

This section is part of a comprehensive review and analysis of current issues and trends in pediatric disaster education. The report explores current gaps and opportunities in pediatric disaster education. A Pediatric Disaster Education Concept of Operations is recommended to assure whole community inclusion of children in all phases of the disaster.

Eastern Great Lakes Pediatric Consortium for Disaster Response: Education Workgroup

June 2021

### **National Pediatric Disaster Competency Survey**

Since 2009, there have been several efforts to establish pediatric disaster core competencies and curricula. One of the most robust efforts was led by the National Center for Disaster Medicine and Public Health (NCDMPH). In 2010, the NCDMPH established the following Public Health and Medical Disaster Core Competencies as a model core competency framework. The competencies were inclusive of all disciplines, all hazards, all communities, and all populations.

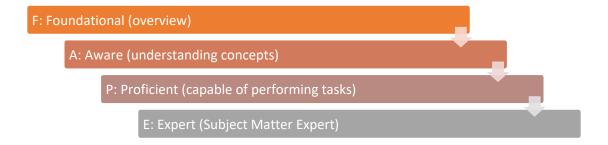
### CORE COMPETENCIES FOR DISASTER PUBLIC HEALTH AND MEDICINE ALL DISCIPLINES, ALL HAZARDS, ALL COMMUNITY, ALL POPULATIONS

- → Maintain personal and family preparedness
- → Demonstrated knowledge of one's expected role(s) in organizational and community response plans
- → Maintain situational awareness
- → Communicate effectively with others
- → Demonstrate knowledge of personal safety measures that can be implemented
- → Demonstrate knowledge of surge capacity assets, consistent with one's role in organizational, agency and/or community response plans

- Demonstrate knowledge of principles and practices for the clinical management of all ages and populations affected by disaster and PH emergencies, in accordance with scope of practice
- Demonstrate knowledge of PH principles and practices for all affected ages and populations
- Demonstrate knowledge of ethical principles to protect the health and safety of all affected ages, populations and communities.
- → Demonstrate knowledge of legal principles to protect the health and safety of all affected, ages populations and communities
- Demonstrated knowledge of short and long-term considerations for recovery of all affected ages, populations and communities

 $\textbf{Adapted.} \underline{\textbf{https://www.usuhs.edu/sites/default/files/media/ncdmph/pdf/core-competencies.pdf}$ 

In 2011, the NCDMPH hosted a conference that engaged 85 pediatric disaster subject matter experts (SMEs). Using a modified Delphi approach, these SMEs were placed into focus groups by discipline, and asked to assign levels of competency with pediatrics knowledge, skills, and abilities.



Over the two-day conference, the focus groups reached consensus and assigned competency recommendations in many areas. According to the <u>post-conference report</u>, however, four areas were left unaddressed due to lack of time:<sup>1</sup>

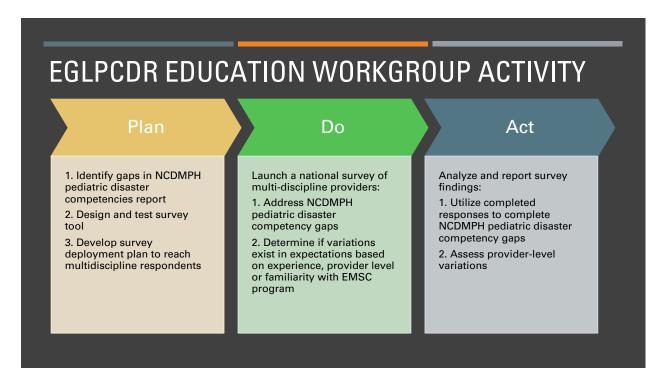
ED/Hospital
Systems and
Resources

Ambulatory
Office
Preparation

Ambulatory
Public Health

Ambulatory
Biologic

The conference resulted in a report focused on defining the unmet educational and training needs of medical responders in disaster.<sup>2</sup> The EGLPCDR and WRAP-EM Education workgroups reviewed the conference findings and developed a Qualtrics survey to complete the four unaddressed areas.



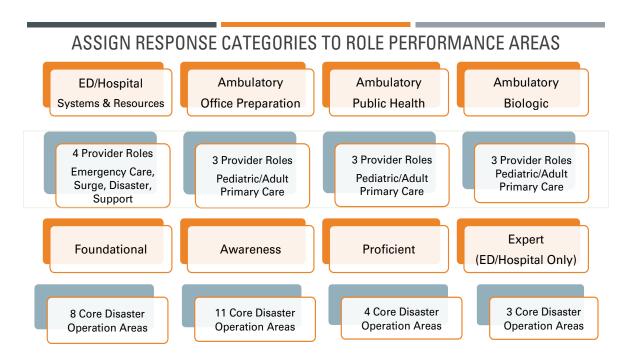
The survey was designed to mimic the NCDMPH conference methodology with the following exceptions:

- The survey's target population focused on a national audience of multi-discipline providers, regardless of their pediatric and/or disaster experience.
- The survey was disseminated widely in order to capture as many disciplines as possible.
- The goal was to solicit responses based on providers' "real world" experience and peer expectations, and to determine if there were any significant differences based on respondents' discipline or experience.

Participants were asked to anonymously describe their overall professional experience, pediatric and disaster experience, years of experience, discipline, and places of employment. In addition, respondents were surveyed about their experience with the EMS for Children (EMSC) Program. Respondent demographic characteristics and experience with EMSC were collected at the beginning of the survey. The survey analysis looked for variations between disciplines but found little variation between provider group recommendations for pediatric disaster competency.

### Methodology

The survey design was tested and revised several times prior to release. The participants were asked to respond to the four NCDMPH areas that had not been addressed in 2011. Respondents were asked to assign levels of competency based on setting, provider role, and disaster operation areas (as illustrated below). For example, in the area of ED/Hospital Systems & Resources, respondents were asked to assign competency levels (foundational to expert) to four different provider types in emergency care, surge, and disaster support tasks covering eight core disaster operational areas.

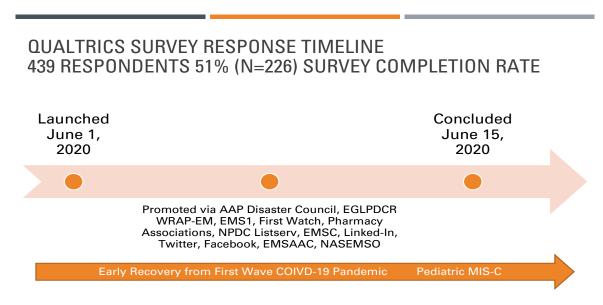


### National Survey Deployment Outreach and Timeline

Significant outreach was conducted inviting survey participation via the AAP's Disaster Council; Pediatric Disaster Centers of Excellence SMEs; industry leaders in EMS and disaster, including pharmacy associations, the National Pediatric Disaster Coalition, and NASEMO. The survey was also featured and promoted through social media. Members of EMS-1 (a prehospital industry news and educational publication) promoted the survey to the publication's 246,000 members.

In addition, it is estimated that the survey was distributed to more than 4,000 individuals through various listservs and distribution lists.

The survey was launched over a 15-day period. This period was concurrent with the early recovery from the first wave of COVID-19 and the emergence of Pediatric MIS-C. It is unknown how the fact that the survey was conducted during the COVID-19 pandemic and the emergence of Pediatric MIS-C influenced participation and/or responses.



### **National Survey Findings**

Of the 226 respondents who completed the survey, there was little variation in pediatric disaster competency level recommendations associated with professional experience, discipline, or pediatric experience. Proficiency level expectations were consistently assigned to hospital and emergency providers, as follows:

Highest
expectations
consistently land
on providers in
the hospital and
emergency care
system including
proficiency in the
care of children
with special needs

There was high proficiency expectations for primary care providers in the areas of infection control, vaccines, communications & go-kits

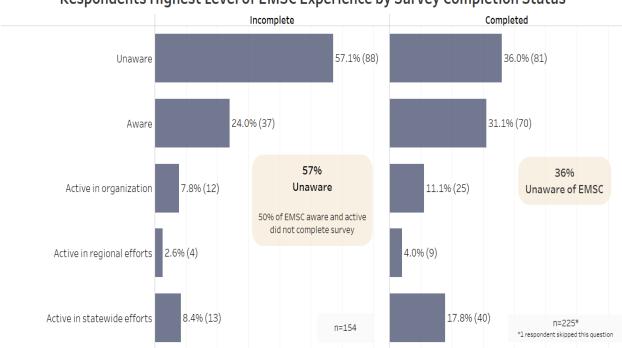
Public Health
pediatric disaster
expectations
focused on
maintaining
proficiency in
ambulatory care
skills

Ambulatory providers were expected to be proficient in food borne disease and wound care

The finding that cross-discipline providers expect "proficiency" in the care of pediatrics during disaster suggests a significant disconnect between provider expectations and real-world pediatric capability to achieve proficiency at the expected scale.

### EMS for Children Program Experience

One of the most significant findings of the national survey was a general lack of awareness about the EMS for Children Program. This finding was significant, regardless of whether the respondent completed the entire survey or not.



### Respondents Highest Level of EMSC Experience by Survey Completion Status

### **Summary & Recommendations**

0% 10% 20%

30%

40%

% of respondents

This national survey results were surprising in that it appeared to reveal that providers expect a lot from each other, especially when it comes to children. The results illustrate that significant assumptions are at play and gaps exist across disciplines. It also reveals the importance of opportunities to engage providers, communities, policy makers and disaster leaders in EMSC Innovation and Improvement and National Pediatric Readiness Programs.

50%

60%

70%

0% 10%

20%

30%

40%

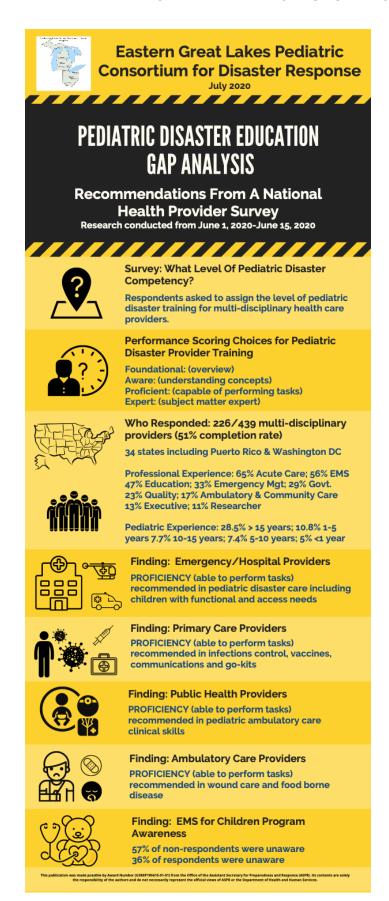
% of respondents

50%

60%

70%

The EGLPCDR infographic summarizes the findings of the national pediatric disaster competency survey and is posted on the <u>EIIC website</u>. Gaps in pediatric disaster expectations across disciplines must be addressed to support the collaborative and coordinated operations required of a disaster that disproportionately impacts children.



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Illustrations and Graphics that are not referenced are provided via courtesy of Microsoft Word Stock Images
& Opensource Online Photos

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### **References**

<sup>&</sup>lt;sup>1</sup> NCDMPH (June 13, 2011) Pediatric Disaster Preparedness Curriculum Development Conference Report Uniformed Services University of the Health Sciences

<sup>&</sup>lt;sup>2</sup> NCDMPH (June 13, 2011) Pediatric Disaster Preparedness Curriculum Development Conference Report Uniformed Services University of the Health Sciences