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## Disaster Readiness for Children

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Jeffrey S. Upperman, MD

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## Editor

Steven E. Krug, MD,  
FAAP

Feinberg School of  
Medicine,  
Northwestern  
University, Ann &  
Robert H. Lurie  
Children's Hospital of  
Chicago, Chicago, IL

## Disaster Readiness for Children

Jeffrey S. Upperman

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## Abstract:

Public-private partnerships (PPPs) can effectively achieve mutual goals by sharing resources and information and building on partners' strengths. Although PPPs are used in emergency management, little documented research exists on how they are used to support a Whole Community approach to emergency management. This article reviews literature on how such partnerships can support a Whole Community approach to meeting children's needs before, during, and after disasters. Recent examples of PPPs supporting planning and response to children's needs in disasters are provided; and these examples demonstrate effectiveness in planning and advocacy at local, regional, and national levels. Public-private partnerships should continue to be developed and assessed in the context of Whole Community planning to ensure that community, and specifically, children's needs in disasters are identified and addressed.

## Keywords:

advocacy; children; collaboration; disaster; emergency partnership; public-private partnerships; Whole Community

\*Children's Hospital Los Angeles, Division of Pediatric Surgery, Los Angeles CA;

†Department of Federal Affairs, American Academy of Pediatrics, North Washington, DC;

‡Emergency Preparedness, US Programs, Save the Children, Fairfield, CT.

Reprint requests and correspondence: Bridget M. Berg, MPH, FACHE, Project Manager, Children's Hospital Los Angeles, Division of Pediatric Surgery, 4650 Sunset Blvd MS 100, Los Angeles CA 90027. (E-mail: BBerg@chla.usc.edu (B.M. Berg), vmusigdilk@chla.usc.edu (V.V. Musigdilk), tharo@aap.org (T.M. Haro), pmyers@savechildren.org (P. Myers))

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# Public-Private Partnerships: A Whole Community Approach to Addressing Children's Needs in Disasters

**Bridget M. Berg, MPH\*,  
Visanee V. Musigdilk, BA\*,  
Tamar M. Haro, BA†, Paul Myers, PhD‡1**

**A**fter their recognition that government could not solely meet all of a community's needs in a catastrophic event, the Federal Emergency Management Agency (FEMA) released guidance on the concept of the Whole Community approach to emergency management in 2011. The Whole Community approach aims to ensure that all the needs of a community are addressed in disaster planning. "Whole community is a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interests."<sup>1</sup> Simply put, a community cannot solely rely on their emergency



management professionals to plan for emergencies or disasters through mitigation, preparedness, response, and recovery activities. Instead, the planning process must incorporate a diverse collection of individuals and groups from across the entire community if all their needs are to be identified and met in a crisis.

Public-private partnerships (PPPs) are one method to support a Whole Community approach. In this article, we discuss the literature on existing PPPs and their role in achieving shared objectives in the emergency management field. In addition, we review how PPPs can support a Whole Community approach and how PPPs are improving awareness, planning and response, and advocating for changes at the federal, state and/or local levels to improve disaster planning and response for children.

## WHOLE COMMUNITY APPROACH TO MEET CHILDREN'S NEEDS

For decades, emergency managers typically overlooked care for children in disasters due to a lack of awareness of their needs and little institutional guidance on how to care for children when disasters or large emergencies occurred.<sup>2</sup> However, organizations are beginning to rectify this knowledge gap by developing and making available child-focused trainings and guidance. For example, individuals can now take courses such as FEMA's online IS-366: Planning for the Needs of Children in Disasters, Texas A&M Engineering Extension Service's Pediatric Disaster Response and Emergency Planning, and the American Academy of Pediatrics (AAP) Pediatric Education in Disasters. Internet searches for "children and disaster training" result in many additional quality training courses and resources. Guidance has also been documented in resources such as the Homeland Security Grant Program Supplemental Resource: Children in Disasters Guidance,<sup>3</sup> the AAP Pediatric Preparedness Resource Kit,<sup>4</sup> and New York City Department of Health and Mental Hygiene's Children in Disasters: Hospital Guidelines for Pediatric Preparedness,<sup>5</sup> among others.

Training and guidance alone cannot provide a solution to meeting children's needs in a disaster. The systems and groups that provide support to children are spread across numerous sectors including pediatric medical and behavioral health, emergency management, nongovernmental organizations (NGOs), the private sector, schools, and child care providers. Complicating the multitude of organizations that play a role in meeting children's

needs are the specific needs, strengths, and existing structures of the state or territory and local community within which children live. These community intricacies would be supported by taking a Whole Community approach to meeting children's needs.

## Using PPPs to Support a Whole Community Approach

One approach that could be pursued to achieve a Whole Community approach is PPPs. The PPP definition centers on the idea of the public and private sectors forming an arrangement to obtain a mutual goal.<sup>6</sup> Federal Emergency Management Agency defines a PPP as a collaborative relationship built upon three components: needs, capabilities, and two-way communication.<sup>7</sup> The purpose of PPPs is to increase efficiency and improve the quality and delivery of services and goods.

## Existing PPPs in Emergency Management

Although research has demonstrated that PPPs have been effective in leveraging resources, studies relating to PPPs and emergency management often focus on the concept of resilience, although not all studies highlight the Whole Community angle or specifically use the term PPP.<sup>8-10</sup> One example of an existing PPP is the Strategic National Stockpile program,<sup>11</sup> a collaborative effort involving state public health agency representatives and local businesses in Georgia. This partnership is based on a mutual objective to protect public health and reinforce community cohesion in a large-scale emergency or disaster situation. In this example, the business partners provide access to various business networks throughout the state and permits dispensing sites onto their company grounds to increase public access to stockpiled medical countermeasures. In addition to establishing agreements for distribution of the Strategic National Stockpile, the business and public health partners attend and participate in each other's meetings, which support open communication and improve trust and understanding, as the partnership continues.<sup>11</sup> Together, these elements are critical for successful PPP development and effectiveness.

Another example of an effective PPP includes the relationship between Walgreens, the largest drug-store chain in the United States, and local governments for the purpose of disaster preparedness and response. Walgreens has partnered with local governments in two ways. In the first case, the organization's employees respond to local and state emergency operation centers during disasters. They are provided advanced training and credentials to



support the response and represent their business. Secondly, Walgreens partners with other businesses to provide a collective voice to their local emergency operation centers during a disaster. One or two individuals from the business collective serve as representatives for the public sector, with each business holding steadfast to the goal of supporting timely and effective emergency response. Without shared interest and dedication to this goal, some companies may compromise the PPP by putting their own company interests before the public's interest. In addition, Walgreens has incorporated "blue sky days," in which PPP partners have open discussions before and after disasters strike; this approach has allowed Walgreens to develop a listing of their capabilities during response phases. Through their involvement predisaster, Walgreens has been able to improve the coordination and incoming requests during responses such as Hurricane Sandy and the Boston Marathon bombings.<sup>12</sup>

These two examples demonstrate the value of PPPs in strengthening a Whole Community approach. Community involvement, whether it be through active participation in leading roles or providing feedback, is essential in helping partners learn and understand the needs and capabilities of communities.

### Elements to Consider When Developing PPPs

In creating a PPP, several considerations should be taken into account: (1) identifying how to build on the strengths of each partner, (2) documenting each partner's risk and creating shared risk, (3) establishing clear objectives and expectations, (4) establishing clear communication, and (5) determining the level of legal partnership desired. Within the PPP, roles and duties assigned to each sector are dependent on their capabilities and available resources and calls for both sectors to contribute and share resources.<sup>13</sup>

Because of the differing roles and duties between public and private sectors, one significant factor in making a PPP effective is managing the risks of each partner. Risks could include financial, legal, and human capital impacts among others that could negatively impact an organization. For example, a business that responds to a community need for food or supplies during a disaster will want to balance their donations with their overall business financials in order to not overextend itself. Because each partner has unique capabilities and roles, risks and perception of risk will vary.<sup>13</sup> One of the first steps parties should take during PPP development is to document each partner's risks and shared risks.<sup>14</sup>

It is critical to allocate risk in such a way that they are distributed to the partner best suited to handle them. However, there should also be risk sharing built into the agreement, so both sectors have invested interest.<sup>13</sup>

Clear understanding of individual and mutual objectives and expectations supports an effective PPP. This transparency also fosters the development of a trusting and cooperative relationship that is supportive of PPP success.<sup>12</sup> Furthermore, information sharing provides an opportunity to increase interaction and correspondence between partners.<sup>6,14</sup> To further safeguard against possible disputes, many PPP agreements are formalized through legal contracts. Contracts describe the terms and agreements of the PPP and can be referred to when issues arise. This is common practice especially for long-term PPPs. A memorandum of understanding (MOU) can also be created, which is a nonbinding document between parties often used in emergency management to document and establish shared interests. The California Emergency Management Agency has established MOUs with private businesses to support response activities and maximize resources. For example, MOUs with WalMart, Target, and Home Depot exist to support access to goods and supplies and leverage logistics distribution.<sup>15</sup>

### Toward Pediatric Readiness: PPPs and the Whole Community Approach

Given the use of PPPs in other fields, including public infrastructure projects, public health, and emergency management, they are a useful means of supporting a Whole Community approach and addressing the needs of children in disasters. Public sector participants should include emergency management representatives from federal, state, or local governments, and representatives from the Department of Children and Family Services. The

**TABLE 1. Assessment areas within the hospital section of the Community Preparedness Index.**

- Elements of preparedness for a surge of pediatric patients
- Evacuation of pediatric patients
- Continuity of operations
- Communicating with parents/guardians, emergency responders, and staff before, during, and after emergencies
- Mental/behavioral health services for children
- Matching pediatric patients with available hospital resources
- Exercises and drills



private sector participants should include representatives from NGOs, faith- and community-based organizations, community leaders, child care providers, schools, health care organizations, or individual youth representatives.<sup>16</sup> One approach PPPs can take to identify and prioritize children's needs is to review guidance and use an assessment tool, such as the Community Preparedness Index (CPI).<sup>17</sup>

The CPI offers local representatives or PPPs a tool to assess communities' strengths and weaknesses in meeting the needs of children in disasters. It is the first effort to provide a quantitative score of how well communities are prepared to meet children's needs. The CPI was developed by Save the Children in collaboration with Columbia University's National Center for Disaster Preparedness and is a self-assessment tool for local communities—such as a city, county, or parish—to gauge the extent to which children in organized settings are cared for in a disaster (Table 1). Organized settings in this context include locations where a child may be during the day—when away from their parent(s) or guardian(s)—or after a disaster, such as a hospital, child care, school, or disaster shelter. Before being released nationally in late 2014, the CPI was pilot tested in several communities across the United States. The communities that were most successful in completing the assessment and taking initial steps to rectify shortcomings took the Whole Community approach by including public and private partners in the process.

### **Existing PPPs Improving Preparedness and Response for Children**

A Whole Community approach ensures that the needs of children, including those with access and functional needs are considered in disaster planning efforts. When specifically addressing the unique needs of children within communities, one effective solution has been through the formation and convening of child-focused task forces or working groups, which are examples of a PPP.<sup>18</sup> One example from the "Children and Youth Task Force in Disasters" report discusses the Joplin Child Care Task Force that was developed after the May 2011 Joplin, MO, tornado. The tornado destroyed 19 child care centers and damaged an additional 8 impacting care for nearly 700 children. This task force was an example of a PPP to address facility recovery, coordinate efforts, and share resources, including support of child behavioral health issues.

Another community taking a Whole Community approach in emergency planning, at least in caring for children in disasters, is the state of Oklahoma. This partnership includes public and private sector partners who established a statewide "Children in

Emergencies Working Group" to better understand and meet the needs of children. The group, which is co-chaired by a representative of the state's Department of Emergency Management and the Oklahoma Insurance Department, is looking into using the CPI to provide a better understanding of where the gaps are in child-focused emergency management. The working group, consisting of representatives from the federal, state, and local government, nonprofits, state Voluntary Organizations Active in Disaster, hospitals, and child care, is also engaging and empowering all parts of the community. To ensure that the Whole Community is included in the group's efforts, the state PPP is split into five regional groups that have their own committees who collaborate with one another. This active PPP has already identified the need to focus on disaster response and interim recovery (ie, the transition from a disaster response to the beginning stages of recovery) and is taking steps to address those gaps.

### **Engaging Health Care Organizations and Clinicians**

One of the first sources of contact for children and families during or after a catastrophic event is the medical community, as children may be seen in emergency department settings or taken to primary care clinicians for follow-up consultation.<sup>19,20</sup> However, clinicians, specifically pediatricians, receive little training in disaster response especially as it relates to children.<sup>20-23</sup> Therefore, engaging health care organizations and clinicians via a PPP can address this specific gap and also strengthen the Whole Community approach.

One example of a partnership to rectify this gap was a collaborative effort between the NGO, AmeriCares, and the Maimonides Infants & Children's Hospital, a leading pediatric hospital in Brooklyn, NY. This partnership was prompted after Superstorm Sandy in 2012, which caused significant damage to the northeastern United States. Their objective was to design and implement a training called the Pediatric Disaster Mental Health Intervention. The initiative focused on two components: (1) empowering pediatricians in a 4-hour training to identify postdisaster mental/behavioral health needs in their patients and (2) providing support to address the issues or refer the children/families to other professionals. The training includes 7 sections, with 1 of the sections focused on psychologic first aid, that is, common responses to trauma, loss, and disaster and working in a disaster zone.<sup>24</sup> Attendees were also provided opportunities to network with mental/behavioral health professionals in their local community to improve understanding of available resources. After the trainings in New York, participant feedback indicated that more than 60% of



the pediatricians made changes to their practice and more than 70% indicated that they applied the lessons learned to their patients.<sup>25</sup>

A local example from Los Angeles County (LAC) in improving disaster preparedness for children's needs in a Whole Community approach through PPP is the Children in Disasters Working Group. This group was established in 2012 and initiated by a Save the Children representative who garnered support from the LAC Office of Emergency Management and Children's Hospital Los Angeles (CHLA). At the time of publishing, this group is co-chaired by a faculty member at CHLA and the former emergency manager from the Los Angeles Unified School District. Structurally, the working group is a subcommittee of the Access and Functional Needs Committee for LAC Office of Emergency Management. The partnership involves stakeholders from 12 public and private organizations. The partnership has shared goals and interests and does not have financial arrangements built in. The mission of this group is to establish a sustainable and collaborative mechanism to build a disaster-resilient community in Los Angeles to ensure children's needs are met before, during, and after a disaster. The value that this PPP brings to LAC is its broad representation from many organizations that would have not otherwise convened, discussed, and resolved issues related to cross-organizational needs of children. This example is representative of the benefits of a Whole Community approach. This Working Group has effectively maintained the partnership in recent years and produced a training video for child care providers on disaster preparedness for children. In addition, they continue to convene to identify and address local issues.

Although the groups in the prior two examples are not legally bound or built upon long-standing financial ties, they demonstrate how PPPs can improve a community's ability to handle children's needs in disasters. Without the PPP and Whole Community approach, health care organizations and clinicians would continue to plan in isolation and be inadequately positioned to respond to children's needs. In addition, these PPPs have proven useful in establishing relationships in advance of disasters, thereby establishing a strong foundation for response activities.

## PPPS AND ADVOCACY FOR CHILDREN'S NEEDS

Although local PPPs collaborate to improve community needs, national professional associations can develop PPPs to advocate for broader

system or policy changes. The activities of the AAP offer an example of how a professional association can effectively engage its members and the public sector to make positive impacts. Through leadership and an established plan within their Disaster Preparedness Advisory Council, they have developed a network of public and private partners to strengthen disaster preparedness for children.<sup>26</sup>

The AAP actively partners with their members and congressional representatives to advocate for improvements in planning and response for children's needs in disasters. Advocacy is often discussed as creating a situation in which change can occur. These changes can take place at many levels. Individual advocacy exists when a medical provider may work to improve the health and well-being of individual patients. Community and state level advocacy builds on and reaches beyond individual advocacy by shifting focus from a patient in the professional setting to patients within the community. Federal advocacy is the changing of public policies, laws, and rules at the federal level to affect broad systemic change.

Although many gaps still remain, through sustained advocacy, much has been achieved at the federal level for pediatric disaster readiness. The focus within this section is how partnerships have been used to advocate at the federal level for improvements to care for children and pediatric readiness for disasters.

## Emergency Medical Services for Children Program

One example of the impact of successful advocacy work is the creation of the Emergency Medical Services for Children (EMSC) program. Thirty years ago, the EMSC program was created by the late US Senators Daniel Inouye, Orrin Hatch, and Lowell P. Weicker, Jr. Now a thriving federal program, it originated from the passionate advocacy of then-President of the Hawaii Medical Association and pediatrician Dr Calvin C.J. Sia who urged members of the AAP to develop programs and partner with legislators. Today, EMSC remains the only federal program dedicated to improving the pediatric components of the emergency medical services (EMS) system, and it has helped advance the field of pediatric emergency medicine as a whole. In addition to supporting improvement in day-to-day emergency care, the EMSC program has also worked toward advancing disaster readiness for children, including the creation of a Web-based resource, PEDPrepared (<http://www.emscresources.org/pedprepared/>). The PPP that led to the creation of the EMSC program has also helped sustain this program's existence and funding;<sup>27</sup> these efforts



**TABLE 2. Selected recommendations from the National Commission on Children and Disasters—result of successful public-private partnership advocacy.**

Focus Area	Selected Recommendations
Disaster management and recovery Mental health	Distinguish and comprehensively integrate the needs of children across all intergovernmental and intragovernmental disaster management activities and operations. HHS should enhance the research agenda for children's disaster mental and behavioral health, including psychologic first aid, cognitive-behavioral interventions, social support interventions, bereavement counseling and support, and programs intended to enhance children's resilience in the aftermath of a disaster.
Child physical health and trauma	Congress, HHS, and DHS/FEMA <sup>a</sup> should ensure availability of and access to pediatric medical countermeasures at the federal, state, and local levels for chemical, biological, radiologic, nuclear, and explosive threats.
EMS and pediatric transport	Improve the capability of EMS to transport pediatric patients and provide comprehensive prehospital pediatric care during daily operations and disasters.
Disaster case management	Disaster case management programs should be appropriately resourced and should provide consistent holistic services that achieve tangible, positive outcomes for children and families affected by the disaster.
Child care and early education	Congress and federal agencies should improve capacity to provide child care services in the immediate aftermath of and recovery from a disaster.
Elementary and secondary education	Ensure that school systems recovering from disasters are provided immediate resources to reopen and restore the learning environment in a timely manner and provide support for displaced students and their host schools.
Child welfare and juvenile justice	Ensure that state and local juvenile justice agencies and all residential treatment, correctional, and detention facilities that house children adequately prepare for disasters.
Sheltering standards, services, and supplies	Government agencies and NGOs should provide a safe and secure mass care shelter environment for children, including access to essential services and supplies.
Housing	Prioritize the needs of families with children, especially families with children who have disabilities or chronic health, mental health, or educational needs, within disaster housing assistance programs.

DHS indicates Department of Homeland Security; HHS, Department of Health and Human Services.

recently culminated in the passing of legislation, which will reauthorize the EMSC program for another 5 years.

### **National Commission on Children and Disasters**

Another result of successful advocacy work was the creation of the National Commission on Children and Disasters (the Commission). Beginning in 2006, children's advocates began a concerted effort to convince lawmakers to create the Commission. Legislation requiring the establishment of a Commission was ultimately enacted in 2008. Through its interim report in October 2009 and its final report in October 2010, the Commission succeeded in identifying key gaps and recommendations at the federal level.<sup>28</sup> Noteworthy progress on the recommendations of the Commission has been made by many federal agencies, but gaps continue to persist (Table 2). For example, many of the recommendations, as of the writing of this article, still have yet to be implemented.

### **Pandemic and All-Hazards Preparedness Reauthorization Act and the National Advisory Committee on Children and Disasters**

Several of the recommendations proffered by the Commission required changes in federal statute, specifically, changes to the Pandemic and All-Hazards Preparedness Act, passed by Congress in 2006 in the wake of Hurricanes Katrina and Rita and anthrax attacks in Washington, DC. Sustained advocacy by pediatricians and other advocates for children called attention to the impact of these gaps on the readiness of the nation to meet the needs of children (Table 3) through congressional testimony, letters, and the national media. This resulted in the first-ever provisions for children within the Pandemic and All-Hazards Preparedness Act enacted in 2013. Although provisions of this law are still being implemented, Congress sought to ensure that state and local governments as well as hospitals would be better prepared for pediatric patients in a public health emergency. For example, the arsenal of medical



**TABLE 3 Congressional testimony by pediatricians: example of AAP advocacy partnership.**

Date	Testimony	Link to full testimony
July 26, 2006	Steven E. Krug, MD, FAAP	<a href="http://www.gpo.gov/fdsys/pkg/CHRG-109hhrg35563/html/CHRG-109hhrg35563.htm">http://www.gpo.gov/fdsys/pkg/CHRG-109hhrg35563/html/CHRG-109hhrg35563.htm</a>
July 19, 2007	Scott Needle MD, FAAP	<a href="http://www.aap.org/en-us/advocacy-and-policy/federal-advocacy/Documents/TestimonyofScottNeedleonBehalfoftheAAP.pdf">http://www.aap.org/en-us/advocacy-and-policy/federal-advocacy/Documents/TestimonyofScottNeedleonBehalfoftheAAP.pdf</a>
August 1, 2007	Gary Q. Peck MD, FAAP	<a href="http://www.aap.org/en-us/advocacy-and-policy/federal-advocacy/Documents/Post-KatrinaHealthCareintheNewOrleansRegionProgressandContinuingConcerns">http://www.aap.org/en-us/advocacy-and-policy/federal-advocacy/Documents/Post-KatrinaHealthCareintheNewOrleansRegionProgressandContinuingConcerns</a>
April 13, 2011	Daniel B. Fagbuyi, MD, FAAP	<a href="http://www.aap.org/en-us/advocacy-and-policy/federal-advocacy/Documents/TakingmeasureofCountermeasures-Part1.pdf">http://www.aap.org/en-us/advocacy-and-policy/federal-advocacy/Documents/TakingmeasureofCountermeasures-Part1.pdf</a>
May 17, 2011	Michael R. Anderson, MD, FAAP	<a href="http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Children-and-Disasters/Documents/Mike_Anderson_Testimony_5-17-11.pdf">http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Children-and-Disasters/Documents/Mike_Anderson_Testimony_5-17-11.pdf</a>

countermeasures for children would be dosed, formulated, and ideally labeled for pediatric patients and the federal government would maintain the necessary pediatric expertise to advise its agencies and program.

A key component to ensure that the needs of children are considered and addressed at the federal level was through the creation of the National Advisory Committee on Children and Disasters. This independent federal advisory committee, composed of key federal agencies and experts in pediatric disaster readiness, may prove to be the penultimate PPP for pediatric disaster readiness. Its first public meeting was held in August 2014, and its statutory mandate has a broad reach into many different sectors of readiness for children, including medical and public needs.<sup>29</sup>

Based on these examples of successful federal advocacy related to pediatric emergency and disaster readiness, common characteristics can be defined and therefore sustained and used to develop future partnerships. These successes were sustained, organized, and focused on addressing a definable problem or a well-established, credible, and known gap. These characteristics align with those of successful PPPs. The PPPs that led an advocacy effort or that formed to support an effort already underway were and continue to be critical to providing credibility and a broad base of support for change.

## SUMMARY

The use of PPPs to support a Whole Community approach is one mechanism to improve disaster planning, response, and recovery for children. Although the use of PPPs has been documented in other fields, PPPs continue to demonstrate promising results in improving preparedness and response. Current PPPs in local areas are demonstrating

progress in training, resource sharing, collaborative planning, and response. Nationally, professional organizations have demonstrated their capability to partner with the public sector to advocate for legislative changes that incorporate children's needs and establish structures and funding to make systematic changes. Public-private partnerships should continue to be developed, assessed, and documented to provide key success factors within the emergency management field and particularly related to meeting children's needs in disasters. ☒

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