PEDIATRIC PREPAREDNESS RESOURCE KIT

INSPIRED BY THE H1N1 PANDEMIC: STRENGTHENING PEDIATRIC AND PUBLIC HEALTH PARTNERSHIPS

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

“The plan is nothing, the planning is everything.”

Dwight D. Eisenhower, US President

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TABLE OF CONTENTS

FOREWORD

Dear Colleague:

Because children are least likely to be able to "fend for themselves" in the event of an emergency, pediatricians and public health leaders need to be very strong and active champions in advocating for the needs of children. Disaster planning resources dedicated to pediatric populations remain unavailable or are extremely limited. To address this shortcoming, it is vitally important that pediatricians and other pediatric experts be included and engaged in local, state, regional, and federal pandemic and preparedness planning to ensure appropriate care of our most vulnerable population.

Pediatricians should work collaboratively with public health departments and colleagues to identify and decrease barriers to the health and well-being of children in the communities they serve. Pediatricians working in partnership with public health professionals can make a recognizable impact in advocating for the needs of children and families who seldom receive enough attention in disaster planning.

The purpose of the American Academy of Pediatrics (AAP) Pediatric Preparedness Resource Kit is to promote collaborative discussions and decision-making among pediatric and public health leaders about pediatric preparedness planning. Specifically, this kit aims to increase state- and community-level preparedness efforts regarding how best to address children's needs.

It is important to note that the implementation of governmental recommendations during a pandemic or disaster will vary from state to state and county to county. Each population and region has different decision-makers and unique needs and challenges. Physicians who care for children are encouraged to use the resource materials found in the kit to develop strategic partnerships, increase partner engagement, identify strengths and challenges for pediatric preparedness planning, and establish communication networks to ensure that the needs of children are addressed during a pandemic or other emergency. Public health officials are invited to review the contents of the kit to increase their awareness of issues relevant to pediatric preparedness and strategies for partnering with pediatricians and AAP chapters. Although this kit was inspired by the 2009 H1N1 pandemic, most of the contents will be useful and effective in supporting planning for disaster or emergency situations other than infectious disease outbreaks. For an electronic version, go to www.aap.org/disasters/resourcekit.

We are pleased to share this resource kit with you. If you are a pediatrician or pediatric expert, we hope that the kit will encourage you to get more involved in pandemic preparedness or disaster planning efforts. If you are a public health leader or other child advocate, we hope that this kit will encourage you to connect with your state AAP chapter to request that a pediatrician be identified to serve as a point of contact for pandemic and disaster preparedness planning. The strategies shared in this key resource are designed to stimulate action and inspire you to take steps to form key partnerships and improve day-to-day emergency readiness for children in your area. Thank you in advance for the steps you will take to protect children in your community!

Sincerely,

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BACKGROUND INFORMATION

The American Academy of Pediatrics (AAP) is a not-for-profit professional organization of 60,000 primary care pediatricians, pediatric subspecialists, and pediatric surgical specialists dedicated to the health, safety, and well-being of infants, children, adolescents, and young adults. The AAP offers a variety of resources for pediatricians and others who wish to become better prepared for a pandemic or disaster. The AAP has been involved in disaster preparedness efforts for many years. In 2001 the AAP established a Task Force on Terrorism to manage follow-up efforts regarding the terrorist attacks on September 11, 2001, and issues related to anthrax. The AAP then established a Disaster Preparedness Team that focused on Katrina follow-up and clarified the AAP role in reunification, rescue, and recovery. In 2006 the AAP Board of Directors identified disaster preparedness as 1 of 7 strategic health priorities requiring special attention and resources. In 2007 the AAP appointed the Disaster Preparedness Advisory Council to establish a focused effort within the AAP and to develop and implement a strategic plan for disaster preparedness and response.

Through its disaster preparedness and response efforts, the AAP strives to

- Ensure that children's needs are addressed as early as possible in the development of disaster preparedness programs and activities.
- Involve pediatric experts in all areas of disaster planning and response, from the medical home to national levels.
- Assist AAP chapters and members to integrate pediatric issues into state preparedness and response planning.

This resource kit is one of many tools developed by the AAP to support improved pediatric preparedness. For more information and resources, visit the AAP Children & Disasters Web site at www.aap.org/disasters.

PURPOSE OF THE RESOURCE KIT

The content in this resource kit is based on the experiences of AAP members and public health professionals during the 2009 H1N1 pandemic. The AAP conducted after-action activities and discussions, which revealed several areas for improvement related to future pandemics or public health emergencies. A key finding was the need to encourage partnerships and joint decision-making between pediatricians and state health department representatives. It was recommended that the AAP and its state chapters build on relationships forged during the 2009 H1N1 experience and develop improved strategies for pediatric preparedness planning. Further, it was deemed important that AAP chapter leaders have strategic conversations with directors of state health departments, so that when public health emergencies like H1N1 arise, there is a ready channel of communication that can facilitate a response to the crisis. To address these issues, the AAP, in collaboration with the Centers for Disease Control and Prevention (CDC), convened a meeting titled, Enhancing Pediatric Partnerships to Promote Pandemic Preparedness in 2011. (For meeting materials and proceedings, go to www.aap.org/disasters/pandemicmtg2011.)

The Enhancing Pediatric Partnerships to Promote Pandemic Preparedness meeting generated 3 overarching conclusions specific to disaster preparedness and response.

1. Including pediatric experts, especially practitioners, in planning discussions and development of clinical guidance and educational messages would improve health care system efficiency and the care provided to children.
2. Management of messaging to health professionals would reduce information overload and enhance their ability to care for children in need of medical care.
3. Putting a system in place to discuss pediatric considerations and prioritization among children at increased risk in advance of an emergency would enhance outcomes for all populations, especially during times when resources are limited.

An emphasis was placed on selecting the most qualified or "right" pediatric expert. Individuals tend to reach out and ask for help from the pediatricians they know, especially those already involved in other initiatives. It is preferable to ask for an official AAP (national) or AAP chapter (state) representative. By contacting the AAP headquarters office or the AAP chapter directly, a strategic liaison relationship can be established.

The strategies described in the resource kit are already demonstrating positive results. Follow-up discussions in 2012 with the 10 state teams that attended the AAP/CDC meeting revealed that meeting participation had led to

- New opportunities for team members to report on disaster preparedness and meeting follow-up at relevant AAP chapter and other state meetings
- Enhanced interest in disaster preparedness discussions among AAP members
- Improved awareness of children's needs during and after disasters at the state department of health
- An increase in discussions focused on pediatric issues (in general) within state-level public health meetings

- Specific follow-up at the state level regarding vaccine registries and vaccine distribution systems
- Enhanced opportunities for meeting participants to develop expert-level skills and to be viewed as experts by others

Follow-up priorities for state teams include

- Identifying a statewide list of pediatricians or contact network for ready communication
- Developing a pediatric advisory council or children's preparedness coalition (or appointing an AAP chapter liaison to a standing preparedness committee) to ensure the needs of pediatric populations and medical practices are included in state and local preparedness plans
- Implementing a system to identify children at high risk, perhaps through effective use of statewide registries

Common barriers/challenges for state teams include

- The time, commitment, and resources required to further the involvement of pediatricians at the state level (eg, busy schedules, funding restrictions for travel to meetings)
- Working to make the right connections at the state level to ensure a pediatric focus on preparedness and response planning
- Turnover in state team members

The resource kit aims to address these issues, enhance state- and community-level preparedness planning, and implement strategies to address children's needs. Strategies referenced in the kit can stimulate discussions and increase decision-making and strategic communication about pediatric preparedness topics. Although many of the core concepts found in the kit stemmed from discussions about the 2009 H1N1 influenza pandemic, most strategies are applicable to all-hazards disaster planning. As an example, a key recommendation found in the resource kit proposes that states establish a pediatric advisory council or children's preparedness coalition where leaders and practitioners decide together what actions are required to protect children in the event of a disaster. This effort lays the groundwork for effective decision-making regardless of the type of emergency or disaster.

INCLUDING PEDIATRIC CARE PROVIDERS IN STATE-LEVEL DECISION-MAKING

Actively seeking pediatrician and pediatric provider input and creating a bi-directional partner dialogue with public health decision-makers are key components of including pediatricians in state-level decision-making before, during, and after a disaster.

By inviting pediatric experts into discussions about pandemic preparedness and public health emergency planning, the federal, state, and local decision-makers can work to ensure that children's issues are addressed during the initial state, regional, and local plan development stages. By including pediatricians and pediatric care providers in pandemic and disaster preparedness discussions, the individuals responsible for planning will have greater ability to identify and address specific gaps in pediatric readiness. They will also have increased access to pediatric experts. It will be important to ensure that all partners involved in pandemic and disaster preparedness efforts work together to develop an integrated, cohesive plan with a high level of flexibility.

Questions to Consider

- How does the state's existing pandemic and disaster preparedness plan address children's needs?
- Is there an existing committee or coalition of pediatric and public health leaders that aims to improve pediatric preparedness in the state? Every state has an Emergency Medical Services for Children (EMSC) program, which may be a potential location for an existing coalition. See www.childrensnational.org/EMSC/DisasterPreparedness/DisasterAgencies for state contacts.
- Is there an ongoing preparedness council that a pediatrician or public health representative could join to improve preparedness for children?
- Does the AAP chapter have a "pediatric champion" or committee to address disaster preparedness and response?
- Is there a state-specific action plan for pediatric preparedness?
- What opportunities are there for individual pediatricians to get involved in public health planning? Are there ways that public health leaders could join AAP chapter leaders in their planning efforts?

By including pediatricians and pediatric care providers in pandemic and disaster preparedness discussions, the individuals responsible for planning will have greater ability to identify and address specific gaps in pediatric readiness.

IDEAS TO INCREASE PEDIATRIC INVOLVEMENT IN DECISION-MAKING

Basic	Advanced
❑ Compile a list of key pediatric and public health leaders and identify their involvement in preparedness efforts.	❑ Prioritize pediatric preparedness improvement opportunities and implement steps to achieve the most critical needs.
❑ Identify a "pediatric champion" within the AAP chapter or certain organizations and encourage collaboration and integration of their work with local emergency management agency officials. An example would be to identify a pediatric contact at each community or referral hospital (in the emergency department [ED]) who can participate in pandemic or public health disaster surge planning discussions.	❑ Promote the use of the AAP and other resources to improve the quality of pediatric preparedness and related collaborative efforts. Use the AAP joint policy statement, "Care of Children in the Emergency Department" (http://pediatrics.aappublications.org/content/124/4/1233.full), and its companion checklist (www.ena.org/media/news/Documents/EDPrepChecklist.pdf) to implement guidelines and strategies to optimize care for children in hospital EDs.
❑ Conduct a needs assessment/survey to identify gaps in pediatric preparedness planning.	❑ Contact those involved in existing or ongoing disaster preparedness drills and exercises to determine ways to involve pediatricians in planning efforts, target pediatric-specific requirements, and include pediatric victims.
❑ Initiate a dialogue among pediatricians, emergency management officials, and public health personnel about the needs of children before a public health emergency or disaster.	❑ Form a pediatric advisory council or children's preparedness coalition to address children's needs during or after a public health emergency or disaster.
❑ Obtain pediatric care providers' input (including those who provide outpatient primary care) to plan ahead for vaccine or medication distribution during a disaster.	❑ Identify and connect with personnel involved in the Strategic National Stockpile Points of Dispensing. Ask the state department of public health for names of contacts.
❑ Review existing chapter and state public health Web sites for pediatric preparedness content. Suggest that links to relevant resources from the AAP Children & Disasters Web site be added.	❑ Develop and maintain a shared online resource describing clinical workload, clinical capacity, critical supplies on hand, and current utilization in the event of an emergency.

PROMOTING STRATEGIC COMMUNICATIONS AND SYSTEMATIC MESSAGING

Communication and messaging are important components of an effective response to a pandemic or public health emergency and are therefore critical to pediatric preparedness. Suboptimal messaging and communication can easily exacerbate a crisis. Messaging is important (what to say, how to say it, and who to say it to), as is the means to deliver the message. With the wide use of smartphones and other computer technology, messages can be delivered through many different forms. Examples of such methods include social media, text messaging, YouTube videos, blogs, other Web sites or online tools, and apps specifically designed for topics such as tracking various aspects of disaster planning or acute issues during disasters, as well as the clean-up and follow-up in the aftermath.

In a time of crisis, the message needs to be simple, poignant, accessible, and timely. Messages should come from a trusted source, be reviewed by a pediatric expert, and be crafted to reassure and/or communicate concrete steps to reduce risk.

Key communication points identified by AAP members during the 2009 H1N1 pandemic included

1. Preparedness and planning efforts should consider messaging and strategic communication as essential to response.
2. Preexisting and trusted collaborative relationships between public health and health care organizations form the basis of a strong communication system during an emergency.
3. It is important to minimize excessive, conflicting, confusing, or unnecessarily anxiety-provoking messages.
4. It is critical to ensure up front that children's needs are specifically addressed.
5. The AAP and CDC partnership during the recent pandemic was effective. It will be important to continue and expand a joint AAP/CDC response strategy.

In a time of crisis, the message needs to be simple, poignant, accessible, and timely. Messages should come from a trusted source, be reviewed by a pediatric expert, and be crafted to reassure and/or communicate concrete steps to reduce risk.

Questions to Consider

- Does the state have an emergency contact database for health professionals who care for children, such as pediatricians, pediatric care providers, and pediatric nurse practitioners? If not, what is the first step in creating such a database?
- Has a strategic communication plan been created based on state, regional, and local partner input?
- What specific strategies can be implemented at the state, regional, and local level to enhance communication and reduce information duplication or overload before, during, and after a pandemic or public health emergency?
- Does the communication plan consider the unique needs of all children, including children and youth with special health care needs (CYSHCN) and their families?
- What types of existing vehicles are available to communicate important messages to colleagues, patients, and families before, during, and after a pandemic or public health emergency?
- What are some new ways to develop strategic communication and systematic messaging in planning for a public health emergency?
- Can connections with child care health consultants or school nurses be enhanced to ensure accurate health information can be shared with families?
- How can telecommunications and telemedicine strategies be leveraged to improve situational awareness and consequence management, share critical knowledge, and provide just-in-time training to enhance response during public health emergencies without power failure, and thus enable the best possible outcomes?

IDEAS TO IMPROVE COMMUNICATION AND MESSAGING

Basic	Advanced
❑ Establish a contact network, electronic mailing list, or database of key contacts. Compile and share relevant contact information.	❑ Identify, recruit, and provide appropriate training of pediatric subject matter experts to develop them as spokespersons. Encourage selected individuals to build relationships with media contacts before an emergency or disaster. Include local radio, television, newspapers, and Web sites (eg, school Web sites).
❑ Review available communication opportunities in the state (eg, social networking, webinars, telehealth care strategies, registries, Web sites). Work with state AAP chapter and public health leaders; regional, county, and local pediatric societies; and counterparts in the public sector to compile a list of communication options and develop a model for communication to minimize inconsistency.	❑ Create an evaluation to test existing communication approaches. Suggest that communication be addressed or tested within existing "tabletop" or live exercises or drills.
❑ Develop a written plan to facilitate rapid and effective messaging and communication. Separate vehicles for encouraging a dialogue with health professionals and sharing information with parents and the public are recommended.	❑ Increase awareness of the communication plan before and during a public health emergency. Let key contacts know which communication option to expect. Include instructions for texting or alternate communication if others fail.
❑ Put strategies in place to avoid information overload and conflicting messages during a pandemic or public health emergency response. Identify a leader to review important notices from federal agencies and other trusted sources and debrief on communication messages daily during a public health emergency. The task force can craft a single message and bullet new items to be communicated regarding clinical guidance.	❑ Develop a pediatric public health emergency surge communication plan (eg, host-state surge plans, statewide profile of hospital pediatric bed capacity, staffing, unique/specialty services, transport capabilities, key pediatric resource capabilities). One example is the Southeastern Regional Pediatric Disaster Response Surge Network (www.southcentralpartnership.org/pediatric_network).
❑ Identify a Web page where announcements can be posted to easily communicate with state pediatric and public health leaders during an emergency.	❑ Develop, adapt, or implement Web-based communication systems to facilitate communication across states that involve key stakeholders (eg, public health, pediatric care providers, hospitals, schools, parents, and community- and faith-based associations). Consider how to incorporate social networking sites so that information can be acquired and disseminated as rapidly and widely as possible.
❑ Discuss strategies for addressing culture and language barriers in advance of communicating an important message to health professionals and the public. Approach nontraditional partners like local consulates, faith-based leaders, or librarians. One example might be to develop an emergency communication plan adaptable for health care professionals who care for sight- and hearing-impaired patients.	❑ Use a variety of communication vehicles to reach as many diverse populations as possible (eg, social media, "Dear Colleague" letters, flyers in stores, call center, community-based outreach, text and e-mail blasts).

Tips for Working With the Media and Risk Communication

Crisis communication and messaging are important components of an effective response to a public health emergency and therefore become a critical component of preparedness efforts. These efforts are most efficiently handled by those experienced in doing so. However, in the event those individuals are unavailable, here are some important tips on working with the media during a pandemic or public health emergency.

- **Identify, recruit, and train pediatric subject matter experts as media spokespersons.** Have a communications plan in place with pre-identified spokespersons to streamline information and avoid any inaccurate or conflicting messaging during an actual event.
- **Communicate openly and honestly.** Promptly respond to rumors and inaccurate information to minimize concern, social disruption, and stigmatization.
- **Engage the public.** Help them to make better, informed decisions.
- **Provide timely and accurate information.** It will be important to communicate messages before, during, and after an emergency. It is helpful to maintain regular contact with the media instead of approaching them only in a time of emergency.
- **Establish a solid (contractual, if possible) relationship with the media in advance of a pandemic or public health emergency.** This will help to guide attitudes, decisions, collaboration, and cooperation.
- **Participate in media training.** Assess readiness for response in advance of a declared pandemic or public health emergency.
- **Develop a list of media contacts.** Constantly and consistently maintain this list.
- **Have a well-developed, single overriding communications objective.** In a pandemic or public health emergency, the public will need clear, simple instructions.

PRIORITIZING WITHIN AND AMONG HIGH-RISK GROUPS

The October 2010 report delivered to the president of the United States and Congress by the National Commission on Children and Disasters (NCCD) highlights persistent gaps in disaster preparedness for children. The NCCD calls for the development of a national strategy to ensure children are given a higher priority before, during, and after disasters. The report includes more than 100 recommendations to federal, state, and local governments and nongovernmental organizations to improve protections for children. To review a copy of the NCCD report, visit http://archive.ahrq.gov/prep/nccdreport/.

Most community pediatricians and pediatric care providers are left out of formal planning for disaster response. Ideally, this should be rectified before a pandemic or public health emergency. Pediatricians and other pediatric care providers can help ensure that federal, state, and local disaster plans include specific protocols for management of children by advocating for the special needs of children during planning efforts at every organizational level. Public health leaders can connect with the relevant AAP chapter to identify pediatric experts who can collaborate with them on preparedness efforts.

Even further emphasized within the priority given to children are high-risk groups. The unique medical attention that will be required for infants, children, and young adults with special health care needs must be considered. Taking steps to include pediatric care providers in state-level decision-making and promote strategic communications and systematic messaging are key components of achieving prioritization within and among high-risk groups of children.

Within the general population, high-risk groups can include pregnant women; lactating mothers and their infants; health care personnel; CYSHCN; and hard-to-reach populations, such as minorities, undocumented immigrants, the homeless, or families without access to computers or cellular telephones. Use of a generic catch-all term (at-risk, special needs, special populations) for diverse populations with very different needs interferes with the need to examine each of these groups and their needs individually. Use of these generic terms has resulted in combining children, pregnant women, the elderly, and even pets into one group, and this practice sends an unhelpful message regarding the unique needs of each of these populations.

A better message to send is that children have important physical, physiological, developmental, and mental differences from adults that can and must be anticipated in the disaster planning process. In addition, there are certain groups of children that will require specialized planning and extra consideration up front. By carefully considering which groups of children may be at increased or even highest risk in a specific disaster or emergency, planning will benefit all children and the population at large.

One example would be that infants are specifically at risk for dehydration, hypothermia, and infection. Special attention must be placed on keeping mothers and infants together and to create a safe environment for

breastfeeding or pumping breast milk (see www2.aap.org/breastfeeding/files/pdf/InfantNutritionDisaster.pdf). In addition, children younger than 5 years, especially very young infants (those younger than 12 weeks), are at increased risk of influenza-related complications and, therefore, should be observed carefully for any signs and symptoms of influenza (see www.aap.org/disasters/preventflunewborns). The AAP has experts and resources to assist states in planning to address the unique needs of children, including certain groups of children who might be at increased risk.

Questions to Consider

- Has a strategic plan been developed to identify and address the needs of high-risk populations before, during, and after a disaster?
- What strategies can be implemented at the state, regional, and local level to enhance the care of children at high risk, including CYSHCN?
- Does the state preparedness plan consider the unique needs of all children, especially CYSHCN?
- What are the opportunities at the local level to advocate for hard-to-reach populations?
- Are there questions that public health leaders have about children in high-risk categories that AAP member experts can help answer in advance of an emergency or disaster?
- Is there a mechanism in place for AAP chapter and public health decision-makers to determine how to allocate resources and address the needs of children, especially those at increased risk after a disaster? See one example from Kansas at www.kdheks.gov/cphp/download/GuideforPlanningUseofScarceResources.pdf.
- Can a current public health emergency or local disaster situation be used to reinforce influenza preparedness or other health messages (eg, need for annual influenza immunization, connection to the child's medical home)?

IDEAS FOR PRIORITIZING AMONG HIGH-RISK GROUPS

Basic	Advanced
❑ Improve access to care for children in high-risk groups through better use of immunization registries or another tracking mechanism to flag children at high risk for developing complications.	❑ Initiate efforts with local emergency management officials to use geographic information system mapping, state registry or database, or other strategies to rapidly identify where high-risk populations exist within regional areas.
❑ Convene a group of experts to facilitate discussions regarding children at highest risk to coordinate response efforts and propose improvements. Centralize decision-making initially, but defer to local leaders for customized execution for high-risk populations (strategic planning and tactical execution).	❑ Identify one point person or group to discuss and disseminate key recommendations regarding the chemoprophylaxis (administration of medication to prevent disease or infection) and treatment of high-risk populations. When making decisions about how to allocate scarce resources, one or more pediatric bioethics experts should be included.
❑ Engage community leaders and representatives from local and state educational agencies and child care facilities in discussion about pandemic and public health emergency planning for high-risk populations. Create community-based educational campaigns tailored for various high-risk populations.	❑ Create partnerships among pediatricians, other pediatric care providers, families of CYSHCN, advocates, and payers, particularly Medicaid and state children's health improvement programs, to address the unique health care requirements of CYSHCN, especially those who are in managed care. Preparedness planning for high-risk populations should be comprehensive and involve all sectors of the community (eg, residents, families, health officials, law enforcement, faith-based representatives).
❑ Create a pediatric-focused statewide model for distribution of limited resources (eg, vaccine, antibiotics, masks, ventilators) that will reflect the distribution of pediatric patients at highest risk for a particular threat.	❑ Create a statewide database of practices and hospitals that care for children to include patient numbers and characteristics to facilitate the appropriate prioritization of resources.
❑ See the AAP policy statement "Emergency Information Forms and Emergency Preparedness for Children With Special Health Care Needs" (http://pediatrics.aappublications.org/content/125/4/829.full) for more ideas.	❑ See Appendix 2 of this policy statement (http://pediatrics.aappublications.org/content/125/4/829.full#app-group-1) for a sample Emergency Information Form that can be customized for individual children.

DEVELOPING STATE ACTION PLANS

Developing a state action plan for pediatric preparedness will encourage discussion and create partnerships between pediatricians, pediatric care providers, and public health professionals. Having a concrete action plan also will enhance direction and accountability of pediatric preparedness planning. An action plan involves creating a sequence of steps that must be taken for a strategy or plan to be implemented. An established state action plan can be used as the vehicle for the creation of a team of subject matter experts who can make important local connections, brainstorm, and problem-solve before, during, and after a pandemic or disaster.

Determine whether the plan will focus on issues specific to disaster preparedness, pandemic preparedness, or pediatric preparedness in general. The plan should include steps that states, chapters, and individual pediatricians and other pediatric care providers can take, given available resources (as opposed to steps that require actions from others). Review state models, identify key challenges, discuss possible solutions, and prioritize action steps.

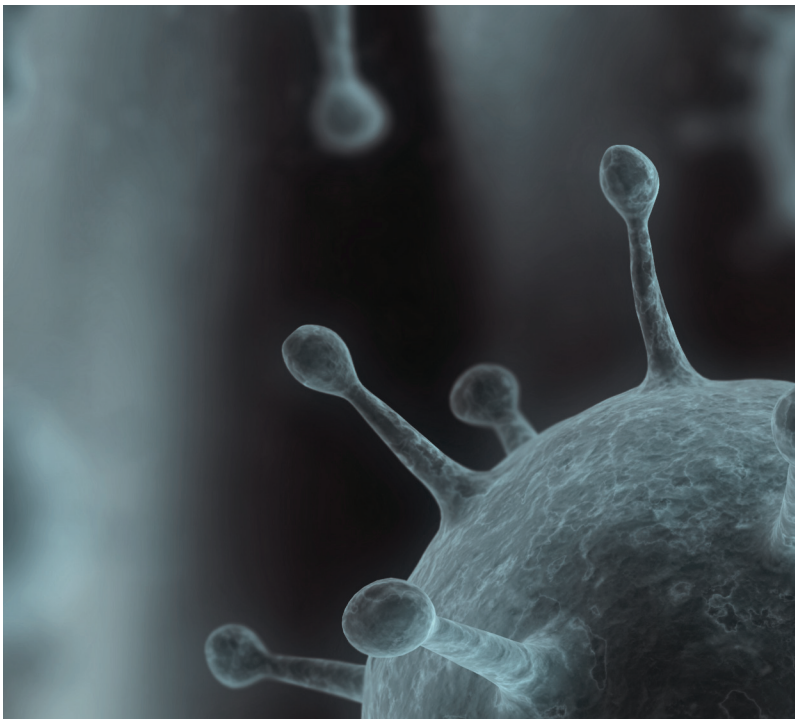
The state action plan will need to be fluid and subject to change as clinical guidelines and experiences evolve. Developing a state action plan is critical for pediatricians, pediatric care providers, and public health leaders, and it is important to be aware that the content of the plan may be different at the state or even county level. Follow these helpful tips when writing a state action plan.

- Create a team of experts.
- Write a list of actions.
- Analyze and prioritize.
- Develop a timeline to monitor the execution of your plan and make needed changes.

The 10 state teams that participated in the Enhancing Pediatric Partnerships to Promote Pandemic Preparedness meeting (California, Florida, Georgia, Illinois, Michigan, Missouri, New Mexico, Texas, Utah, and Virginia) have developed and are maintaining updated state action plans. It is important to note that the state action plans will continue to evolve based on future discussions. To view the 10 state team action plans, go to www.aap.org/disasters/pandemicmtg2011.

Each state action plan should consider the phase or phases that the plan aims to address. Presidential Policy Directive 8 (PPD-8) describes the nation's approach to national preparedness. The national preparedness goal is the cornerstone for implementation of PPD-8. Identified within it are the nation's core capabilities across 5 mission areas: prevention, protection, mitigation, response, and recovery. **Prevention** refers to the capabilities necessary to avoid, prevent, or stop a threatened or actual disaster, while **protection** focuses specifically on securing the homeland against disasters. **Mitigation** involves reducing loss of life and property by lessening the impact of disasters, and **response** similarly involves saving lives, protecting property and the environment, and meeting basic human needs after the incident has occurred. **Recovery** involves helping communities affected by an incident to recover effectively.

The National Preparedness System is the instrument the nation will employ to build, sustain, and deliver those core capabilities in order to achieve the goal of a secure and resilient nation. Aligning your state action plan with this framework can enhance connections to existing federal efforts. To learn more about the National Preparedness System, go to www.fema.gov/pdf/prepared/nps_description.pdf.



An established state action plan can be used as the vehicle for the creation of a team of subject matter experts who can make important local connections, brainstorm, and problem-solve before, during, and after a pandemic or disaster.

"A small group of thoughtful people could change the world. Indeed, it's the only thing that ever has."

Margaret Mead, American Cultural Anthropologist

ESTABLISHING PEDIATRIC ADVISORY COUNCILS OR CHILDREN'S PREPAREDNESS COALITIONS

As mentioned previously, establishing a pediatric advisory council or children's preparedness coalition where pediatric and public health leaders and practitioners decide together what actions are required to protect children in the event of a disaster can promote effective decision-making regardless of the type of emergency or disaster. These committees or coalitions can

- Participate in an analysis of the current EMSC activities. See www.childrensnational.org/EMSC/.
- Identify priorities for children and solution-orientated suggestions for system change, based on nationally recognized standards.
- Inform and educate state decision-makers and the community.
- Help identify pediatric and public health representatives who can serve on other relevant state project task forces.
- Create networking opportunities with local pediatricians, other pediatric care providers, public health decision-makers, and state partners.
- Contribute to ongoing discussions and offer updates and enhancements to key federal reports.

Members of Pediatric Advisory Councils or Children's Preparedness Coalitions

At the very least, a pediatric advisory council or children's preparedness coalition should include a pediatrician point person with a connection to the relevant state AAP chapter, a public health leader in a position of making key decisions during an emergency or disaster, and a community pediatrician or primary care pediatrician. Including a mental health professional (psychiatrist, psychologist, social worker, or counselor) who regularly works with children can also be very beneficial. Although a small working group or coalition of pediatric and public health leaders should guide the discussions and decision-making when developing or implementing an action plan, there is value in having this core group identify and connect with a larger group of pediatric experts.

Think broadly and creatively about who might be identified to participate with this work. Pediatric care providers understand the needs of children, and they have transferrable skills that can be used in an emergency when local services are overwhelmed and resources are scarce.

- A community pediatrician or primary care pediatrician can help ensure that clinical recommendations are appropriate for use in a pediatric office practice.
- A pediatric dentist can be a crucial addition to the team. After the 2011 tornadoes in Alabama, it was a pediatric dentist who worked in the local ED to help with lacerations and trauma care.
- A pediatric infectious diseases expert or critical care specialist can provide expertise on children at highest risk during an infectious disease outbreak or pandemic.
- Pediatric anesthesiologists, emergency physicians, and surgeons can help with planning for mass casualty situations.

Various resources about community collaborations are available from the AAP Council on Community Pediatrics (www2.aap.org/commpeds/resources.html).

Sustaining Pediatric Advisory Councils and Children's Preparedness Coalitions

Initiating or establishing a council or coalition can be easier than sustaining these collaborations during times when there are not active disasters. Ideally, it is best to connect this effort to a standing committee or group that meets on a regular basis. The following additional strategies may be useful in sustaining a committee or council over time:

- Provide open membership to all interested pediatric volunteers.

- Identify and secure funding and other resources (eg, person to serve as a point person or "driver," resources to support food/meeting room).
- Establish a relationship with the state/territory EMSC program.
- Develop teams or task forces to address select national or state-specific issues.
- Maintain communications by sharing meeting proceedings (www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Children-and-Disasters/Documents/Pandemic-Preparedness-April2011.pdf) and status of actions with all appropriate stakeholders.
- Include public health representatives or establish a mechanism to report back to the state department of health point person.
- Consider ways to leverage discussions into training opportunities, perhaps to satisfy continuing medical education requirements.
- Explore ways to infuse use of pediatric requirements or child victims into ongoing drills and exercises. Consider ways to implement a pediatric-specific drill.

Existing Pediatric Advisory Councils

Below are select examples of existing pediatric advisory councils or children's preparedness coalitions.

- **Florida:** Following the Enhancing Pediatric Partnerships to Promote Pandemic Preparedness meeting, the AAP Florida Chapter and the state department of health developed the Florida Children's Preparedness Coalition. This group convenes bi-monthly to discuss and build on disaster preparedness planning for children. The coalition works to forge connections between public health representatives and community pediatricians to achieve disaster preparedness and enhance communications at the state and local level. The Florida Chapter is also active in the Southeastern Regional Pediatric Disaster Response Surge Network, which is a network of southeastern states that deals with surge capacity and focuses efforts on how to handle the sharing of resources so that they can be available where and when they are needed.
- **Illinois:** Since 2002 the Illinois EMSC program has coordinated a State Pediatric Preparedness Workgroup that focuses specifically on pediatric preparedness initiatives. In 2011 a Pediatric Surge Annex Planning Committee was developed. This committee is developing a Pediatric and Neonatal Surge Annex for the State Emergency Support Function-8 Plan (state public health and medical services disaster plan).
- **Maryland:** The Maryland Pediatric Emergency Medical Advisory Committee (PEMAC) (www.miemss.org/home/PEMAC/tabid/167/Default.aspx) advises the state emergency medical services (EMS) Board and State EMS Advisory Council on pediatric issues. The PEMAC was developed to facilitate the identification of needs for pediatric emergencies, trauma, and critical care and to make recommendations for statewide enhancement initiatives for the Maryland EMS system. The PEMAC helps to develop statewide guidelines for hospital and prehospital care; identifies educational needs of health care professionals regarding pediatric emergencies, trauma, and critical care; and supports the dissemination of prevention programs focused on children and families.
- **Pennsylvania:** The Pennsylvania EMSC Advisory Committee (www.pehsc.org/ems_children_committee.htm) offers a forum for issues that have potential impact on the emergency care and transport of all pediatric patients in the commonwealth. The committee strives to educate prehospital providers, other health practitioners, and the general public about services available through the EMSC. This advisory committee also formulates recommendations for consideration by the Pennsylvania Emergency Health Services Council Board of Directors regarding pediatric emergency care and injury prevention.
- **Texas:** The EMSC Advisory Committee (www.bcm.edu/pediatrics/texasemsc/index.cfm?PMID=13143) supports state partnerships to support pediatric emergency medical care in Texas. Committee efforts focus on identification of EMSC priorities, development of a strategic plan, and implementation and evaluation of EMSC strategy. Committee members, through their various backgrounds and disciplines, bring together a rich assortment of experiences and perspectives to achieve common goals.

For more information or to connect with the leaders of these groups, e-mail DisasterReady@aap.org.

AAP CHAPTER CONTACTS FOR DISASTER PREPAREDNESS

One person can make a difference. For states that may not be ready to launch an entire council or coalition, a useful strategy might be to identify one pediatrician to spearhead pediatric preparedness initiatives. The AAP is in the process of identifying a "pediatric champion" or chapter contact who can work to initiate and mobilize disaster preparedness and response efforts in every state. In some states an experienced pediatrician is partnering with and mentoring a pediatric resident or medical student. A disaster preparedness contact can be someone who is willing to learn more about supporting children after a disaster or a member who is interested in even just one of the following:

- Improving personal disaster preparedness
- Enhancing office and/or hospital readiness

- Helping families prepare an emergency kit and develop a disaster plan
- Improving state and local emergency readiness

Chapter contacts can focus on specialty or interest areas (eg, community pediatrics, critical care, emergency medicine, medical home, or public health). A list of existing chapter contacts along with a description of state initiatives being managed by AAP chapters can be found at www.aap.org/disasters/stateinitiatives. Pediatric leaders and public health decision-makers can work together to mobilize state or AAP chapter disaster preparedness contacts and connect these individuals to relevant preparedness planning and response efforts.

Responsibilities of Chapter Contacts for Disaster Preparedness

The AAP chapter contact for disaster preparedness and response position is voluntary. The responsibilities and initiatives of the position can be diverse based on the needs within the state or region and can represent the interests or expertise of those leading these efforts. Each contact can do as little or as much as they like.

These individuals can

- Serve as a conduit for disseminating best policies and practices to pediatric care providers through the leadership and networks of the AAP chapters. As an example, the contact can review information distributed by the AAP and provide updates to their chapter.
- Serve as an advocate for change at the local, state, and national levels.
- Explore ways to represent children's issues on an existing preparedness coalition.
- Assist in developing a key contact network and a communication plan.
- Become involved in providing technical assistance, as well as tools and resources to pediatricians and other pediatric care providers.
- Assist in aligning national, state, local, and/or community priorities (perhaps through the formation of a pediatric advisory council or children's preparedness coalition).

Initiatives for Chapter Contacts for Disaster Preparedness

The following ideas are designed to help chapter contacts for disaster preparedness begin to promote preparedness at the local, state, and national level.

…establishing a pediatric advisory council or children's preparedness coalition where pediatric and public health leaders and practitioners decide together what actions are required to protect children in the event of a disaster can promote effective decision-making regardless of the type of emergency or disaster.

IDEAS FOR CHAPTER CONTACTS

Basic	Advanced
❑ Work with a local community emergency response team to conduct training or provide information on relevant courses to AAP chapter members.	❑ Help the state Medical Reserve Corps coordinator develop training on pediatric issues and identify resources for pediatric disaster care.
❑ Determine who oversees the state plans for public health emergency preparedness and pandemic influenza. Review these plans for inclusion of children's issues.	❑ Identify state preparedness committees, task forces, or initiatives and represent the pediatric perspective and children's needs when necessary.
❑ Plan to do "just one thing" in September, which is National Preparedness Month (eg, join the National Preparedness Month Coalition). See www.aap.org/disasters/preparednessmonth.	❑ Ask which AAP members are already involved in preparedness initiatives. Refer to www.aap.org/disasters/stateinitiatives to learn about what other AAP chapters are doing.
❑ Check the AAP chapter or state department of health Web site to ensure that children's preparedness issues are addressed. Ask that a link be added from these sites to the AAP Children & Disasters Web site home page at www.aap.org/disasters/stateinitiatives.	❑ Ask other medical specialties or societies to add a link to the AAP Children & Disasters home page to their Web site.
❑ Get involved and help implement a state pediatric preparedness action plan. See plans for California, Florida, Georgia, Illinois, Michigan, Missouri, New Mexico, Texas, Utah, and Virginia at www.aap.org/disasters/pandemicmtg2011.	❑ E-mail DisasterReady@aap.org to learn more about how to start a pediatric/public health preparedness initiative.
❑ Donate to the AAP Friends of Children Fund and identify your donation for "Disaster Relief." See www.aap.org/disasters/disasterfund for more information.	❑ Sign up to volunteer in advance. Join the Medical Reserve Corps (https://medicalreservecorps.gov/HomePage) or the Emergency System for Advance Registration of Volunteer Health Professionals (www.phe.gov/esarvhp/pages/registration.aspx), or review EMSC disaster volunteer opportunities by state (www.childrensnational.org/EMSC/DisasterPreparedness/DisasterAgencies/).
❑ Promote preparedness and continuity of operations planning for pediatric practices.	❑ Help strengthen relationships between the community hospital(s) and affiliated pediatric practices to encourage joint planning.
❑ Use existing preparedness infrastructure (federal/state/regional/local) to advocate for and educate about pediatric needs during a disaster. Leverage findings of the National Commission on Children and Disasters to create urgency regarding this issue.	❑ Develop a vehicle to support physician/public health relationships at county health department levels. Possibilities include webinars or lunch and learn sessions.
❑ Work with hospital regional groups, as well as state department of health, emergency care, and children's hospital leadership to be able to assess ED, clinic, and hospital clinical overload and key supply shortages in disasters.	❑ Join or form a regional pediatric disaster surge network or work with other AAP chapters to form a similar network in the region.
❑ Review AAP disaster preparedness resources and customize a handout or publication for all physicians, families, or other key audiences. See the AAP Children & Disasters Web site at www.aap.org/disasters or review the EMSC National Resource Center's "PEDPrepared" Pediatric Disaster Clearinghouse at www.childrensnational.org/EMSC/DisasterPreparedness/DisasterClearinghouse/.	❑ Coordinate a meeting, continuing medical education presentation, or trainings on pediatric disaster topics. For ideas on pediatric disaster response competency areas and training topics, refer to the Pediatric Disaster Preparedness Curriculum Development Conference Report (http://ncdmph.usuhs.edu/Site_n/Documents/PedsConferenceReport_1.pdf).
❑ Contact the local Red Cross chapter (www.redcross.org/find-your-local-chapter) to learn about volunteering at the local level or to discuss whether there is an opportunity to provide training on child health topics to disaster relief workers.	❑ Improve shelter readiness for children by assisting in the creation of guidelines to ensure the pediatric perspective is addressed. More information, including standards, can be found at www.aap.org/disasters/hurricane.

INCREASING PEDIATRICIAN INVOLVEMENT IN PREPAREDNESS EFFORTS

In addition to identifying a pediatric champion or including appropriate pediatric experts on the pediatric advisory council or children's preparedness coalition, it is important to encourage individual pediatricians to increase their involvement in disaster preparedness. Emergency preparedness is important at many levels (personal, family, community, regional, other specialty societies, state, and federal), with the state and federal governments having pivotal roles.

The federal government provides significant funding for disaster preparedness and response and establishes the framework that is then followed by states, regions, and communities. In disaster response, funding and planning tend to be top down, yet the response and use of resources tend to be bottom up—as resources are exhausted at the local level, assistance is requested from the next level, such as the state, which then requests federal assistance as needed. Recent concepts of disaster and aftermath response and planning include the involvement of neighborhoods and families and have even begun to address needs at the individual level. A successful response to a disaster requires the interaction of personnel and resources from multiple agencies in an organized and coordinated manner according to a well-formulated plan. Although this planning has increased in recent times, attention to the unique needs of children and the inclusion of pediatric expertise in the planning phases is still minimal or, in many cases, nonexistent. Individual pediatricians can be active champions in advocating for the needs of children as well as pediatric-focused preparedness planning.

As individual pediatricians take steps to increase their involvement, they may have questions about medical liability.

Volunteering and Professional Liability

Pediatricians and other health care providers sometimes cite uncertainties about liability coverage as a reason for not getting involved in disaster response efforts. Although this is not an issue for those involved in the public health service, it is important that health care professionals serve as part of an organized program if they provide medical services during a pandemic or public health emergency. Lack of an oversight organization may result in services that are not in concert with the organized response and places health care professionals in a position without professional liability insurance coverage. Most malpractice coverage is limited to the health care professional's usual scope of practice and practice setting. In some states, individual malpractice insurance policies do not cover out-of-office care or the expanded scope of practice that may be required during a pandemic or disaster.

Good Samaritan statutes provide some liability protection when rendering medical care at the scene of an emergency to one who would not otherwise receive it. Good Samaritan statutes cover physicians at the scene of acute incidents but vary among states and may not provide liability protection during or after disasters. These laws do not cover a physician if there is any payment for services or if there is an accusation of gross negligence. In many states, coverage for liability during a disaster requires health care professionals to practice under the umbrella of an official disaster agency, such as the Federal Emergency Management Agency, the Department of Health and Human Services, a state or local health department, a state or local office of emergency management, the local EMS authority, or other recognized government or volunteer agency. See http://pediatrics.aappublications.org/content/117/2/560 for more information.

Partnering With Others

Connecting with ongoing efforts, especially those with existing funding and deliverables, makes good sense, avoids duplication, and leverages available resources to improve pediatric preparedness. There are various ways for pediatricians and other pediatric care providers to get involved in organized state efforts and relevant grant initiatives. Connecting a state pediatric advisory council or children's preparedness coalition with individuals already involved in these efforts can also be effective.

Federal Efforts and Initiatives

Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP)
The ESAR-VHP is a federal program created to support states and territories in establishing standardized volunteer registration programs for disasters and public health and medical emergencies. For more information, visit www.phe.gov/esarvhp/Pages/default.aspx.

Disaster Medical Assistance Teams (DMATS) Within National Disaster Medical System
DMATs are federal assets deployed only in a federally declared disaster on request of the state. For more information, visit www.phe.gov/Preparedness/responders/ndms/teams/Pages/default.aspx and www.phe.gov/Preparedness/responders/ndms/Pages/default.aspx.

Medical Reserve Corps (MRC)
Pediatricians and pediatric specialists interested in joining organized community medical efforts can become part of the MRC. Volunteers should register for notification systems that most state health departments and many large local health departments establish. Information on these programs can be obtained from state health departments. For more information, visit www.medicalreservecorps.gov/HomePage and www.bt.cdc.gov/HAN/.

State Preparedness Grantees

Emergency Medical Services for Children (EMSC)
All states, US territories, and the District of Columbia have received funding from the federal EMSC program. In fiscal year 2011, the program administered 2 types of grants: state partnership and targeted issue. For more information, visit www.childrensnational.org/emsc. Review EMSC activities and contacts by state at www.childrensnational.org/files/PDF/EMSC/GrantPrograms/State_Grantee_List.pdf.

Public Health Emergency Preparedness
The CDC Public Health Emergency Preparedness cooperative agreement is a critical source of funding, guidance, and technical assistance for state, territorial, and local public health departments. For more information, visit www.cdc.gov/phpr/coopagreement.htm.

Hospital Preparedness Program
The Office of the Assistant Secretary for Preparedness and Response (ASPR) Hospital Preparedness Program (HPP) provides leadership and funding through grants and cooperative agreements to states, territories, and eligible municipalities to improve surge capacity and enhance community and hospital preparedness for public health emergencies. To learn more about opportunities through the HPP program, visit www.phe.gov/preparedness/planning/hpp/Pages/default.aspx.

Public and Private Partnerships in the Community

As was evidenced during the 2009 H1N1 pandemic, it is critical to integrate pediatric preparedness planning efforts with existing institutions or networks. Connections with hospitals, child care facilities, schools, and mental health professionals are crucial.

Disaster and pandemic planning at the community level needs to be a fluid and ongoing process. Pediatricians and other pediatric care providers can aid schools, child care centers, and other facilities and organizations that provide services to children in developing disaster plans. Preplanning for the health care needs of the community will be coordinated by the office of emergency management but assigned to the local department of health.

Communities should attempt to prepare for pandemics and disasters through many different angles. Opportunities exist to promote individual and family preparedness, serve as a community resource, form partnerships to support pediatric emergency management, promote community resiliency, and identify the potential implications of a disaster or pandemic on the community.

Children's Hospitals/Community Hospitals

Connections with hospitals are critical when preparing to respond during a public health emergency or disaster.

Because children have unique medical needs, especially in serious or life-threatening emergencies, it is imperative that all hospital EDs have the appropriate resources (such as medications, equipment, policies, and education) and staff to provide effective emergency care for infants and children. The CDC has identified areas of needed improvement in hospital preparedness for emergency response (www.cdc.gov/nchs/data/nhsr/nhsr037.pdf).

The AAP provides resources and recommendations regarding pediatric care within a hospital setting. The AAP core recommendations for hospital preparedness are included in the AAP joint policy statement, "Guidelines for Care of Children in the Emergency Department" (http://aappolicy.aappublications.org/cgi/content/full/pediatrics;107/4/777). This policy delineates guidelines and the resources necessary to prepare hospital EDs to serve pediatric patients. Adoption of these guidelines should facilitate the delivery of emergency care for children of all ages and, when appropriate, timely transfer to a facility with specialized pediatric services.

Pediatricians and other pediatric care providers should inquire about the emergency preparedness plans at all hospitals at which they work or admit patients. In times

of crisis, there may be a need for transfers or discharges based on different clinical criteria or altered hospital admission policies. To assist hospitals in these functions and to be able to care for their patients, pediatricians and other pediatric care providers must understand how each hospital has planned to handle these events. Volunteer to assist with developing the facility's emergency plan. In particular, review plans or strategies for family reunification and discuss challenges and solutions. Family reunification will be more successful if these challenges are understood and solutions are considered in advance of a disaster.

In addition to connecting with hospitals, pediatric advisory councils or children's preparedness coalitions should also establish connections to other key programs.

Early Education and Child Care Programs

In the past 35 years, the percentage of children in out-of-home care during their earliest and most formative years has increased from 30% to 70%. Unless attention is paid to the availability of safe, high-quality early education and child care, most of today's infants and preschoolers are at risk for spending a great proportion of their time in what may be suboptimal environments. Pediatricians can play a vital role in promoting children's health and well-being in early education and child care settings. During a pandemic, a strong connection between child care, health care, and public health leaders is even more critical because recommendations and communication strategies evolve rapidly and directly affect the operation of child care programs. During the 2009 H1N1 pandemic, certain public health departments, primary care physicians, emergency hotline personnel, and hospital EDs were overwhelmed. A strategic partnership or outreach effort connecting health and public health professionals with child care programs can help in the following ways:

- Enhance child care provider awareness of inclusion and exclusion criteria for ill children, best practices for infection control, and appropriate messaging to children and parents.
- Increase the number of local child care programs that have written disaster plans.
- In consultation with certified health professionals or child care health consultants, child care facilities can provide health information and education to parents on a daily basis.

One key resource is *Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs,* 3rd Edition. This manual includes updated or new standards related to disasters and emergency preparedness.

To review this information, visit www.nrckids.org/CFOC3/index.html. Another useful tool is *Managing Infectious Diseases in Child Care and Schools,* 2nd Edition. This publication includes quick reference sheets to distribute to teachers and families, as well as guidance about appropriate exclusion policies and planning for outbreaks and pandemics.

States interested in identifying AAP members with expertise in child care health and safety topics and in enhancing a connection between child care, health, and public health professionals should go to http://healthychildcare.org/WorkWithHP2.html.

For additional resources, see www.aap.org/disasters/childcare and www.aap.org/disasters/childcarepandemic.

Mental Health Professionals

Pediatricians have noted that after a disaster, it is especially challenging to know what to do to support children and families who are trying to adjust to what they experienced during the disaster as well as what they might expect in the future, especially if their basic needs are not being met. During the 2009 H1N1 pandemic there were challenges in addressing the questions and concerns of the "worried well" while also determining how best to help physicians (and those under their supervision) decide whether children with symptoms of influenza-like illness should be evaluated for treatment, receive a medical evaluation, or be monitored for potential follow-up.

Primary care clinicians and mental health partners can look at the needs of special populations known to be at higher risk for mental health problems. In addition, these groups can consider reviewing utilization of local or regional emergency facilities, mental health outpatient and inpatient services, nonprofit and private-sector programs, and the school system's exceptional children's or special educational services. Findings can assist in developing priorities for community and school-based initiatives and for either targeted or community-wide efforts to enhance protective factors or improve access to needed services. State-level leaders, particularly members of pediatric advisory councils or children's preparedness coalitions, can identify statewide priorities from these findings as well.

School Systems

Making a connection and collaborating with school personnel or school district leaders can help in improving services for children during and after a disaster.

The following information and recommendations are excerpted from the policy statement "Disaster Planning for Schools," written by the AAP Council on School

Health. For more information, see http://pediatrics.aappublications.org/content/122/4/895.full.

School disaster planning is a facet of larger community planning and, therefore, requires coordinated planning and allocation of community resources. Plans should be developed in partnership with other community groups, including law enforcement, fire safety, public health, EMS, and pediatric and mental health professionals.

Yet, even if there is coordination of planning, community members may not be aware of a school district's and/or an individual school's emergency plans. Without community understanding of the school plan, parents separated from their children may amplify the crisis by their well-meaning efforts to reach their children. Without participation in planning, primary care clinicians cannot be expected to assist with a coordinated and integrated response and/or recovery. When community agencies are involved in the planning process, they can reinforce prevention messages that may help decrease the extent of the crisis, such as infection-control measures for preventing the spread of pandemic influenza and messages about bullying, parent education/guidance, and media education for violence prevention.

Potential roles of schools specific to a pandemic

- Infection control
- Education on hand-hygiene and social distancing
- Ensuring time-sensitive health education and communication to families
- Case finding and identification of outbreak/pandemic
- Syndromic surveillance
- Triage of children with symptoms; referral for treatment as indicated
- Helping to identify highest-risk children and making them aware of preventive measures as indicated
- Sites for distribution of vaccines and medical countermeasures
- Awareness to avoid policies that may encourage children to come to school ill (eg, awards for perfect attendance records)
- Awareness of policies that may drive unnecessary emergent pediatric/ED visits for children who are not requiring such care (eg, requirements for a doctor's note to return to school)
- Lending space (eg, shelter, temporary clinic, and morgue) and services (eg transportation and meal services) during times of crisis

IDEAS FOR PEDIATRICIAN INVOLVEMENT IN SCHOOL PREPAREDNESS

Basic	Advanced
❑ Be familiar with AAP resources on emergency and disaster preparedness. See www.aap.org/disasters.index.cfm and www2.aap.org/visit/cmte26.htm.	❑ Know the names and means of contacting the school physician (where available) and the school health and safety team (eg, school nurse, social worker, school resource officer).
❑ Become familiar with local community and school districts' disaster plans. Ideally, these plans should have primary care clinician input in all areas of crisis planning. Be aware of local EMS capabilities and public health capabilities and key contacts.	❑ Help schools develop and implement individual crisis plans for CYSHCN. Help families and schools plan for prolonged sheltering or evacuation of the medically fragile student and the use of the emergency information form.
❑ Reinforce, through waiting room literature, the health-promotion and injury-prevention messages of the school district. Examples are violence prevention messages, cough/sneeze etiquette and hand-hygiene behaviors, attendance polices that do not encourage children who are ill to attend school, resources for stressed families, and support for individual family crisis planning.	❑ Reinforce family awareness of the school district's crisis plan as part of anticipatory guidance in the medical home, particularly calling attention to the school's plan for parental notification in the event of lockdown, shelter-in-place, or evacuation to an alternative site.
❑ Help develop school protocols on absenteeism, psychosocial support, and disease surveillance.	❑ Assist others in the school and community in recognizing symptoms of posttraumatic stress and other adjustment difficulties. The medical community's collective sense of the emotional effects of a disaster can help guide schools and staff in their continuing interventions. Participate in those interventions, which can include trauma and grief counseling.
❑ Be aware of the capacity for each school in the district to provide on-site first aid and assist the school in developing that capacity.	❑ Work with school superintendents and county health departments to increase use of school-related immunization programs for annual seasonal influenza immunization. These systems will serve as the foundation for delivery of medical countermeasures, including medications and vaccines to pediatric populations during emergency situations.
❑ Share information about the school district's response plan with ED clinician colleagues and determine ways to ensure that the school district's response plan is integrated with the overall community disaster plan, emergency medical system, and local emergency planning committee or other equivalent groups.	❑ Advocate for improved communication between school officials and local medical, emergency, and public health officials in the preparation and practice of an emergency plan. Ensure that prevention, preparedness, response, and recovery components are addressed and integrated into the larger community plan. Link disaster planning at hospitals with school crisis and disaster planning.

CONCLUSION

A state action plan, a pediatric advisory council or children's preparedness coalition, a chapter contact for disaster preparedness, and a system for prioritizing among high-risk groups can be established in advance of an emergency to facilitate decision-making in the midst of a crisis. Pediatricians can have dialogues with emergency planners and public health colleagues about ways to improve services for children by increasing their involvement in preparedness planning and response. In partnership with public health leaders, pediatricians and other pediatric care providers can assess what is already happening in their communities or states and help determine what still needs to be done before an emergency or disaster. Pediatricians and public health leaders can play a key role in promoting readiness for children and families through partnering with others at the local, state, and national levels. In simplifying the connection between members of such partnerships, strategic communications and systematic messaging can facilitate disaster response. Crisis communications with the media can also provide the public with accurate, up-to-date information.

If embraced earnestly, these efforts will result in an enhanced ability to respond not only to a disaster or pandemic, but also to multiple hazards and threats.

Although the challenge is formidable, the consequences of facing a disaster or pandemic unprepared will be intolerable.

RESOURCES

American Academy of Pediatrics

AAP Advocacy Guide
http://www2.aap.org/commpeds/CPTI/training-modules.cfm

AAP Children and Disasters Web site
www.aap.org/disasters.index.cfm

Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, 3rd Edition

Chemical-Biological Terrorism and Its Impact on Children
http://aappolicy.aappublications.org/cgi/content/full/pediatrics;118/3/1267

AAP Children and Disasters—Influenza/Pandemics Resources
www.aap.org/disasters/h1n1

Disaster Planning for Schools
http://aappolicy.aappublications.org/cgi/content/full/pediatrics;122/4/895

Disaster Preparedness and Pediatrics: What's Next?
http://pedsinreview.aappublications.org/content/29/11/371.extract

Emergency Information Forms and Emergency Preparedness for Children With Special Health Care Needs
http://pediatrics.aappublications.org/content/125/4/829.full

Guidelines for Care of Children in the Emergency Department
http://pediatrics.aappublications.org/content/107/4/777.full

Guidelines for Care of Children in the Emergency Department Checklist
www2.aap.org/visit/Checklist_ED_Prep-022210.pdf

Infant Nutrition During a Disaster—Breastfeeding and Other Options
www2.aap.org/breastfeeding/files/pdf/InfantNutritionDisaster.pdf

The Pediatrician and Disaster Preparedness—Committee on Pediatric Emergency Medicine, Committee on Medical Liability, and Task Force on Terrorism
http://pediatrics.aappublications.org/content/117/2/560.full

Preparation for Emergencies in the Offices of Pediatricians and Pediatric Primary Care Providers
http://aappolicy.aappublications.org/cgi/content/abstract/pediatrics;120/1/200

Preparing Child Care Programs for Infectious Disease Outbreaks or Pandemic Influenza
http://www.healthychildcare.org/PDF/InfDiseases/AdditionalResourcesp.pdf

Prevention and Control of Influenza: Special Considerations for Newborns and Very Young Infants
www.aap.org/disasters/preventflunewborns

Promoting Adjustment and Helping Children Cope
www.aap.org/disasters/adjustment

Psychosocial Implications of Disaster or Terrorism on Children: A Guide for the Pediatrician
http://aappolicy.aappublications.org/cgi/content/full/pediatrics;116/3/787

Red Book Online Influenza Resource Page
http://aapredbook.aappublications.org/

US Department of Health and Human Services

Influenza Season (CDC)
www.cdc.gov/flu/about/season/index.htm

Administration for Children and Families
www.acf.hhs.gov/

Centers for Disease Control and Prevention (CDC) Emergency Preparedness and Response
www.bt.cdc.gov/children/

CDC Community Outreach and Communication Activity
www.bt.cdc.gov/coca/

Information for Flu Prevention Partners (CDC)
www.cdc.gov/flu/partners/index.htm

Know What to Do About the Flu (CDC)
www.flu.gov

National Commission on Children and Disasters
http://cybercemetery.unt.edu/archive/nccd/20110427002908/http:/www.childrenanddisasters.acf.hhs.gov/index.html

Office of the Assistant Secretary for Preparedness and Response
www.phe.gov/preparedness/pages/default.aspx

US Department of Health and Human Services
www.phe.gov/emergency/communication/Pages/default.aspx

Zombie Preparedness
www.cdc.gov/phpr/zombies.htm

Federal Emergency Management Agency

Emergency Preparedness Checklist
www.washingtonpost.com/wp-srv/health/specials/preparedness/guides/femachecklist.pdf

FEMA
www.fema.gov

Lessons Learned Information Sharing
www.llis.dhs.gov/index.do

Ready Campaign
www.ready.gov

National Library of Medicine
www.nlm.nih.gov

World Health Organization

Effective Media Communication during Public Health Emergencies
www.who.int/csr/resources/publications/WHO%20MEDIA%20HANDBOOK.pdf

Health Library for Disasters
http://helid.desastres.net/

Myths and realities in disaster situations
www.who.int/hac/techguidance/ems/myths/en/index.html

Technical guidelines in emergencies
www.who.int/hac/techguidance/en/

WHO
http://who.int

WHO Health Topic: EMERGENCIES
www.who.int/topics/emergencies/en/index.html

Other Organizations

Children and Disasters (Child Care Aware of America)
www.naccrra.org/

Emergency Preparedness and Response Discussion Group (American Telemedicine Association)
www.americantelemed.org/i4a/pages/index.cfm?pageID=3319

Fighting Flu Fatigue (Trust for America's Health)
http://www.healthyamericans.org/assets/files/TFAH2010FluBriefFINAL.pdf

Save the Children
www.savethechildren.org

By carefully considering which groups of children may be at increased or even highest risk in a specific disaster or emergency, planning will benefit all children and the population at large.

Appendices

THE OFFICIAL NEWSMAGAZINE OF THE AMERICAN ACADEMY OF PEDIATRICS
AAP News
DEDICATED TO THE HEALTH OF ALL CHILDREN
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www.aapnews.org

Learning from H1N1

Pediatric, public health leaders discuss how to improve states' pediatric preparedness

by **Alyson Sulaski Wyckoff** • *Associate Editor*

With waiting rooms overflowing, inadequate vaccine distribution and rapidly changing advice, pediatricians faced many frustrations during the height of the H1N1 crisis in 2009.

To help avoid a repeat of these problems, about 70 representatives from AAP chapters and public health agencies spent two days in April discussing how to improve pediatric preparedness based on fresh memories of their 2009 H1N1 experiences.

A rare gathering of pediatric and public health personnel, the meeting "Enhancing Pediatric Partnerships to Promote Pandemic Preparedness" was sponsored by the Academy and the Centers for Disease Control and Prevention (CDC).

One of the speakers was Georgina Peacock, M.D., M.P.H., FAAP, medical officer, National Center on Birth Defects and Developmental Disabilities, CDC. She said children were the central focus of concern during the pandemic. Children and young adults up to age 24 accounted for as much as 73% of all U.S. H1N1 cases and 56% of H1N1 hospitalizations. Two-thirds of the 300 children under 18 who died from H1N1 had underlying pulmonary or neurological conditions.

A pediatric desk was established at the CDC to handle all the inquiries related to H1N1.

States reveal biggest challenges

After participants heard an overview of H1N1 and efforts to contain it, the AAP-CDC meeting moved on to sharing ideas from 10 state teams. There were two pediatric and two public health representatives from California, Florida, Georgia, Illinois, Michigan, Missouri, New Mexico, Texas, Utah and Virginia. The teams, which were selected from 29 state chapters that had applied to attend the conference, discussed their state models and challenges before finalizing plans to improve preparedness efforts.

Prioritizing for high-risk groups, communications and messaging, and incorporating pediatricians into state decision-making were key topics.

Common challenges during the pandemic included:

- ineffective distribution of vaccines;
- problems reaching all providers and key parties (schools, child care, pharmacies, etc.), especially in large states with remote regions;
- frustrations in areas where patients had greater health disparities;
- underuse of immunization registries;
- lack of pediatrician involvement in pandemic planning (due in part to lack of a relationship between pediatricians and public health departments);
- inadequate staffs and facilities to meet demand; and
- lack of a single source of communication, sometimes due to poor media relationships.

Planning for the future

Virtually all teams indicated they intended to become more involved in promoting children's needs in planning for future pandemics; develop two-way communications systems with all pediatricians in the state; cultivate relationships with public health and other key groups; make use of school-related immunization opportunities; and maximize use of registries.

Other ideas included:

- identifying a pediatric champion at each adult hospital/emergency department who can participate in the communications and prepare his or her facility for pediatric overflow (Georgia);

What AAP chapters can do now to improve pediatric preparedness

Following is a summary of ideas from 10 state pediatric-public health teams participating in the AAP-CDC meeting, "Enhancing Pediatric Partnerships to Promote Pandemic Preparedness":

1. Educate peers about what was learned at the meeting.
2. Create a chapter committee on pandemic/disaster readiness.
3. Develop relationships with state and local public health departments and emergency response planners.
4. Form a pediatric advisory committee in partnership with public health leaders.
5. Learn about and link with stakeholders and existing emergency/disaster preparedness efforts.
6. Partner with local children's hospitals and community hospitals to improve emergency and disaster readiness.
7. Advocate for effective use of statewide vaccine registries.
8. Develop an information dissemination network with a single contact.
9. Maintain proactive relationships with media.
10. Connect with the state volunteer agencies such as the Medical Reserve Corps.
11. Collaborate with the state department of education and local schools to ensure they have a functional, coordinated disaster plan.
12. Participate in local public health meetings.

Appendix 1: Learning From H1N1: Pediatric, Public Health Leaders Discuss How to Improve States' Pediatric Preparedness *(2 of 2)*

- creating a safety net for high-risk children by enhancing their emergency care plans to include contingencies for local care and home care during mass medical emergencies (Michigan); and
- developing vehicles to support physician-public health relationships at the county level, such as webinars or lunch-and-learn sessions (Missouri).


Dr. Krug

Based on the plans and suggestions, a to-do list for states was developed (see sidebar).

Steven Krug, M.D., FAAP, chair of the AAP Disaster Preparedness Advisory Council, said the meeting generated a lot of ideas and helped to conceptualize lessons learned after H1N1 and some best practices. "There was a great synergy among the groups," he said. "I was extremely gratified."

While pediatricians were urged to attend meetings of local and state health departments or emergency management entities to become more involved, Dr. Krug said there is a role for individuals as well: "Pediatricians also can make a personal difference by discussing preparedness issues with patients' family members. Data indicate that families are more likely to be prepared as a result of those discussions."

RESOURCE

AAP Disaster Preparedness Advisory Council Web site, www.aap.org/disasters/index.cfm

COMMENTARY

Improving Pediatric Preparedness Performance Through Strategic Partnerships

Steven E. Krug, MD; Scott Needle, MD; David Schonfeld, MD; Laura Aird, MS; Hope Hurley

The 2009 H1N1 influenza pandemic provided a real-world exercise that revealed the strengths and weaknesses of the public health system in response to a major infectious disease outbreak. Because children were disproportionately affected, a review of lessons learned offered opportunities to improve future planning. The American Academy of Pediatrics (AAP) and the Centers for Disease Control and Prevention (CDC) implemented various strategies to address the needs of children during the pandemic—these efforts illustrate that strategic partnerships can improve preparedness.

Pediatricians faced many challenges throughout the pandemic. Clinicians universally reported being overwhelmed by the high volume of patients, numerous questions from various audiences, and "information overload" (ie, many messages and rapidly changing advice). A significant difficulty was helping the public understand when to seek treatment, so that health care systems were not inundated with questions and visits from patients who did not have symptoms of an influenza-like illness (ILI) or were not at higher risk of complications if infected. Pandemics can evolve rapidly, so developing strategic alliances and effective communication systems is advantageous. This is especially important when considering children, as they constitute about one-quarter of the US population and require special planning in an emergency or disaster.[1,2]

WARNING, CHILDREN AT RISK

The AAP and the Trust for America's Health identified that children were at increased risk during an influenza pandemic and recommended specific actions to address children's needs.[3] A National Commission on Children and Disasters was appointed in 2008 to examine and assess the needs of children in relation to the preparation for, response to, and recovery from all hazards, including major disasters and emergencies. In 2010, the commission delivered its final report to the president and Congress.[2] The report cited gaps in disaster preparedness and called for the development of a national strategy to ensure that children are protected before, during, and after a public health emergency. The commission encouraged government agencies and nongovernmental organizations to consider children a distinct population in disaster planning, and to include pediatric experts in all planning efforts.

The recommendation that the needs of children should be prioritized in disaster preparedness, mitigation, response, and recovery planning required validation. In October 2010, the AAP, in collaboration with the Children's Health Fund, developed questions for an opinion poll to stimulate further discussion on the allocation of resources related to disasters. The vast majority of those surveyed supported giving higher priority to children and their needs over adults in the setting of scarce resources during a disaster. This opinion remained consistent across various demographics, including region, household income, education, age, race, gender, and political party.[4]

During the pandemic, certain children seemed to be at increased risk. Clinicians reported that it was challenging to know which children might require early care or increased monitoring. The AAP and the CDC recognized this and immediately took steps to determine which children were at "highest risk." On September 4, 2009, data related to children at highest risk of experiencing fatal outcomes from H1N1 infection were published in the *MMWR*.[5] With CDC support, the AAP identified a group of experts to review and synthesize these data and provide practical recommendations to assist clinical providers in the management of H1N1 in children. On the basis of preliminary mortality data, children with certain conditions appeared to be at highest risk of experiencing fatal outcomes from H1N1 illness. The AAP highlighted which children were most likely to be affected by the H1N1 virus or would merit closer medical follow-up or treatment. Because the situation was constantly changing, updates and guidance were shared throughout the pandemic. Convening experts to review data and share recommendations with those who care for children was deemed an effective strategy toward improving pediatric preparedness.

SHARED INTEREST, LESSONS LEARNED

AAP and CDC leaders expressed interest in learning from experiences during the pandemic to improve future response. An ongoing dialogue at various leadership levels was maintained throughout the pandemic, and when the public health emergency concluded, the AAP and CDC conducted several after-action discussions with internal and external partners to determine ways to improve preparedness planning. These discussions led to several important conclusions.

For the first time, the CDC activated a Children's Health Team and a Children's Health Desk within the CDC Emergency Operations Center. In addition to this, CDC leaders identified crucial elements for building capacity to address the needs of at-risk populations through strategic partnerships, including

- targeted outreach to strategically selected stakeholders;
- enhanced engagement of identified partners and associations; and
- rapid establishment of communication vehicles and networks.

The AAP established a multidisciplinary response team of staff and pediatrician leaders. Various perspectives and specialty areas were represented. In addition to infectious disease experts, it became clear that as more children became infected with H1N1, expertise related to emergency medicine, critical care, and disaster preparedness was needed to determine the best course of action. When the government began discussing community mitigation and school closures, it was important to include pediatric expertise related to child care facilities, schools, and pediatric practices. When there were questions about vaccine safety and distribution, public health and AAP chapter leader involvement became critical. It was particularly challenging when guidelines were developed or when resource allocation decisions were made that affected care providers in various settings. Practitioners or end users need to be included in planning discussions from the beginning to produce effective clinical guidelines that are both relevant and practical.

Establishment of this pediatric influenza response team, known as FluPeds, allowed the AAP to promote collaborative discussions and decision-making, address member concerns, and respond to requests efficiently throughout the pandemic. This team served as a vehicle for rapid review of data, discussion of diagnosis and treatment options, and identification of strategies for sharing key messages and resources with pediatric clinicians.

Many telephone triage and clinical algorithms were proposed around the time when hospital emergency departments were overrun with patients with ILI. The FluPeds team assisted the AAP and the CDC in the development and joint release of an influenza season triage algorithm for children with ILI.[6] This algorithm was developed for use by clinicians to help determine whether symptomatic children should receive a medical evaluation, be administered antiviral medications, or be followed up closely. The algorithm considered whether the child lived with or was cared for by an individual at higher risk of complications from influenza, identified strategies to help prevent the spread of influenza, and emphasized the importance of appropriate monitoring and follow-up with the child's medical home/primary care provider. Although comprehensive policies and guidance documents were also necessary, many clinicians reported that this tool was helpful as a quick and efficient "go-to" resource.

The FluPeds team and AAP leaders identified several areas that could be improved in future public health emergencies. After-action discussions revealed the following:

- Including pediatric experts, especially practitioners, in planning discussions and development of guidance would improve health care system efficiency and the care provided to children.
- Management of messaging to health professionals would reduce information overload and enhance their ability to care for children in need of medical care.
- Putting a system in place to discuss pediatric considerations in advance of an emergency would enhance outcomes for all populations, especially if resources were limited.

ENHANCING PEDIATRIC PARTNERSHIPS TO PROMOTE PANDEMIC PREPAREDNESS

After-action discussions suggested that enhanced partnerships between pediatricians and state or local health department representatives would likely result in improved pediatric preparedness planning. Strategic conversations between AAP chapter and state health department leaders would ensure an existing line of communication to facilitate a response in an emergency. To address this, the AAP and the CDC convened the "Enhancing Pediatric Partnerships to Promote Pandemic Preparedness" meeting to enhance these connections and develop future response strategies.

Funding was available to bring 10 state teams of 4 representatives to this meeting. The 10 states invited (California, Florida, Georgia, Illinois, Michigan, Missouri, New Mexico, Texas, Utah, and Virginia) were asked to identify a team leader, convene a team with pediatric and public health leaders, maintain a strong connection to the AAP chapter office in that state, and develop a draft state action plan before the meeting.

Participant surveys, conference calls, and review of action plans before the meeting helped to identify model strategies and common areas of interest to guide development of an agenda. The April 2011 meeting included 66 participants: 40 members from the 10 participating states and AAP and CDC leaders. Attendees discussed lessons learned from the 2009 pandemic, determined strategies for advancing pediatric preparedness, and identified key resources to improve state-level preparedness. Each of the 10 teams discussed models and challenges experienced during the pandemic, shared priority steps within their action plan, and identified solutions. Meeting presentations focused on model strategies and interest areas, as described in the following sections.

PRIORITIZING WITHIN AND AMONG HIGH-RISK GROUPS

In any disaster or emergency, it can be challenging to determine how to allocate available resources. A key question from the pandemic was how to prioritize within high-risk groups when vaccine, antiviral medications, or health care providers were limited. Determining a system to facilitate decision-making in advance of an emergency would be easier than establishing this scheme in the midst of a crisis. Establishing a pediatric advisory committee composed of pediatric providers, stakeholders, and public health representatives (who would meet regularly to discuss preparedness and response issues for children) was a model strategy that resonated with those who attended the meeting. Participants concluded that this advisory committee should be in place in each state to facilitate discussions with regard to children, coordinate response efforts, and propose improvements. In addition, strategies should be in place to identify high-risk populations and determine ways to improve access to care. The most effective pediatric advisory committee would be one that is sustainable over time, with ongoing and consistent funding and staff.

Registries that identify certain high-risk conditions can be extremely useful. As an example, the Michigan Care Improvement Regis-

try (MCIR) was useful in pandemic response activities and was successfully used by a variety of providers to track vaccine inventory and distribution, as well as to flag individuals at high risk for developing complications from influenza. As a prerequisite to placing orders for H1N1 vaccine, several states found that *mandating* the use of the state registry greatly expanded its use. Whether practitioners use an electronic registry, a database, or a chart identification system, having a mechanism in place to identify patients with various medical conditions during a pandemic or other emergency would be especially useful.

STRATEGIC COMMUNICATION AND MESSAGING

Communication and messaging are important components of an effective strategic response during a disaster and, therefore, are a critical component of pediatric preparedness. Suboptimal messaging and communication can easily exacerbate a crisis. Messaging is important (ie, what to say and how to say it), as is the means to deliver the message. In a time of crisis, the message needs to be simple and timely, should come from a trusted source, and should be crafted to reassure and/or to communicate concrete steps to reduce risk.

In an emergency, communication systems should leverage existing and trusted relationships, especially those between public health and health care organizations. Messaging strategies should aim to minimize excessive, conflicting, confusing, or unnecessarily anxiety-provoking messages. The "one voice, one message" concept is a simple way to approach this. Also, communication is not a "pipeline" from which information flows, but an exchange of information. Like the handing off of a baton in a relay race, the passing of information critically depends on the readiness of the receiver. No matter how accurate the information, if the recipient is not ready to receive the message or does not trust its source (or cannot confirm its validity), then the message is lost. The baton is dropped. Having information delivered by a known and trusted spokesperson, or having it vetted through trusted professional organizations, ensures better acceptance of the message.

Messaging strategies should promote two-way (or bi-directional) communication at all times. There must be an efficient way to distribute information to front-line clinicians *and* there should be a vehicle for these clinicians to communicate back to decision-makers. An example is to offer practitioners a way to discuss their experiences with those developing clinical guidelines or mitigation strategies.

INCOPORATING PEDIATRICIANS INTO STATE-LEVEL DECISION-MAKING

By increasing their involvement in preparedness planning and response, pediatricians can have dialogues with emergency planners and public health colleagues about ways to improve services for children. By inviting pediatric experts into discussions about pandemic preparedness and disaster planning, federal, state, and local decision-makers can ensure that children's issues are addressed early. Each population and region has unique needs, risks, and challenges. The implementation of federal recommendations during a disaster can vary from state to state. It is important to identify and evaluate specific gaps in pediatric readiness at the state/local level, by involving pediatricians in disaster preparedness and response efforts. This collaboration should yield better health care delivery during day-to-day operations, as well as in crisis situations.

CONCLUSIONS

Special attention must be paid to our nation's ability to meet children's needs before, during, and after a pandemic or disaster. The discussions surrounding the April 2011 AAP/CDC meeting highlight the importance of establishing strategic state and local partnerships between pediatricians and public health professionals. Pediatricians working in partnership with public health professionals can make a recognizable impact in advocating for the needs of children and families who seldom receive enough attention in disaster planning. Improving pediatric preparedness and forming strategic partnerships is the foundation on which to build a cohesive plan to achieve state-level emergency readiness should a disaster or pandemic occur.

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Appendix 3: The Value of Partnering With AAP Chapters

As state affiliates of the American Academy of Pediatrics (AAP), AAP chapters can serve as a powerful ally in advocacy for disaster preparedness and the needs of children. The AAP works daily with its 66 chapters, located throughout the United States and Canada, to address the priorities of the national organization and provide support and guidance in issues surrounding children's health care. Although the chapters are separately incorporated and function independently, they look to the national organization and its strategic plan to set an annual agenda to reach mutual goals and objectives.

As one example, in the weeks and months following Hurricane Katrina, the immediate and long-term effects of the disaster became the priority issue of the pediatricians in the Gulf Coast region. The leadership of the chapters in affected areas partnered with child psychologists, social workers, school nurses, and others to undertake the enormous task of addressing both the physical and mental health needs of children. Not only can AAP chapters provide expert guidance on child health and well-being for state-level disaster planning efforts, they can act as a coordinating body for pediatricians and other child health professionals following a disaster.

Connecting With Your State AAP Chapter Is Easy

This brief provides an introduction to state government issues and additional background information that can be used when communicating about disaster preparedness and children. To locate your state's AAP chapter, visit the AAP Chapter Contacts Listing page on the AAP Web site at www2.aap.org/member/chapters/chaplist.cfm.

What You Can Do to Improve Disaster Preparedness in Your State

Share the advocacy considerations in this toolkit and your concerns about disaster preparedness and the needs of children with your state AAP chapter. Communicating with your state AAP chapter is an excellent way to voice your opinion, build coalitions and relationships with pediatricians and other physicians, increase statewide awareness of the issue, and ultimately motivate decision-makers at the state level to promote pediatric disaster preparedness measures during legislative sessions, through the regulatory process, and other policymaking avenues.

List of AAP Chapters and Web sites

Alabama AAP Chapter
http://www.alaap.org/

Alaska AAP Chapter
http://www.aapalaska.org/

Arizona AAP Chapter
http://www.azaap.org/

Arkansas AAP Chapter
http://www.arkansasaap.org/

California AAP Chapters
1: http://www.aapca1.org/
2: http://www.aapca2.org/
3: http://www.aapca3.org/
4: http://www.aapca4.org/

Colorado AAP Chapter
http://coloradoaap.org/

Connecticut AAP Chapter
http://www.ct-aap.org/

District II (New York) AAP Chapter
http://aapdistrictii.org/

District IX (California) AAP Chapter
http://www.aap-ca.org/

District of Columbia AAP Chapter
http://aapdc.org/

Florida AAP Chapter
http://www.fcaap.org/

Georgia AAP Chapter
http://www.gaaap.org/

Hawaii AAP Chapter
http://www.hawaiiaap.org/

Idaho AAP Chapter
http://www.idahoaap.org/

Illinois AAP Chapter
http://illinoisaap.org/

Indiana AAP Chapter
http://www.inaap.org/

Iowa AAP Chapter
http://www.iowapeds.org/

Kansas AAP Chapter
http://www.kansasaap.org/wordpress/

Kentucky AAP Chapter
http://www.kyaap.org/

Louisiana AAP Chapter
http://www.laaap.org/

Maine AAP Chapter
http://maineaap.org/

Maryland AAP Chapter
http://www.mdaap.org/

Massachusetts AAP Chapter
http://www.mcaap.org/

Michigan AAP Chapter
http://www.miaap.org/

Minnesota AAP Chapter
http://www.mnaap.org/

Mississippi AAP Chapter
http://www.aapms.org/

Missouri AAP Chapter
http://moaap.org/

Montana AAP Chapter
http://www.mtpeds.org/

Nebraska AAP Chapter
http://nebraska-aap.org/

Nevada AAP Chapter
http://www.nevadaaap.org/

New Hampshire AAP Chapter
http://www.nhps.org/

New Jersey AAP Chapter
http://www.aapnj.org/

New Mexico AAP Chapter
http://www.nmpeds.org/

New York AAP Chapters
1: http://www.ny1aap.org/
2: http://www.ny2aap.org/
3: http://www.ny3aap.org/home/default.htm

North Carolina AAP Chapter
http://www.ncpeds.org/

North Dakota AAP Chapter
http://ndaap.com/

Ohio AAP Chapter
http://www.ohioaap.org/

Oklahoma AAP Chapter
http://www.okaap.org/

Oregon AAP Chapter
http://oregonpediatricsociety.org/

Pennsylvania AAP Chapter
http://www.paaap.org/

Puerto Rico AAP Chapter
https://sites.google.com/site/aapprped/

Rhode Island AAP Chapter
http://www.riaap.org/

South Carolina AAP Chapter
http://www.scaap.org/

Tennessee AAP Chapter
http://www.tnaap.org/

Texas AAP Chapter
http://txpeds.org/

Uniformed Services East AAP Chapter
http://www2.aap.org/pedsuniform/default.htm

Uniformed Services West AAP Chapter
http://www2.aap.org/pedsuniform/default.htm

Utah AAP Chapter
http://www.aaputah.org/

Vermont AAP Chapter
http://www.aapvt.org/

Virginia AAP Chapter
http://www.virginiapediatrics.org/

Washington AAP Chapter
http://www.wcaap.org/

West Virginia AAP Chapter
http://www.hsc.wvu.edu/som/pediatrics/aapwv/

Wisconsin AAP Chapter
http://www.wiaap.org/

Appendix 4: Becoming a Child Advocate

The American Academy of Pediatrics (AAP) provides the following 10 tips for child advocates:

1. **Choose your issue.** Personal experiences, community issues, and data on system-wide disparities are all sources of potential advocacy issues. Decide what it is that you would like to change.
2. **Identify solutions.** Prepare a list of possible ways to successfully resolve your issue.
3. **Identify supporters.** Chances are good that you are not the only person or group advocating for an issue. Talk to parents, parent groups, and organizations that work with children. Use the Internet to find other people or organizations that are working on related issues and seek their assistance. Equally important is choosing a legislator or other government official who will sponsor and be a champion for your issue.
4. **Develop a strategy.** Will you advocate for change on the local, state, or federal level? Which of the 3 branches of government—executive, legislative, or judicial—is best positioned to help you achieve your desired outcome? Who will oppose your efforts, and what can you do to neutralize the opposition?
5. **Frame your message.** Work with someone who has experience in public or media relations to help develop and disseminate a clear, concise, and consistent message to help advance your issue.
6. **Educate.** Attend community, state, and national organization meetings. Offer to be a speaker at a civic group or philanthropic organization, or professional society event. Meet with lawmakers and other government officials. Write letters to your newspaper.
7. **Mobilize supporters.** Democracy is not a spectator sport! Establish and activate e-mail alert systems and telephone trees to ensure that supporters make their lawmakers aware of the need and support for your initiative.
8. **Testify.** Offer to tell your story at a public hearing. The personal experiences of constituents are very powerful in convincing government officials to make changes.
9. **Don't give up.** Often it takes more than one attempt to enact a new law or implement changes in public policy. Take Thomas Jefferson's advice, "Eternal vigilance is the price of freedom."
10. **VOTE!** Pay attention to what candidates are proposing for children, and make your decisions accordingly. Remember, these are the people who will be making decisions about your issue. Take a child with you when you vote to teach them about this important civic duty!

The following are 5 advocacy actions AAP members can take to ensure that children's needs are being met and that the voices of pediatricians and other pediatric care providers are resonating with federal legislators.

1. Meet with federal legislators during the December recess. When Congress adjourns, AAP members can meet their federal legislators in their home district offices. Visiting congressional staff during this pivotal point in the budgetary process can help build a foundation for future outreach on the importance of investing in children's programs. Visit http://FederalAdvocacy.aap.org (log-in required) for single-page fact sheets to bring to these visits and for district office contact information.
2. Tell Congress to protect children's programs from budget cuts. On http://FederalAdvocacy.aap.org, there are up-to-date resources on the Joint Select Committee on Deficit Reduction's latest developments and Congress' progress in advancing appropriations legislation, as well as a template e-mail and speaking points for AAP members to use when contacting federal legislators. This one-click advocacy is a quick and effective way to urge Congress to put children first when they consider ways to reduce the national deficit.
3. Attend an advocacy training session. For more information, e-mail Jamie Poslosky in the AAP Department of Federal Affairs at jposlosky@aap.org.
4. Take to Twitter and Facebook. Because of the ability to share information quickly with broad audiences, social media are becoming an increasingly popular advocacy platform. Join the conversation by following the AAP on Twitter@AmerAcadPeds and "liking" the AAP Department of Federal Affairs on Facebook at www.facebook.com/pages/American-Academy-of-Pediatrics-Department-of-Federal-Affairs/197242991030.
5. Become a key contact. Key contacts are AAP members interested in becoming involved in federal advocacy. Through targeted action alerts and weekly federal policy updates, key contacts are the first to be informed of critical child health issues at the federal level and the first to act. Key contacts have published hundreds of opinion editorials; sent thousands of communications to federal legislators; and served in leadership positions at the local, state, and national levels of the AAP. Request to be enrolled by e-mailing kids1st@aap.org.

Appendix 5: Preparedness for Pediatric Practices Checklist *(1 of 5)*

1. Prepare an Office Disaster Kit

In the event of a large-scale calamity, state and federal authorities may not be able to deliver assistance until days later, so the pediatric office should have fundamental supplies to ensure self-sufficiency for at least 72 hours. Even smaller emergencies, such as an office fire, chemical spill, or power failure, might require immediate action with pre-positioned materials. Pediatricians should also prepare an Emergency Go Kit containing the supplies and equipment needed to provide basic medical care in virtually any location.

Decide which supplies you will keep in your Office Disaster Kit. Consider preparedness and evacuation supplies, shelter-in-place and immediate recovery supplies, and Emergency Go Kit supplies. Some examples include

- ❑ Copies of credentials and license
- ❑ Essential business documents
  - ❑ scanned to flash drive
- ❑ Computer backups
- ❑ Spare clothes and shoes
- ❑ Emergency toiletries
- ❑ Contact lens solution and eyeglasses
- ❑ Rain gear
- ❑ Hand sanitizer
- ❑ Sunscreen
- ❑ Insect repellant
- ❑ Duct tape
- ❑ Pocket knife
- ❑ Toilet paper
- ❑ Paper towels
- ❑ Plastic bags
- ❑ Towel
- ❑ Food
  - ❑ granola bars
  - ❑ dry cereal
  - ❑ nuts
  - ❑ dried fruits
  - ❑ beef jerky
  - ❑ trail mix
  - ❑ crackers
  - ❑ peanut butter
  - ❑ canned goods
  - ❑ can opener
- ❑ Water
- ❑ Blanket
- ❑ Cell phone charger
- ❑ Flashlight
- ❑ Radio
- ❑ Spare batteries
- ❑ Extension cords
- ❑ Cash
- ❑ Stethoscope
- ❑ Otoscope
  - ❑ and specula
- ❑ Ophthalmoscope
- ❑ Spare bulbs
- ❑ Tongue blades
- ❑ Thermometer
- ❑ Tape measure
- ❑ Calculator
- ❑ Reference handbook
- ❑ Prescription pad
- ❑ Pen/pencil
- ❑ Paper/notebook
- ❑ Gloves
- ❑ Masks
- ❑ Portable scale
- ❑ Alcohol wipes
- ❑ Bandages
- ❑ Antibiotic ointment
- ❑ Topical steroid cream
- ❑ Albuterol MDI or nebulizer solution
- ❑ Ibuprofen and acetaminophen
- ❑ Diphenhydramine
- ❑ Ceftriaxone
- ❑ 1% lidocaine
- ❑ Saline solution
- ❑ Oral or injectable steroids
- ❑ Syringes and needles
- ❑ Sharps container
- ❑ Toys for children
- ❑ Diapers, baby wipes, and formula

Pack supplies in easily transportable containers (eg, camera bag, backpack, tote bag, suitcase with wheels, plastic bin with lid), and store these in a safe, accessible location known to other employees.

Keep a list of the supplies in the Office Disaster Kit, along with a checklist and schedule for checking expiration dates.

Appendix 5: Preparedness for Pediatric Practices Checklist *(2 of 5)*

2. Store Essential Supplies and Minimize Risk to Equipment

Thoughtful placement or storage of high-importance equipment and supplies can mitigate risk and preserve maximal office functioning in case of physical damage to the office.

- ❑ Identify essential, high-value, or irreplaceable items.
- ❑ Organize the office to store supplies appropriately and minimize risk to equipment. Determine where and how these items might be moved in preparation for disaster. Designate which staff member(s) will be responsible for this task.
- ❑ Copy equipment warranties, model numbers, manufacturers, purchase receipts, and suppliers/servicers. This information may be necessary if equipment needs to be repaired, replaced, or declared lost.

3. Attend to Facility Issues

Consider the steps that you and your office staff can take to mitigate damage to your office space, building, or facility.

- ❑ Investigate structural issues; walk around the office/building to identify any needed repairs. Pay particular attention to potential risks based on disasters that would be more likely to strike your area (eg, structural stability in case of earthquake; flammable exterior materials in case of wildfire).
- ❑ Record contact information for utility companies. Record shut-off procedures and locations for water, electricity, and gas as applicable. Contact utilities in advance to be listed for priority restoration of service.
- ❑ Develop contingency plans for office repairs. If you lease your space, discuss with your landlord how repairs will be done. If you own your space, research and select contractors.
- ❑ Research options for generators, including wattage, fuel source, and portable versus built-in. If using a portable generator, develop a plan and procedure for fueling it, including assigning responsibility, and ensure that employees and staff who will be operating it are familiar with it in advance.
- ❑ Consider transportation options for a post-disaster environment, such as a bicycle, or the availability of gasoline for automobiles.
- ❑ Research potential alternate practice sites in case the primary office is damaged. Consider drafting a memorandum of understanding or similar document and retaining emergency contact information for the owner of the alternate site(s).

4. Protect Patient Records and Office Files

If paper or electronic records are damaged or lost, business operations and patient care may be significantly compromised—perhaps even irrevocably. Sound backup planning includes knowing what records to store, as well as multiple ways to store them. This applies to both vital office documents and patient charts and records.

- ❑ Research potential ways to record crucial health data or records, files, scan documents, and backup files. Consider an automatic backup system. Have multiple backup methods for redundancy. Keep at least one copy of all data offsite, in a different physical location from your office, preferably distant to your community. Also consider simultaneous online backup.

Sample backup options

- ❑ Online (cloud) storage
- ❑ Remote server
- ❑ Portable hard drive
- ❑ Tape drive
- ❑ Flash drive/memory card
- ❑ Scan vital business documents, such as a recent bank statement, tax return, business permit, and letters of incorporation. Record contact information for your bank headquarters, local branch, and business loan officer.
- ❑ Record insurance policy numbers, agent contact information, and any other relevant information. Scan insurance policy documents and store on a flash drive.
- ❑ Test electronic backups regularly to make sure they are accurate and complete. Develop and test data recovery procedures. (Keep in mind that large computer systems or storage may take significant time to restore.)

5. Review Insurance Coverage

Adequate insurance can reduce physical and operating losses during disaster, but make sure coverage is appropriate and current.

- ❑ Locate and review your office insurance policies. Pay particular attention to exclusions, limits, and deductibles. Check if you have coverage for
  - ❑ Vaccines and spoilage
  - ❑ Business interruption/income replacement
  - ❑ Civil disruption
  - ❑ Unique hazards (eg, flood or earthquake)

Contact your insurance agent to discuss coverage and benefits. Do you need to increase coverage limits? Do you have any superfluous or unnecessary coverage? Do you need to add any particular coverage riders?

Prepare a paper or video office inventory. Scan documentation onto a portable drive or online backup service.

Appendix 5: Preparedness for Pediatric Practices Checklist *(3 of 5)*

6. Prepare Office Staff/Employees

Effective preparedness planning requires the cooperation and input of everyone in your office. Promote team building and buy-in from colleagues and staff by discussing roles, responsibilities, and expectations in advance.

- ❑ Review disaster preparedness plan details with your staff, including where the planning materials, essential supplies, and the Office Disaster Kit (if applicable) are kept. Solicit staff input to develop effective and practical preparedness protocols.
- ❑ Determine organizational strategies, priorities, contingency plans, and systems for decision-making. Assign a chain of command. If applicable, consider the implications of having multiple practice sites.
- ❑ Collect and share staff personal contact information (eg, cell phone numbers, e-mail addresses, emergency contact information). Encourage staff to store this information on their cell phones as well as in separate written format.
- ❑ Discuss with staff the office preparedness, response, and recovery procedures in case of crisis or disaster. Make sure all relevant responsibilities are assigned and that all personnel are aware of their responsibilities. Remember that each person's primary responsibility is to keep himself or herself and his or her family members safe, and that this will take priority over office or work-related tasks.
- ❑ Encourage staff to develop their own personal preparedness plans. Consider how your office will help staff address their family needs.
- ❑ Be prepared to address human resources issues, such as how absences, pay, and benefits might be handled in case of disaster.

7. Handle Vaccine Issues

Vaccines are a key part of pediatric practice and a significant financial investment. In case of power failure or facility damage, it is important to have a way to keep these assets safe.

- ❑ Locate a robust alternative facility that might be willing to store vaccines in case your facility cannot (eg, community hospital, local health department). Consider signing a memorandum of understanding ensuring that you can store your vaccines there if necessary.
- ❑ Develop a written procedure describing storage or transport of vaccines in the event of a power outage or catastrophic event. Designate staff members to be responsible. Include a contingency plan in case time or situation precludes moving vaccines to a different location.
- ❑ Maintain an adequate supply of freezer packs and insulated boxes.
- ❑ Record vaccine manufacturers' and local representatives' contact information.
- ❑ Record and update vaccine inventories regularly.

8. Ensure Effective Communications

Communications are one of the most critical—and frequently problematic—concerns during a disaster situation. Anticipate how you might communicate, to whom, and what messages you want to provide in a crisis.

Review and investigate options for communicating with patients and other community members. Sample communication methods include

- ❑ Word of mouth
- ❑ Paper flyers or other signs (eg, plywood)
- ❑ Telephone forwarding
- ❑ Telephone answering service or messages (voice mail)
- ❑ Text messaging
- ❑ E-mail
- ❑ Notification via hospital, law enforcement, or governmental officials
- ❑ Local media (eg, TV, radio, newspaper)
- ❑ Social media (eg, Facebook, Twitter)
- ❑ Ham radio
- ❑ Satellite phone

Consider which methods of communication might apply in various situations. Prepare for each situation by purchasing needed supplies or discussing needs with communication providers (eg, Ham radio operators, local media). Discuss communication plans with staff, determine who will issue communications and conduct media relations, and review basic guidelines and office policies on messaging.

Appendix 5: Preparedness for Pediatric Practices Checklist *(4 of 5)*

9. Develop Service and/or Evacuation Plans

Discuss contingency plans in a variety of situations with partners and colleagues. Identify the criteria that you and your employees will need to make key decisions during a disaster.

- ❑ Delineate what services might be provided under increasingly severe conditions. Consider developing a tiered response, taking into account available utilities, supplies, condition of the facility (or facilities), patient demand, and external conditions (eg, public health emergency, declared evacuation, state of emergency).
- ❑ Determine who will be notified in different crises or disaster situations (eg, when the practice remains open, when services will be provided at an alternate site, when the practice is closed). Develop plans to communicate practice changes and updates with staff, families, and community members (also see number 8, Ensure Effective Communications).
- ❑ Identify patients who are technology or otherwise dependent and share information with utility companies, emergency medical services personnel, and special needs shelters. Discuss contingency plans with family and school representatives.
- ❑ Develop a plan to work with families to coordinate completion of an emergency information form for each child with special health care needs.
- ❑ Consult local hospitals where you have privileges to learn their disaster plan procedures, focusing on your expected responsibilities as medical staff. Ask how hospital disaster decisions will be made and communicated, as well as under what situations inpatients might be discharged early, transferred or redirected to other institutions, or treated in place.
- ❑ Reach out to other health care professionals to share or integrate preparedness plans in order to support each other while strengthening health care delivery for the entire community.

10. Consider How to Handle Infection Control

Pediatric office practices should plan for emergencies that might involve a virus or other infectious agent. Remind staff of the importance of implementing infection control practices on a day-to-day basis and determine office protocols for various types or levels of outbreaks.

- ❑ Annually train staff on standard precautions, infection control, seasonal and pandemic influenza, and the importance of immunizations.
- ❑ Develop an office respiratory protection plan delineating the use of masks, gloves, hand sanitizers, tissues, etc. Provide or update fit testing for staff who use (or might need to use) N95 respirators.
- ❑ Design an office management plan for use in a pandemic that addresses office flow issues, including how to segregate patients with influenza-like illness or respiratory symptoms from others. Consider surge issues and how less time-critical visits such as checkups might be postponed.
- ❑ Develop a plan for rapid triage using telephone screening and in-office protocols.
- ❑ Determine how routine cleaning and disinfection strategies (and the process for ordering relevant supplies in advance) might be enhanced during an outbreak.
- ❑ Identify ways to collaborate with other office staff or building personnel on sharing of staff, supplies, or office space during times of staff illness or absenteeism. Consider options for telecommuting, such as nurse telephone triage from home.

Appendix 5: Preparedness for Pediatric Practices Checklist *(5 of 5)*

11. Plan for Continuing Operations

A disaster or pandemic can significantly impair your revenue, billing, and collections, and therefore your ability to pay staff and vendors. Plan ahead to minimize business disruption and financial liability in order to keep your practice operating under adverse conditions.

- ❑ Compile a list of vendors with whom you have accounts, such as advertising, medical supply companies, business credit cards, cell phone service, and Internet provider. Include information on vaccine manufacturers and facility utilities from the appropriate sections of this kit as well. Record account numbers and telephone numbers for customer service. If this information is already stored in an accounting program, make sure data are current and backed up offsite on a regular basis.
- ❑ Record contact information and provider numbers for payers with which you are contracted, including commercial health insurance companies, State Children's Health Insurance Program, and Medicaid. Consider scanning copies of current contracts. Include contact information for any billing service, clearinghouse, or practice management service.
- ❑ Back up payroll information and employee W9 forms, as well as contact information for any payroll service you may use.
- ❑ Determine which staff member(s) will be responsible for communicating with vendors and paying bills after a disaster, or negotiating alternate payment arrangements.
- ❑ Consider alternate billing and collection procedures in case usual systems are disrupted.
- ❑ If not already done, consider securing a line of credit in case you need extra operating funds.
- ❑ Consider opening a second business account at a different bank, in case of disruption to the first bank or your local branch.
- ❑ Develop a plan to cut paper checks when electronic deposits for payroll are interrupted.

12. Develop a Preparedness Plan for Your Home and Family

Don't neglect your personal preparedness. Planning is just as important for your home and family as it is for your office and practice. Good planning will provide more confidence and peace of mind in a disaster situation, enabling you to concentrate on the most critical issues. Personal preparedness will also help you better understand the issues that your staff and clients face, and it will help you encourage the families that you serve to develop their own disaster plans.

- ❑ Review the AAP Family Readiness Kit, the Federal Emergency Management Agency's Ready.gov, or the American Red Cross Web site for recommendations on how to prepare your home and family.
- ❑ Make a list of possible contacts or destinations to consider in case of an evacuation (eg, family, friends, colleagues). Discuss planning with your family in case of an evacuation. If your family will not be evacuating, where will they be staying? Home? Community shelter? Office? Will they be allowed in the hospital if you need to be stationed there?
- ❑ Buy needed supplies for your Family Disaster Kit.
- ❑ Scan vital home documents and store them in multiple ways.
- ❑ Review home and property insurance coverage, including special hazards (eg, wind, flood, earthquake).

Appendix 6: The Youngest Victims: Disaster Preparedness to Meet Children's Needs *(1 of 4)*

For more information, see the AAP Children and Disaster Web site at www.aap.org/disasters/index.cfm.

The following commentary is an appendix to the Commentary: Disaster Preparedness and Pediatrics: What's Next? *Pediatrics in Review* Vol. 29 No. 11 November 1, 2008 pp. 371-373.

The Youngest Victims: Disaster Preparedness to Meet Children's Needs

The American Academy of Pediatrics (AAP) Disaster Preparedness Advisory Council has identified a variety of guiding principles or key messages that AAP members and child advocates can use to guide decision-making and support the implementation of new public policy, effective community/state planning, and appropriate education and training.

Children Have Unique Needs

In 2006, there were 73.7 million children under age 18 years in the United States, constituting more than one quarter of the United States population. When discussing disaster preparedness, the nation's children are often combined with many other diverse populations under the rubric of "special needs." Use of a generic catch-all term (at-risk, special needs, special populations) for diverse populations with very different needs obscures our duty to examine each of these groups and their needs individually. With children, it is important to highlight the various needs of children of different ages and developmental stages (infants, preverbal toddlers, preschool-age children, school-age children, adolescents, young adults, children with low English proficiency, children of different cultures, and so on) so their needs are anticipated during assessment and planned for accordingly. Use of these generic terms has resulted in combining children, pregnant women, the elderly, and even pets into one group, and this practice sends an unhelpful message regarding the unique needs of each of these populations. Governmental agencies should anticipate that a disaster may overwhelm a state's ability to serve these groups, particularly children, and be prepared to address this issue pro-actively by designating aid specifically for children and describing how this aid can be accessed.

Children are not little adults. Their developing minds and bodies place them at increased risk in a number of specific ways. Children have important physical, physiologic, developmental, and mental differences from adults that can and must be anticipated in the disaster planning process. Plans must ensure that health care facilities and medical providers are prepared to meet the medical needs of children of all ages and developmental stages.

Children are particularly vulnerable to aerosolized biologic or chemical agents because they normally breathe more times per minute than adults, meaning they would be exposed to larger doses in the same period of time. Also, because some agents (eg, sarin and chlorine) are heavier than air, they accumulate close to the ground—right in the breathing zone of children. Children are also more vulnerable to agents that act on or through the skin because their skin is thinner and they have a larger skin surface-to-body mass ratio than adults.

Children are more vulnerable to the effects of agents that produce vomiting or diarrhea because they have less body fluid reserve than adults do, and this characteristic increases their risk for rapid dehydration. Further, children have smaller circulating blood volumes than adults; so, without rapid intervention, relatively small amounts of blood loss can quickly tip the physiologic scale from reversible shock to profound irreversible shock or death.

Children have significant developmental vulnerabilities not shared by adults. Infants, toddlers, and young children do not have the motor skills to escape from the site of a chemical, biologic, or other terrorist incident. Even if they are able to walk, young children may not have the cognitive ability to figure out how to flee from danger or follow directions from others. Also, they may not know when they need help or may not be able to tell others about their symptoms. Just as children's developing bodies affect their response to physical trauma, ***children's ongoing cognitive and social development poses unique challenges to providing quality mental health care.*** In general, a child's reaction to a new situation varies greatly, depending on their developmental level, temperament, experience, and skills. When children are exposed to circumstances that are beyond the usual scope of human experience (eg, a terrorist attack or violence), they may develop a range of symptoms related to post traumatic stress disorders. Exposure to media (on television) or being interviewed by the media would traumatize children further. Efforts should be made to protect children from these experiences.

Appendix 6: The Youngest Victims: Disaster Preparedness to Meet Children's Needs *(2 of 4)*

Children have ongoing needs that must be addressed by their parents or other caregivers. They require direct supervision, assistance with feeding, and protection from hazards. When children are separated from their caregivers (whether because of displacement or medical evacuation), they require priority assistance. Children are highly influenced by the emotional state of their caregivers. When the family or another caretaker is psychologically harmed by the events around them, it is likely to affect the psychological well-being of the child. Counselors should be trained to recognize the signs of distress in children and to help parents and caregivers address children's needs at varying levels of development. Techniques used in assisting adults may be ineffective or even counterproductive with children.

Children are a highly vulnerable population during a food or agriculture incident. Children consume proportionately more food and drink than adults. Children are more vulnerable to the effects of agents that produce vomiting or diarrhea because they have smaller body fluid reserves than adults, increasing the risk of rapid progression to dehydration or shock. Young children may need to be breastfed or fed by adults. Planning should acknowledge the unique vulnerabilities of children and the fact that they could represent a disproportionately high percentage of victims in a food or agriculture incident.

Children are particularly vulnerable to rapid spread of infectious disease and exposure to toxic substances. Young children, especially infants and toddlers, have a natural curiosity (that leads to frequent and wide-ranging handling of objects and surfaces) and a tendency to put their hands and objects in their mouths without washing first. Since their immune systems are still developing and because children are smaller than adults, they often have a more pronounced reaction to infections and other substances. Increased attention to infection control measures (eg, immunizations, hand washing, routine cleaning, disinfection, and sanitization) can reduce the spread of infectious diseases. In pandemic situations, child care and school closure along with social distancing may be recommended.

Evacuation plans should specifically address children, particularly in schools and other places where children gather in large numbers. Child care programs, schools, and before and after school programs must be prepared to evacuate children, take them to a safe place, notify parents, and reunite children with their families.

A disaster may disrupt community child care services and leave first responders and other providers of vital services without a safe place for their children. This disruption could result in a need for accessible child care facilities to care for more children than they typically do, or for establishment of temporary child care programs. The special challenges of providing such care during disaster situations should be identified. Guidelines for these situations should be flexible, depending on the need. Minimum health and safety standards should be followed; yet some guidelines (need for immunization records, confidentiality when discussing health information, the maximum number of children cared for) may need to be adjusted or waived.

When children are cared for in shelters or other temporary care situations, child-specific supplies must be provided, including cribs, children's clothing of various sizes, formula and bottles, water, baby food, feeding utensils, etc.

Feeding plans or guidelines should stress the special needs of infants and young children for breast milk, formula, and baby food. Plans must describe how clean water, bottles, and other necessary feeding equipment will be provided.

Communities Can Best Care for Children by Focusing on Family-centered Care

The importance of family-centered care is critical given the likely unwillingness of many parents to be separated from their children in a disaster, even if both the parent and child are injured and in need of medical care. Children frequently receive more appropriate and more effective care when they are accompanied by a parent or other caregiver. Children should not be separated from their families or caregivers to the maximum extent possible during evacuation, transport, sheltering, or the delivery of other services. If separation was unavoidable, children should be reunited with their families or caregivers as soon as possible.

In particular, children must be transported with at least one parent or caregiver during evacuation of medical facilities. In addition, this transportation and care must be coordinated so patients are moved to facilities with appropriate pediatric resources, whether they

are evacuated from field providers, inpatient units, or specialized advanced facilities (such as pediatric or neonatal intensive care units). Communications must be maintained between medical providers and patients' families or guardians if they are not together. Child passenger safety recommendations should be followed.

During a no-notice or mass evacuation, children will likely be gathered in large numbers away from their parents, whether at schools, child care facilities, summer camps, hospitals, or other locations. Plans must account for their safe transportation and reunification with caregivers. Child-specific supplies, such as clothing, food, water, formula, and diapers must be present at evacuation sites and en route, with the assumption that large numbers of children may be transported together.

States and other entities need to determine how to subsidize and provide quality care for children whose caregivers may be killed, ill, injured, missing, quarantined, or otherwise incapacitated for lengthy periods of time. Legal and other issues must be addressed when these children are taken into the care of the state. Special consideration must also be given to those children who are already wards of the state, either through the foster care or the judicial system. Preemptive planning and creation of a system to identify, monitor, and care for these children will help to ensure their needs are met at a time when they may not otherwise be supported or protected.

Children may be at increased risk for being abducted, abused, or neglected during a disaster or times when their parents or caregivers are experiencing unusual stress. If there is a disaster or emergency situation, adults should take care to ensure that children are supervised by sight and sound at all times, reinforce safety rules, and talk to children about what they should do if they need help. Also, professionals who assist with rescue and recovery should recognize that children involved in a disaster may exhibit signs and symptoms similar to those who have been maltreated, and they should consider whether each child may have been victimized or abused. Because most abuse occurs within the family or by someone known to the child, an emergency or disaster can cause increased stress to the family or a child, and children may choose that time to disclose that they have been maltreated. Reports by children of any form of abuse or neglect should be taken seriously and pursued in an appropriate manner. Lastly, disaster planning efforts should include methods for tracking sexual and other adult predators, especially during evacuations or times when children may need to be housed in a shelter or other communal area.

Children Require Appropriate Pediatric Care

As defined by the AAP, the purview of pediatrics includes infants, children, adolescents, and young adults through and, in certain circumstances, beyond 21 years of age. Children must be cared for properly in the event of a disaster, whether by their parents, families, caregivers, or teachers. Limiting pediatric services to specific age groups—eg, "children under 8 years old"—is not advisable or adequate. The needs of *all* children must be addressed, from infants to young adults. Necessary resources need to be provided to make this possible.

Once children are critically ill or injured, their bodies will respond differently than adults in similar medical crises. Consequently, pediatric treatment needs are unique in a number of different ways.

Children need different dosages of medicine than adults—not only because they are smaller, but also because certain drugs and agents may have effects on developing children that are not of concern for adults.

Children need different sized equipment than adults. Because children have smaller bodies, they require smaller equipment. From needles and tubing to oxygen masks and ventilators, to imaging and laboratory technology, children need equipment that has been specifically designed for them.

Children demand special consideration during decontamination efforts. Because children lose body heat more quickly than adults, skin contamination showers that are safe for adults may result in hypothermia in children unless heating lamps or other warming equipment is provided.

Plans that describe care for children must have a specific pediatric component. Pediatricians should be direct participants in the teams that develop this advice, and appropriate guidelines will almost certainly be different for children than for adults. Pediatricians must be included in the primary notification process. The signs and symptoms of exposure and methods of treatment are different for children than they are for adults. Families and health care providers will need customized information and guidelines to respond appropriately.

Pediatric-specific capabilities must be present at all points of operation. Health care and mental health providers with adequate pediatric training will be required to provide appropriate care.

It may not be reasonable to expect strict confidentiality practices to be maintained during a disaster. In particular, attention must be paid to medical care for unaccompanied minors in a mass casualty situation when there are reunification issues. There are special challenges when providing care during disaster situations and waivers related to confidentiality and the Health Insurance Portability and Accountability Act (HIPAA) may be requested and granted.

Customize Disaster Planning to Meet Children's Needs

Federal, state, and local disaster plans should include specific protocols for management of pediatric casualties and should include pediatricians in planning at every organizational level. Further, local disaster teams should include pediatricians and other personnel skilled at evaluating and treating children.

Children must be cared for properly in the event of a disaster, whether by their parents, families, caregivers, or teachers. The needs of *all* children must be addressed, from infants to young adults. Adults in charge of children, including caregivers and teachers, should have a plan for providing first aid and further care for children until they are reunited with a family member who can meet their needs. Appropriate resources must be provided to make this care possible.

Government agencies should work to ensure that adequate supplies of antibiotics, antidotes, and vaccines are available for children; that these agents are safe and efficacious; and that pediatric doses are established. Resource allocation plans should ensure that these agents are readily available to pediatric health care sites and other locations where children may congregate.

Many individuals have lost their lives during hurricanes and other disasters because they would not evacuate without their pets. In addition, separating children from their pets without appropriate preparation can have negative consequences. Children are very close to their pets, and family and community disaster preparedness plans must take pets into account. Consideration must also be given to safety issues in designing shelter plans that allow pets to remain with their owners. The cramped quarters and high-stress nature of shelters pose unique challenges in preventing injuries among children from animals unknown to them.

AAP Resources

Pediatric Terrorism and Disaster Preparedness: A Resource for Pediatricians
This comprehensive 350-page report and its summary serve as practical resources that pediatricians can consult when planning for and responding to natural disasters and bioterrorist events. The report was published in 2006 and was prepared by the American Academy of Pediatrics for the Agency for Healthcare Research and Quality.

Pandemic Influenza: Warning Children at Risk!
This 34-page issue brief was published in 2007 and was prepared by Trust For America's Health and the American Academy of Pediatrics.

A Disaster Preparedness Plan for Pediatricians
This 21-page booklet developed by a practicing pediatrician and an AAP Chapter describes the steps that pediatricians need to take to prepare their office practices for a disaster.

Infant Nutrition During a Disaster: Breastfeeding and Other Options

This 2-page fact sheet includes recommendations and a flow chart to help guide decision-making regarding infant feeding during and after a disaster.

The Pediatrician and Disaster Preparedness
The American Academy of Pediatrics has developed a policy statement and technical report that complement each other and include recommendations regarding the pediatrician's role in disaster preparedness and recovery.

These and other key resources can be found on the AAP Children and Disasters Web site at: www.aap.org/disasters/index.cfm

If you have questions or wish to join the AAP Disaster Preparedness Contact Network, please send an e-mail describing your interest or involvement in disaster preparedness initiatives to DisasterReady@aap.org.

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