State Emergency Planning and Preparedness Recommendations for Maternal and Child Health Populations

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Association of Maternal and Child Health Programs

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Hurricanes Katrina and Rita, the pandemic flu threat, and increased consciousness of terrorism have heightened awareness of the need for emergency preparedness within the maternal and child health (MCH) community. In response, the Association of Maternal and Child Health Programs (AMCHP), supported by the United States Department of Health and Human Services, Health Resources Services Administration, Maternal and Child Health Bureau, is addressing this vital issue. AMCHP aims to increase states’ capacity to engage in disaster preparedness to meet the needs of MCH populations.

While it is impossible to know what kind of emergency may occur or the magnitude or scope of the disaster, it is possible to engage in planning. Fortunately, a wealth of resources exist describing how to address many kinds of emergency situations. Additionally, many professional organizations have released recommendations on how to work with special populations during these emergency situations. State- and community-level MCH staffs do not need to recreate the preparedness work already done nationally. However, they will want to make sure that the needs of MCH populations are adequately addressed within state planning and address any gaps that may exist. State MCH staffs are also challenged to educate the families and individuals they work with about how to prepare for, respond to and recover from an emergency situation. AMCHP’s role is to ensure MCH populations’ needs are represented in discussions about and recommendations relevant to emergency preparedness at the national and state levels.

About this Resource

AMCHP developed this guide to ensure the needs of women and children are clearly addressed as part of state-wide emergency preparedness. The recommendations are based upon lessons learned and highlight important steps to take to protect the MCH community. Over time, AMCHP will build upon the information in this guide and provide additional resources.

AMCHP members can use this guide to clarify their role in developing and participating in emergency preparedness plans and activities and to aid in advocating for the needs of MCH populations. It offers a wealth of resources and information for review that provide practical advice to meet the needs of MCH populations before, during and after an emergency. Most recommendations are derived from the real life experiences of MCH program staff who have dealt with emergencies.

MCH professionals can begin to address emergency preparedness by integrating activities from this guide into their current systems and procedures. Engaging in agency-specific planning and training are a first line of defense in preparing for a possible emergency. It is also vital to build relationships, if they do not already exist, with essential partners and those groups that are most vulnerable during an emergency.

States are encouraged to consider these recommendations and use them to strengthen state-level emergency planning and preparedness activities. The prioritization process used at the state and local level to allocate resources and integrate the recommendations into preparedness and planning activities will vary. However, this report should be used as a guide and resource to assure that these special populations’ needs are met.

This guide was cross walked with the White Ribbon Alliance for Safe Motherhood’s, Women and Infants Service Package (WISP)\(^1\). The WISP offers guidance to meet the health care needs of pregnant women, new mothers, fragile newborns and infants during and after a disaster situation. All sections of this resource guide borrowed from WISP are footnoted.

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Defining MCH Populations’ Needs

The following information was developed by the New York State Division of Family Health as part of their MCH Emergency Preparedness Plan. It provides specific information about the various MCH groups and their specific needs during an emergency situation.

Women

Pregnant women, neonates, infants and children have unique needs, particularly in times of disaster. Women experience greater rates of health complications associated with pregnancy, including premature labor and births, low birth weight infants, and neonatal and infant deaths. Approximately 99 percent all births in the United States occur in a hospital setting. In times of disaster, those facilities may not be available and/or accessible. Specially trained professionals and necessary supplies to provide care for this population may not be available. Without access to appropriate supports and emergency medical services in the antepartal, intrapartal and postpartum period, there is a possibility of both short-term and long-term negative outcomes with increased mortality and morbidity.

During an emergency, stress is increased tremendously which can significantly impact pregnant women. This, in conjunction with a lack of proper nutrition and fluids, can result in premature labor and delivery if not addressed. Pregnant women need access to skilled professionals for proper assessment and methods for hydration (including intravenous hydration) as well as tocolytics as needed. Appropriate supplies must be assembled into emergency kits to enhance professionals’ ability to assess maternal, fetal and neonatal status, proceed with appropriate treatment measures, deliver infants as needed and properly treat postpartum women and normal and high-risk neonates. All newborns must have access to a dry, clean, warm environment to promote thermoregulation and access to medication, equipment, supplies and professional expertise to address issues such as respiratory distress syndrome that may result from prematurity. Medications and supplies must be readily available to treat pregnancy-related and chronic health issues of pregnant women such as medications for essential and pregnancy induced hypertension, diabetes and postpartum hemorrhage.

Facilities must be available to perform emergency surgery as needed, such as emergency Cesarean Sections and intervention for postpartum hemorrhage. The treatment of women and children can also be complicated by the lack of access to medical records and basic provisions such as diapers, formula, baby bottles and clothing. Staff with the ability to assist new mothers in breastfeeding is imperative since there may be little access to infant formula.

The stress of the disaster may be compounded by the separation of mothers and neonates, infants and children. All measures must be taken to ensure whenever possible that mothers and children are evacuated to the same location or a method is developed to promote communication so families are aware of where their family members are located and can be reunited as soon as reasonably possible.

Although the priority of professionals will be immediate health care issues, mental health resources are imperative for women and children. Approximately 1 out of every 8 women experiences perinatal depression, which is exacerbated tremendously by a disaster.

Women also need to have ready access to methods of birth control. The availability of condoms is essential for birth control as well as protection of sexually transmitted infections. Women and children may be especially vulnerable to sexual violence during disasters where chaos overtakes law and order. Sexual violence may become more prevalent, or women and children may be coerced into sex for basic needs such as food and safety.
**Children**

Children have unique characteristics which make them more vulnerable in an infectious, natural or man-made disaster. These vulnerabilities apply to all children, although children with special health care needs may also have specific conditions which can place them more at risk. Pediatric vulnerabilities have previously been well described by the Illinois Emergency Medical Services for Children’s project and are listed below:

- Children are more vulnerable to agents that act on the skin because their skin is thinner and have a larger surface-to-mass ratio than adults.
- Children are particularly vulnerable to aerosolized biological or chemical agents because they breathe more times per minute than adults and would inhale larger doses of the substance in the same period of time. Also, because some such agents (e.g. sarin and chlorine) are heavier than air, they accumulate close to the ground – right in the breathing zone of children.
- Children are more vulnerable to the effects of agents that produce vomiting and/or diarrhea because they have less fluid reserve than adults and can become dehydrated faster.
- Infants, toddlers and young children do not have the motor skills to escape from the site of a chemical, biological or other terrorist incident. Children also lack cognitive decision-making skills to figure out how to flee danger or to follow directions from others.
- Children have smaller circulating blood volumes than adults so if treatment is not immediate, relatively small amounts of blood/fluid loss can lead to irreversible shock or death.
- A child’s condition can shift from stable to life-threatening quite rapidly because he/she has less blood and fluid reserves, is more sensitive to changes in body temperature, and has a faster metabolism.

**Children and Youth with Special Health Care Needs**

In addition to the vulnerabilities which all children may face during a disaster, children and youth with special health care needs (CYSHCN) may also have condition-specific risks or be more vulnerable because of the complexity of their conditions. Parents of CYSHCN are their caregivers, often providing complex care involving medications and medical devices such as insulin pumps, respiratory devices (nebulizers, oxygen, ventilators), and parenteral devices. In the event of separation from their parents, other trained personnel will be needed to provide this care. Children previously cared for in a home setting may need a higher level of care if separated from their parents/caregivers. Examples of CYSHCN at risk include, but are not limited to, those:

- with respiratory conditions (asthma, cystic fibrosis, bronchopulmonary dysplasia) when exposed to aerosolized biological or chemical agents or environmental contaminants (smoke, dust or other particulate matter);
- with endocrine disorders when exposed to agents that produce vomiting or diarrhea or in which dehydration would place them at very high risk (congenital adrenal hyperplasia);
- with metabolic disorders or with severe food allergies (phenylketonuria) requiring special formula or diet;
- with neurological disorders whose baseline is difficult to assess without caregiver’s input;
- requiring medical devices, medical supplies or life-sustaining treatment (nebulizers, chest physiotherapy vests, oxygen, ventilators, dialysis);
- requiring medication (insulin, anti-epileptics, inhalers, Hemophilia factor) on a regular basis, without which increased morbidity and mortality could occur;
- with musculo-skeletal disorders (cerebral palsy, muscular dystrophy) who can not move independently or require assistance to ambulate;
- with cardiac conditions whose exercise tolerance limits the endurance required for walking/running during transport/evacuation;
- requiring tube or parenteral feedings by trained personnel;
- with behavioral, emotional or mental disorders whose condition may be exacerbated by separation, transition or anxiety;
• with communication disorders (hearing loss, non-verbal or severe speech articulation problems); and,
• with an immunocompromised state (cancer, HIV/AIDS) due to their medical condition or its treatment, when exposed to infectious agents.
Emergency Management Process and Preparedness Overview

While great progress has been made in emergency preparedness over the last few years, gaps still exist. MCH staffs have expressed concerns with how well the needs of women, families and children are being met in recent emergency situations. AMCHP members and funders requested that the association explore and then begin meeting state MCH programs’ needs relevant to emergency preparedness.

This section provides an overview of disaster preparedness and some key concepts that need to be considered. It also describes the possible impact of emergencies on the different MCH populations, and summarizes the needs and vulnerabilities of women and children, including those with special health care needs. Finally the section summarizes the needs that state MCH programs have identified, current efforts to enhance MCH preparedness efforts, and state accomplishments in integrating the needs of the MCH population into state plans.

Background: Emergency Preparedness

The prevention of death and illness from bioterrorism and other public health threats and emergencies is the primary goal of our nation’s public health preparedness effort according to the Association of State and Territorial Health Officials (ASTHO). ASTHO reports that state health agencies have made great progress in recent years working toward a functional, comprehensive, all-hazards, public health preparedness system. The Centers for Disease Control and Prevention (CDC) offers the following encouraging facts about states and cities receiving CDC emergency preparedness funds:

- 100 percent report they have detailed public health response plans. This type of planning didn’t exist before 2001.
- 100 percent of states report they have plans in place for receiving and distributing Strategic National Stockpile assets. 98 percent report having designated facilities to receive, store and distribute contents of the Strategic National Stockpile.
- 100 percent report they have protocols to activate their emergency response systems at all times.
- 98 percent report they have established Incident Command Structures as recommended in the National Incident Management System.
- 98 percent report having crisis and risk communication plans in place.

Background: Major Disaster Processes

According to the U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA), first response to a disaster is the job of local government’s emergency services with help from nearby municipalities, the state and volunteer agencies. In a catastrophic disaster, and if the governor requests, federal resources can be mobilized through FEMA for search and rescue, electrical power, food, water, shelter, and other basic human needs. It is the long-term recovery phase of disaster which places the most severe financial strain on a local or state government. Damage to public facilities and infrastructure, often not insured, can overwhelm even a large city. A governor’s request for a major disaster declaration could mean an infusion of federal funds, but the governor must also commit significant state funds and resources for recovery efforts.

A major disaster could result from a hurricane, earthquake, flood, tornado or major fire which the president must determine warrants supplemental federal aid. The event must clearly be more than state or local governments can

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handle alone. If declared, funding comes from the President's Disaster Relief Fund, which is managed by FEMA and disaster aid programs of other participating federal agencies. A Presidential Major Disaster Declaration puts long-term federal recovery programs into motion, some of which are matched by state programs and designed to help disaster victims, businesses and public entities. An Emergency Declaration is more limited in scope and without the long-term federal recovery programs of a Major Disaster Declaration. Generally, federal assistance and funding are provided to meet a specific emergency need or to help prevent a major disaster from occurring.
State MCH Staff in Emergency Preparedness Planning

While great progress has been made in emergency preparedness over the last few years, gaps still exist. MCH staff has expressed particular concerns with how well the needs of women, families and children are being met after the hurricanes in 2005. AMCHP members and funders requested that the association explore and then begin meeting the needs of state MCH programs relevant to emergency preparedness.

AMCHP began its efforts around emergency preparedness in 2003 in response to member requests and feedback on their lack of involvement in state and local planning. A fact sheet was then developed on the MCH Role in Bioterrorism Planning to provide recommendations to states on key MCH and CSHCN issues to be addressed in their bioterrorism plans. AMCHP then sought out to gather information from members regarding their needs via surveys, listening groups and discussions at regional meetings. The goal was to identify how MCH programs and issues were being addressed at the state level, and to work with members on shaping what role MCH programs can and should play in state planning and preparedness. Several broad themes emerged from the information gathering opportunities:

- Planning is necessary. At this time, the needs of MCH populations may not be adequately addressed within existing disaster plans highlighting the need for MCH staff to be actively engaged in planning efforts.
- Educating staff and MCH populations about these plans is necessary.
- Funding, training and other resources must be available to strengthen state MCH emergency preparedness planning and training.
- Partnership is essential. Inter-state agency working relationships and community partner operations need to be enhanced.
- A skilled workforce is needed to ensure institutional capacity and staff capability during emergencies.

In late 2005 with support from the Maternal and Child Health Bureau, AMCHP convened an MCH Emergency Preparedness Workgroup and charged it with developing resources and guidance for state MCH programs.

MCH Preparedness Activities

AMCHP queried members about current MCH preparedness activities as part of regular regional communications in March 2006. Participants indicated a wide range of involvement in disaster preparedness activities ranging from none or minimal to being an active participant. One region discussed the challenges for the Title V agency to “be at the table” with respect to emergency preparedness planning. This region also emphasized the great need for more extensive, cogent training in emergency preparedness for MCH leaders and staff. They also expressed concern that MCH populations’ unique issues were neither adequately understood nor addressed by those with lead responsibility for emergency preparedness. Another region raised the concern that MCH services may actually have been somewhat negatively impacted by emergency preparedness activities, due in part to competing responsibilities of the small health departments.

The following are examples of states’ and territories’ emergency preparedness accomplishments:

- **Florida’s** Emergency Medical Services for Children Program has supported the pediatric disaster management efforts including the distribution of: 5,000 Broselow Pediatric Antidotes for chemical warfare tapes to hospital emergency departments, EMS prehospital provider agencies, and EMS initial training centers; distribution of 100,000 JumpSTART/START mass-casualty incident triage algorithm cards; and, approximately 260 copies of the
"Decontamination for Children" DVDs to emergency department and EMS initial training centers. In addition, a registering system for special needs shelters for the pediatric and youth populations has been established.

- **Massachusetts** is actively involved in developing continuity of operation plans for every state agency and their respective programs. The MCH programs are involved in this planning and have a staff person focused on special populations, thus assuring the issues related to mothers, children and families are addressed.

- **Missouri** is actively involved in planning and was enlisted to chair/participate in all aspects of care for persons with special health care needs. In addition, a number of staff actively participated on planning committees.

- **Montana's** emergency preparedness improved connectivity with local health departments and medical providers through the Health Alert Network. This system greatly improved the state's ability to quickly contact providers, including hospitals and health departments. Schools and child care centers were provided with resources and training to develop emergency plans for those settings.

- **Puerto Rico** is experienced in dealing with natural disasters and has developed necessary plans and protocol. The Local Emergency Preparedness plan was reviewed after a recent hurricane leading to an updated MCH Division Plan clearly defining roles in an emergency situation. The plan includes steps to follow, contact information and the specific role staff will have during a situation. All central office personnel have read the document, and it has been shared with regional staff.

- **Rhode Island's** CSHCN program works with their state-911 on a Disability Registry and with Hasbro Children's Hospital on the Frequent Flyer program, an online medical record for children with complex special health care needs. Both systems are linked into state and local emergency responders.

- **Texas'** CSHCN Program published a bilingual booklet titled, Emergency & Disaster Planning for Children with Special Health Care Needs. The booklet contains a bilingual emergency information form for children with special needs. The form was developed by the American Academy of Pediatrics and adapted by the Texas Department of State Health Services.

- **Utah**, using the Healthy Child Care America grant, developed a health and safety training for childcare providers, which includes a section on emergency preparedness.

- **West Virginia** created a database to include children who have medically complex conditions and identified such individuals by name, address, medications, etc. This database has been shared with Emergency Management Services and transport providers, in the event of a crisis. A second phase of this effort is being explored, which includes educating families.

- **Wyoming** had considerable focus, funding and attention paid to the improvement of emergency preparedness plans, including increased technology capacity, staffing capacity and communication systems. The system has been tested repeatedly to ensure adequate response if and when needed.

- **Washington's** MCH program is working with emergency preparedness staff to create a module to attach to the CHILD Profile Immunization Registry that would track antibiotics or vaccines given to individuals during an outbreak or emergency event.

During the 2006 AMCHP Annual Conference, the association convened a group of federal representatives and state MCH professionals to discuss disaster preparedness for MCH programs and the communities they serve. The challenges and lessons learned identified during this session were noted in the report, *The Need for an MCH Focus in Emergency Plans*. They include:

**Challenges Associated with Emergency Preparedness**

- The unique health issues of MCH populations are neither adequately understood nor adequately addressed by those with responsibility for emergency preparedness plans.

- Title V programs, specifically MCH and CSHCN directors, are not involved with statewide disaster preparedness response planning teams.
There is a need for an emergency preparedness curriculum and more extensive training for MCH leaders and staff.

Barriers such as work settings, language, communication issues and inter-state credentialing prevent an effective emergency response by the public health workforce.

Lessons Learned from Recent Emergencies

- Public health preparedness and response works and saves lives, but needs strengthening.
- Similar preparedness gaps exist across the country despite differences in states’ size, population and administrative organization.
- The best plans involve many partners. The private and non-profit sectors must be included in public planning.
- MCH employees must participate in emergency preparedness exercise drills.
- Public health preparedness plans need to reflect the specific needs facing vulnerable MCH populations, such as special evacuation needs, medications, support, and others.
- Maintaining a strong, centralized command post for leadership, communication coordination, and the fostering and sharing of resources is necessary in a disaster.
- There is an increased need for inter-agency and regional collaboration during a disaster.
- Strategic preparedness planning is expecting the unexpected.

State MCH Emergency Preparedness Survey Summary Results

An electronic survey designed to identify the strengths and needs in MCH preparedness efforts was distributed in early summer 2006 to the MCH and CSHCN directors of each state, territory and the District of Columbia. Nearly 70 percent (35) of those who received the survey responded. Fifteen MCH directors, 13 CSHCN directors, and seven people who held other positions responded. Results included:

- **Emergency Preparedness Efforts** — The majority of respondents indicated that emergency preparedness was either a “high” or “somewhat high” priority issue for their MCH agency, with four respondents indicating it was a low priority. When asked how well MCH emergency preparedness needs are being addressed as part of larger statewide efforts; two respondents indicated “very” with 26 respondents stating “somewhat”; four “not at all” and three “did not know”.

- **Roles** — When asked about their role in emergency preparedness within their state, nearly half of respondents indicated they had no formal role in emergency preparedness, but fifteen indicated that they were a member of a state-level emergency preparedness team.

- **Awareness** — The majority of respondents were either “very familiar” or “somewhat familiar” with the state’s current MCH emergency plan, with four people being “not at all familiar.” The MCH emergency preparedness plans that were in place were linked with or related to the statewide and local bioterrorism and emergency preparedness plans.

- **Constraints and Needs** — The major constraints to effective MCH emergency preparedness plans were listed as staffing, budgets and personnel expertise. Agencies were primarily addressing these needs by: involving staff in planning efforts; building inter-agency relationships; and, participating in preparedness exercises. If additional funding were available, states would increase personnel expertise in emergency preparedness; develop a planning committee that includes MCH and CYSHCN and families; and, increase outreach educational programs.

- **Skills and Training Needs** — The top three preparedness skills or types of emergency preparedness training needed by MCH staff were: training staff in developing emergency preparedness plans; training on how to address the needs of CYSHCN and their families; and, assessment of mental health and stress management.
Recommendations to Improve MCH Emergency Preparedness

The AMCHP MCH Emergency Preparedness Workgroup (see Appendix B) reviewed the needs and requests elicited in the 2006 annual conference session and subsequent survey. Using this information the workgroup decided to develop a set of recommendations based upon the key emergency preparedness needs that emerged from states. The group began meeting in March 2006 under the leadership of Lynn Christiansen and Marilyn Kacica. Five workgroups were convened:

1. Pharmacy and Hospitals
2. Licensure Reciprocity
3. Transportation, Supplies, Evacuees and Shelters
4. Psychosocial
5. Macro (provided overall coordination and addressed the overarching issues)

The workgroups met regularly by conference call to shape the scope and outcomes of the project. They identified prominent MCH issues and developed relevant recommendations building upon existing resources. AMPCHP held an Emergency Preparedness Summit in January 2007, attended by 54 AMCHP members and partners from collaborating organizations. Meeting participants reviewed and refined the recommendations from the individual workgroups. The advice gleaned from the Emergency Preparedness Summit was used to enhance the preliminary recommendations. In March 2007, the draft recommendations were presented at the AMCHP-MCH Emergency Preparedness Discussion Forum at the 2007 AMCHP Annual Conference and comments were solicited from the audience. Recommendations included in this report address:

- National Recommendations
- Local, State, Territory and Jurisdiction Planning
- Emergency Planning Education
- Licensure Reciprocity
- Supplies
- Transportation and Evacuation
- Shelters
- Pharmaceuticals and Hospitals
- Psychosocial Needs
Recommendations to Improve MCH Emergency Preparedness: National Planning

**Background**

Emergency preparedness requires a multitude of partnerships at every level of government and society. Funding, training, and other resources in this area are primarily allocated at the national level. Similarities in states’ needs and consistent response efforts are often best coordinated at the national level with state and community input.

**Lessons Learned from Past Disasters**

- Funding, training, and other resources must be available to strengthen state MCH emergency preparedness planning and training.
- Planning is necessary. MCH populations’ needs may not be adequately addressed within existing disaster plans, thus MCH staff must be actively engaged in planning efforts.
- Similar preparedness gaps exist across the country despite differences in states’ size, population and administrative organization.
- The best plans involve many partners. The private and non-profit sectors must be included in planning.
- Partnership is essential, and intra-state agency working relationships and community partner operations need to be enhanced.
- A skilled workforce is needed to ensure institutional capacity and staff capability during emergencies. This includes training on the Incident Command System (ICS).
- In the event of an emergency, the chain of command from the federal to local level is often not clear. Maintaining a strong, centralized command post for leadership, communication, coordination, and the fostering and sharing of resources is necessary in a disaster.

**Recommended Solutions**

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<th>National Recommendations to HHS, HRSA, Maternal and Child Health Bureau and the Centers for Disease Control and Prevention</th>
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<tr>
<td>- Provide funding and other resources to allow states to continue to prepare for emergencies.</td>
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<td>- Advocate for the needs of MCH populations in federal-level emergency planning.</td>
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<td>- Continue to provide training opportunities to MCH staff about emergency preparedness.</td>
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<td>- Provide funding for additional emergency preparedness infrastructure development and training for MCH professionals.</td>
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<td>- Provide assurances that people responsible for emergency preparedness at the federal, state and community levels are trained and able to perform their responsibilities.</td>
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<td>- Fund a coalition of organizations representing federal, state and local governments, nonprofit organizations, professional groups, and others to identify and plan for the needs of MCH populations as part of emergency preparedness activities.</td>
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<td>- Support the establishment of a federally-sponsored MCH preparedness resource center.</td>
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<td>- Develop national regulations or requirements regarding the Strategic National Stockpile that ensure the needs of MCH populations are met; ensure that pediatric dosages are addressed, policy allows for a 90 day-supply of medications, and reimbursement by public and private insurers is provided.</td>
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• Advocate for the hiring of the Director of At-Risk Individuals within the HHS Office of Preparedness and Response.

• Assist MCH agencies to develop partnerships around preparedness with federal and national organizations that have a state-level presence.

Recommendations to AMCHP

• Take action to ensure the recommendations in this report are addressed. Engage in ongoing planning to identify and address the emergency preparedness needs of MCH programs at the national and state levels. Convene and maintain an overarching policy-focused group, such as the macro group, to ensure follow-up and implementation of these recommendations. Set up specific workgroups (e.g., a psychosocial taskforce that includes mental health providers and families with disaster experience) to examine and suggest recommendations for select issues.

• Advocate for an emergency preparedness agenda that includes: new funding for MCH staff to address emergency preparedness needs at the national, state and community levels; policy and regulatory changes to meet the needs of MCH populations; development of a broad-based coalition; and, other tasks identified in this report.

• Work with National Emergency Management Association, ASTHO, the National Governor’s Association and other partners to encourage states to work through the Emergency Management Assistance Compact (EMAC). Take action to make the changes to barriers identified.

• Continue to identify the emergency preparedness policy needs of members and work with Friends of Title V, an AMCHP-led coalition of organizations that share an interest in maternal and child health, to advocate for the development and passage of needed legislation and regulations.

• Provide the MCH perspective and advocate for MCH populations within national preparedness meetings, presentations, discussions and planning. Actively participate with national government and non-profit partners to address the needs of emergency preparedness.

• Identify and share best practices for MCH emergency preparedness.

• Offer training sessions, host conference calls and connect members to other organizations’ emergency preparedness education opportunities.

• Provide resources on preparedness through the website and newsletter and link members to emergency preparedness organizations. Prepare resources on this subject such as policy papers.

• Facilitate opportunities for members to participate in learning communities or engage in sharing with others involved in this area.
Recommendations to Improve MCH Emergency Preparedness: Local, State, Territory and Jurisdiction Planning

Background

The nation’s ability to respond to emergencies such as natural disasters or acts of terrorism depends on the strength of the public health system. Without sufficient funds and detailed plans, any such event will severely strain the entire public health system, decreasing our ability to serve the most vulnerable, such as children with special health care needs, the elderly, the disabled and the mentally ill. As states build emergency plans, they should include staff from MCH and CSHCN programs. These public health leaders have the expertise to ensure the needs of women and children are met. In addition, community participation is important at all stages of any emergency to ensure the acceptability, appropriateness and sustainability of maternal and infant services. Through community participation, essential information on the cultural, economic, ethical, legal, linguistic and religious backgrounds of the populations can be gathered to inform emergency response plans for key services and programs. It is especially important to empower women as part of this process to ensure that services are provided to them.

Lessons Learned from Past Disasters

- Public health preparedness and response works and saves lives, but needs strengthening.
- Planning is necessary. At this time, the needs of MCH populations may not be adequately addressed within existing disaster plans, thus MCH staff must be actively engaged in planning efforts.
- Title V programs, specifically MCH and CSHCN directors, are not always involved with statewide disaster preparedness response planning.
- The unique health issues of MCH populations are often neither adequately understood nor adequately addressed by those with responsibility for emergency preparedness plans.
- The best plans involve many partners.
  - The private and non-profit sectors as well as consumers must be included in planning.
  - Community partnerships are critical and should be established well before an event takes place.
- Maintaining a strong, centralized command post for leadership, communication, coordination, and the fostering and sharing of resources is necessary in a disaster.

Recommended Solutions

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<th>Local Planning Before the Event</th>
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<td>Gather information from the community to identify:</td>
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<tr>
<td>o The best means of access to providers by the community;</td>
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<td>o Appropriate sites for providing services;</td>
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<tr>
<td>o Training needs of care providers and responders;</td>
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<td>o Available resources;</td>
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Proper means of disseminating information to the community; and,
Options for women if they are not able to reach a birthing facility (e.g., a birth preparedness/complication readiness plan).

- Become familiar with basic local and regional health and vital statistics. Planning for emergencies should take into account the expected numbers of births per unit time, population demographics, and information about where births currently take place.\(^5\)

### State, Territory and Jurisdiction Planning Before the Event

- MCH leadership must be actively involved in developing emergency preparedness plans emphasizing the health and safety needs of MCH populations. MCH leadership’s role includes:
  - Ensuring that health and psychosocial needs of all women of reproductive age, especially pregnant women, new mothers, newborns, infants, children and youth are adequately met by incorporating the suggestions found in this document.
  - Implementing the recommendations developed by the National Working Group for Women and Infant Needs in Emergencies, in the Women and Infants Services Package.
  - Implementing the American Academy of Pediatrics’ recommendations for children and disaster situations.\(^6\)
  - Ensuring that the needs of the MCH population, including those who are hospitalized, are integrated into any existing hospital, county, regional and statewide emergency preparedness plans.
  - Addressing basic survival needs of MCH populations in all state-level disaster preparedness plans to lessen the stress levels during an emergency and ensure that people feel more in control and as safe as possible. Food, water, medications, security, transportation (buses), housing, etc., must be provided to lessen the threat of emotional reactions.
  - Convening, if needed, professionals, government, emergency preparedness and community to address the needs of children in child care or schools during a disaster situation. Work with child care providers and schools to strengthen their ability to manage a disaster situation while children are at school or in care.
  - Preparing memorandums of understanding between relevant federal, state and local agencies clearly defining roles and responsibilities in the provision of health and mental health care for MCH populations during times of crisis.
  - Ensuring that first responders are trained on how to care for pregnant women, infants, children and youth, especially those who are high-risk and/or have special needs. Shelter workers and emergency health care providers should also receive training to recognize and address issues unique to MCH populations.

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\(^6\) AAP resources can be found at http://www.aap.org/healthtopics/disasters.cfm
Establishing emergency toll-free public hotlines for MCH resources and reporting within the Incident Command Center structure.

- Support the development of a National Incident Management System (NIMS) model for MCH emergency preparedness that is relevant for states, as well as U.S. territories and the District of Columbia.
- State health department and MCH leadership, other state agencies, local jurisdictions, and organizations playing major roles in disaster planning, especially in the area of shelter operations, agree upon a common definition and level of function for the special needs population.
- The following definition is commonly used within HRSA-funded programs addressing the needs of C(Y)SHCN: *Children (and youth) with special health care needs are those who have or are at increased risk for a chronic physical, developmental, behavioral or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.*
- Work collaboratively with families, programs, community organizations and providers for CYSHCN, including technologically dependent hospitalized individuals, to ensure that the needs of this group are met, particularly in the areas of planning, implementing and evacuating to emergency shelters. This includes:
  - Implementing a voluntary database system developed for emergency situations for CYSHCN to access their basic health information.
    - Reviewing current systems used to identify and enroll children and youth in the database. Include information about transportation needs, enrollment in special needs shelters or hospitals, and other vital information.
    - Assuring that the database is regularly updated.
    - Developing alternate system for those not included in the system.
    - Considering the use of electronic medical charts
  - Facilitating the development of emergency readiness plans that includes continuous training drills for communities, professionals, families and registered/retired volunteers who will aid CYSHCN in an emergency. Plans should ensure that the following are in place and have been supplied to the appropriate community partners:
    - Medical eligibility for special needs shelter is determined and shelter registration forms are completed/updated by families.
    - Children requiring evacuation to a hospital (e.g., ventilator dependent children) are identified.
    - Children and families requiring special transportation to a shelter (e.g., ambulance, wheelchair, families without source of transportation in household, etc.) are identified.
    - Sufficient quantities of supplies (medical, mats, water, oxygen, food, paper goods, generators, cellular phones, satellite phones, etc.) are requested.
    - Health support and medical staffing plans are in place (e.g., children’s hospitals, private providers, community clinics, school health teams, etc.).
    - Nutrition service plans.
    - Triage, treatment and/or appropriate dispositions of evacuees’ recommendations.
    - Onsite transition/discharge plans to home or long-term transitional housing.
    - Contingency plans regarding communications and other essential logistics.
o Ensuring emergency readiness plans are updated and reviewed regularly and shared with families, staff and community partners.
o Ensuring ongoing training drills for communities, professionals, families and volunteers who will aid CYSHCN in an emergency are in place.

• Engage in a dialogue with media organizations about the psychosocial implication of the reporting of disaster situations to MCH populations, especially children. The media is a powerful force, both positive and negative, in communicating and educating about emergency events.
• Engage in planning so that statewide and local public health information systems and technologies including web sites, database activities, e-mail and other communications and services remain available during an emergency. For example, ensure that access to states’ registries and databases are maintained during an emergency.

State, Territory and Jurisdiction Planning: During the Event

• Rely on local Incident Command System and the National Incident Management System to carry out preplanned activities.
• Have medical and psychosocial experts on hand with critical incident training/crisis management training.

State, Territory and Jurisdiction Planning: After the Event

• Rigorously evaluate all aspects of the planning and implementation process. Identify needed changes and address them in future planning.
Recommendations to Improve MCH Emergency Preparedness: Emergency Planning Education

Background

It is important that MCH populations and staff be aware of what to do in emergency situations. All families associated with MCH programs, especially those who have children with special needs should develop a family emergency preparedness plan. MCH staffs need to be knowledgeable about state-level emergency preparedness plans and their roles in times of crisis. State-level MCH programs should consider what information is available and how to best share it with vulnerable populations. Staff can also identify and address any gaps in education materials.

Lessons Learned from Past Disasters

- Educate MCH staff and populations about emergency preparedness plans and activities, especially those addressing MCH groups.
- People need to plan for emergency situations but do not for many reasons including lack of information.
- A skilled workforce is needed to ensure institutional capacity and staff capability during emergencies.
- MCH employees must participate in emergency preparedness exercise drills.
- There is a need for an emergency preparedness curriculum and more extensive training for MCH leaders and staff.

Recommended Solutions

Before the Event

- Ensure that MCH populations, especially those that are most vulnerable, have access to education and materials on preparing for and coping with a disaster. This includes:
  - Working with other state and community partners to assure that state-based web and other resources are available in one place that link MCH populations to emergency preparedness information that is credible, helpful and will support vulnerable populations during disasters. Monitor and update materials regularly.
  - Coordinating and participating in the development or enhancement of a web-based resource directory for the state by county that includes practical resources in areas such as health, social services, food and clothing banks, mental health and where to go for free resources.
  - Assisting families and individuals in preparing for an emergency that includes:
    - Assisting with the development of a family emergency preparedness plan that is ideally kept by both the family and with the medical home.
    - Providing planning tools or checklists with recommendations for an at least two-week emergency kit of necessary supplies needed to shelter in place or to evacuate
    - Offering materials that address the needs of this population such as: psychosocial needs; how to care for newborns in shelter environments; child-specific information for parents, teachers and others working with children; etc.
• Sharing information and resources via home visiting, clinic visits, case management services or other opportunities offered by public health and other community settings.
• When a disaster occurs ensuring that priority materials are distributed to families using pre-established mechanisms.
• Ensure that MCH staff has an understanding of disaster preparedness, is aware of state and MCH-specific plans, is trained for emergency situations, and participates in relevant trainings and exercises.
• Engage local and regional potential providers—obstetric/gynecologists, certified nurse midwives, certified midwives, certified professional midwives, labor and delivery nurses, emergency medical technicians, family practice physicians, nurse practitioners, physician assistants, emergency and first responders, and doulas to:
  o Educate and train home-based delivery skills, services and equipment to institution-based birth providers.
  o Acknowledge that they - the providers named above - may not have experience providing delivery skills with few resources or medications, or working with women who have expectations of a medicated delivery.  

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Recommendations to Improve MCH Emergency Preparedness: Licensure and Reciprocity

Background

It is necessary for states to have coordinated, consistent and organized health care response on both the state and federal level to ensure the health and welfare of MCH populations at risk are protected and served. Key to this effort is the availability and deployment of volunteer health practitioners to meet the needs within public and private sectors. The following legislative activities were developed to assure there is an efficient system to provide aid, advanced registration and credentialing of clinicians, and the necessary legal environment recognizing licensing privileges for health practitioners on an interstate basis.

The Emergency Management Assistance Compact (EMAC), established in 1996, is a national disaster-relief compact that provides a mutual aid agreement and partnership between member states. To date, 50 states, the District of Columbia, Puerto Rico and the US Virgin Islands have enacted legislation to become members of EMAC. In 2007, Congress passed legislation for the advance registration and credentialing of clinicians needed in an emergency through the Emergency System for Advance Registration of Volunteer Health Professionals Plan (ESAR-VHP). Following this in December 2007, the Pandemic and All-Hazards Preparedness Act (Public Law 109-417) was passed to encourage participation in ESAR-VHP by limiting awards to states not participating beginning in fiscal year 2009. Underlying the successful deployment and use of volunteer health practitioners during emergencies is the need for a legal environment that supports these efforts. In response to this need, The National Conference of Commissioners on Uniform State Laws put forth the Uniform Emergency Volunteer Health Practitioners Act (UEVHPA). This new act would provide uniform legislative language to facilitate organized response efforts among volunteer health practitioners.

The UEVHPA would provide for:

- Application of its coverage to declared states of emergency, disaster or public health emergency (or like terms at the state or local level);
- The coverage of volunteer health practitioners who are registered with ESAR-VHP, MRC, or other similar systems;
- Procedures to recognize the valid and current licenses of volunteer health practitioners in other states for the duration of an emergency declaration;
- Requirements for volunteer health practitioners to adhere to scope of practice standards during the emergency (subject to modifications or restrictions); and,
- Reduction of the exposure of volunteer health practitioners, or those who employ, deploy or host them, to significant disciplinary sanctions based on actions (or failures to act) during a declared emergency.

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Lessons Learned from Past Disasters

- States needed immediate access to volunteers’ scope of practice and privileges in addition to verifying credentials.
- States needed a mechanism for verifying credentials of volunteers (medical, first responders, etc.).
- A system is needed that matches volunteers based on skill set and where the specific need is.
- Specific type of health care providers may be needed dependent on the type of emergency.

Recommended Solutions

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<thead>
<tr>
<th>Before the Event</th>
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<tbody>
<tr>
<td>• Educate professionals and others about their states’ involvement in EMAC. EMAC partnerships provide:</td>
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<tr>
<td>o State-to-state assistance during governor-declared states of emergency;</td>
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<td>o Quick response to disasters using the resources and expertise possessed by member states;</td>
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<tr>
<td>o Firm legal foundation - once conditions for providing assistance to a requesting state have been set, the terms constitute a legally binding contractual agreement making affected states financially responsible; this includes clear definitions of liability and responsibility of costs; and,</td>
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<tr>
<td>o Acceptance of credentials across state lines</td>
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<tr>
<td>• Participate in efforts to ensure that Congress passes legislation creating the UEVHPA to address the need for a uniform system to efficiently and expeditiously recognize licensing privileges for health practitioners on an interstate basis.</td>
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<table>
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<th>After the Event</th>
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<tbody>
<tr>
<td>• Educate professionals and others about EMAC.</td>
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<tr>
<td>• Evaluate and perform rigorous assessment of ESAR-VHP and EMAC responses. Use collected data to adjust future response as needed.</td>
</tr>
</tbody>
</table>

Resources

- EMAC – Through EMAC, a disaster impacted state can request and receive assistance from other member states quickly and efficiently, resolving two key issues upfront: liability and reimbursement.
test.emacweb.org
- ESAR-VHP – This system allows for advance registration and credentialing of clinicians needed in an emergency.
- Pandemic and All-Hazards Preparedness Act (Public Law 109-417) – This act authorizes appropriations to improve bioterrorism and other public health emergency planning and preparedness activities. One significant feature of this law is that it limits funds to states who are not participating in ESAR-VHP.
Recommendations to Improve MCH Emergency Preparedness: Supplies

Background

Age-appropriate supplies and those specific to a particular population, such as pregnant and nursing women, are required in emergency situations. Families can take a proactive approach to preparing for emergencies if they know what supplies they will need.

Lessons Learned from Past Disasters

- Although many companies and individuals generously donate items during emergency situations, the need for specific items may remain.
- Make age-appropriate clothing in good condition available to children and adolescents, or gift cards for purchasing clothing to help preserve self-esteem and facilitate positive interactions with others.
- Age-appropriate supplies as well as supplies specific to this population, such as pregnant women and women with infants, are required.

Recommended Solutions

Before the Event

- Ensure that supply in the strategic national stockpile lasts through the emergency period and state or local supply caches address the needs of the MCH population. Initiate procedures to replace perishable supplies on a defined timeline such as:
  - Age-appropriate supplies need to be available; pediatric dosing and formulations of medications and immunizations; supplies specific to children and infants (diapers, clean clothes, baby bottles, over-the-counter medications, etc. for infants and children).
  - Breast-pumps, prenatal vitamins (folic acid), contraceptive methods, pregnancy tests and feminine hygiene products need to be included.
  - Birthing supplies, including birth-complication readiness packages, need to be prepared and included as part of medical supplies, as well as medications safe for pregnant women.
  - Feeding tubes, tracheotomy tubes and other supplies specific to CYSHCN.

- Provide planning tools or checklists with standard recommendations for at least a two-week supply emergency kit of necessary supplies to assist families in preparing to shelter in place or to evacuate.
- Establish standards and procedures at each shelter for the procurement and management of supplies such as durable medical equipment and wheelchairs.
During the Event

- Ensure that age-appropriate supplies are readily available to all shelters, especially those for special needs populations, and accessible by evacuees to preserve health, self-esteem and continuity of care, and prevent acute events.
- Implement standards and procedures at each shelter for the procurement and management of supplies such as durable medical equipment and wheelchairs.

Resources

- Department of Health and Human Services, Center for Disease Control and Prevention; Disaster Safety: Critical needs in caring for pregnant women during times of disaster for non-obstetric health care providers. October 6, 2005.
Recommendations to Improve MCH Emergency Preparedness: Transportation and Evacuation

Background

Lack of adequate planning for transportation and evacuation has resulted in people being stranded. Care must be taken to reunite those who may be hospitalized with their families and to keep women and infants together. Evacuees often are physically and emotionally stressed and unprepared for the prospect of leaving their homes quickly for an unknown length of time. Also, evacuation can be lengthy and families may not have taken sufficient necessities with them before leaving.

Lessons Learned from Past Disasters

- Pre-planning and coordination will promote preparedness and foster a smoother evacuation process.
- Professionals with experience working with the MCH population should be included in planning since they will anticipate issues and identify solutions previously not considered.
- Formal agreements between facilities are important in guiding transport mobilization.
- Long hours spent in evacuation traffic may jeopardize the health and safety of pregnant women, women with newborn babies, and CYSHCN.
- Often there is limited law enforcement relative to the need during lengthy and cumbersome evacuation.
- Adolescents and adults may gain access to substances that can impair their judgment and lead to risky behavior. Maintaining control of these substances will help with efforts to move large groups of people in a calm and orderly manner.
- Families that evacuated quickly may not have been able to bring all or enough of necessary items and may run out.

Recommended Solutions

Before the Event

- Ensure that evacuation plans address the needs of pregnant women, new mothers with infants, CYSHCN, especially those who are technology-dependent and hospitalized individuals so that they move quickly to medical facilities or stations along the evacuation route. This includes:
  - Developing evacuation plans that include strategies to allow hospitalized children, pregnant women and others to move quickly to medical facilities or stations. Address the needs associated with identifying, transporting and returning individuals home after the disaster.
    - Determining how mothers can stay with their newborns if they are evacuated and how to reconnect families with infants if they become separated.
    - Initiating or reinforcing a referral system to transport and manage obstetric emergencies.⁹

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- Involving medical, psychosocial and education professionals experienced in working with pregnant/postpartum women, children, adolescents, and families in the planning process.
- Establishing coordination of facilities and personnel responsible for mass evacuation of hospitalized individuals at the city, regional, state and interstate level.
- A listing of pediatric and neonatal intensive care unit facilities, providers, modes of transport, and evacuation routes for these facilities. Identify and designate hospitals to function as emergency referral centers for high risk obstetrical patients and neonates.
- Including outreach and educational information on individual and family preparedness in home visiting, case management services and other public health settings.
- Addressing the needs for personnel who are trained as interpreters for non-English speaking families and for individuals who are hearing-impaired.

- Ensure the development of an integrated patient tracking system that provides communications about MCH patient evacuations to recipient communities and facilitates patient repatriation after the disaster.
- Address the needs of families/individuals without an available vehicle

- Essential strategies to providing safe and efficient transportation are dependent upon appropriate advance planning; strong community partnerships; and contractual agreements that ensure access to necessary equipment and vehicles; identification and location of transportation-dependent populations; and, public involvement.
- Transportation modes should include vehicles modified to be accessible by individuals who use wheelchairs, other mobility aids and service animals.

### During the Event

- Increase law enforcement regarding selling and or serving alcohol and tobacco products to all, including minors, by making dry laws in effect during an emergency evacuation.
- Provide emergency roadside stations along evacuation routes with medical personnel, medical supplies, gasoline, bottled water, infant formula, nonperishable food/snacks, diapers, wipes, hand sanitizer, toiletries and other items. Take actions needed to safeguard the supplies.
- Keep families together whenever possible, especially women with infants and families with CYSHCN; place extended family members in nearby shelter; and, maintain inter-shelter communication and tracking system.

### Resources

**Transportation**


• Morrill JB, Litaker JR, Markovich RJ, Bradshaw RT, Walts CO, Chou JY, Mathew SR. *The Health and Medical Response to Hurricanes Katrina and Rita by the Texas Department of State Health Services: An After Action Assessment.* June 2006.


• California Emergency Medical Services Authority; Guidelines for Pediatric Interfacility Transport Programs. February 1994.

• National Consortium on Human Services Transportation. Strategies in Emergency Preparedness for Transportation-Dependent Populations.

• The State of Texas, Governor’s Task Force on Evacuation, Transportation, and Logistics; *Final Report to the Governor;* February 14, 2006.

**Evacuation**

• Morrill JB, Litaker JR, Markovich RJ, Bradshaw RT, Walts CO, Chou JY, Mathew SR. *The Health and Medical Response to Hurricanes Katrina and Rita by the Texas Department of State Health Services: An After Action Assessment.* June 2006.


Recommendations to Improve MCH Emergency Preparedness: Shelters

Background

Shelters tend to offer limited privacy, adding to the stress families are already experiencing. Pregnant women and infants who have a high need for privacy are a particularly vulnerable population. Adolescents also often have a higher need for privacy, more for emotional reasons rather than physical. Shelters sometimes became unsafe or disruptive places, partially due to lack of youth supervision, limited structured activities for youth, and issues around the physical environment. The stress of the situation may exacerbate existing mental or emotional problems for all family members or may lead to the onset of new problems.

Lessons Learned from Past Disasters

- Shelters often lacked the necessary resources to deal with social services, medical and mental health issues experienced by evacuees.
- Facilities may not be available for healthy newborns and families. Many shelters do not accept pregnant women after 34 weeks gestation, due to the risk of delivery at the shelter. Also, shelters may only allow one person to take care of special needs individuals.
- Shelters can become unsafe or disruptive places. Toddlers, young children and adolescents need safe and secure surroundings. Activities are needed that help children and youth feel more comfortable in the shelter and will help prevent boredom and anti-social behavior.
- With a better understanding of the unique needs of individuals with disabilities, shelter staff are able to initiate and establish appropriate support systems in the shelters.
- School participation helps children remain mentally, physically and emotionally healthy and functioning at grade-level and will prevent boredom, which could lead to anti-social behavior. Schooling can become a negative event when it is difficult for evacuated children to get there, or if they feel uncomfortable or stigmatized while they are there.

Recommended Solutions

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<td>- Plan to provide accessible and safe facilities for families, taking into account the needs of different age groups, especially those with special health care needs. This includes:</td>
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Ensuring access to mental health counseling on a regular basis, especially those with expertise in counseling children and adolescents; and,
Ensuring sufficient personnel with the proper tools, techniques and training so that shifts are not extended.

- Planning to keep families together whenever possible, especially those with CYSHCN.
- Training shelter relief workers and emergency health care providers to recognize and address issues unique to children, adolescents, pregnant and breastfeeding women, infants, and those with special needs or disabilities.

  - Provide training regarding basic disability issues such as sensitivity, communication, facility accessibility and identification of individuals with special needs.
  - Establish agreements prior to disasters to allow disability-related support organizations to have access to shelters and provide technical assistance to shelter staff.

- Respecting privacy needs and offer separate living areas for nursing mothers, new mothers and their families whenever possible. Identify caretakers to assist with the general care of newborns to alleviate stress and allow more resting time for new mothers.
- Addressing the mobility needs of individuals with impairments.
- Facilitating opportunities for children and adolescents to participate in school. This can be accomplished by:

  - Providing tutors or substitute teachers at the shelter site for short-term stays or via a transition plan to introduce children to local public schools for longer stays. School transition plans might include use of age-appropriate local children as mentors, or families as sponsors.
  - Locating shelters close to schools and public transportation when possible.
  - Providing training and support for school personnel to deal with emotional needs of affected children and adolescents.

- Providing children with a safe space and opportunity to play in the shelter setting with appropriate child care and/or mental health workers available.
- Offering older children and youth ways to address their social needs, e.g. computers for games, the ability to text message friends and family, etc.
- Assuring shelter security to protect women and children against domestic and sexual violence.

During the Event

- Whenever possible, keep families together, especially women with infants and families with CYSHCN. Tremendous psychosocial implications exist if families are separated from one another, especially if there are individuals with special needs. If families cannot be kept together, consider:

  - Identifying a nearby family shelter for the remaining members.
  - Placing extended family members or neighborhood caregivers in the same shelter where CYSHCN are located, to provide added flexibility to meet the children’s needs;
  - Placing extended family members in nearby general shelter and maintain inter-shelter
communication and tracking system;
  - Avoiding situations where older family members are separated and adolescents are on their own or left in charge of other children - this can lead to poor decision-making, limited knowledge about own and sibling needs, and greater reunification efforts.

- Distribute previously prepared information, resources and materials relevant to meeting health, psychosocial and basic needs.
- Provide emergency toll-free hotlines for reporting health and other resources.
- Offer women, adolescents and children a safe space.

**Children and Adolescents**

- Offer children a safe space and opportunity to play in the shelter setting with appropriate childcare or mental health workers. Engage children and adolescents in a variety of positive activities.
- Offer opportunities for structured and safe recreation (i.e.: basketball, television, video games, board games, etc.). Separate and structured supervised activity areas for adolescents and younger children; possibly with youth activities coordinator, such as YMCA personnel.

**Women**

- Design and locate evacuee centers or shelters, in consultation with evacuees when possible, to enhance physical security.
- Identify individuals or groups who may be particularly at risk of sexual violence (single female heads-of-households, unaccompanied minors, etc.) and address their needs for protection and assistance.\(^{10}\)

**Resources**

- Department of Health and Human Services, Center for Disease Control and Prevention; Disaster Safety: Guidelines for Establishing and Maintaining a Diapering Station in an Emergency Shelter. September 23, 2005.
- Department of Health and Human Services, Center for Disease Control and Prevention; Disaster Safety: Critical needs in caring for pregnant women during times of disaster for non-obstetric health care providers. October 6, 2005.

Recommendations to Improve MCH Emergency Preparedness: Pharmacy and Hospitals

Background

In planning for disasters, it is critical that persons dependent on life sustaining medications, medical technologies, and medical supplies have a sufficient supply of the materials to sustain them for a prolonged period. In the event of a pandemic situation, social distancing will be expected and there will be efforts to maintain a person in their home. Individuals in these situations will require up to a 90-day supply of the life sustaining medication and equipment.

Approximately six million pregnancies occur every year in the United States, three million of which are unplanned. The interruption of access to contraceptives for couples, as well as the increased incidence of sexual violence that often occur during the aftermath of an emergency, increase the number of unplanned pregnancies. Unplanned pregnancies have been associated with maternal depression, maternal and fetal malnutrition, low birth weight infants and premature labor, putting both the infant and mother at risk during pregnancy, birth and the postpartum period. Preventing unplanned pregnancies, accordingly, is a crucial component of responding to the needs of women and infants in emergencies.

At the end of 2005, there were approximately 1.2 million adults and children living with HIV in the United States. The current rate of HIV diagnoses in the United States is 40,000 people per year. Circumstances that can lead to the increase of HIV and sexually transmitted infections (STI) rates can include: • Risky sexual behavior such as rape and sexual exploitation resulting from vulnerability or as a means of survival. • Normally available HIV counseling and other programs being suspended during a crisis. • Limited access to condoms. • Temporarily unavailable treatment for those infected.

With the proper methods and successful emergency planning, the rate of infection can be controlled in circumstances that would otherwise be favorable to increased HIV and STI transmission.11

Lessons Learned from Past Disasters

- There is a need to identify the persons in need of life sustaining medications and medical supplies prior to an event and to develop a plan with them.
- There are many obstacles that keep a person from having a sufficient supply of life sustaining medications and medical supplies to last for 90 days, such as insurance payers who do not now allow for this large of a supply. These obstacles need to be addressed prior to the occurrence of an adverse event.
- Data must be collected to gauge the effectiveness of interventions and allow appropriate changes both during an event and in planning for the next event.
- After an event, the MCH program must be able to maintain the normal day-to-day activities, recover from emergency needs, and still plan for future events.

### Recommended Solutions

#### Before the Event

**Pharmacies**

- Ensure that stockpiles exist that meet the needs for medication, medical supplies and special formulas for pregnant and breastfeeding women, infants, children and youth for up to 90 days in an emergency situation. The MCH role includes:
  - Working with local jurisdictions in identifying the MCH populations at-risk;
  - Local jurisdictions maintaining a registry of the MCH at-risk population;
  - Assisting and encouraging families to develop an emergency plan in conjunction with their medical home. This plan will be kept both with the family and with the medical home.
  - Working with state legislatures, pharmaceutical mailing administrators, HMO’s, health insurers, pharmacies and drug enforcement agencies to change policies which limit the amount of supply of medication or medical supplies that a person can get for a specified time period. The goal would be that all entities would allow persons who have a need for life sustaining medications or medical supplies to have up to a 90 day backup supply in a critically controlled environment.

- Develop a system of tracking for needed medications and medical supplies and assuring that they are up to date.

**Hospitals**

- Convening hospitals, providers, emergency preparedness and other relevant organizations to determine how to address the needs of hospitalized MCH populations.
- Convening hospitals, providers, emergency preparedness and other relevant organizations to determine how to address the needs of pregnant women who deliver during a Type A Influenza epidemic. Suggestions are found in Appendix C.

#### During the Event

- The local health jurisdictions will use the information in their special needs registry to regularly contact persons to monitor their medication usage and make additional supplies available if needed.
- The local jurisdiction will regularly report to the appropriate state authority the number of persons with special needs in their jurisdiction and the status of their health care needs.
- The appropriate state agency will work with the pharmaceutical suppliers and insurers to address interim medical supply needs.
**After the Event**

- Collate data collected during the event and work with pharmaceutical suppliers and health insurers to assure compensation and reimbursement where needed.
- The local and state agencies will collate data collected during the event and work with pharmaceutical suppliers and health insurers to assure compensation and reimbursement where needed.

**Resources**

- David S. Teeter, PharmD; US Pharmacist Publication—Disaster Preparedness and Pharmacy: An Important Partnership.
Recommendations to Improve MCH Emergency Preparedness: Psychosocial Needs

Background

Preserving and supporting psychosocial health for MCH populations is of vital concern. The effects of disaster on vulnerable populations can be both direct and indirect. For this reason, the psychosocial implications are widespread, deserve special emphasis and should be prepared for throughout our nation.

Lessons Learned from Past Disasters

- The effects of disaster on vulnerable populations are mediated by many factors including personal experience, parental reaction, developmental competency, gender and the stage of disaster.
- A wide range of reactions can be expected from emergencies, from anxiety to adjustment reactions, posttraumatic stress disorder (PTSD), and even suicide.

Recommended Solutions

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<tr>
<td>• Ensure that professionals and volunteers receive training about the recognition and care of mental health needs of the MCH populations during and after a disaster. For example, ensure the needs of new mothers, especially those with fragile infants, are adequately met during and after a disaster situation. Many women with newborn babies suffer from post-partum depression and may be especially vulnerable during a traumatic event and will require assistance from mental health providers during and after.</td>
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<tr>
<td>• Facilitate the offering of stress management training for MCH professionals and MCH populations. Help children and youth cope with disaster based upon their age and level of trauma experienced. This includes:</td>
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<tr>
<td>o Facilitating psychosocial emergency preparedness training for MCH staff and populations.</td>
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<tr>
<td>o Ensuring that psychosocial professionals are aware of Red Cross Disaster and Critical Incident Stress Management training so that they can better assist on-site during an emergency.</td>
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<tr>
<td>o Identifying educational materials and share other risk factors for adverse reactions and expected stages of each population’s response to a disaster.</td>
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<tr>
<td>o Facilitating training sessions on psychosocial implications of disasters for community leaders such as emergency planners, schools and PTA groups.</td>
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<td>• Use technology, such as electronic medical records, to effectively identify and link populations and provide easy access to mental health screening tools and symptomatic check lists. This includes:</td>
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<tr>
<td>o Participating in the development of systems to identify the needs of special needs individuals in times of crisis. Consider electronic systems but recognize that not all individuals will choose to participate in this type of system.</td>
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<tr>
<td>o Assuring a supply of personal hand-held devices for mental health professions that provide access</td>
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to pre-loaded mental health screening tools, symptomatic checklists and treatment options.

- Disseminate easily replicable, culturally and linguistically effective materials describing the psychosocial implications of disasters with the public through schools, businesses, faith-based and other community-based organizations in addition to the MCH programs. Educational materials should be easy to read and include information on:
  - Trauma’s effect on vulnerable populations;
  - Parental mental health and reactions effects on their children;
  - Psychosocial assessment tools and resources for families; and,
  - Positive messages and examples of how to survive a disaster.

- Develop systems to ensure that brochures will be distributed at shelters and medical facilities during an emergency event. This includes:
  - Identifying and providing information about children’s physical and emotional responses to disaster and trauma, addressing gender and ethnicity differences.
  - Helping parents and others identify how changes in behaviors align with an emotional event reaction to emergency events.

After the Event

- Provide training and materials for MCH staff and populations that address the ongoing nature of the psychosocial problems associated with disasters. This includes information on:
  - Short- and long-term stress management.
  - Mental health educational materials for survivors. Guilt and loneliness can have an impact on mental health for those who survived or for those who were not part of the emergency event.

- Encourage ongoing mental health screening and interventions for all persons impacted by a disaster, especially for children and youth and for people with limited resources. Free mental health clinics with ongoing screenings should be added to all community-based emergency preparedness plans.

Resources


New York City Department of Education. Effects of the World Trade Center attack on New York City public school students. Available at: www.nycenet.edu/offices/spss/wtc_needs/coping.htm. Accessed January 24, 2005


Additional Resources

The following is a listing of some of the available resources to assist with emergency preparedness planning. Although the list is not exhaustive, it does provide some excellent resources.

Federal and State Government

- **Ready American** is a comprehensive preparedness site from the Department of Homeland Security. The purpose of the site is to educate and empower Americans to prepare for emergencies including natural disasters and potential terrorist attacks. The site provides information about preparing for an emergency and creating a preparedness plan for individuals/families, businesses and offers special information for children. A link to each state’s preparedness webpage can be accessed from this site.
- The **Centers for Disease Control and Prevention** provides comprehensive emergency preparedness and response information. Of particular interest is the *Public Health Emergency Response Guide for State, Local, and Tribal Public Health Directors*.
- The **United States Department of Health and Human Services, Disasters and Emergency** webpage provides access to numerous resources.
- **Pandemic flu.gov** is a one-stop access to U.S. Government avian and pandemic flu information that is managed by the Department of Health and Human Services.
- **National Disaster Medical System** (NDMS) is a nation-wide partnership embracing communities with world-class medical and emotional care in the wake of a natural or manmade disaster. The mission is to design, develop, and maintain a national capability to deliver quality medical care to the victims of - and responders to - a domestic disaster. NDMS provides state of the art medical care under any conditions at a disaster site, in transit from the impacted area, and into participating definitive care facilities. The National Disaster Medical System (NDMS) is now part of the Department of Health and Human Services.
- **National Incident Management System** While most emergency situations are handled locally, when there's a major incident help may be needed from other jurisdictions, the state and the federal government. NIMS was developed so responders from different jurisdictions and disciplines can work together better to respond to natural disasters and emergencies, including acts of terrorism. NIMS benefits include a unified approach to incident management; standard command and management structures; and emphasis on preparedness, mutual aid and resource management.
- **The National Incident Management System (NIMS) Integration Center** (NIC) The NIMS Integration Center (NIC) was established by the Secretary of Homeland Security to provide "strategic direction for and oversight of the National Incident Management System."
- **The National Response Plan** establishes a comprehensive all-hazards approach to enhance the ability of the United States to manage domestic incidents. It forms the basis of how the federal government coordinates with state, local, and tribal governments and the private sector during incidents.

Licensure/Reciprocity
• **The Emergency Management Assistance Compact** (EMAC) Through EMAC, a disaster impacted state can request and receive assistance from other member states quickly and efficiently, resolving two key issues upfront: liability and reimbursement.

• **The Emergency System for Advance Registration of Volunteer Health Professionals** (ESAR-VHP) allows for advance registration and credentialing of clinicians needed in an emergency.

### Professional and Other Organizations

• **The Association of State and Territorial Health Officials** Offering information on MCH policy, preparedness policy, promising practices including: how different states used their CDC preparedness funds to increase the safety of communities; to rapidly identify and respond to new threats and to improve their preparation for future emergencies based on lessons learned from exercises and real-life events.

### Resource Centers and Training Institutions

• The **Centers for Public Health Preparedness** (CPHP) are funded by CDC. They are a national network of academic institutions working in collaboration with state and local public health departments and other community partners to provide life-long learning opportunities to the public health workforce, in order to handle the next public health crisis.

• **Disability Preparedness Resource Center** provides practical information on how people with and without disabilities can prepare for an emergency, including information for emergency planners and first responders.

• **The Emergency Management Institute** (EMI) offers more than fifty independent study courses. These are self-paced courses designed for people who have emergency management responsibilities and the general public. Courses are free to qualified individuals.

• **Georgetown Center for Law and the Public's Health**

• **The National Center for Disaster Preparedness** at Columbia University is an academically-based resource center dedicated to the study, analysis and enhancement of the nation's ability to prepare for and respond to major disasters, including terrorism. CPHP designs and implements bioterrorism response programs for its diverse public health partners and conducts competency-based training of the public health workforce. CPHP is also advancing initiatives to address disaster-related mental health issues facing the public in times of terrorism.

### Special Populations

#### Women

• American College of Nurse-Midwives, **Giving Birth "In Place": A Guide to Emergency Preparedness for Childbirth** is a basic guide for parents-to-be who wish to be ready in case they have to give birth before they can get to a hospital or birth center.

• National Women's Health Information Center, **Disaster or Emergency Preparedness Plan for Women** provides guidance for women and their families.
• White Ribbon Alliance for Safe Motherhood, National Working Group for Women and Infant Needs in Emergencies, Women and Infants Service Package (WISP) offers guidance to meet the health care needs of pregnant women, new mothers, fragile newborns and infants during and after a disaster situation.

Children

• The American Academy of Pediatrics, Children and Disasters website provides excellent resource for professionals and families regarding disaster preparedness and children.
• Pediatric Preparedness for Disasters and Terrorism: A National Consensus Conference Columbia University Mailman School of Public Health.
• American Academy of Pediatrics Family Readiness Kit was developed by multiple organizations to assist families in planning for emergencies.
• Pandemic Influenza: Warning, Children At-Risk. Issued by the Trust for America's Health (TFAH) and the American Academy of Pediatrics The report identifies gaps in U.S. preparedness for treating and caring for children during a possible pandemic flu outbreak and makes a number of specific policy recommendations.

Individuals with Special Needs

• Disability Info.Gov provides links to additional preparedness information, grants, assistance, government policies, initiatives and much more.
• Florida Institute for Family Involvement, Disaster Preparedness for Families of Children with Special Needs is a preparation and planning guide for families offered in English and Spanish
• Gallaudet University, Resources on Accessible Emergency Notification, Communication, and Preparedness Webpage links readers to a multitude of resources
• Texas Department of State Health Services, Children with Special Healthcare Needs Program, Emergency & Disaster Planning for Children with Special Health Care Needs is a 20 page booklet in both English and Spanish for parents/guardians of children with special healthcare needs. It is a planning guide with information on resources, preparation tips, supply kit recommendations, tips for those with service animals, medical records, etc.
• FEMA’s Preparing for Disaster for People with Disabilities and other Special Needs (FEMA 476) provides disaster preparedness information specific to people with disabilities and other special needs, including the elderly. Available in Spanish and English.
• The University of Kansas, the Research and Training Center on Independent Living Assessing the Impact Of Hurricane Katrina On Persons With Disabilities report addresses the challenges associated with ensuring that the needs and priorities of persons with a wide range of physical and cognitive disabilities are met before, during and after a disaster.
Hospitals

- The HHS, National Bioterrorism Hospital Preparedness Program (NBHPP) enhances the ability of hospitals and health care systems to prepare for and respond to bioterrorism and other public health emergencies. Program priority areas include improving bed and personnel surge capacity, decontamination capabilities, isolation capacity, pharmaceutical supplies, and supporting training, education, and drills and exercises.
- Rand Center for Domestic and International Health Security’s Public Health Preparedness - Integrating Public Health and Hospital Preparedness Programs. An important component of the Centers for Disease Control and Prevention and Health Resources and Services Administration cooperative agreements for public health and hospital emergency preparedness has been to encourage linkages between local health departments and hospitals (as well as with other key stakeholders) to more effectively address different aspects of preparedness. Hospitals and public health departments have employed different approaches for doing so and have varied in their focus on such areas as patient treatment and infection control, quarantine and isolation procedures, disease surveillance and reporting, and/or risk communication. 2006.
- Rand Center for Domestic and International Health Security’s Organizing State and Local Health Departments for Public Health Preparedness. Improving the ability to respond to bioterrorism and other emergencies is an important challenge facing the U.S. public health system. Despite having a knowledgeable workforce, practice and experience, capacity, and partnerships with other responders in the community, the system’s ability to respond may depend largely on its structure. This study examines a key question: Are state and local public health agencies related to one another in a way that facilitates emergency response? 2006.

Psychosocial Educational Resources and Tools

- The American Academy of Pediatrics Feelings Need Check Ups Too program is a comprehensive CD-ROM and 30-page toolkit for pediatricians who are helping children experiencing emotional distress related to 9-11 and other catastrophic events.
- FEMA, Helping Children Cope with Disaster addresses to prepare for disaster and the emotional effects. Search for publications or call 1-800-480-2520.
- International Center to Heal Our Children (ICHOC) provides training to multi-disciplinary groups of professionals through its National Pediatric Emotional Trauma Training (PETT) Program. This program provides training on children’s psychological responses to trauma and appropriate interventions to help build and foster resiliency.
- The National Institute of Mental Health, Helping Children and Adolescents Cope with Violence and Disaster is a fact sheet that identifies common age-specific responses to trauma and how to support the child or adolescent trauma survivors.

Resources for Parents
• **FEMA for Kids Web Site** provides resources for children, parents and teachers on preparing for and coping with disaster and includes activities, curriculum and safety information.

• Louisiana State University Health Sciences Centers, *[Helping Young Children and Families Cope with Trauma](#)* assists parents and other adults in supporting traumatized children and themselves.

• North Carolina University/Family and Consumer Sciences, *[Strategies for Parents and Teacher](#)* This publication identifies strategies for parents and professionals to assist children in managing stress both inside and outside the classroom. The web site also offers other resources to support families during stressful times.

• Sidran Traumatic Stress Foundation, *[Helping a Child Manage Fears After a Traumatic Event](#)*. This publication identifies ways to help children cope with fears related to traumatic events.

**Classroom Resources**

• American Red Cross, *[Disaster Services Publications: Materials for Teachers and Schools](#)* offers several resources designed for classroom uses.

• **FEMA for Kids: How to Help Children After a Disaster-A Guidebook for Teachers** was developed to assist teachers in helping children to recover from the effects of disaster. (search publications)

*Last Updated November 2, 2007*
State MCH Emergency Preparedness Survey Summary Results

Hurricanes Katrina and Rita, the pandemic flu threat, and increased consciousness of terrorism have made the need for emergency preparedness an important issue in the maternal and child health community. With support from the Maternal and Child Health Bureau, in the summer of 2006 AMCHP surveyed its members on challenges states are experiencing in planning for emergency preparedness to meet the needs of vulnerable populations including women, children and youth, children with special health care needs, and families.

The survey focused on identifying gaps in the state MCH agency preparedness efforts to improve emergency preparedness plans. The survey identified state preparedness plans’ strengths and needs for maternal and child health programs. The survey was sent to the MCH and CSHCN directors of each state MCH agency in the 50 states, 9 territories and the District of Columbia. The following are the responses as identified by the 35 states (70 percent) that took the survey.

Survey Results

The majority of respondents were MCH directors (42.9 percent), while 37.1 percent were CSHCN directors. (See table 1) These directors are responsible for the state MCH health care services.

<table>
<thead>
<tr>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCH director (15)</td>
<td>42.86</td>
</tr>
<tr>
<td>CSHCN director (13)</td>
<td>37.14</td>
</tr>
<tr>
<td>Other (7)</td>
<td>20.00</td>
</tr>
<tr>
<td>Total 35</td>
<td>100</td>
</tr>
</tbody>
</table>

Participants responding to the emergency preparedness roles they take in their states, they identify the following roles:

1. No formal role in emergency preparedness (24)
2. Member of emergency preparedness team (15)
3. Lead person in preparations for mass care of special populations (4)

Regarding the MCH emergency preparedness plans they have in place, respondents indicated that most plans are:

1. Linked with the statewide and local overall bioterrorism/emergency preparedness plan (16)
2. Developing training on emergency preparedness plan (10)
3. Pandemic flu preparedness plan (3)
4. No specific MCH/CSHCN plan effort (5)
Participants indicated their familiarity with the current MCH emergency preparedness plans in their states, with the majority reporting they are “somewhat familiar” (45.7 percent). (See table 2)

Table 2: Familiarity with Existing Emergency Preparedness Plans

<table>
<thead>
<tr>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very (15)</td>
<td>42.86</td>
</tr>
<tr>
<td>Somewhat (16)</td>
<td>45.71</td>
</tr>
<tr>
<td>Not at all (4)</td>
<td>11.43</td>
</tr>
<tr>
<td>Total (35)</td>
<td>100</td>
</tr>
</tbody>
</table>

In terms of priority among MCH agency issues, an overwhelming majority (71.4 percent) said emergency preparedness was of very high priority, while only 11.4 percent noted that emergency preparedness issues were of low priority. (See table 3)

Table 3: Priorities among MCH Issues

<table>
<thead>
<tr>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>High priority (25)</td>
<td>71.43</td>
</tr>
<tr>
<td>Medium priority (6)</td>
<td>17.14</td>
</tr>
<tr>
<td>Low priority (4)</td>
<td>11.43</td>
</tr>
<tr>
<td>Total (35)</td>
<td>100</td>
</tr>
</tbody>
</table>

Respondents identified how well their state’s emergency preparedness plan addresses MCH issues. Results are noted in table 4.

Table 4

<table>
<thead>
<tr>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somewhat (26)</td>
<td>74.29</td>
</tr>
<tr>
<td>Very (2)</td>
<td>5.71</td>
</tr>
<tr>
<td>Not at all (4)</td>
<td>11.43</td>
</tr>
<tr>
<td>Do not Know (3)</td>
<td>8.57</td>
</tr>
</tbody>
</table>

Participants identified three strong aspects their agency’s existing emergency preparedness program plan strength.
1. Partnership with other state and local health agencies (16)
2. Involvement of community, families and organizational tracking systems (18)
3. Educational and training activities (5)

Participants were requested to identify the major constraints to effective MCH emergency preparedness plans in their MCH agencies. The most noted constraint was staffing (74 percent), while budget and personnel expertise were the next highest constraints (60 percent). Table 5 notes all responses.

Table 5: Major Constraints to Effective MCH Emergency Preparedness Plans

<table>
<thead>
<tr>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staffing (26)</td>
<td>74.29</td>
</tr>
<tr>
<td>Budget Constraints (21)</td>
<td>60.00</td>
</tr>
<tr>
<td>Personnel expertise (21)</td>
<td>60.00</td>
</tr>
<tr>
<td>Communications (16)</td>
<td>45.71</td>
</tr>
<tr>
<td>Strategic Planning (10)</td>
<td>28.57</td>
</tr>
<tr>
<td>Leadership Commitment (9)</td>
<td>25.71</td>
</tr>
<tr>
<td>Partnership with other agencies (8)</td>
<td>22.86</td>
</tr>
<tr>
<td>Equipment (7)</td>
<td>20.00</td>
</tr>
<tr>
<td>Community Involvement (6)</td>
<td>17.14</td>
</tr>
<tr>
<td>Other (please specify) (3)</td>
<td>8.57</td>
</tr>
</tbody>
</table>
Respondents indicated how state MCH agencies have engaged in various activities to close the gaps in emergency preparedness planning. Activities are noted below in Table 6.

Table 6: MCH Agencies closing the above EP plan gaps

<table>
<thead>
<tr>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involving staff in planning (24)</td>
<td>68.57</td>
</tr>
<tr>
<td>Building inter-agency relationships (21)</td>
<td>60.00</td>
</tr>
<tr>
<td>Preparedness exercises (20)</td>
<td>57.14</td>
</tr>
<tr>
<td>Allocating funds to preparedness (13)</td>
<td>37.14</td>
</tr>
<tr>
<td>Hiring staff (8)</td>
<td>22.86</td>
</tr>
<tr>
<td>Purchasing equipment (5)</td>
<td>14.29</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>11.43</td>
</tr>
</tbody>
</table>

Respondents were asked to imagine that if their agency had unlimited funding, what would be the top three emergency preparedness resources they would add to their plan. The top four responses were:

1. Increase personnel expertise in emergency preparedness (19)
2. Planning committee that includes MCH/CSHNC & families (16)
3. Increase outreach educational programs (15)
4. Effective data communication system (9)

Respondents were asked to identify the top three preparedness skills or types of training their staff needs. The top three responses were:

1. Training staff in developing emergency preparedness plans (13)
2. Training on how to deal with the CSHCN and their families (9)
3. Assessment of mental health & stress management

Respondents were asked to identify the top three things federal partners (such as MCHB and CDC) could do to better prepare states for emergencies situations. The respondents identified:

1. Training MCH/CSHCN program staff on emergency preparedness (15)
2. Provide funding for MCH/CSHCN emergency preparedness activities (7)
3. Assist MCH agencies in developing partnerships with other federal agencies to strengthen emergency preparedness programs for MCH/CSHCN populations (6)

Participants identified the types of support AMCHP can provide to help state MCH agencies better prepare for emergencies. Table 7 shows that the overwhelming majority (83 percent) said that AMCHP’s major role should be to lead in presenting MCHP perspectives at the national preparedness groups, as well as the rest of the results.

Table-7 Identified responses on what AMCHP can provide to States EP Plan

<table>
<thead>
<tr>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present the MCH perspective to national preparedness groups (29)</td>
<td>82.86</td>
</tr>
<tr>
<td>Advocate for emergency preparedness funding (25)</td>
<td>71.43</td>
</tr>
<tr>
<td>Offer training sessions and best practices at the annual conference (22)</td>
<td>62.86</td>
</tr>
<tr>
<td>Provide resources on preparedness through the website and our e-newsletter (21)</td>
<td>60.00</td>
</tr>
<tr>
<td>Connect members to emergency preparedness trainings (18)</td>
<td>51.43</td>
</tr>
<tr>
<td>Host conference calls focusing on emergency preparedness (17)</td>
<td>48.57</td>
</tr>
<tr>
<td>Connected AMCHP members to other members interested in emergency preparedness (12)</td>
<td>34.29</td>
</tr>
<tr>
<td>Connect members to emergency preparedness organizations (9)</td>
<td>25.71</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>2.86</td>
</tr>
</tbody>
</table>
Appendix B: Workgroup Member List

Macro Policy Members

- Lynn Christiansen NM (Team Leader)
- Marilyn Kacica (NY) Co-Team Leader
- Jon Nelson (HRSA/MCHB)
- Lauren Ratner (Association of State and Territorial Health Officials)
- Patrick Simpson (CityMatCH)
- Lauri Levin (AMCHP)
- Cynthia Pellegrini, (American Academy of Pediatrics)
- Scott Berns (March of Dimes)
- Lisa Summers (American College of Nurse-Midwives)
- Susan True (CDC)
- Kitty MacFarlane (CDC)
- Karen Willis Galloway (CDC)

Psychosocial Workgroup

- Mary McGowan (Allergy and Asthma Network/Mothers of Asthmatics) – (Team Leader)
- Madelyn Krassner (NM) (Co-Team Leader)
- Ginny Haller (OH)
- Larry Geilenkirchen (NM)
- Chris Lavone (NM)
- Susan Colburn (AL)

Licensure and Reciprocity Workgroup

- Susan Redmon (FL) – Team Leader
- Barbara Popper (MA) – (Co-Team Leader)
- Juanita Graham (MS)
- Susan Chacon (NM)
- Linda Jusczak (National Assembly on School Based Health Care)

Transportation, Supplies, Shelters and Evacuees Workgroup

- Fouad Berrahou (TX) - (Team Leader)
- Susan Berry (LA)
- Rodney Farley (AR)
- Gary Harbison (MO)
- Kate Marie (CA)
- Susan Merrill (NM)
- Linda Pippins (LA)

Pharmacy, Hospital and Children’s Hospital Workgroup
• Dr. Jim Bryant (OH) – (Team Leader)
• Marion McCartney (DC) – (Co-Team Leader)
• Mary Hooshmand (FL)
• Billie Garcia (NM)
Appendix C: Type A Influenza Pandemic Plans for Infant/Maternal Safety

During a type A influenza pandemic, pregnant and laboring women and their newborns are at additional increased risk for morbidity and mortality. This section of recommendations addresses the care of women and infants during labor, birth and postpartum during a pandemic of a new type A viral strain for which vaccines are not yet available or there is limited availability.

The primary objective is to reduce the number of contacts between infected individuals and pregnant women and their newborns. When hospitals are full of infected and contagious influenza patients, hospitals become a site for increased risk of morbidity for mothers and their newborns.

To deal with this potential problem, four options are presented below for state and community planners and parents to consider. They are presented with the pros and cons for each option. One or several of these choices may be used depending on the needs of the local community. Following that section are plans for pre-disaster preparation, disaster activities and follow-up activities.

Four Options for Safer Birth

1. Isolated Delivery Suites

   Safer birth could take place in hospitals which are able to isolate the labor and delivery floor from the rest of the hospital. All members of the obstetrical staff and all other staff who need to enter the unit would be screened for having received immunizations against influenza (if immunizations are available at that time). Otherwise entry to the unit would be restricted to essential staff only who are not sick. Entry to the hospital Labor and Delivery suite, for parents and staff, should be via a separate entrance whenever possible to reduce contact with sick patients and visitors in hospital lobbies, corridors and elevators.

   Each mother and infant dyad should be isolated in separate single bed rooms, labor and delivery rooms during the birth and hospital stay and discharged home as soon as possible. Visitors would be restricted to the one healthy family member who would stay with the mother until discharge to home well infant nurseries would be closed to avoid cross contamination of infants. All mothers would be strongly encouraged and advised to breastfeed their infants in order to pass on any/all immunities the mother has to diseases.1

   Advantages:
   Pregnant women would not need to change their birth plans or providers during a flu epidemic. All levels of obstetrical care would be available at the hospital.

   Disadvantages:
   It may not be possible to have a separate entryway for the labor and delivery suite depending on the design of the hospital. Potentially sick women and family members and staff may be admitted to the labor and delivery unit and become ill during their hospital stay exposing other patients and staff to the virus.

   It may also be difficult to prevent other hospital staff (i.e. lab techs, housekeeping, food service, pharmacy) from entering the labor and delivery suite. However, each person who enters potentially increases the mother and baby’s exposure to the virus.

2. Maternity Hospitals

   Cities and other communities which have several hospitals may choose to appoint one hospital as the Maternity Hospital during a new type A influenza pandemic.
Only healthy women and babies, one healthy family member, providers and other hospital support staff would be in this facility. Sick mothers and babies would be sent to another hospital or delivered at home. (Sick staff would not come to work.)

As in section one, each mother and infant dyad should be isolated in separate single bed rooms labor and delivery rooms during the birth and hospital stay and discharged home as soon as possible. Visitors would be restricted to the one healthy family member who would stay with the mother until discharge to home well infant nurseries would be closed to avoid cross contamination of infants. All mothers would be strongly encouraged and advised to breastfeed their infants in order to pass on any/all immunities the mother has to diseases.

Advantages: Women would be in a setting that could provide all types of obstetrical services for low risk and high risk women and infants. Sick patients will not be knowingly admitted at this facility, decreasing the potential exposure of mothers and infants.

Disadvantages: Women and neonates would be somewhat exposed, at a very vulnerable time, to other patients, family members and staff who may not be aware that they have the new flu virus. (See above)

3. Birth Centers

There are small licensed and accredited freestanding in many states across the US. There is evidence that birth centers have outcomes comparable to hospital births for healthy women and infants. The American Association of Birth Centers is an excellent resource for communities that need alternatives to hospital births for healthy mothers and babies during a flu epidemic.

Single family trailers may also be used as birth centers. These units can be stocked with birth supplies, food and linens and situated next to Freestanding Surgi-Center (FSC). Most women would give birth in the trailers and those women needing cesarean sections or operative vaginal birth would be transferred to the FSC with the obstetrical team. Both during labor and postpartum, each woman/infant and family member can be isolated within the trailers and only well staff would care for the mother/baby and her one healthy family member, as in the hospital scenarios above.

Advantages: There will be no other known sick patients at this site as in the maternity hospitals. Isolation between patients and the one caring family member is easier to maintain with individual trailers stocked with all medical, food and other supplies. The trailers which would be free standing birth centers have reliable outcome statistics that are similar to hospital outcomes for low risk women.

The Freestanding Surgical Centers would take the place of the hospital for cesarean sections or other operative births. Women who give birth by cesarean section or operative vaginal delivery would be in a facility which has no other known sick patients. After recovering from anesthesia women can be transferred back to the trailer for postpartum care and from there to home as soon as possible.

Disadvantages: FSC have not provided operative care for women in labor nor are they prepared to care for neonates. Obstetrical and neonatal providers would need adequate preparation and practice to safely set up the surgical area for cesarean deliveries and the trailers for lower risk births prior to a type A influenza pandemic. Some level of neonatal intensive care will also be needed in this setting. A team of neonatal staff working with other emergency medical teams from organizations such as XX would need to make appropriate plans prior to a pandemic

There are costs associated with new trailers and equipment for the FSC.

For women with complications, the combination of trailer and surgi-center care has no available outcome data on safety.

4. Home Birth

There is evidence that home birth is a safe option for healthy women when attended by prepared and licensed providers. Some communities may wish to make home birth available during an influenza epidemic in order to lower exposure of women and infants. The American College of Nurse-Midwives has materials on homebirth for parents and providers. ACNM has experts on homebirth to assist in creating a safe home birth service.
Advantages:
Home birth has the lowest additional exposure of mothers and newborns to the influenza virus since as only two providers are needed at each birth. There is evidence that home birth has outcomes are similar to hospital births for low risk mothers and infants. The costs for setting up a homebirth service are very low.

Disadvantages:
While most healthy mothers and infants do well at home, about 8% will require transfer to a higher level of obstetrical care during labor.

Staff for a home birth service will be continually on the move traveling from house to house rather than working at one site. They will need cell phones and adequate maps of the area.

During the Disaster

Changes in hospital policies go into effect, and are communicated to the general public via prearranged community, state and national systems. Information on alternative delivery sites is available to the public thru pre-planned communications which direct patients to appropriate sites. (ie, websites, first responders, telephone operators, hospital operators, churches, schools, clinics, private physician offices, health insurers, pharmacies)

Providers complete the concise data collection tool at birth and at postpartum follow up visits to evaluate the plan.

Post-Disaster Activities

- Evaluation of data collected to assess appropriateness of disaster preparation, coordination of the system and outcomes of care provided. Compare this to pre-disaster data.
- Bring together the team which planned for the disaster in the community to gather further information about what worked and what did not. Share this at state and national level.

Endnotes:
1 - http://www.midwife.org/siteFiles/position/Breastfeeding_05.pdf
2 - Ibid
3 - http://www.midwife.org/siteFiles/education/Birth_Centers_1.06.pdf
5 - http://www.midwife.org/siteFiles/education/Home_Birth_11.05.pdf
6 - http://www.midwife.org/about.cfm?id=288
7 - Ibid
Are you prepared for the next disaster (such as hurricane)?

The CMS staff will ensure that our clients and families know the procedures to take prior to a disaster occurring. Each family should follow the following steps:

1. If your care coordinator recommends that your child should go to the special needs shelter, verify with them that they have your correct address and phone number. They will also need to know if you need county transportation to the shelter.

2. Prepare a list of items that you would need at the shelter. This list should include:
   a) Medications for a two week period;
   b) Diapers and formula (if applicable);
   c) Any medical equipment your child is using or might need (example: oxygen, suction machine, nebulizer, feeding pump, custom wheelchair);
   d) Any supplies such as sterile gauze pads, hydrogen peroxide, cotton applicators, sterile saline, etc.;
   e) Non-medical supplies such as:
      Flashlight, change of clothes, blankets or sleeping bags, pillows, portable radios, child’s favorite toy or stuffed animal, tissues, bottles, pacifiers, etc.;
   f) Any medications, for a two week period, for yourself or any other children that will be accompanying you.
   g) **Charged batteries** for medical equipment.

3. Stay tuned to your local radio and/or TV stations at the time a hurricane (or other disaster) is approaching for notification of shelter openings.

   The shelter will be equipped with food for your family and your child if he/she is on a regular diet. There will also be medical and nursing staff available to assist in the case of an emergency.

   The space at the shelter is limited and we want to emphasize there will only be room for the children who are registered and their immediate family members.

**IMPORTANT REMINDER**

Please be sure to charge all electrical equipment that your child may need during a hurricane watch (a hurricane watch means that a hurricane is approaching within 36 hours). Tune in to your local TV/radio stations.

The following are examples of equipment that should be plugged into an electrical outlet 24 hours before the hurricane:

- apnea monitors
- suction machines
- feeding pumps

When the battery on your equipment is fully charged, the equipment will be able to be used for several hours. It is recommended that you have 2 fully charged batteries.

If you have any questions regarding the shelter or what to bring with you, please contact your care coordinator at:
Q: What changes have states in your region made to improve emergency preparedness? What impact (positive/negative) have these changes had upon maternal and child health?

Region 1:

- Massachusetts is actively involved in developing continuity of operation plans (COOP) for every state agency and every component within the state agency as well COOP’s for every contracted program, hospital, health and human service agency, school district, higher education, child care, and other identified entities. The MCH programs are involved in this planning. We have a staff person who is focusing on “special populations” thus assuring the issues related to mothers, kids, and families are at the table. It is hard to say what positive or negative impact this has actually had except that staff and outside public and private entities are beginning to think through what needs to be in place for the MCH population including children with special health care needs so for the most part it has been positive. Written materials for parents such as the Child Health Diary and Directions for Children with Special Needs have been revised to include chapters on preparedness.

- Connecticut is unsure of the impact at this time.

- Maine has not made any significant changes in the overall emergency preparedness plans. Staff across the Maine CDC (formerly the Bureau of Health-Maine’s Public Health agency) have sought opportunities to learn from counterparts across the country particularly in the area of lessons learned from the hurricanes of 2005 and the response to mining accidents in early 2006. Of particular interest to MCH is systems coordination and communication. December 14, 2005, Maine held a statewide Pandemic Flu preparedness conference with participation from Region I U. S. DHHS Regional Administration. Over 350 people participated and we now have weekly briefings on flu preparedness. Since the late fall of 2004, one of the members of the Public Health Nursing leadership team has been a part of the Office of Public Health Emergency Preparedness (OPHEP) and assumed responsibility for the response plan and activities related to the strategic national stockpile for pharmaceuticals. This has resulted in increased attention to the MCH population in emergency preparedness activities. In addition, the MCH Early Childhood Coordinator has been proactive in educating the OPHEP Coordinator of a) the importance of including the EC population and their families in creation of preparedness plans and b) identified areas for collaboration that can begin before the plan is finalized.

Region 2:

- New Jersey: Hospitals are involved via the emergency preparedness. A team approach; centrally triaging all persons implemented by a centralized command center. The impact is the ability to safely secure and access maternal/child persons to correct care. A real challenge ie. to emergency systems. The evident impact is primarily the impact on mental health, some of which is addresses by the Traumatic Loss Coalitions that are established in each county but is more significantly addressed by the Department of Human Services, Division of Mental Health.

- Puerto Rico: Puerto Rico has had experience dealing with natural disasters. This has helped us develop plans and protocols to deal with these situations. Our local Emergency Preparedness plan was reviewed after storm Jeanne passed through PR. It now includes an updated MCH Division Plan that clearly defines our role in an emergency situation. It includes steps to follow,
contact information and the specific role staff will have under an emergency situation. All staff at central offices has read the document and it has been shared with regional staff.

- Virgin Islands: The Department of Health’s Office for Public Health Preparedness and Response has taken the lead in updating plans and protocols. An advisory task force of all agencies with responsibility for preparedness and response has regularly scheduled meetings and training to address all areas of disaster response. The impact on the MCH population has not been assessed as these plans are not shared.

Region 3:

- One State was without a Regional Coordinator for its Emergency Preparedness activities during a part of FY’05. The Regional Coordinator’s position was recently filled and determined to be a vital part of the regional preparedness focus. While the MCH partners have not been a part of the regional emergency preparedness activities, there is much interest in creating such an important relationship on behalf of this constituency.
- That same State continues to provide case management and critical human support services to hurricane Katrina victims living in local hotels. Specifically, many of the victims include pregnant women, teens and their families. Inter-agency collaboration in support of these individuals will ultimately ensure that they have a smooth transition from hotel stays to permanent residence in the region.
- One State’s Children with Special Health Care Needs Program created a database to include children who have medically complex conditions and identified such individuals by name, address, medications, etc. This database has been shared with Emergency Management Services (EMS) and transport providers, in the event of a crisis. A second phase of this effort includes educating families is being explored.

Region 4:

- First, it is important to say that there was consensus in the region that (a) it has been a challenge for the Title V agency to “be at the table” with respect to emergency preparedness planning, and (b) there is a great need for a more extensive, cogent training emergency preparedness curriculum for MCH leaders and staff.
- Several participants in the call were unable to address this question, because they have been largely uninvolved in state efforts concerning preparedness. Many participants expressed a high level of concern that the unique issues of the MCH population were neither adequately understood nor adequately addressed by those with lead responsibility for emergency preparedness.

Region 5:

- No information submitted

Region 6:

- No information submitted

Region 7:

- Each of the Region VII states has participated in emergency response preparedness, at varying levels of participation. 3 states identified the MCH programs and CSHCN programs have played a minimal role in the preparations. However, in Missouri, the CSHCN Director has a history of working in the state Center for Emergency Response and Terrorism, and thus has been enlisted to chair/participate in all aspects of care for persons with special health care
needs. In addition, a number of staff from the MCH programs actively participate on planning committees. It is important for planning activities to recognize the role existing programs play rather than “taking over”.

**Region 8:**
- Region VIII General Response – Emergency preparedness efforts have impacted local and state response capacity, not always directly impacting MCH. The focus of local health departments on MCH services may actually have been somewhat negatively impacted, due in part to competing responsibilities of the small health departments.
- MT - Montana's emergency preparedness has improved connectivity with local health departments and medical providers through the Health Alert Network (HAN). Greatly improved ability to contact providers, including hospitals and health departments quickly. Schools and days cares were provided some resource and training to have emergency plans for the children in those settings.
- SD - In SD we have an office of emergency preparedness that MCH does not have much day to day work that we have been involved with so have not realized any impact either way.
- UT -- The Department has been heavily involved in Bioterrorism activities with little involvement of MCH in the planning efforts. With the Healthy Child Care America grant we were able to develop a health and safety training for childcare providers, which includes a section on emergency preparedness.
- WY There has been considerable focus, funding, and attention on the improvement of emergency preparedness plans in Wyoming, which includes increased technology capacity, staffing capacity, communication systems, etc. There have been many “tests” of the system, to ensure adequate response if/when needed. As such, there has been a decrease in attention given to the ongoing delivery of other programs, including but certainly not limited to Maternal and Child Health programs.
- ND – We have had minimal involvement with the Division of Emergency Preparedness and Response. However, we do have several MCH staff that serve on the State Incident Command Team. Local Public Health Units have been very involved and several have completed mock drills.

**Region 9:**
- States report different responses. One reports their program hasn’t yet decided to do moms and kids, one has said kids are on the coming year’s agenda, one found that there were lessons learned from Katrina, particularly better communication, and the other that policies and procedures being developed are addressing special needs populations. All agree that the MCH populations have not had sufficient attention yet.

**Region 10:**
- Most states in Region X have reviewed and/or updated public health laws and the authority that would be needed in the event of an emergency.
- In Alaska, legislation has been introduced to fund a statewide Immunization Registry.
- In Washington State, MCH staff are working with Emergency Preparedness staff to create a module to attach to the CHILD Profile Immunization Registry that would track antibiotics or vaccines given to individuals during an outbreak or emergency event.
- MCH and CSHCN Directors in all Region X states are more involved in state level discussions related to Pandemic flu, general status of preparation, and vulnerable populations. We see this as a positive change.