantly higher scores on the Impact of Events Scale. PTSD symptoms reported by parents were generally significantly correlated with (but not concordant with) PTSD symptoms reported by their children. The high-loss group scored significantly higher on the Resource Loss Index than did the low-loss group. Preexisting and comorbid disorders and previous stressors are described. A methodological framework for future studies in this area is discussed.

27) Keenan, H.T., Stephen W. Marshall, S.W., Nocera, M.A., & Runyan, D.K. (2004). Increased incidence of inflicted traumatic brain injury in children after a natural disaster. *American Journal of Preventive Medicine,* 26(3): 189-193. *Background*
The incidence of child abuse following natural disasters has not been studied thoroughly. However, parental stress and decreased social support have been linked to increased reports of child maltreatment. We hypothesized that a large-scale natural disaster (North Carolina's Hurricane Floyd) would increase the incidence of inflicted traumatic brain injury (TBI) in young children. *Methods* An ecologic study design was used to compare regions affected to those regions unaffected by the disaster. Cases of inflicted TBI resulting in admission to an intensive care unit or death from September 1998 through December 2001 in North Carolina were

ascertained. Poisson regression modeling was employed to calculate rate ratios of injury for each geographic area by time period. *Results* Inflicted TBI in the most affected counties increased in the 6 months post-disaster in comparison to the same region pre-disaster (rate ratio 5.1, 95% confidence interval [CI]=1.3–20.4), as did non-inflicted TBI (rate ratio 10.7, 95% CI=2.0–59.4). No corresponding increased incidence was observed in counties less affected or unaffected by the disaster. The rate of inflicted injuries returned to baseline in the severely affected counties 6 months post-hurricane; however, the rate of non-inflicted injuries appeared to remain elevated for the entire post-hurricane study period. *Conclusions* Families are vulnerable to an elevated risk of inflicted and non-inflicted child TBI following a disaster. This information may be useful in future disaster planning.

28) Khoury, E.L., Warheit, G.J., Hargrove, M.C., Zimmerman, R.S., Vega, W.A., & Gil, A.G. (1997). The impact of hurricane Andrew on deviant behavior among a mult-racial/Ethnic sample of adolescents in Dade county, Florida: A longitudinal analysis. *Journal of Traumatic Stress,* 10(1): 71-91.

Findings from a longitudinal study are presented on the relationships between the problems and stresses resulting from Hurricane Andrew and posthurricane minor deviant behavior. The sample (N = 4,978) included Hispanic, African-American, and White non-Hispanic middle school students enrolled in Dade County, Florida public schools. Two waves of data were collected prior to the hurricane; a third was obtained approximately 6 months following the storm. Results indicated that females were likely to report higher levels of hurricane-related stress symptoms than males. After controlling for prehurricane levels of minor deviance, family support, and race/ethnicity, hurricane stress symptom level remained a significant predictor of posthurricane minor deviant behavior. The findings lend support to stress theories of social deviance.

29) Kreuger, L., & Stretch, J. (2003). "Identifying and helping long term child and adolescent disaster victims: Model and method." *Journal of Social Service Research*, 30(2): 93-108.

This paper reports on secondary analysis of data collected as part of an effort by social work providers and a major parochial school system to assess longer term impact and possible Post Traumatic Stress Disorder (PTSD) among children and adolescents in 17 schools heavily affected by flooding. The assessment protocol, implemented by classroom teachers, measured self-reported amount of damage from a major flood along with two standardized measures of PTSD. Discussed are findings regarding factors that predict PTSD including amount of harm and ability of family to recover, whether loss of residence was related to recovery and PTSD and other variables from this field screening of 3876 children and adolescents in the Midwest who lived in areas impacted by an extensive flooding.

30) Laor, N., Wolmer, L., Spirman S, & Wiener Z. (2003). "Facing war, terrorism, and disaster: Toward a child-oriented comprehensive emergency care system." *Child & Adolescent Psychiatric Clinics of North America,* 12(2): 343-361.

The combination of the overwhelming nature of disasters and the massive losses they engender gives rise to a complex clinical and social picture with longterm physical, psychological, and social effects on children, families, and communities. The authors suggest that to assess the damage properly, implement interventions on a large scale, keep tabs on rising needs, and restore societal function, mental health professionals must adopt an ecologic systems approach. This approach entails working within and together with related institutions (education, health, local government) and assisting other committed professionals within these institutions to mediate care. This is of utmost importance in the area of children's care because of their particular vulnerability and their special importance for families and society. For this reason, the authors suggest that emergency mental health systems be better designed and implemented while keeping children at the center of their focus. An essential component of the ecologic systems approach is improved education for mental health professionals, providing them the appropriate tools to cope with widespread disaster and the expertise to apply these tools. This approach, however, is not enough. A good outcome cannot be achieved without preparedness on the part of the other relevant institutions and the community as a whole. Greater awareness is needed among local and national authorities of the importance of metaadaptive systems and of local,

national, and international networking. In the current global village that is threatened by pervasive terrorism, no community must face it alone. The challenge of a disaster to one community is a challenge to all. By working together we can lessen the devastating impact of these events, save countless lives, prevent untold suffering, and maintain hope for a better world for children.

31) Lee, O. (1999). "Science knowledge, world views, and information sources in social and cultural contexts: Making sense after a natural disaster." *American Educational Research Journal,* 36(2): 187-219.

This study examined children's views of the world after they personally experienced a natural disaster--specifically, Hurricane Andrew in South Florida during the summer of 1992. The study addressed three issues: (a) children's knowledge of the hurricane; (b) children's views of the world, especially the causality of the hurricane; and (c) children's sources of information in social and cultural contexts. The study was conducted in the early spring of 1994. It involved 127 fourth and fifth grade students in two elementary schools located in areas that were particularly hard hit by the hurricane. The student sample was representative of various ethnic, socioeconomic, and gender backgrounds. Both quantitative and qualitative research methods were used for data collection and analysis. Results indicate significant differences as well as similarities in children's knowledge, world views, and information sources by ethnicity, socioeconomic status, and gender. Implications for promoting scientific literacy for all students, including socially and culturally diverse students, are discussed.

32) Lieberman, A.F., & van Horn, P. (2004). “Assessment and treatment of young children exposed to traumatic events.” In: Osofsky, J.D., ed. *Young Children and Trauma: Intervention and Treatment.* (pp. 111-138). New York: Guilford Press.

The impact of traumatic events on infants, toddlers, and preschoolers is only beginning to be systematically documented and understood. Children respond to trauma in ways that reflect the particular developmental tasks and challenges they are attempting to master. This chapter describes assessment strategies designed to identify traumatic responses in a developmental and contextual framework, and presents forms of intervention aimed at alleviating traumatic responses in the present and at preventing the consolidation of these responses into chronic patterns of emotional, social, and cognitive dysfunction.

33) Lonigan, C.J., Shannon, M.P., Finch, A.J., Daugherty, T.K., et al. (1991). "Children's reactions to a natural disaster: Symptom severity and degree of exposure." *Advances in Behaviour Research & Therapy*, 13(3): 135-154.

Self-report data for 5,687 children (aged 9-19 yrs) were collected approximately 3 months after a hurricane devastated the children's community. Information about the children's perceptions of hurricane severity, degree of home damage suffered as a result of the hurricane, and hurricane-related parental job loss was used to categorize children into 4 levels of hurricane exposure. Anxiety was measured via the Revised Children's Manifest Anxiety Scale, and reports of posttraumatic stress disorder (PTSD) symptoms were obtained via the Reaction Index. Significantly higher anxiety scores and significantly more PTSD symptomatology were found for children experiencing more or more severe exposure to the hurricane. Girls reported more anxiety and PTSD symptoms than boys, and Black children were more likely than White children to report PTSD symptomatology.

34) Lonigan, C.J., Shannon, M.P., Taylor, C.M., Finch, A.J., Jr., & Sallee, F.R. (1994). "Children exposed to disaster: II. Risk factors for the development of post-traumatic symptomatology." *Journal of the American Academy of Child & Adolescent Psychiatry,* 33(1): 94-105.

Objective To examine the influence of subject and exposure variables on the development of post-traumatic stress disorder (PTSD) symptoms and syndrome in children exposed to disaster. *Method* Three months after Hurricane Hugo, 5,687 school-aged children were surveyed about their experiences and reactions to the hurricane. Self-reports of PTSD symptoms were obtained by use of a PTSD Reaction Index. *Results* The presence of PTSD symptoms was strongly related to children's reported severity of the hurricane, degree of home damage sustained, and continued displacement; however, children's level of trait anxiety and their reported emotional reactivity

during the hurricane were more strongly related to the presence of PTSD symptoms than were the exposure factors. Different sets of risk factors appeared to differentially influence the development of the three DSM-III-R PTSD symptom clusters. Little evidence for a differential effect of the risk factors between females and males and younger and older children was found. *Conclusions* Level of trait anxiety appears to be the single strongest risk for the development of severe post-traumatic reactions. The higher rate of post-traumatic symptoms in females and younger children in combination with the absence of differential reaction to the risk factors suggests that females and younger children are more likely to develop posttraumatic reactions following a disaster.

35) Lonigan, C.J., Anthony, J.L., & Shannon, M.P. (1998). "Diagnostic efficacy of posttraumatic symptoms in children exposed to disaster." *Journal of Clinical Child Psychology*, 27(3): 255-267.

Examined 5 conditional probability indices to determine the diagnostic efficacy of 48 symptoms associated with posttraumatic stress disorder (PTSD) in 5,687 children exposed to Hurricane Hugo, of whom 5.5% had a diagnosis of posttraumatic stress syndrome (PTSS). Moderate levels of sensitivity and high levels of specificity were obtained for most symptoms. Odds ratios more precisely demonstrated that some Diagnostic and Statistical Manual of Mental Disorders (DSM) symptoms of PTSD, especially when combined, were useful for identifying children with PTSS but that anxiety symptoms and some DSM symptoms of PTSD had poor diagnostic utility. Satisfying criteria for the DSM-III-R numbing/avoidance cluster and symptoms from the numbing/avoidance cluster had the highest diagnostic efficacy, suggesting that avoidance may be the hallmark of severe posttraumatic reactions. These results suggest which symptoms should be conceptualized as central versus peripheral to the disorder and which symptoms and symptom combinations clinicians should attend to most when diagnosing or screening PTSD in children.

36) McDermott, B.M.C., & Palmer, L.J. (1999). "Post-disaster service provision following proactive identification of children with emotional distress and depression." *Australian & New Zealand Journal of Psychiatry,* 33(6): 855-863.

Objective: Proactive, school-based psychological testing for emotional distress and depression was employed 6 months after a bushfire disaster. The service provision aim was to provide children with the greatest emotional distress the relatively limited therapeutic resources available in the post-disaster environment. Specific hypotheses were tested: that the prevalence of emotional distress and depression would be elevated 6 months post disaster; that emotional distress would be correlated with traumatic events; and that depression would be related to experiences of loss. *Method*: Six months after a bushfire disaster grade 4, 5, and 6 students (n = 601) participated in screening using a test battery measuring emotional distress, depressive symptoms and trait anxiety. *Results*: Twelve percent (n = 72) of children experienced severe emotional distress 6 months after the bushfire. Rates of depression were similar to rates in non-traumatised child community samples. Multivariate analysis suggested that emotional distress was significantly associated with trait anxiety, evacuation experience, the perception that parents may have died during the bushfire, and depressive symptoms. Depressive symptoms were associated with total distress score, trait anxiety and perception of threat to the parents. *Conclusions*: Substantial mental health morbidity was identified 6 months after a bushfire disaster. The usefulness of post-disaster service provision influenced by proactive screening is discussed and reasons for further research highlighted.

37) McDermott, B.M., Lee, E.M., Judd, M., & Gibbon, P. (2005). "Posttraumatic Stress Disorder and General Psychopathology in Children and Adolescents Following a Wildfire Disaster." *Canadian Journal of Psychiatry,* 50(3): 137-143.

Objective: To report on the use of the Post Traumatic Stress Disorder Reaction Index (PTSD-RI) and the Strengths and Difficulties Questionnaire (SDQ) in identifying children and adolescents who may require psychological interventions following exposure to a wildfire disaster. *Method*: Six months after a wildfire disaster, we conducted a school-based program to screen for wildfire-related events, such as exposure to and perception of threat, posttraumatic stress disorder (PTSD), and general psychopathology. *Results*: The screening battery was completed by 222

children (mean age 12.5 years, SD 2.48; range 8 to 18 years). Severe or very severe PTSD was reported by 9.0% of students, while 22.6% scored in the abnormal range on the Emotional Symptoms subscale of the SDQ. Younger children and individuals with greater exposure to and perception of threat experienced higher levels of PTSD and general psychopathology. Female students reported a greater perception of threat but did not report higher levels of PTSD or other symptoms. *Conclusions*: Screening was well received by students, parents, and staff and proved feasible in the postdisaster environment. The PTSD-RI and SDQ demonstrated different individual risk associations and functioned as complementary measures within the screening battery. The identification of children at greatest risk of mental health morbidity enabled service providers to selectively target limited mental health resources.

38) McFarlane, A.C. (1987). "Family functioning and overprotection following a natural disaster: The longitudinal effects of post-traumatic morbidity." *Australian & New Zealand Journal of Psychiatry,* 21(2): 210-218.

The longitudinal impact of a natural disaster on the patterns of interaction in families with latency-aged children is examined. An 11-item questionnaire was developed and two factors were isolated: irritable distress and involvement. A group of 183 disaster-affected families were contrasted with 497 families who had not been exposed to the disaster. Eight months after the disaster, the interaction in the disaster-affected families was characterised by increased levels of conflict, irritability and withdrawal. Maternal overprotection was also a common feature of the pattern of care in these families. Post-traumatic morbidity in parents was the major determinant of the observed changes in family functioning and the overprotection.

39) McFarlane, A.C. (1987). "Posttraumatic phenomena in a longitudinal study of children following a natural disaster." *Journal of the American Academy of Child & Adolescent Psychiatry*, 26(5): 764-769.

The prevalence of posttraumatic phenomena (PTP) and how they relate to symptomatic and behavioral disorders were examined in 808 schoolchildren (mean age 8.2 yrs) at 2, 8, and 26 mo after being exposed to an Australian bushfire. The prevalence of PTP did not change over an 18-mo period, suggesting that they were markers of significant developmental trauma. Mothers' responses to the disaster were better predictors of the presence of PTP than the subjects' direct exposure to the disaster. Both the experience of intrusive memories by the mothers and a changed pattern of parenting seemed to account for this relationship.

40) McFarlane, A.C., Policansky, S.K., & Irwin, C. (1987). "A longitudinal study of the psychological morbidity in children due to a natural disaster." *Psychological Medicine*, 17(3): 727-738.

This longitudinal study examined the psychological impact of a bushfire disaster on a group of 808 children aged from 5 to 12. Contrary to prediction, the prevalence of behaviour and emotional problems 2 months after the fire was less than the prevalence in a carefully selected comparison group. Rather than decrease with time, the prevalence of psychological morbidity increased significantly, being as great 26 months after the disaster as at 8 months.

41) National Child Traumatic Stress Network and National Center for PTSD. (2005). *Psychological First Aid Field Operations Guide.* [Los Angeles: The Center].

Psychological First Aid (PFA) is an evidence-informed modular approach for assisting children, adolescents, adults, and families in the immediate aftermath of disaster and terrorism. PFA is designed to reduce the initial distress caused by traumatic events, and to foster short- and longterm adaptive functioning. Principles and techniques of PFA meet four basic standards. They are: (1) consistent with research evidence on risk and resilience following trauma; (2) applicable and practical in field settings; (3) appropriate to developmental level across the lifespan; and (4) culturally informed and adaptable. PFA is designed for delivery by mental health specialists who provide acute assistance to affected children and families as part of an organized disaster response effort. These specialists may be imbedded in a variety of response units, including first responder teams, incident command systems, primary and emergency health care providers, school crisis response teams, faith-based organizations, Community Emergency Response Teams (CERT), Medical Reserve Corps, the Citizens Corps, and disaster relief organizations.

42) Pfefferbaum, B. (1998). "Caring for children affected by disaster." *Child & Adolescent Psychiatric Clinics of North America*, 7(3): 579-597.

The child and adolescent psychiatrist must play an essential role in the wake of disaster. The focus of the community and the world understandably turns to the physical devastation wrought, and emergency and medical efforts take center stage. Physical evidence of the past may be lost, but the child psychiatrist is able to maintain focus on what cannot be seen. He or she may be the only one to advocate the child's emotional needs. It may be too difficult for others who lack the specialized expertise of mental health training to attend to both the child's physical and emotional needs, and it may be impossible for those without medical training to impress on medical personnel the importance of emotional issues. The child and adolescent psychiatrist, with his or her understanding of medical, mental health, and developmental concerns, is well positioned to support the child, the child's community, and the helpers whose own responses may complicate recovery.

43) Prinstein, M.J., & La Greca, A.M. (1996). "Children's coping assistance: How parents, teachers, and friends help children cope after a natural disaster." *Journal of Clinical Child Psychology,* 25(4): 463-475.

Investigates types of coping assistance offered by parents, friends and teachers to children after a natural disaster. Assessment of post-traumatic stress disorder; Frequency of ten types of coping strategies; Children's perception of social support from significant others.

44) Reijneveld, S.A., Crone, M.R., Verhulst, F.C., & Verloove-Vanhorick, S.P. (2003). "The effect of a severe disaster on the mental health of adolescents: A controlled study." *Lancet,* 362(9385): 691-696.

Background: Disasters greatly affect the mental health of children and adolescents, but quantification of such effects is difficult. Using prospective predisaster and postdisaster data for affected and control populations, we aimed to assess the effects of a severe disaster on the mental health and substance use of adolescents. *Methods*: In January, 2001, a fire in a cafe in Volendam, Netherlands, wounded 250 adolescents and killed 14. In the 15 months before the disaster, all grade 2 students (aged 12-15 years) from a school in Volendam (of whom 31 were in the cafe during the fire), and from two other schools, had been selected as controls for a study. 124 Volendam students and 830 from the other two schools had provided data for substance use, and completed the youth self-report (YSR) questionnaire about behavioural and emotional problems. 5 months after the disaster, we obtained follow-up data from 91 (response rate 73.4%) Volendam adolescents and 643 (77.5%) controls from the other two schools. The primary outcome measures were changes in score in YSR categories of total problems, alcohol misuse, smoking, and substance use. We compared changes in scores between groups using logistic regression. *Findings*: Volendam adolescents had larger increases in clinical scores than controls for total problems (odds ratio 1.82, 95% CI 1.01-3.29, p=0.045) and excessive use of alcohol (4.57, 2.73-7.64, p<0-0001), but not for smoking or use of marijuana, MDMA (ecstasy), and sedatives. Increases in YSR scores were largest for being anxious or depressed (2.85,1.23-6.61), incoherent thinking (2.16, 1.09-4.30), and aggressive behaviour (3.30, 1.30-8.36). Intention-to-treat analyses showed significantly larger for increases in rates of excessive drinking and YSR symptom subscales in Volendam adolescents than controls. Effects were mostly similar in victims and their classmates. *Interpretation*: Mental health interventions after disasters should address anxiety, depression, thought problems, aggression, and alcohol abuse of directly affected adolescents and their peer group.

45) Saylor, C.F., Swenson, C.C., & Powell, P. (1992). "Hurricane Hugo blows down the broccoli: Preschoolers' post-disaster play and adjustment." *Child Psychiatry & Human Development,* 22(3): 139-149.

This article reports highlights from over 200 parents' observations of their preschoolers' play and verbalizations in the year following Hurricane Hugo. Commonly reported activities included reenactment and discussion of the event in multiple mediums, personification of "Hugo," and expression of fears related to storms. Precocious concern for others, insight, and vocabulary

were also noted. In these intact, relatively high functioning families, parents seemed able to facilitate their youngsters' adjustment without outside intervention.

46) Shannon, M.P., Lonigan, C.J., Finch, A.J., Jr., & Taylor, C.M. (1994). “Children exposed to disaster: I. Epidemiology of post-traumatic symptoms and symptom profiles.” *Journal of the American Academy of Child & Adolescent Psychiatry,* 33(1): 80-93.

Objective To determine the range and severity of post-traumatic stress disorder (PTSD) symptoms exhibited by children after exposure to a natural disaster. *Method* Three months after Hurricane Hugo struck Berkeley County, South Carolina, 5,687 school-aged children were surveyed about their experiences and reactions related to the storm. Self-reports of PTSD symptoms were obtained by use of a PTSD Reaction Index. *Results* Significant variation in the prevalence of PTSD symptoms was found across race, gender, and age groups. Self-reported symptoms were used to derive a post-traumatic stress syndrome classification according to DSM-III-R guidelines for the diagnosis of PTSD. More than 5% of the sample reported sufficient symptoms to be classified as exhibiting this post-traumatic stress syndrome. Females and younger children were more likely to receive this classification. At the symptom level, females reported more symptoms associated with emotional processing and emotional reaction to the trauma. Males were more likely to report symptoms related to cognitive and behavioral factors. Younger children were more likely to report symptoms overall. *Conclusions*: Children exposed to a high magnitude natural disaster report sufficient symptoms to establish a DSM-III-R derived classification of a PTSD syndrome. Differences between gender, age, and race groups appear to be related to differential risk of exposure, reporting biases, as well as a differential risk for developing post-traumatic symptoms.

47) Shen, Y.-J., & Sink, C.A. (2002). "Helping elementary-age children cope with disasters." *Professional School Counseling,* 5(5): 322-330.

Focuses on the need for school counselors to incorporate disaster prevention and intervention in counseling elementary-age children. Effects of disasters on elementary-age children; Suggestions for possible school-based intervention; Use of child-centered play therapy in school setting.

48) Smith, E.M., North, C.S. (1993). “Posttraumatic stress disorder in natural disasters and technological accidents.” In: Wilson, J.P., & Raphael, B., eds. *International Handbook of Traumatic Stress Syndromes.* (p. 405-419). NY: Plenum Press.

49) Stubenbort, K., Donnelly, G.R., & Cohen, J.A.. (2001). "Cognitive-behavioral group therapy for bereaved adults and children following an air disaster." *Group Dynamics,* 5(4): 261-276.

On September 8, 1994, USAir Flight 427 from Chicago crashed on its descent to the Pittsburgh International Airport. All 132 passengers and crew were killed. This crash was unique in that more than 80% of the victims were residents of the greater Pittsburgh area. In this regard, the need for professional intervention became vital. Group intervention allowed the professionals to promptly serve a large number of affected families. It was hypothesized that the group experience would lead to bonding and support that would persist beyond the time limits of the group. A group-based intervention program for adult and child survivors is described, including its administrative structure, therapeutic objectives and interventions, and group process. A direct outcome of this group was the establishment of The USAir Flight 427 Disaster Support League and, subsequently, the development of the National Air Disaster Alliance.

50) Sugar, M. (1988). "A preschooler in a disaster." *American Journal of Psychotherapy,* 42(4): 619-629.

A search of the literature of children in disasters showed no case of individual therapy with such a child. The absence may be related to a specific countertransference. In the case of the preschooler presented here, the child's particular situation and developmental stage were significant aspects of his reaction and therapy.

51) Sugar, M. (1989). "Children in a disaster: An overview." *Child Psychiatry & Human Development*, 19(3): 163-179.

Most children have psychopathological reactions to disasters, which are individually-based and vary according to age, developmental level, proximity to family members, specifics of their situation, losses during and after the disaster, and the responses of the family and community. Treatment should be individualized since children's improvement is not determined by parental response.

52) Swenson, C.C., Saylor, C.F., Powell, M.P., Stokes, S.J., Foster, K.Y., & Belter, R.W. (1996). "Impact of a natural disaster on preschool children: Adjustment 14 months after a hurricane." *American Journal of Orthopsychiatry* 66(1): 122-130.

Fourteen months after a hurricane, young children who had experienced the storm showed significantly higher anxiety and withdrawal and more behavior problems than did children who had not. Behavioral problems decreased steadily over the six months following the storm. Mothers' distress in the hurricane's aftermath was associated with the longevity of their children's emotional and behavioral difficulties.

53) Udwin, O., Boyle, S., Yule, W., Bolton, D., & O'Ryan, D. (2000). "Risk factors for long-term psychological effects of a disaster experienced in adolescence: Predictors of Post Traumatic Stress Disorder." *Journal of Child Psychology & Psychiatry,* 41(8): 969-979.

This paper examines risk factors for the development of Post Traumatic Stress Disorder (PTSD), and its severity and chronicity, in a group of 217 young adults who survived a shipping disaster in adolescence. The survivors were followed up 5 to 8 years after the disaster. Risk factors examined fell into three main categories: pre-disaster child and family vulnerability factors, including childhood psychopathology; objective and subjective disaster-related experiences; and post-disaster factors, including results from screening questionnaires administered 5 months post-disaster, coping mechanisms adopted subsequently, life events, and availability of social supports. Developing PTSD following the disaster was significantly associated with being female, with pre-disaster factors of learning and psychological difficulties in the child and violence in the home, with severity of exposure to the disaster, survivors' subjective appraisal of the experience, adjustment in the early post-disaster period, and life events and social supports subsequently. When all these factors were considered together, measures of the degree of exposure to the disaster and of subjective appraisal of life threat, and ratings of anxiety obtained 5 months post-disaster, best predicted whether survivors developed PTSD. For those survivors who developed PTSD, its duration and severity were best predicted not by objective and subjective disaster-related factors, but by pre-disaster vulnerability factors of social, physical, and psychological difficulties in childhood together with ratings of depression obtained 5 months post-disaster, and whether survivors received post-disaster support at school. The implications of these findings are considered for targeting assessment and intervention efforts at survivors most at risk of developing difficulties in adjustment following similar traumatic experiences.

54) U.S. Department of Health and Human Services. Children's Bureau. (1995). *Coping With Disasters: A Guide for Child Welfare Agencies.* Washington, DC: The Bureau. 11 p.

55) Vernberg, E.M., & Vogel, J.M. (1993). Psychological response of children to natural and human-made disasters: II. Interventions with children after disasters. *Journal of Clinical Child Psychology,* 22(4): 485-498.

Provides a summary and evaluation of disaster-related psychological interventions with children and adolescents. Intervention models are grouped in temporal sequence in relation to the disaster event (predisaster phase, impact phase, short-term adaptation phase, and long-term adaptation phase). It is noted that most interventions are based on plausible conceptual assumptions, and convergence often can be seen in the content of interventions derived from diverse theoretical perspectives. Relatively little evaluation of disaster-related interventions with children has been published, and recommendations for research are presented.

56) Vogel, J.M., & Vernberg, E.M. (1993). Psychological response of children to natural and human-made disasters: I. Children's psychological responses to disasters. *Journal of Clinical Child Psychology,* 22(4): 464-484.

Provides a summary and evaluation of disaster-related psychological interventions with children and adolescents. Intervention models are grouped in temporal sequence in relation to the disaster event (predisaster phase, impact phase, short-term adaptation phase, and long-term adaptation phase). It is noted that most interventions are based on plausible conceptual assumptions, and convergence often can be seen in the content of interventions derived from diverse theoretical perspectives. Relatively little evaluation of disaster-related interventions with children has been published, and recommendations for research are presented.

57) Warheit, G.J., Zimmerman, R.S., Khoury, E.L., Vega, W.A., & Gil, A.G. (1996). "Disaster-related stresses, depressive signs and symptoms, and suicidal ideation among a multi-racial/ethnic sample of adolescents: a longitudinal analysis." *Journal of Child Psychology & Psychiatry,* 37: 435–44.

Longitudinal findings are presented on the relationships between disaster related stresses, depression scores, and suicidal ideation among a multi-racial/ethnic sample of adolescents (N = 4,978) all of whom have been exposed to Hurricane Andrew. Regression analysis showed that being female, hurricane generated stresses, low levels of family support, pre-hurricane suicidal ideation, and post-hurricane depression scores were significant predictors of post-hurricane suicidal ideation. Path analysis revealed that being female, low socioeconomic status, pre- and post-hurricane depression, high stress scores, low family support, and pre-hurricane suicidal ideation had significant direct/indirect effects on post-hurricane suicidal ideation.

58) Wolmer, L., Laor, N., & Yazgan, Y. (2003). "School reactivation programs after disaster: Could teachers serve as clinical mediators?" *Child & Adolescent Psychiatric Clinics of North America,* 12(2): 363-381.

Mental health interventions are known to prevent the progressive worsening of symptoms in young victims of disaster and, subsequently, to prevent a decline in their academic performance and self-esteem. The tremendous needs that emerge after a disaster and the reluctance shown by most victims to seek professional help require mental health leaders to adopt a proactive stance and implement relief programs in the child's most natural setting. The school as institution and the teachers as empowered mediators offer the appropriate conditions for implementing an effective large-scale intervention program. Well-intentioned child professionals who deal with school administrators and teachers must take into account that, as stated by Pfefferbaum et al, "avoidance is at the core of the posttraumatic response, and it sometimes involves avoidance of treatment." For child mental health professionals, routine collaboration across systemic boundaries may prove critical for the rapid mobilization of resources during mass traumatic emergencies. Further studies are needed to identify the protective and risk factors that predict resilience and pathology, respectively, and factors that facilitate or aggravate factors that predict improvement, resistance, and deterioration in response to treatment.

59) Yule, W., Bolton, D., Udwin, O., Boyle, S., O'Ryan, D., & Nurrish, J. (2000). "The long-term psychological effects of a disaster experienced in adolescence: I: The incidence and course of PTSD." *Journal of Child Psychology & Psychiatry*, 41(4): 503-511.

Previous studies have shown that children and adolescents exposed to traumatic experience in a disaster can suffer from high levels of post-traumatic stress. The present paper is the first a series reporting on the long-term follow-up of a group of young adults who as teenagers had survived a shipping disaster-the sinking of the "Jupiter" in Greek waters-between 5 and 8 years previously. The general methodology of the follow-up study as a whole is described, and the incidence and long-term course of Post-Traumatic Stress Disorder (PTSD). It is the first study of its kind on a relatively large, representative sample of survivors, using a standardised diagnostic interview, and comparing survivors with a community control group. Survivors of the Jupiter disaster (N = 217), and 87 young people as controls, were interviewed using the Clinician Administered PTSD Scale (CAPS). Of the 217 survivors, 111 (51.7%) had developed PTSD at some time during the follow-up period, compared with an incidence in the control group of 3.4 %

(N = 87). In the large majority of cases of PTSD in the survivors for whom time of onset was recorded, 90 % (N = 110), onset was not delayed, being within 6 months of the disaster. About a third of those survivors who developed PTSD (30%, N = 111) recovered within a year of onset, through another third (34 %, N = 111) were still suffering from the disorder at the time of follow-up, between 5 and 8 years after the disaster. Issues relating to the generalisability of these findings are discussed.

Part Two: Internet Resources

The resources listed in this section are loosely grouped into three categories, but within each category are listed in no particular order other than the order in which they were identified by the author.

A. Counseling Children Traumatized by Natural Disasters

The National Child Traumatic Stress Network (NCTSN) offers mental health services to children who have suffered traumatic events, including natural disaster, deprivation, loss and abuse. NCTSN centers are located throughout the country.

http://www.nctsnet.org/nccts/nav.do?pid=abt_ntwk

NCTSN has also prepared an assortment of brief guides regarding child victims of hurricanes, in both English and Spanish, and information for teachers in helping students after a hurricane.

http://www.nctsnet.org/nctsn_assets/pdfs/parents_guidelines_talk_children_hurricanes.pdf
http://www.nctsnet.org/nctsn_assets/pdfs/reports/ParentGuidelines_SpanishVersion.pdf
http://www.nctsnet.org/nctsn_assets/pdfs/teachers_guidelines_talk_children_hurricanes.pdf

And NCTSN has materials pertaining to childhood traumatic grief and on impact of the media.

http://www.nctsnet.org/nctsn_assets/pdfs/reports/InformationforParentsonChildhoodTraumaticGrief.pdf
http://www.nctsnet.org/nctsn_assets/pdfs/edu_materials/MediaTipsforParents.pdf

The American Psychological Association has put together some help pages related to Katrina. Documents on managing traumatic stress associated with natural disasters in general and after Katrina in particular, including particularly advice for working with children.

http://www.apahelpcenter.org/articles/article.php?id=69
http://www.apahelpcenter.org/articles/article.php?id=107
http://www.apahelpcenter.org/articles/article.php?id=109

The National Institutes of Mental Health has prepared a document on helping children cope with violence and disasters.

http://www.nimh.nih.gov/publicat/violence.cfm

The National Mental Health Information Center has prepared tips for helping children after a traumatic event, including terrorist attack or natural disaster, interventions for children and adolescents, and coping strategies, for parents, teachers and disaster response workers.

http://www.mentalhealth.samhsa.gov/cmhs/TraumaticEvents/tips.asp

The Centers for Disease Control has links to disaster-related mental health resources

http://www.bt.cdc.gov/mentalhealth/

The International Medical Corp, drawing upon recommendations of the WHO and the Sphere Project, offer mental health guidelines for working with those affected by Hurricane Katrina.

http://www.imcworldwide.org/pdf/Mental_Health_Guidelines_Katrina_assistance.pdf

The National Center for PTSD has many publications and factsheets for working with Katrina disaster victims. Although most are oriented toward adults, information for families is also available.

http://www.ncptsd.va.gov/topics/katrina.html

The American Academy of Child and Adolescent Psychiatry has prepared a guide for helping children after a disaster.

http://www.aacap.org/publications/factsfam/disaster.htm

The National Mental Health Association has prepared a brief factsheet about Helping Children Handle Disaster-Related Anxiety

http://www.nmha.org/reassurance/children.cfm

The National Center for Grieving Children and Families at The Dougy Center offer a concise guide to understanding and helping grieving children.

http://kidsaid.com/dougypage.html

The National Counseling Association has also authored information related to counseling children in the aftermath of Katrina.

http://www.counseling.org/Content/NavigationMenu/RESOURCES/HELPINGCHILDRENCOPEWITHTRAUMA/Crisis_Fact_Sheet.htm

Child Trauma Academy provides an assortment of publications in PDF form related to trauma, grief and mourning, for caregivers, teachers, first responders, counselors, and civic officials.

http://www.childtrauma.org/CTAMATERIALS/katrina.asp

The National Education Association has written a series of booklets dealing with children in crises. Of greatest relevance is the one on “Being Diligent – Moving Beyond Crisis” which can be downloaded as a PDF here:

http://www.nea.org/crisis/images/crisisguide-b3.pdf

B. Reconnecting Children with Family and Helping Displaced Children

The National Center for Missing and Exploited Children has set up a database to help locate people, both children looking for parents as well as families/caregivers looking for children.

http://www.missingkids.com/missingkids/servlet/PageServlet?LanguageCountry=en_US&PageId=2077

The Red Cross has also set up a database to help locate family and relatives

http://www.familylinks.icrc.org/katrina

The federal government has compiled an extensive list of sources, both governmental and non-governmental, for searching for family and friends affected by Katrina, as well as lists of people reported safe and their location.

http://www.firstgov.gov/Citizen/Topics/PublicSafety/Hurricane_Katrina_Recovery.shtml#vgn-find-family-and-friends-government-sources-vgn

The National Resource Center for Family-Centered Practice and Permanency Planning has compiled links to websites to assist efforts to work with children following Katrina, including links to state agency websites and also information on fostering and adopting displaced children.

http://www.hunter.cuny.edu/socwork/nrcfcpp/disaster_relief.html

C. Contacting State Agencies

Alabama http://www.dhr.state.al.us/page.asp?pageid=750

Mississippi http://www.mdhs.state.ms.us/

Louisiana http://www.dss.state.la.us/

Texas http://www.dfps.state.tx.us/About/Releases_and_Newsletter/2005/2005-09-07_Katrina_update.asp