NATIONAL COMMISSION
ON
CHILDREN AND DISASTERS

INTERIM REPORT
OCTOBER 14, 2009

NATIONAL COMMISSION ON CHILDREN AND DISASTERS
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Foreword

Mr. President and Members of Congress:

We are pleased to deliver the *Interim Report of the National Commission on Children and Disasters*, which summarizes our work over the past twelve months.

Children comprise nearly 25 percent of the U.S. population. They represent the promise of our nation. We are confident most Americans in the face of a disaster would place the lives and well-being of children above all else. Yet it is sobering to inform you that when it comes to disaster planning and management across our great nation, children are not placed on par with adults. In fact, state and local emergency managers are required by federal law to meet the needs of pets in their disaster plans, but not children.

Rather, children are considered an "at risk," "vulnerable" or "special needs" population and subsequently grouped among the elderly, persons with disabilities, the medically-dependent, and persons with special transportation needs or limited English proficiency. In general, children do not fit into these broad categories. Among so many competing concerns, children are given less attention than necessary when disaster plans are written and exercised, equipment and supplies are purchased and disaster response and recovery efforts are activated. All 74 million children in this country must be considered and planned for as children. And while, for example, children with disabilities may require distinct planning and assistance in disasters, all children should be considered an integral part of, and many times an asset to, the general population.

Throughout this Interim Report, the Commission cites instances of what we characterize as "benign neglect" of children. The consequences of the benign neglect become magnified when children are disproportionately affected by disasters. For example, in April 2009, the H1N1 flu outbreak quickly illustrated this point when it was clear that children were disproportionately affected.[1] Despite extensive planning for a much larger flu pandemic affecting the general population, the public health concerns of children created by the H1N1 outbreak prompted school and day care closings, creating challenges for accurate and timely communication to school administrators, child care operators, and parents, and economic consequences for families, small businesses and communities. H1N1 serves as a stark reminder of the central position children hold in the family and community.

Making children an immediate priority in disaster planning and management instills public confidence and creates greater stability to help families and communities recover faster. Federal Emergency Management Agency (FEMA) Administrator Craig Fugate invokes an ideal metaphor from his experiences in managing disasters in Florida, stating that there is no stronger indicator of hope and optimism to a disaster-affected community than to see a yellow school bus making its way down a neighborhood street.

1 U.S. Centers for Disease Control and Prevention, "2009 Pandemic Influenza A (H1N1) Virus Infections," *Morbidity and Mortality Weekly Report* 58, no. 33 (2009), http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5833a1.htm.

We recognize tangible examples of progress to prepare for and respond effectively to children, and we are encouraged by the enthusiasm of partners and stakeholders to engage the Commission in its work. Repeatedly, we have been told that yes, children should and must be a priority. However, much more needs to be done to bring about a sweeping change in disaster planning and management culture that currently favors able-bodied adults with better means to survive and fully recover from disasters.

This *Interim Report* is a prelude to a more extensive body of work that will be presented in the Commission's *Final Report*, due in October 2010. Over the next twelve months, we will dedicate our energies to closely monitoring the implementation of recommendations contained in the *Interim Report* and other initiatives, while simultaneously focusing our research more intensively on program evaluation, best practices, the examination of emerging issues and development of clear, actionable recommendations.

Given the rise in the number of disasters over the past two decades and the emergence of H1N1, the work of this Commission is certainly as timely as it is essential. With your support and assistance, we must inspire a national movement that marks the beginning of the end to the cycle of benign neglect.

Thank you for the opportunity to serve. We look forward to working with you in this most important endeavor.

Respectfully submitted,

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Vice-Chairperson

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Abbreviations

AHRQ	Agency for Healthcare Research and Quality
ALS	Advanced Life Support
ARC	American Red Cross
ASPR	HHS Office of the Assistant Secretary for Preparedness and Response
BLS	Basic Life Support
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosive
CCDBG	Child Care and Development Block Grant Act of 1990
CDC	Centers for Disease Control and Prevention
CMS	Centers for Medicare and Medicaid Services
CONOPS	Concept of Operations
DHS	Department of Homeland Security
DMAT	Disaster Medical Assistance Team
DoEd	Department of Education
EMS	Emergency Medical Services
EMSC	Emergency Medical Services for Children
ESF	Emergency Support Function
EUA	Emergency Use Authorization
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
FETIG	Federal Education and Training Interagency Group for Public Health and Medical Disaster Preparedness and Response
GAO	Government Accountability Office
HHS	Department of Health and Human Services
IOM	Institute of Medicine
NDMS	National Disaster Medical System
NIH	National Institutes of Health
NRF	National Response Framework
PHEMCE	Public Health Emergency Medical Countermeasures Enterprise
PKEMRA	Post Katrina Emergency Management Reform Act of 2006
PST	Pediatric Subspecialty Team
REMS	Readiness and Emergency Management for Schools
SEA	State Education Agency
SNS	Strategic National Stockpile

Background

The National Commission on Children and Disasters ("the Commission") was established pursuant to the Kids in Disasters Well-being, Safety and Health Act of 2007 as provided in Division G, Title VI of the Consolidated Appropriations Act of 2008.[2] The Commission's status as an independent Federal Advisory Committee was clarified in Division A, Section 157 (b) of the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009.[3]

The Commission shall conduct a comprehensive study to independently examine and assess the needs of children (0-18 years of age) in relation to the preparation for, response to and recovery from all-hazards, including major disasters and emergencies, by building upon the evaluations of other entities and avoiding unnecessary duplication by reviewing the findings, conclusions and recommendations of these entities. In addition to this *Interim Report*, the Commission will submit a *Final Report* to the President and Congress no later than October 14, 2010.

The Commission shall report specific findings, conclusions and recommendations relating to: 1) child physical health, mental health and trauma; 2) child care in all settings; child welfare; 3) elementary and secondary education; 4) sheltering, temporary housing and affordable housing; 5) transportation; 6) juvenile justice; 7) evacuation; 8) relevant activities in emergency management; and 9) the need for planning and establishing a national resource center on children and disasters. The Commission shall also report on coordination of resources and services, administrative actions, policies, regulations and legislative changes as the Commission considers appropriate.[4]

The Commission is bipartisan, consisting of ten members appointed by the President and Congressional leaders. Commission members represent a variety of disciplines, including pediatrics, state and local emergency management, emergency medical services, non-governmental organizations dedicated to children and state elected office. The Commission organized four subcommittees comprised of Commissioners, and federal and non-federal representatives: 1) Education, Child Welfare and Juvenile Justice; 2) Evacuation, Transportation and Housing; 3) Human Services Recovery; and 4) Pediatric Medical Care. The Commission meets publicly on a quarterly basis and subcommittees meet monthly to address their specific focus areas.

2 Public Law (P.L.) 110-161 (2008).

3 P.L. 110-329 (2009).

4 P.L. 110-161 (2008).

Executive Summary

The National Commission on Children and Disasters was created by Congress to 1) conduct a comprehensive study that examines and assesses the needs of children as they relate to preparation for, response to and recovery from all hazards, including major disasters and emergencies; and 2) submit a report to the President and Congress on the Commission's specific findings, conclusions and recommendations.

The recommendations contained in this *Interim Report* fall within the following categories: 1) Disaster Management and Recovery; 2) Mental Health; 3) Child Physical Health and Trauma; 4) Emergency Medical Services and Pediatric Transport; 5) Disaster Case Management; 6) Child Care; 7) Elementary and Secondary Education; 8) Child Welfare and Juvenile Justice; 9) Sheltering Standards, Services and Supplies; 10) Housing; and 11) Evacuation.

1. DISASTER MANAGEMENT AND RECOVERY

1.1: Distinguish and comprehensively integrate the needs of children across all inter- and intra-governmental disaster planning activities and operations.

- *Establish a focus on children and disasters within the Federal Emergency Management Agency (FEMA) and the White House, supported by policy and operational expertise from across the federal government, non-federal partners and relevant non-governmental organizations.*
- *Incorporate meeting the needs of children as a distinct priority throughout base disaster planning documents and relevant grant programs.*
- *Include children in relevant target capabilities, preparedness training and exercises, with specific target outcomes and performance measures.*

1.2: Accelerate the development of a National Disaster Recovery Strategy with an explicit emphasis on addressing the immediate and long-term physical and mental health, educational, housing and human services recovery needs of children.

2. MENTAL HEALTH

2.1: Integrate mental and behavioral health for children into all public health and medical preparedness and response activities.

2.2: Enhance the research agenda for children's disaster mental and behavioral health, including psychological first aid, cognitive-behavioral interventions, social support interventions and bereavement counseling and support.

2.3: Enhance pediatric disaster mental and behavioral health training for professionals and paraprofessionals, including psychological first aid, cognitive-behavioral interventions, social support interventions and bereavement counseling and support.

3. CHILD PHYSICAL HEALTH AND TRAUMA

3.1: Ensure availability and access to pediatric medical countermeasures at the federal, state and local level for chemical, biological, radiological, nuclear and explosive (CBRNE) threats.

- *Provide funding for the development, acquisition and stockpiling of medical countermeasures specifically for children for inclusion in the Strategic National Stockpile (SNS) and all other federally funded caches.*
- *Form a standing advisory body of federal partners and external experts to advise the Department of Health and Human Services (HHS) Secretary on issues pertaining specifically to pediatric emergency medical countermeasures.*
- *Include pediatric expertise on all relevant committees and working groups addressing issues pertaining to medical countermeasures.*

3.2: Expand the medical capabilities of all federally funded response teams through the comprehensive integration of pediatric-specific training, guidance, exercises, supplies and personnel.

- *Designate or establish a Pediatric Health Care Coordinator on each federally funded medical response team and develop strategies to recruit and retain team members with pediatric medical expertise.*
- *Establish an Associate Chief Medical Officer for Pediatric Care in the office of National Disaster Medical System (NDMS).*
- *Develop pediatric capabilities within each NDMS region to ensure robust pediatric disaster response and enhanced surge capacity.*

3.3: Ensure that all health care professionals who may treat children during an emergency have adequate pediatric disaster clinical training specific to their role.

- *Form a Pediatric Disaster Clinical Education and Training Working Group to establish core clinical competencies and a standard, modular pediatric disaster health care education and training curriculum.*

3.4: Provide funding for a formal regionalized pediatric system of care for disasters.

- *Build upon the foundational role of children's hospitals in strengthening and expanding a regionalized network for pediatric care.*
- *Ensure that all hospital emergency departments stand ready to care for ill or injured children of all ages through the adoption of disaster preparedness guidelines jointly developed by the American Academy of Pediatrics, American College of Emergency Physicians and the Emergency Nurses Association.*

3.5: Ensure access to physical and mental health services for all children during recovery from disaster.

4. EMERGENCY MEDICAL SERVICES AND PEDIATRIC TRANSPORT

4.1: Improve the capability of Emergency Medical Services (EMS) to transport pediatric patients and provide comprehensive pre-hospital pediatric care during daily operations and disasters.

- *Establish a dedicated federal grant program for pre-hospital EMS.*
- *Provide additional funding to the Emergency Medical Services for Children (EMSC) program to ensure all states and territories meet targets and achieve progress in the EMSC performance measures for grantees, and to support development of a research portfolio.*
- *As an eligibility guideline for Centers for Medicare and Medicaid Services (CMS) reimbursement, require first response and emergency medical response vehicles to acquire and maintain pediatric equipment and supplies in accordance with the national guidelines for equipment for Basic Life Support (BLS) and Advanced Life Support (ALS) vehicles.*

5. DISASTER CASE MANAGEMENT

5.1: Establish a holistic federal disaster case management program with an emphasis on achieving tangible positive outcomes for all children and families within a Presidentially-declared disaster area.

6. CHILD CARE

6.1: Require disaster planning capabilities for child care providers.

- *Require state child care regulatory agencies to include disaster planning, training and exercising requirements within the scope of the state's minimum health and safety standards for child care licensure or registration.*
- *Require state child care administrators to develop statewide child care plans in coordination with state and local emergency managers, public health, child care regulatory agencies and child care resource and referral agencies.*

6.2: Improve capacity to provide child care services in the immediate aftermath of and recovery from a disaster.

- *Include the provision of child care as a human service activity within the National Response Framework (NRF).*
- *Provide reimbursement under the Stafford Act, amending the Act as necessary, to support child care services to displaced families, establishment of temporary disaster child care and the repair or reconstruction of child care facilities.*

7. ELEMENTARY AND SECONDARY EDUCATION

7.1: Establish a school disaster preparedness program and appropriate funds to the U.S. Department of Education (DoEd) for a dedicated and sustained funding stream to all state education agencies (SEAs). Funding should be used for state- and district-level disaster response planning, training, exercises and evaluation that are coordinated with state and local plans and activities.

7.2: Enhance the ability of school personnel to support children who are traumatized, grieving or otherwise recovering from a disaster.

- *Encourage initiatives that support and promote training of teachers and other school staff in basic skills in providing support to grieving students and students in crisis through requirements for accreditation, licensure and recertification/license renewal.*

8. CHILD WELFARE AND JUVENILE JUSTICE

8.1: Provide guidance, technical assistance and model plans to assist state and local child welfare agencies in meeting current applicable disaster planning requirements and further require collaboration with state and local emergency management, courts and other key stakeholders.

8.2: Conduct a national assessment of disaster planning and preparedness among state and local juvenile justice systems to inform the development of comprehensive disaster plans.

9. SHELTERING STANDARDS, SERVICES AND SUPPLIES

9.1: Provide a safe and secure mass care shelter environment for children, including appropriate access to essential services and supplies.

- *Develop and implement national standards and indicators for mass care shelters that are specific and responsive to children.*
- *Develop a list of essential age-appropriate shelter supplies for infants and children and fund the addition of child-specific supplies to caches for immediate deployment to support shelter operations.*
- *Ensure the implementation of standards and training to mitigate risks unique to children in shelters including child abduction and sex offenders.*
- *Ensure all shelter operators have access to a fast, accurate and low-cost system for conducting national fingerprint-based criminal history background checks for shelter workers and volunteers.*

10. HOUSING

10.1: Prioritize families with children for disaster housing assistance and expedited transition into permanent housing, especially families with children who have disabilities or other special health, mental health or educational needs.

- *Within the Implementation Plan of the National Disaster Housing Strategy, delineate roles and responsibilities of federal, state, local and non-governmental agencies and emphasize the delivery of social services and improvement of the living environment for children throughout all phases of disaster housing assistance.*

11. EVACUATION

11.1: Develop a standardized, interoperable national evacuee tracking and family reunification system that ensures the safety and well-being of children.

Introduction

Children constitute nearly 25 percent of our population[5] and in most cases their needs occupy the center of family and community. Logically, disaster planning should place an immediate priority on addressing the needs of children. In reality, children are given a passing mention in disaster plans and strategies or relegated to separate annexes in the back of planning documents, which emergency managers may not have the time or resources to address. In reality, the needs of children are often overlooked and misunderstood.

The consequences of such "benign neglect" may be devastating for children affected by disasters, given their unique health, behavioral and psychosocial needs. Terrorist events such as the 1995 Oklahoma City bombing and the unprecedented nature of the September 11, 2001 attacks signaled a new era in global and domestic terrorism, which deeply affected children.[6, 7, 8, 9, 10, 11] In the wake of Hurricanes Katrina and Rita, thousands of children were separated from their families, and months later, some still remained unaccounted for. Mental health distress and disability remain prevalent in Gulf Coast children who experienced displacement, long after the storms passed through.[12] Wildfires in California, flooding in the Midwest and tornadoes touch the lives of children with increasing frequency,[13] challenging the capability and capacity to respond to frequent local and regional disasters, let alone an event of catastrophic proportions.

Catastrophic or "mega" disasters, whether acts of terror or acts of nature, magnify the weaknesses of our nation's daily disaster "state of readiness" for children, whether in schools, child care centers, pre-hospital Emergency Medical Services (EMS), hospitals, juvenile detention facilities or families.[14] Moreover, inadequacies for children exist in: emergency equipment and medications; essential supplies and services in mass care shelters; reunification systems; pediatric training of first responders; capacity of EMS and hospital systems to provide acute care; and mental health services across the continuum of disaster management.

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5 U.S. Bureau of the Census, "USA QuickFacts from the US Census Bureau," http://quickfacts.census.gov/qfd/states/00000.html.

6 Robin H. Gurwitch, Michelle Kees, Steven M. Becker, Merritt Schreiber, Betty Pfefferbaum, and Dickson Diamond, "When Disaster Strikes: Responding to the Needs of Children." *Prehospital and Disaster Medicine* 19, no. 1 (2004): 22, http://pdm.medicine.wisc.edu/19-1%20pdfs/Gurwitch.pdf.

7 Betty Pfefferbaum, Sara J. Nixon, Ronald S. Krug, Rick D. Tivis, Vern L. Moore, Janice M. Brown, Robert S. Pynoos, David Foy, and Robin H. Gurwitch, "Clinical Needs Assessment of Middle and High School Students Following the 1995 Oklahoma City Bombing." *American Journal of Psychiatry* 156, no. 7 (1999): 1069-74, http://ajp.psychiatryonline.org/cgi/reprint/156/7/1069.

8 Gerry Fairbrother, Jennifer Stuber, Sandro Galea, Betty Pfefferbaum, and Alan R. Fleischman, "Unmet Need for Counseling Services by Children in New York City Following the September 11th Attacks on the World Trade Center: Implications for Pediatricians," *Pediatrics* 113, no. 5 (2004): 1367-74, http://pediatrics.aappublications.org/cgi/reprint/113/5/1367.

9 David J. Schonfeld, "Are We Ready and Willing to Address the Mental Health Needs of Children?: Implications from September 11th," *Pediatrics* 113, no. 5 (2004): 1400, http://pediatrics.aappublications.org/cgi/reprint/113/5/1400.

10 Mark A. Schuster, Bradley D. Stein, Lisa H. Jaycox, Rebecca L. Collins, Grant N. Marshall, Marc N. Elliott, Annie J. Zhou, David E. Kanouse, Janina L. Morrison, and Sandra H. Berry, "A National Survey of Stress Reactions after the September 11, 2001, Terrorist Attacks," *New England Journal of Medicine* 345, no. 20 (2001): 1507-12, http://content.nejm.org/cgi/reprint/345/20/1507.pdf.

11 Christina W. Hoven, Cristiane S. Duarte, Christopher P. Lucas, Ping Wu, Donald J. Mandell, Renee D. Goodwin, Michael Cohen, Victor Balaban, Bradley A. Woodruff, Fan Bin, George J. Musa, Lori Mei, Pamela A. Cantor, J. Lawrence Aber, Patricia Cohen, and Ezra Susser, "Psychopathology among New York City Public School Children 6 Months after September 11," *Archives of General Psychiatry* 62, no. 5 (2005): 545-51, http://archpsyc.ama-assn.org/cgi/content/abstract/62/5/545.

12 David Abramson, Tasha Stehling-Ariza, Richard Garfield, and Irwin Redlener, "Prevalence and Predictors of Mental Health Distress Post-Katrina: Findings from the Gulf Coast Child and Family Health Study," *Disaster Medicine and Public Health Preparedness* 2, no. 2 (2008): 77-86. http://www.dmphp.org/cgi/rapidpdf/DMP.0b013e318173a8e7v1.

13 Federal Emergency Management Agency, Annual Major Disaster Declaration Totals, http://www.fema.gov/news/disaster_totals_annual.fema.

14 Andrew L. Garrett, Roy Grant, Paula Madrid, Aarturo Brito, David Abramson, and Irwin Redlener, "Children and Megadisasters: Lessons Learned in the New Millennium," *Advances in Pediatrics* 54, no. 1 (2007): 209-10.

In disasters, children should neither be grouped with "at-risk," "special needs" or "vulnerable" populations, nor considered "little adults." Children's needs are unique, especially when prescribing disaster physical and mental health interventions and purchasing equipment and supplies. Children with disabilities and chronic health needs become even further marginalized in planning when their needs are not distinguished and prioritized.

In order to achieve a more knowledgeable and integrated consideration of children in disaster planning and management across our nation, a significant shift in philosophy, culture and attitude must occur, one which elevates the needs of children to an immediate priority.

Institutional change is neither easy nor swift, but in this instance, it is critical. The road to ending the cycle of benign neglect began twelve months ago when the Commission held its first public meeting and continues with this Interim Report and its formidable, yet actionable, recommendations.

1. DISASTER MANAGEMENT AND RECOVERY

Recommendation 1.1: Distinguish and comprehensively integrate the needs of children across all inter- and intra-governmental disaster planning activities and operations.

Recommendation 1.2: Accelerate the development of a National Disaster Recovery Strategy with an explicit emphasis on addressing the immediate and long-term physical and mental health, educational, housing and human services recovery needs of children.

1. Disaster Management[15] and Recovery

Recommendation 1.1: Distinguish and comprehensively integrate the needs of children across all inter- and intra-governmental disaster planning activities and operations.[15]

- *Establish a focus on children and disasters within the Federal Emergency Management Agency (FEMA) and the White House, supported by policy and operational expertise from across the federal government, non-federal partners and relevant non-governmental organizations.*
- *Incorporate meeting the needs of children as a distinct priority throughout base disaster planning documents and relevant grant programs.*
- *Include children in relevant target capabilities, preparedness training and exercises, with specific target outcomes and performance measures.*

In disaster[16] planning and management, children are considered "at risk," "vulnerable" or "special needs" populations, along with several other groups such as the elderly, persons with disabilities, the medically-dependent and persons with limited proficiency in English. In general, children do not fit into these broad categories, which often are addressed in annexes at the back of planning documents. Among so many competing concerns and limited time and resources, children are given far less attention than necessary.

FEMA plays a central leadership and coordinating role in supporting disaster planning and management for partners,[17] communities and citizens. Responding to concerns expressed by the Commission, on August 3, 2009, FEMA Administrator Craig Fugate announced the creation of a "Children's Working Group," which will serve as a centralized platform across all FEMA directorates to ensure that the unique needs of children are incorporated into all disaster plans.[18] The working group is tasked not only with identifying and facilitating how best to integrate children into all FEMA planning efforts, but also with improving FEMA's capacity to work collaboratively with its partners and other key non-governmental stakeholders. Representatives from virtually all sectors of the agency will serve on the Children's Working Group, and will consult with experts from other federal agencies as well as external stakeholder organizations with subject matter expertise. Upon issuing its Final Report, the Commission will evaluate the effectiveness of the Children's Working Group and recommend whether it, or an alternative model, should be established in the agency.

The Commission further recognizes the central leadership and coordinating role of the White House in advising the President on matters affecting national security, including disasters. A coordinating council composed of senior White House staff, collaborating with the National

15 Disaster management is the body of policy, administrative decisions and operational activities required to prepare for, mitigate, respond to, and recover from the effects of a natural or man-made disaster (as adapted from definitions listed in the U.S. National Library of Medicine from definitions by the United Nations Development Programme Disaster Management Training Program and the Federal Enterprise Architecture Program Management Office).

16 Disaster is defined as all-hazards, including major disasters and emergencies as defined by the Robert T. Stafford Disaster Relief and Assistance Act. P.L. 93-288, as amended, 42 U.S.C. 5121-5207 (1988).

17 FEMA lists as "partners" state and local emergency management agencies, 27 federal agencies and the American Red Cross. U.S. Federal Emergency Management Agency, "About FEMA," http://www.fema.gov/about/#1.

18 Craig Fugate, Testimony before the U.S. Senate, Committee on Homeland Security and Governmental Affairs, Ad Hoc Subcommittee on Disaster Recovery, "Focus on Children in Disasters: Evacuation Planning and Mental Health Recovery," Washington D.C., August 4, 2009, http://hsgac.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=ac143d9a-c760-47d6-bc46-0a9845b74116.

Security Staff[19] and relevant subject matter experts from within and outside the federal government should be formed to serve as a focal point for Presidential policy development specific to children and disasters. This council would encourage cooperation among partners and a clearer understanding of roles and responsibilities in meeting the needs of children affected by disasters.

Disaster planning must clearly incorporate specific strategies for children into base planning documents, such as Comprehensive Preparedness Guide (CPG) 101, rather than separate documents, such as CPG 301 (Special Needs Planning) or annexes. Disaster planning must include collaboration with administrators, regulators, parents and parent organizations and providers of services to children, such as education, child care, child welfare and juvenile justice. National disaster planning documents, such as the National Response Framework (NRF), which includes the Emergency Support Functions (ESFs), must elevate the needs of children as a distinct priority.[20]

Further, relevant target capabilities and preparedness training and exercises must include specific target outcomes and performance measures for children. The Commission is monitoring draft revisions to the Target Capabilities List, particularly sections related to Mass Care and Weapons of Mass Destruction and Hazardous Materials Rescue, to ensure incorporation of measurable target outcomes and resource elements for children, based upon the percentage of children in the community.[21] All plans should be based upon the specific demographics of the child population and their age-based needs. For example, if a target capability is to treat a general population of 1,000 people, and children make up 25 percent of the community, the target capability should include treatment of 250 children. The Commission recommends exercises include objectives that test capacities including, but not limited to, pediatric triage, pre-hospital treatment, surge capacity, transport of children and coordination with schools, child care providers and child welfare and juvenile justice systems.

The Commission is collaborating with the Department of Homeland Security (DHS) Grants Directorate to strengthen community preparedness planning, training and exercising by making children a priority in grants awarded through the Homeland Security Grant Program (HSGP). In addition, the Commission recommends critical supply lists and allowable costs and expenses include program activities, planning, training, exercising, equipment, food and basic medical supplies for children.[22, 23] The Commission recommends that DHS require grantees to make pediatric capabilities integral to base plans rather than a subset of "special needs" populations. The Commission further recommends that HSGP grant guidance enhance and expand capabilities for improved preparedness of child congregate care systems, providers and facilities, especially school districts and child care providers.

19 President Obama established a "National Security Staff," which will function under the direction of the National Security Advisor, to support all White House policymaking activities related to both national security and homeland security issues. President Barack Obama, Statement by the President on the White House Organization for Homeland Security and Counterterrorism, (Washington, DC: The White House, May 26, 2009), http://www.whitehouse.gov/the_press_office/Statement-by-the-President-on-the-White-House-Organization-for-Homeland-Security-and-Counterterrorism/.

20 Federal Emergency Management Agency, "National Response Framework, Resource Center," http://www.fema.gov/emergency/nrf/.

21 The Target Capabilities List (TCL) provides a guide for development of a national network of capabilities that will be available when and where they are needed to prevent, protect against, respond to and recover from major events. The TCL comprises 37 capabilities that address response capabilities, immediate recovery, selected prevention and protection mission capabilities, as well as common capabilities such as planning and communications that support all missions. They provide the basis for assessing preparedness and improving decisions related to preparedness investments and strategies. For these capabilities, local jurisdictions and States are the lead in conjunction with Federal and private sector support. U.S. Department of Homeland Security, "Target Capabilities List: A Companion to the National Preparedness Guidelines," ed. DHS (Washington DC: 2007), iv, http://www.fema.gov/pdf/government/training/tcl.pdf.

22 Specifically, grants within the Homeland Security Grant Program including the Urban Areas Security Initiative (UASI) and the Metropolitan Medical Response System; the Emergency Management Performance Grants; the State Homeland Security Program Tribal; and the UASI Nonprofit Security Grant Program.

23 U.S. Department of Homeland Security, Office of Grants & Training, "Goals," U.S. Department of Justice, Office of Justice Programs, http://www.ojp.usdoj.gov/odp/grants_goals.htm.

In addition to DHS, the Commission initiated discussions with the Centers for Disease Control and Prevention's (CDC) Coordinating Office for Terrorism Preparedness and Emergency Response to discuss the provision of input to the Public Health Emergency Preparedness cooperative agreement to states and local public health departments,[24] as well as the HHS Office of the Assistant Secretary for Preparedness and Response (ASPR) to discuss the integration of children's unique needs into the Hospital Preparedness Program.[25] The Commission found that both grant programs require a more focused effort to improve the capacities of health departments and hospitals to meet the unique needs of children, particularly in light of the current global H1N1 pandemic. Public health departments and hospitals will need to improve their ability to handle a surge of pediatric patients due to influenza, provide appropriate risk communication and community mitigation guidance to schools, child care providers and other child congregate care facilities and potentially execute mass vaccinations and mass prophylaxis, with special considerations to safely and effectively administer medications and interventions to children. Going forward, the Commission will explore opportunities to engage the CDC-funded Advanced Practice Centers[26] and the Centers for Public Health Preparedness[27] to develop child-centric preparedness guidance and planning tools for state and local health departments and hospitals.

Recommendation 1.2: Accelerate the development of a National Disaster Recovery Strategy with an explicit emphasis on addressing the immediate and long-term physical and mental health, educational, housing and human services recovery needs of children.

The absence of a National Disaster Recovery Strategy combined with the absence of effective support programs in communities places children in persistent jeopardy. Recent reports regarding children affected by Hurricane Katrina reflect conditions of serious housing instability, poor access to health care and lack of available and adequate educational opportunities.[28]

The Post Katrina Emergency Management Reform Act of 2006 (PKEMRA)[29] requires the development of a National Disaster Recovery Strategy to coordinate long-term recovery resources following major disasters. Tangible progress is slow in the development of the Strategy.[30] The Commission strongly urges that FEMA aggressively intensify efforts to develop the Strategy by the close of 2009, with the assistance of governmental and non-governmental stakeholders who provide health, mental health, educational and social services to children.

24 Coordinating Office for Terrorism Preparedness and Emergency Response, "Funding Guidance and Technical Assistance to States," Centers for Disease Control and Prevention, http://www.bt.cdc.gov/cotper/coopagreement/.

25 Office of the Assistant Secretary for Preparedness and Response, "The Hospital Preparedness Program (HPP)," U.S. Department of Health and Human Services, http://www.hhs.gov/aspr/opeo/hpp/.

26 National Association of County and City Health Officials, "Advanced Practice Centers," http://www.naccho.org/topics/emergency/APC/index.cfm.

27 Coordinating Office for Terrorism Preparedness and Emergency Response, "Centers for Public Health Preparedness (CPHP)," Centers for Disease Control and Prevention, http://www.bt.cdc.gov/cotper/cphp/.

28 "Disaster Assistance: Greater Coordination and an Evaluation of Programs' Outcomes Could Improve Disaster Case Management," GAO-09-561, ed. United States Government Accountability Office (Washington, DC: GAO, 2009), http://www.gao.gov/new.items/d09561.pdf.

29 P.L. 109-295; 120 Stat. 1394 (2006).

30 "Actions Taken to Implement the Post-Katrina Emergency Management Reform Act of 2006," GAO-09-59R, ed. Government Accountability Office (Washington, DC: GAO, 2008), http://www.gao.gov/products/GAO-09-59R.

A National Disaster Recovery Strategy that benefits children and families would ensure:

- The designation of a specific federal entity with oversight, coordination and guidance responsibilities, that will create awareness of all forms of federal assistance to states and localities that address the needs of children and families and will activate, mobilize and expedite access to such assistance;
- The immediate availability and continuity of disaster case management services to families;
- Continuous access to a the full spectrum of pediatric medical services, including a medical home,[31] pediatric specialty services and children's hospitals;
- Federal disaster assistance through grants for all medical facilities damaged or destroyed by a disaster, such as primary medical, dental and mental health care practices and clinics;
- Access to appropriate crisis, bereavement and mental health services;
- Academic continuity and immediate educational access by enrolling and placing disaster-affected children in educational and related services in compliance with the McKinney-Vento Homeless Education Assistance Improvements Act;[32]
- Priority for families with children for disaster housing assistance and expedited transition into permanent housing, especially for those families with children who have disabilities or special health, mental health or educational needs; and
- The provision of child care and developmental and age-appropriate play and recreation options, particularly after-school services.

The overarching principle for recovery from disasters must be to create self-sufficient families and a "new and improved normalcy" for all children, especially children who are socially and economically disadvantaged. The development of a National Disaster Recovery Strategy would specify guiding principles for services that must be provided to children affected by disasters, such as: safe, stable living environments; physical, mental health and oral health; academic continuity and supervised after-school activities; child care; adequate nutrition; and disaster case management. The guiding principles would govern the request for and provision of federal disaster and recovery funding for these services to ensure the economic recovery of communities as a whole. Strategies, roles and responsibilities for recovery must be established and emphasized as critical components of federal, state and local disaster plans, and should include the roles and contributions of systems responsible for the education, care and welfare of children.

31 A "medical home" is defined as a source of primary care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate and culturally effective. Stephen E. Edwards, "Foreword," *Pediatrics: Supplement: The Medical Home* 113, no. 5 (2004), 1471.

32 As part of Title X, Part C of the No Child Left Behind Act: P.L. 107-110; 42 U.S.C. §11431 et. seq (2001).

2. MENTAL HEALTH

Recommendation 2.1: Integrate mental and behavioral health for children into all public health and medical preparedness and response activities.

Recommendation 2.2: Enhance the research agenda for children's disaster mental and behavioral health, including psychological first aid, cognitive-behavioral interventions, social support interventions and bereavement counseling and support.

Recommendation 2.3: Enhance pediatric disaster mental and behavioral health training for professionals and paraprofessionals, including psychological first aid, cognitive-behavioral interventions, social support interventions and bereavement counseling and support.

"As a teacher and caregiver I witnessed children becoming insecure and struggling in areas they once had mastered. Children were having bathroom accidents, stammering speech, crying for long periods, becoming aggressive and/or constantly talking about the flood and their fear of the flood."

--Christa Fielder, Hiawatha Day School in Cedar Rapids, Iowa

2. Mental Health

Recommendation 2.1: Integrate mental and behavioral health for children into all public health and medical preparedness and response activities.

All disasters have a high likelihood of negatively impacting mental and behavioral health, both immediately and long-term. The mental and behavioral health effects undermine the efficacy of response efforts, the ability of citizens to comply with public health recommendations and the capacity of the communities and states to ensure effective recovery. Yet, mental and behavioral health impacts are rarely considered until long after the event when it is too late to inform and affect optimal response or even recovery efforts. Therefore, mental and behavioral health should be a core component of the planning and response efforts for all disasters, requiring its integration within the creation of a new, overarching unified concept of operations (CONOPS). [33]

Children are particularly vulnerable to the mental health impact of disasters and lack the experience, skills and resources to independently meet their mental and behavioral health needs.[34] It is therefore both surprising and of concern that children's mental and behavioral health needs are virtually ignored across federal and state disaster planning efforts, and training exercises neglect to test for pediatric mental health response capacity.

A broad range of pediatric mental health services, including long-term interventions when indicated, must become part of disaster mental health response and recovery. The Commission supports the recommendations proposed within the report of the Disaster Mental Health Subcommittee of the National Biodefense Science Board, with the addition of the prioritization of the mental and behavioral needs of children.[35] Disaster mental and behavioral health response for children can be strengthened from a common operational picture which will: enable triggers for mutual aid requests, resource allocation, targeted monitoring of population health and the recovery environment; and provide appropriate interventions such as psychological first aid, bereavement counseling and support and cognitive-behavioral treatments.

The Commission recommends that at the federal level, coordination of mental and behavioral health service efforts for children can be accomplished through a unified CONOPS that addresses all phases of disaster planning and includes representation of pediatric mental and behavioral health functions within operational frameworks across local, state and national levels aligned with the National Incident Management System. In addition, states can incorporate disaster mental and behavioral health planning and operations for children by including language on children's mental and behavioral health in all appropriate legislation, regulations and grants.

33 CONOPS is defined here as an overarching and standardized operational framework coordinating federal efforts to respond to the emerging disaster needs of affected populations.

34 Schonfeld, "Implications from September 11th," 1400 (see n. 9).

35 *Disaster Mental Health Recommendations: Report of the Disaster Mental Health Subcommittee of the National Biodefense Science Board*, ed. U.S. Department of Health and Human Services, National Biodefense Science Board, Disaster Mental Health Subcommittee, (Washington, DC: HHS, 2008), 6-20, http://www.hhs.gov/aspr/conferences/nbsb/dmhreport-final.pdf.

Recommendation 2.2: Enhance the research agenda for children's disaster mental and behavioral health, including psychological first aid,[36] cognitive-behavioral interventions, social support interventions and bereavement counseling and support.

A small amount of research exists evaluating the effectiveness of services and interventions to address the full spectrum of children's mental health needs in the aftermath of a disaster, especially outside the area of trauma-related syndromes and symptoms and trauma-focused treatments.[37] Evidence suggests that some commonly used interventions, such as critical incident stress debriefing or management, are not effective and may instead be detrimental, especially when used with children.[38, 39] A new, expanded national agenda for disaster mental health research would prioritize and facilitate exploration of the full spectrum of mental health services for children and families that would be necessary for recovery after a disaster.

The Commission recommends that a working group of children's disaster mental health and pediatric experts be convened to review the research portfolios of relevant agencies that fund federal research across the U.S. government. The working group would identify gaps in knowledge, areas of recent progress and priorities for research, including disaster mental and behavioral health program evaluation, early intervention, treatment for disaster-related problems and dissemination of training in disaster mental and behavioral health interventions. The working group would also recommend a national research agenda for federal agencies that fund research initiatives across the full spectrum of disaster mental health services for children and families, including trauma-related syndromes and symptoms, psychological first aid, cognitive-behavioral interventions, social support interventions, bereavement counseling and support and approaches to promoting resilience in children and communities.

Recommendation 2.3: Enhance pediatric disaster mental and behavioral health training for professionals and paraprofessionals, including psychological first aid, cognitive-behavioral interventions, social support interventions and bereavement counseling and support.

Limited numbers of pediatric mental health professionals coupled with the limited insurance reimbursement for mental and behavioral health services have resulted in a critical gap in our ability to provide the necessary mental health care to those that most need it, especially if we rely on traditional mental health providers. Children's limited access to mental health services is further exacerbated during and after disasters by issues such as lack of transportation, competing family recovery needs and concerns about stigmatization when utilizing these services.[40, 41] In order to accommodate the surge of demand for mental health services and ameliorate the mental health and behavioral health effects that are caused by or exacerbated by a disaster, adequate resources for immediate and long-term interventions must be appropriate and available to children. Mental health professionals, including those who are school-based, need to have adequate training related to disaster mental health care for children.

36 "Psychological first aid" is psychological support that can be provided by non-mental health professionals to children, family, friends and neighbors. It incorporates education on issues related to trauma and active listening. Ibid., 12.

37 Ibid., 8-10.

38 Ibid., 9.

39 *Pediatric Terrorism and Disaster Preparedness: A Resource for Pediatricians*, ed. George L. Foltin, David J. Schonfeld and Michael W. Shannon, Bioterrorism and Other Public Health Emergencies, (Rockville, MD: American Academy of Pediatrics, 2006), 279, http://www.ahrq.gov/RESEARCH/PEDPREP/pedresource.pdf.

40 Schonfeld, "Implications from September 11th," 1400.

41 "Hurricane Katrina: Barriers to Mental Health Services for Children Persist in Greater New Orleans, Although Federal Grants Are Helping to Address Them," GAO-09-563, ed. Government Accountability Office (Washington, DC: GAO, 2009), http://www.gao.gov/new.items/d09935t.pdf.

Communities rely upon a cadre of non-mental health professionals who routinely interact with children, such as school staff, child care providers and pediatric healthcare providers,[42] to provide basic mental health and bereavement support services and brief interventions. Therefore, it is essential that these individuals receive adequate training and are knowledgeable about how to identify children who require more advanced care and can provide information to their guardians on existing resources.[43]

Most children who receive mental health services receive them in schools[44] and mental health professionals working in schools constitute the largest cadre of primary providers of mental health services for children.[45, 46] According to the National Center for School Crisis and Bereavement, teachers and school administrators receive little, if any, training at the pre- or post-service level around how to support children and staff during and in the aftermath of a disaster to promote adjustment and coping.

In many disasters, children will experience deaths of family members and friends. Such losses may have long-term effects on learning and emotional adjustment. Schools provide much needed stability for children following a disaster and are a natural place for children to receive information and support after such events.[47] Bereavement support should therefore be viewed as an essential component of disaster mental health services.

Basic disaster mental health and psychological support training specific to the unique needs of children should be extended beyond the traditional mental health disciplines (e.g. psychiatry, psychology, counseling, social work and marriage and family therapy) and health care professionals (e.g. medicine, pediatrics, nursing and epidemiology) to include the full range of emergency responders (e.g. law enforcement, fire service and emergency medical responders), faith-based professionals, educators and disaster response leaders (e.g. incident commanders, emergency managers and civil service and elected government leaders).

Disaster mental health training, including traditional and just-in-time training, for the various professional groups would include psychological first aid, cognitive-behavioral interventions, social support interventions and bereavement counseling and support. Minimum training standards should be identified and disaster mental health training should be a requirement for professional accreditation and licensure where applicable.

42 "The primary medical care system has become the de facto mental health care system for children in the United States. Children are most likely to be evaluated for mental and behavioral health problems and to receive treatment, including psychotropic drugs, from pediatricians for symptoms associated with mental disorders." Schonfeld, "Implications from September 11th," 1400.

43 Lisa H. Jaycox, Lindsey K. Morse, Terri Tanielian, and Bradley D. Stein, *How Schools Can Help Students Recover from Traumatic Experiences: A Tool Kit for Supporting Long-Term Recovery*, (Santa Monica, CA: RAND, 2006), 6-12.

44 Mark D. Weist, Marcia Rubin, Elizabeth Moore, Steven Adelsheim, and Gordon Wrobel, "Mental Health Screening in Schools," *Journal of School Health* 77, no. 2 (2007): 53-8.

45 Bradley D. Stein, Terri L. Tanielian, Mary E Vaiana, Hilary J. Rhodes, and M. Audrey Burnam, "The Role of Schools in Meeting Community Needs During Bioterrorism," *Biosecurity and Bioterrorism: Biodefense Strategy, Practice, and Science* 1, no. 4 (2003), 274, http://www.liebertonline.com/doi/pdf/10.1089/1538713 03771861487?.

46 In New York City, more than half of the students who received counseling in the months following the attacks of September 11, 2001, received it through services provided at schools. Yet, most children with mental health needs related to the events of September 11th were not identified and the vast majority never received any services. Fairbrother et al., "Unmet Need for Counseling Services, 1369 (see n. 8); Schonfeld, "Implications from September 11th," 1400.

47 Garrett et al., "Children and Megadisasters," 207-8 (see n. 13).

3. CHILD PHYSICAL HEALTH AND TRAUMA

Recommendation 3.1: Ensure availability and access to pediatric medical countermeasures at the federal, state and local level for chemical, biological, radiological, nuclear and explosive (CBRNE) threats.

Recommendation 3.2: Expand the medical capabilities of all federally funded response teams through the comprehensive integration of pediatric-specific training, guidance, exercises, supplies and personnel.

Recommendation 3.3: Ensure that all health care professionals who may treat children during an emergency have adequate pediatric disaster clinical training specific to their role.

Recommendation 3.4: Provide funding for a formal regionalized pediatric system of care for disasters.

Recommendation 3.5: Ensure access to physical and mental health services for all children during recovery from disaster.

3. Child Physical Health and Trauma

Recommendation 3.1: Ensure availability and access to pediatric medical countermeasures at the federal, state and local level for chemical, biological, radiological, nuclear and explosive (CBRNE) threats.

- *Provide funding for the development, acquisition and stockpiling of medical countermeasures specifically for children for inclusion in the Strategic National Stockpile (SNS) and all other federally funded caches.*
- *Form a standing advisory body of federal partners and external experts to advise the Department of Health and Human Services (HHS) Secretary on issues pertaining specifically to pediatric emergency medical countermeasures.*
- *Include pediatric expertise on all relevant committees and working groups addressing issues pertaining to medical countermeasures.*

Children are known to be at *greater* risk of: 1) exposure to community-dispersed chemical, biological, radiological and nuclear terrorist agents; 2) absorption of comparable doses of these agents; and 3) mortality and morbidity from comparable doses of the agents that are absorbed.[48]

However, while medical countermeasures[49] for several CBRNE agents are available for use in adults and included in the SNS,[50] comparable agents for use in children have not yet been approved by the Food and Drug Administration (FDA) to the same extent, and therefore are not present in the SNS.[51] Currently, 50 to 75 percent of all medications administered to children have not been tested on pediatric populations and are being used off-label,[52] which hinders legal stockpiling and deployment of these pediatric medications. However, many unapproved or off-label products may be the very best preventative, diagnostic or therapeutic options available.[53] Moreover, key federal working groups and committees[54] across the National Institutes of Health (NIH), Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) and CDC are establishing research and development priorities for high-risk CBRNE threats and the medical countermeasures to combat them. These groups would benefit greatly from the inclusion of pediatric subject matter expertise from outside the federal government.

In certain instances where the HHS Secretary declares an emergency, FDA may issue an Emergency Use Authorization (EUA). EUA permits the FDA to approve the emergency use of drugs, devices and medical products (including diagnostics) that were not previously

48 American Academy of Pediatrics, Committee on Environmental Health and Committee on Infectious Diseases "Chemical-Biological Terrorism and Its Impact on Children," *Pediatrics* 118, no. 3 (2006): 1271, http://pediatrics.aappublications.org/cgi/content/abstract/118/3/1267.

49 Medical countermeasures refer to drugs, biological products, or devices that treat, identify, or prevent harm due to chemical, biological, radiological, nuclear and explosive agents.

50 CDC's SNS has large quantities of medicine and medical supplies to protect the American public if there is a public health emergency severe enough to cause local supplies to run out. Once federal and local authorities agree that the SNS is needed, medicines will be delivered to any state in the U.S. within 12 hours. Each state has a plan to receive and distribute SNS medications and medical supplies to local health departments as soon as possible. Coordinating Office for Terrorism Preparedness and Emergency Response, "Strategic National Stockpile (SNS)," Centers for Disease Control and Prevention, http://www.bt.cdc.gov/stockpile.

51 U.S. Department of Health and Human Services, National Institutes of Health, Eunice Kennedy Shriver National Institute of Child Health and Human Development, Center for Research for Mothers and Children, Obstetric and Pediatric Pharmacology Branch, "Meeting Minutes," BPCA Biodefense Meeting, Rockville, MD, September 8-9 2008, http://bpca.nichd.nih.gov/outreach/upload/Biodefense-09-08.pdf.

52 Cori Vanchieri, Adrienne Stith Butler, and Andrea Knutsen, *Addressing the Barriers to Pediatric Drug Development: Workshop Summary*, (Washington, DC: Institute of Medicine, 2008), 1.

53 Stuart L. Nightingale, Joanna M. Prasher, and Stewart Simonson, "Emergency Use Authorization (EUA) to Enable Use of Needed Products in Civilian and Military Emergencies, United States," *Emerging Infectious Diseases* 13, no. 7 (2007): 1046.

54 U.S. Department of Health and Human Services (HHS), "Meeting Minutes," BPCA Biodefense Meeting

approved, cleared or licensed by FDA and the off-label use of approved products in certain well-defined emergency situations.[55] Based on the circumstances of the emergency, the EUA process may take hours or days. Without pre-existing, consensus-derived guidance from experts for off-label use of existing drugs, there may not be enough time to develop such consensus in the immediate aftermath of an incident.

Taking into account the small number of FDA-approved medications for children in the SNS and other emergency caches and the challenges associated with developing and approving medical countermeasures for children and authorizing off-label use under an EUA, the Commission recommends the formation of a standing advisory body. This body should consist of federal and non-federal partners and experts to advise the HHS Secretary on issues pertaining specifically to pediatric emergency medical countermeasures. Liaisons of this body will represent children on all relevant NIH, PHEMCE and CDC committees and working groups addressing issues pertaining to medical countermeasures.

The advisory body would:

- Assemble and study available data on therapies used as medical countermeasures in the pediatric population for high risk CBRNE;
- Develop formal consensus-driven recommendations on the emergency use of medications or interventions to pre-authorize the use of specific medical countermeasures;
- Develop a proposed research agenda supported by sufficient funding; and
- Rapidly and efficiently approve and disseminate updated treatment guidelines to state and local jurisdictions.

In 2006, Congress passed the Pandemic and All-Hazards Preparedness Act,[56] which provided authority for a number of programs related to the development and acquisition of medical countermeasures. Chief among these was the establishment of the Office of the Biomedical Advanced Research and Development Authority, which manages the PHEMCE. The PHEMCE is a coordinated, inter-agency effort to bring about the development and purchase of necessary vaccines, drugs, therapies and diagnostic tools for public health emergencies. The PHEMCE's responsibilities include coordinating research, development and procurement of emergency medical countermeasures, and setting deployment and use strategies for the countermeasures held in the SNS.[57]

Current PHEMCE policies do not prioritize children in the research and development of medical countermeasures. The most recently published version of the PHEMCE Strategy (2007) states that "priority will be given to those medical countermeasures that will prevent and treat adverse health effects for the greatest number of individuals."[58] Unfortunately for children, pediatric indications of medications and their delivery mechanisms tend to be more difficult and expensive to test, develop and acquire compared to adults. Pediatric studies involve special considerations relative to adult studies, such as stricter safety and quality control measures, and may require the product to be developed in an alternative form from the adult dose, such as oral suspension.[59]

55 Nightingale, Prasher, and Simonson, "Emergency Use Authorization (EUA)," 1046.

56 P.L. 109-417; 120 Stat. 2831 (2006).

57 Office of the Assistant Secretary for Preparedness and Response, "Public Health Emergency Medical Countermeasures (PHEMC) Enterprise," U.S. Department of Health and Human Services, http://www.hhs.gov/aspr/barda/phemce/index.html.

58 Office of the Assistant Secretary for Preparedness and Response, "HHS Public Health Emergency Medical Countermeasures Enterprise Strategy for Chemical, Biological, Radiological and Nuclear Threats," *Federal Register* 72, no. 53 (2007), 13112, http://www.hhs.gov/aspr/barda/documents/federalreg_vol72no53_032007notices.pdf.

59 Vanchieri, Stith Butler, and Knutsen, *Addressing the Barriers to Pediatric Drug Development*, 4.

The PHEMCE must address these inherent disadvantages and develop strategies to achieve parity for children in the research, development and acquisition of medical countermeasures. Incentives and requirements should be developed for the conduct of pediatric research by pharmaceutical companies that receive federal awards.[60] All procurements of countermeasures for the SNS under Project Bioshield[61] must provide options and significant incentives to study and potentially license the countermeasures for pediatric populations. Incentives are also needed to encourage testing of older, off-patent drugs.[62] A reprioritization of funding also is necessary to facilitate the development, acquisition and stockpiling of medical countermeasures specifically for children for inclusion in the SNS and other caches.

The public's will to prioritize the protection of children when faced with resource constraints was made clear in the federal government's public engagement meetings on the prioritization of pandemic influenza vaccines.[63] Federal agencies and working groups should consider public expectations, population demographics and the difference in benefit when using "life-years saved" vs. "lives saved" in any cost-benefit analysis[64] for decisions concerning the use of limited funding and resources.

Recommendation 3.2: Expand the medical capabilities of all federally funded response teams through the comprehensive integration of pediatric-specific training, guidance, exercises, supplies and personnel.

- *Designate or establish a Pediatric Health Care Coordinator on each federally funded medical response team and develop strategies to recruit and retain team members with pediatric medical expertise.*
- *Establish an Associate Chief Medical Officer for Pediatric Care in the office of National Disaster Medical System (NDMS).*
- *Develop pediatric capabilities within each NDMS region to ensure robust pediatric disaster response and enhanced surge capacity.*

The capability of Disaster Medical Assistance Teams (DMATs)[65, 66] to meet the care requirements of pediatric disaster survivors is limited by deficiencies in the training, clinical practice experience, on-going continuing education and composition of its members and

60 Ibid., 8.

61 On July 21, 2004, President George W. Bush signed the Project BioShield Act of 2004 (Project BioShield) into law as part of a broader strategy to defend America against the threat of weapons of mass destruction. The purpose of Project BioShield is to accelerate the research, development, purchase and availability of effective medical countermeasures against biological, chemical, radiological and nuclear (CBRN) agents. P.L. 108-276, 118 Stat. 852 (2004). http://www.hhs.gov/aspr/barda/bioshield/index.html.

62 Vanchieri, Stith Butler, and Knutsen, *Addressing the Barriers to Pediatric Drug Development*, 9.

63 U.S. Department of Health and Human Services, and U.S. Department of Homeland Security, *Guidance on Allocating and Targeting Pandemic Influenza Vaccine*, (Washington, DC: HHS and DHS, 2008), http://www.flu.gov/vaccine/allocationguidance.pdf.

64 There is long-standing debate whether to count "lives saved" or "life-years saved" when evaluating policies to reduce mortality risk. Historically, the two approaches have been applied in different domains. Environmental and transportation policies have often been evaluated using lives saved, while life-years saved has been the preferred metric in other areas of public health including medicine, vaccination, anddisease screening. For benefit-cost analysis, the monetary value of risk reductions can be calculated either by multiplying expected lives saved by the "value per statistical life" (VSL) or by multiplying expected life-years saved by the "value per statistical life-year" (VSLY). James K. Hammitt, "Valuing 'Lives Saved' Vs. 'Life-Years Saved'," *Risk in Perspective* 16, no. 1 (2008): 1, http://www.hcra.harvard.edu/rip/rip_Mar_2008.pdf.

65 DMAT is a group of professional and para-professional medical personnel (supported by a cadre of logistical and administrative staff) designed to provide medical care during a disaster or other event. DMATs are designed to be a rapid-response element to supplement local medical care until other federal or contract resources can be mobilized, or the situation is resolved. National Disaster Medical System, Office of the Assistant Secretary for Preparedness and Response, "What Is a Disaster Medical Assistance Team (DMAT)?," U.S. Department of Health and Human Services, http://www.hhs.gov/aspr/opeo/ndms/teams/dmat.html.

66 DMATs are managed by the NDMS, the primary federal program that supports care and transfer during evacuation of patients. NDMS is a component of HHS comprised of over 1,500 volunteer hospitals and over 6,000 intermittent federal employees assigned to approximately 90 general disaster and specialty teams geographically dispersed across the U.S. The overall purpose of NDMS is to establish a single integrated national medical response capability or assisting state and local authorities with the medical impacts of peacetime disasters and to provide support to the military. Office of the Assistant Secretary for Preparedness and Response, "National Disaster Medical System (NDMS)," U.S. Department of Health and Human Services, http://www.hhs.gov/aspr/opeo/ndms/index.html.

their deployed resources.[67, 68, 69] Pediatric patients can comprise a significant percentage of disaster survivors treated at DMAT field clinics.[70] While 68 percent of the clinical practitioners comprising DMATs have pediatric-specific training, only 5.6 percent have formal subspecialty training in pediatrics (e.g. pediatricians, pediatric nurse practitioners, pediatric emergency medicine and pediatric critical care), and 47 percent have formal training specific to pregnant women.[71, 72] DMAT members who routinely practice in emergency care settings such as hospital emergency departments likely have limited exposure to ill and injured children: approximately 50 percent of emergency departments in the United States serve less than ten children a day.[73, 74]

The Commission recommends that NDMS increase its pediatric capacity by forming or expanding regional capabilities to ensure robust surge capacity and flexible and scalable pediatric disaster response. Currently, there are only two Pediatric Subspecialty Teams[75] (PSTs) in the U.S.[76] PSTs can provide additional support to hospital providers following the pre-hospital management phase of the disaster. To initiate this effort, the two existing PSTs in Boston and Atlanta could be tested as a pilot for a regional DMAT response capability through exercising as an adjunct to other DMAT teams within their regions. In order to ensure that the needs of children are met, system planning must include provision of pediatric education for DMAT team members and appropriate equipping of the DMAT team prior to deployment. Core competencies in pediatric clinical care, evacuation, triage, decontamination and administration of pediatric medical countermeasures should be added in the NDMS national credentialing standards currently in development.

All federally funded medical response teams (including, but not limited to, DMATs, Public Health Service Commissioned Corps teams, FEMA teams, Department of Defense teams and Medical Reserve Corps) should increase the pediatric capabilities, capacities and assets of all deployed teams to meet the demand for pediatric care. First, a Pediatric Health Care Coordinator should be designated on each federally funded medical response team, and an Associate Chief Medical Officer for Pediatric Care should be established in the office of NDMS. Strategies must be developed to recruit and retain members with pediatric medical expertise. In addition, development of standards for federally funded medical response teams is necessary in relation to stockpiling of pediatric equipment and supplies; protocols for the

67 Sharon E. Mace and Andrew I. Bern, "Needs Assessment: Are Disaster Medical Assistance Teams up for the Challenge of a Pediatric Disaster?," *The American Journal of Emergency Medicine* 25, no. 7 (2007): 762-9.

68 Katherine A. Gnauck, Kevin E. Nufer, Jonathon M. LaValley, Cameron S. Crandall, Frances W. Craig, and Gina B. Wilson-Ramirez, "Do Pediatric and Adult Disaster Victims Differ? A Descriptive Analysis of Clinical Encounters from Four Natural Disaster DMAT Deployments," *Prehospital and Disaster Medicine* 22, no. 1 (2007): 67-73.

69 Allen Dobbs, Chief Medical Officer, National Disaster Medical System, Letter to Michael Anderson, Commissioner, May 31, 2009.

70 Gnauck et al., "Do Pediatric and Adult Disaster Victims Differ?," 67.

71 Nicole Lurie, Testimony before the U.S. Senate, Committee on Homeland Security and Governmental Affairs, Ad Hoc Subcommittee on Disaster Recovery, "Children and Disasters: The Role of HHS in Evacuation Planning and Mental Health Recovery," Washington, DC, August 4, 2009, http://www.hhs.gov/asl/testify/2009/08/t20090804a.html.

72 "Pediatric-specific training" refers to the number of boarded or licensed providers who have received formalized training in pediatric care that also includes training for other age groups (e.g. Emergency Medicine and Family Medicine). Physician Assistant training programs also have pediatric-specific training as part of their curriculum. These groups also receive formalized training in managing the medical care of pregnant women. "Subspecialty training in pediatrics" refers to physicians and nurse practitioners who have received formalized training limited to pediatrics. Allen Dobbs, Chief Medical Officer, National Disaster Medical System, E-mail to Christopher Revere, August 19, 2009.

73 Marianne Gausche-Hill, Charles Schmitz, and Roger J. Lewis, "Pediatric Preparedness of US Emergency Departments: A 2003 Survey," *Pediatrics* 120, no. 6 (2007): 1232.

74 Ibid., 1275.

75 PSTs are specialty DMATS developed to serve the unique needs of children during a disaster, composed of "individuals specifically trained in the care of children and pediatric-specific equipment, supplies, and pharmaceuticals. PST members include pediatric emergency medicine, pediatric critical care, pediatric trauma surgery, general pediatrics, neonatology, anesthesiology, and toxicology physicians and nurses, as well as respiratory therapists and pharmacists." Debra L. Weiner, Shannon F. Manzi, Mark L. Waltzman, Michele Morin, Anne Meginniss and Gary R. Fleisher, "FEMA's Organized Response With a Pediatric Subspecialty Team: The National Disaster Medical System Response: A Pediatric Perspective," *Pediatrics* 117, no.5 (2006): S406, http://pediatrics.aappublications.org/cgi/reprint/117/5/S2/S405.

76 Gausche-Hill, Schmitz, and Lewis, "Pediatric Preparedness," 1275.

delivery of care and use of pediatric equipment and supplies; and continuing education and training for response team members. Pediatric response capabilities could also be increased through the development of new strike teams that can respond to catastrophic events involving pediatric mass casualties, such as Pediatric Intensive Care Unit and Neonatal Intensive Care Unit Teams, General Pediatric Teams, Pediatric Surgical Teams, Pediatric Transport Teams and Pediatric Mental Health Teams.

Recommendation 3.3: Ensure that all health care professionals who may treat children during an emergency have adequate pediatric disaster clinical[77] training specific to their role.

- *Form a Pediatric Disaster Clinical Education and Training Working Group to establish core clinical competencies and a standard, modular pediatric disaster health care education and training curriculum.*

Currently, national standards for pediatric disaster education do not exist, and a set of core competencies for pediatric responders has yet to be identified.[78] In the event of a large-scale disaster or pandemic, the appropriate training and utilization of both pediatric and non-pediatric health care personnel will be crucial to minimize the morbidity and mortality of the pediatric population. The Pediatric Disaster Clinical Education and Training Working Group would serve as an oversight body that would establish a national curriculum as well as provide appropriate peer review and quality control over the development and distribution of competency-based pediatric disaster training materials.

The working group would establish core competencies and guidelines for a standard, modular pediatric disaster clinical training curriculum. The curriculum would be applied across a spectrum of professions from basic training of non-medical emergency responders and volunteers to advanced training for DMAT members, pre-hospital and hospital-based EMS providers and Medical Reserve Corps volunteers, among others. The scope of practice capabilities for pediatric response must be defined for each discipline-specific responder and include the identification of core competencies and the articulation of a minimum task-specific skill-set for pediatric response. For example, continuing education becomes critically important for EMS providers as they rarely treat a sufficient number of pediatric patients to develop and maintain skills. The Commission supports the adoption of requirements by states and territories for pediatric emergency education for the licensure/certification renewal of Basic Life Support (BLS) and Advanced Life Support (ALS) providers.[79]

For disaster response, some professionals such as emergency medical technicians will require basic education and training while other responders, such as DMAT members will require advanced training. Key elements of the standardized curriculum and training program would include the development of core competencies, pediatric-specific severity criteria and treatment guidelines and clinical practice guidelines for triage and treatment. The curriculum should also provide guidance for professionals in EMS, hospitals, emergency management, fire and law enforcement on the incorporation of pediatric-related objectives into routine drills and exercises.

77 "Clinical" refers to medicine, nursing and all allied health care disciplines.

78 Elizabeth Ablah, Annie M. Tinius, and Kurt Konda, "Pediatric Emergency Preparedness Training: Are We on a Path toward National Dissemination?," *The Journal of Trauma* 67, no. 2 (2009): S156, http://journals.lww.com/jtrauma/Fulltext/2009/08001/Pediatric_Emergency_Preparedness_Training__Are_We.21.aspx.

79 EMSC National Resource Center, *EMSC Performance Measures: Implementation Manual for State Partnership Grantees (Draft Edition)*, (Washington, DC: EMSC National Resource Center, Child Health Advocacy Institute, Children's National Medical Center, 2009), http://childrensnational.org/files/PDF/EMSC/ForGrantees/Implementation_Manual_2009-2010_Draft.pdf.

The objectives of the working group are separate from, yet complementary to, the Federal Education and Training Interagency Group for Public Health and Medical Disaster Preparedness and Response (FETIG). The expertise and scope of the FETIG is very broad,[80] therefore a federally funded pediatric-focused working group that includes external stakeholders is necessary to ensure adequate pediatric professional and academic expertise for the task of developing core competencies. This working group would collaborate with and have representation on the FETIG.

Efforts to develop consensus-based guidelines for altered standards of care and interventions for use in disasters must include pediatric medical experts, as children have different standards of care than those of adults.[81] While altering care for any patient is challenging, it may prove nearly impossible to do so for children during a disaster without clear recommendations and methodologies. This situation is the result of multiple factors, including "the societal expectation for care of children, the emotional burden of potentially limiting or withholding care from a child, and the unique barriers faced when trying to provide care for children."[82]

Recommendation 3.4: Provide funding for a formal regionalized pediatric system of care for disasters.

- *Build upon the foundational role of children's hospitals in strengthening and expanding a regionalized network for pediatric care.*
- *Ensure that all hospital emergency departments stand ready to care for ill or injured children of all ages through the adoption of disaster preparedness guidelines jointly developed by the American Academy of Pediatrics, American College of Emergency Physicians and the Emergency Nurses Association.*

Pediatric surge capacity and capability must be assessed beyond the scope of individual institutions and in a coordinated manner on local, regional and national levels. Additional funding for the HHS Hospital Preparedness Program can assist states in developing and implementing comprehensive state and regional plans for pediatric patient surge capacity in conjunction with hospitals, EMS and emergency management agencies. In addition, local, regional and national disaster response plans must anticipate need and fully integrate trauma systems, children's hospitals, EMS and other institutions with pediatric critical care and pediatric medical and surgical subspecialty care capabilities.

All health care facilities, not simply children's hospitals, must be prepared for a surge of critically ill children. Although EMS field efforts will attempt to match the survivors' needs with the nearest appropriate hospital, the most recent disaster literature suggests that up to 50 percent of survivors arriving at a hospital in a surge (mass casualty) scenario will arrive by other means. In order to accommodate a surge of pediatric patients, all hospitals should ensure that adequate, up-to-date stocks of pediatric supplies are onsite. Pediatric hospital preparedness can be optimized by accommodating pediatric considerations in planning and utilizing the guidelines outlined by the American Academy of Pediatrics, American College

80 Federal Education and Training Interagency Group for Public Health and Medical Disaster Preparedness and Response, "Charter," U.S. Department of Health and Human Services, http://www.hhs.gov/aspr/conferences/nbsb/nbsb-fetig-080328.pdf.

81 ASPR recently sponsored a one-day workshop with the IOM on establishing standards of care in emergency situations. No pediatricians or pediatric-specific topics were included in the panel presentations. Workshop on Guidance for Establishing Standards of Care for Use in Disaster Situations, Washington, DC, September 2, 2009, http://www.iom.edu/CMS/3740/72417/72451.aspx.

82 David Markenson, "Developing Consensus on Appropriate Standards of Hospital Disaster Care: Ensuring That the Needs of Children Are Addressed," *Disaster Medicine and Public Health Preparedness* 3, no. 1 (2009): 5.

of Emergency Physicians and Emergency Nurses Association.[83] All hospitals should diligently practice disaster drills that include scenarios with sufficient pediatric survivors to test their pediatric surge capacity. These activities should also include all staff who may be called upon to deliver care to children.

Currently, the United States has fewer than 300 children's hospitals, a fraction of all hospitals (five percent), and only 40 percent of hospital emergency departments have procedures regarding pediatric transfers. A surge of ill children may present considerable staffing challenges to non-pediatric designated hospitals. These hospitals should develop databases with the contact information of locally available pediatricians, pediatric nurses and other personnel with pediatric experience who can provide assistance in the event of a surge.[84] During a biological event, children may not be well suited for transfer and may therefore have to remain in the receiving facility.[85] The transfer of children to a local or regional pediatric referral center may be impaired by factors limiting patient transport (e.g. disaster conditions, weather, transport system availability), or the availability, level of function, or capacity of the tertiary center (e.g. facility operations and patient saturation). All hospitals must be prepared to provide care for children under such circumstances.

Children's hospitals can play a critical leadership role in expanding a network of regional pediatric care. Going forward, the Commission will collaborate with stakeholder organizations to explore innovative ways to expand regionalization of pediatric care.

Recommendation 3.5: Ensure access to physical and mental health services for all children during recovery from disaster.

Access to comprehensive primary care, including vaccines, physical, dental and mental health screening following a disaster is essential for children. A "medical home," defined as a source of primary care that is accessible, continuous, comprehensive, family-centered, coordinated, compassionate and culturally effective,[86] is a vital resource for children and families recovering from disasters.

The Commission recommends the development of programs based on a model of care consistent with the concept of an enhanced "medical home" that includes preventive care, health education, timely diagnosis and treatment of acute illness, management of chronic conditions, coordination of specialty care needs and availability of urgent and emergent response. Ideally, following a disaster each child would be assigned to a "medical home provider" who would provide comprehensive physical, mental and oral health care and assessments consistent with the model as described above. Access to medications, specialty health care services and other special needs would be assured, and comprehensive medical records, preferably on an electronic health record system, would be maintained for every child receiving care under this program.

The ability of physical and mental health care entities, such as clinics and providers, to recover from a disaster quickly is essential to assisting children in their recovery. The Commission recommends an examination of all federal programs utilized to reestablish

83 Committee on Pediatric Emergency Medicine American Academy of Pediatrics, Pediatric Committee American College of Emergency Physicians, and Emergency Nurses Association, Pediatric Committee, "Joint Policy Statement: Guidelines for Care in the Emergency Department," *Pediatrics* 124, no. 4 (2009): in press.

84 Edward W. Boyer, James Fitch, and Michael Shannon, *Pediatric Hospital Surge Capacity in Public Health Emergencies. (Prepared under Contract No. 290-00-0020)*, ed. Agency for Healthcare Research and Quality, (Rockville, MD: AHRQ, 2009), 16.

85 Ibid., 16-17.

86 Edwards, "Foreword," 1471 (see n. 30).

vital entities in disaster-affected communities including those provided by the Small Business Administration and under the Robert T. Stafford Disaster Relief and Emergency Assistance Act[87] ("Stafford Act"). Experience along the Gulf Coast following Hurricane Katrina illustrated that the convergence of the cost of rebuilding, an unpredictable patient base and other economic hardships created difficulties for practices to reestablish themselves only with loan programs.

87 P.L. 93-288, as amended, 42 U.S.C. 5121-5207 (1988).

4. EMERGENCY MEDICAL SERVICES AND PEDIATRIC TRANSPORT

Recommendation 4.1: Improve the capability of Emergency Medical Services (EMS) to transport pediatric patients and provide comprehensive pre-hospital pediatric care during daily operations and disasters.

4. Emergency Medical Services and Pediatric Transport

Recommendation 4.1: Improve the capability of Emergency Medical Services (EMS) to transport pediatric patients and provide comprehensive pre-hospital pediatric care during daily operations and disasters.

- *Establish a dedicated federal grant program for pre-hospital EMS.*
- *Provide additional funding to the Emergency Medical Services for Children (EMSC) program to ensure all states and territories meet targets and achieve progress in the EMSC performance measures for grantees, and to support development of a research portfolio.*
- *As an eligibility guideline for Centers for Medicare and Medicaid Services (CMS) reimbursement, require first response and emergency medical response vehicles to acquire and maintain pediatric equipment and supplies in accordance with the national guidelines for equipment for Basic Life Support (BLS) and Advanced Life Support (ALS) vehicles.*[88]

EMS is a system of public and private entities providing treatment and transportation of patients to available emergency medical care. According to a 2006 Institute of Medicine (IOM) report, the quality of EMS services varies widely among localities, regions and states. Accordingly, EMS is not well prepared to handle the consequences of a disaster, whether natural or man-made.[89]

The majority of EMS systems in the nation do not receive federal grant support for disaster preparedness and response, unlike other first responder agencies including emergency management, law enforcement, fire, public health and hospitals.[90] For example, the American Recovery and Reinvestment Act of 2009[91] did not authorize funds for EMS organizations. In the absence of adequate funding to support appropriate staffing on a daily basis, the ability to expand surge capacity during a disaster is unrealistic. The DHS Homeland Security Grant Program requires states and local governments to include EMS in their homeland security plans, however, "…if no state or local funding is provided to EMS, the state should be prepared to demonstrate that related target capabilities have been met or identify more significant priorities."[92] A dedicated federal grant program for EMS would support state-level coordination and disaster planning, field-level staffing, pediatric supply and equipment needs, and pediatric-specific training and exercises.

Currently, the EMSC program, based at the Health Resources and Services Administration, is the one federal program that provides funding to states and territories to improve the EMS infrastructure for day-to-day pediatric emergency preparedness. A dedicated federal grant program that is specific to disaster preparedness for EMS could help ensure that EMS systems are meeting the pediatric-specific performance measures established by the EMSC program.

88 American College of Surgeons Committee on Trauma, American College of Emergency Physicians, National Association of EMS Physicians Pediatric Equipment Guidelines Committee, Emergency Medical Services for Children Partnership for Children Stakeholder Group, and American Academy of Pediatrics, *Equipment for Ambulances*, (Washington, DC: Children's National Medical Center, 2009), http://www.childrensnational.org/files/PDF/EMSC/PubRes/Equipment_for_ambulances_FINAL.pdf.

89 Committee on the Future of Emergency Care in the United States Health System, Board on Health Care Services, *Emergency Care for Children: Growing Pains. Executive Summary*, ed. Institute of Medicine, (Washington, DC: National Academies Press, 2007), xiii, http://www.nap.edu/nap-cgi/report.cgi?record_id=11655&type=pdfxsum.

90 National Association of State Emergency Medical Services Officials, *State EMS Office Involvement in Domestic Preparedness Efforts: NASEMSO 2008 Addendum*, (Falls Church, VA: NASEMSO, 2008), 5, http://www.nasemso.org/Projects/DomesticPreparedness/documents/08DPAddendumReport-2.pdf.

91 P.L.111-5 (2009).

92 This is problematic because states are not assessed by DHS on their performance in meeting Target Capabilities; this work is self-reported. "Fiscal Year 2009 Homeland Security Grant Program Guidance and Application Kit," ed. U.S. Department of Homeland Security (Washington, DC: FEMA, 2008), 11, http://www.fema.gov/pdf/government/grant/hsgp/fy09_hsgp_guidance.pdf.

The 2006 IOM report supported the EMSC program citing its many accomplishments including the delivery of thousands of hours of pediatric-specific training for emergency medical providers, the implementation of injury prevention programs and the establishment of a pediatric research network, despite limited funding growth over the history of the program.[93] IOM recommended that funding for the EMSC program be increased to $37.5 million per year for five years. Forty-eight stakeholder organizations signed a July 14, 2009 letter to the Chairmen of the House and Senate Appropriations Subcommittees on Labor, Health and Human Services, Education and Related Agencies advocating for an increase above the current $20 million appropriation to the EMSC program, citing the fact that death rates due to pediatric injury have dropped by 40 percent since the EMSC program was established.[94, 95] Despite this progress, the gap between adult and pediatric emergency care on not only a day-to-day, but also a disaster basis, is sufficiently large as to require substantial increases in funding for EMSC beyond the amount recommended by the IOM. A significant amount of improvement must still be made to ensure that the emergency care system is prepared for the care of children in both everyday emergencies and disasters, and the work of the EMSC is instrumental in achieving a higher level of preparedness.

The Commission recommends that additional funding be provided to the EMSC program as a means to boost pediatric preparedness in EMS systems throughout the nation. With additional funding, the EMSC program would support the establishment and maintenance of a full-time EMSC administrator in every state and territory to ensure the ongoing needs of children are met in state disaster planning and response. Assurance that pediatric needs will be met in the pre-hospital system is an ongoing process that requires a state-level champion who is solely dedicated to ensuring that children are not forgotten during disaster planning and response. EMSC would provide additional funding for research to build an evidence base for the development of standardized pre-hospital pediatric disaster care practices and protocols.

The EMSC State Partnership Grant Program has a set of comprehensive performance measures that serve to establish an ongoing, systematic process for tracking progress towards meeting the goals of the EMSC program and allow for continuous monitoring of the effectiveness of key program activities.[96] The Commission supports the use of these performance measures in determining the extent to which grantees are meeting established targets and recommends that the proposed federal funding stream for EMS provide sufficient support to ensure that all states integrate the EMSC priorities[97] into existing state and territory requirements by 2014.[98] With additional funding, EMSC could publish an annual report card on each state's performance in providing EMS to children, which would provide incentives for progress and public transparency in the use of the funds.

93 Committee on the Future of Emergency Care in the United States Health System, *Emergency Care for Children*, 13-14.

94 Coalition for American Trauma Care Advisory Council et al., Letter to Representative David Obey, July 14, 2009, http://www.nasemsd.org/Advocacy/PositionsResolutions/documents/07-14-09EMSCAppropsltrObey.pdf.

95 Coalition for American Trauma Care Advisory Council et al., Letter to Senator Tom Harkin, July 14, 2009, http://www.nasemsd.org/Advocacy/PositionsResolutions/documents/07-14-09EMSCAppropsltrHarkin.pdf.

96 EMSC National Resource Center, *EMSC Performance Measures: Implementation Manual*, 3.

97 The priorities summarized are:
1. Pre-hospital provider agencies have on-line and off-line pediatric medical direction at the scene of an emergency for BLS and ALS providers.
2. BLS and ALS patient care units in the state/territory have the essential pediatric equipment and supplies.
3. The existence of a statewide, territorial, or regional standardized system that recognizes hospitals that are able to stabilize and/or manage pediatric medical emergencies and trauma.
4. Hospitals in the state/territory have written pediatric inter-facility transfer guidelines with specific components.
5. Hospitals in the state/territory have written pediatric inter-facility transfer agreements.
6. The adoption of requirements by the state/territory for pediatric emergency education for the licensure/certification renewal of BLS and ALS providers.
7. A full-time EMSC manager within the state system to ensure and maintain the operational infrastructure to provide optimal pre-hospital care to children.

98 EMSC National Resource Center, *EMSC Performance Measures: Implementation Manual*, 102-4.

Over the next year, the Commission will be closely reviewing issues concerning the lack of surge capacity for critical care transport of children. One of EMSC's prioritized performance measures is the establishment of statewide, territorial or regional standardized systems that recognize hospitals that are able to stabilize or manage pediatric medical emergencies and trauma. The existence of a statewide recognition system has been shown to increase the number of hospital emergency departments that are capable of providing pediatric emergency care.[99] Another priority is the establishment of written pediatric inter-facility transfer agreements. A categorization process and inter-facility transfer guidelines help facilitate EMS transfer of children to appropriate levels of resources. Although 19 states have such a system in place for trauma, only eight states have a categorization system for medical emergencies.

Since pre-hospital EMS providers generally do not treat a sufficient number of pediatric patients to develop and maintain clinical skills,[100] continuing education is critically important. There is a pressing need for a new approach to pediatric training and education for professionals in EMS. It is necessary to expand and create a comprehensive pediatric training program into the initial and recertification process for EMS practitioners.[101] The Commission supports the adoption of requirements by states and territories for pediatric emergency education for the licensure and certification renewal of BLS and ALS providers.

The Commission also recommends that eligibility guidelines for CMS reimbursement should, at a minimum, require first response and emergency medical response vehicles to acquire and maintain pediatric equipment and supplies in accordance with the national guidelines for equipment for BLS and ALS vehicles.[102] Such action would provide a strong incentive to help ensure that all BLS and ALS vehicles meet a baseline level of pediatric preparedness.

99 Ibid., 42-4.

100 Ibid., 71.

101 U.S. National Highway Traffic Safety Administration, "National EMS Education Standards and Instructional Guidelines," http://www.ems.gov/portal/site/ems/menuitem.5149822b03938f65a8de25f076ac8789/?vgnextoid=409589ff3091f110VgnVCM1000002fd17898RCRD.

102 American College of Surgeons Committee on Trauma et al., *Equipment for Ambulances*.

5. DISASTER CASE MANAGEMENT

Recommendation 5.1: Establish a holistic federal disaster case management program with an emphasis on achieving tangible positive outcomes for all children and families within a Presidentially-declared disaster area.

"Often after a disaster like Hurricane Ike, survivors are overwhelmed by all the losses and devastation in their lives – home, vehicles, jobs, personal belongings and even the deaths or injuries of family and friends. As a result, they often have trouble figuring out where to even begin the process of rebuilding homes and lives."
--Mark Minick, Lutheran Social Services

5. Disaster Case Management

Recommendation 5.1: Establish a holistic federal disaster case management program with an emphasis on achieving tangible positive outcomes for all children and families within a Presidentially-declared disaster area.

Following Hurricanes Katrina and Rita, the federal government provided at least $209 million for disaster case management[103] services to assist survivors in coping with the devastation and rebuilding their lives, yet deficiencies existed that resulted in poor outcomes for these programs and illuminated the need for greater coordination and program evaluation in the provision of disaster case management services.[104]

Confusion regarding roles and responsibilities across federal agencies compounded by the expiration of federally funded disaster case management programs initiated after the storms led to breaks in funding that adversely affected case management agencies and may have left survivors most in need of assistance without access to case management services.[105, 106] For example, as the first federally funded case management program, Katrina Aid Today drew to a close in March 2008 and some case management providers shut down their operations. Cases were closed, not because the client's needs had been met, but simply because the funding for the program was coming to an end. FEMA provided funds for additional services, but due to budget negotiations, the program's continuation in Mississippi was delayed several months while the program in Louisiana was not implemented.[107]

The Commission recognizes that FEMA is evaluating four pilot disaster case management programs authorized following Hurricanes Gustav and Ike in 2008. However, the Commission recommends that FEMA move aggressively to determine a preferred program by the end of 2009. The Commission will collaborate with FEMA as appropriate to develop expert consensus around a disaster case management program, with specific parameters and elements as indicated below.

The Commission supports the recommendation of the U.S. Government Accountability Office (GAO) for the development of a federal disaster case management program[108] and suggests that it be holistic in scope, flexible and sensitive to cultural and economic differences in communities, while placing a priority on serving the needs of families with

103 Disaster case management is the process of organizing and providing a timely, coordinated approach to assess disaster-related needs as well as existing healthcare, mental health and human services needs that may adversely impact an individual's recovery if not addressed. The objective of disaster case management is to rapidly return children and families who have survived a disaster to a state of self-sufficiency. This is accomplished by ensuring that each child/family has access to a case manager who will capture information about the child/family's situation and then serve as their advocate and help them organize and access disaster-related resources. "Disaster Case Management Implementation Guide," ed. U.S. Department of Health and Human Services Administration for Children and Families (Washington, DC: HHS, 2008), 62.

104 "Greater Coordination and Evaluation of Programs," ed. GAO, 7 (see n. 27).

105 The federal role for funding and coordinating disaster case management was not explicitly defined until the passage of PKEMRA. The Stafford Act, as amended, is the primary authority under which the federal government provides major disaster and emergency assistance to states, local governments, tribal nations, individuals and qualified private, nonprofit organizations. FEMA is responsible for administering the provisions of the Stafford Act. At the time of Hurricanes Katrina and Rita, the Stafford Act contained no explicit authority to fund disaster case management services. The Post-Katrina Act amended the Stafford Act and, among other things, granted the President the authority to provide financial assistance for case management services to victims of major disasters. P.L. 109-295, title VI, §689f, codified at 42 U.S.C. §5189d (2006). The Post-Katrina Act was passed in October 2006.

106 "Disaster Assistance: Greater Coordination and an Evaluation of Programs' Outcomes Could Improve Disaster Case Management," GAO-09-561, ed. United States Government Accountability Office (Washington, DC: GAO, 2009), 13.

107 Ibid.

108 Ibid., 36.

children. Disaster case management should be led by a single federal agency that will coordinate, among all relevant agencies and organizations, disaster case management and ensure there is:

- Adequate understanding of the health, nutrition, education and human services needs of children and families;
- Involvement of voluntary agencies that provide disaster case management; and
- Access to funding that supports all aspects of disaster case management, including direct services.

Disaster preparedness funding must be provided for infrastructure and capacity building to support a case management program, in advance, and to contract for the rapid deployment of case managers into disaster-affected areas.

The purpose of disaster case management is to rapidly return children and families who have survived a disaster to a state of self-sufficiency. The program should develop a consistent set of comprehensive program evaluation tools that regularly measure and monitor success based upon tangible positive outcomes for families, especially those most in need, rather than case managers simply making referrals. The program evaluation should also include guidelines for assessing and monitoring recovery milestones for children.

The Commission further recommends a national contract to ensure rapid deployment of case managers, funding and transition to service providers in the local community. The contractor would be required to pre-identify state and local subcontracting agencies and prepare a roster of disaster case managers from professional organizations that can provide surge capacity following a disaster.

Following Hurricanes Katrina and Rita, difficulties in coordination resulted in limited monitoring and program oversight and a lack of accurate and timely information sharing between federal agencies and case management providers.[109] These difficulties, in conjunction with current privacy policies, have created barriers to the provision of disaster case management services.[110] According to the GAO report, state and local agencies responsible for providing federally funded disaster case management services following the hurricanes faced consistent difficulty obtaining timely and accurate information from the federal agencies overseeing the programs.[111] As a result of FEMA's interpretation of information sharing and privacy requirements under the Privacy Act,[112] some case management providers in Louisiana and Mississippi were unable to obtain critical information that inhibited the coordination of service delivery and prevented eligible hurricane survivors from receiving services.[113] The Commission recommends a review and modification of current privacy policies and laws as necessary to permit the timely sharing of relevant disaster victim information among federal, state, local, tribal and non-governmental agencies and organizations engaged in supporting children and families affected by disasters.

109 Ibid., 15-20.

110 Ibid., 19-20.

111 Ibid., 19-20

112 P.L. 93-579; 5 U.S.C. § 552a (1974).

113 "Disaster Assistance: Greater Coordination and an Evaluation of Programs' Outcomes Could Improve Disaster Case Management," GAO-09-561, ed. United States Government Accountability Office (Washington, DC: GAO, 2009), 19-20.

6. CHILD CARE

Recommendation 6.1: Require disaster planning capabilities for child care providers.

Recommendation 6.2: Improve capacity to provide child care services in the immediate aftermath of and recovery from a disaster.

"It is an immediate concern of parents to have a safe and healthy environment for the care of their children. These parents cannot successfully return to work or focus on work issues when there is no child care available."
--Mississippi Governor Haley Barbour

6. Child Care

Recommendation 6.1: Require disaster planning capabilities for child care providers.

- *Require state child care regulatory agencies to include disaster planning, training and exercising requirements within the scope of the state's minimum health and safety standards for child care licensure or registration.*
- *Require state child care administrators[114] to develop statewide child care plans in coordination with state and local emergency managers, public health, child care regulatory agencies and child care resource and referral agencies.*

Disaster planning for child care providers is crucial because young children, many of whom are immobile and unable to communicate basic identifying information to a rescuer, are particularly vulnerable in the face of danger when away from their families.[115] There are nearly 12 million children under the age of five in child care each week.[116] Child care providers must be prepared for disasters, not only to ensure children's safety and mental well-being in the face of danger, but also to facilitate recovery by providing support services to parents, guardians, employees and employers in the aftermath of a disaster.[117]

However, a lack of basic disaster preparedness requirements for child care providers is commonplace in states throughout our nation. In June 2009, Save the Children released a report, "The Disaster Decade," which contained a report card on child care disaster planning requirements across 50 states and the District of Columbia.[118] Among the key findings were:

- Only seven states have laws or regulations requiring licensed child care providers to have basic written emergency plans in place addressing evacuation, reunification and accommodating children with special needs;
- Only 21 states require licensed child care facilities to have a designated site and evacuation route in the event of a disaster; and
- Only 15 states require licensed child care facilities to have a reunification plan for children and families in the event they become separated during an emergency.[119]

State child care regulatory agencies should include disaster planning, training and exercising requirements within the scope of the state's minimum health and safety standards for child care licensure or registration. Disaster plans for child care providers must, at a minimum, incorporate specific measurable capabilities for shelter-in-place, evacuation, relocation, family reunification, staff training, continuity of operations and accommodation of children with disabilities and chronic health needs. State and local emergency management planning

114 State child care administrators refers to lead agencies at the state level responsible for developing child care programs and administering federal funding received through the Child Care Development Fund (CCDF). Child Care and Development Fund, *Code of Federal Regulations*, 45 CFR § 98.1 (2007) 547-8, http://www.acf.hhs.gov/programs/ccb/law/finalrul/ccdf_regulations_oct_2007.pdf.

115 National Association of Child Care Resource & Referral Agencies, *Keeping Children Safe: A Policy Agenda for Child Care in Emergencies*, (Arlington, VA: NACCRRA, 2008), 3.

116 Ibid., 3.

117 Ibid., 9.

118 Save the Children, *The Disaster Decade: Lessons Unlearned for the U.S.*, (Westport, CT: Save the Children U.S. Programs, 2009), 4, http://www.savethechildren.org/publications/usa/disaster-decade-lessons.pdf.

119 Ibid.

activities must be expanded to include participation of child care administrators, child care regulatory agencies and child care resource and referral agencies. Similarly, state child care administrators must develop statewide child care disaster plans in coordination with emergency managers, child care regulatory agencies and child care resource and referral agencies. Model plans, guidance and technical assistance will aid disaster planning, training and exercising efforts of individual child care providers and encourage state and local planning collaborations.

States must develop child care disaster plans that establish guidelines for recovery after a disaster addressing the continuation of child care services and provision of temporary child care services. Child care is a critical component of recovery efforts.[120, 121] Provision of child care services to accommodate families who need temporary relief during recovery efforts can mitigate a wide variety of economic, mental health and social problems after a disaster.[122, 123] Child care is also essential to first responders, emergency managers and critical personnel who work around the clock.

In the aftermath of a disaster, temporary child care facilities may be set up near large employers and temporary housing sites to support parents, guardians, employees and employers and provide children with appropriate care, adequate nutrition and recreational opportunities.[124] However, those providing temporary child care services in non-permanent facilities often encounter regulatory hurdles that can obstruct their efforts to serve children and families.[125] While it is critical that providers of temporary disaster child care services preserve the highest possible standards of care, states must appreciate the difficulties associated with providing care in a potentially devastated post-disaster environment and must be prepared to accommodate the provision of temporary child care in a variety of settings including shelters and non-permanent facilities.[126] Establishing temporary child care services in the aftermath of a disaster may require exemptions from certain ordinary state child care licensing requirements that best serve needs of children in normal times.[127] Accordingly, states must develop temporary disaster child care operating standards that permit the provision of disaster child care in non-traditional settings and modify, and when necessary waive, requirements that may be impractical in the aftermath of a disaster while continuing to ensure the health, safety, nutritional status and overall well-being of children.[128]

The pending reauthorization of the Child Care and Development Block Grant Act of 1990 (CCDBG)[129] provides Congress the opportunity to improve the disaster planning capabilities of child care providers. The CCDBG, which provides formula grants to states, territories and tribes to assist low-income families in the purchase of child care services, also requires states to establish baseline health and safety standards for child care providers supported by CCDBG.[130, 131] In the CCDBG's reauthorization, Congress should require state child

120 "ESF-6 Disaster Response Recommendation to FEMA: Reimbursement for Child Care Assistance," ed. U.S. Department of Health and Human Services, Administration for Children and Families (Washington, DC: HHS, 2007), 1.

121 Lenore T. Ealy and Paige Ellison-Smith, *To Hold Safe: Framing a New Era of Disaster Child Care*, (Carmel, IN: Project K.I.D., 2007), 9.

122 "ESF-6 Disaster Response Recommendation" ed. U.S. Administration for Children and Families, 1.

123 Ealy and Ellison-Smith, *To Hold Safe*, 9.

124 Ibid., 15.

125 Ibid., 18.

126 Ibid.

127 Ibid.

128 Ibid.

129 P.L. 101-58, as amended; 42 U.S.C. 9859, et seq.

130 Ibid.

131 "ESF-6 Disaster Response Recommendation" ed. U.S. Administration for Children and Families, 2-3.

care regulatory agencies to include disaster planning, training and exercising for child care providers, whether or not they receive CCDBG funds, within the scope of the state's regulatory requirements for child care providers. In addition, state child care administrators should be required to develop disaster plans that include guidelines for recovery, including temporary operating standards to be used in the aftermath of disasters.

Recommendation 6.2: Improve capacity to provide child care services in the immediate aftermath of and recovery from a disaster.

- *Include the provision of child care as a human service activity within the National Response Framework (NRF).*
- *Provide reimbursement under the Stafford Act, amending the Act as necessary, to support child care services to displaced families, establishment of temporary disaster child care and the repair or reconstruction of child care facilities.*

Following a disaster, child care is an essential human service necessary to protect the safety of children and support the stabilization of families.[132] Child care helps expedite recovery efforts by ensuring that children are safe while parents visit damaged property, access public benefits, search for employment and housing and make other efforts to rebuild their lives.[133, 134] Moreover, child care recovery supports a community's economic recovery. If a community does not have access to child care for its youngest children, families can not return to work and the community can not recover economically.[135] Finally, research indicates that consistent, high-quality early education and child care improve the health and promote the cognitive development of young children,[136] both of which can be negatively affected by a disaster.[137]

The need for child care as a "supportive service" to survivors is clear when states and localities experience an overwhelming demand for child care assistance, including assistance through the CCDBG program.[138] The addition of child care as an essential service along with a definition of "emergency child care" to the NRF under ESF 6 and in the development of a National Disaster Recovery Strategy will serve to formalize child care as a necessary component of disaster preparedness and recovery across all levels of government.

Following a disaster, states and localities may be faced with a surge of families with young children seeking child care assistance and may lack resources to meet the increased demand.[139] After Hurricane Katrina, Mississippi funded the provision of child care services for displaced families, many of whom would not have otherwise been eligible for benefits due to residency, income or work requirements, with the expectation that the state could be reimbursed.[140] Mississippi's Office of Children and Youth provided 60-day emergency child care certificates to displaced families without regard to income or employment, waiving

132 Ibid., 1.

133 Ibid.

134 National Association of Child Care Resource & Referral Agencies, *Keeping Children Safe*, 9.

135 Ibid.

136 American Academy of Pediatrics, "Policy Statement," *Pediatrics* 115, no. 1 (2005), 187, http://aappolicy.aappublications.org/cgi/reprint/pediatrics;115/1/187.pdf.

137 Lori Peek, "Children and Disasters: Understanding Vulnerability, Developing Capacities, and Promoting Resilience - an Introduction," *Children, Youth and Environments* 18, no. 1 (2008), 4.

138 "ESF-6 Disaster Response Recommendation" ed. U.S. Administration for Children and Families, 2-3.

139 Ibid., 2.

140 Ibid., 1.

the co-payment fee for parents.[141] Mississippi served over 2,700 evacuee children at an approximate cost of $1.65 million.[142] However, it was denied reimbursement from FEMA which determined that emergency child care services did not qualify as an eligible Category B Emergency Protective Measure.[143]

The CCDBG program is not suited to accommodate increased demand for child care services resulting from a disaster since the program's finite resources are allocated to states based on statutorily required formulas and cannot be awarded to states impacted by a disaster on a targeted basis.[144] FEMA could act preemptively to ensure that states that support child care services for disaster survivors have a mechanism to receive reimbursement under the Stafford Act for the expenses they incur in serving these families. Additionally, the creation of an emergency contingency fund through the CCDBG program to support states on a targeted basis after a federally declared disaster would allow states to receive reimbursement when subsidizing child care services for displaced families. States would be able to serve disaster survivors without depleting their already committed CCDBG funds that provide needed child care services to working low-income families.

Funding and support for the repair and reconstruction of child care infrastructure is crucial to restoring child care services as quickly as possible. In New Orleans before Hurricanes Katrina and Rita, the city had 15,731 day care slots at 266 licensed centers.[145] Nearly a year after the storms, 80 percent of those centers and 75 percent of the slots were still gone.[146] In St. Bernard Parish in Louisiana, the number of child care centers dropped from 26 before Katrina to only two by 2007.[147] Between 62 to 94 percent of the licensed child care slots were "lost or potentially lost" in the three coastal Mississippi counties hit hardest by Hurricanes Katrina and Rita.[148] Without repairing, rebuilding and reopening child care facilities that are damaged in disasters, communities may lose their capacity to provide child care services, which can stymie recovery by limiting the ability of parents to return to work and the ability of families to return to communities. Furthermore, research indicates that investment in the child care sector is effective in spurring economic development in both the short and long-term.[149, 150]

Certain private non-profit child care facilities may be eligible for reimbursement for repairs and reconstruction under the Stafford Act, if they fail to qualify for disaster loans administered by the Small Business Administration. However, according to the National Association of Child Care Resource and Referral Agencies, many, if not most, child care services are provided by private businesses that operate for profit, thus precluding them from receiving Stafford Act funds. Child care providers, regardless of their tax status, should be eligible to receive federal reimbursement for the repair and reconstruction of their facilities.

141 Ibid.

142 Ibid.

143 Ibid.

144 Ibid., 2.

145 Elizabeth F. Shores, Cathy Grace, Erin Barbaro, Michael Barbaro, and Jenifer Moore, Orleans Parish, Louisiana, Child Care Assessment; Executive Summary, (Mississippi State: Mississippi State University Early Childhood Institute, 2006), 3, http://www.earlychildhood.msstate.edu/orleans-summary/orleans-exec-summ.pdf.

146 Ibid., 3.

147 U.S. Senator Mary L. Landrieu, Committee on Homeland Security and Governmental Affairs, Ad Hoc Subcommittee on Disaster Recovery, *Focusing on Children in Disasters: Evacuation Planning and Mental Health Recovery*, August 4, 2009, http://www.senate.gov/fplayers/I2009/urlPlayer.cfm?fn=govtaff080409&st=0&dur=6090.

148 Mississippi State University Early Childhood Institute, *After Katrina: Rebuilding Mississippi's Early Childhood Infrastructure; the First Six Months*, Early Childhood Report no. 1, (Mississippi State: Mississippi State University Early Childhood Institute, 2006), 5, http://www.earlychildhood.msstate.edu/katrina-report.pdf.

149 Mildred E. Warner and Zhilin Liu, "Economic Development Policy and Local Services: The Case of Child Care," *International Journal of Economic Development* Vol. 7, no. 1 (2005): 25-64.

150 Mildred E. Warner, "Putting Child Care in the Regional Economy: Empirical and Conceptual Challenges and Economic Development Prospects," *Community Development: Journal of the Community Development Society* 37, no. 2 (2006): 7, http://government.cce.cornell.edu/doc/pdf/7-22%20warner.pdf.

7. ELEMENTARY AND SECONDARY EDUCATION

Recommendation 7.1: Establish a school disaster preparedness program and appropriate funds to the U.S. Department of Education (DoEd) for a dedicated and sustained funding stream to all state education agencies (SEAs). Funding should be used for state- and district-level disaster response planning, training, exercises and evaluation that are coordinated with state and local plans and activities.

Recommendation 7.2: Enhance the ability of school personnel to support children who are traumatized, grieving or otherwise recovering from a disaster.

7. Elementary and Secondary Education

Recommendation 7.1: Establish a school disaster preparedness program and appropriate funds to the U.S. Department of Education (DoEd) for a dedicated and sustained funding stream to all state education agencies (SEAs).[151] Funding should be used for state- and district-level disaster response planning, training, exercises and evaluation that are coordinated with state and local plans and activities.

Most schools and school districts have developed emergency management plans to address "multiple hazards,"[152] however very few of these plans are comprehensive enough to address disasters such as pandemics and radiological events.[153] School districts currently lack integration with the planning efforts of SEAs and would benefit from community-wide coordination with local heads of government, local public health and emergency response officials and parents.[154] In a 2007 GAO report, school officials from 62 percent of all school districts included in the study identified challenges to implementing emergency management programs, including lack of equipment, training for staff and lack of personnel with expertise in the area of emergency planning.[155] While most school districts practice their emergency management plans annually within the school community, the GAO estimates "over one quarter of school districts have never trained with first responders and over two thirds of school districts do not regularly train with community partners on how to implement their school district emergency management plans."[156]

The Commission recommends authorizing legislation and appropriations to the DoEd for a dedicated and sustained federal funding stream to all SEAs for state- and district-level school disaster response planning and evaluation. Existing federal funding for school districts, such as the DoEd's Readiness and Emergency Management for Schools (REMS) program, has provided much-needed support to help a number of school districts revise emergency management plans, provide training and develop systems to sustain project activities. REMS should receive continued support since it is a mechanism that can yield model programs and test various cost- and time-effective approaches to improving school preparedness. However, REMS is a competitive grant program with a very limited budget that is able to fund a select number of school districts, thus leaving the majority of school districts in this country less than optimally prepared.[157] The establishment of a federal funding stream to all SEAs would facilitate coordinated disaster planning and exercising activities in school districts throughout the country. For example, federal funding would support:

151 SEAs include tribal nations and territories.

152 "Emergency Management: Status of School Districts' Planning and Preparedness," GAO-07-821T, ed. Government Accountability Office (Washington, DC: GAO, 2007), http://www.gao.gov/products/GAO-07-821T.

153 "Emergency Management: Most School Districts Have Developed Emergency Management Plans, but Would Benefit from Additional Federal Guidance," GAO-07-609, ed. Government Accountability Office (Washington, DC: GAO, 2007), 5, http://www.gao.gov/new.items/d07609.pdf.

154 Ibid.

155 Ibid., 6.

156 Ibid.

157 Since 2003, the REMS program has distributed 714 grants to 661 Local Education Agencies, serving a small proportion of the 14,200 public school districts nationwide. Readiness and Emergency Management for Schools Technical Assistance Center, "FY2009 REMS Grantees," U.S. Department of Education, http://rems.ed.gov/index.cfm?event=grantees2009.

- School districts via the SEA to support the development of comprehensive school district disaster plans at the local level;
- The equitable participation of non-public schools;
- Coordination with existing school-based programs and networks for disaster-displaced children, specifically the Education for Homeless Children and Youth Program under the McKinney-Vento Act;
- Provision of in-service training to teachers and school staff on important aspects of disaster planning and management and disaster mental health;
- Execution of regular disaster preparedness exercises and drills that involve local emergency management, school personnel and other stakeholders;
- Development of state, regional and local school district continuity of operations plans to ensure academic continuity for all students affected by a disaster; and
- Effective dissemination of guidance, best practices and technical assistance building upon the work of the REMS Technical Assistance Center.

DHS provides funding to state emergency management agencies for emergency preparedness initiatives, with grant guidance that allows the inclusion of school-related activities such as security training for school bus drivers and physical hardening of school buildings.[158] Yet very few states provide DHS funding directly to school districts even though school districts are eligible to receive the funds.[159]

Guidance from a new dedicated funding stream to school districts via SEAs could require state-level collaboration among SEAs and state emergency management agencies to better leverage federal emergency management funds. State and school district performance measures and benchmarks must be established and disseminated with federal funding for emergency preparedness activities, and regular evaluations should be conducted to assess progress and accountability for federal funding to both SEAs and state emergency management agencies.

A current and comprehensive national assessment is needed to inform the development of realistic performance measures and benchmarks that would allow school districts to show progress in disaster preparedness. An assessment of these plans would update and expand upon findings from the 2007 GAO report "Status of School Districts' Planning and Preparedness."[160] A more accurate snapshot of the current state of readiness within schools and school districts, including information regarding their capacity to respond to children with disabilities and special needs would also serve to identify continuing gaps requiring targeted federal and state guidance and technical assistance.

158 U.S. Department of Homeland Security, "School Safety," http://www.dhs.gov/files/programs/gc_1183486267373.shtm.

159 GAO reported "Five states—Florida, Hawaii, Michigan, Mississippi, and Wyoming—reported that they provided approximately $14 million in DHS funding directly to school districts in these states during fiscal years 2003–2006." "Most School Districts Have Developed Emergency Management Plans," ed. GAO, 60.

160 "Status of School Districts' Planning and Preparedness," ed. GAO.

Recommendation 7.2: Enhance the ability of school personnel to support children who are traumatized, grieving or otherwise recovering from a disaster.

Encourage initiatives that support and promote training of teachers and other school staff in basic skills in providing support to grieving students and students in crisis through requirements for accreditation, licensure and recertification/license renewal.

Federal and state guidance must enhance the ability of school personnel to support children who are traumatized, grieving or recovering from crisis situations. Most children who receive mental health services receive them in schools.[161] However, without proper planning and training, school personnel can be unsure about their role with children following a disaster.[162] Teachers, school administrators and other school personnel should be trained to understand the impact of trauma and loss and to provide basic supportive services and basic bereavement support following a disaster. According to school personnel interviewed following Hurricanes Katrina and Rita, the greatest barriers to helping students following the storms were not knowing what mental health programs they should use and the shortage of trained staff to implement these types of programs.[163]

Initiatives that both support and promote emergency preparedness and crisis response training for teachers and other school staff should be encouraged through requirements for accreditation and licensure. The National Center for School Crisis and Bereavement has recommended that concerted efforts be made to ensure that basic knowledge about the impact of bereavement and crisis on children is covered within pre-service training of teachers. In addition, basic skills in providing support to students grieving or in crisis should be assessed in licensure and accreditation examinations of new teachers. This provision is consistent with recent recommendations by the Disaster Mental Health Subcommittee of the National Biodefense Science Board.[164]

The pandemic outbreak of H1N1 influenza is an ongoing concern for schools and communities. A January 2009 report to the Homeland Security Council found that many state governments deferred pandemic influenza planning responsibilities, such as school closure decisions, to their local educational or governing entities.[165] The report noted "it is neither likely that [school districts] would have the capacity to operate with equal levels of ability, nor is it likely that the [SEA] would be comfortable deferring all responsibility to [school districts] with no oversight or coordination. Furthermore, a lack of coordinated state response could potentially compromise the state's ability to successfully mitigate the virus' transmission."[166] A dedicated funding stream to SEAs could improve state and regional coordination of school closures and dissemination of federal and state guidance and emergency information to school districts, and improve disaster planning and response efforts at the local level.

161 Weist et al. "Mental Health Screening in Schools," 54 (see n. 43).

162 Claude M. Chemtob, Joanne P. Nakashima, and Roger S. Hamada, "Psychosocial Intervention for Postdisaster Trauma Symptoms in Elementary School Children: A Controlled Community Field Study," *Archives of Pediatric and Adolescent Medicine* 156, no. 3 (2002): 211-16, http://archpedi.ama-assn.org/cgi/content/abstract/156/3/211.

163 Jaycox et al., *How Schools Can Help*, 10-12 (see n. 42).

164 *Disaster Mental Health Recommendations*, ed. HHS, 11-14 (see n. 34).

165 "Assessment of States' Operating Plans to Combat Pandemic Influenza: Report to Homeland Security Council," ed. U.S. Department of Health and Human Services (Washington, DC: HHS, 2009), http://pandemicflu.gov/professional/states/state_assessment.html.

166 Ibid., 25.

8. CHILD WELFARE AND JUVENILE JUSTICE

Recommendation 8.1: Provide guidance, technical assistance and model plans to assist state and local child welfare agencies in meeting current applicable disaster planning requirements and further require collaboration with state and local emergency management, courts and other key stakeholders.

Recommendation 8.2: Conduct a national assessment of disaster planning and preparedness among state and local juvenile justice systems to inform the development of comprehensive disaster plans.

"We had human feces floating around us in the water … we was forced to survive in for 3 days. I still have little sores on my skin. I can't seem to get that smell out of my skin. … Maybe it's all in my head but that smell will be with me, and be in my head for a very long time."

--C.S., a 15-year-old boy sheltered in Orleans Parish Prison during Hurricane Katrina

8. Child Welfare and Juvenile Justice

Recommendation 8.1: Provide guidance, technical assistance and model plans to assist state and local child welfare agencies in meeting current applicable disaster planning requirements and further require collaboration with state and local emergency management, courts and other key stakeholders.

Although state child welfare agencies are required to have disaster plans, additional measures may be required to enable child welfare programs to maintain services and adequately respond to disasters. In addition to challenging a child welfare agency's ability to handle existing cases, a disaster may also create a higher level of demand on referrals for children in need of child welfare services, including children who are separated from their parents, injured or orphaned.

In 2006, Congress passed the Child and Family Services Improvement Act, adding a requirement that state child welfare agencies have procedures in place to do the following:

- Identify, locate and continue availability of services for children under state care or supervision who are displaced or adversely affected by a disaster;
- Respond to new child welfare cases in areas adversely affected by a disaster, and provide services;
- Remain in communication with caseworkers and other essential child welfare personnel who are displaced because of a disaster;
- Preserve essential program records; and
- Coordinate services and share information with other states.167

Prior to the passage of the Act, the majority of states did not have written child welfare disaster plans, and the plans that were in place failed to adequately address tracking children and families and managing the ongoing needs of the system in the wake of a disaster.[168] In 2006, the GAO surveyed foster care disaster planning in states to evaluate their plans to continue an operational foster care system during a disaster and found that only three states had comprehensive child welfare plans addressing all of the vital components of planning included when the Act became law.[169]

Although plans had to be submitted to HHS by September 28, 2007, the requirement was not tied to any additional funding to aid states in creating or implementing a plan and states may have had inadequate funding or guidance to engage in comprehensive, meaningful planning activities. Additionally, the Act neither requires states to coordinate their child welfare plans with other disaster relief efforts in the state nor utilize the expertise of emergency

167 P.L. 109-288; 120 Stat. 1233 (2006).

168 "Child Welfare: Federal Action Needed to Ensure States Have Plans to Safeguard Children in the Child Welfare System Displaced by Disasters," GAO-06-944, ed. Government Accountability Office (Washington, DC: GAO, 2006), 3, http://www.gao.gov/new.items/d06944.pdf.

169 Ibid., 16.

management agencies to help them develop better plans. Furthermore, the plans do not require training, exercises or the identification of personnel to implement the plans at the local level.[170] Consequently, many of the state plans, which were deficient or nonexistent prior to the Act, may still be lacking.[171]

In addition, the Act does not require state child welfare agencies to collaborate with courts and other key stakeholders within the child welfare arena in the formulation of plans. Today's child welfare system is a "large and interconnected web" that is the product of contributions from various stakeholders from the judicial and executive branches and the public and private sectors.[172] In a disaster, in order to identify, locate and continue available services to families who have children under state care or supervision who are displaced or adversely affected by a disaster, the child welfare agency, courts and other stakeholders such as lawyers, advocates for foster children, youth and parents, public and private providers of services such as health, mental health, developmental and substance abuse services and foster and biological families must all work together in a collaborative effort.[173]

In a recent review of specific state child welfare plans, the National Council of Juvenile and Family Court Judges found that state plans often contained only general statements addressing the five areas of planning required by the Child and Family Services Improvement Act, and had no directives concerning how information would be shared with the courts that make vital decisions affecting the lives of children and families in the child welfare system.[174] To the extent that a court has a duty to ensure that children in the state's custody are receiving proper care, it is imperative for that court to know whether the children under its jurisdiction are physically and emotionally healthy.[175] In addition to having their own continuity of operations plans, courts must be involved in the planning efforts of state and local child welfare agencies. A coordinated planning effort would help reconvene separated foster families, attorneys, social workers, court-appointed special advocates, children's relatives and parents for timely processing of open cases.

If a disaster forces a mass evacuation, biological parents may have difficulty reuniting with their children in foster care at the time of the evacuation, resulting in children remaining in foster care for extended time periods. Without proper procedures to locate children and families in their systems, preserve essential program records and remain in communication with caseworkers, courts and other key personnel and stakeholders, states will be unable to continue processing cases and providing much-needed services. In addition, child welfare systems and courts in areas that were not directly affected by a disaster should be prepared to effectively respond to an influx of new child welfare cases emanating from the disaster area or emerging as a result of the disaster itself.

170 Gerald F. Glynn, "Foster Care: Disasters Complicate an Already Bad Situation" In *Children, Law and Disasters: What We Have Learned from Katrina and the Hurricanes of 2005*, ed. American Bar Association Center on Children and the Law, University of Houston Law Center and Center for Children Law and Policy (Houston: ABA Center on Children and the Law, 2009), 33.

171 Ibid., 34.

172 Karen Gottlieb and Susan Jennen Larson, "How Should the Best Interests of the Child Be Balanced against the Need for Confidentiality of Records in Times of Emergency?," In *Emergency Preparedness in Dependency Courts: Ten Questions That Courts Serving Abused and Neglected Children Must Address*, ed. Victor E. Flango (Williamsburg, VA: National Center for State Courts) Chapter 7, http://www.icmeducation.org/katrina/chapter7.html.

173 Ibid.

174 Lisa Portune and Sophia I. Gatowski, *Ensuring the Unique Needs of Dependency Courts Are Met in Disaster Planning Efforts: Dependency Court Planning Templates for Continuity of Operations Plans*, (Reno, NV: National Council of Juvenile and Family Court Judges, Permanency Planning for Children Department, 2008), 67.

175 Victor E. Flango, "Why Must the Needs of Children Come First" In *Emergency Preparedness in Dependency Courts: Ten Questions That Courts Serving Abused and Neglected Children Must Address* ed. Victor E. Flango (Williamsburg, VA: National Center for State Courts), Chapter 1, http://www.icmeducation.org/katrina/chapter1.html.

Recommendation 8.2: Conduct a national assessment of disaster planning and preparedness among state and local juvenile justice systems[176] to inform the development of comprehensive disaster plans.

Each year, more than 140,000 juveniles are placed in residential, correctional and detention facilities, foster homes and group homes nationwide.[177] The experience of approximately 150 residents of juvenile detention centers run by the City of New Orleans during Hurricane Katrina provides an illustration of the importance of having and effectively implementing such plans in a disaster.[178]

While state-run juvenile facilities in New Orleans evacuated inmates to Baton Rouge in advance of the hurricane, the residents of city-operated juvenile detention centers remained trapped in their facilities until shortly before the storm made landfall when they were moved to Orleans Parish Prison, which predominantly housed adult male inmates, for several days following the storm.[179] As floodwaters inundated the city and the prison itself, "these children – a substantial percentage of whom had only just been arrested and not adjudicated of any crime – would endure flooding, exposure to toxins, food deprivation, water deprivation, medical care deprivation, heat exposure, violence and significant psychological stress."[180] Once the juveniles were finally evacuated to a Baton Rouge facility several days after the storm, officials had difficulty locating families of several of the New Orleans youth.[181] In addition, the juvenile records of the detainees were left behind in the flood-ravaged city, which stalled officials' efforts to determine who could be released to family and who needed to remain in custody.[182] About 50 youths had been admitted to detention centers shortly before the storm, and had to wait weeks for their initial court hearings.[183]

The Orleans Parish Juvenile Court, which moved operations to Baton Rouge and recruited public defenders and assistant district attorneys to hold hearings and conduct trials, was able to hold its first post-storm hearing just over three weeks after the storm.[184] Within two months, every eligible juvenile inmate had been released, placed on probation or sentenced.[185] While the Court's effort in reestablishing operations in the storm's aftermath is commendable, the horrors experienced by the juveniles while detained at Orleans Parish Prison, along with some of the difficulties they encountered thereafter, could have been avoided with better planning and preparation. It is therefore critical that state juvenile justice systems ensure that all residential treatment, correctional and detention facilities that house juveniles via court-ordered placements have comprehensive disaster plans.

176 State and local juvenile justice systems include juvenile justice agencies, courts, probation services and public and private residential treatment, correctional and detention facilities.

177 Charles Puzzanchera, and Melissa Sickmund, *Juvenile Court Statistics*, (Pittsburgh, PA: National Center for Juvenile Justice, 2008), 50, http://www.ncjrs.gov/pdffiles1/ojjdp/224619.pdf.

178 Juvenile Justice Project of Louisiana (JJPL), *Treated Like Trash: Juvenile Detention in New Orleans before, during, and after Hurricane Katrina*, (New Orleans, LA: JJPL, 2006), 3, http://www.jjpl.org/PDF/treated_like_trash.pdf.

179 Ibid., 5.

180 Ibid.

181 Allen Powell II, "State Searching for Families of Some Youth Detention Center Residents," *Times-Picayune*, September 15, 2005, Hurricane Katrina: Special Coverage Section.

182 Ibid.

183 Ibid.

184 Richard A. Webster, "Not Child's Play," *New Orleans CityBusiness*, May 8, 2006, http://www.neworleanscitybusiness.com/viewStory.cfm?recID=15477.

185 Ibid.

Although a baseline level of disaster planning is required for state child welfare agencies, there is currently no parallel federal law requiring state juvenile justice systems to have comprehensive disaster plans in place. In addition, little information is available regarding the level of disaster preparedness among state juvenile justice systems and residential, correctional and detention facilities.

Accordingly, the Commission recommends that a working group be formed by the Office of Juvenile Justice and Delinquency Prevention (OJJDP) within the Department of Justice to include members from relevant federal, state and local agencies and non-governmental stakeholders with expertise in managing and providing services within juvenile justice systems, including courts, as well as members with disaster management experience. The working group would:

- Identify common gaps and shortcomings in state disaster planning, and best practices;
- Develop and disseminate guidance and model disaster plans for state juvenile justice systems;
- Provide technical assistance and training to states; and
- Encourage state juvenile justice systems to develop or update disaster plans in coordination with state emergency management and key stakeholders including juvenile courts, residential treatment, correctional and detention facilities that house juveniles via court-ordered placements, and social services agencies.

The Commission met with the OJJDP to discuss creative ways to support state planning activities and bring state juvenile justice disaster planning to the forefront of the agenda. The Commission will collaborate with the OJJDP to identify mechanisms to support the efforts of state agencies and to elevate the importance of juvenile justice disaster planning. The Commission envisions the recommended working group playing an integral role in facilitating this effort and increasing the disaster preparedness of juvenile justice systems across the nation. An ultimate goal of this partnership is to support the development and implementation of disaster plans that minimize long-term displacement of children housed in residential, correctional and detention facilities from their families and support networks.

9. SHELTERING STANDARDS, SERVICES AND SUPPLIES

Recommendation 9.1: Provide a safe and secure mass care shelter environment for children, including appropriate access to essential services and supplies.

"Within hours of Hurricane Ike's landfall in Texas, San Antonio officials had compiled precise statistics bout their evacuee situation. They knew the city would need to care for 5,303 people (561 of whom had special medical needs) and 642 pets. … But there was one key group for which they had no figures: children."

--*Newsweek,* "Overlooked: The Littlest Evacuees" *(October 6, 2008)*

9. Sheltering Standards, Services and Supplies

Recommendation 9.1: Provide a safe and secure mass care shelter environment for children, including appropriate access to essential services and supplies.

- *Develop and implement national standards and indicators for mass care shelters that are specific and responsive to children.*
- *Develop a list of essential age-appropriate shelter supplies for infants and children and fund the addition of child-specific supplies to caches for immediate deployment to support shelter operations.*
- *Ensure the implementation of standards and training to mitigate risks unique to children in shelters including child abduction and sex offenders.*
- *Ensure all shelter operators have access to a fast, accurate and low-cost system for conducting national fingerprint-based criminal history background checks for shelter workers and volunteers.*

Sheltering services in disasters typically are provided by a core group of National Voluntary Organizations Active in Disasters. These core agencies operate under agreed upon standards and protocols, including basic care of children. The Commission determined that a more comprehensive body of information is necessary to provide guidance about children to local emergency planners, shelter managers and staff.

The Commission facilitated the development and dissemination of a draft document, *Standards and Indicators for Disaster Shelter Care for Children* (Appendix B). The document is being piloted in the field by the American Red Cross (ARC) and selected state and local emergency agencies during the 2009 hurricane season. At the request of the Commission, the availability of services and supplies relevant to infants and children also will be included in federal shelter assessment tools in the field. The standards and indicators will be evaluated and revised as necessary and incorporated into comprehensive documents that provide general shelter guidelines and training for shelter managers and staff.[186] In addition, the Commission has engaged the U.S. Department of Justice to address the needs of children with disabilities and chronic health needs in shelters, including the needs of children who have parents with disabilities or chronic health needs.

The Commission also facilitated the development of a list of age-appropriate shelter supplies for infants and toddlers (Appendix C). Based upon this list, federal, state and local disaster supply caches can be created or expanded to support shelter managers with essential and cost-reimbursable supplies (e.g. formula, food, diapers, etc.) prior to the opening of shelters.

186 For example, they can be incorporated into the Common Standards of Care for Domestic Disaster Response in development by the coalition group National Voluntary Organizations Active in Disasters.

The Commission recommends that all shelter operators establish protocols to ensure the safety and security of children. A fast, accurate and low-cost system for conducting national fingerprint-based criminal history background checks for shelter workers and volunteers would help prevent sex offenders from entering shelters and coming in contact with children. At a minimum, all shelter workers and volunteers should be trained to identify and address suspicious and inappropriate activity.

Systems must also be in place to allow for appropriate tracking of children and families in shelters and to share appropriate information for the purpose of family unification. Protocols should prevent families from being separated during evacuations and ensure they are sheltered together. Staff must be aware of protocols to manage unaccompanied minors, homeless youth or self-evacuated youth that present at shelters. Staff must also plan to accommodate children with disabilities and chronic health needs. Additional protocols may be required to ensure the rapid reunification of children separated from their families. Shelter operators should coordinate shelter planning and operations with government agencies and non-governmental organizations that have responsibility for providing services to children, such as medical and educational services, including school enrollment and child protective services.

Development of an electronic database and records management system would facilitate an accurate daily count of children in shelters, identified by age and need, and would assist with locating children residing in shelters. Demographic information would be useful to shelter managers and entities in the community that coordinate and provide for the medical, behavioral, academic, mental health and basic daily needs of children. The current version of the National Shelter System is owned and maintained by the ARC and does not collect demographic information on children. The system relies upon self-reported aggregate information from shelter managers based on the daily number of occupied beds. FEMA has also developed its own version of the National Shelter System[187] and is working with the ARC to achieve integration of the two systems via automatic electronic updates by early 2010.[188] The Commission recommends that integration include demographic and needs data on children.

Recognizing the strong bonds between children and their pets, the Commission also recommends guidance and planning be provided for the location of pet shelters in close proximity to shelters, whenever possible.

187 The National Shelter System (NSS) is a comprehensive, web-based data system created to support agencies (government and non-government) responsible for elements of shelter management. The NSS allows users to identify, track, analyze and report on shelter data in a consistent and reliable manner. The NSS supports Emergency Support Function (ESF 6) - Mass Care, Housing, and Human Services. U.S. Department of Homeland Security, "National Shelter System," Federal Emergency Management Agency, http://www.fema.gov/about/regions/regioni/bridge8-3.shtm.

188 Personal communication to Tener Veenema from Scott Richardson, FEMA National Shelter System Point of Contact, August 20, 2009.

10. HOUSING

Recommendation 10.1: Prioritize families with children for disaster housing assistance and expedited transition into permanent housing, especially families with children who have disabilities or other special health, mental health or educational needs.

"Homelessness for a child is more than loss of a house. It disrupts every aspect of life. It separates children from their belongings, beloved pets, reassuring routines, friends and community. At a time when children should be developing a sense of safety and security … they are severely challenged and limited by unpredictability, dislocation and chaos."

--Ellen Bassuk, MD, Harvard Medical School

10. Housing

Recommendation 10.1: Prioritize families with children for disaster housing assistance and expedited transition into permanent housing, especially families with children who have disabilities or other special health, mental health or educational needs.

Within the Implementation Plan of the National Disaster Housing Strategy, delineate roles and responsibilities of federal, state, local and non-governmental agencies and emphasize the delivery of social services and improvement of the living environment for children throughout all phases of disaster housing assistance.

When forced to move several times or relocate to unfamiliar communities or temporary housing following a disaster, children may suffer emotional stress as a result of separation from family, friends and social networks and exposure to unfamiliar geographic and cultural environments.[189] Children displaced following Hurricane Katrina experienced an average of three moves per child.[190] It is generally believed that a child requires between four to six months for academic recovery following a move that results in a change in schools.[191] In addition, children living in FEMA-subsidized community sites[192] following Hurricanes Katrina and Rita faced a variety of medical, physical and social hazards.[193, 194] Six months after Hurricane Katrina, 34 percent of children living in community sites had at least one diagnosed chronic medical health condition.[195]

Access to adequate housing is a precondition for many other elements of a family's recovery following a disaster, including returning children to schools and child care, returning parents to work and reconnecting children with their medical care providers. To help create a stable environment and minimize the harmful effects that can occur when children's lives are disrupted by a disaster, housing recovery plans should facilitate quick and seamless transitions from emergency shelters to temporary housing to permanent housing. Lessons learned from previous disasters suggest that the goal for post-disaster housing should be to keep children and families linked to the support networks within their communities by enabling them to remain in or return to their homes as quickly as possible, reducing the need for shelters and temporary housing options and preventing minor damage from developing into major damage.[196] Families who are unable to return to their own homes should be provided with safe, healthy, stable, adequate and affordable housing in their home communities whenever possible. Throughout the trajectory of emergency sheltering to interim and permanent housing, the safety and physical, mental and behavioral well-being of children must be prioritized.

189 Lori Peek, "Children and Disasters," 4-7 (see n. 136).

190 Anne Westbrook Lauten and Kimberly Leitz, "A Look at the Standards Gap: Comparing Child Protection Responses in the Aftermath of Hurricane Katrina and the Indian Ocean Tsunami," *Children, Youth and Environments* 18, no. 1 (2008), 187.

191 Laurene M. Heyback and Patricia Nix-Hodes, "Reducing Mobility: Good for Kids, Good for Schools," *The Beam: The Newsletter for the National Association for the Education of Homeless Children and Youth* 9, no. 1 (1999), 5.

192 Commonly referred to as "temporary housing camps" or "trailer camps."

193 Shane Townsend and Nathalie Dajko, *Rapid Assessments of Temporary Housing Camps for Hurricane-Displaced Children and Families*, (Westport, CT: Save the Children, 2006), 1-2.

194 David Abramson and Richard Garfield, *On the Edge: Children and Families Displaced by Hurricanes Katrina and Rita Face a Looming Medical and Mental Health Crisis*, (New York: National Center for Disaster Preparedness and Operation Assist, Mailman School of Public Health, Columbia University, 2006), 13-19, http://www.preventionweb.net/files/2958_On20the20Edge20LCAFH20Final20ReportColumbia20University.pdf.

195 Ibid., 1.

196 Habitat for Humanity, Letter to the Commission, June 8, 2009.

In the aftermath of an event where the severity and magnitude warrants a disaster declaration by the President, the 2009 National Disaster Housing Strategy articulates FEMA's initial actions that focus on supporting state efforts to ensure that all disaster survivors are sheltered safely and securely, with access to food and other necessary life-sustaining commodities and resources.[197] The Commission supports the six goals for disaster housing assistance addressed in the National Disaster Housing Strategy[198] and recommends integration of child-specific priorities throughout the forthcoming Implementation Plan.

In addition, the Commission recommends that representation on both the National Disaster Housing Task Force, and its complementary state task forces, include persons with subject matter expertise related to children and the programs that serve their health, mental health, nutrition, educational and social services needs. Working groups should be formed to specifically address these needs.

The Commission also supports FEMA's strategy that community sites of factory-built housing units be used only as "an option of last resort."[199] However, when community sites are erected in situations where all other options have been exhausted, it is essential that these sites be designed and built to better meet the needs of children and families. In the community sites constructed in the wake of Hurricane Katrina, children were put at risk as a result of overcrowding, unsafe environments and alienation from surrounding communities.[200] To improve community site operations that were deleterious to children's health, safety and well-being, PKEMRA required a plan for the operation of community sites, including access to public services, site management, security and site density.[201]

FEMA recognizes that access to educational institutions, places of employment and essential social services such as public transportation, emergency services and healthcare facilities, must be considered during the process of planning and designing a community site.[202] Although FEMA states that the availability of these and other wrap-around services[203] should be considered during the community site design process, it also acknowledges that positioning a community site in close proximity to these services is not always possible. In addition, FEMA maintains that the Stafford Act provides no specific authorities to FEMA for these temporary augmentations to community sites, such as child care, playground facilities and other services for children.[204]

To address the social service needs of people living in interim housing, FEMA intends to rely on community groups, such as faith-based and volunteer organizations, and municipal organizations, such as local housing authorities.[205] In its forthcoming Implementation Plan, FEMA must clearly delineate the roles and responsibilities of all

197 "National Disaster Housing Strategy," ed. Federal Emergency Management Agency (Washington, DC: FEMA, 2009), 88-90, http://www.fema.gov/pdf/emergency/disasterhousing/NDHS-core.pdf.

198 National Goals: 1) Support individuals, households, and communities in returning to self-sufficiency as quickly as possible. 2) Affirm and fulfill fundamental disaster housing responsibilities and roles. 3) Increase our collective understanding and ability to meet the needs of disaster victims and affected communities. 4) Build capabilities to provide a broad range of flexible housing options, including sheltering, interim housing, and permanent housing. 5) Better integrate disaster housing assistance with related community support services and long-term recovery efforts. 6) Improve disaster housing planning to better recover from disasters, including catastrophic events. Ibid., 4-5.

199 "National Disaster Housing Strategy: Annexes," ed. Federal Emergency Management Agency (Washington, DC: FEMA, 2009), 99, http://www.fema.gov/pdf/emergency/disasterhousing/AnnexesAll.pdf.

200 Townsend and Dajko, *Rapid Assessments of Temporary Housing*, 3.

201 P.L. 109-295; 120 Stat. 1394.

202 "National Disaster Housing Strategy," ed. FEMA, 52.

203 "The term 'wrap-around services' includes the delivery of infrastructure and additional social services to affected residents living on temporary housing sites that go beyond a physical need for housing." "National Disaster Housing Strategy: Annexes," ed. FEMA, 109.

204 Ibid., 109-10

205 "National Disaster Housing Strategy," ed. FEMA, 52.

stakeholders involved in community site design and operations and establish a clear plan to better facilitate the delivery of social services and improve the living environment for children and families in community sites. As recommended in a 2006 Save the Children report,[206] the Implementation Plan must address how FEMA will support its partner agencies in recovery to:

- Provide access to basic services including, but not limited to, transportation, emergency services, education, healthcare facilities, food shopping, laundry facilities and child care;
- Link residents with state and local resources;
- Facilitate integration into local communities;
- Improve school integration;
- Improve the physical environment to include playgrounds, lighting, ramps, signage for children, etc.;
- Create a communal space for children and parents; and
- Ensure the provision of basic activities such as child play[207] and social activities.

According to a recent report from the Ad Hoc Subcommittee on Disaster Recovery of the U. S. Senate Committee on Homeland Security and Governmental Affairs, FEMA's heavy reliance on trailers in recent disasters has "proved less healthy, cost effective, livable, or humane" for families than rental housing would have been for intermediate and long-term housing recovery needs.[208] PKEMRA established a rental repair pilot program, which was implemented in two disasters of different incident types until the program's expiration on December 31, 2008.[209] The pilot program provided adequate, cost-effective temporary housing to individuals and households by funding repairs to existing multi-family rental housing units. An expanded rental repair program has the potential not only to facilitate recovery by increasing rental stock and affordable housing in disaster stricken areas, but also to help prevent children and families from exposure to many of the well-documented dangers associated with living in manufactured housing and community sites. Furthermore, FEMA estimated that the cost of providing housing via its rental repair pilot program in one pilot site was 83 percent less than the cost of providing manufactured housing, and 66 percent less in the other.[210] Any pilot or permanent rental repair program established to expand affordable housing options in disaster-affected jurisdictions should prioritize assistance to families with children.

206 Townsend and Dajko, *Rapid Assessments of Temporary Housing*, 3.

207 "Play is at the heart of what it means to be a kid," and is critical to their mental well-being. It is imperative that following a disaster, children are provided protective, restorative environments where they can return to being a kid as soon as possible. In this pursuit, Project K.I.D. established PlayCare disaster child care sites across coastal Mississippi, Alabama and Louisiana, and worked on-the-ground with over 5,000 children in storm devastated areas in the aftermath Hurricane Katrina. Ealy and Ellison-Smith, *To Hold Safe*, 2 (see n. 120).

208 "Far from Home: Deficiencies in Federal Disaster Housing Assistance after Hurricanes Katrina and Rita and Recommendations for Improvement," ed. U.S. Senate Committee on Homeland Security and Governmental Affairs (Washington, DC: U.S. Government Printing Office, 2009), 274, http://www.gpoaccess.gov/congress/index.html.

209 "Individuals and Households Pilot Program: Fiscal Year 2009 Report to Congress," ed. U.S. Department of Homeland Security (Washington DC: FEMA, 2009), 1-2.

210 Ibid., 4.

11. EVACUATION

Recommendation 11.1: Develop a standardized, interoperable national evacuee tracking and family reunification system that ensures the safety and well-being of children.

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Recommendation 11.1: Develop a standardized, interoperable national evacuee tracking and family reunification system that ensures the safety and well-being of children.

Hurricane Katrina provided a graphic illustration of the challenges in our national disaster response capacity regarding evacuation, tracking and family reunification. Parents and guardians were separated from their children, as far as hundreds of miles apart. Downed communication lines, the lack of centralized record keeping and the absence of a tracking system logging evacuees' movements hampered survivors' abilities to locate family members.[211] Following Hurricanes Katrina and Rita, the National Center for Missing and Exploited Children received over 34,000 calls on the hotline they established and devoted specifically to reuniting children missing as a result of the two storms, with greater than 5,000 children separated from their families.[212] Three months after the storms, 4,371 children had been reunited with their families, but 740 children remained separated from their parents or guardians.[213] After six months of separation, the last missing child was reunited with her family.[214]

Depending on their stage of development, children may be unable to provide their name, address or phone number, or may be too frightened to give any information to aid in reunification efforts. [215] The rapid identification, protection and reunification of separated children with their guardians can help to minimize secondary injuries such as physical and sexual abuse, neglect and abduction.[216] The separation of children from their guardians also affects the psychological responses of children after a disaster and places them at greater risk for injury.[217]

Following the Indian Ocean earthquake and resulting tsunami in 2004, the World Health Organization issued Guiding Principles for tracking and reunification of families following a disaster. These principles state that "[u]naccompanied and separated children should be provided with services aimed at reuniting them with their parents or customary care-givers as quickly as possible."[218] The principles also state that "[i]nterim care should be consistent with the aim of family reunification, and should ensure children's protection and well-being… Identifying, registering and documenting unaccompanied and separated children are priorities in any emergency and should be carried out as quickly as possible."[219]

211 Daniel D. Broughton, Ernest E. Allen, Robert E. Hannemann, and Joshua E. Petrikin, "Getting 5000 Families Back Together: Reuniting Fractured Families after a Disaster: The Role of the National Center for Missing & Exploited Children," *Pediatrics* 117, no. 5 (2006): S442-5, http://pediatrics.aappublications.org/cgi/reprint/117/5/S2/S442.

212 Sarita Chung, and Michael Shannon, "Reuniting Children with Their Families During Disasters: A Proposed Plan for Greater Success," *American Journal of Disaster Medicine* 2, no. 3 (2007): 114.

213 Ibid., 114.

214 Ibid., 114.

215 Ibid., 116-7.

216 Mark A Brandenburg, Sue M. Watkins, Karin L. Brandenburg, and Christoph Schieche, "Operation Child-ID: Reunifying Children with Their Legal Guardians after Hurricane Katrina," *Disasters* 31, no. 3 (2007): 277-87.

217 Ibid.

218 World Health Organization, *Unaccompanied and Separated Children in the Tsunami-Affected Countries*, (Maldives: WHO, 2005), http://www.who.org.mv/EN/Section40/Section41_56.htm.

219 Ibid.

PKEMRA authorized the creation of two mechanisms to help locate family members and displaced children after a major emergency or disaster. First, the Act established the National Emergency Child Locator Center within the National Center for Missing and Exploited Children to provide assistance in locating displaced children and reunifying missing children with their families. The Act also required the FEMA Administrator to establish the National Emergency Family Registry and Locator System to help reunify separated families.[220, 221]

To date, tracking and family reunification plans have not worked consistently during disasters.[222] Although some tracking systems have been developed or are in varying stages of development, current systems are not interoperable and no central data repository exists.[223] A November 2008 Congressional Research Service report recommended that Congress consider expanding FEMA grants for the research and development of new technologies that could improve evacuation planning and operations.[224] The American College of Emergency Physicians also recommended the investigation of the use of newer technology (such as digital identification) that can integrate information from multiple sites for identifying and tracking missing individuals, especially children, to assist in the reunification of families.[225] While states such as Texas and Louisiana have initiated development of state-wide electronic tracking systems, the need for a national tracking system is buttressed by the fact that many major evacuations across the U.S. result in an average of 3.5 moves per household, often across state lines.[226]

The Agency for Healthcare Research and Quality (AHRQ) developed recommendations for a National Mass Patient and Evacuee Movement, Regulating and Tracking System that could be used during a mass casualty or evacuation incident for the purposes of locating, tracking and regulating[227] patients and evacuees.[228] The recommendations for the proposed national system, which would also provide decision support to those with responsibility for patient and evacuee movement and care, health care and transportation resource allocation and incident management, acknowledged various difficulties associated with implementation, including legal and privacy issues and challenges with interoperability of data management systems.[229] The AHRQ proposal recommends that the system obtain much of the data needed to track the location and health status of patients and evacuees electronically from existing systems at health care facilities, disaster shelters and other locations.[230] However, the Privacy Act[231] and Health Insurance Portability and Accountability Act[232] may present barriers to the sharing of personal information of evacuees,[233] and thus to the effective implementation of the system for reunification purposes.

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220 William O. Jenkins Jr., "Emergency Management: Actions to Implement Select Provisions of the Post-Katrina Emergency Management Reform Act," GAO-09-433T, ed. Government Accountability Office (Washington, DC: GAO, 2009).

221 P.L. 109-295; 120 Stat. 1394 (2006).

222 Nancy Blake and Kathleen Stevenson, "Reunification: Keeping Families Together in Crisis," *Journal of Trauma: Injury, Infection, and Critical Care* 67, no. 2 (2009): S147.

223 Ibid.

224 Bruce R. Lindsay, "Federal Evacuation Policy: Issues for Congress," RL34745, ed. Congressional Research Service (Washington, DC: The Library of Congress, 2008), http://www.fas.org/sgp/crs/homesec/RL34745.pdf.

225 American College of Emergency Physicians, Letter to the Commission, June 8, 2009.

226 Abramson and Garfield, *On the Edge*, (see n. 193).

227 "Regulating is a process that attempts to ensure that a patient or evacuee is transported on an appropriate vehicle to a location that has the staff, equipment, and other supplies that are needed to care for this person." Regulation of child victims could greatly enhance the success of a regional pediatric disaster response system. Tom Rich, Paul Biddinger, Richard Zane, Andrea Hassol, Lucy Savitz, and Margarita Warren, *Recommendations for a National Mass Patient and Evacuee Movement, Regulating, and Tracking System*, ed. Agency for Healthcare Research and Quality, (Rockville, MD: AHRQ, 2009), http://www.ahrq.gov/prep/natlsystem/natlsys.pdf.

228 Ibid.

229 Ibid.

230 Ibid.

231 P.L. 93-579; 5 U.S.C. § 552a (1974).

232 P.L. 104-191; 101 Stat. 1936 (1996).

233 Rich et al., *National Mass Patient and Evacuee System*, 32, 41-43

A consensus conference on pediatric reunification was hosted by the Pediatric Disaster Resource and Training Center, Los Angeles, in June 2008, at which recommendations were released across a broad scope of issues.[234] The Commission will review and consider these recommendations in the coming year and will continue to investigate the feasibility of implementing a standardized interoperable national evacuee tracking and family reunification system and the barriers associated therewith.

234 Blake and Stevenson, "Keeping Families Together in Crisis," S147-S51.

APPENDICES

Appendix A: Literature Collection Methodology

Appendix B: Standards and Indicators for Disaster Shelter Care for Children

Appendix C: Supplies for Infants and Toddlers in Mass Care Shelters and Emergency Congregate Care Facilities

Appendix D: Subcommittee Members and Other Contributors

Appendix E: Stakeholder Outreach

Appendix F: Commissioner Biographies

Appendix G: Commission Staff

APPENDIX A: LITERATURE COLLECTION METHODOLOGY

Commission staff explored academic databases and websites to identify existing research, reports, policy positions, guidelines, recommendations and identified gaps in the professional literature related to children and disasters using the terms and keywords "child*", "pediatric", "disaster", "all-hazards", "emergency", "policy", "recommendation" or "guidelines" in the title or abstract. These include PubMed, Google Scholar, the Health Services Research Library, and the National Child Resource Center from the Child Welfare Information Gateway.

Federal government websites and related websites, including Thomas.gov, GAO.gov, OpenCRS.com, EBSCOhost.com, and GalleryWatch.com were searched for reports, findings and recommendation papers either cited in the above searches or containing specific wording on "child," "disaster" and "all-hazards."

Websites of professional, advocacy and other non-governmental organizations related to children and disasters were reviewed for public documents discussing policy, guidelines, recommendations or gaps within the Commission's scope.

Citations and sources of relevant articles and reports were reviewed to identify any additional papers and reports for acquisition.

On April 1, 2009 the Commission sent letters requesting information, research articles, reports and policy recommendations to 73 non-governmental stakeholder organizations conducting policy or academic work relating to children's health and mental health, emergency management, disaster response, human services, housing, children's education, juvenile justice and state and local government and legislatures (Appendix E). The Commission received 25 responses. Furthermore, documents from these stakeholder organizations and other various entities and individuals have also been submitted in meetings and by mail and email throughout the Commission's tenure.

All documents within the Commission's scope, including abstracts where available, were entered into an EndNote® X2 database, which serves as the Commission's library. PDF copies of the documents when available were attached to the citations. All documents were scanned for relevant information and categorized when possible. As of September 15, 2009, the database contained 759 documents.

APPENDIX B: STANDARDS AND INDICATORS FOR DISASTER SHELTER CARE FOR CHILDREN

Purpose

To provide guidance to shelter managers and staff that ensures children have a safe, secure environment during and after a disaster – including appropriate support and access to essential resources.

Standards and Indicators for All Shelters

- Under most circumstances a parent, guardian or caregiver is expected to be the primary resource for their children, age 18 and younger.
- In cases where parents or guardians are not with their children, local law enforcement personnel and local child protective/child welfare services must be contacted to assist with reunification.
- Children are sheltered together with their families or caregivers.
- Every effort is made to designate an area for families away from the general shelter population.
- Family areas should have direct access to bathrooms.
- Parents, guardians and caregivers are notified that they are expected to accompany their children when they use the bathrooms.
- Every effort is made to set aside space for family interaction:
    - This space is free from outside news sources thereby reducing a child's repeated exposure to coverage of the disaster.
    - If age-appropriate toys are available they will be in this space, with play supervised by parents, guardians or caregivers.
- Shared environmental surfaces in shelters that are frequently touched by children's hands or other body parts should be cleaned and disinfected on a regular basis. High contact areas may include diaper changing surfaces, communal toys, sinks, toilets, doorknobs and floors. These surfaces should be cleaned daily with a 1:10 bleach solution or a commercial equivalent disinfectant based on the manufacturer's cleaning instructions. Local health department authorities may be consulted for further infection control guidance.
- When children exhibit signs of illness, staff will refer children to on-site or local health services personnel for evaluation and will obtain consent from a parent, guardian or caretaker whenever possible.
- When children exhibit signs of emotional stress, staff will refer children to on-site or local disaster mental health personnel and will obtain consent from a parent, guardian or caretaker whenever possible.
- Children in the shelters come in all ages and with unique needs. Age appropriate and nutritious food (including baby formula and baby food) and snacks are available, as soon as possible after needs are identified.

- Diapers are available for infants and children as soon as possible after needs are identified. General guidelines suggest that infants and toddlers need up to 12 diapers a day.
- Blankets, for all appropriate ages, are also available.
- A safe space for breastfeeding women is provided so they may have privacy and a sense of security and support (this can include a curtained off area or providing blankets for privacy).
- Basins and supplies for bathing infants are provided as soon as possible after needs are identified.

Standards and Indicators for Temporary Respite Care for Children

Temporary Respite Care for Children provides temporary relief for children, parents, guardians or caregivers. It is a secure, supervised and supportive play experience for children in a Disaster Recovery Center, assistance center, shelter or other service delivery site. When placing their child or children in this area, parents, guardians or caregivers are required to stay on-site in the disaster recovery center, assistance center or shelter or designate a person to be responsible for their child or children, who shall also be required to stay on-site.

In cases where temporary respite care for children is provided in a Disaster Recovery Center, assistance center, shelter and other service delivery site, the following Standards and Indicators shall apply:

- Temporary respite care for children is provided in a safe, secure environment following a disaster.
- Temporary respite care for children is responsive and equitable. Location, hours of operation and other information about temporary respite care for children is provided and easy for parents, guardians and caregivers to understand.
- All local, state and federal laws, regulations and codes that relate to temporary respite care for children are followed.
- The temporary respite care for children area is free from significant physical hazards and/or architectural barriers and remains fully accessible to all children.
- The temporary respite care for children area has enclosures or dividers to protect children and ensure that children are supervised in a secure environment.
- The temporary respite care for children area is placed close to restrooms and a drinking water source; hand washing and or hand sanitizer stations are available in the temporary respite care for children area.
- Procedures are in place to sign children in and out of the temporary respite care for children area and to ensure children are only released to the parent(s), guardian(s), caregiver(s) or designee(s) listed on the registration form.
- All documents---such as attendance records and registration forms (which include identifying information, parent, guardian or caregiver names and contact information), information about allergies and other special needs, injury and/or incident report forms---are provided, maintained, and available to staff at all times.
- Toys and materials in the temporary respite area are safe and age appropriate.

- Prior to working in the temporary respite care for children area, all shelter staff members must receive training and orientation. In addition, such staff must successfully complete a criminal and sexual offender background check. Spontaneous volunteers are not permitted. When inside the temporary respite area, staff shall visibly display proper credentials above the waist at all times.
- When children are present, at least two adults are to be present at all times. No child should be left alone with one adult who is not their parent, guardian or caregiver.
- All staff members must be 18 years or older. Supervision of the temporary respite care for children area is provided by a staff person at least 21 years of age.
- An evacuation plan will be developed with a designated meeting place outside the center. The evacuation plan will be posted and communicated to parent(s), caregiver(s), and guardian(s) when registering their child.
- The child to staff ratio is appropriate to the space available and to the ages and needs of the children in the temporary respite care for children area at any time.

APPENDIX C: SUPPLIES FOR INFANTS AND TODDLERS IN MASS CARE SHELTERS AND EMERGENCY CONGREGATE CARE FACILITIES

This document was facilitated by the National Commission on Children and Disasters with guidance from subject matter experts in emergency management and pediatric care. The document identifies basic supplies necessary to sustain and support 10 infants and children up to 3 years of age for a 24 hour period. The guidance is "scalable" to accommodate 10 or more children over a longer period of time.

The National Commission on Children and Disasters recommends state and local jurisdictions provide caches of supplies to support the care of children in mass care shelters and emergency congregate care facilities for a minimum of 72 hours. The amount of supplies cached in an area should be based upon the potential number of children up to 3 years of age that could be populating the local shelters and facilities for a minimum of 72 hours, as determined by an assessment of current demographic data for the jurisdiction.

Depending on the nature of the event, a 24-72 hour supply of essential child-specific supplies should be on site prior to the opening of a shelter or facility. However, in situations where this is not possible, supplies should still be available for immediate deployment and delivered on site within 3 hours.

Such a level of preparedness is critical due to the high vulnerability of this population.

(Guidance begins on next page.)

REQUIRED PERISHABLE SUPPLIES		
Quantity	Description	Comment
40 Jars	Baby Food - Stage 2 (jar size is 3.5 - 4 oz)	Combination of vegetables, fruits, cereals, meats
1 box (16oz)	Cereal - single grain cereal preferred (e.g. rice, barley, oatmeal)	Rice, barley, oatmeal or a combination of these grains
See Note	Diaper wipes - fragrance free (hypoallergenic)	Minimum of 200 wipes
40	Diapers - Size 1 (up to 14 lbs.)	Initial supply should include one package of each size, with no less than 40 count of each size diaper
40	Diapers - Size 2 (12 - 18 lbs.)	
40	Diapers - Size 3 (16 - 28 lbs.)	
40	Diapers - Size 4 (22 - 37 lbs.)	
40	Diapers - Size 5 (27 lbs. +)	
40	Pull Ups 4T - 5T (38 lbs. +)	
320oz	Formula, milk-based, ready to feed (already mixed with water) ++	Breastfeeding is the best nutritional option for children and should be strongly encouraged.
64oz	Formula, hypoallergenic-hydrolyzed protein, ready to feed (already mixed with water) ++	
320oz	Formula, soy-based, ready to feed (already mixed with water) ++	
1 Quart	Oral Electrolyte solution for children, ready-to-use, unflavored (e.g. Pedialyte) - Dispensed by medical/health authority in shelter ++	Do not use sports drinks. The exact amount to be given, and for how long, should be determined by an appropriate medical authority (doctor or nurse). To be used in the event an infant/child experiences vomiting or diarrhea, and the degree of dehydration.
See Note	Nutritional Supplement Drinks for Kids/ Children, ready-to-drink (e.g., Pediasure, Kids Essential/Kids Boost) - Dispensed by medical/health authority in shelter	** Not for infants under 12 months of age ** Requirement is a total of 40-120 fl. oz per day; in no larger than 8 oz bottles.

Note: See "Supplemental Information" for additional information regarding the items followed by "++."

REQUIRED NON-PERISHABLE SUPPLIES & EQUIPMENT		
Quantity	Description	Comment
25	Infant feeding bottles (plastic only) ++	4 - 6 oz. size preferred (to address lack of refrigeration)
30	Infant Feeding Spoons ++	Specifically designed for feeding infants with a soft tip and small width. Can be used for younger children as well.
50	Nipples for Baby Bottles (non-latex standard) ++	2 per bottle
25	Diaper Rash Ointment (petroleum jelly, or zinc oxide based)	Small bottles or tubes
100 pads	Disposable Changing Pads	At least 13x18 in size. Quantity is based on 8-10 diaper changes per infant per day
10	Infant bathing basin	Thick plastic non-foldable basin. Basin should be at least 12″ x10″ x 4″
See Note	Infant wash, hypoallergenic	Either bottle(s) of baby wash (minimum 100 oz.), which can be "dosed out" in a disposable cup (1/8 cup per day per child) or 1 travel size (2oz) bottle to last ~48 hrs per child.
10	Wash cloths	Terry cloth/cotton - at least one per child to last the 72 hr period
10	Towels (for drying after bathing)	Terry cloth/cotton - at least one per child to last the 72 hr period
2 sets	Infant hat and booties ++	Issued by medical/health authority in shelter
10	Lightweight Blankets (to avoid suffocation risk)	Should be hypoallergenic, (e.g., cotton, cotton flannel, or polyester fleece)
5	Portable Crib	To provide safe sleeping environments for infants up to 12 months of age
2	Toddler potty seat	That can be placed on the seat of an adult toilet, with handles for support. One each should be located in both a Men's and Women's restroom
1 pack	Electrical Receptacle Covers	Minimum 30 (Note: Prioritize covering outlets in areas where children and families congregate (family sleeping area, children's areas, etc.)

Note: See "Supplemental Information" for additional information regarding the items followed by "++."

RECOMMENDED PERISHABLE SUPPLIES		
Quantity	Description	Comment
	Baby Food – Stage 1 (jar size ~ 2.5 oz)	Combination of vegetables, fruits, cereals, meats
	Baby Food - Stage 3 (jar size ~ 6 oz)	Combination of vegetables, fruits, cereals, meats
	Diapers - Preemie Size (up to 6 lbs.)	As needed for shelter population
	Healthy snacks that are safe to eat and do not pose a choking hazard (intended for children 2 years and older)	Should be low sugar, low sodium: yogurt, applesauce, fruit dices (soft) (e.g., peaches, pears, bananas), veggie dices (soft) (e.g., carrots), 100% real fruit bite-sized snacks, real fruit bars (soft), low sugar/whole grain breakfast cereals and/or cereal bars, crackers (e.g., whole grain, "oyster"/mini)

RECOMMENDED NON-PERISHABLE SUPPLIES & EQUIPMENT		
Quantity	Description	Comment
	Sip Cups (support for toddlers) ++	

Note: See "Supplemental Information" for additional information regarding the items followed by "++."

SUPPLEMENTAL INFORMATION	
Description	Supplemental Notes
Formula	Use of a powered formula is at the discretion of the jurisdiction or shelter operator. If using powdered preparation of the formula should be conducted by appropriately trained food preparation workers. Water used should be from an identified potable water source (bottled water should be used if there is any concern about the quality of tap or well water). Hypoallergenic hydrolyzed formula can be provided in powdered form—(1) 400 gram can—but only if potable water is accessible.
Infant Feeding Bottles and Nipples	Each time nutritional fluids, formula and/or other infant feeding measures (including breast milk in a bottle) are distributed by trained, designated shelter staff and/or medical professionals, clean, sterilized bottles and nipples must be used. Note: After use, bottles are to be returned to the designated location for appropriate sterilization (and/or disposal). Bottle feeding for infants and children is a 24/7 operation and considerations must be in place to provide bottle feeding as needed (On average, infants eat at minimum 5-8 times daily). **Note to staff: Sterilizing and cleaning** Sterilize bottles and nipples before you use them for the first time by putting them in boiling water for 5 minutes. Nipples and bottles should be cleaned and sterilized before each feeding. If disposable bottles and nipples are not available and more durable bottles and nipples will be re-used they must be fully sterilized before each feeding. To the greatest extent possible bottles and nipples should be used by only one child. In the event parents want to use their own bottles and nipples, shelter staff should provide support for cleaning these items between feedings. Support such as access to appropriate facilities for cleaning (not public restrooms).

SUPPLEMENTAL INFORMATION *(continued)*	
Description	Supplemental Notes
Note regarding all feeding implements for Infant/Children	There is a specific concern with cleaning and sanitizing of all feeding implements associated with infants and children (infant feeding bottles/ nipples, spoons, sip cups, etc.). These items will require additional attention by food preparation staff to ensure they are sanitary as a means of reducing food borne illness. Staff medical/ health staff should be consulted on best means of raising awareness among shelter residents and enlisting their support for these extra sanitary measures. Feeding implements such as spoons and sip cups should be cleaned using hot soapy water provided potable water is available. When the item is being cleaned to give to another child the item must be sterilized.
For the following items: infant bathing basin, lightweight blankets, diaper rash ointment, wash cloths, and towels	Consider pre-packaging the listed items together and providing one package to each family with children. Note: additional blankets and towels will be necessary for families with more than one child.

APPENDIX D: SUBCOMMITTEE MEMBERS AND OTHER CONTRIBUTORS

The Commission would like to thank the following agencies that have met with the Commission and have provided information used in the preparation of the *Interim Report*:

Corporation for National and Community Service

Department of Health and Human Services

Department of Homeland Security

Department of Education

Department of Justice

Department of Housing and Urban Development

National Council on Disability

U.S. Access Board

The Commission would also like to thank those who participated on the Subcommittees and/or substantially contributed to the *Interim Report*:

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EDUCATION, CHILD WELFARE AND JUVENILE JUSTICE SUBCOMMITTEE

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Patrick Chaulk, Annie E. Casey Foundation

Howard Davidson, American Bar Association Center on Children and the Law

Barbara Duffield, National Association for the Education of Homeless Children and Youth

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Gregory A. Thomas, National Center for Disaster Preparedness

Marleen Wong, LAUSD/RAND/UCLA Trauma Services
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Terry Adirim, Department of Homeland Security

Cheryl Vincent, Department of Health and Human Services

Kate Dischino, Save the Children

Gina Lagarde, Member, American Academy of Pediatrics

Sara Hoverter and Melanie MacLean, Harrison Institute for Public Law,
Georgetown University Law Center

APPENDIX E: STAKEHOLDER OUTREACH

The National Commission on Children and Disasters requested information, reports, research findings and policy recommendations from the following non-governmental organizations:

American Academy of Family Physicians
American Academy of Pediatrics†*§
American Bar Association Center on Children and the Law†*
American Association of School Administrators
American College of Emergency Physicians†*
American College of Nurse-Midwives
American Federation of Teachers*
American Medical Association
American Nurses Association†
American Public Health Association
American Red Cross†*
America's Promise
Annie E. Casey Foundation†
Association of Maternal and Child Health Programs*§
Association of State and Territorial Health Officials§
Association of the Schools of Public Health, Centers for Public Health Preparedness
Association of Women's Health, Obstetric & Neonatal Nurses
Brethren Disaster Ministries, Children's Disaster Services†
Catholic Charities U.S.A.†
Center for Education Reform
Children & Family Futures
Children's Defense Fund
Children's National Medical Center
Church World Service
CityMatch
Coalition for Global School Safety
Congressional Research Service§
Council of Juvenile Correctional Administrators†
Council of State Governments
Early Childhood and Family Learning Foundation†
Education Commission of the States
Emergency Management Assistance Compact Advisory Group§
Episcopal Diocese of Louisiana†
Families of September 11th †
Feeding America*
First Star
Food Research and Action Center§
Habitat for Humanity*
Health Care Centers in Schools†
Home Safety Council
Institute of Women's Policy Research
International Association of Chiefs of Police
International Association of Emergency Managers†*
International Association of Emergency Medical Services Chiefs
International Association of Fire Chiefs*
International City/County Management Association
LAUSD/RAND/UCLA Trauma Services Adaptation Center for Schools and Communities†
Louisiana Family Recovery Corps†*

March of Dimes
Mississippi Coast Interfaith Disaster Task Force
National Assembly on School-Based Health Care*
National Association for the Education of Homeless Children & Youth†*
National Association of Child Care Resource & Referral Agencies†*
National Association of Children's Hospitals
National Association of Children's Hospitals and Related Institutions†
National Association of Counties§
National Association of County and City Health Officials†*§
National Association of Emergency Medical Technicians*
National Association of Pediatric Nurse Practitioners†*
National Association of School Nurses†
National Association of School Psychologists
National Association of State Boards of Education
National Association of State EMS Officials§
National Center for Child Traumatic Stress†
National Center for Disaster Preparedness at Columbia University†
National Center for Missing and Exploited Children†*
National Center for School Crisis and Bereavement*
National Child Traumatic Stress Network
National Coalition on Children and Disasters§
National Conference of State Legislatures§
National Council of Juvenile and Family Court Judges†
National Education Association*
National Emergency Management Association†*§
National Emergency Medical Services Association
National Governor's Association§
National Homeland Security Consortium§
National League of Cities*§
National School Boards Association†*
National Voluntary Organizations Active in Disaster†
Poverty & Race Research Action Council
Project KID, Inc*
Ready Communities Partnership
Ready Moms Alliance*
Rebuilding Together
Salvation Army
Save the Children†§
Southern Baptist Disaster Ministries†
The Children's Health Fund
Trust for America's Health*
United States Breastfeeding Committee§
U.S. Conference of Mayors
White Ribbon Alliance for Safe Motherhood*
Youth Law Center†

† Provided representation to one of the Commission's four subcommittees

* Provided a formal response to the Commission's April 1 outreach letter

§ Held an in-person meeting with the Commission

APPENDIX F: COMMISSIONER BIOGRAPHIES

Ernest "Ernie" E. Allen, J.D.

Appointed to the Commission by Senate Minority Leader Mitch McConnell, Mr. Allen is Co-Founder, President and CEO of the National Center for Missing and Exploited Children (NCMEC). He guided NCMEC's role in the recovery of 140,000 children, with NCMEC's recovery rate climbing from 62% in 1990 to 97% today. Mr. Allen also built a global missing children's network that includes 17 nations. He came to NCMEC after serving as Chief Administrative Officer of Jefferson County, Director of Public Health and Safety for the City of Louisville, and Director of the Louisville-Jefferson County Crime Commission. He is a graduate of the Louis D. Brandeis School of Law.

Michael R. Anderson, M.D., FAAP
Vice-Chairperson

Appointed to the Commission by President George W. Bush, Dr. Anderson is the Interim Senior Vice President and Chief Medical Officer at University Hospitals. As a pediatric specialist, Dr. Anderson has been active at the local, state and national level in pediatric disaster readiness and response. Currently he is pooling the talent of Ohio's six children's hospitals to form a disaster response team to serve as a state and federal asset in the wake of future disasters. His research and clinical interests include national physician workforce, pediatric critical care transport and national health policy issues for children.

Merry Carlson, MPP

Appointed to the Commission by Senate Minority Leader Mitch McConnell, Ms. Carlson is the Preparedness Chief for the Division of Homeland Security and Emergency Management for the State of Alaska, where she helps provide critical services to the State to protect lives and property from terrorism and other hazards, as well as to provide rapid recovery from disasters. Ms. Carlson has served as Alaska's Suicide Prevention Council Coordinator, and as Deputy Director for Behavioral Health for the North Slope Borough Health Department in Barrow, Alaska, where she both provided direct service and administered agencies in the areas of mental health, substance abuse, fetal alcohol, children and youth, developmental disabilities and infant learning.

Honorable Sheila Leslie

Appointed to the Commission by Senate Majority Leader Harry Reid, Ms. Leslie is a Member of the Nevada General Assembly and the Specialty Courts Coordinator for the 2nd Judicial District Court, running the criminal, family and juvenile drug courts and the state's first mental health court. Ms. Leslie has worked on behalf of Nevada children, youth, and families for over 25 years. She served as Executive Director of the Children's Cabinet, where she created innovative, award-winning programs including Family Preservation, the Child Care Resource Council, Homeless Youth Advocacy, Parent Education Network, and Nevada's first comprehensive Adolescent Health Care program. She was also founding director of the Food Bank of Northern Nevada. As owner of a small consulting business, Ms. Leslie provided comprehensive consulting services through contracts with public and private non-profit human service organizations, specializing in developing and implementing public/private partnerships addressing the needs of children and their families.

Bruce A. Lockwood, CEM

Appointed to the Commission by Speaker Nancy Pelosi, Mr. Lockwood is the Public Health Emergency Response Coordinator for the Bristol-Burlington Health District. Mr. Lockwood has 28 years experience in emergency management, emergency medical services and public safety, with extensive planning at the local, regional and state levels for children's needs in disaster situations. He served as the Canton Schools All Hazard Planning Chair, and as a member of the Governor's Prevention Partnership School Safety Portal Committee and the Child Safety and Crisis Response, State of Connecticut, Daycare and Child Care Subcommittee; he also served on the Connecticut Public Health Emergency Preparedness Advisory Committee.

Graydon "Gregg" Lord, MS, NREMT-P

Appointed to the Commission by President Bush, Chief Lord is Associate Director of the National EMS Preparedness Initiative and Senior Policy Analyst at the Office of Homeland Security at George Washington University Medical Center. His career in Public Safety spans over 25 years and encompasses roles in rural and urban jurisdictions. He became a paramedic in the early 1980's, subsequently achieving promotion to EMS Operations Chief of the second largest EMS system in New England at Worcester Emergency Medical Services. Chief Lord lectures nationally and internationally on EMS systems management, leadership and operations. He is an adjunct faculty member for various institutions and agencies, including Institute for International Disaster Emergency Medicine, Texas A&M University, U.S. Department of Justice and the Copenhagen Fire Department. Prior to his role at George Washington University Medical Center, Chief Lord served as Division Chief of Emergency Medical Services for Cherokee County Fire Department in Cherokee County, Georgia.

Irwin Redlener, M.D., FAAP

Appointed to the Commission by Speaker Nancy Pelosi, Dr. Redlener is President and co-founder of The Children's Health Fund; he is also Director of the National Center for Disaster Preparedness at Columbia University's Mailman School of Public Health. Dr. Redlener worked extensively in the Gulf region following Hurricane Katrina where he helped establish ongoing medical and public health programs. He also organized medical response teams in the immediate aftermath of the World Trade Center attacks in 2001 and has national and international disaster management leadership experience. Dr. Redlener served as Director of Grants and Medical Director of USA for Africa and Hands Across America; he also developed one of the country's largest health care programs for homeless children and their families, the nationally acclaimed New York Children's Health Project, now a model for several health care projects in The Children's Health Fund's network of programs.

David J. Schonfeld, M.D., FAAP

Appointed to the Commission by House Minority Leader John Boehner, Dr. Schonfeld, FAAP is a developmental-behavioral pediatrician and the Thelma and Jack Rubinstein Professor of Pediatrics, Director of the Division of Developmental and Behavioral Pediatrics, and Director of the National Center for School Crisis and Bereavement at Cincinnati Children's Hospital Medical Center; he is Professor Adjunct of Pediatrics at Yale University School of Medicine. Dr. Schonfeld is a member of the Disaster Mental Health Subcommittee of the National Biodefense Science Board Federal Advisory Committee and the American Academy of Pediatrics Disaster Preparedness Advisory Council; he is a Past President of the Society for

Developmental and Behavioral Pediatrics. For over two decades, he has provided consultation and training on school crisis and pediatric bereavement in the aftermath of a number of school crises (e.g., school shootings) and disasters within the United States and abroad, including flooding from Hurricane Katrina in New Orleans and Hurricane Ike in Galveston and the 2008 earthquake in Sichuan, China. He coordinated the training of school crisis teams for New York City Public Schools after 9/11. Dr. Schonfeld is actively engaged in school-based research involving children's understanding of an adjustment to serious illness and death and school-based interventions to promote adjustment and risk prevention.

Honorable Mark K. Shriver, MPA
Chairperson

Appointed to the Commission by Senate Majority Leader Harry Reid, Mr. Shriver is Vice President and Managing Director for U.S. Programs at Save the Children. Before joining Save the Children, Mr. Shriver served as a Member of the Maryland House of Delegates. Among his many leadership roles as an elected official, he served as Maryland's first-ever Chair of the Joint Committee on Children, Youth and Families, where he spearheaded an early childhood education initiative resulting in over 37 million new dollars for early education. Before being elected, Mr. Shriver created and was Executive Director of the innovative Choice Program, a public/private partnership serving at-risk youth through intensive, community-based counseling and job training services. The Choice Program has expanded to include The Choice Jobs Program and The Choice Middle School Program, and has been replicated nationwide. Mr. Shriver served on the Board of Directors of the Maryland Special Olympics and of the Montgomery County Court Appointed Special Advocates. He was a member of the Governor's Juvenile Justice Advisory Council and the Governor's Task Force on Alternative Sanctions to Incarceration.

Lawrence E. Tan, J.D., NREMT-P

Appointed to the Commission by House Minority Leader John Boehner, Mr. Tan is Chief of Emergency Medical Services at the New Castle County Department of Public Safety. He started his career as a volunteer firefighter/EMT during high school, and has served as a paramedic, EMS Lieutenant, Emergency Services Assistant Manager, Assistant Chief and Deputy Chief. Mr. Tan's assignments have included commander of both the Administrative and Operations components of the service, in addition to a special Homeland Operations detail within the Office of the County Executive. Mr. Tan was a member of the National Faculty for the Counter Narcotics and Terrorism Operations Medical Support Program conducted by the Department of Defense Uniformed Services University of the Health Sciences, Department of Homeland Security Federal Protective Service and United States Park Police. He also serves on the Federal inter-agency Board for Equipment Standardization and Interoperability as a member of the Medical subgroup, and serves on the executive committee of the FEMA Region III Regional Advisory Council.

APPENDIX G: COMMISSION STAFF

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