

# Checklist of Essential Pediatric Domains and Considerations for Every Hospital's Disaster Policies (Pilot)

*This draft document is being pilot-tested to identify clarifications or additions. Questions and feedback are appreciated; please email [disaster@emscimprovement.center](mailto:disaster@emscimprovement.center). The final checklist is anticipated for release in winter 2022.*



**EIIC**  
EMSC Innovation and  
Improvement Center

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EMSC Innovation and  
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# Checklist of Essential Pediatric Domains and Considerations for Every Hospital's Disaster Policies

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## OVERVIEW

The pediatric population represents a particular challenge in disaster preparedness and planning. Children have unique and often complex physiological, psychosocial, and psychological needs that differ from adults' and are often magnified during a disaster (National Commission on Children and Disasters, 2010) and unfortunately children are frequently involved when a disaster occurs. As a result, it is essential that hospital disaster policies include and plan for this distinctive and vulnerable population.

In 2014, the National Pediatric Readiness Assessment found that only 46.8% of emergency departments reported having disaster plans that addressed children (Gausche-Hill et al., 2015). In response, a workgroup of pediatric disaster preparedness experts drafted the Checklist of Essential Pediatric Domains and Considerations for Every Hospital's Disaster Preparedness Policies to help ensure that pediatric considerations were included in hospital disaster planning. The checklist was divided into 10 specific domains and recommended the personnel, resources, equipment, and supplies that are useful for rapid onset pediatric surge planning and disaster response.

In 2020, the Emergency Medical Services for Children (EMSC) Innovation and Improvement Center (EIIC) sought to evaluate and modernize the checklist. To accomplish this, a diverse workgroup of national experts in pediatric disaster preparedness—including many of the original authors—convened to assess the original checklist and incorporate new pediatric disaster recommendations.

This Checklist of Essential Pediatric Domains and Considerations for Every Hospital's Disaster Preparedness Policies updates the original 2014 checklist and seeks to expand its utility. It is intended as a tool to help hospital administrators and leadership incorporate essential pediatric considerations into existing hospital disaster policies.

**What it is designed to do:** This tool was designed to complement and augment existing disaster resources, both pediatric-specific and general, rather than to serve solely as a stand-alone document. The relative importance assigned to any given consideration is unique to each facility based on their specific risk assessments.

**What it is not designed to do:** This is not a step-by-step guide to implementing policies. Instead, resources are provided for each domain to provide more details and help implement the considerations.

## NEW DOMAIN

In addition to evaluating and updating the ten domains of the original checklist, an additional domain was included in this update: Evacuation. Given that many hospitals have limited long-term pediatric capabilities, planning for the safe and effective evacuation of pediatric patients is an important aspect of pediatric disaster response. The inclusion of this domain allows hospitals to anticipate and prepare for such scenarios and emphasizes establishing partnerships with regional healthcare facilities.

## PROGRESSIVE CATEGORIES OF RECOMMENDATIONS:

### A KEY MODIFICATION

For each domain in this document, considerations are organized into a three-category progressive system: Foundation, Intermediate, and Advanced. It is intended that institutions start by focusing on the more fundamental activities in the Foundation column, then move to the other columns as their level of planning increases. The considerations in each category are meant to build on the capabilities and preparedness of the prior category. The goal is to enable the tailoring of recommendations based on approximate hospital pediatric volume and inpatient pediatric capabilities and capacity.

**Foundation:** These are the basic building blocks of pediatric disaster preparedness that every hospital should be prepared to provide. Hospitals without dedicated pediatric inpatient services will likely focus primarily on this column, though they may take on planning activities from other columns depending on their resources and level of engagement. They are meant as the foundational disaster preparedness considerations necessary to meet the needs of children.

**Intermediate:** Hospitals with inpatient pediatric services may need to build upon foundation-level planning activities to provide higher levels of support and expertise for pediatric disaster patients. These considerations may require establishing partnerships with pediatric tertiary care centers in your region.

**Advanced:** In addition to completing foundation- and intermediate-level planning activities, specialty children's hospitals, and comprehensive pediatric inpatient services within general hospitals, will often have the resources to provide a higher level of preparedness in their hospital as well as provide support and leadership within the region and state. Therefore, in addition to strengthening an individual institution's disaster response, these recommendations promote the assumption of a leadership role in the community.



## IMPLEMENTATION

Pediatric domains and considerations in this checklist are intended to be integrated into existing all-hazards healthcare systems disaster preparedness policies or guidelines. For example, this checklist can be used to supplement the eight healthcare preparedness capabilities addressed by healthcare coalitions funded by the Hospital Preparedness Program <https://aspr.hhs.gov/HealthCareReadiness/HPP/Pages/default.aspx>. Furthermore, hospital disaster plans are unique to each facility and community; hence hospital administrators and managers are encouraged to work closely with their local, regional, and state healthcare systems and healthcare and/or disaster coalitions, national disaster partners, and their corresponding local chapters to adapt recommendations to their local needs, strategies, and resource availability. References to specific resources are included at the end of the document to assist users in finding relevant literature and best practices. Additionally, a comprehensive compendium of pediatric disaster resources and searchable databases is now available from the National Library of Medicine Disaster Information Management Research Center's Health Resources About Children in Disaster and Emergencies at <http://disaster.nlm.nih.gov/dimrc/children.html>.

## QUESTIONS & FEEDBACK

Questions about or feedback on this checklist are greatly appreciated. To provide us your comments, please email [disaster@emscimprovement.center](mailto:disaster@emscimprovement.center).

## REFERENCES

- Gausche-Hill, Marianne, Ely, Michael, Schmuhl, Patricia, Telford, Russell, Remick, Katherine E., Edgerton, Elizabeth A., et al. (2015). A National Assessment of Pediatric Readiness of Emergency Departments. *JAMA Pediatrics*, 169(6), 527-534. doi:10.1001/jamapediatrics.2015.138. Retrieved from <https://doi.org/10.1001/jamapediatrics.2015.138>
- National Commission on Children and Disasters. (2010). 2010 Report to the President and Congress. Agency for Healthcare Research and Quality. Retrieved from <https://www.acf.hhs.gov/sites/default/files/documents/ohsepr/nccdreport.pdf>

## SUGGESTED CITATION

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## DOMAIN 1: PEDIATRIC DISASTER CARE COORDINATION

A pediatric disaster champion is a designated staff member(s) who champions high-quality pediatric disaster care and response. Establishing this position is a crucial first step in improving and strengthening an institution's pediatric disaster capabilities.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>Identify Key Staff</b>	<ul style="list-style-type: none"> <li>○ Identify a staff member to champion pediatric disaster care. This person may serve in the role of the pediatric emergency care coordinator (PECC), also known as a pediatric champion.</li> </ul>	<ul style="list-style-type: none"> <li>○ Designate a staff member to serve as the Pediatric Disaster Care Coordinator.</li> <li>○ Staff member(s) have training in disaster response/emergency management or are willing to learn about disaster response/emergency management.</li> </ul>	<ul style="list-style-type: none"> <li>○ Identify and engage other hospital professionals who can provide specific expertise and advocate for the integration of the needs of children in planning and implementing pediatric disaster response (emergency management, neurosurgeon, trauma surgeon, infectious disease/infection control, emergency medicine physicians).</li> </ul>
<b>Designate Responsibilities of Key Staff</b>	<ul style="list-style-type: none"> <li>○ Staff members are identified and supported by hospital administration with a formal position or designation.</li> <li>○ Staff members have official roles and designations on hospital committees (e.g., medical, trauma, emergency management, etc.) to serve as liaison for pediatric patients.</li> </ul>	<ul style="list-style-type: none"> <li>○ Coordinate department- and hospital-wide pediatric-inclusive disaster drills.</li> <li>○ Facilitate disaster-related learning activities (e.g., FEMA, ICS courses, lectures, table-top activities) that include pediatric considerations and priorities for all staff.</li> </ul>	<ul style="list-style-type: none"> <li>○ Collaborate with hospital emergency management and engage in developing and reviewing hospital disaster policies, ensuring that pediatric needs are addressed.</li> <li>○ Staff members serve as a liaison to EMS agencies and facilitate disaster-related learning that includes pediatric considerations.</li> <li>○ Staff members promote pediatric disaster awareness within the community.</li> </ul>



## DOMAIN 1 RESOURCES

1. Amberson, Taryn, Wells, Christine, & Gossman, Skyler. (2020). Increasing Disaster Preparedness in Emergency Nurses: A Quality Improvement Initiative. *Journal of Emergency Nursing*, 46(5), 654-665. doi.org/10.1016/j.jen.2020.05.001. <https://www.sciencedirect.com/science/article/abs/pii/S0099176720301483>
2. Barfield, Wanda D., Krug, Steven E., Committee on Fetus and Newborn, & Disaster Preparedness Advisory Council. (2017). Disaster Preparedness in Neonatal Intensive Care Units. *Pediatrics*, 139(5), e20170507-e20170507. doi:10.1542/peds.2017-0507. <https://publications.aap.org/pediatrics/article/139/5/e20170507/38725/Disaster-Preparedness-in-Neonatal-Intensive-Care?autologincheck=redirected>
3. Brown, S. A., Hayden, T. C., Randell, K. A., Rappaport, L., Stevenson, M. D., & Kim, I. K. (2017). Improving Pediatric Education for Emergency Medical Services Providers: A Qualitative Study. *Prehospital and Disaster Medicine*, 32(1), 20-26. doi:10.1017/s1049023x16001230.
4. Bulson, J. (2020). Nurses' Perceived Emergency Preparedness Knowledge: An Opportunity for Improvement. *American Journal of Disaster Medicine*, 15(2), 129-136. doi:10.5055/ajdm.2020.0362. <https://www.wmpllc.org/ojs/index.php/ajdm/article/view/2800>
5. EMSC Innovation and Improvement Center. (2020). Module 1: The Pediatric Champion. Retrieved from <https://emscimprovement.center/collaboratives/pediatric-disaster-preparedness-quality-collaborative/pdpqc-participants-only/modules/>
6. EMSC Innovation and Improvement Center. (2021). Administration & Coordination of the ED for the Care of Children. Retrieved from <https://emscimprovement.center/domains/pediatric-readiness-project/readiness-toolkit/readiness-toolkit-checklist/>
7. Remick, Katherine, Gausche-Hill, Marianne, Joseph, Madeline M., Brown, Kathleen, Snow, Sally K., Wright, Joseph L., et al. (2018). Pediatric Readiness in the Emergency Department. *Annals of Emergency Medicine*, 72(6), e123-e136. doi:10.1016/j.annemergmed.2018.08.431. <https://pubmed.ncbi.nlm.nih.gov/30392738/>
8. The Centers for Bioterrorism Preparedness Planning Pediatric Task Force, NYC Department of Health Pediatric Disaster Advisory Group, & NYC Department of Health Healthcare Emergency Preparedness Program. (2008). *Children in Disasters: Hospital Guidelines for Pediatric Preparedness*. Retrieved from <https://www1.nyc.gov/assets/doh/downloads/pdf/bhpp/hepp-peds-childrenindisasters-010709.pdf>
9. US Department of Health Human Services, & Office of the Assistant Secretary for Preparedness Response. (2012). *Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness*. Retrieved from <https://www.phe.gov/Preparedness/planning/hpp/reports/Documents/capabilities.pdf>.
10. US Department of Health Human Services, & Office of the Assistant Secretary for Preparedness Response. (2021). *Performance Measures, Guidance, and Reports. ASPR Health Care Readiness Programs*. Retrieved from <https://www.phe.gov/Preparedness/planning/hpp/reports/Pages/default.aspx>





## DOMAIN 2: REGIONAL COALITION-BUILDING

Developing and strengthening both internal and external coalition partnerships aids in disaster response and allows an institution to quickly and effectively ramp up its capabilities.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Coalition-Building: Internal</b></p>	<ul style="list-style-type: none"> <li>○ Engage service lines throughout the hospital to participate in disaster planning in order to mobilize resources and expand scope during pediatric disaster response:               <ul style="list-style-type: none"> <li>• Medical services: surgery, anesthesia, critical care, emergency department, OB/GYN.</li> <li>• Support services: nursing, respiratory therapy, pharmacy, blood bank, radiology, central supply, environmental services, communications/media.</li> </ul> </li> <li>○ Routinely conduct internal drills or exercises that include pediatric patients (of all ages and developmental stages).</li> </ul>	<ul style="list-style-type: none"> <li>○ Conduct internal drills or exercises that               <ul style="list-style-type: none"> <li>• Engage the various service lines/ departments to test-out plans and protocols</li> <li>• Include pediatric patients and pediatric specific considerations.</li> </ul> </li> <li>○ Engage additional in-hospital or health care system services to expand input into planning and enhance consideration of pediatric needs:               <ul style="list-style-type: none"> <li>• social services</li> <li>• mental health</li> <li>• child life specialists</li> <li>• hospitalists</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ Develop plans specific to each service line that identify and address pediatric considerations.</li> <li>○ Engage community stakeholders to further enhance planning and exercise involvement and support pediatric care and families. (Primary care physicians, family practice physicians, urgent care personnel, faith-based representatives, pediatric-centered medical homes, EMS professionals, school personnel, child care professionals, Red Cross staff, community business leaders, etc.)</li> </ul>
<p><b>Coalition-Building: External</b></p>	<ul style="list-style-type: none"> <li>○ Develop relationships with key state and regional partners to aid in pediatric disaster response such as:               <ul style="list-style-type: none"> <li>• EMS Agencies / Fire Departments</li> <li>• State Emergency Management Agency</li> <li>• Local health care or disaster coalition</li> <li>• EMSC State Partnership program</li> <li>• Public health authorities</li> <li>• Department of Public Health liaison</li> <li>• Trauma Programs</li> <li>• Burn Programs</li> <li>• Children services, foster parent associations</li> <li>• Law Enforcement</li> <li>• Local schools</li> <li>• Regional Hospital Association</li> <li>• FEMA/ASPR</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ Actively participate in state-wide and regional coalition activities and/or drills that focus on pediatrics or include pediatric considerations.</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop working partnerships with medical specialty.</li> <li>○ Assume a leadership role and/or establish a state-wide or regional pediatric disaster coalition.</li> <li>○ Advocate for the inclusion of key pediatric considerations in disaster preparedness and policies at the state, regional and national level.</li> </ul>



## DOMAIN 2: REGIONAL COALITION BUILDING (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Surge Capacity &amp; Capability</b></p>	<ul style="list-style-type: none"> <li>○ Evaluate current institutional disaster capabilities including pediatric-specific capabilities:               <ul style="list-style-type: none"> <li>• Initial assessment/stabilization</li> <li>• Radiology/imaging, laboratory, and ancillary services capabilities</li> <li>• Inpatient, ICU, and surgical capabilities</li> </ul> </li> <li>○ Outline the crisis standards of care for your institution in collaboration with your regional partners.</li> </ul>	<ul style="list-style-type: none"> <li>○ Engage with state-wide or regional coalition members to evaluate local surge capacity.</li> <li>○ Identify areas for expanded surge capacity within your institution and as part of the state-wide or regional coalition. This might include adopting approaches used in other states where an assessment of beds and assets was conducted, and a plan as to where children with certain injuries (fractures, burns, agent exposure, minor lacerations, etc.) would be transported to.</li> </ul>	<ul style="list-style-type: none"> <li>○ Assume a leadership role in regional planning for expanded pediatric-specific surge capabilities.</li> <li>○ Advocate with the appropriate governmental entities to formally establish crisis standards of care.</li> </ul>
<p><b>Interfacility Transfer</b></p>	<ul style="list-style-type: none"> <li>○ Identify institutional Memorandums of Understanding with pediatric tertiary/quaternary hospitals or other regional hospitals that accept pediatric patients.</li> <li>○ Identify transfer agencies that are willing to transport pediatric and/or neonatal patients.</li> <li>○ Utilize essential elements of information for patient transfers (name, DOB, reason for transfer).</li> <li>○ Identify and integrate with statewide or regional coordinating centers that assist with patient transports.</li> <li>○ Consider times when pediatric patients might need to be seen at adult care facilities (and vice versa) and plan accordingly with hospitals in the area.</li> </ul>	<ul style="list-style-type: none"> <li>○ Generate a list of common pediatric diagnoses and/or scenarios that routinely warrant an interfacility transfer.</li> <li>○ Coordinate with a regional coalition to provide direction/oversight of transfers within the region (esp. to alt. destinations aside from a pediatric center).</li> <li>○ Establish specific pediatric transfer protocols that include:               <ul style="list-style-type: none"> <li>• Agreements and guidelines to facilitate movement of children needing pediatric specialty care.</li> <li>• Guidelines for bi-directional transfer of pediatric patients in order to increase surge capacity at participating institutions.</li> <li>• How to address parental presence in a pandemic or otherwise.</li> <li>• Evacuation of areas within hospitals that care for pediatric patients with special attention paid to equipment and training needed for vertical transport.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ Establish a group of stakeholders to develop an interfacility transfer plan that addresses the following components:               <ul style="list-style-type: none"> <li>• Defined process for initiation of transfer, including identifying appropriate receiving center and the roles/responsibilities for referring and receiving centers.</li> <li>• Process for selecting an appropriately staffed transport service for the patient's needs.</li> <li>• Plan for obtaining informed consent and transferring important material (informed consent, medical records, personal belongings).</li> <li>• Plan for providing patients and families with information regarding the transfer.</li> <li>• Incorporate orientation/education of staff on pediatric-specific transfer considerations.</li> </ul> </li> </ul>



## DOMAIN 2: REGIONAL COALITION BUILDING (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>Telemedicine</b>	<ul style="list-style-type: none"> <li>○ Determine telehealth/teleconsult capability and policies within your institution.</li> <li>○ Identify regional coalition partners with telemedicine capabilities.</li> <li>○ Ensure adequate support for telehealth/teleconsult capability (legal, financial).</li> </ul>	<ul style="list-style-type: none"> <li>○ Integrate telemedicine policies and practices into daily workflow.</li> <li>○ Routinely test telemedicine policies and practices in drills/exercises.</li> </ul>	<ul style="list-style-type: none"> <li>○ Identify specific resources (staff, space, equipment) dedicated to telemedicine capability and capacity in a disaster.</li> <li>○ Establish a telemedicine protocol to leverage your institution's pediatric expertise within the regional coalition.</li> <li>○ Incorporate telemedicine capabilities into regional prehospital and EMS protocols.</li> </ul>



## DOMAIN 2 RESOURCES

1. American Academy of Pediatrics, & Committee on Pediatric Emergency Medicine. (2021). Chapter Websites. In American Academy of Pediatrics <https://www.aap.org/en/community/chapter-websites/>
2. EMSC Innovation and Improvement Center. (2018). Interfacility Transfer Toolkit. In EMS for Children Innovation & Improvement Center <https://emscimprovement.center/education-and-resources/toolkits/interfacility-transfer-toolbox/>
3. EMSC Innovation and Improvement Center. (2020). Telehealth Toolkit. In <https://emscimprovement.center/collaboratives/telehealth/telehealth-toolkit/>
4. NYC Department of Health and Mental Hygiene, & Centers for Bioterrorism Preparedness Program Pediatric Task Force. (2008). Children in Disasters: Hospital Guidelines for Pediatric Preparedness. Retrieved from <https://www1.nyc.gov/assets/doh/downloads/pdf/bhpb/hepp-peds-childrenindisasters-010709.pdf>
5. Office of the Assistant Secretary for Preparedness Response. (2021). Hospital Preparedness Program. In <https://www.phe.gov/Preparedness/planning/hpp/Pages/default.aspx>
6. Rizaldy R. Ferrer, PhD, Darshi Balasuriya, M. P. H., Ellen Iverson, M. P. H., & Jeffrey S. Upperman, Md Faap Facs. (2010). Pediatric disaster preparedness of a hospital network in a large metropolitan region. American journal of disaster medicine, 5(1), 27-34. doi:10.5055/AJDM.2010.0003. <https://www.wmpllc.org/ojs/index.php/ajdm/article/view/1967>
7. Schinasi, Dana A., Atabaki, Shireen M., Lo, Mark D., Marcin, James P., & Macy, Michelle. (2021). Telehealth in Pediatric Emergency Medicine. Current Problems in Pediatric and Adolescent Health Care, 51(1), 100953-100953. doi:10.1016/J.CPPEDS.2021.100953. <https://www.sciencedirect.com/science/article/abs/pii/S1538544221000079?via%3Dihub>
8. US Department of Health Human Services, & Assistant Secretary for Preparedness Response. (2013). Pediatric Preparedness for Healthcare Coalitions [Webinar]. Retrieved from <https://www.phe.gov/Preparedness/planning/abc/Documents/PediatricCoalitions-20130620.pdf>
9. US Department of Health Human Services, & Assistant Secretary for Preparedness Response. (2020). 2019-2023 Hospital Preparedness Program. Performance Measures Implementation Guide. Retrieved from [https://www.phe.gov/Preparedness/planning/hpp/reports/pmi-guidance-2019-2023/Documents/2019-2023-HPP-PMI-Guidance\\_508.pdf](https://www.phe.gov/Preparedness/planning/hpp/reports/pmi-guidance-2019-2023/Documents/2019-2023-HPP-PMI-Guidance_508.pdf)
10. US Department of Health Human Services, & Assistant Secretary for Preparedness Response. (2021). Maternal-Child Health Emergency Planning Toolkit. In <https://www.phe.gov/Preparedness/planning/abc/mch-planning-toolkit/Documents/MCH-Emergency-Plng-Toolkit-508.pdf>



### DOMAIN 3: PEDIATRIC SURGE CAPACITY

Evaluating an institution's current surge capacity to identify weaknesses and develop strategies to address all aspects of surge capacity allows institutions to effectively prepare for current capacity and be better prepared for an unexpected high number of pediatric patients.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>General Surge Planning</b></p>	<ul style="list-style-type: none"> <li>○ Identify and continue to augment baseline pediatric capabilities:               <ul style="list-style-type: none"> <li>• Emergency department capacity.</li> <li>• Surgical capacity.</li> <li>• Extended care for up to 48-72 hours when immediate transfer is not available.</li> </ul> </li> <li>○ Establish a protocol to triage pediatric patients and determine which require priority transfer.</li> <li>○ Establish a plan for accessing pediatric expertise at the community and regional level (telemedicine, phone consultation).</li> <li>○ Consider establishing a formal relationship with local primary care pediatricians to augment surge capabilities.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish a plan for caring for sick/ more complex pediatric patients as part of a surge especially when immediate transfer is not available.</li> <li>○ Determine ability to augment capacity of pediatric services within the hospital:               <ul style="list-style-type: none"> <li>• Surge targets of 120%, 200%, 300% under conventional/contingency/crisis models.</li> <li>• Consider how to both expand pediatric capacity/capability and convert adult services to pediatric use.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ Lead coordination efforts across the region regarding pediatric patient transfers to regional pediatric centers.               <ul style="list-style-type: none"> <li>• Special considerations: burn, pediatric critical care (advanced respiratory and blood pressure support).</li> </ul> </li> <li>○ Establish a plan for how to provide pediatric expertise within the community (telemedicine, phone consultation).</li> <li>○ Ensure pediatric considerations are included in regional crisis care guidelines and support regional transfer coordination for children with different/ complex needs (pediatric-specific transport).</li> </ul>
<p><b>Surgical Capabilities</b></p>	<ul style="list-style-type: none"> <li>○ Identify surgeons within your institution who already care for pediatric patients or are prepared to provide care in a disaster situation.</li> <li>○ Identify surgical conditions in children for which the hospital could potentially provide care.</li> </ul>	<ul style="list-style-type: none"> <li>○ Identify immediate access to a pediatric surgeon.</li> <li>○ Identify capabilities in pediatric surgical subspecialties (orthopedics, neurosurgery, ORL).</li> </ul>	<ul style="list-style-type: none"> <li>○ Immediate access to pediatric surgical subspecialties regardless of trauma designation (orthopedics, neurosurgery, ORL).</li> </ul>
<p><b>Space</b></p>	<ul style="list-style-type: none"> <li>○ Identify the particular institutional capacity at which alternative care sites would be necessary.</li> <li>○ Identify alternative spaces within the institution (cafeteria, pre-op clinic) that can be used for pediatric care in a surge and establish a plan for when and how to utilize those spaces.               <ul style="list-style-type: none"> <li>• Older children may need to be kept at community facilities pending availability.</li> </ul> </li> <li>○ Ensure those spaces are private, child-proof, secure, and protected from the public.</li> </ul>	<ul style="list-style-type: none"> <li>○ Determine how existing pediatric spaces can be expanded and how adult care areas can be converted to meet pediatric surge needs.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish a plan to identify and create immediate bed availability for pediatric surge.</li> <li>○ Prioritize ICU availability for transfers.</li> <li>○ Expand ICU services using existing space.</li> </ul>



### DOMAIN 3: PEDIATRIC SURGE CAPACITY (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Equipment &amp; Supplies</b></p>	<ul style="list-style-type: none"> <li>○ Ensure institution has adequate pediatric-sized equipment, dietary supplies, diapers, and medications to manage pediatric patients.</li> <li>○ Investigate ability to utilize non-pediatric equipment, supplies, and medications for pediatric use and develop institutional guidelines to do so.</li> <li>○ Engage with supply chain management and sterile processing staff to ensure enough supply to meet needs for prolonged patient stays in your facility when transfer is not immediately possible (shelter in place).</li> </ul>	<ul style="list-style-type: none"> <li>○ Engage with supply chain management staff to track usage of pediatric supplies and medications.</li> </ul>	<ul style="list-style-type: none"> <li>○ Create pediatric supply carts and/or kits that can easily be deployed to areas in need.</li> <li>○ Establish plans to secure sufficient quantities of key equipment to meet surge targets (pediatric-capable ventilators) through vendor agreements, MOUs with adjacent pediatric centers as well as local and federal government agencies.</li> </ul>
<p><b>Staff</b></p>	<ul style="list-style-type: none"> <li>○ Develop a process to bring in additional staff including emergency credentialing, verification, and background checking.</li> <li>○ Ensure current staff is trained in pediatric disaster response, including surge capabilities.</li> <li>○ Develop plans to most efficiently utilize new staff, including staff to secure expanded care areas, oversight of unattended minors, and family reunification.</li> <li>○ Consider utilizing adult care takers and locations especially for older children.</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop an institution-wide emergency notification system to mobilize current staff during a surge.</li> <li>○ Identify and create formal relationships with additional staff that can help meet pediatric needs:               <ul style="list-style-type: none"> <li>• Within the hospital (nursing, physician, respiratory therapy, pharmacy).</li> <li>• Within the community (family medicine, school nurses, local EMS, medical reserve corps).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ Leverage staff expertise to increase to surge targets (tiered staffing models).</li> <li>○ Consider Memorandum of Understanding (MOU) or other agreements to support adjacent regional pediatric centers (telemedicine, phone consultation, Disaster Medical Assistance Teams).</li> <li>○ Establish a mission control center to coordinate response and provide leadership to regional healthcare centers.</li> <li>○ Consider how critical care transport teams and other key hospital functional areas can provide mutual support.</li> </ul>



## DOMAIN 3 RESOURCES

1. Boyer, Edward W., Fitch, James, & Shannon, Michael. (2009). Pediatric Hospital Surge Capacity in Public Health Emergencies. Retrieved from [http://www.apic.org/Resource\\_/TinyMceFileManager/Practice\\_Guidance/Emergency\\_Preparedness/AHRQ\\_Pediatric\\_Surge\\_Capacity\\_in\\_Public\\_Health\\_Emergencies.pdf](http://www.apic.org/Resource_/TinyMceFileManager/Practice_Guidance/Emergency_Preparedness/AHRQ_Pediatric_Surge_Capacity_in_Public_Health_Emergencies.pdf)
2. Christian, M. D., Devereaux, A. V., Dichter, J. R., Rubinson, L., & Kissoon, N. (2014). Introduction and executive summary: care of the critically ill and injured during pandemics and disasters: CHEST consensus statement. *Chest*, 146(4), 8S-34S. Retrieved from [https://journal.chestnet.org/article/S0012-3692\(15\)51985-5/fulltext?\\_ga=2.117542219.358956001.1641934098-1184698619.1641934094](https://journal.chestnet.org/article/S0012-3692(15)51985-5/fulltext?_ga=2.117542219.358956001.1641934098-1184698619.1641934094)
3. Contra Costa Health Services. (2015). Pediatric/Neonatal Disaster and Medical Surge Preparedness Toolkit. Retrieved from <https://cchealth.org/ems/emsc-disaster-prepare.php>
4. Curtis, J. W., Curtis, A., & Upperman, J. S. (2012). Using a geographic information system (GIS) to assess pediatric surge potential after an earthquake. *Disaster Med Public Health Prep*, 6(2), 163-169. doi:10.1001/dmp.2012.25. <https://pubmed.ncbi.nlm.nih.gov/22700026/>
5. Minnesota Department of Health. (2021). Minnesota Pediatric Surge Primer and Template Plan. Retrieved from <https://www.health.state.mn.us/communities/ep/surge/pediatric/primer.pdf>
6. National Commission on Children and Disasters. (2010). Appendix E: Standards and Indicators for Disaster Shelter Care for Children. Retrieved from <https://www.acf.hhs.gov/sites/default/files/documents/ohsepr/nccdreport.pdf>
7. NYC Department of Health and Mental Hygiene, & Centers for Bioterrorism Preparedness Program Pediatric Task Force. (2008). Children in Disasters: Hospital Guidelines for Pediatric Preparedness. Retrieved from <https://www1.nyc.gov/assets/doh/downloads/pdf/bhpp/hepp-peds-childrenindisasters-010709.pdf>
8. NYC Department of Health and Mental Hygiene, & Office of Emergency Preparedness and Response. (2013). Patient Surge in Disasters: A Hospital Toolkit for Expanding Resources in Emergencies. Retrieved from <https://www1.nyc.gov/site/doh/providers/emergency-prep/hospitals.page>
9. R., Neches, Ryutov, T., Kichkaylo, T., Burke, R. V., Claudius, I. A., & Upperman, Js. (2009). Design and evaluation of a disaster preparedness logistics tool. *American Journal of Disaster Medicine*, 4(6). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/20104724>
10. U. S. Department of Health and Human Services, & Centers for Disease Control and Prevention. (2021). Strategic National Stockpile (SNS). Retrieved from <https://www.phe.gov/about/sns/Pages/default.aspx>
11. U. S. Department of Health Human Services, & Office of the Assistant Secretary for Preparedness and Response. (2021). Healthcare Coalition Pediatric Surge Annex. Retrieved from <https://files.asprtracie.hhs.gov/documents/aspr-tracie-hcc-pediatric-surge-annex-template-final-508.pdf>
12. U. S. Department of Health Human Services, & Health, Maternal-Child. (2021). HHS Maternal-Child Emergency Planning Toolkit. Retrieved from <https://www.phe.gov/Preparedness/planning/abc/mch-planning-toolkit/Documents/MCH-Emergency-Plng-Toolkit-508.pdf>



## DOMAIN 4: TRIAGE, INFECTION CONTROL, AND DECONTAMINATION

Decontamination is essential in a disaster response; there are several necessary considerations unique to the pediatric population.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Pediatric infectious disease, chemical or biological exposure suspected</b></p>	<ul style="list-style-type: none"> <li>○ Identify a separate triage area and entrance away from other ED patients for both infectious and/or chemical exposure concerns.</li> <li>○ Ensure adequate PPE (gown, gloves, masks, including N95 for airborne or PAPR) is easily available to staff.</li> <li>○ Establish a relationship with a regional pediatric center and/or pediatric infectious disease specialist for consultation as needed ahead of time.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish an isolation area for infectious disease exposures/concerns (ideally negative pressure areas for all airborne disease: measles, TB, SARS, MERS, COVID, Ebola).</li> <li>○ Enforce a Limited Visitor Policy during a disaster, allowing for one parent/guardian with a child.</li> <li>○ If a negative pressure room is not available, identify a space with doors that will remain closed.</li> <li>○ Secure pediatric PPE including disposable pediatric-sized face masks.</li> </ul>	<ul style="list-style-type: none"> <li>○ Set up appropriate PPE donning/doffing stations outside of all rooms.</li> <li>○ Establish washing/shower areas in or next to isolation rooms.</li> </ul>
<p><b>Decontamination</b></p>	<ul style="list-style-type: none"> <li>○ Establish a basic contamination process, even if no decontamination area is available, that includes:               <ul style="list-style-type: none"> <li>• Disrobe patient</li> <li>• Wipe down skin</li> <li>• Irrigate eyes</li> <li>• Provide clean patient gowns/blankets</li> </ul> </li> <li>○ Keep families together when possible and allow parents to wash children.</li> <li>○ Be mindful that children are at risk of hypothermia; have towels/dry clothes ready for children.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish a dedicated decontamination area with specific pediatric considerations.</li> <li>○ Ensure staff is available to direct patients to the decontamination area.</li> <li>○ Develop a plan to move small/immobile children through showers, which are a fall risk. Do not hold child. Consider using a laundry basket/bassinet/other safe way of moving a child through the shower.</li> <li>○ Aim for a 3–6 minute shower with a water temperature of between 98–110oF (to avoid hypothermia) and max water pressure of 60 psi (to avoid damage to skin).</li> </ul>	<ul style="list-style-type: none"> <li>○ Protect modesty when possible, including separating sexes other than family members with curtains.</li> <li>○ Provide same-sex staff member to help when family not available.</li> <li>○ Provide modesty covers to patients immediately after showering.</li> </ul>
<p><b>Process for disinfection of communally available toys in the facility</b></p>	<ul style="list-style-type: none"> <li>○ Wipe down all toys and shared objects with bleach wipes or disinfectant wipes after every use regardless of patient chief complaint.</li> </ul>		





## DOMAIN 4 RESOURCES

1. Cicero, MX. (2013). 60 Seconds to Survival. Disaster Triage Game. Retrieved from <https://disastertriagegame.org/index.html>
2. Freyberg CW, Aquilla B, Fertel BS, Tunik MG, Cooper A, Heon D, Kohlhoff SA, Uранеck KI, Foltin GL: Disaster preparedness: hospital decontamination and the pediatric patient—guidelines for hospitals and emergency planners. *Prehospital and Disaster Medicine* 2008;23:166-172.
3. Heon, Dennis, & Foltin, George L. (2009). Principles of Pediatric Decontamination. *Clinical Pediatric Emergency Medicine*, 10(3), 186-194. doi:10.1016/J.CPEM.2009.06.006. Retrieved from <http://www.ny2aap.org/pdf/Disaster/186.pdf>
4. Illinois EMS for Children Program. (2017). Pediatric Decontamination Checklist. In <https://www.luriechildrens.org/globalassets/documents/emsc/disaster/other/pediatricdecontaminationchecklistjune2017.pdf>
5. UpToDate. (2021). Recognition and initial treatment of chemical weapons exposure. In [https://www.uptodate.com/contents/image?imageKey=EM%2F90716&topicKey=EM%2F2020&search=decontamination-of-poisoned-children&rank=3~150&source=see\\_link](https://www.uptodate.com/contents/image?imageKey=EM%2F90716&topicKey=EM%2F2020&search=decontamination-of-poisoned-children&rank=3~150&source=see_link)
6. US Department of Health and Human Services, & Agency for Healthcare Research and Quality. (2014). Decontamination of Children.
7. US Department of Health and Human Services, & Chemical Hazards Emergency Medical Management. (2021). JumpSTART Pediatric Triage Algorithm - CHEMM. Retrieved from <https://chemm.hhs.gov/startpediatric.htm>
8. US Department of Homeland Security. (2014). Patient Decontamination in a Mass Chemical Exposure Incident: National Planning Guidance for Communities. In [https://www.dhs.gov/sites/default/files/publications/Patient%20Decon%20National%20Planning%20Guidance\\_Final\\_December%202014.pdf](https://www.dhs.gov/sites/default/files/publications/Patient%20Decon%20National%20Planning%20Guidance_Final_December%202014.pdf)



## DOMAIN 5: EVACUATION

Given that many institutions have limited long-term pediatric capabilities, planning for the safe and effective evacuation of pediatric patients is an important aspect of pediatric disaster response.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>Plan</b>	<ul style="list-style-type: none"> <li>○ Identify both facility-wide and/or unit-based triggers or metrics to indicate the need to evacuate patients, ensuring there is regional knowledge of pediatric bed space and interfacility transfer guidelines.</li> <li>○ Formalize agreements with regional pediatric centers regarding reception of pediatric patients.</li> <li>○ Identify internal locations that could serve as back-up units for unit-specific evacuations.</li> <li>○ Develop a pediatric-specific transportation strategy in conjunction with local and/or regional hospital, Public Health, and EMS representatives.</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop a plan to evacuate specialized pediatric patients, including those who are unaccompanied.</li> <li>○ Develop a plan to evacuate children with special equipment and/or behavioral needs. This includes long-term care facilities with pediatric patients.</li> <li>○ Develop a system to track equipment and/or staff that have left the hospital.</li> </ul>	<ul style="list-style-type: none"> <li>○ Lead regional evacuation planning in coordination with local healthcare facilities, governmental, and federal agencies.</li> <li>○ Develop plans to assist in evacuation of non-pediatric centers and absorb those evacuated from other centers.</li> <li>○ Develop plan to evacuate higher level of care and specialized patients to closest pediatric centers (NICU, intubated patients, children with special care needs, ECMO, etc.). Consider emulating the process for burn centers.</li> <li>○ Create mobilized teams of providers to be dispatched to lead from the field and assist in evacuation.</li> </ul>
<b>Supplies</b>	<ul style="list-style-type: none"> <li>○ Identify materials needed for evacuation of entire hospital as well as specialized materials for specific units (bassinets, newborn apron).</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure availability of appropriate material needed for pediatric transport including transporting specialized pediatric patients (ventilator-dependent) and ensure that appropriate pediatric-trained staff are available for evacuation, if needed.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure adequate pediatric-specific evacuation equipment is available at your facility.</li> <li>○ Help supply pediatric-specific evacuation equipment to regional hospitals.</li> </ul>
<b>Drills/Education</b>	<ul style="list-style-type: none"> <li>○ Train staff on location and use of pediatric-specific evacuation equipment.</li> <li>○ Incorporate unit-specific evacuation drills into preexisting exercises.</li> </ul>	<ul style="list-style-type: none"> <li>○ Include evacuation of specialized pediatric patients (high acuity, etc.) into disaster drills.</li> </ul>	<ul style="list-style-type: none"> <li>○ Lead regional disaster drills that include pediatric evacuation capabilities that test both receiving patients and evacuating your facility to other centers.</li> <li>○ Develop just-in-time training on the use of pediatric-specific evacuation equipment that can be used by both your facility and others within your region.</li> </ul>



## DOMAIN 5: EVACUATION (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Transport services</b></p>	<ul style="list-style-type: none"> <li>○ Utilize a systematic approach to identify pediatric transport needs (TRAIN® matrix).</li> </ul>	<ul style="list-style-type: none"> <li>○ Create a transport team that can assist in regional evacuation efforts with specific training and capability to transport pediatric patients (ALS crew, Critical Care Transport, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>○ Create or enhance your institution's regional transport services especially with consideration to specialized pediatric patients (critical care, ECMO, etc.)</li> <li>○ Develop a strategy to leverage your pediatric critical care transport resources/expertise to augment regional transport services (embedding a critical care transport nurse from your facility into another agency's ambulance/helicopter).</li> <li>○ Lead efforts to coordinate the activities of regional transport capabilities together with the appropriate regional authorities.</li> <li>○ Engage other regional authorities (air transport) for assistance in transporting patients from your center.</li> </ul>

## DOMAIN 5 RESOURCES

1. Child Life Disaster Relief. (2021). Retrieved from <https://cldisasterrelief.org/>
2. Federal Emergency Management Agency (FEMA). (2009). Evacuating the Special Needs Population. Retrieved from <https://training.fema.gov/programs/emischool/el361toolkit/assets/evacuatingspecialneedspopulation.pdf>
3. Hospital, Lucile Packard Children's. (2022). Preplanning Disaster Triage for Pediatric Hospitals. TRAIN Toolkit. Retrieved from <http://cdphready.org/wp-content/uploads/2015/06/TRAIN-Toolkit-Triaging-by-Resource-Allocation-for-Inpatients.pdf>
4. Marcin, J. P., & Pollack, M. M. (2002). Triage scoring systems, severity of illness measures, and mortality prediction models in pediatric trauma. Crit Care Med, 30(11 Suppl), S457-467. doi:10.1097/00003246-200211001-00011.



## DOMAIN 6: PEDIATRIC PATIENT TRACKING & FAMILY REUNIFICATION

Pediatric disaster response is unique in that it involves preparing for the arrival of unaccompanied minors, developing family tracking and reunification policies, and considering special security situations.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Pediatric Patient Tracking and Family Reunification</b></p>	<ul style="list-style-type: none"> <li>○ Create a process to track an unaccompanied child who presents to the emergency department.</li> <li>○ Create a child identification form listing information available from verbal children (name, age, parent name, address/phone, pediatrician's name, school/school teacher's name, allergies) and identifying characteristics and intake source (where did they arrive from and who brought them in).</li> <li>○ Take pictures of children to attach to the medical record.</li> <li>○ Consider best practices to identify unaccompanied children (see references).</li> </ul>	<ul style="list-style-type: none"> <li>○ Create a process to track multiple unaccompanied children; consider incorporating a process into electronic health records.</li> <li>○ Create processes defining how unaccompanied children will be definitively identified, especially if they are unable to identify self.</li> <li>○ Engage with regional partners such as the American Red Cross and the National Center for Missing and Exploited Children to develop a uniform pediatric identification/tracking process.</li> </ul>	<ul style="list-style-type: none"> <li>○ Create a transfer/tracking tool with capacity to record children's photos/ID information. This should include photography and photo printing capabilities. Ensure there is a process or guideline on the use of photos.</li> </ul>



## DOMAIN 6: PEDIATRIC PATIENT TRACKING & FAMILY REUNIFICATION (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Family Reunification Planning</b></p>	<ul style="list-style-type: none"> <li>○ Develop a comprehensive internal planning team to understand hospital family reunification capabilities and conduct a needs assessment of local community partners (including social work, pediatricians, emergency management, and child life if available).</li> <li>○ Engage adjunct hospital departments (Public Relations, Risk Management, Chaplaincy, Food Services) for planning purposes.</li> <li>○ Develop procedures to recommend appropriate social media usage by staff, families, and patients (only the PR or communications/media staff will post official updates - staff are to refrain from personal posts during an incident).</li> <li>○ Assign staff to monitor local social media (including local social media such as the city's community chatter page) in case there is new information being shared or incorrect information that should be corrected.</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop a leadership chain of command and organizational structure concerning family reunification with specific attention into how family reunification is incorporated into your overall emergency operations plan and HICS.</li> <li>○ Develop procedures to establish and operate a Hospital Family Reunification Center, Pediatric Safe Area, and Family Reunification Site. Please see <b>Family Reunification Following Disasters: A Planning Tool for Health Care Facilities</b> for a description of these areas.</li> <li>○ Create a family intake form that can be used to compare answers to questions given by an unaccompanied child to aid in reunification, such as: parents' names, siblings names, pets names, city they live in, school/teacher's name, pediatrician's name, names of friends or neighbors or relatives) to information provided by adults claiming to be guardians when other means of verification are unavailable.</li> <li>○ Include family reunification in hospital drill or tabletop exercise.</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop procedures with external stakeholders that govern the sharing of relevant information with other hospitals, public health agencies, and other partners involved in the response, as legally permitted, to facilitate family reunification.</li> <li>○ Consider leading regional family reunification drills and/or tabletop exercises to test plans, plan components, and response by certain areas within the hospital or community.</li> <li>○ Offer to serve as a resource for other hospitals to augment their plans.</li> </ul>
<p><b>Space Use</b></p>	<ul style="list-style-type: none"> <li>○ Identify areas in the hospital that can serve as: <ul style="list-style-type: none"> <li>• Secure private location for Pediatric Safe Area (PSA) for unaccompanied children.</li> <li>• Hospital Family Reunification Center (HFRC).</li> <li>• Family Reunification Site (FRS). This process may occur at the hospital or—for medically cleared children—at a community site with others who can assist with reunification (law enforcement, educators). Please see <b>Family Reunification Following Disasters: A Planning Tool for Health Care Facilities</b> for a description of these areas.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>○ Pediatric Safe Area, Family Reunification Site, and Hospital Family Reunification Center should be in separate areas in the hospital.</li> <li>○ Ensure that the Hospital Family Reunification center has a waiting area and small rooms for private conversations.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure that there is a private notification center for parents who are seeking information about their child's status (this does not have to be at the hospital, specifically). An advanced approach involves having separate spaces for age groups (infants, toddlers, middle childhood, adolescents) and even a separate space for those children with sensory integration concerns.</li> <li>○ Establish medical oversight in the Pediatric Safe Area.</li> </ul>



## DOMAIN 6: PEDIATRIC PATIENT TRACKING & FAMILY REUNIFICATION (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>Staff</b>	<ul style="list-style-type: none"> <li>○ Ensure availability of security for Pediatric Safe Area, Hospital Family Reunification Center, and Family Reunification Site.</li> <li>○ Define staffing plan for Pediatric Safe Area, Hospital Family Reunification Center, and Family Reunification Site that utilizes either hospital staff, community partners, or a combination of both. (These areas may be combined if sufficient staff is not available for all three areas).</li> <li>○ Ensure that there is adequate medical oversight for children who might decompensate.</li> </ul>	<ul style="list-style-type: none"> <li>○ Consider appropriate staffing ratios for younger children in Pediatric Safe Area; utilize security staff to ensure children do not wander into other areas of the hospital.</li> </ul>	<ul style="list-style-type: none"> <li>○ Consider developing a family reunification team—consisting of both hospital personnel and community partners—that could provide assistance to impacted hospitals in your region.</li> </ul>

## DOMAIN 6 RESOURCES

1. AAP Disaster Preparedness Advisory Council, Reunification Subcommittee. (2018). Family Reunification Following Disasters: A Planning Tool for Health Care Facilities. Retrieved from <https://downloads.aap.org/AAP/PDF/AAP%20Reunification%20Toolkit.pdf>
2. Federal Emergency Management Agency (FEMA) Ready Campaign. (2013). Post-Disaster Reunification of Children: A Nationwide Approach. Retrieved from [https://www.ready.gov/sites/default/files/2019-06/post\\_disaster\\_reunification\\_of\\_children.pdf](https://www.ready.gov/sites/default/files/2019-06/post_disaster_reunification_of_children.pdf)
3. Texas Children’s Hospital. (2019). Family Reception Center Plan. Retrieved from [https://media.emscimprovement.center/documents/TCH\\_FRC\\_Plan\\_-\\_1.24.2019\\_Approved.pdf](https://media.emscimprovement.center/documents/TCH_FRC_Plan_-_1.24.2019_Approved.pdf)
4. The US Department of Health & Human Services, Office of the Assistant Secretary for Preparedness and Response, & Technical Resources, Assistance Center, and Information Exchange (TRACIE),. (2015). Topic Collection: Family Reunification and Support. Retrieved from <https://asprtracie.hhs.gov/technical-resources/64/family-reunification-and-support/0>



## DOMAIN 7: LEGAL AND ETHICAL CONSIDERATIONS

The pediatric population requires special legal and ethical planning and policy implementation.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>State Emergency Authority/Orders</b>	<ul style="list-style-type: none"> <li>○ Develop and implement a process/ protocol for Emergency Management and Hospital Counsel to alert leaders to Federal and State Emergency declarations, orders, regulatory waivers, and legislative developments.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure participation in Regional Healthcare Coalition (HCC), which will have pediatric champions as resources.</li> </ul>	<ul style="list-style-type: none"> <li>○ Assume a leadership role in regional coalition and provide pediatric expertise to regional HCC pediatric committee participation or state emergency planning bodies.</li> </ul>
<b>Emergency Operation Plan(s) (EOPs)</b>	<ul style="list-style-type: none"> <li>○ Ensure that the institutional Emergency Operations Plan (EOP includes at minimum all hazards required by the Centers for Medicare &amp; Medicaid Services (CMS); The Joint Commission (TJC), Federal and State Law.</li> <li>○ Plan for the arrival of pediatric patients in All Hazards EOP.</li> </ul>	<ul style="list-style-type: none"> <li>○ EOP includes pediatric champion in place.</li> </ul>	<ul style="list-style-type: none"> <li>○ EOP includes robust planning for specialty patients in disasters; explore the need to assume regional responsibility for certain capabilities (examples include ECMO expertise; special containment units), including pediatric specialty care. Must consider legal options and consequences related to acceptance or declination of transfers related to the Emergency Medical Treatment and Actice Labor Act (EMTALA) or similar state-based laws and policies.</li> </ul>
<b>Policies and education regarding assent/consent</b>	<ul style="list-style-type: none"> <li>○ Ensure the EOP includes communication to first responders and receivers about basic exemptions from consent during life or limb-threatening conditions.</li> </ul>	<ul style="list-style-type: none"> <li>○ Incorporation of Domain 5 (see page 19) Reunification processes into EOP.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish relationships with and ensure that legal/ethics experts and child protection teams are available to create plans for social support of unaccompanied children with no consenting guardian.</li> </ul>



## DOMAIN 7: LEGAL AND ETHICAL CONSIDERATIONS (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>Credentialing, Privileging and Liability Protections</b>	<ul style="list-style-type: none"> <li>○ Establish and implement EOP for emergency credentialing and privileging of volunteers and medical staff services includes plan to redeploy privileged providers to expanded scope.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure ongoing regional healthcare coalition participation in planning for surge (especially pediatric) with strategic education and preparation of key staff such as Emergency Medicine, Family Medicine, Primary Pediatrician providers in region for potential deployment in local or regional pediatric surge.</li> <li>○ Conduct regular educational sessions/ courses for Medical Staff Services and Risk Management around immunity from liability for workers, volunteers, and any licensed health care personnel practicing under expanded scope during emergency/disaster.</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop and implement policies, including developing MOA's with regional partners, to deploy providers with pediatric expertise to coalition members to assist in a disaster.</li> <li>○ Analyze and understand the local or regional pediatric care coordination capabilities and participate in creating pediatric surge plans for the state, including pediatric teams for deployment, addition of pediatric expertise to state or federal volunteer rosters (Medical Reserve Corp, etc.)</li> </ul>
<b>Crisis Standards of Care (CSC) and Scarce Resource Allocation Committees (SRAC)</b>	<ul style="list-style-type: none"> <li>○ Ensure that the institutional EOP includes a CSC plan for disaster triage and intake.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure that the EOP includes CSC planning with specific resources from regional coalition or state to shelter in place with children until safe transfer can be achieved (focused pediatric surge planning).</li> <li>○ Develop or strengthen regional partnerships ensuring availability of pediatric-specific consultation (or telehealth) with pediatric centers to coordinate transfers to avoid crisis standards.</li> </ul>	<ul style="list-style-type: none"> <li>○ Create or lead coalition development of pediatric CSC aligned with national, state recommendations and drills.</li> <li>○ Advocate for and ensure pediatric CSC, legal and ethics experts in specialty centers should be Disaster Ethics/SRAC and should review and inform regional or state guidance.</li> </ul>
<b>Emergency Medical Treatment and Active Labor Act (EMTALA) and other federal or state laws impacted by disasters</b>	<ul style="list-style-type: none"> <li>○ Ensure a foundational understanding of EMTALA, including baseline principles such as when waivers are allowable and most importantly, what elements are modifiable in a declared disaster.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish partnerships with pediatric centers outside of normal referral patterns through participation in regional or state healthcare coalition planning to increase pediatric surge capacity with special attention to alternate referral or consultation arrangements that may be disrupted by EMTALA.</li> </ul>	<ul style="list-style-type: none"> <li>○ Assume a leadership role for advanced planning for regional sharing of resources and consultation with regional centers to shelter in place or assist in finding other accepting centers when receiving facility have reached maximum capacity.</li> </ul>





## DOMAIN 7 RESOURCES

1. Altman, Robin L, Fareri, Maria, Santucci, Karen A, Anderson, Michael R, McDonnell, William M, Fanaroff, Jon Mark, et al. (2021). Understanding Liability Risks and Protections for Pediatric Providers During Disasters. *Pediatrics*, 143(3). doi:10.1542/peds.2018-3892.  
Retrieved from [https://publications.aap.org/pediatrics/article-pdf/143/3/e20183892/1076003/peds\\_20183892.pdf](https://publications.aap.org/pediatrics/article-pdf/143/3/e20183892/1076003/peds_20183892.pdf)
2. Federal Emergency Management Agency (FEMA) Ready Campaign. (2013). Post-Disaster Reunification of Children: A Nationwide Approach.  
Retrieved from [https://www.ready.gov/sites/default/files/2019-06/post\\_disaster\\_reunification\\_of\\_children.pdf](https://www.ready.gov/sites/default/files/2019-06/post_disaster_reunification_of_children.pdf)
3. Hodge, James G. and Piatt, Jennifer and Freed, Rebecca, Navigating Legalities in Crisis Standards of Care (2022). *Maryland Journal of Health Care Law and Policy*. Available at SSRN: <https://ssrn.com/abstract=4014599> or <http://dx.doi.org/10.2139/ssrn.4014599>
4. Hodge, James G. (2021). Western Regional Alliance for Pediatric Emergency Management Legal Resource Guide.  
Retrieved from [https://wrap-em.org/images/2021/WRAP-EM\\_Legal\\_Guide\\_-\\_Report.pdf](https://wrap-em.org/images/2021/WRAP-EM_Legal_Guide_-_Report.pdf)
5. Minnesota Department of Health. (2021). Ethical Framework for Transitions Between Conventional, Contingency, and Crisis Conditions in Pervasive or Catastrophic Public Health Events with Medical Surge Implications. *Minnesota Crisis Standards of Care*.  
Retrieved from [https://www.health.state.mn.us/communities/ep/surge/crisis/framework\\_transitions.pdf](https://www.health.state.mn.us/communities/ep/surge/crisis/framework_transitions.pdf)



## DOMAIN 8: BEHAVIORAL HEALTH

Behavioral health is a critical component to pediatric care, especially in a disaster environment. Developing and implementing a multidisciplinary approach to pediatric behavioral health is a vital aspect of disaster response.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>Psychological First Aid (PFA) training</b>	<ul style="list-style-type: none"> <li>○ Ensure PFA training is provided to all staff and optional training on its unique application to children is readily available.</li> <li>○ Ensure that PFA educational material is readily accessible online through hospital network and/or disseminated to staff.</li> </ul>	<ul style="list-style-type: none"> <li>○ Provide pediatric-specific PFA training to key clinical staff who are likely to interact with children and families.</li> <li>○ Establish protocols to identify specific staff qualified to conduct screening and support during a disaster scenario.</li> </ul>	<ul style="list-style-type: none"> <li>○ Provide pediatric-specific PFA training to all hospital staff.</li> <li>○ Disseminate best practices regarding pediatric-specific PFA to coalition hospitals and lead regional-wide education efforts.</li> </ul>
<b>Pediatric-specific Psychoeducational Materials</b>	<ul style="list-style-type: none"> <li>○ Create or acquire pediatric-specific psychoeducational materials and make them available and easily accessible to clinical staff for use in a disaster scenario.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure that pediatric-specific psychoeducational materials are readily available to clinical staff at time of crisis and is customized to include local mental health resources in the region.</li> <li>○ Ensure materials are available in all languages used by a significant portion of the population.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure that material is routinely distributed in print and/or electronic format to impacted families (those impacted by natural disaster and/or trauma, etc.)</li> </ul>
<b>Behavioral health professionals</b>	<ul style="list-style-type: none"> <li>○ Identify referral resources in the community for children experiencing trauma (e.g., behavioral health specialists with expertise in trauma treatment of children) and/or loss (children's bereavement centers/camps or hospice programs).</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish MOUs with qualified behavioral health professionals or create protocols for behavioral health professionals to be available on-call to provide services on-site during disasters.</li> </ul>	<ul style="list-style-type: none"> <li>○ Verify and/or ensure qualified behavioral health professionals are members of hospital staff and provide coverage 24/7/365 with ability to surge during a disaster.</li> <li>○ Establish protocols to provide pediatric behavioral health tele-health capabilities to coalition facilities in a disaster.</li> </ul>



## DOMAIN 8: BEHAVIORAL HEALTH (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Pediatric mental health evaluation and triage capabilities</b></p>	<ul style="list-style-type: none"> <li>○ Provide basic pediatric screening training to all triage staff.</li> <li>○ Establish protocols to ensure qualified behavioral health staff's availability to assist in assessment of behavioral health needs and screening in a disaster (by phone or telehealth consultation).</li> <li>○ Identify referral sites for evaluation of children with behavioral health emergencies that do not require hospitalization.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish protocols to identify specific in-house staff trained and qualified to conduct pediatric-specific secondary behavioral health screening to identify when higher level or emergency behavioral health services are indicated.</li> </ul>	<ul style="list-style-type: none"> <li>○ Create and disseminate educational materials to prepare all triage staff in the hospital to understand and conduct pediatric-specific secondary behavioral health screening to identify when higher level or emergency behavioral health services are indicated.</li> <li>○ Lead advocacy efforts to create and disseminate acute pediatric-specific mental health evaluation resources that are available to all regional healthcare facilities.</li> </ul>
<p><b>Death notification and bereavement support</b></p>	<ul style="list-style-type: none"> <li>○ Establish a process for providing clinical guidance on death notification for children and support for grieving children and families.</li> <li>○ Ensure that resources are readily available and that clinical staff are aware of these resources.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish processes for behavioral health professionals (social workers, religious services or community-based professionals) with expertise in death notification involving children to be available on-call to assist with notification and to provide acute and ongoing support to grieving children and families as well as community healthcare practitioners.</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop protocols to ensure behavioral health professionals are in house or readily available to support pediatric death notification and can provide ongoing support for grieving children who are hospitalized.</li> <li>○ Ensure behavioral health professionals have expertise in evaluation and support for sub-populations of children (e.g., intellectual, and neurodevelopmental disabilities, pre-existing mental illness, etc.).</li> </ul>
<p><b>Policies and strategies to reduce unnecessary exposure to disaster-related sensitive stimuli</b></p>	<ul style="list-style-type: none"> <li>○ Establish specific rooms/areas in the ED and inpatient units with ability to reduce exposure (curtains) to injured or upset patients and families.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure all rooms in ED are designed to meet these requirements.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ensure that there are designated areas in the hospital to have crucial conversations with families and allow families to grieve in private.</li> </ul>



## DOMAIN 8: BEHAVIORAL HEALTH (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Professional self-care</b></p>	<ul style="list-style-type: none"> <li>○ Ensure there is an Employee Assistance Program (EAP) or other free and employer supported mechanisms that provide counseling support services are available and easily accessible for all staff.</li> <li>○ Ensure healthcare providers that care exclusively for adults have just-in-time training and resources to counsel families in a disaster.</li> </ul>	<ul style="list-style-type: none"> <li>○ Provide training on professional self-care to all clinical staff, including explicit discussion of context of care during a crisis and caring for grieving and traumatized children.</li> </ul>	<ul style="list-style-type: none"> <li>○ Provide training on appropriate professional self-care to all professional staff.</li> <li>○ Create and disseminate educational materials on professional self-care in the setting of a pediatric disaster to regional healthcare facilities.</li> </ul>



## DOMAIN 8 RESOURCES

1. American Academy Of Pediatrics Committee on Pediatric Emergency Medicine, American College Of Emergency Physicians Pediatric Emergency Medicine Committee, & Emergency Nurses Association Pediatric Committee. (2014). Death of a Child in the Emergency Department. *Pediatrics*, 134(1), 198-201. doi:10.1542/peds.2014-1245. Retrieved from [https://publications.aap.org/pediatrics/article-pdf/134/1/198/1058329/peds\\_2014-1245.pdf](https://publications.aap.org/pediatrics/article-pdf/134/1/198/1058329/peds_2014-1245.pdf)
2. Chung S, Foltin G, Schonfeld D. J., American Academy of Pediatrics. (2019). Pediatric Disaster Preparedness and Response Topical Collection. Retrieved from <http://www.aap.org/en/patient-care/disasters-and-children/professional-resources-for-disaster-preparedness/pediatric-disaster-preparedness-and-response-topical-collection/>
3. Gold J I, Montano, Z, Shields, S, Mahrer, N E, Vibhakar, V, Ybarra, T, et al. (2009). Pediatric disaster preparedness in the medical setting: integrating mental health. *American journal of disaster medicine*, 4(3). Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/19739456>
4. Network, National Child Traumatic Stress. Pediatric Medical Traumatic Stress Health Care Toolbox. Retrieved from <https://www.healthcaretoolbox.org/>
5. Schonfeld, David J., Demaria, Thomas, Committee On Psychosocial Aspects Of, Child, Family Health, Disaster Preparedness Advisory Council, Yogman, Michael, Bauer, Nerissa S., et al. (2016). Supporting the Grieving Child and Family. *Pediatrics*, 138(3). doi:10.1542/peds.2016-2147. Retrieved from [https://publications.aap.org/pediatrics/article-pdf/138/3/e20162147/1096404/peds\\_20162147.pdf](https://publications.aap.org/pediatrics/article-pdf/138/3/e20162147/1096404/peds_20162147.pdf)
6. Schreiber, M. (2018). PsySTART Emergency Mental Health Triage Systems for Disaster and Public Health Emergencies. Retrieved from [https://www.myctb.org/wst/HELPERS/Emergency%20Preparedness%20Documents/PsySTART\\_Overview.pdf7](https://www.myctb.org/wst/HELPERS/Emergency%20Preparedness%20Documents/PsySTART_Overview.pdf7)
7. Stafford, Brian, Schonfeld, David, Keselman, Lea, Ventevogel, Peter, & Stewart, Carmen López. The Emotional Impact of Disaster on Children and Families. Retrieved from [https://www.menominee-nsn.gov/Covid/Disasters\\_PEDs\\_Module\\_CDC.pdf](https://www.menominee-nsn.gov/Covid/Disasters_PEDs_Module_CDC.pdf)
8. Substance Abuse and Mental Health Services Administration. (2016). Disaster Technical Assistance Center Supplemental Research Bulletin. Stronger Together: An In-Depth Look at Selected Community-Level Approaches to Disaster Behavioral Health. Retrieved from [https://www.samhsa.gov/sites/default/files/programs\\_campaigns/dtac/srb-community-approaches.pdf](https://www.samhsa.gov/sites/default/files/programs_campaigns/dtac/srb-community-approaches.pdf)
9. The National Child Traumatic Stress Network. Psychological First Aid (PFA) and Skills for Psychological Recovery (SPR). Retrieved from <https://learn.nctsn.org/course/index.php?categoryid=11>



## DOMAIN 9: CHILDREN AND YOUTH WITH SPECIAL HEALTH CARE NEEDS

Children and youth with special health care needs (CYSHCN) present unique considerations in pediatric disaster response, and require special attention when planning for a disaster.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>Planning</b>	<ul style="list-style-type: none"> <li>○ Identify content experts and partners skilled in caring for CYSHCN in your community (caretakers, community pediatricians, developmental-behavioral pediatricians, home health agencies, parent support organizations).</li> <li>○ Anticipate and incorporate the needs of CYSHCN in your community and plan for their initial care during a disaster (consider estimating the number of patients with specific needs to ensure they can be cared for in a disaster).</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop relationships with state and regional planning agencies to identify regional sheltering opportunities for CYSHCN.</li> <li>○ Strategize with patients, families, Public Health and Public Safety officials to create a plan to keep CYSHCN who are dependent on water, power, or technology from needing hospitalization to support their baseline needs during a disaster.</li> <li>○ Collaborate with local advocacy groups and community partners to ensure that children with developmental disabilities or technology dependence are considered in all aspects of disaster preparedness, including in emergency shelters.</li> </ul>	<ul style="list-style-type: none"> <li>○ Identify the hospitals closest to your institution's more fragile patients and create a coordinated plan for their care during a disaster scenario.</li> <li>○ Disseminate best practices regarding preparedness for families of CYSHCN via their medical homes embedded in your institution (complex care clinic).</li> <li>○ Create a robust system for remote support of non-pediatric hospitals in the care of CYSHCN.</li> <li>○ Lead advocacy efforts for state- and region-level planning to provide appropriate sheltering operations for CYSHCN during a disaster.</li> </ul>
<b>Equipment, supplies and medications required</b>	<ul style="list-style-type: none"> <li>○ Identify equipment, supply and medication needs (ventilators, suction, oxygen) for CYSHCN in your community that may be required in your hospital in the event of a crisis.</li> <li>○ Establish protocols with local EMS agencies to ensure CYSHCN are transported with all their medications and equipment (backup tracheostomy tubes, power cords for vents).</li> <li>○ Coordinate with local durable medical equipment companies to develop a process for securing essential equipment during a disaster.</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop plans to obtain specialized equipment (wheelchairs, pediatric-capable ventilators, pediatric feeding tubes, pediatric suction catheters, tracheostomy, portable source of electricity, etc.) or MOUs to meet the needs of CYSHCN in a prolonged disaster scenario.</li> </ul>	<ul style="list-style-type: none"> <li>○ Have advanced pediatric resources on site and a plan to distribute them to enable continued care of CYSHCN at regional centers.</li> </ul>



## DOMAIN 9 RESOURCES

1. American Academy of Pediatrics, Committee on Pediatric Emergency Medicine, Council on Clinical Information and Technology, & American College of Emergency Physicians Pediatric Emergency Medicine Committee. (2010). Emergency Information Forms and Emergency Preparedness for Children With Special Health Care Needs. *Pediatrics*, 125(4), 829-837. doi:10.1542/peds.2010-0186. Retrieved from <https://publications.aap.org/pediatrics/article-pdf/125/4/829/895276/zpe00410000829.pdf>
2. Centers for Disease Control Prevention. (2015). Planning for an Emergency: Strategies for Identifying and Engaging At-Risk Groups. A guidance document for Emergency Managers. 1. Retrieved from <https://stacks.cdc.gov/view/cdc/32996>
3. EMSC Innovation & Improvement Center. (2021a). Be Ready: Tips for Families of Children and Youth with Special Healthcare Needs. Retrieved from <https://emscimprovement.center/domains/preparedness/asprcoe/eglpdr/cyshcn/toolkit/beready/>
4. EMSC Innovation & Improvement Center. (2021b). Disaster and Families of Children with Disabilities: What Every Health Care Provider Needs to Know. Retrieved from [https://emscimprovement.center/domains/preparedness/asprcoe/eglpdr/cyshcn/toolkit/need\\_to\\_know/](https://emscimprovement.center/domains/preparedness/asprcoe/eglpdr/cyshcn/toolkit/need_to_know/)
5. Federal Emergency Management Agency (FEMA). (2009). Evacuating the Special Needs Population. Retrieved from <https://training.fema.gov/programs/emischool/el361toolkit/assets/evacuatingspecialneedspopulation.pdf>
6. National Academy for State Health Policy. (2020). National Care Coordination Standards for Children and Youth with Special Health Care Needs. Retrieved from [https://www.lpfch.org/sites/default/files/field/publications/national\\_care\\_coordination\\_standards\\_for\\_cyshcn.pdf](https://www.lpfch.org/sites/default/files/field/publications/national_care_coordination_standards_for_cyshcn.pdf)
7. National Association of County and City Health Officials, & Association of State and Territorial Health, Officials. Capacity-Building Toolkit for including Aging & Disability Networks in Emergency Planning. Retrieved from [https://www.naccho.org/uploads/downloadable-resources/NACCHO\\_Aging-and-Functional-Needs-Planning-FINAL.pdf](https://www.naccho.org/uploads/downloadable-resources/NACCHO_Aging-and-Functional-Needs-Planning-FINAL.pdf)
8. Ready.gov, Federal Emergency Management Agency. (2021). Individuals with Disabilities. Retrieved from <https://www.ready.gov/disability>



## DOMAIN 10: EXERCISES, DRILLS, AND TRAINING

Routine disaster drills and training are crucial in maintaining disaster preparedness. It is important that pediatric considerations and scenarios are included in these exercises.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>Exercises &amp; Drills</b>	<ul style="list-style-type: none"> <li>○ Implement annual institution-wide disaster training exercises incorporating pediatric patients.</li> <li>○ Train staff on location and use of pediatric-specific evacuation equipment and conduct surge exercises with evacuation components.</li> <li>○ Ensure transfer agreements and protocols have been established within the regional coalition and include communication between institutions in drills.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish triage protocols and training to identify patients to be considered for immediate transfer (critically ill/injured or those sufficiently stable to move to another care center).</li> <li>○ Practice transferring patients with appropriate pediatric specific equipment and personnel.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish a pediatric care-review process (Process Improvement, Quality Improvement, After Action Report, Corrective Action Plans, etc.) into disaster drills.</li> <li>○ Lead regional disaster drills that include pediatric evacuation capabilities that test both receiving patients and evacuating your facility to other centers.</li> <li>○ Incorporate lessons learned, after action reports, and improvement plans from exercises into future disaster planning.</li> </ul>
<b>Training</b>	<ul style="list-style-type: none"> <li>○ Ensure disaster drills incorporate pediatric patients (especially infants and toddlers) in order to test the system's ability to handle a surge in or evacuation of a variety of pediatric patients (high acuity, infants, CYSHCN).</li> </ul>	<ul style="list-style-type: none"> <li>○ Determine and plan for pediatric-specific staffing needs during a disaster scenario including:                             <ul style="list-style-type: none"> <li>• Identification of pediatric-focused staff to champion pediatric disaster care.</li> <li>• Staff predetermined to be appropriate to accompany unaccompanied minors.</li> </ul> </li> <li>○ Ensure disaster drills incorporate “just-in-time” training specific to pediatrics (review of pediatric triage, age-specific vital signs, unaccompanied minors).</li> </ul>	<ul style="list-style-type: none"> <li>○ Develop curriculum and training opportunities that address gaps and increase skills specific to pediatric patients, ensure key staff access training at least annually.</li> <li>○ Develop just-in-time training on the use of pediatric-specific evacuation equipment that can be used by both your facility and others within your region.</li> <li>○ Utilize EMSC state manager for additional resources.</li> </ul>





## DOMAIN 10 RESOURCES

1. Advocate Health Care, & Advocate Good Shepherd Hospital. (2013). Pediatric Disaster Drills. Retrieved from <https://www.youtube.com/watch?v=kAOFWxK-RoE>
2. American Academy of Pediatrics. (2019). Pediatric Tabletop Exercise Resource Kit and Other Key Resources for Disaster Preparedness. In American Academy of Pediatrics <https://www.aap.org/en/patient-care/disasters-and-children/pediatric-tabletop-exercise-resource-kit/>
3. Ballow, S., Behar, S., Claudius, I., Stevenson, K., Neches, R., & Upperman, J. S. (2008). Hospital-based disaster preparedness for pediatric patients: how to design a realistic set of drill victims. American journal of disaster medicine, 3(3), 171-180. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/18666514/>
4. Behar, S., Upperman, J. S., Ramirez, M., Dorey, F., & Nager, A. (2008). Training medical staff for pediatric disaster victims: a comparison of different teaching methods. American journal of disaster medicine, 3(4), 189-199. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/18822838/>
5. Chokshi, N. K., Behar, S., Nager, A. L., Dorey, F., & Upperman, J. S. (2008). Disaster management among pediatric surgeons: preparedness, training and involvement. American journal of disaster medicine, 3(1), 5-14. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/18450274/>
6. Claudius, I., Behar, S., Ballow, S., Wood, R., Stevenson, K., Blake, N., et al. (2008). Disaster drill exercise documentation and management: are we drilling to standard? Journal of emergency nursing: JEN : official publication of the Emergency Department Nurses Association, 34(6), 504-508. doi:10.1016/j.jen.2008.03.006. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/19022071/>
7. EMSC Innovation & Improvement Center. Pediatric Disaster Preparedness Toolkit -Training Resources & Courses. Retrieved from <https://emscimprovement.center/education-and-resources/toolkits/pediatric-disaster-preparedness-toolbox/>
8. Federal Emergency Management Agency, & Institute of Emergency Management. (2015). IS-366.1: Planning for the Needs of Children in Disasters. In Federal Emergency Management Agency | Emergency Management Institute [https://emilms.fema.gov/is\\_0366a/curriculum/1.html](https://emilms.fema.gov/is_0366a/curriculum/1.html)
9. Ferrer, R. R., Ramirez, M., Sauser, K., Iverson, E., & Upperman, J. S. (2009). Emergency drills and exercises in healthcare organizations: assessment of pediatric population involvement using after-action reports. American journal of disaster medicine, 4(1), 23-32. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/19378666/>
10. Illinois Emergency Medical Services for Children Program. (2016). Addressing the Needs of Children in Disaster Preparedness Exercises 2nd Edition. Retrieved from <https://www.luriechildrens.org/globalassets/documents/emsc/disaster/other/addressingneedschildrenindisaterprepexercisesept-201615.pdf>
11. Texas A&M Engineering Extension Service (TEEX). MGT439 - Pediatric Disaster Response & Emergency Preparedness. In <https://teex.org/class/MGT439/>



## DOMAIN 11: RECOVERY AND RESILIENCY

It is vital to anticipate and prepare to address the needs of the community (particularly its children) after a disaster's acute phase has concluded. An effective disaster response includes supporting the community in recovery.

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<b>Discharge Planning</b>	<ul style="list-style-type: none"> <li>○ Ensure that discharge processes include protocols if a child cannot self-identify</li> <li>○ Make tracking protocols and tools to ensure that providers can readily communicate when and where children have been discharged or transferred.</li> <li>○ When children are discharged to social services, ensure that health communication is maintained.</li> </ul>	<ul style="list-style-type: none"> <li>○ Collaborate with local agencies (state child welfare agency, Red Cross, police, social work, etc.) to ensure follow-up on all discharged patients.</li> <li>○ Establish protocols to liaise with court-appointed advocates.</li> <li>○ Establish outreach processes with local primary care physicians and clinics to contact affected families and coordinate follow-up.</li> </ul>	<ul style="list-style-type: none"> <li>○ Establish a formal follow-up process with other coalition facilities concerning outcomes/care of patients transferred to your facility.</li> <li>○ Disseminate discharge planning processes to other facilities in coalition.</li> </ul>
<b>Mental Health</b>	<ul style="list-style-type: none"> <li>○ Assess short- and long-term pediatric mental health needs for your community and anticipate additional needs in the event of a disaster.</li> </ul>	<ul style="list-style-type: none"> <li>○ Collaborate with mental health specialists including school therapists and telehealth mental health professionals to ensure acutely increased available access to mental health services in the event of a disaster.</li> <li>○ Collaborate with mental health specialists and community partners (child life, chaplains, therapists, school leaders) to establish follow-up processes with affected families.</li> </ul>	<ul style="list-style-type: none"> <li>○ Provide telehealth mental health services to local institutions in the event of a disaster.</li> <li>○ Advocate for pediatric mental health services at the local and state public health levels.</li> </ul>
<b>Diversity and Inclusion</b>	<ul style="list-style-type: none"> <li>○ Obtain culturally tailored and developmentally focused user-friendly parent information sheets regarding disaster events and follow up action items.</li> <li>○ Provide appropriate interpreter services (in-person or phone-based) and ensure there is a process to meet increased/ acute need in a disaster setting.</li> </ul>	<ul style="list-style-type: none"> <li>○ Create processes and protocols to meet the health care needs of refugees and vulnerable populations, including large groups that have been displaced.</li> <li>○ Partner with community-based organizations to improve services and advocacy for vulnerable populations.</li> </ul>	<ul style="list-style-type: none"> <li>○ Lead advocacy efforts to ensure the health care needs of vulnerable populations are protected and prioritized.</li> <li>○ Create and disseminate culturally tailored and developmentally focused user-friendly parent information sheets regarding disaster events and follow-up action items.</li> </ul>



## DOMAIN 11: RECOVERY AND RESILIENCY (Continued)

RECOMMENDED ACTIVITY	FOUNDATION	INTERMEDIATE	ADVANCED
<p><b>Community Partnerships</b></p>	<ul style="list-style-type: none"> <li>○ Create partnerships with community organizations (childcare centers, schools, preschools, etc.) where services can be provided, including screening, primary prevention, and treatment.</li> <li>○ Collaborate with community pediatric health providers to promote pediatric resiliency.</li> </ul>	<ul style="list-style-type: none"> <li>○ Collaborate with local health care facilities to ensure there is a robust and comprehensive medical home/primary care physician network to leverage during a disaster and assist with follow-up for ongoing needs.</li> <li>○ Lead coalition with schools and childcare centers to host vaccine clinics.</li> </ul>	<ul style="list-style-type: none"> <li>○ Lead coalition-building among community partners to meet the needs of children in the community and assist in a disaster setting.</li> <li>○ Conduct outreach to local clinics and urgent cares to establish a plan for additional surge capacity for lower-acuity illnesses in the event of a disaster or pandemic surge (expanded hours, on-call physicians, etc.).</li> <li>○ Create a database of available alternative health care facilities to be used during a disaster that can be easily distributed to the media and disseminated to the public.</li> </ul>
<p><b>Bereavement</b></p>	<ul style="list-style-type: none"> <li>○ Create pediatric-specific bereavement policies.</li> <li>○ Identify appropriate pediatric-specific referrals available in the community that can be utilized in a disaster.</li> </ul>	<ul style="list-style-type: none"> <li>○ Identify local support services (child life, social work, religious leaders, school counselors) to be available during a disaster and provide support to patients and families in the hospital and community.</li> </ul>	<ul style="list-style-type: none"> <li>○ Disseminate pediatric-specific bereavement strategies to coalition health care facilities.</li> <li>○ Establish protocols to assist local healthcare facilities in pediatric bereavement during a disaster.</li> </ul>



## DOMAIN 11 RESOURCES

1. Cox, R. S. Scannell L. Heykoop C. Peek L. Tobin-Gurley J. (2017). Understanding Youth's Disaster-Recovery: The vital role of people, places and activities. International Journal of Disaster Risk Reduction, 22, 249-256. Retrieved from [https://hazards.colorado.edu/uploads/publications/11\\_2017\\_Cox\\_Scannell\\_Heykoop\\_Tobin\\_Peek.pdf](https://hazards.colorado.edu/uploads/publications/11_2017_Cox_Scannell_Heykoop_Tobin_Peek.pdf)
2. Eluna Network. (2022). Nation Bereavement Resource Guide. Retrieved from <https://elunanetwork.org/national-bereavement-resource-guide/resources/>
3. Markenson, D., & Reynolds, S. (2006). The Pediatrician and Disaster Preparedness. Pediatrics, 117(2), e340-362. doi:10.1542/peds.2005-2752.
4. Masten, Ann S., & Motti-Stefanidi, Frosso. (2020). Multisystem Resilience for Children and Youth in Disaster: Reflections in the Context of COVID-19. Adversity and Resilience Science, 1(2), 95-106. doi:doi:10.1007/s42844-020-00010-w. Retrieved from <https://link.springer.com/article/10.1007/s42844-020-00010-w>
5. National Biodefense Science Board. (2014). Community Health Resilience Report. Retrieved from <https://www.phe.gov/Preparedness/legal/boards/nbsb/meetings/Documents/nbsb-chrreport.pdf>
6. National Center for Disaster Preparedness at Columbia Climate School. Recovery & Resiliency. Retrieved from <https://ncdp.columbia.edu/research/recovery-resiliency/>
7. National Center for School Crisis and Bereavement. (2022). Coalition to Support Grieving Students. Retrieved from <https://grievingstudents.org/>
8. National Commission on Children and Disasters. (2009). Disaster Management and Recovery. Retrieved from <https://cybercemetery.unt.edu/archive/nccd/20110427002915/http://www.childrenanddisasters.acf.hhs.gov/resources.html>
9. Schonfeld, D. J., & Demaria, T. (2016). Supporting the Grieving Child and Family. Pediatrics, 138(3). doi:10.1542/peds.2016-2147.





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**FOR ADDITIONAL INFORMATION**



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