

# ΜΑΖΙΚΕΣ ΚΑΤΑΣΤΡΟΦΕΣ : ΠΑΙΔΙΑ ΚΑΙ ΕΥΠΑΘΕΙΣ ΟΜΑΔΕΣ ΠΛΗΘΥΣΜΟΥ

Ενότητα 4<sup>η</sup> και 5<sup>η</sup>

Ετοιμότητα δομών για μαζικές καταστροφές  
με θύματα παιδιά και ευπαθείς ομάδες



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# Εισαγωγικά...

- Τα παιδιά αποτελούν έναν μοναδικά ευάλωτο πληθυσμό σε συμβάντα μαζικών ατυχημάτων/καταστροφών λόγω **της ιδιαίτερης φυσιολογίας τους** (π.χ. ταχύτερη επιδείνωση, προκλήσεις δοσολογίας/εξοπλισμού), **των ορίων ανάπτυξης/επικοινωνίας και των ψυχοκοινωνικών αναγκών τους**.
  - Καθώς και του κεντρικού ρόλου των γονέων και των σχολείων.
- **Η ετοιμότητα θα πρέπει επομένως να είναι:**
  - **Ειδική για παιδιά** (όχι ένα μοντέλο ενηλίκων σε κλίμακα),
  - **Να βασίζεται σε καθολικό σχεδιασμό για όλους τους κινδύνους - all-hazards planning**
  - **Να μειώνει τον διαχωρισμό γονέα-παιδιού,**
  - **Να βελτιώνει την ικανότητα διαλογής και επείγουσας φροντίδας,**
  - **Να διασφαλίζει τις κατάλληλες προμήθειες και**
  - **Να υποστηρίζει την φροντίδα με επίκεντρο την οικογένεια.**



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[Gulf 7 Pediatric Disaster Network](#)

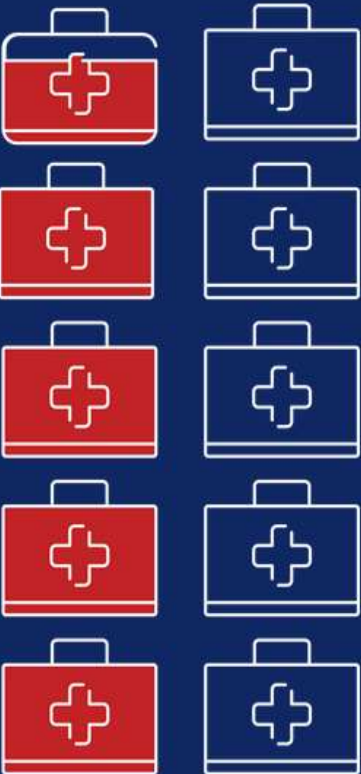
[Region V for Kids](#)

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[SPREAD THE WORD](#)

**Only 47% of hospitals  
have a disaster plan  
that includes pediatric  
patients.**

**And we're working to  
improve that.**





# Κύρια εμπόδια που επισημαίνονται

(τι τείνει να πάει στραβά)

- **Κενό σχεδιασμού**

- Οι παιδιατρικές ανάγκες συχνά παραβλέπονται στον σχεδιασμό μαζικών ατυχημάτων.
- Πολλά συστήματα δεν είναι σε ετοιμότητα ειδικά για παιδιά.

- **Περιορισμοί πόρων – δυσαναλογία με την έκταση του συμβάντος**

- Οι παιδιατρικοί πόροι (κλίνες, προσωπικό, εξοπλισμός, φάρμακα) είναι περιορισμένοι και μπορούν να υπερφορτωθούν γρήγορα.

- **Κενό εκπαίδευσης**

- Στα μη παιδιατρικά κέντρα το προσωπικό μπορεί να μην είναι εξοικειωμένο με την παιδιατρική φυσιολογία και τη διαλογή αυτών των ασθενών.
- Οι προσομοιώσεις δείχνουν αδυναμίες στην ανάθεση ρόλων, τον εξοπλισμό/προμήθειες και την παιδιατρική διαλογή.

- **Δυσκολία διαλογής**

- η διαλογή παιδιατρικών καταστροφών περιπλέκεται από το συναίσθημα, την περιορισμένη εξοικείωση, τα παιδιά με ειδικές ανάγκες υγειονομικής περίθαλψης και την έλλειψη ενός τέλει συστήματος βαθμολόγησης για τις αποφάσεις κατανομής πόρων.

- **Διαχωρισμός γονέα-παιδιού**

- Τα σχέδια αντιμετώπισης καταστροφών συχνά αποτυγχάνουν να αντιμετωπίσουν την επανένωση.
- Ο διαχωρισμός αυξάνει τον κίνδυνο και επιδεινώνει τα ψυχοκοινωνικά αποτελέσματα

- **Οικονομικοί περιορισμοί**

- Η περικοπή του κόστους μειώνει την ικανότητα διάθεσης πόρων, το εξειδικευμένο προσωπικό, τα αποθέματα και την εκπαίδευση, υπονομεύοντας την ετοιμότητα.



# Κύριες συστάσεις...

## 1) Hospitals (*pediatric and non-pediatric*) must plan for children

- Establish **pediatric victim protocols** across ED/ICU/OR and supporting services.
- Non-pediatric hospitals should be ready to **stabilize** and sometimes **care for** pediatric patients when they're closest or pediatric facilities are saturated.
- Include evacuation planning (including the harder scenario of **full building evacuation**).

## 2) Use an **all-hazards approach**

- Build flexible, scalable plans for common consequences of disasters rather than siloed plans for every scenario.
- Coordinate hospitals, community services, and local agencies; train staff and refine plans using data from drills/response.

## 3) Address **terrorism-specific pediatric risks (if relevant)**

- Emphasize rapid recognition, decontamination, monitoring, and pediatric-appropriate antidotes/treatments.

## 4) **Post-disaster pediatric care is part of preparedness**

- Plan for secondary conditions: infections, dehydration, malnutrition, injuries, and mental health deterioration.
- Include child psychosocial support strategies and limit harmful media exposure; prioritize family unity.

## 5) Create “**Child Friendly Spaces**”

- Key elements: safety/supervision, play, psychological support, information, and reunification processes.

## 6) **Triage + bedside care details that matter**

- Ensure dosing/equipment/fluid rates are pediatric-appropriate; use weight-estimation aids when weight is unknown.
- Accept that triage tools are imperfect; mitigate with training and protocols.

## 7) **Identification + reunification**

- Implement early identification, tracking systems, shelters and release protocols, and drills for separated children.

## 8) **Family-centered care**

- Keep families together where possible; provide communication, space for at least one caregiver when feasible, and involve families in ongoing care planning.

## 9) **Include perinatal issues**

- Plan resources for pregnancy, delivery, neonatal care and NICU surge needs.

## 10) **Supplies + staffing (and ethical allocation)**

- Stock size-appropriate pediatric equipment; identify pediatric experts; train broader staff; plan for scarcity ethically (medical need/benefit, conserve resources, no discriminatory allocation).

# PAEDIATRIC MASS DISASTER PREPAREDNESS: OBSTACLES AND RECOMMENDATIONS

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Athens, Greece

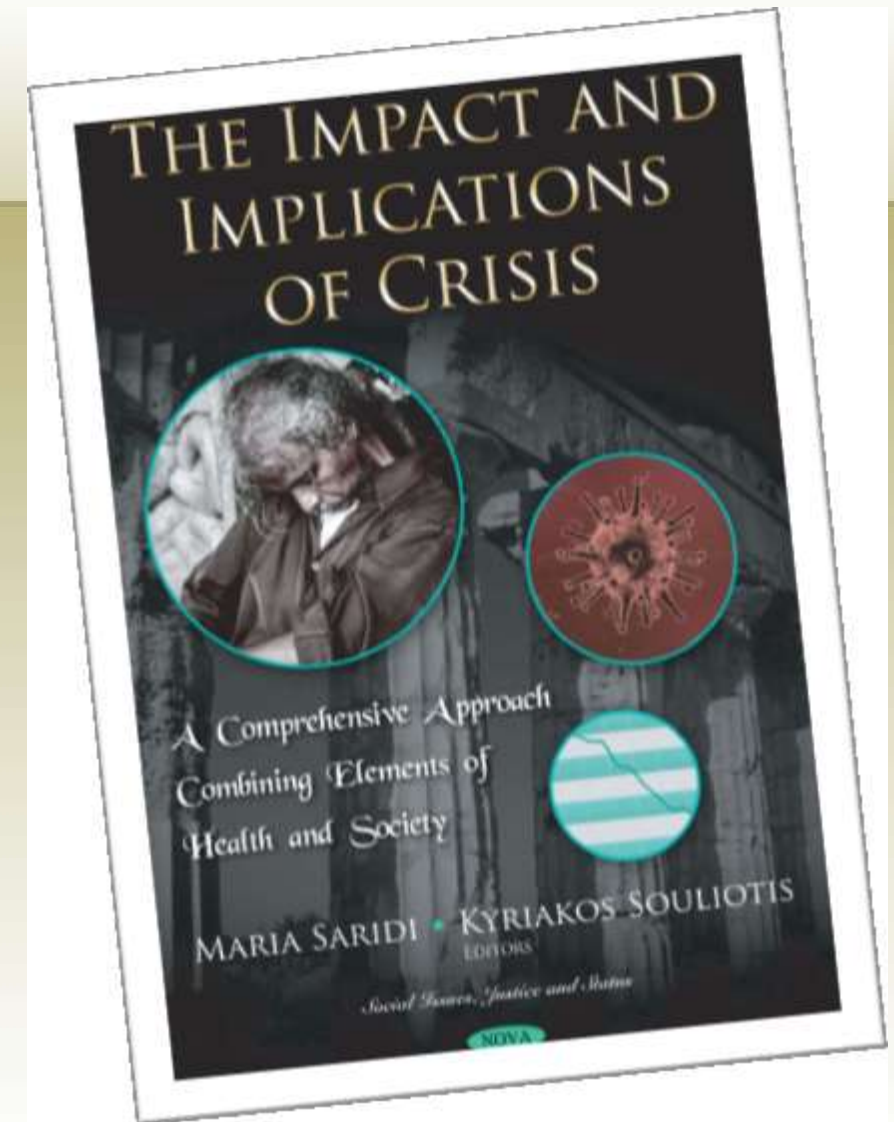
## ABSTRACT

Paediatric population in a mass casualty event poses unique problems and issues for the healthcare community. This chapter aims to outline the basic principles of paediatric response and preparedness in case of mass casualty events involving children and families. In such events it is possible to deal with a great number of paediatric victims, especially in cases that the incident takes place in a highly populated area. Moreover, child mortality rates in disasters are significantly higher than those of adults, especially for children under five years old.

An important oversight in the planning of paediatric response in cases of mass casualty events has been the special needs of children. The vulnerability of children and their physiological characteristics place them at increased risk during a disaster. They are more vulnerable to environmental factors, their immunity system is immature, they have different psychosocial needs and they describe their symptoms or needs accordingly to their developmental age. Additionally, they are usually unable to recognize danger, escape, seek assistance and their coping skills are less developed.

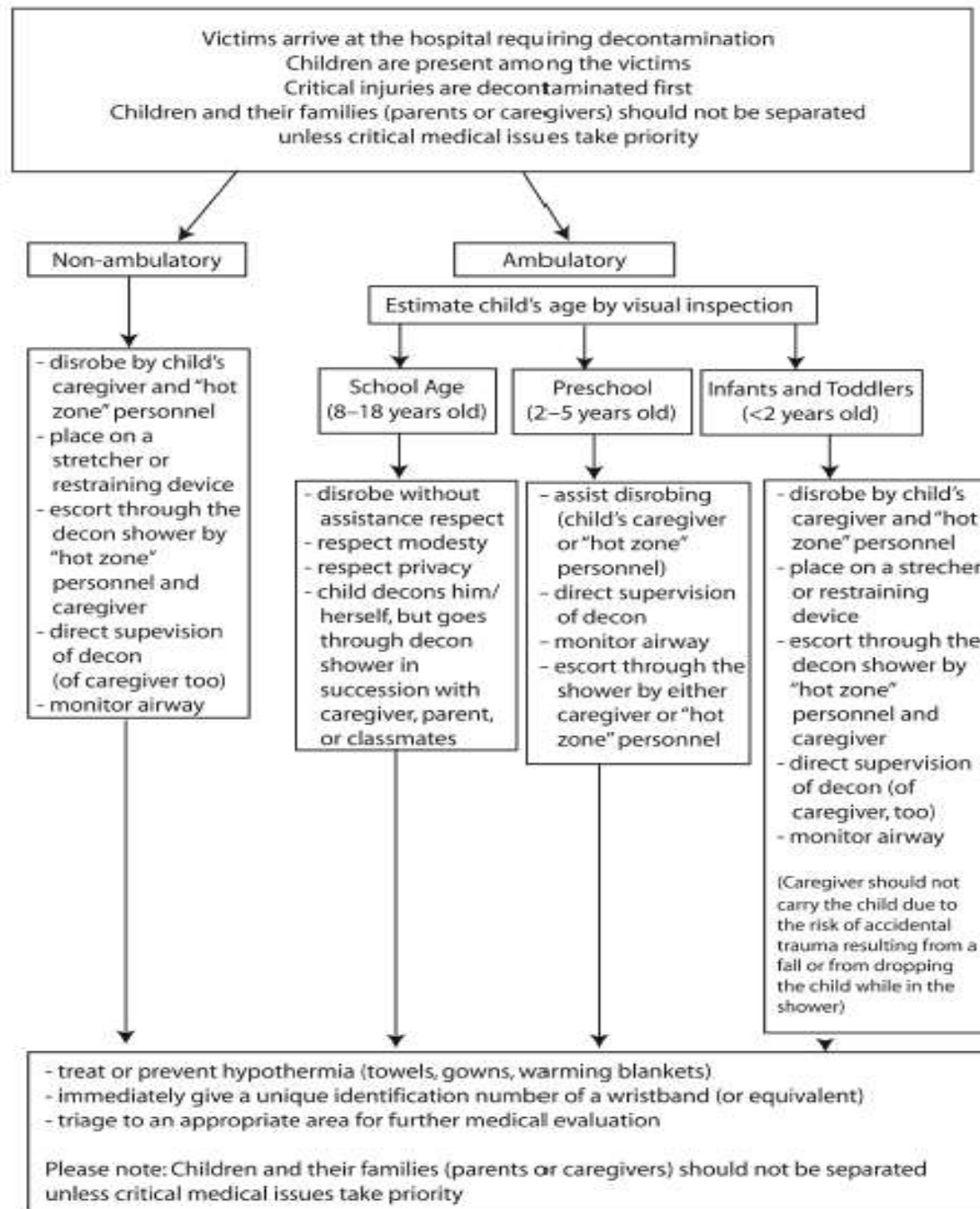
Paediatric and nonpaediatric hospitals should establish protocols for paediatric victims. A holistic approach to paediatric mass event preparedness should include the prevention and/or the treatment of secondary medical conditions or injury during the post-event period. Another concern is school preparedness since children spend most of their waking hours in school or childcare center. Therefore, disaster planning should

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**K Petsios.** Chapter 13. Paediatric Mass Disaster Preparedness: Obstacles and Recommendations. pp 219-236. In the "The Impact and Implications of Crisis: A Comprehensive Approach Combining Elements of Health and Society". Edited by M. Saridi and K. Souliotis. Nova Science Publishers. ISBN: 978-1-53613-191-8.

## Hospital Decontamination and the Pediatric Patient MODEL PROTOCOL ALGORITHM



# Disaster Preparedness: Hospital Decontamination and the Pediatric Patient—Guidelines for Hospitals and Emergency Planners

*Prehospital Disast Med* 2008;23(2):166–172.

Christopher W. Freyberg, MD;<sup>1</sup> Bonnie Arquilla, DO;<sup>2</sup> Baruch S. Fertel, MPA;<sup>3</sup> Michael G. Tunik, MD;<sup>3</sup> Arthur Cooper, MD;<sup>4</sup> Dennis Heon, MD;<sup>3</sup> Stephan A. Kohlhoff, MD;<sup>5</sup> Katherine I. Uranek, MD;<sup>6</sup> George L. Foltin, MD<sup>3</sup>



# Αξιολόγηση του βαθμού ετοιμότητας...

*Prehosp Disaster Med.* 2014 Dec;29(6):569-75. doi: 10.1017/S1049023X14001137. Epub 2014 Oct 21.

## **Using mixed methods to assess pediatric disaster preparedness in the hospital setting.**

Burke RV, Kim TY, Bachman SL, Iverson EJ, Berg BM.

### **Abstract**

**INTRODUCTION:** Children are particularly vulnerable during disasters and mass-casualty incidents. Coordinated multi-hospital training exercises may help health care facilities prepare for pediatric disaster victims.

**PROBLEM:** The purpose of this study was to use mixed methods to assess the disaster response of three hospitals, focusing on pediatric disaster victims.

**METHODS:** A full-functional disaster exercise involving a simulated 7.8-magnitude earthquake was conducted at three Los Angeles (California USA) hospitals, one of which is a freestanding designated Level I Pediatric Trauma Center. Exercise participants provided quantitative and qualitative feedback regarding their perceptions of pediatric disaster response during the exercise in the form of surveys and interviews. Additionally, trained observers provided qualitative feedback and recommendations regarding aspects of emergency response during the exercise, including communication, equipment and supplies, pediatric safety, security, and training.

**RESULTS:** According to quantitative participant feedback, the disaster exercise enhanced respondents' perceived preparedness to care for the pediatric population during a mass-casualty event. Further, qualitative feedback from exercise participants and observers revealed opportunities to improve multiple aspects of emergency response, such as communication, equipment availability, and physician participation. Additionally, participants and observers reported opportunities to improve safety and security of children, understanding of staff roles and responsibilities, and implementation of disaster triage exercises.

**CONCLUSION:** Consistent with previous investigations of pediatric disaster preparedness, evaluation of the exercise revealed several opportunities for all hospitals to improve their ability to respond to the needs of pediatric victims. Quantitative and qualitative feedback from both participants and observers was useful for comprehensively assessing the exercise's successes and obstacles. The present study has identified several opportunities to improve the current state of all hospitals' pediatric disaster preparedness, through increased training on pediatric disaster triage methods and additional training on the safety and security of children. Regular assessment and evaluation of supplies, equipment, leadership assignments, and inter-hospital communication is also suggested to optimize the effectiveness and efficiency of response to pediatric victims in a disaster.

# Εκπαίδευση και δεξιότητες...

| Skill               | Description                                                                            | Key challenges                                                                                    |
|---------------------|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Hemorrhage control  | Placing a tourniquet, applying direct wound pressure, and wound packing                | Recognizing hemorrhagic shock, awareness of tourniquet conversion times                           |
| Airway management   | Repositioning maneuvers, mask ventilation, intubation, use of intubation aids (bougie) | Proficiency in difficult airway management                                                        |
| Chest decompression | Needle decompression, chest drain insertion                                            | Rapid recognition of indications for chest decompression, familiarization with updated guidelines |
| Surgical airway     | Cricothyroidotomy                                                                      | Rarely used, resulting in a lack of experience with the procedure and equipment                   |

**TABLE 2: Summary of trauma skills modules**

> [Cureus](#). 2025 Aug 26;17(8):e91025. doi: 10.7759/cureus.91025. eCollection 2025 Aug.

## Improving Mass Casualty Event Response: A Simulation-Based Program in a Rural Hospital

[Hadas Katz-Dana](#)<sup>1</sup>, [Rotem Shiri](#)<sup>2</sup>, [Eran Netzer](#)<sup>2</sup>, [Elad Dana](#)<sup>3</sup>, [Jabeen Fayyaz](#)<sup>4</sup>, [Ehud Rosenbloom](#)<sup>1</sup>

Affiliations + expand

PMID: 41018404 PMCID: [PMC12462647](#) DOI: [10.7759/cureus.91025](#)

### Abstract

**Introduction:** Mass casualty events (MCEs) pose significant challenges, especially for hospitals serving remote populations. The increasing threat of modern terrorism underscores the importance of robust emergency preparedness. Simulation-based education (SBE) is an effective training approach to identify and address improvement areas. In October 2023, an urgent need arose to prepare a rural hospital in southern Israel for potential MCEs.

**Methods:** A simulation-based training program was developed for the hospital, focusing on trauma procedures, individual patient care, and team-based MCE drills. The training was implemented in three phases, addressing communication, procedural challenges, and operational/logistical gaps. Each simulation concluded with a debriefing session, followed by an after-action report and an improvement plan.

**Results:** Eighty healthcare providers participated in the training. The simulations revealed significant gaps in trauma procedural skills, communication, and logistical protocols. As a result, the hospital's preparedness was significantly enhanced, with key improvements in coordination and operational readiness for potential disasters."

**Conclusions:** Targeted SBE disaster preparedness programs in rural hospitals can improve trauma skills and MCE management while identifying latent safety threats. Continued investment in SBE is recommended to strengthen emergency response capabilities in similar settings.

**Keywords:** clinical simulation; disaster medicine; preparedness; rural; simulation; simulation-based education.



# Κατεύθυνση... προϋποθέσεις... εμπόδια!

*Adv Pediatr.* 2014 Aug;61(1):245-60. doi: 10.1016/j.yapd.2014.03.003. Epub 2014 May 27.

## **Pediatrics in disasters: evaluation of a global training program.**

Cooper L<sup>1</sup>, Guan H<sup>2</sup>, Ortiz-Hernández AA<sup>3</sup>, Llamosas Gallardo B<sup>3</sup>, Rivera G<sup>4</sup>, Wathen J<sup>1</sup>, Shulman B<sup>5</sup>, Berman S<sup>6</sup>.

### **⊕ Author information**

#### **Abstract**

The findings of this evaluation document partial success for the PEDS training program to achieve its 3 aims. It will take several years for the dissemination of this program to reach a critical mass of pediatricians and other physicians in many LMICs. Obtaining stronger support from MOHs and other governmental agencies is necessary to achieve this goal. Another additional approach would be to integrate the training into medical school and residency programs.

**KEYWORDS:** American Academy of Pediatrics; Disaster training program; Efficacy; Evaluation; Outcomes; PEDS in disaster; Pediatric disaster education

PMID: 25037131 DOI: [10.1016/j.yapd.2014.03.003](https://doi.org/10.1016/j.yapd.2014.03.003)

[Indexed for MEDLINE]





# Κλειδί... η προετοιμασία ... και η ευελιξία!

*Disaster Med Public Health Prep.* 2017 Aug;11(4):473-478. doi: 10.1017/dmp.2016.152. Epub 2017 Jun 13.

## Utilizing a Pediatric Disaster Coalition Model to Increase Pediatric Critical Care Surge Capacity in New York City.

Frogel M<sup>1</sup>, Flamm A<sup>2</sup>, Sagy M<sup>3</sup>, Uranek K<sup>4</sup>, Conway E<sup>5</sup>, Ushay M<sup>6</sup>, Greenwald BM<sup>7</sup>, Pierre L<sup>8</sup>, Shah V<sup>9</sup>, Gaffoor M<sup>10</sup>, Cooper A<sup>11</sup>, Foltin G<sup>1</sup>.

### + Author information

#### Abstract

A mass casualty event can result in an overwhelming number of critically injured pediatric victims that exceeds the available capacity of pediatric critical care (PCC) units, both locally and regionally. To address these gaps, the New York City (NYC) Pediatric Disaster Coalition (PDC) was established. The PDC includes experts in emergency preparedness, critical care, surgery, and emergency medicine from 18 of 25 major NYC PCC-capable hospitals. A PCC surge committee created recommendations for making additional PCC beds available with an emphasis on space, staff, stuff (equipment), and systems. The PDC assisted 15 hospitals in creating PCC surge plans by utilizing template plans and site visits. These plans created an additional 153 potential PCC surge beds. Seven hospitals tested their plans through drills. The purpose of this article was to demonstrate the need for planning for disasters involving children and to provide a stepwise, replicable model for establishing a PDC, with one of its primary goals focused on facilitating PCC surge planning. The process we describe for developing a PDC can be replicated to communities of any size, setting, or location. We offer our model as an example for other cities. (*Disaster Med Public Health Preparedness.* 2017;11:473-478).

**KEYWORDS:** disaster coalition; disaster drill; disaster preparedness; pediatric critical care surge capacity; surge plan

# Ευελιξία...

> J Crit Care. 2022 Apr;68:59-65. doi: 10.1016/j.jcrc.2021.12.004. Epub 2021 Dec 15.

## Clinical and organizational framework of repurposing pediatric intensive care unit to adult critical care in a resource-limited setting: Lessons from the response of an urban general hospital to the COVID-19 pandemic

Franco Díaz<sup>1</sup>, Juan Kehr<sup>2</sup>, Camila Cores<sup>2</sup>, Patricia Rubilar<sup>2</sup>, Tania Medina<sup>2</sup>, Caroline Vargas<sup>2</sup>, Pablo Cruces<sup>3</sup>

Affiliations + expand

PMID: 34922313 PMCID: PMC8672360 DOI: 10.1016/j.jcrc.2021.12.004

### Abstract

**Purpose:** We aim to describe the action plan and clinical results of a COVID-19 unit for adult patient care in units intended for critically ill children, proposing a clinical/administrative framework.

**Methods:** We reviewed the preparedness of the PICU team before the surge of cases of COVID-19 and the organizational/administrative issues to increase critical beds in a six-bed PICU allocated to adult critical care in a government-funded general hospital in Latin America. We analyzed the prospectively collected administrative/clinical data of severe COVID-19 cases admitted to PICU during the peak of the first wave of the pandemic.

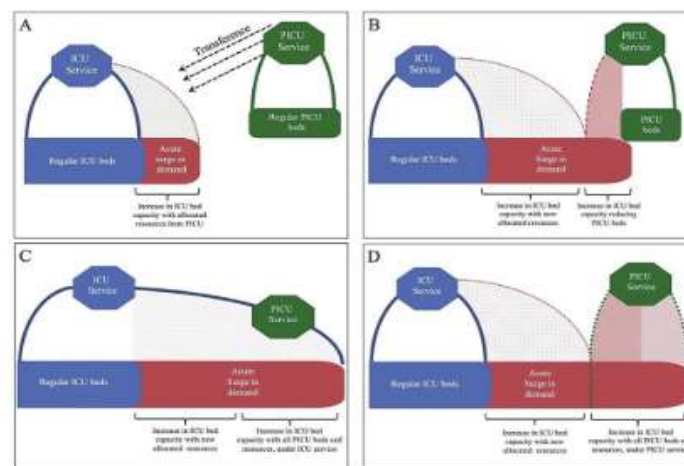
**Results:** We describe a 6-step preparedness plan: recruitment and education, admission criteria, children diversion, team hierarchy, and general and respiratory equipment. The 6-bed PICU was allocated to adult care for 20 weeks, progressively increasing capacity to a 23-bed dedicated COVID-19 unit managed by the PICU team. A six-block bed organizational units were implemented, and personnel increased from 40 to 125 healthcare workers in 24 h shifts. COVID-19 incidence in personnel was 0.5/1000 workdays. One hundred thirty-six patients were admitted, median age 59 (51,65) years old, 68% were male, and 63% had P/F ≤ 100. In addition, 48% received mechanical ventilation, the median length of stay was 7 (3,17), and in-hospital mortality was 15%.

**Conclusions:** We propose an organizational framework for the role of PICU in the hospital action plan to increase adult critical beds. The cohort of patients admitted to a PICU repurposed as a COVID-19 ICU had good outcomes. These data are valuable to plan coordinated actions of the healthcare system for future scenarios.

**Table 1**

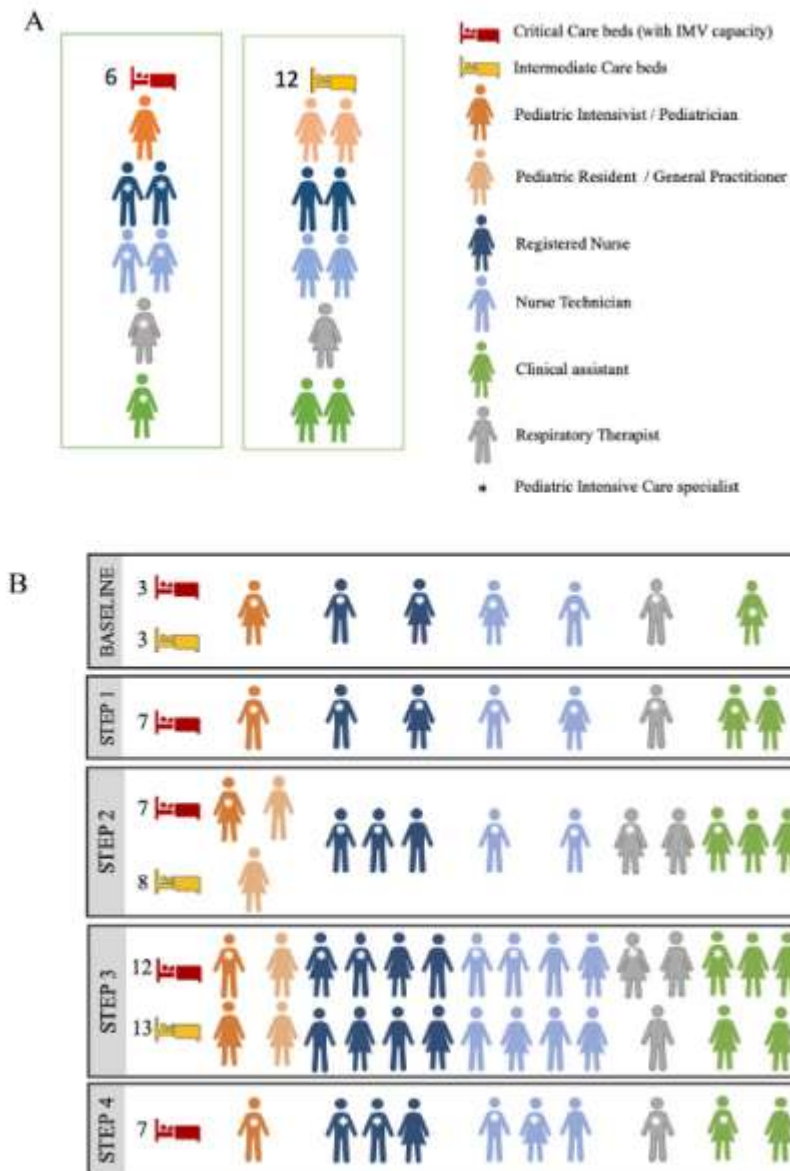
Action plan for PICU bed conversion to adult critical COVID-19 unit.

- Recruitment of new healthcare workers inside and outside the hospital.
- Organization of backup personnel from less complex units.
- Education of specific care of adult patients, i.e., mechanical ventilation in obese patients, sedation scales in adults, vasoactive support, and deep vein thrombosis prophylaxis.
- Education capsules on the assembly of mechanical ventilators and other equipment for physicians and nurses, given the possibility of the lack of ventilatory therapists in the team.
- Hands-on training on the use of personal protective equipment.
- Self-financed acquisition of personal protection elements (protection goggles, half and full-face reusable mask with filters) for all unit personnel, anticipating a hospital stock shortage.
- Ask administration for a stock of general and specific supplies to take care of critically ill adults, i.e., filters for mechanical ventilators, larger diameter tracheal tubes.
- Adaptation to available technological resources.
- Psychological preparation.
- Establish leadership in groups/shifts.
- Transfer of high-risk children to long-term facilities or their homes, using complex home care services.
- Continuous review of the experiences and lessons of the countries where pandemic waves preceded ours, like Italy, Spain, the UK, USA.



**Fig. 3.** Organizational Framework for Pediatric Intensive Care Unit response to an acute surge in critical beds in a general hospital. Experience of COVID-19 pandemic.

A. Independent clinical/administrative PICU provides space for critical pediatric patients, but equipment, supplies, and human resources are transferred to ICU to meet demand. B. Limited opening of critical PICU beds to adult patients, reduced pediatric quotas are maintained. Independent clinical/administrative PICU. Acute increase of ICU required. C. Full incorporation of PICU to ICU. Medical staff and health professionals to ICU administrative/clinical structure. There are no critical pediatric beds, and seriously ill children must be referred to other centers. D. PICU beds are converted in their entirety to adult but maintain clinical/administrative independence. Therefore, there are no critical pediatric beds, and seriously ill children must be referred to other centers.



**Fig. 1.** Distribution of healthcare personnel by shift according to the number of critical beds. (A) The proposed arrangement of six-bed structured progressive tiers. (B) The actual number of beds and healthcare workers to balance the patient complexity, equipment, and available personnel during the study period.

## Preparedness Emergency Response Research Centers (PERRCs): Addressing Public Health Preparedness Knowledge Gaps Using a Public Health Systems Perspective

[Elena Savoia](#), MD, MPH, [Stefano Guicciardi](#), MD, [Dorothy Pordon Bernard](#), MPH, [Nigel Harriman](#), BS, [Mary Leinhos](#), PhD, and [Marcia Testa](#), PhD, MPH

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Evaluating the impact of research investments in the creation of knowledge in any area of work is challenging; even more so is evaluating the impact of research programs in emerging fields because of a lack of preexisting data and parameters. In the case of public health emergency preparedness (PHEP), the major difficulty is that this field of research is vast in terms of the number of disciplines included, and it comprises a variety of methods. Such methods are often tailored to address the diversity of local practice needs within specific public health systems, frequently leading to limited applicability and transferability to other geographic areas or response settings.

In 2008, the Centers for Disease Control and Prevention (CDC) created the Preparedness Emergency Response Research Centers (PERRCs) program to address public health preparedness knowledge gaps using a public health systems perspective. This program represents the first major federal investment in public health systems research in preparedness and to our knowledge is the largest worldwide. It's been a decade since the start of this initiative, and we believe evaluation efforts are necessary to determine how to plan, organize, and advance future research in PHEP. In this editorial, we embrace the challenge to evaluate and discuss the contribution of the PERRCs program to knowledge production in this field.



# Structure of Japan's basic disaster management plan

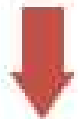
## Countermeasures common to all disaster types

### Natural disasters

- Earthquakes
- Tsunamis
- Windstorms and flooding
- Volcanic eruptions
- Snowstorms

### Accidents

- Maritime
- Aviation
- Nuclear
- Hazardous materials
- Railroad
- Road
- Large-scale fires
- Forestfires



### Description following each disaster phase



### Description of concrete countermeasures to be taken by, and responsibilities of stakeholders



# Towards an All-Hazards Approach to Emergency Preparedness and Response

## Lessons Learnt from Non-Nuclear Events





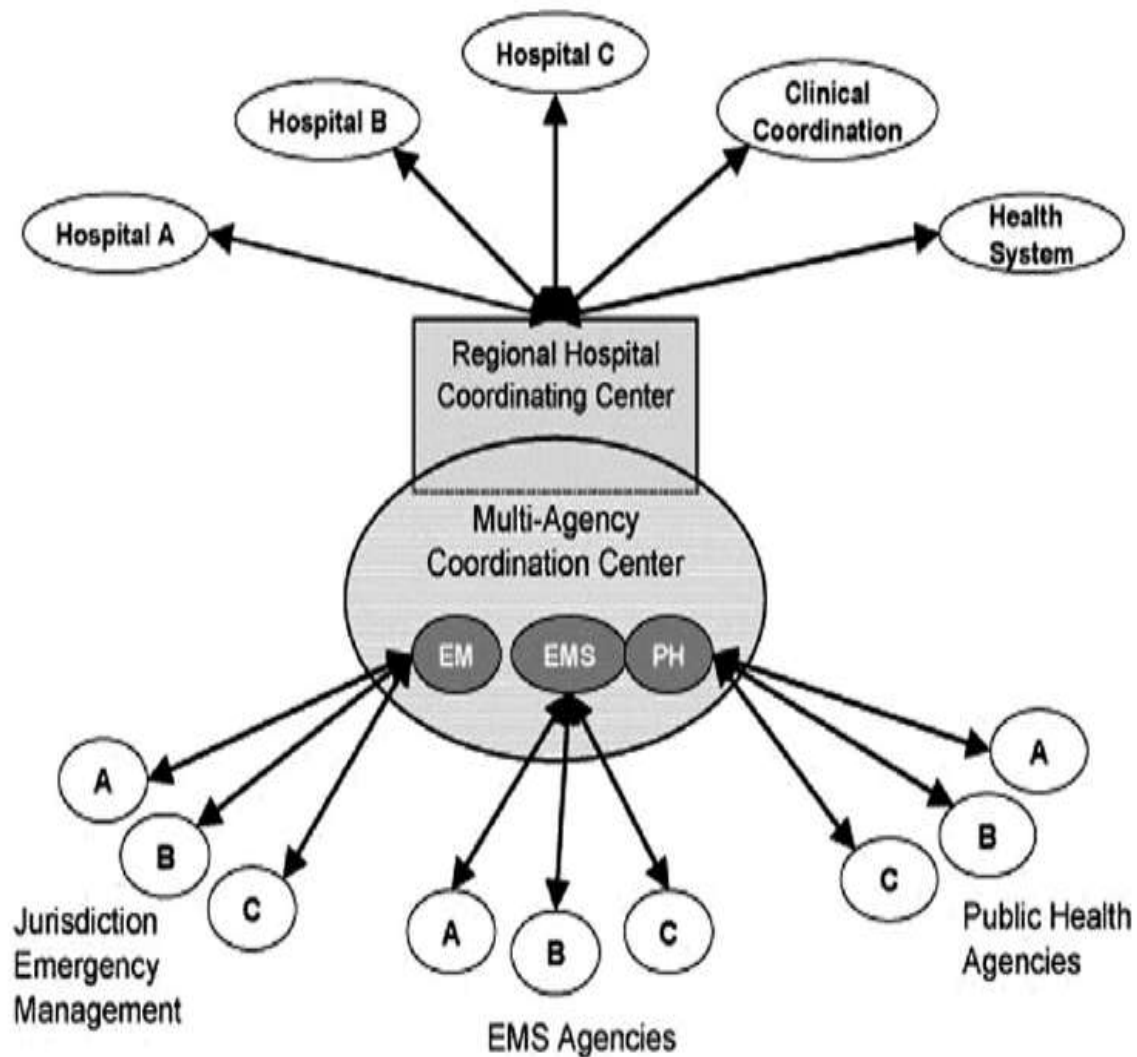
## Βήμα – βήμα.



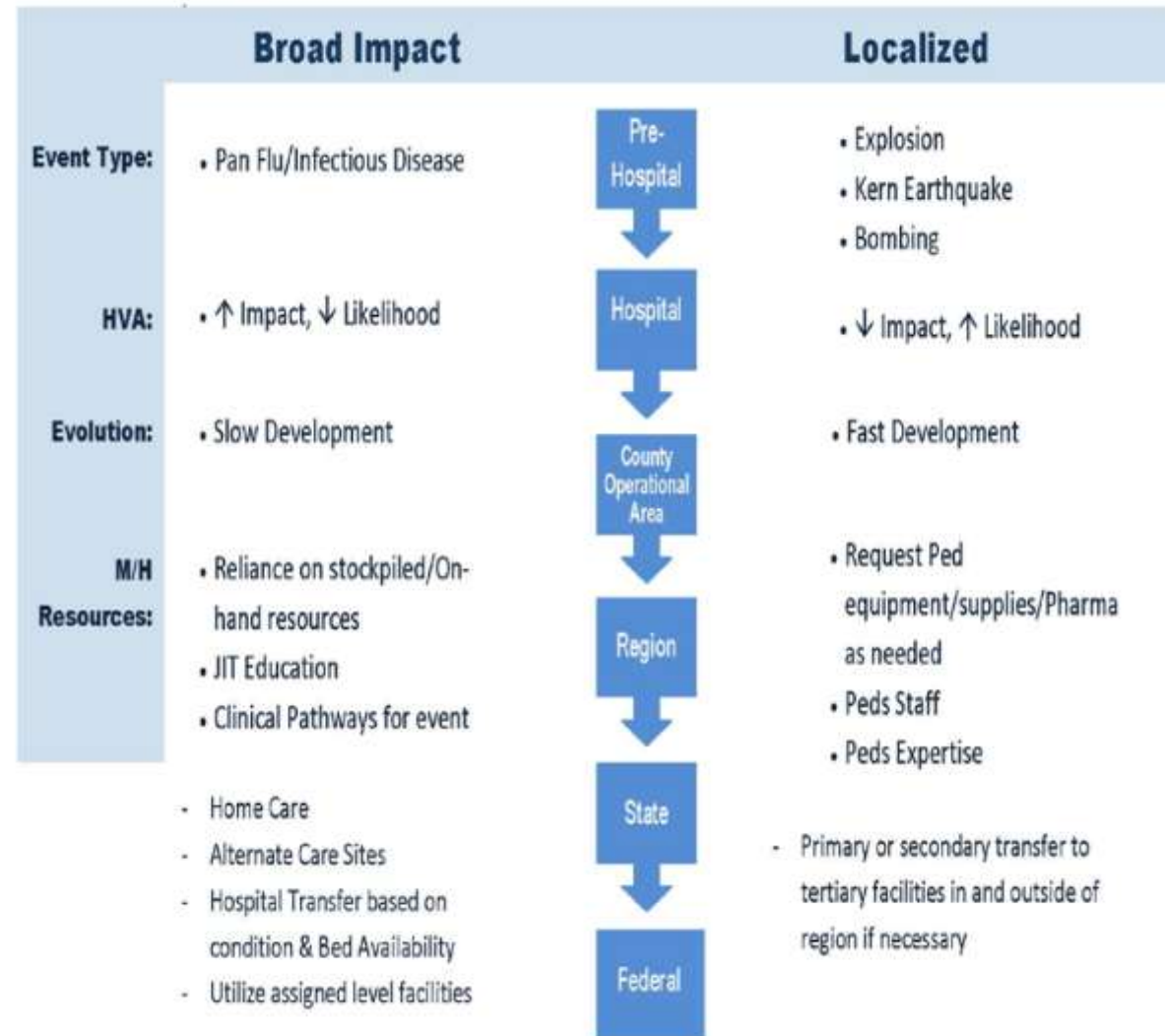
- Η παραπάνω λίστα των 10 αντικειμένων μπορεί να χρησιμοποιηθεί σαν σημείο αναφοράς για επαγγελματίες υγείας οι οποίοι έρχονται πρώτη φορά σε επαφή με ένα οργανωμένο σχέδιο αντιμετώπισης μαζικών καταστροφών στην παιδική ηλικία.
- Βοηθά στην αναγνώριση των σημαντικότερων σημείων για την προετοιμασία των δομών υγείας, των κοινοτικών δομών αλλά και των οικογενειών.
- Βοηθά στο σχεδιασμό ενός ρεαλιστικού πλάνου αντιμετώπισης ΜΚ με τις υπάρχουσες δομές.

- ☐ Develop a disaster response plan.  
(Who will do what when disaster strikes?)
- ☐ Coordinate disaster management with federal, state, and local agencies, as well as with contracted providers. (Have memoranda of understanding in place before a disaster occurs.)
- ☐ Train staff members to carry out the plan.
- ☐ Conduct exercises to practice and improve the plan.
- ☐ Plan to track and communicate with families during and after a disaster.
- ☐ Plan to preserve and access essential records during and after a disaster.
- ☐ Plan to accommodate children and families entering the state during disasters elsewhere.
- ☐ Ensure that families have adequate individual disaster plans.
- ☐ Plan to get necessary funds to children and families during and after a disaster.
- ☐ Plan to help children and families being served to recover from the effects of a disaster.

# Συντονισμός & Συνεργασία



## Pediatric Event



## Pediatric Hospital-Based Triage

### Step 1: Is decontamination required?

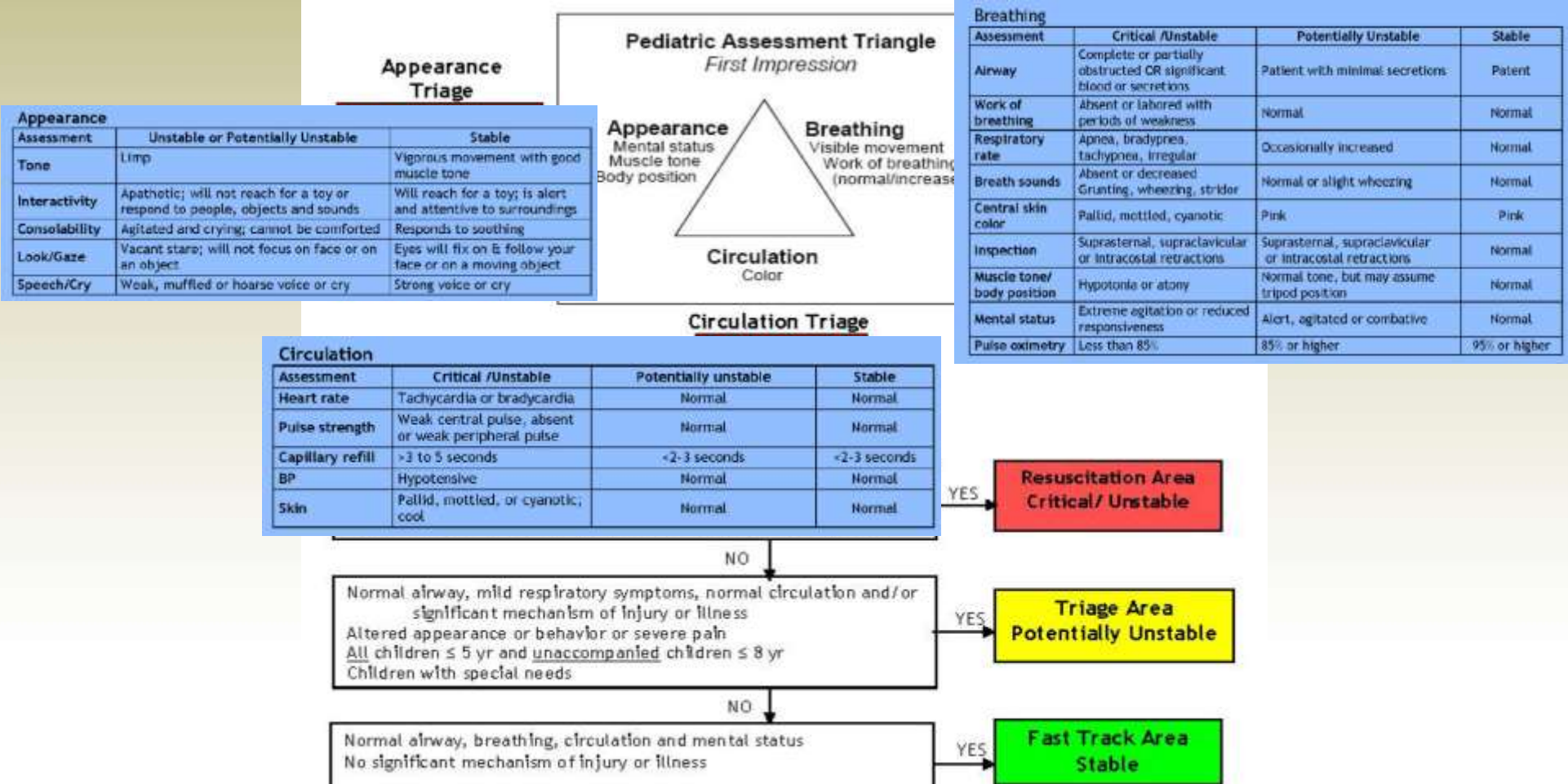
**YES**, Decontamination IS required:

1. Assessment and triage by Visual Inspection Officer 1 outside facility
2. Decontamination procedure outside
3. Reassessment and triage by Visual Inspection Officer 2 inside facility

**NO**, Decontamination is **NOT** required:

1. Assessment by Visual Inspection Officer 2
2. Triage to appropriate clinical care area

### Step 2: Visual inspection triage via Pediatric Assessment Triangle (PAT)



## NORMAL PEDIATRIC VITAL SIGNS

|                           | HR<br>Beats/<br>min | RR<br>Breaths<br>/min | BP (sys)<br>mm/Hg | BP (dias)<br>mm/Hg |
|---------------------------|---------------------|-----------------------|-------------------|--------------------|
| Newborn<br>0-1 month      | 100-180             | 30-60                 | 73-92             | 52-65              |
| Infant<br>1-12 months     | 80-150              | 30-60                 | 90-109            | 53-67              |
| Toddler<br>1-3 years      | 75-130              | 25-35                 | 95-105            | 56-68              |
| Pre-School<br>3-5 years   | 75-120              | 22-32                 | 99-110            | 55-70              |
| School Age<br>5-11 years  | 70-110              | 20-30                 | 97-118            | 60-76              |
| Adolescent<br>13-18 years | 65-105              | 16-22                 | 110-133           | 63-83              |

## GLASGOW COMA SCORE (GCS)

| Category                   | For Patients <2 Years Old                                                                                                                             | For Patients >2 Years Old                                                                                                         |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye Opening (E)</b>     | (4) Spontaneous<br>(3) To speech<br>(2) To pain<br>(1) None                                                                                           | (4) Spontaneous<br>(3) To speech<br>(2) To pain<br>(1) None                                                                       |
| <b>Verbal Response (V)</b> | (5) Coos, babbles<br>(4) Irritable, cries<br>(3) Cries to pain<br>(2) Moans to pain<br>(1) None                                                       | (5) Oriented<br>(4) Confused<br>(3) Inappropriate words<br>(2) Incomprehensible<br>(1) None                                       |
| <b>Motor Response (M)</b>  | (6) Normal spontaneous movements<br>(5) Withdraws from touch<br>(4) Withdraws from pain<br>(3) Abnormal flexion<br>(2) Abnormal extension<br>(1) None | (6) Obeys commands<br>(5) Localizes to pain<br>(4) Withdrawal to pain<br>(3) Flexion to pain<br>(2) Extension to pain<br>(1) None |

Sources for the Pediatric Surge Quick Reference Guide can be found online at:  
<http://ems.dhs.lacounty.gov>  
[www.CHLA.org/DisasterCenter](http://www.CHLA.org/DisasterCenter)

Guide last updated 11.27.12



## Pediatric Surge Quick Reference Guide

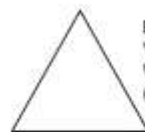
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## PEDIATRIC RISKS DURING DISASTERS

| System / Area    | Risk                                                                                                                                                                                                                       |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Respiratory      | <ul style="list-style-type: none"> <li>Higher breaths/minute increases exposure to inhaled agents.</li> <li>Nuclear fallout and heavier gases settle lower to the ground and may affect children more seriously</li> </ul> |
| Gastrointestinal | <ul style="list-style-type: none"> <li>May be more at risk for dehydration from vomiting and diarrhea after exposure to contamination</li> </ul>                                                                           |
| Skin             | <ul style="list-style-type: none"> <li>Higher body surface area increases risk of skin exposure</li> <li>Skin is thinner and more susceptible to injury from burns, chemicals and absorbable toxins</li> </ul>             |
| Endocrine        | <ul style="list-style-type: none"> <li>Increased risk of thyroid cancer from radiation exposure</li> </ul>                                                                                                                 |
| Thermoregulation | <ul style="list-style-type: none"> <li>Less able to cope with temperature problems with higher risk of hypothermia</li> </ul>                                                                                              |
| Development      | <ul style="list-style-type: none"> <li>Less capability to escape environmental dangers or anticipate hazards</li> </ul>                                                                                                    |
| Psychological    | <ul style="list-style-type: none"> <li>Prolonged stress from critical incidents</li> <li>Susceptible to separation anxiety</li> </ul>                                                                                      |

## PEDIATRIC ASSESSMENT TRIANGLE (PAT)

**AIRWAY & APPEARANCE**  
 Mental status  
 Muscle tone  
 Body position



**BREATHING**  
 Visible movement  
 Work of breathing  
 (normal/increased)

**CIRCULATION**  
 Color

| Component   | Abnormal Signs                                                                                                                               |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Appearance  | Abnormal or absent cry or speech, Decreased response to parents or environmental stimuli, Floppy or rigid muscle tone or not moving          |
| Breathing   | Increased/excessive (nasal flaring, accessory retractions or abdominal muscle use) or decreased/absent respiratory effort or noisy breathing |
| Circulation | Cyanosis, mottling, paleness/pallor or obvious significant bleeding                                                                          |

## PEDIATRIC SIGNS OF RESPIRATORY DISTRESS AND RESPIRATORY FAILURE

Respiratory distress is apparent when a child fails to maintain adequate gas exchange. As the child tires, effort and/or function deteriorate and gas exchange cannot be maintained.

Respiratory failure requires intervention to prevent deterioration to cardiac arrest.

Indicators may vary with severity.

| Respiratory Distress                                       | Respiratory Failure                           |
|------------------------------------------------------------|-----------------------------------------------|
| Tachypnea                                                  | Marked Tachypnea (early)                      |
| Increased respiratory effort (nasal flaring, retractions)  | Increased, decreased or no respiratory effort |
| Inadequate respiratory effort (hypoventilation, bradypnea) | Bradypnea, apnea (late)                       |
| Abnormal airway sounds (stridor, wheezing, grunting)       | Poor to absent distal air movement            |
| Tachycardia                                                | Tachycardia (early), Bradycardia (late)       |
| Pale, cool skin                                            | Cyanosis                                      |
| Changes in level of consciousness                          | Stupor, coma (late)                           |

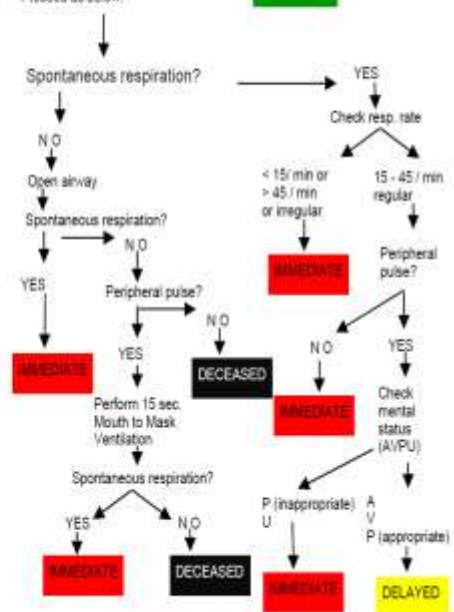
## JUMPSTART FIELD PEDIATRIC MULTICASUALTY TRIAGE SYSTEM

Patients aged 1-8 years

Identify and direct all ambulatory patients to designated Green area for secondary triage and treatment. Begin assessment of nonambulatory patients as you come to them.

Proceed as below:

Black = Deceased / expectant  
 Red = Immediate  
 Yellow = Delayed  
 Green = Minor / Ambulatory



## TREATMENT PRIORITIZATION

| Triage category                | Description                                                                                                                                                                              |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Green Minor</b>             | Patients with mild injuries that are self-limited and can tolerate a delay in care without increasing mortality risk                                                                     |
| <b>Yellow Delayed</b>          | Remaining patients who do not fit in the Red or Green categories                                                                                                                         |
| <b>Red Immediate</b>           | Patients who do not obey commands <u>Or</u> do not have a peripheral pulse, <u>Or</u> are in respiratory distress, <u>Or</u> have uncontrolled major hemorrhage                          |
| <b>Black Expectant or Dead</b> | <b>Expectant:</b> Patients who have injuries incompatible with life given the current available resources<br><b>Dead:</b> Patients who are not breathing after life-saving interventions |



## USING KILOGRAMS

|                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Weigh all children in kilograms.<br/>1kg = 2.2 lbs</p>                                                                                                           |
| <p><b>Method to estimate weight:</b><br/>Newborn (term): usually 3 kg<br/>1-10 yrs: age multiplied by 2 + 10 (kg)<br/>&gt;10 yrs: age multiplied by 2 + 20 (kg)</p> |
| <p>If available, a Broselow Tape may be used for weight estimation.</p>                                                                                             |

## DAILY MAINTENANCE FLUID AND ELECTROLYTE REQUIREMENTS

|                                                   | Calculation                                                                                                                                 |
|---------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Fluids per hour                                   | 4mL/kg/hr for first 10kg of weight<br>2mL/kg/hr for next 10 kg of weight<br>1mL/kg/hr for each kg over 20kg                                 |
| Fluids per 24 hour period                         | 100mL/kg for the first 10kg body weight<br>1000mL + 50mL/kg for the next 10kg body wt<br>1500mL + 20mL for each kg of body weight over 20kg |
| Maintenance electrolyte calculations for IV Fluid | <b>Sodium:</b> 3-4 mEq/kg/day or 30-50 mEq/m2/day<br><b>Potassium:</b> 2-3 mEq/kg/day or 20-40 mEq/m2/day                                   |

## APPROPRIATE INFANT NUTRITION

| Age          |                                                                                                                    |
|--------------|--------------------------------------------------------------------------------------------------------------------|
| Birth - 1 mo | 2-3 ounces (60-90 mL) per feeding breast or bottle every 2-3 hours                                                 |
| 2-4 mos      | 3-4 ounces (90-120 mL) per feeding every 3-4 hours                                                                 |
| 4-6 mos      | 4-5 ounces (120-150 mL) per feeding, four or more times daily<br>Begins baby food, usually rice cereal             |
| 6-8 mos      | 6-8 ounces (180-240 mL) per feeding, four times daily<br>Eats baby food such as rice cereal, fruits and vegetables |
| 8-12 mos     | 6 ounces (180 mL) per feeding, four times a day,<br>Soft finger foods                                              |

Breastfeeding is best—support mothers with safe locations to breastfeed and remain hydrated

## CLINICAL FEATURES OF DEHYDRATION

| Feature           | Mild (<5%)                           | Moderate (5% to 10%)                                      | Severe (>10%)                                                            |
|-------------------|--------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------|
| Heart rate        | Normal                               | Slightly increased                                        | Rapid, weak                                                              |
| Systolic BP       | Normal                               | Normal to orthostatic, >10 mmHg change                    | Hypotension                                                              |
| Urine output      | Decreased                            | Moderately decreased                                      | Markedly decreased, anuria                                               |
| Mucous membranes  | Slightly dry                         | Very dry                                                  | Parched                                                                  |
| Anterior fontanel | Normal                               | Normal to sunken                                          | Sunken                                                                   |
| Tears             | Present                              | Decreased, eyes sunken                                    | Absent, eyes sunken                                                      |
| Skin              | Normal turgor                        | Decreased turgor                                          | Tenting                                                                  |
| Skin perfusion    | Normal capillary refill (<2 seconds) | Capillary refill slowed (2-4 seconds); skin cool to touch | Capillary refill markedly delayed (>4 seconds); skin cool, mottled, gray |

## NORMAL BLOOD VOLUME

Total blood volume varies by weight. Approximate volume is 80mL/kg.

PRBC/Platelet/Albumin 5%/FFP = 10mL/kg

## BURN TREATMENT: FLUID RESUSCITATION

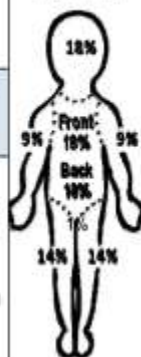
**Fluid Resuscitation Formula** (2-12 yrs)  
3 - 4 mL x kg x %TBSA burn  
(one half over 1st 8h, second 1/2 over next 16h)

**For Infants (0 - 2 years; less than 30 kg):**  
Use maintenance fluid containing 5% dextrose in D5 Lactated Ringer's

### Pediatric Considerations

- Increased fluid requirements relative to adults
- Increased surface area : mass ratio
- Hypoglycemia may occur in infants (<30 kg) due to limited glycogen reserves

Rule of "10" children



## FLUID RESUSCITATION

- Administer 20 mL/kg of isotonic or crystalloid (NS or LR)
- Monitor:
  - Peripheral perfusion
  - Urine output
  - Vital signs
  - LOC
- Repeat bolus if no improvement
- Reassess status

Consider blood products in traumatic injuries requiring >40-60 mL/kg of fluid

## HYPVOLEMIC SHOCK

- Hypovolemic shock is the most common type of shock in children.
- Children increase their cardiac output by tachycardia, therefore bradycardia is an ominous sign.

Look for:

Slow irregular breathing, grunting, bradycardia, cyanosis, hypotension, decreased LOC

## NORMAL DEVELOPMENT

| Age       | Gross Motor Skills                     | Fine Motor Skills                              |
|-----------|----------------------------------------|------------------------------------------------|
| 2 months  | Flexed position when prone             | Inhibited grasp reflex                         |
| 4 months  | Rolls from front to back, back to side | Carries object to mouth                        |
| 6 months  | Rolls from back to abdomen             | Holds bottle                                   |
| 9 months  | Sits steady, creeps or crawls          | Holds objects in both hands and bangs together |
| 12 months | Cruises well                           | Bangs 2 blocks Together                        |
| 15-18 mos | Pushes and pulls toys                  | Uses cup well, some spoon agility              |
| 2 years   | Runs well with wide stance             | Turns doorknob and unscrews lids               |
| 3 years   | Climbs stairs alternating feet         | Copies circles and cross                       |
| 4 years   | Hops, jumps, and skips on one foot     | Draws person with greater than 3 body parts    |
| 5 years   | Skips alternating feet                 | Prints some letters                            |

## EQUIPMENT ESTIMATIONS

Method to estimate Endotracheal Tube (ETT) size:

Tube diameter (mm) = [16 + age(y)] / 4

ETT Depth in cm at lip = 3x ETT size

## EQUIPMENT SIZES: NEWBORN - 6

| Equipment  | New-born   | 3-6 mos    | 1 year     | 2-3 yrs    | 4-6 yrs       |
|------------|------------|------------|------------|------------|---------------|
| Weight     | 3 kg       | 5 kg       | 10 kg      | 15 kg      | 20 kg         |
| ETT        | 3-3.5      | 3.5-4.0    | 4-4.5      | 4.5-5.0    | 5.0-5.5       |
| L Blade    | Miller 0-1 | Miller 0-1 | Miller 0-1 | Miller 1-2 | Miller 2      |
| Suction    | 6-8 Fr     | 8-10 Fr    | 10 Fr      | 10 Fr      | 10 Fr         |
| NG Tube    | 5-8 Fr     | 5-8 Fr     | 8-10 Fr    | 10-12 Fr   | 12-14 Fr      |
| Foley      | 6-8 Fr     | 6-8 Fr     | 8-10 Fr    | 10-12 Fr   | 10-12 Fr      |
| Chest Tube | 10-12 Fr   | 12-16 Fr   | 16-20 Fr   | 20-24 Fr   | 24-32 Fr      |
| LMA (cuff) | 1 (4 mL)   | 1.5 (7 mL) | 2 (10 mL)  | 2 (10 mL)  | 2-2.5 (14 mL) |

## EQUIPMENT SIZES: 7 YEARS - OLDER

| Equipment  | 7-9 yrs      | 10-12 yrs    | 13-15 yrs    | >15 yrs        |
|------------|--------------|--------------|--------------|----------------|
| Weight     | 25 kg        | 30 kg        | 40 kg        | > 50 kg        |
| ETT        | 5.5-6.0 cuff | 6.0-6.5 cuff | 7.0-7.5 cuff | 7.5-8.0 cuff   |
| L Blade    | Miller 2     | Miller 2-3   | Miller 3     | Miller 3       |
| Suction    | 10 Fr        | 10 Fr        | 12 Fr        | 12-14 Fr       |
| NG Tube    | 12-14 Fr     | 14-26 Fr     | 14-16 Fr     | 16-18 Fr       |
| Foley      | 12 Fr        | 12 Fr        | 12-14 Fr     | 12-14 Fr       |
| Chest Tube | 28-32 Fr     | 28-32 Fr     | 32-40 Fr     | 32-40 Fr       |
| LMA (cuff) | 2.5 (17 mL)  | 3 (20 mL)    | 3 (20 mL)    | 4-6 (30-50 mL) |



# PEWS...

## Pediatric Early Warning Score Card

### Pediatric Early Warning Score Card

|                                                                                                       | 3                                                                                                                                                              | 2                                                                                                                                                                                    | 1                                                                                                                                                                                                        | 0                                                                                           | Score * |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|
| <b>Behavior</b>                                                                                       | <ul style="list-style-type: none"><li>• Lethargic, confused, or</li><li>• Reduced pain response</li></ul>                                                      | <ul style="list-style-type: none"><li>• Irritable or agitated and <b>not</b> consolable</li></ul>                                                                                    | <ul style="list-style-type: none"><li>• Sleeping or</li><li>• Irritable and consolable</li></ul>                                                                                                         | <ul style="list-style-type: none"><li>• Playing</li><li>• Appropriate for patient</li></ul> |         |
| <b>Cardiovascular</b>                                                                                 | <ul style="list-style-type: none"><li>• Grey or</li><li>• CRT <math>\geq 5</math> or</li><li>• Tachycardia 30 above or</li><li>• Bradycardia for age</li></ul> | <ul style="list-style-type: none"><li>• CRT 4 seconds or</li><li>• Tachycardia of 20 above normal parameters</li></ul>                                                               | <ul style="list-style-type: none"><li>• Pale or</li><li>• CRT 3 seconds</li></ul>                                                                                                                        | <ul style="list-style-type: none"><li>• Pink, CRT 1-2 seconds</li></ul>                     |         |
| <b>Respiratory</b>                                                                                    | <ul style="list-style-type: none"><li>• 5 below normal with retractions and/or</li><li>• <math>\geq 50\%</math> FiO2</li></ul>                                 | <ul style="list-style-type: none"><li>• <math>&gt; 20</math> above normal</li><li>• Using accessory muscles or</li><li>• 40%-49% FiO2 or</li><li>• <math>\geq 3</math> LPM</li></ul> | <ul style="list-style-type: none"><li>• <math>&gt; 10</math> above normal</li><li>• Using accessory muscles or</li><li>• 24-40% FiO2 or <math>\geq 2</math> LPM</li><li>• Any initiation of O2</li></ul> | <ul style="list-style-type: none"><li>• WNL for age</li><li>• No retractions</li></ul>      |         |
| * Add 2 points for frequent interventions (suction, positioning, O2 changes) or multiple IV attempts. |                                                                                                                                                                |                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                             |         |
| <b>TOTAL</b>                                                                                          |                                                                                                                                                                |                                                                                                                                                                                      |                                                                                                                                                                                                          |                                                                                             |         |

\*\* Parental concern should be an automatic call to the Rapid Response Team.

Score  $\geq 7$  Assmt. every 30 mins. • Score 6 Assmt. every 1 hour. • Score 5 Assmt. every 1-2 hours. • Score 0-4 Assmt. every 4 hours.

**Figure 1-1. Algorithm for hospital decontamination of pediatric patients.**

**Note:** Children and their families (parents or caregivers) should not be separated unless critical medical issues take priority

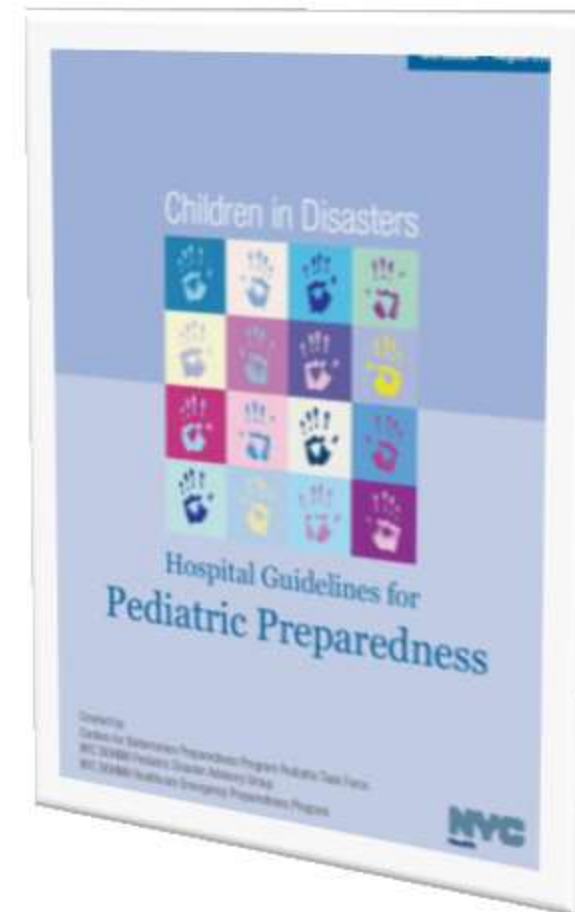
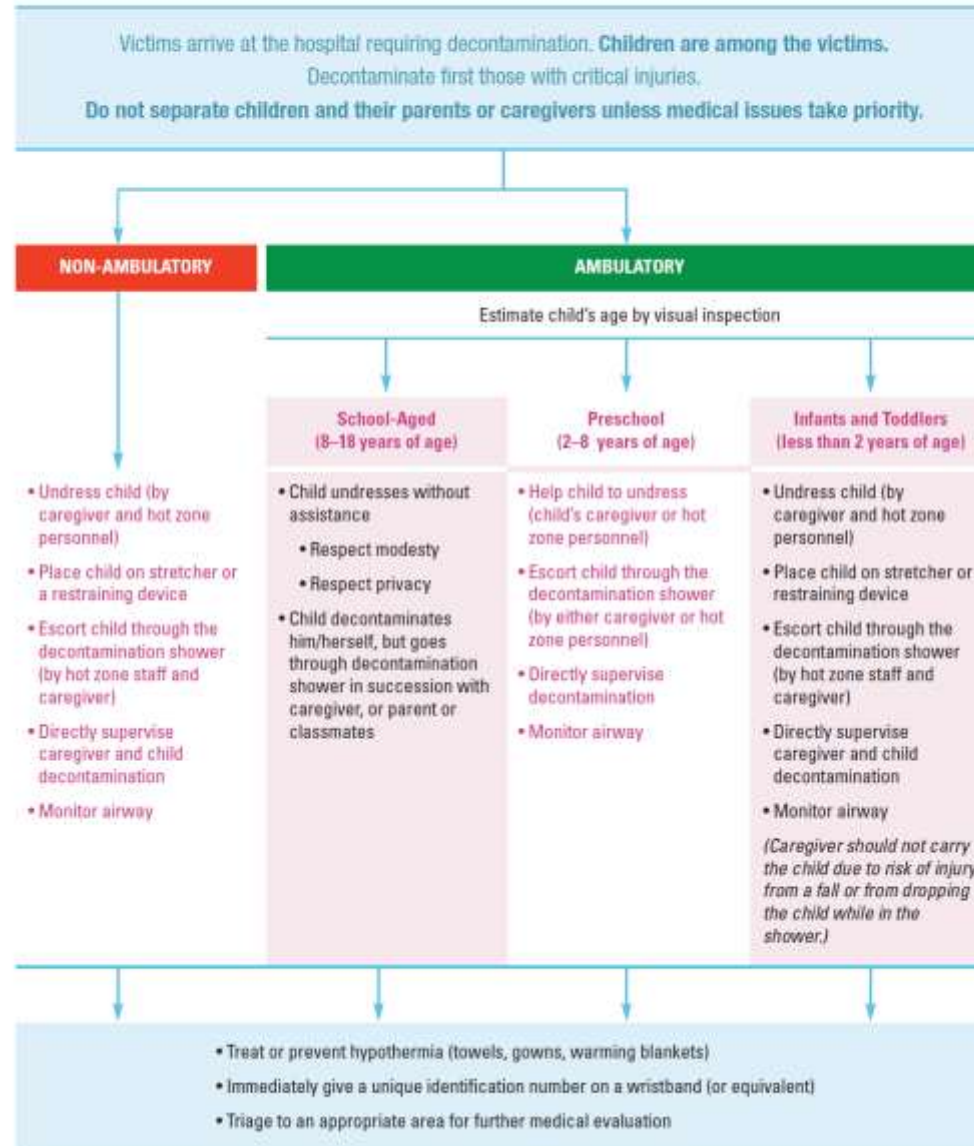
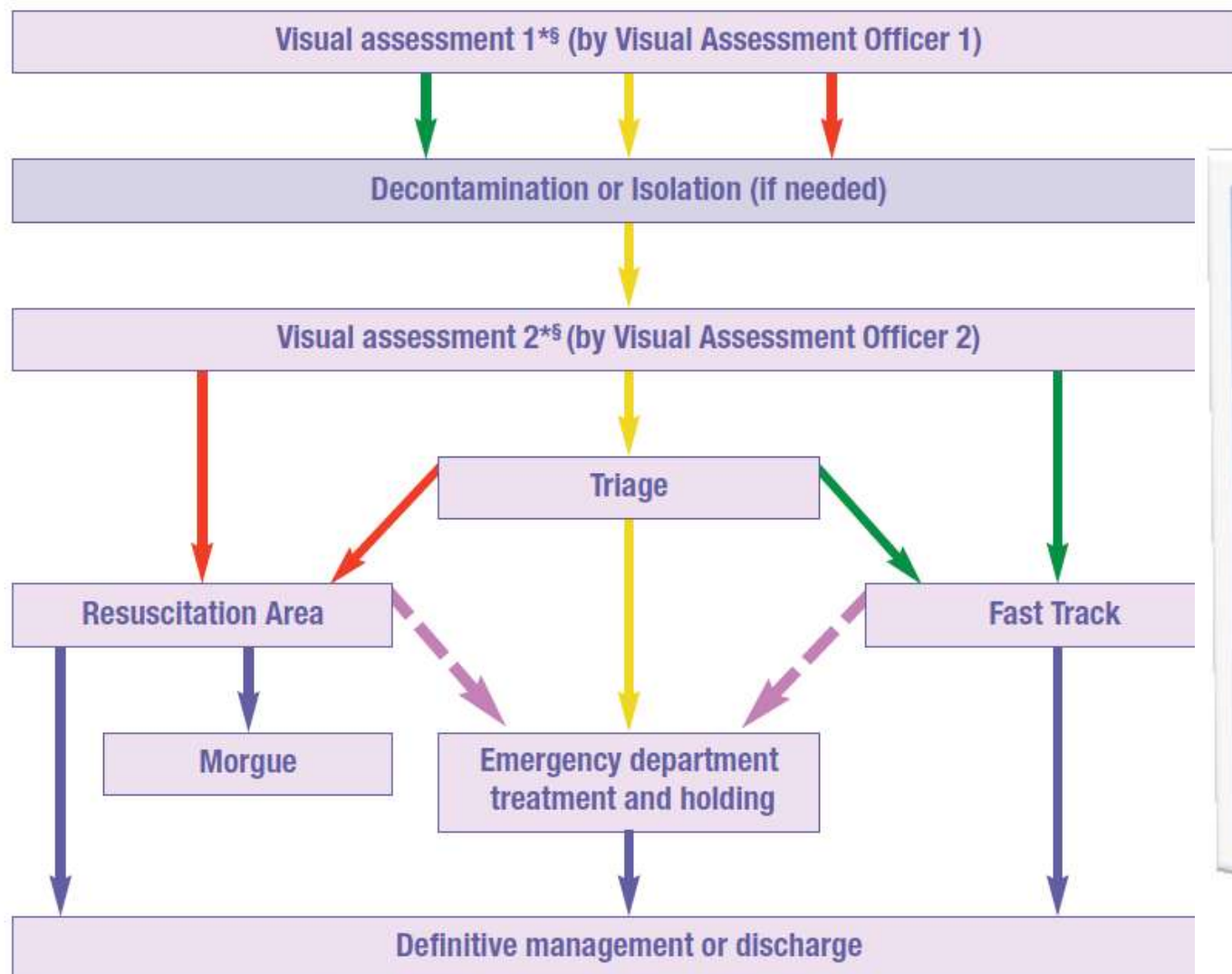
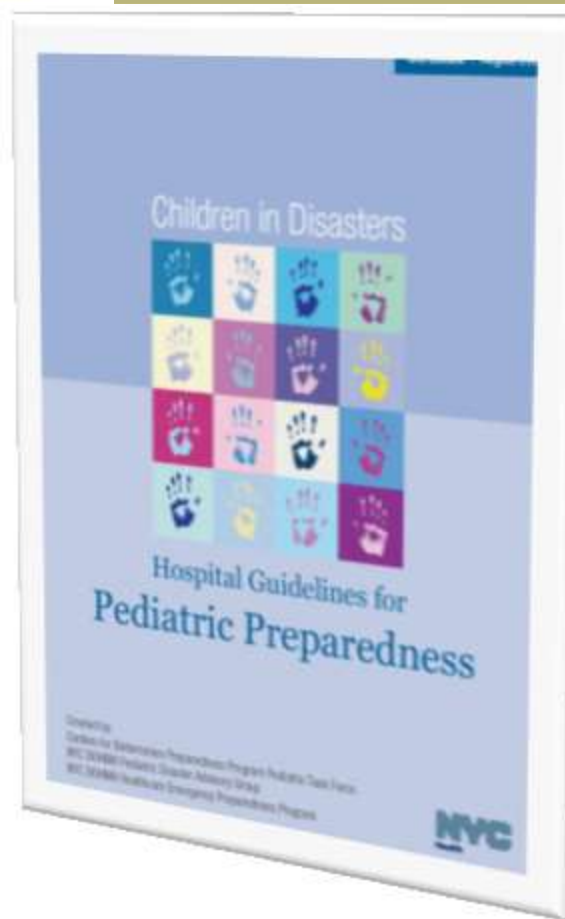


Figure 13-1. Overview of Tier 1 and Tier 2 triage for adults and children.



\*See text in this section for details on pediatric assessment

§Visual assessment 2 is only necessary if used for reassessment inside the hospital (for example, post-decontamination)



# Προνοσοκομειακή φροντίδα



## Παραδείγματα οδηγιών:

- Τα παιδιά στα καταφύγια είναι δυνητικά θύματα.
  - Διαμορφώστε συνθήκες ασφάλειας για την προστασία των παιδιών από έκθεση σε ναρκωτικά, σωματική βία ή σεξουαλική κακοποίηση.
- Σε συνθήκες μαζικών καταστροφών, εξαιτίας του υψηλού επιπέδου άγχους και ανασφάλειας.
  - Αναλογιστείτε την περίπτωση εμφάνισης ενδοοικογενειακής βίας και πάρτε κατάλληλα μέτρα πρόληψης ή/και έγκαιρης αναγνώρισης.
- Το δικαίωμα του παιδιού στο παιχνίδι πρέπει να ικανοποιείται ακόμη και σε συνθήκες καταυλισμού.
  - Διαμορφώστε χώρους στα καταφύγια όπου τα παιδιά μπορούν να παίξουν και να απασχοληθούν δημιουργικά.



## Οδηγίες για την προετοιμασία των παιδιατρικών νοσοκομείων για την υποδοχή των ασθενών (I)

- Κάθε νοσοκομείο το οποίο διαθέτει υποδομές παιδιατρικής ή/και νεογνικής ΜΕΘ θα πρέπει να είναι προετοιμασμένο για την υποδοχή μαζικά ασθενών σε περίπτωση ΜΚ και να διαθέτει αντίστοιχο σχέδιο οργάνωσης και αναδιαμόρφωσης των υπηρεσιών του μόνο του ή σε συνεργασία με άλλα κέντρα και ανάλογα με την έκταση του συμβάντος.
  - Τα νοσοκομεία τα οποία διαθέτουν κατάλληλες υποδομές έχουν καθήκον και ευθύνη να είναι προετοιμασμένα κατάλληλα για την παροχή μαζικής εντατικής φροντίδας σε περίπτωση ανάγκης.
- Τα νοσοκομεία τα οποία διαθέτουν δομές ΜΕΘ θα πρέπει να είναι προετοιμασμένα ώστε σε περίπτωση ΜΚ να μπορούν να παρέχουν εντατική φροντίδα σε διπλάσιο έως και τριπλάσιο αριθμό ατόμων σε σχέση με τις κλίνες ΜΕΘ που διαθέτουν.
  - Απαιτήσεις για μεγαλύτερη ελαστικότητα δεν θεωρούνται ρεαλιστικές λόγω των περιορισμένων πόρων των παιδιατρικών νοσοκομείων.
- Τα παιδιατρικά νοσοκομεία θα πρέπει να είναι ανά πάσα στιγμή προετοιμασμένα να παρέχουν εντατική παιδιατρική φροντίδα σε παιδιά 2-3 φορές περισσότερα από το σύνολο των διαθέσιμων κλινών για διάστημα τουλάχιστον 10 ημερών χωρίς εξωτερική προμήθεια υλικού.



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# Supplies and equipment for pediatric emergency mass critical care

Desmond Bohn, MB; Robert K. Kanter, MD; Jeffrey Burns, MD; Wanda D. Barfield, MD, MPH, FAAP; Niranjana Kissoon, MD, FRCP(C), FAAP, FCCM, FACPE; for the Task Force for Pediatric Emergency Mass Critical Care

Table 2. Minimal mass critical care equipment needs for a surge population whose age distribution is similar to ordinary everyday pediatric population

| Item                             |               |     |
|----------------------------------|---------------|-----|
| Respiratory                      |               |     |
| Oral airway                      |               | 21  |
|                                  |               | 7   |
|                                  |               | 18  |
|                                  |               | 13  |
| Self-inflatable bag              | Small adult   | 9   |
|                                  | Adult         | 24  |
|                                  | Child         | 22  |
|                                  | Adult         | 21  |
| Resuscitation mask               | Infant        | 17  |
|                                  |               | 13  |
|                                  |               | 13  |
|                                  |               | 9   |
| Oxygen mask                      |               | 21  |
|                                  |               | 24  |
|                                  |               | 21  |
| Endotracheal tube                |               | 26  |
|                                  |               | 22  |
|                                  |               | 13  |
|                                  |               | 17  |
|                                  |               | 22  |
|                                  |               | 6   |
| Stylette                         |               | 23  |
|                                  |               | 23  |
| Closed-circuit suction catheter  | Adult         | 20  |
|                                  | 6F            | 17  |
|                                  | 8F            | 10F |
|                                  | 10F           | 23  |
|                                  | 12F           | 5   |
| Yankauer suction device          | Standard Size | 26  |
| Ventilator circuit               | Infant        | 8   |
|                                  | Adult         | 18  |
| Other                            |               |     |
| Peripheral intravenous catheters | 24 gauge      | 39  |
|                                  | 22 gauge      | 112 |
|                                  | 20 gauge      | 61  |
|                                  | 18 gauge      | 36  |
|                                  | 16 gauge      | 9   |
| Central venous catheters         | 4F/8 cm       | 1   |
|                                  | 5F/15 cm      | 11  |
|                                  | 7F/30 cm      | 1   |
| Nasogastric tube                 | 5F            | 2   |
|                                  | 8F            | 9   |
|                                  | 10F           | 3   |
|                                  | 12F           | 4   |
|                                  | 14F           | 5   |
|                                  | 18F           | 3   |
| Urinary catheter                 | 5F            | 2   |
|                                  | 8F            | 6   |
|                                  | 10F           | 6   |
|                                  | 12F           | 12  |
| Chest tube                       | 10F           | 1   |
|                                  | 16F           | 1   |
|                                  | 20F           | 1   |
|                                  | 24F           | 1   |
|                                  | 28F           | 2   |
|                                  | 38F           | 1   |
| Blood pressure cuff              | Neonate       | 1   |
|                                  | Infant        | 2   |
|                                  | Child         | 6   |
|                                  | Small adult   | 1   |
|                                  | Adult         | 1   |

Ελάχιστος απαραίτητος εξοπλισμός για την παροχή εντατικής παιδιατρικής φροντίδας σε 10 κλίνες για 10 ημέρες υπό συνθήκες ΜΚ

Παρόμοια ηλικιακή διακύμανση με το συνήθη νοσηλευόμενο πληθυσμό

Ηλικιακή διακύμανση με 75% μιας συγκεκριμένης ηλικιακής ομάδας και 25% με το συνήθη νοσηλευόμενο πληθυσμό

3πλάσιες  
ανάγκες

Table 3. Complete mass critical care equipment needs for a surge population that includes 75% from a specific age group and 25% from the general pediatric population

| Item                             |               | Number of Items per Ten Mass Critical Care Beds Over 10 Days |
|----------------------------------|---------------|--------------------------------------------------------------|
| Respiratory                      |               |                                                              |
| Oral airway                      |               | 21                                                           |
|                                  |               | 7                                                            |
|                                  |               | 18                                                           |
|                                  |               | 13                                                           |
| Self-inflatable bag              | Small adult   | 9                                                            |
|                                  | Adult         | 24                                                           |
|                                  | Child         | 22                                                           |
|                                  | Adult         | 21                                                           |
| Resuscitation mask               | Infant        | 17                                                           |
|                                  |               | 13                                                           |
|                                  |               | 13                                                           |
|                                  |               | 9                                                            |
| Oxygen mask                      |               | 21                                                           |
|                                  |               | 24                                                           |
|                                  |               | 21                                                           |
| Endotracheal tube                |               | 26                                                           |
|                                  |               | 22                                                           |
|                                  |               | 13                                                           |
|                                  |               | 17                                                           |
|                                  |               | 22                                                           |
|                                  |               | 6                                                            |
| Stylette                         |               | 23                                                           |
|                                  |               | 23                                                           |
| Closed-circuit suction catheter  | Adult         | 20                                                           |
|                                  | 6F            | 17                                                           |
|                                  | 8F            | 10F                                                          |
|                                  | 10F           | 23                                                           |
|                                  | 12F           | 5                                                            |
| Yankauer suction device          | Standard size | 26                                                           |
| Ventilator circuit               | Infant        | 22                                                           |
|                                  | Adult         | 24                                                           |
| Other                            |               |                                                              |
| Peripheral intravenous catheters | 24 gauge      | 107                                                          |
|                                  | 22 gauge      | 184                                                          |
|                                  | 20 gauge      | 132                                                          |
|                                  | 18 gauge      | 126                                                          |
|                                  | 16 gauge      | 41                                                           |
| Central venous catheters         | 4F/8 cm       | 10                                                           |
|                                  | 5F/15 cm      | 13                                                           |
|                                  | 7F/30 cm      | 4                                                            |
| Nasogastric tube                 | 5F            | 20                                                           |
|                                  | 8F            | 22                                                           |
|                                  | 10F           | 11                                                           |
|                                  | 12F           | 13                                                           |
|                                  | 14F           | 13                                                           |
|                                  | 18F           | 9                                                            |
| Urinary catheter                 | 5F            | 20                                                           |
|                                  | 8F            | 11                                                           |
|                                  | 10F           | 11                                                           |
|                                  | 12F           | 22                                                           |
| Chest tube                       | 10F           | 5                                                            |
|                                  | 16F           | 3                                                            |
|                                  | 20F           | 3                                                            |
|                                  | 24F           | 3                                                            |
|                                  | 28F           | 3                                                            |
|                                  | 38F           | 1                                                            |
| Blood pressure cuff              | Neonate       | 8                                                            |
|                                  | Infant        | 5                                                            |
|                                  | Child         | 9                                                            |
|                                  | Small adult   | 4                                                            |
|                                  | Adult         | 4                                                            |

# Οδηγίες για την προετοιμασία των παιδιατρικών νοσοκομείων για την υποδοχή των ασθενών (III)

- Η κοινότητα στην περιοχή της οποίας βρίσκεται το νοσοκομείο θα πρέπει να διαθέτει σχέδιο το οποίο να διασφαλίζει την ασφαλή πρόσβαση στο νοσοκομείο ανεξάρτητα από το μέγεθος της καταστροφής.
- Ειδικότερα για την μηχανική υποστήριξη της αναπνοής θα πρέπει να διασφαλίζεται ο τακτικός έλεγχος του εξοπλισμού και η προμήθεια επαρκών αναλώσιμων αλλά και υλικών για υποστήριξη του αναπνευστικού χωρίς παροχή ρεύματος.
- Το νοσοκομείο θα πρέπει να έχει σχεδιάσει πλάνο προμήθειας σημαντικών φαρμακευτικών (αντιβιοτικά, ινότεροπα, αναισθητικά) ή άλλων αναλώσιμων από εξωτερικούς προμηθευτές.



The infographic is titled "Children's Emergency Preparedness: Why CDC Makes It a Priority". It features the CDC logo and the "HELPING CHILDREN" logo. The main heading is "Children's Emergency Preparedness: Why CDC Makes It a Priority".

**The Problem**

A public health emergency—such as a natural disaster, disease outbreak, or terrorist attack—can happen anywhere and at any time. Because children are more vulnerable than adults during disasters, CDC's Children's Preparedness Unit and its partners work to protect children before and during an emergency.

**Why This Is Important**

- Children with disabilities or other special needs are especially vulnerable during disasters.
- Limited emergency resources could be quickly overwhelmed with a surge in the number of patients who are children.
- Communities may face additional challenges protecting children during emergencies because of economic, geographic, or racial/ethnic disparities. For instance, rural communities may have fewer emergency responders, shelters, health facilities or equipment.

**How States and Communities Can Include Children's Health Needs in Emergency Planning**

- Include children's needs in emergency exercises and planning. Children require special attention in all areas of public health response planning for emergencies, including evacuation, safe sheltering, and clean-up of dangerous and toxic substances.
- Train emergency responders to understand children's needs and vulnerabilities. Emergency responders who are trained to focus on children will be better able to make sure children's needs are not overlooked in an emergency.
- Establish connections between emergency response planners and medical professionals. Emergency response planners may not know the roles that children's hospitals and healthcare providers are prepared to play in a health emergency. It is critical that they work together with families to successfully protect children in emergencies.

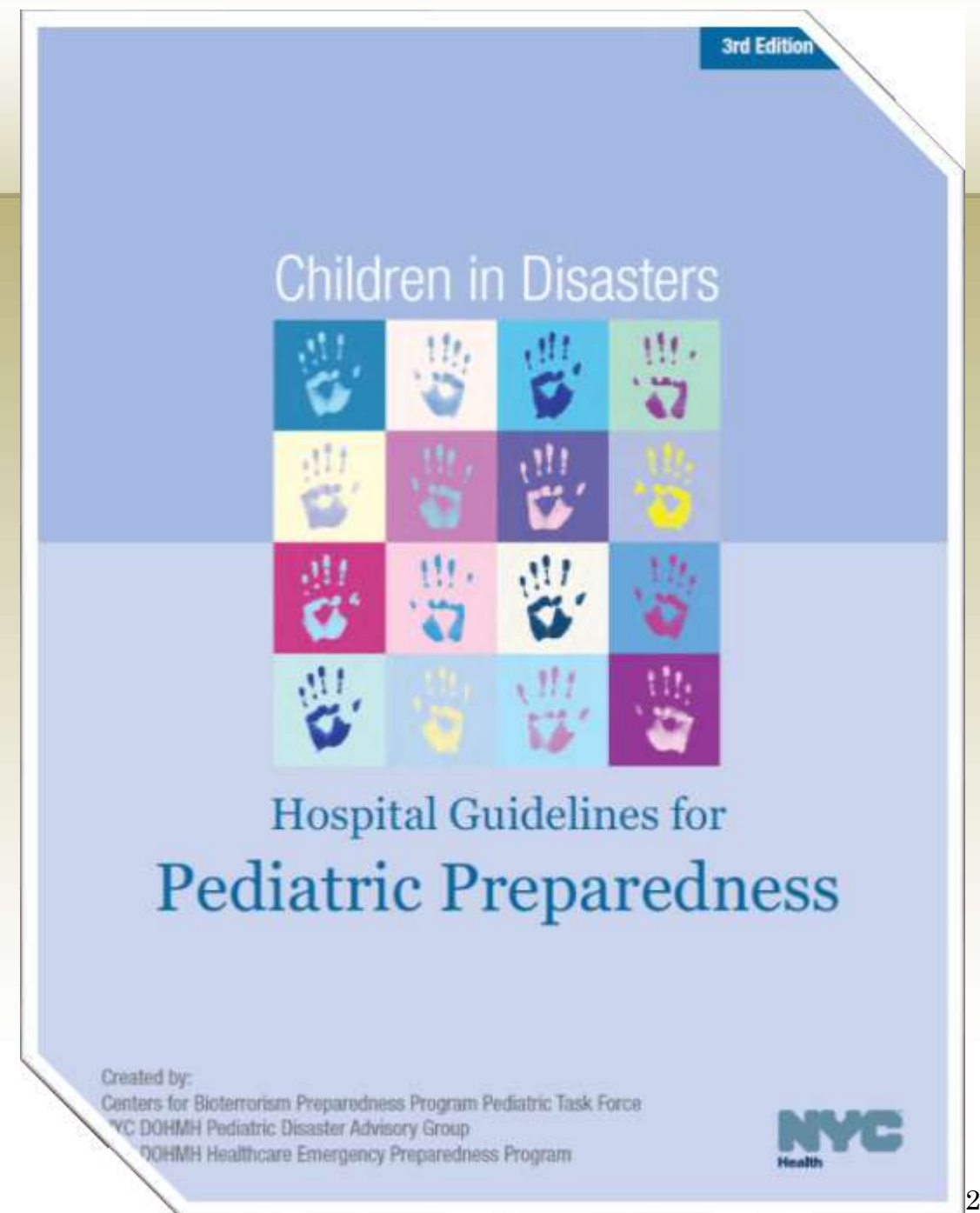
CDC is committed to addressing the needs of children in a disaster by including children's needs in federal, state, and local levels of planning for public health emergencies.



**Table 3-1. Minimal pediatric equipment recommendations for emergency departments.**

| Equipment Type                                      | Type                                               | Number                                                        | Importance<br>E = Essential<br>D = Desirable |
|-----------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------|----------------------------------------------|
| Ambu bags                                           | Infant                                             | 2                                                             | E                                            |
|                                                     | Child                                              | 2                                                             | E                                            |
| Arm boards                                          |                                                    | 2                                                             | D                                            |
| Blood pressure cuffs                                | Infant/Small Child                                 | 1                                                             | E                                            |
| Chest tubes                                         | Sizes 12F, 16F, 20F, 24F, 28F                      | 2 each size                                                   | E                                            |
| Dosing chart, pediatric                             |                                                    | 1                                                             | E                                            |
| ETCO <sub>2</sub> detectors (pediatric, disposable) |                                                    | 2                                                             | E                                            |
| ET tubes                                            | Sizes 2.5 mm - 6.5 mm                              | 6 each size                                                   | D                                            |
| Foley catheters                                     | Sizes 8F, 10F, 12F                                 | 6 each size                                                   | D                                            |
| Gastrostomy tubes                                   | Sizes 12F, 14F, 16F                                | 2 each size                                                   | D                                            |
| Infant scale                                        |                                                    | 1 for several patients                                        | D                                            |
| Intraosseous needles                                |                                                    | 8                                                             | E                                            |
| Intravenous infusion pumps                          |                                                    | 1                                                             | D                                            |
| Laryngoscope blades                                 | Macintosh 0,1,2                                    | 2 each size                                                   | E                                            |
|                                                     | Miller 001,2                                       | 2 each size                                                   | E                                            |
| Laryngoscope handles (pediatric)                    |                                                    | 2                                                             | E                                            |
| Masks: Face masks, clear self-inflating bag (500cc) | Infant                                             | 10                                                            | E                                            |
|                                                     | Child                                              | 10                                                            | E                                            |
|                                                     | Non-Rebreather Infant                              | 10                                                            | E                                            |
|                                                     | Child                                              | 2                                                             | E                                            |
|                                                     | Infant                                             | 2                                                             | E                                            |
| Nasal cannula                                       | Child                                              | 2                                                             | E                                            |
|                                                     |                                                    |                                                               |                                              |
| Nasogastric tubes                                   | Sizes 6F, 8F, 10F, 12F, 14F, 16F                   | 10 each size                                                  | E                                            |
| Nasopharyngeal airways                              | (All pediatric sizes)                              | 1 each size                                                   | D                                            |
| Newborn kit /obstetric/delivery kit                 |                                                    | 1                                                             | E                                            |
| Oral airways                                        | (All pediatric sizes 00, 01)                       | 2 each size                                                   | E                                            |
| Over-the-needle intravenous catheters               | Angiocatheter                                      |                                                               | D                                            |
|                                                     | Sizes 20, 22, 24                                   |                                                               | E                                            |
| Restraining board (pediatric)                       |                                                    | 1                                                             | D                                            |
| Broselow resuscitation tape, length-based           |                                                    | 2                                                             | E                                            |
| Seldinger Technique vascular access kit             | Sizes 4F, 5F                                       | 3 each size                                                   | D                                            |
|                                                     | Catheters, 15 cm length                            | 3 each size                                                   | D                                            |
|                                                     |                                                    |                                                               |                                              |
| Semi-rigid cervical spine collars                   | Infant                                             | 2                                                             | E                                            |
|                                                     | Small Child                                        | 2                                                             | E                                            |
|                                                     | Child                                              | 2                                                             | E                                            |
| Suction catheters                                   | 5F, 8F                                             | 5 each size                                                   | E                                            |
| Syringes                                            | 60cc, catheter tip (for use with gastrostomy tube) | 2                                                             | E                                            |
| Warming device (overhead warmer for newborns)       |                                                    | 1                                                             | D                                            |
| Tracheostomy tubes                                  | Sizes 00 to 6                                      | 2 each size<br>(per emergency department,<br>not per patient) | E                                            |

Source: 1. Fire Department, City of New York. *Emergency Department Standards*. 6th ed. New York, NY, 1997.



# Supplies and equipment for pediatric emergency mass critical care

Desmond Bohn, MB; Robert K. Kanter, MD; Jeffrey Burns, MD; Wanda D. Barfield, MD, MPH, FAAP; Niranjana Kissoon, MD, FRCP(C), FAAP, FCCM, FACPE; for the Task Force for Pediatric Emergency Mass Critical Care

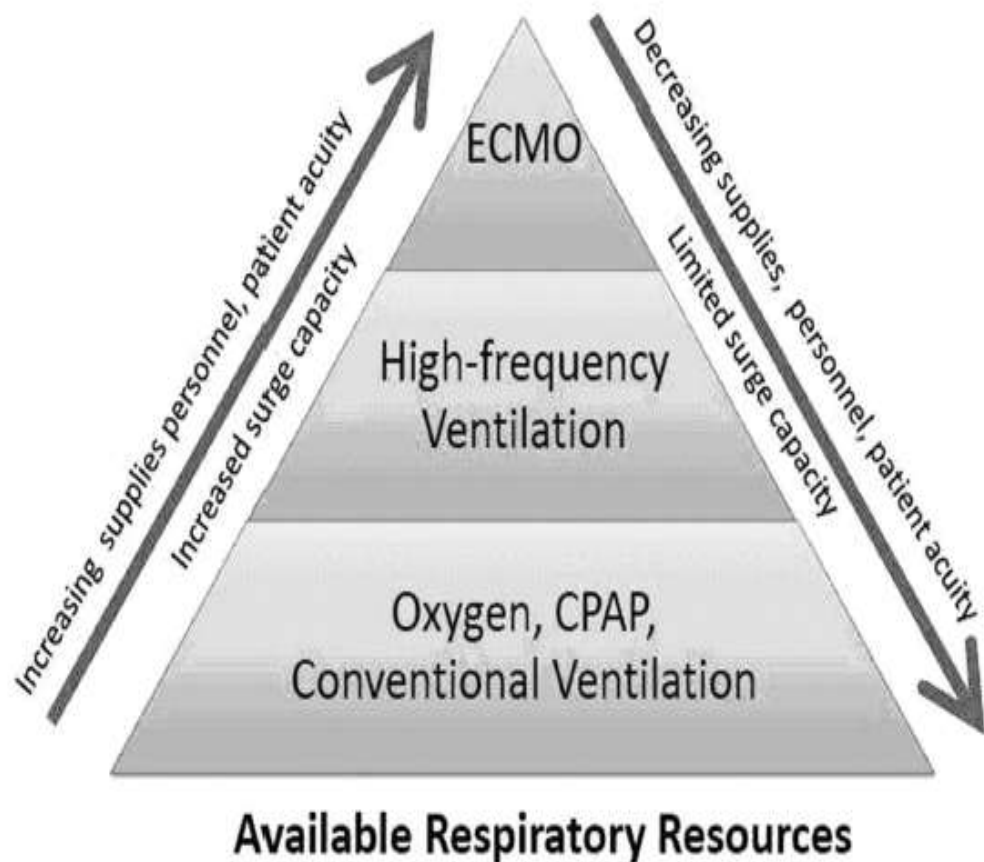


Figure 1. Model of decision making based on available supplies, personnel, patient acuity, and surge capacity for pediatric emergency mass critical care. *CPAP*, continuous positive airway pressure; *ECMO*, extracorporeal membrane oxygenation.

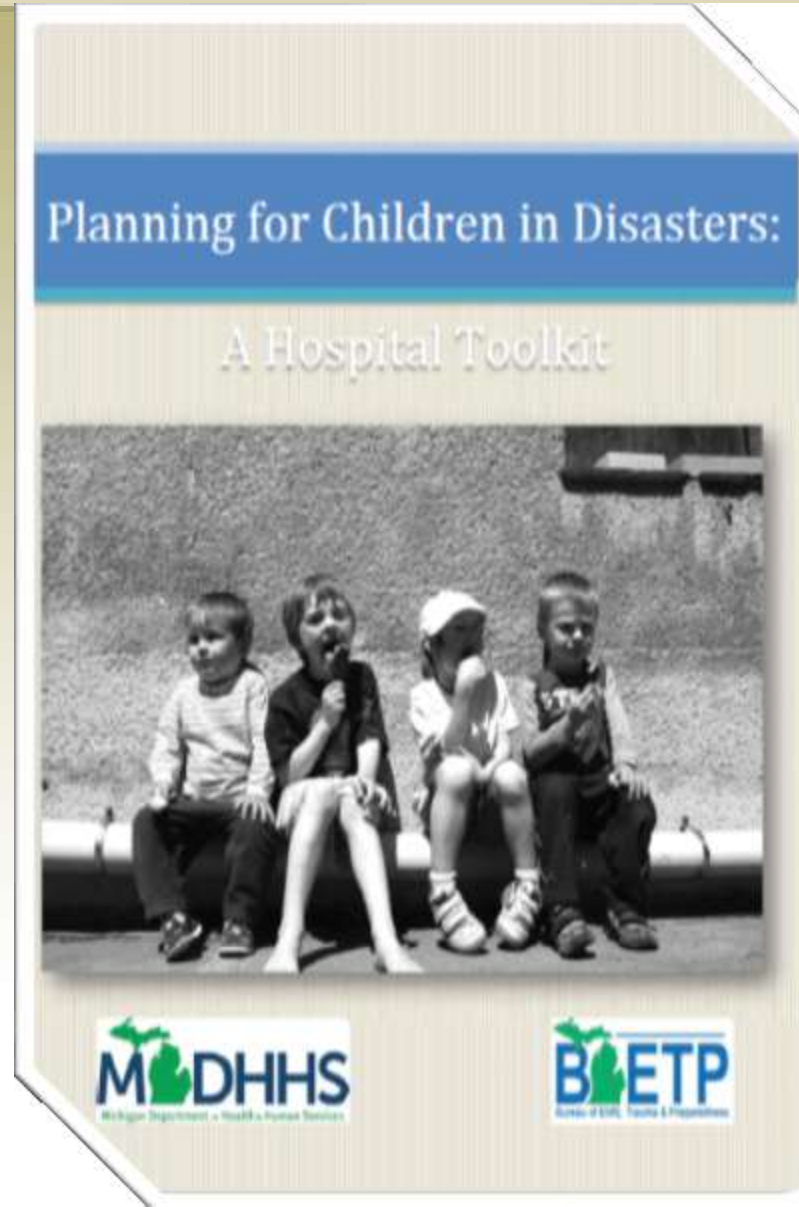
| HOSPITAL CORPORATION NAME:                                                    |            | TOTAL |
|-------------------------------------------------------------------------------|------------|-------|
| SITE NAME:                                                                    |            |       |
| <b>SECTION A: HOSPITAL DETAILS:</b>                                           |            |       |
| Site Contact:                                                                 | Name:      |       |
|                                                                               | Title:     |       |
|                                                                               | Telephone: |       |
|                                                                               | E-mail:    |       |
|                                                                               | Fax:       |       |
| Single room (isolated) critical care beds with negative pressure in hospital: |            |       |
| On 9/1/09, the total number of ventilators in use in your hospital:           |            |       |
| On 9/1/09, the total number of ventilators in storage in your hospital:       |            |       |
| <b>SECTION B: VENTILATOR CAPACITY AS OF 8/10/09:</b>                          |            |       |
| Total number of INVASIVE MECHANICAL ventilators:                              |            |       |
| Quantity/Manufacturer/Type/Model:                                             |            |       |
| Can ventilate adults ONLY:                                                    |            |       |
| Can ventilate pediatric ONLY:                                                 |            |       |
| Can ventilate neonates ONLY:                                                  |            |       |
| Can ventilate neonates AND pediatric:                                         |            |       |
| Can ventilate adults AND pediatric:                                           |            |       |
| Can ventilate adults AND pediatric AND neonates:                              |            |       |
| Total number of HFO ventilators:                                              |            |       |
| Quantity/Manufacturer/Type/Model:                                             |            |       |
| Can ventilate adults ONLY:                                                    |            |       |
| Can ventilate pediatric ONLY:                                                 |            |       |
| Can ventilate adults AND pediatric:                                           |            |       |
| Total number of OR INVASIVE MECHANICAL ventilators:                           |            |       |
| Quantity/Manufacturer/Type/Model:                                             |            |       |
| Total number of MOBILE/PORTABLE INVASIVE MECHANICAL ventilators:              |            |       |
| Quantity/Manufacturer/Type/Model:                                             |            |       |
| Total number of NON-INVASIVE ventilators:                                     |            |       |
| Quantity/Manufacturer/Type/Model:                                             |            |       |
| CPAP AND BiPAP:                                                               |            |       |
| <b>SECTION C: RESPIRATORY THERAPY FAILING CONVENTIONAL VENTILATION:</b>       |            |       |
| Does hospital have the capacity to deliver inhaled nitric oxide?              |            |       |
| How many patients can you simultaneously provide inhaled nitric oxide?        |            |       |
| Does your hospital have the ability to provide ECMO?                          |            |       |
| For how many patients can you simultaneously provide ECMO?                    |            |       |
| Does your hospital have the ability to provide inhaled prostacyclin?          |            |       |
| For how many patients can you simultaneously provide inhaled prostacyclin?    |            |       |

Έντυπο καταγραφής αναπνευστήρων και άλλων συσκευών χορήγησης οξυγόνου με επεμβατικό και μη επεμβατικό τρόπο

HFO, high-frequency oscillation; OR, operating room; BiPAP, bilevel positive airway pressure; CPAP, continuous positive airway pressure; ECMO, extracorporeal membrane oxygenation.

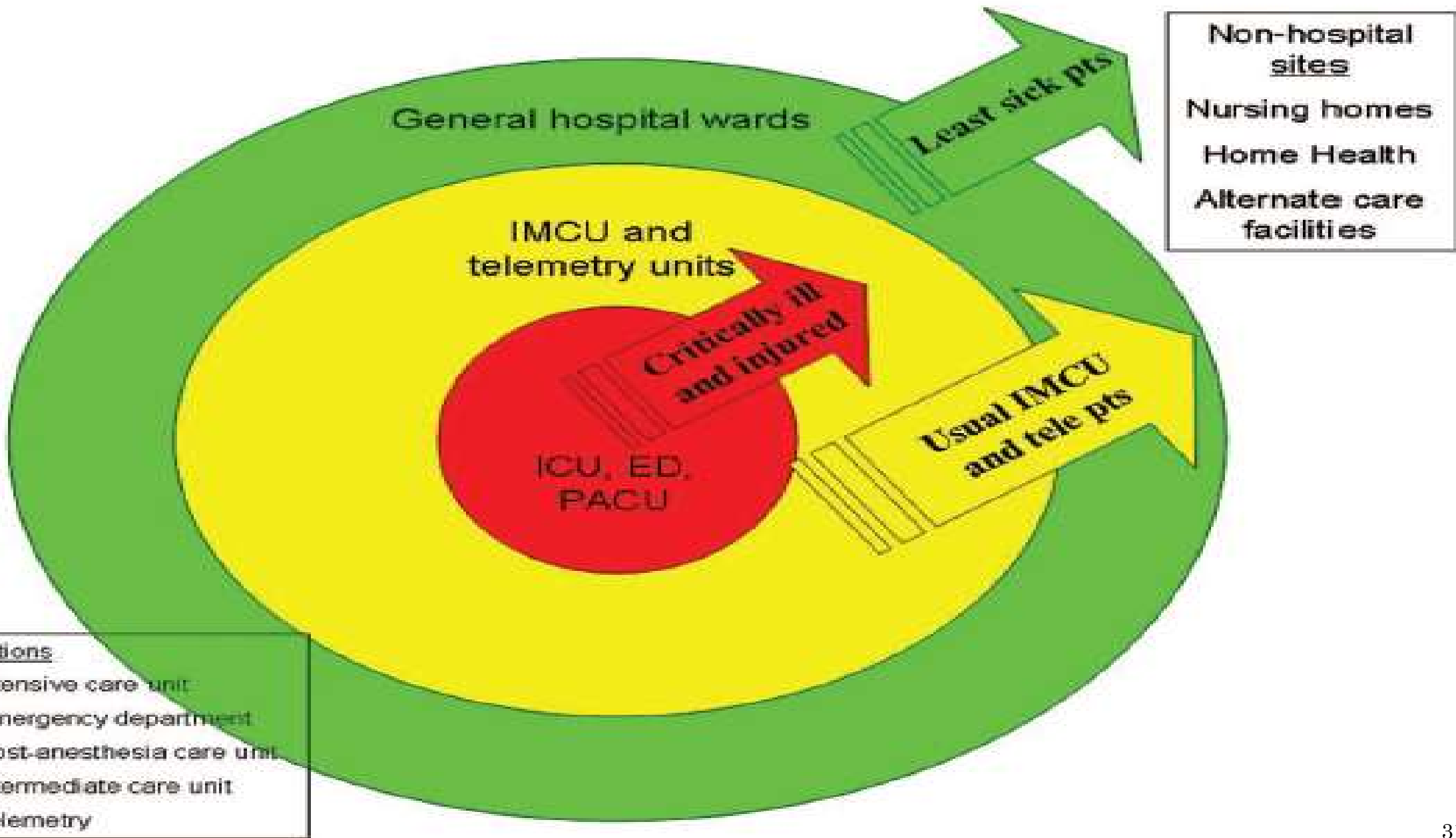
# Οδηγίες για την προετοιμασία των παιδιατρικών νοσοκομείων για την υποδοχή των ασθενών (IV)

- Για την διασφάλιση της επάρκειας των σκευασμάτων και της ασφαλούς χορήγησης τους προτείνεται η θεσμοθέτηση κανόνων/πρωτοκόλλων αναφορικά με:
  - Την υποκατάσταση των φαρμακευτικών σκευασμάτων
  - Τον υπολογισμό των δόσεων και την μείωση τους ανάλογα με την επάρκεια και τις ανάγκες
  - Την σίτιση εντερικά όταν η μετάβαση από την παρεντερική σίτιση είναι εφικτή
- Η παροχή Επείγουσας Μαζικής Φροντίδας Υγείας στα παιδιά θα πρέπει να παρέχεται ιδανικά σε παιδιατρικό νοσοκομείο.
  - Σε περιπτώσεις όπου ο αριθμός των παιδιατρικών ασθενών που χρήζουν εντατικής φροντίδας είναι πολύ μεγάλος θα πρέπει να υπάρχει σχέδιο προσαρμογής και ανάπτυξης νέων κλινών εντατικής φροντίδας και διακομιδής ασθενών σε άλλες υποστηρικτικές δομές.



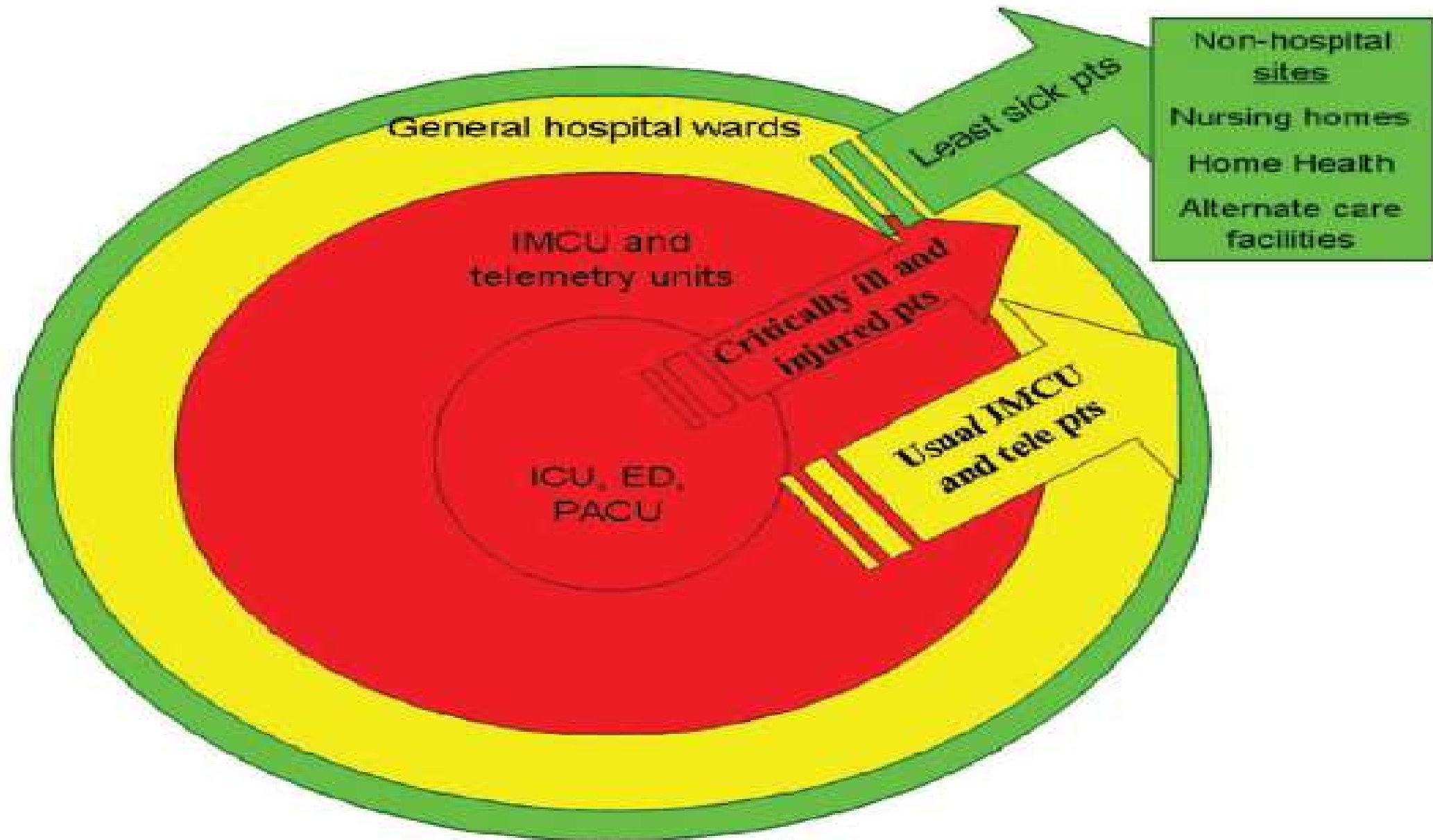


## Σχηματική προσαρμογή κλινών σύμφωνα με τις απαιτούμενες ανάγκες (1)





## Σχηματική προσαρμογή κλινών σύμφωνα με τις απαιτούμενες ανάγκες (2)





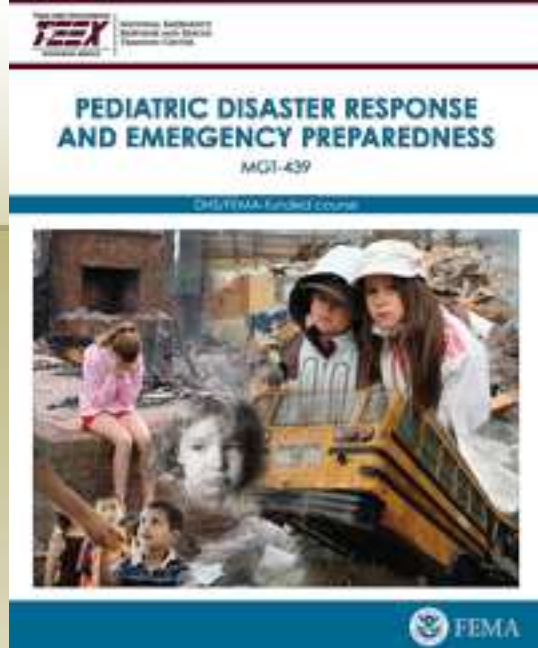
## Οδηγίες για την προετοιμασία των παιδιατρικών νοσοκομείων για την υποδοχή των ασθενών (V)

- Οι βασικές αρχές για την επαρκή στελέχωση των παιδιατρικών νοσοκομείων κατά την αντιμετώπιση ΜΚ θα πρέπει να περιλαμβάνουν τα ακόλουθα:
  - Στρατηγικές για την εξασφάλιση επαρκούς προσωπικού κατά την εμφάνιση κρίσης.
  - Η ανάθεση φροντίδας ασθενών θα πρέπει να γίνεται από το πιο έμπειρο προσωπικό.
  - Η ανάθεση των καθηκόντων θα πρέπει να γίνεται ανάλογα με την εμπειρία και τις δεξιότητες του προσωπικού.
  - Η ανάθεση καθηκόντων από μια κατηγορία προσωπικού σε μια άλλη σε περιπτώσεις κρίσης με υπερπληθώρα περιστατικών μπορεί να είναι αναγκαία και χρήσιμη σε ορισμένες περιπτώσεις.
  - Θα πρέπει να γίνεται προσπάθεια παρά τις αντίξοες συνθήκες να περιορίζεται η ετερογένεια της φροντίδας, η εμφάνιση επιπλοκών, παραλείψεων ή λαθών.
  - Προσπάθεια διατήρησης των ασφαλών αναλογιών ασθενών/ νοσηλευτών.
  - Αξιοποίηση μη εξειδικευμένου προσωπικού ή/και εθελοντών υπό την επιτήρηση έμπειρου προσωπικού.

# Pediatric Disaster Resource and Training Center



The Pediatric Disaster Resource and Training Center (PDRTC) at Children's Hospital Los Angeles expanded in 2008, with funding from the U.S. Department of Health and Human Services. The goal of the PDRTC is to identify and address gaps in pediatric disaster preparedness, response and training so that healthcare providers are prepared to handle needs of children in case of a major disaster.





# Improving Pediatric Administrative Disaster Preparedness Through Simulated Disaster Huddles

Isabel T Gross<sup>1 2</sup>, Scott A Goldberg<sup>3</sup>, Travis Whitfill<sup>1</sup>, Storm Liebling<sup>1</sup>, Angelica Garcia<sup>1</sup>, April Alfano<sup>4</sup>, Adrian Hasdianda<sup>3</sup>, Mark X Cicero<sup>1 2</sup>

Affiliations + expand

PMID: 32172716 DOI: 10.1017/dmp.2020.10

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## Abstract

Members of an emergency department (ED) staff need to be prepared for mass casualty incidents (MCIs) at all times. Didactic sessions, drills, and functional exercises have shown to be effective, but it is challenging to find time and resources for appropriate training. We conducted **brief, task-specific drills (deemed "disaster huddles") in a pediatric ED (PED) to examine if such an approach could be an alternative or supplement to traditional MCI training paradigms.** Over the course of the study, we observed an improving trend in the overall score for administrative disaster preparedness. Disaster huddles may be an effective way to improve administrative disaster preparedness in the PED. Low-effort, low-time commitment education could be an attractive way for further disaster preparedness efforts. Further studies are indicated to show a potential impact on lasting behavior and patient outcomes.

**Keywords:** disaster medicine; disaster preparedness; drill; exercise.

> J Contin Educ Nurs. 2025 Mar;56(3):95-97. doi: 10.3928/00220124-20250207-04. Epub 2025 Mar 1.

# Mass Casualty Emergency Preparedness Training Through an Academic-Practice Partnership

Angela G Opsahl, Zack Schmidt, Tyler Hoffman, Samantha Academia, Sophia Graf, Kaitlynn Shull

PMID: 40019250 DOI: 10.3928/00220124-20250207-04

## Abstract

Mass casualty incidents overwhelm a health care system's resources. Stakeholders developed a pediatric mass casualty simulation with an unfolding timeline. A post-simulation debriefing identified opportunities to improve patient triage, interprofessional communication, and resource mobilization. **Participants agreed that the simulation was effective, influenced their clinical behavior, and supported triage in clinical practice. [J Contin Educ Nurs. 2025;56(3):95-97.].**

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# Addressing Health-Care Disparities in Pediatric Disaster Planning: A Qualitative Study

Irene Navis <sup>1</sup>, Almaas Shaikh <sup>2</sup>, David McCarthy <sup>1</sup>, Evette Perez <sup>1</sup>, Milissa Chanice <sup>1</sup>, Christopher Newton <sup>3</sup>, Rita V Burke <sup>4</sup>

Affiliations + expand

PMID: 36803593 DOI: 10.1017/dmp.2023.30

## Abstract

**Objective:** The Western Regional Alliance for Pediatric Emergency Medicine (WRAP-EM) is a multi-state, Administration for Strategic Preparedness and Response (ASPR) funded pediatric disaster center of excellence. WRAP-EM set out to determine the impact of health disparities on its 11 core areas.

**Methods:** We conducted 11 focus groups during April 2021. Discussions were led by an experienced facilitator, and participants could also include their thoughts on a Padlet throughout the discussion. Data were analyzed to determine overarching themes.

**Results:** Responses focused on health literacy, health disparities, resource opportunities, addressing obstacles, and resilience building. Health literacy data highlighted the need for development of readiness and preparedness plans, community engagement in cultural and language appropriate means, and increasing diversity in training. Obstacles faced included funding; inequitable distribution of research, resources, and supplies; **lack of prioritization of pediatric needs**; and fear of retribution from the system. Multiple already existing resources and programs were referenced highlighting the importance of best practice sharing and networking. A stronger commitment to mental health-care delivery, empowerment of individuals and communities, use of telemedicine, and ongoing cultural and diverse education were recurring themes.

**Conclusions:** Results of the focus groups can be used to prioritize efforts to address and improve health disparities in pediatric disaster preparedness.

**Keywords:** Emergency medical services; emergency nursing; health trauma center; mass casualty incidents.

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# Increasing Pediatric Emergency Nurse Readiness in Mass Casualty Incidents

Melony Murray

PMID: 41389075 DOI: 10.1016/j.jen.2025.11.016

## Abstract

Pediatric emergency nurses play a central role in mass casualty incident response, yet persistent gaps in readiness remain. This quality improvement project evaluated baseline mass casualty incident readiness among registered nurses in a large pediatric emergency department and assessed the impact of an educational intervention combining didactic review and simulation-based functional exercises. Using a pre-/postintervention design, nurses completed a readiness survey and participated in timed functional tasks to assess knowledge, confidence, and efficiency. The intervention comprised a didactic review of institutional protocols, a practical review of supply locations, and 30-minute functional simulation drills focused on zone leader responsibilities. A total of 63 nurses completed preassessments, and 64 completed postassessments. After the intervention, 92% accurately identified supply locations, 98% described zone leader roles, and 100% reported feeling at least neutral in preparedness. Knowledge gains in this project were statistically significant ( $P < .001$ ). **The results indicate that structured education combined with simulation improved pediatric emergency nurses' readiness for mass casualty incidents within this setting.** The intervention's effectiveness was further demonstrated when it was applied successfully during an actual mass casualty incident. Incorporating pediatric-focused mass casualty incident training into ongoing ED education may continue to enhance nurse competence, support team performance, and strengthen institutional disaster preparedness.

**Keywords:** Disaster preparedness; Mass casualty incidents; Nurse readiness; Pediatric emergency nursing; Simulation training.

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## Ενότητα 5<sup>η</sup>

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Επανασύνδεση οικογενειών...

Προετοιμασία κοινότητας...

Προετοιμασία σχολείων...



Καταφύγια... για τα υγιή παιδιά μετά από Μ.Κ.



# Συνήθη προβλήματα στα καταφύγια

## Τα παιδιά τα οποία εμπλέκονται σε μια ΜΚ αντιμετωπίζουν:

- Κίνδυνο θανάτου/ Μόνιμης βλάβης/ Αναπηρίας/ Τραυματισμού
- Αποχωρισμό από τους γονείς
- Θλίψη και θρήνο
- Προβλήματα υγείας
  - Τραυματισμούς – Προβλήματα κινητικότητας
  - Αναπνευστικές παθήσεις
  - Λοιμώξεις
  - Διάρροιες
  - Διαταραχές έμμηνης ρύσης στις νεαρές έφηβους
- Προβλήματα σίτισης, εύρεσης νερού και υγιεινής
  - Ποιότητα και τρόπος παρασκευής φαγητού
  - Διαταραχές θρέψης/ περιορισμός μητρικού θηλασμού
  - Περιορισμένες δυνατότητες σωματικής υγιεινής
  - Συνωστισμός
  - Επαφή με απορρίμματα
- Αυξημένο κίνδυνο κακοποίησης, βίας και αμέλειας
- Ψυχοσυναισθηματικές διαταραχές
- Αβεβαιότητα για το μέλλον





# Φιλικά προς τα παιδιά καταφύγια

- Οι διεθνείς συστάσεις επιγραμματικά αναφορικά με τα χαρακτηριστικά των καταυλισμών/καταφυγίων τα οποία φιλοξενούν παιδιά μετά από ΜΚ, αναφέρουν ότι σε αυτά θα πρέπει να περιλαμβάνονται:

- Χώροι ειδικά διαμορφωμένοι για παιχνίδι
- Χώρους για εκπαίδευση και ενημέρωση των παιδιών
- Ειδικούς χώρους στους οποίους θα μπορούν να μιλήσουν με ειδικούς και να εκφράσουν τα συναισθήματά τους
- Υψηλές συνθήκες ασφάλειας και προστασίας των παιδιών από κακοποίηση, βία ή αυτοτραυματισμό.
- Καταγραφή των στοιχείων των παιδιών για την ευκολότερη ανεύρεση τους από τους γονείς τους.
- Επανένωση των παιδιών με την οικογένειά τους.

## A Child Friendly Space provides:

- **Play** – A fun place with sports, team and cultural activities to allow the children to switch off from their worries and concerns.
- **Transitional Formal and Informal Education** - literacy and numeracy, but also life skills, health education in new environments, psycho-education to reassure each child they are having a normal reaction to an abnormal situation.
- **A place to express and voice their feelings** to help them realize that they are not alone through role-plays, dances, talking and traditional coping activities, connected with local cultural identity.
- **Important information** on what is happening around them to help them regain a sense of control in their lives.
- **Safety for children** while their parents/caregivers attend to daily activities. It also becomes a place for parents to meet and support each other
- **Security and hope** for separated children by registering them, and a place for parents/children to enquire about missing children/siblings.

# Βασική ιδέα: «Καταφύγιο + Παιδοκεντρική Ζώνη» (Child Friendly Space)

- Μέσα στο καταφύγιο δημιουργείται σαφώς οριοθετημένος, επιτηρούμενος χώρος για παιδιά, με δομημένες δραστηριότητες σε ασφαλές, συμπεριληπτικό και υποστηρικτικό περιβάλλον—ως πρώτη γραμμή προστασίας και ψυχοκοινωνικής υποστήριξης.



© Bala Cristian, Roumania

# Χωροθέτηση & ασφάλεια χώρου

**Κριτήρια τοποθεσίας (ιδανικά μέσα ή δίπλα στο καταφύγιο):**

- **Ορατότητα/επιτήρηση**, καλός φωτισμός, πρόσβαση σε νερό (τουαλέτες/νερό).

- **Έλεγχος εισόδου–εξόδου** (ένα σημείο εισόδου, βιβλίο παρουσίας, βραχιολάκι/κάρτα όπου επιτρέπεται).

- **Διαχωρισμός ηλικιών** (0–5, 6–12, έφηβοι) για ασφάλεια και κατάλληλες δραστηριότητες.

- **Αποφυγή κινδύνων** (αιχμηρά, καλώδια, ολισθηρά, «νεκρές γωνίες», πρόσβαση τρίτων).

- **Ιδιωτικότητα** για ευάλωτες περιπτώσεις (συνομιλία με κοινωνικό λειτουργό/ψυχολόγο).

Στόχος είναι να μειωθούν γνωστοί κίνδυνοι (π.χ. βία καθ' οδόν ή μέσα στον χώρο, κατάχρηση εξουσίας από προσωπικό/εθελοντές, πρόσβαση ενηλίκων που μπορεί να βλάψουν παιδιά) με οργάνωση, κανόνες και επιτήρηση



© Unicef, Madagascar

# Επανασύνδεση οικογενειών...

- Για τα παιδιά μετά τη διάσωση & τη διαλογή 1<sup>η</sup> προτεραιότητα είναι η επανασύνδεση με την οικογένεια.
  - Ειδικό σχέδιο επικοινωνίας των κέντρων διαλογής
  - Αναζήτηση ανά επίπεδο (Τοπικό – Περιφέρειας – Εθνικό)
  - Επιβεβαίωση ταυτότητας
  - Διασφάλιση μετακίνησης & διαμονής οικογένειας



# Οικογενειακή επανένωση & ασυνόδευτα/ διαχωρισμένα παιδιά

- Διαδικασία καταγραφής/ εντοπισμού φροντιστή χωρίς να εκτίθενται προσωπικά δεδομένα.
- Για **ασυνόδευτα ανήλικα**, στην Ελλάδα υπάρχει θεσμοθετημένος μηχανισμός επείγουσας στέγασης/ παραπομπών για άμεση τοποθέτηση σε κατάλληλες δομές.

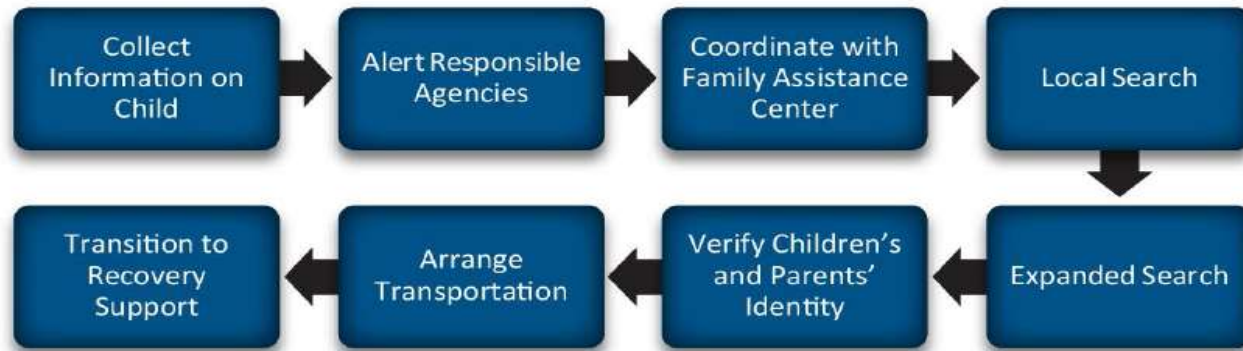


Figure 2: Child Reported Missing by Parent or Legal Guardian

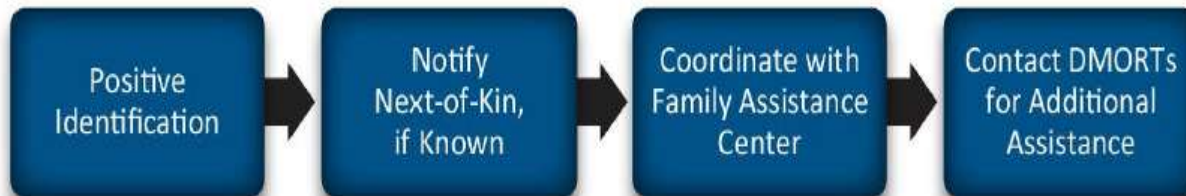


Figure 3: Unaccompanied Minor Identified as Deceased



# Επίδραση εκπαίδευσης & προετοιμασίας

1. Delay disease transmission and outbreak peak
2. Decompress peak burden on infrastructure
3. Diminish overall cases and health impacts

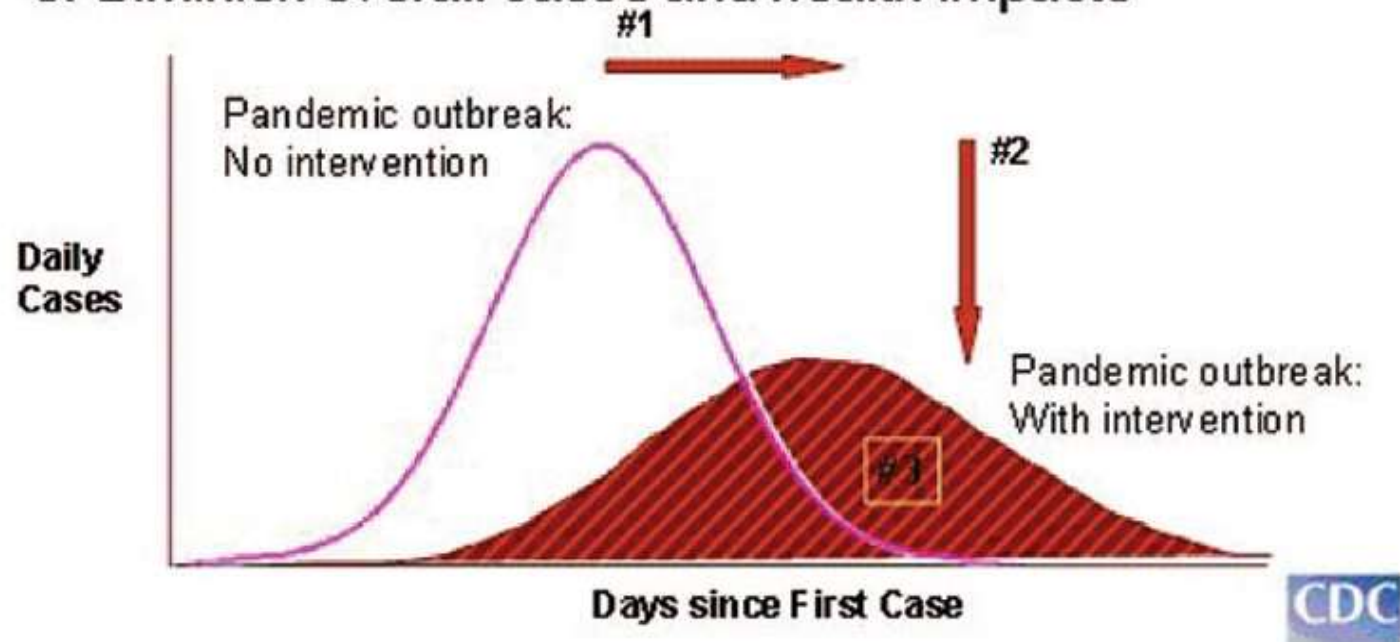


Figure 1. Process of mitigation through community-focused and enhanced reduction of influenza transmission. Based on an original graph developed by the Centers for Disease Control and Prevention, Atlanta, GA, both community mitigation measures and an informed and educated citizenry contribute to the flattening of the curve.

# Ο ρόλος των γονέων/οικογένειας

## Helping Children Cope During and After a Disaster

A Resource for Parents and Caregivers

The amount of damage caused from a disaster can be overwhelming. The destruction of homes and separation from school, family, and friends can create a great amount of stress and anxiety for children. They may not fully understand what is going on. A child's reaction and signs of stress may vary depending on age and previous experiences and typical coping behavior with stress.

### What You Can Do to Help Children Cope with a Disaster

Set a good example by managing your own stress through healthy lifestyle choices, such as eating healthy, exercising regularly, getting plenty of sleep, and avoiding drugs and alcohol. When you are prepared, rested, and relaxed, you can respond better to unexpected events and can make decisions in the best interest of your loved ones.



The following tips can help reduce stress before, during, and after a disaster or traumatic event.

#### Before

- Assure your children that you are prepared to keep them safe.
- Review safety plans before a disaster or emergency happens. Having a plan will increase your children's confidence and help give them a sense of control.

#### During

- Stay calm and reassure your children.
- Talk to your children about what is happening in a way that they can understand. Keep it simple and appropriate for each child's age.

#### After

- Give your children opportunities to talk about what they went through. Encourage them to share concerns and ask questions.
- Encourage your children to take action directly related to the disaster so they feel a sense of control. For example, children can help others after a disaster, such as volunteering to help community or family members in a safe environment. Children should NOT participate in disaster cleanup activities for health and safety reasons.
- Because parents, teachers, and other adults see children in different situations, it is important for them to work together to share information about how each child is coping after a traumatic event.
- Help your children to have a sense of structure, which can make them feel more at ease or provide a sense of familiarity. Once schools and child care opens again, help them return to their regular activities.

## CDC Continued

### Common Reactions

The common reactions to distress will fade over time for most children. Children who were directly exposed to a disaster can become upset again and behavior related to the event may return if they see or hear reminders.

If children continue to be very upset or if their reactions hurt their relationships or schoolwork, parents may want to talk to a professional or have their children talk to someone who specializes in children's emotional needs.

Learn more about common reactions to distress below:



#### For Infants to 2-Year-Olds

Infants may become more cranky. They may cry more than usual or want to be held and cuddled more.



#### For 3 to 6-Year-Olds

They may have toileting accidents, bed-wetting, tantrums and a hard time sleeping, or be frightened about being separated from their parents/caregivers.



#### For 7 to 10-Year-Olds

Older children may feel sad, mad, or afraid that the event will happen again. Correct misinformation the child may get from others.



#### For Preteens and Teenagers

Some preteens and teenagers respond to trauma by acting out or feeling afraid to leave the home. Their overwhelming emotions may lead to increased arguing and even fighting with siblings, parents/caregivers or other adults.



#### For Special Needs Children

Children with physical, emotional, or intellectual limitations may have stronger reactions to a threatened or actual disaster. Children with special needs may need extra words of reassurance, more explanations about the event, and more comfort and other positive physical contact such as hugs from loved ones.



Want to learn more?

<https://www.cdc.gov/childrenanddisasters/index.html>



## Helping Children and Adolescents Cope With Disasters and Other Traumatic Events

*What Parents, Rescue Workers, and the Community Can Do*

National Institute of Mental Health

### Helping Children and Adolescents Cope with Violence and Disasters

For Parents of Children Exposed to Violence or Disaster

## What Parents Can Do



National Institute  
of Mental Health

Transforming the understanding  
and treatment of mental illnesses.

Each year, children experience violence and disaster and face other traumas. Young people are injured, they see others harmed by violence, they suffer sexual abuse, and they lose loved ones or witness other tragic and shocking events. Parents and caregivers can help children overcome these experiences and start the process of recovery.

### It's important to remember:

- Children's reactions to trauma are strongly influenced by adults' responses to trauma.
- People from different cultures may have their own ways of reacting to trauma.

#### Adult helpers should:

##### Pay attention to children

- Listen to them
- Accept/do not argue about their feelings
- Help them cope with the reality of their experiences.

##### Reduce effects of other stressors, such as

- Frequent moving or changes in place of residence
- Long periods away from family and friends
- Pressures to perform well in school
- Transportation problems
- Fighting within the family
- Being hungry.

##### Monitor healing

- It takes time
- Do not ignore severe reactions
- Pay attention to sudden changes in behaviors, speech, language use, or strong emotions.

##### Remind children that adults

- Love them
- Support them
- Will be with them when possible.



NIH  
National Institute  
of Mental Health

# Προετοιμασία οικογένειας...

## Caring for Children in a Disaster

CDC > Caring for Children in a Disaster > Tools and Resources



### 🏠 Caring for Children in a Disaster

How Children are Different

Why CDC Makes It a Priority

Helping Children Cope

Children with Special Healthcare Needs

Before, During, & After an Emergency

Specific Threats

Real Stories

### Tools and Resources

Teachers and Childcare

**Kids and Families**

Health Professionals

Emergency Kit Checklists

Emergency Planners

Infographic: Easy as ABC

## Children In Disasters: Kids and Families

Check out these games and activities to help you and your family stay safe during emergencies.

- Join [Ready Wrigley](#) as she helps her family prepare for disasters!



- Being a hero is fun with these interactive games from FEMA.



[Disaster Master](#)



[Build a Kit](#)

- Learn how to stay safe and understand your feelings after a flood.



- Activity book: [Being Safe After a Flood](#) [5.13 MB / 8 pages]
- Flyers
  - [In Your Home](#) [188 KB / 1 page]
  - [When You're Outside](#) [245 KB / 1 page]
  - [Safe Food and Water](#) [237 KB / 1 page]
  - [Feelings After a Flood](#) [252 KB / 1 page]

## EASY AS ABC

STEPS TO PROTECT YOUR CHILD DURING EMERGENCIES IN THE SCHOOL DAY



**ASK** how you would be reunited with your child in an emergency or evacuation



**BRING** extra medications, special food, or supplies your child would need if you were separated overnight



**COMPLETE** a backpack card and tuck one in your child's backpack and your wallet



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

Download a printable worksheet  
for your emergency information at  
[emergency.cdc.gov/children](https://emergency.cdc.gov/children)

CS258368

# Emergency Kit Checklist for Kids and Families

An emergency kit has all of the things that you and your family may need during an emergency in which you may have to stay inside for longer than usual or the electricity could go out. Making a family emergency kit can be fun for the family to do together. Here's how to have a family emergency kit treasure hunt:

1. You will need a large plastic bin or box to put things into.
2. Answer the following questions to guide your treasure hunt.
3. Check items off the list as you put them into your emergency kit box.
4. Place an updated copy of your checklist inside your large plastic bin or box once your kit is put together to know what is inside the kit and to know where you can always find your checklist.

An emergency kit is a collection of items that you may need in an [emergency](#).

Do you have a child in your house who has a disability or special needs?

[View our checklist for Families with Children and Youth with Special Healthcare Needs \(CYSHCN\).](#)



# Emergency Kit Checklist for Families with Children and Youth with Special Healthcare Needs (CYSHCN)

If a child with special healthcare needs is part of your family it is very important to be prepared for an emergency in which you may have to stay inside for longer than usual or in the event the electricity goes out. An emergency kit is necessary for all families, and especially important for families of children with special healthcare needs.

An emergency kit has all of the things that you and your family may need during an emergency. In addition to the common items found on [the emergency kit checklist for kids and families page](#), the checklist described here contains items that are specific for families of children and youth with special healthcare needs (CYSHCN). Each family's kit will vary depending on the individual needs of their child. It is best to have all of these things collected before an emergency, stored in a container, and kept in a place that is safe and easy to get to in the event of an emergency. Making a family emergency kit can be fun for the family to do together. Here's how to have a family emergency kit treasure hunt:

1. You will need a large plastic bin or box to put things into.
2. Answer the following questions to guide your treasure hunt.
3. Check items off the list as you put them into your emergency kit box.
4. Place an updated copy of your checklist inside your large plastic bin or box once your kit is put together to know what is inside the kit and to know where you can always find your checklist.





CONTACT US MORE LANGUAGES FAQs FEMA.GOV



## BE INFORMED

What to do before, during, and after an emergency.

## MAKE A PLAN

Prepare, plan and stay informed for emergencies.

## BUILD A KIT

Build a kit for disasters to be prepared.

## GET INVOLVED

Find opportunities to support community preparedness.

## BUSINESS

Plan for and protect your business.

## KIDS

Fun and games for kids.

### STEP 1

Know the Facts

### STEP 2

Make A Plan

### STEP 3

Build A Kit

### STEP 4

Graduate from Readiness U!

Fun & Games

Parents & Teachers

Kids



## BE PREPARED IN EVERY SITUATION

Are you ready to put your planning skills to good use? Are you ready to help your family get prepared for the unexpected? Your family can use this Web site to create a plan that will help you be ready for many different kinds of unexpected situations!

You're already a great planner! Every day you get your homework done, get to music or sports practice on time and plan where and when you'll meet up with friends. But how do you get prepared for emergencies?

It's simple! It just takes planning and practice and these fun activities from Ready Kids can help!

Click on these easy steps, talk to your family, and make a plan and put it in a safe place. When you're all through, you'll be ready to graduate from Readiness U!



**DISASTER  
MASTER**

00000000



# DISASTER MASTER

Help the Heroes! Will you know what to do? Make the right decisions and earn points to unlock new levels. But watch out! The wrong choice could end the game. Survive all 7 levels plus a turn in the hot seat and become a Disaster Master! Print out chapters of your own graphic novel as you play.

- |                              |                                    |
|------------------------------|------------------------------------|
| Level 1 - Wildfire           | Level 5: Winter Storm/Extreme Cold |
| Level 2 - Tornado            | Level 6 - Tsunami/Earthquake       |
| Level 3 - Hurricane/Blackout | Level 7: Thunderstorm/Lightning    |
| Level 4 - Home Fire          | Level 8: The Hot Seat              |

**REMEMBER**

Write down the password at the end of each game to unlock the next level.



## Be a Hero... and Build a Kit!

*Join Gayle and her friends in gathering supplies needed to prepare for an emergency.*

*Go through each level and pick the correct items for you and your family. You don't need to fill every box. When you are done, print out an emergency kit checklist!*



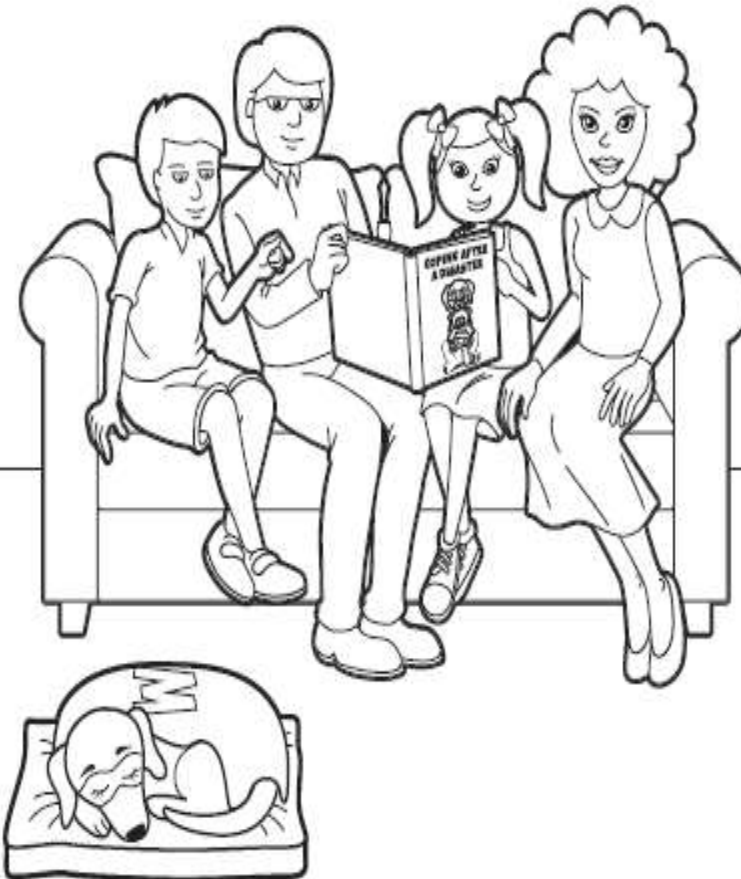
# Ready?



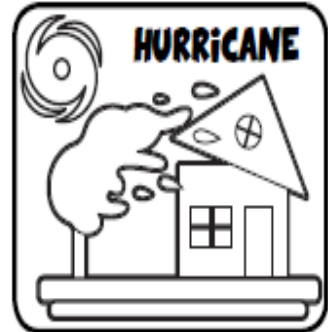
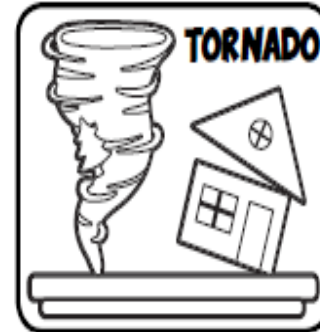
# COPING AFTER A DISASTER



Wrigley and her family are learning about emergencies and disasters. A disaster or emergency can hurt people and damage buildings, houses, and neighborhoods. Big storms, floods, and wildfires are all types of disasters.



There are different types of disasters. A natural disaster could be a tornado, hurricane, flood, or wildfire. It can break or knock down trees, houses, and buildings. People can get hurt.



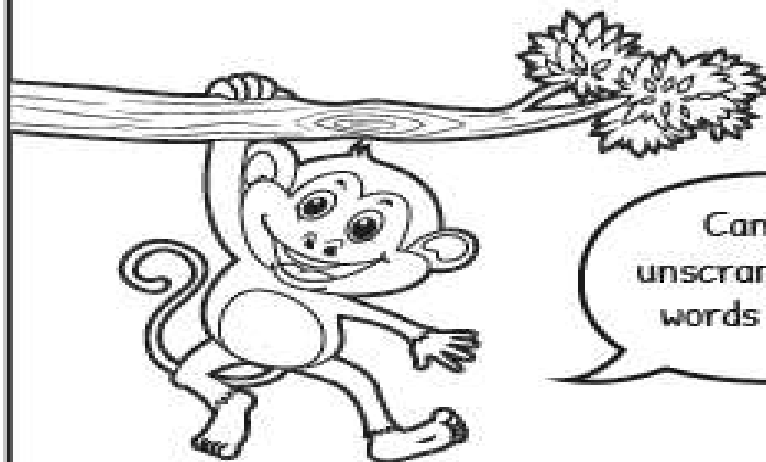
## NATURAL DISASTERS



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

# WORD SCRAMBLE

Use this workbook to help you feel better whenever you need it. Talk with your parents about how you feel. And always remember, what happened is not your fault!



Can you  
unscramble the  
words below?

EBHRTAE \_\_\_\_\_  
OROLC \_\_\_\_\_  
CDANE \_\_\_\_\_  
RADW \_\_\_\_\_  
IFENLSEG \_\_\_\_\_  
PLHE \_\_\_\_\_  
SGHU \_\_\_\_\_  
SLETIN \_\_\_\_\_  
PYAL \_\_\_\_\_  
EDAR \_\_\_\_\_  
SERT \_\_\_\_\_

INSG \_\_\_\_\_  
LISME \_\_\_\_\_  
AKLT \_\_\_\_\_



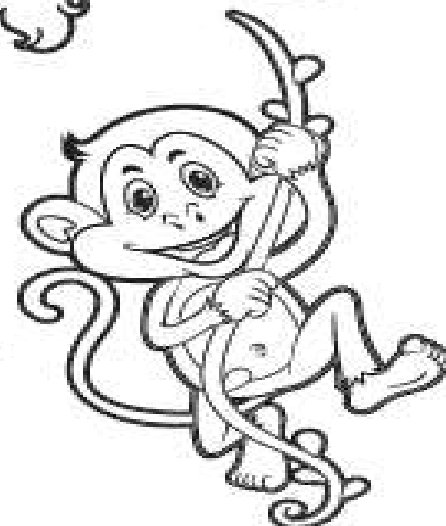
Answer: breathe, color, dance, draw, feelings, help, hugs, listen, play, read, rest, sing, smile, talk

# HOW THE HURRICANE MADE ME FEEL

Sometimes bad things happen. It's okay if you feel sad, mad, or scared. Grown-ups sometimes feel this way, too.



How do you feel right  
now? Circle the face that  
matches how you're feeling.  
If none of those are right, fill  
in the blank face to show how  
you're feeling instead.



# Προετοιμασία σχολικού περιβάλλοντος...

 Centers for Disease Control and Prevention  
CDC 24/7: Saving Lives, Protecting People™

[A-Z Index](#)

Search 

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[Children with Special Healthcare Needs](#)

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[Specific Threats](#) +

[Real Stories](#) +

[Tools and Resources](#) +

**Articles** -

[A Child's Health is the Public's Health](#)

[Keeping Children Safe](#)

## Returning to School After an Emergency or Disaster: Tips to Help Your Students Cope

[Español \(Spanish\)](#)

**Teachers have an important role to play in helping children both prepare for and recover after a public health emergency.**

Public health emergencies and disasters affect millions of children worldwide each year. These emergencies and disasters include natural events (such as severe weather, earthquakes, fires, floods, and tsunamis) and man-made events (such as acts of terrorism). An emergency or disaster can be destructive to a child's physical environment, as well as affect their mental health. As a teacher, you are committed to keeping schools safe and supporting children and their families. If your students experience an emergency or disaster, there are steps you can take to help your students cope and recover.



### How can I help my students cope and continue to support their recovery from a disaster?

- Talk to students about what happened in a way they can understand. Keep it simple and appropriate for each child's age. (Learn more about [common reactions](#) by age range)
- Provide students with opportunities to talk about what they went through or what they think about it. Encourage them to share concerns and ask questions.
- Children react, in part, to what they see from the adults around them. When teachers deal with a disaster calmly and confidently, they can provide the best support for their students.



POLICY STATEMENT

# Disaster Planning for Schools

Council on School Health

Organizational Principles to Guide and  
Define the Child Health Care System and/or  
Improve the Health of All Children

- Η δημιουργία ενός σχεδίου προετοιμασίας στο σχολικό περιβάλλον και αντιμετώπισης ΜΚ το οποίο θα εμφανιστεί στο σχολείο ή στην κοινότητα φαίνεται να ενισχύει την ασφάλεια των παιδιών σχολικής ηλικίας.
- Περιέχει ειδικές συστάσεις οδηγίες προς:
  - Παιδιάτρους/ παιδιατρικούς νοσηλευτές
  - Σχολικούς νοσηλευτές
  - Προσωπικό σχολείου
  - Γονείς
  - ΜΜΕ
  - Πολίτες
- Ενισχύει την προσπάθεια για περιορισμό των απωλειών στην κοινότητα διαμέσου της σωστής ενημέρωσης και οργάνωσης.

[www.pediatrics.org/cgi/doi/10.1542/peds.2008-2170](http://www.pediatrics.org/cgi/doi/10.1542/peds.2008-2170)

doi:10.1542/peds.2008-2170

All policy statements from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

### Key Words

school, crisis, disaster, incident command, preparedness

### Abbreviations

AAP—American Academy of Pediatrics

EMS—emergency medical services

LEPC—local emergency planning committee

FEMA—Federal Emergency Management Agency

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275). Copyright © 2008 by the American Academy of Pediatrics

# Practical Information on Crisis Planning

A GUIDE FOR SCHOOLS AND COMMUNITIES

Mitigation  
& Prevention

Recovery

## Introduction



"Knowing how to respond quickly and efficiently in a crisis is critical to ensuring the safety of our schools and students. The midst of a crisis is not the time to start figuring out who ought to do what. At that moment, everyone involved – from top to bottom – should know the drill and know each other."

--Margaret Spellings

## PRACTICAL INFORMATION ON CRISIS PLANNING:

A GUIDE FOR SCHOOLS AND  
COMMUNITIES

( 2007



THE OFFICE OF SAFE AND DRUG-FREE SCHOOLS  
U.S. DEPARTMENT OF EDUCATION



# Pediatric Preparedness of US Emergency Departments: A 2003 Survey

Marianne Gausche-Hill, Charles Schmitz and Roger J. Lewis  
*Pediatrics* 2007;120:1229

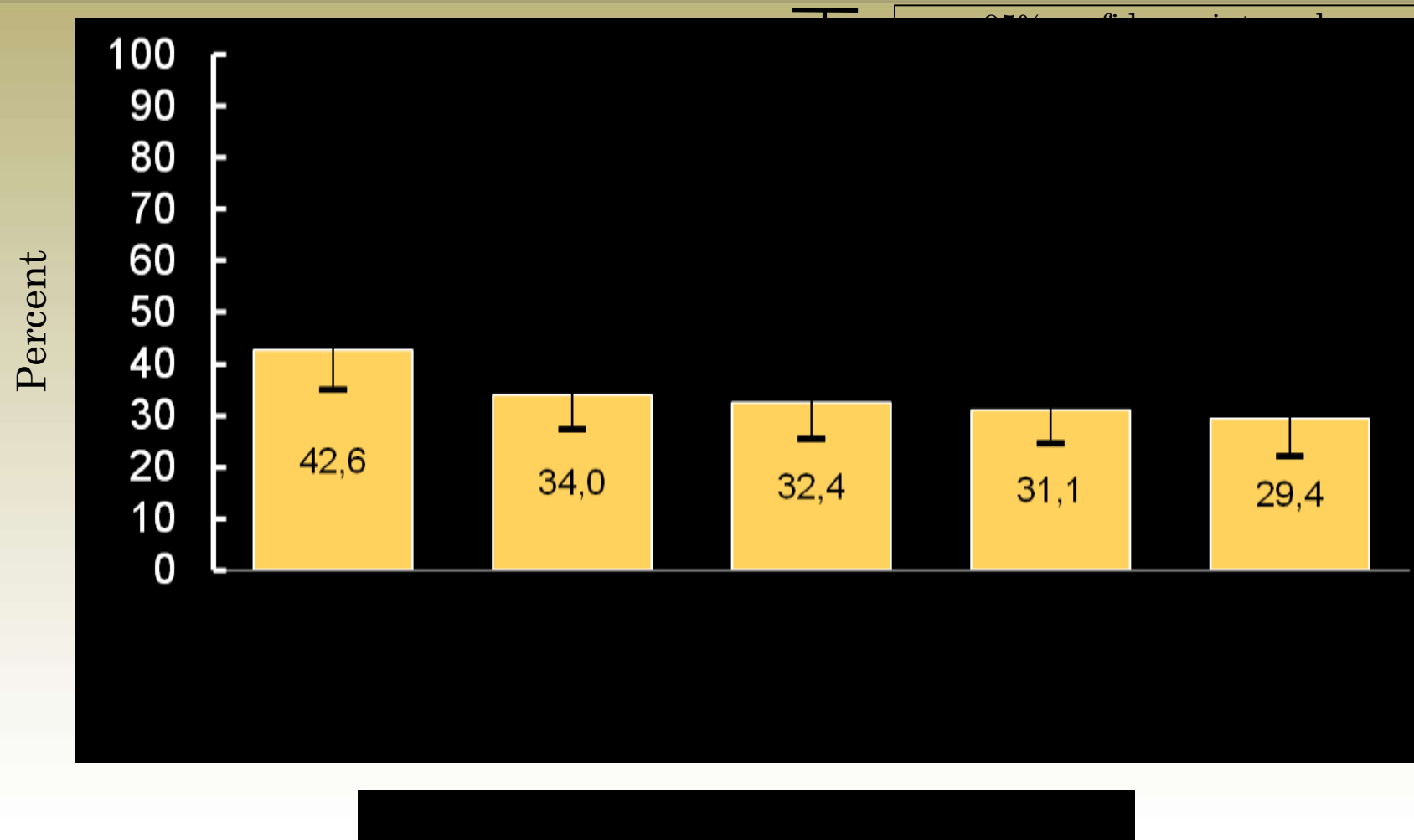
- Απαντήσεις από 1489 Διευθυντές ΤΕΠ
- Η μέση ετοιμότητα των ΤΕΠ ήταν χαμηλή.
- Τα ΤΕΠ με τα μεγαλύτερα ποσοστά ετοιμότητας ήταν αυτά που είχαν μεγάλο αριθμό παιδιατρικών ασθενών, ήταν σε μεγάλα αστικά κέντρα, είχαν ξεχωριστούς χώρους για τη φροντίδα των παιδιατρικών ασθενών ή ήταν αμιγώς παιδιατρικά κέντρα.
- Στα κέντρα αυτά το προσωπικό ήταν περισσότερο ενημερωμένο αναφορικά με τις συστάσεις της Αμερικανικής Ένωσης Παιδιάτρων και ανέφερε υψηλότερη θέληση για εφαρμογή των οδηγιών/συστάσεων.

**TABLE 5** Frequency of Specific Pediatric Equipment and Supplies Being Missing

| Equipment/Supply                                     | No. Missing (%) <sup>a</sup> |
|------------------------------------------------------|------------------------------|
| <b>Airway</b>                                        |                              |
| Infant nasopharyngeal airway                         | 247/1373 (18)                |
| Small-child nasopharyngeal airway                    | 196/1403 (14)                |
| Infant stylet for endotracheal tube                  | 173/1400 (12)                |
| Pediatric Magill forceps                             | 234/1399 (17)                |
| Size 1.0 (small infant) LMA                          | 684/1301 (53)                |
| Size 1.5 (infant) LMA                                | 686/1292 (53)                |
| Size 2.0 (small child) LMA                           | 622/1320 (47)                |
| Size 2.5 (child) LMA                                 | 638/1300 (49)                |
| Size 3.0 (large child/adolescent) LMA                | 474/1328 (36)                |
| Size 4.0 (small adult) LMA                           | 447/1332 (34)                |
| Size 5.0 (adult) LMA                                 | 452/1322 (34)                |
| Surgical airway kit (includes needle cricothyrotomy) | 239/1429 (17)                |
| <b>Vascular access</b>                               |                              |
| 19-gauge butterfly needle                            | 219/1363 (16)                |
| Seldinger technique vascular access kit              | 366/1365 (27)                |
| Venous cutdown tray                                  | 198/1430 (14)                |
| Umbilical vessel cannulation supplies                | 304/1413 (22)                |
| <b>Miscellaneous</b>                                 |                              |
| 8F (neonatal) chest tube                             | 312/1334 (23)                |
| 10–12F (infant) chest tube                           | 150/1383 (11)                |
| Heating source (overhead warmer for infants)         | 168/1461 (12)                |
| Newborn kit                                          | 256/1373 (19)                |
| Neonatal blood pressure cuff                         | 287/1295 (22)                |
| Medical photography capability                       | 331/1448 (23)                |

<sup>a</sup> Denominators varied on the basis of the number of respondents to each question.

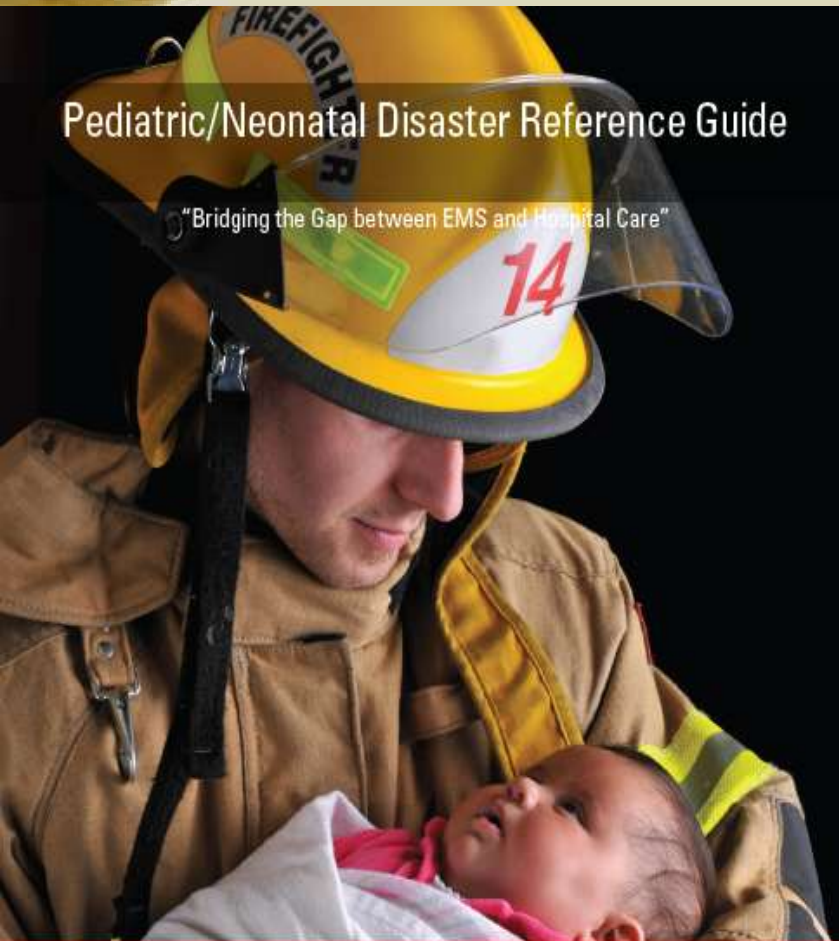
Percent of hospitals with plans for selected  
components related to pediatrics:  
United States, 2008



# Προετοιμασία τοπικής κοινότητας...

## Pediatric/Neonatal Disaster Reference Guide

"Bridging the Gap between EMS and Hospital Care"



Resources to aid in the development or enhancement of  
Emergency, Obstetrical, Neonatal and Pediatric Emergency Operations Planning



**ARIZONA PEDIATRIC DISASTER  
WORKSHOP PROGRAM**



## National Commission on Children and Disasters



### 5 Actions Governors Can Take Immediately To Improve Disaster Planning for Children

- **Δημιουργία Ειδικής Επιτροπής** που θα μελετά τις ανάγκες και τις ιδιαιτερότητες της προστασίας των παιδιών σε περίπτωση μαζικής καταστροφής και θα συντονίζει την προετοιμασία και την οργάνωση των κατάλληλων δράσεων.
- **Μίσθωση μόνιμου προσωπικού** το οποίο θα εκτιμά την εφαρμογή των οδηγιών για την προετοιμασία και την ενημέρωση στην κοινότητα και πραγματοποίηση μελετών για την ικανοποίηση των ειδικών αναγκών των παιδιών.
- **Προμήθεια επαρκούς υλικού** στις δομές όπου νοσηλεύονται παιδιά και έμφαση στην κατάλληλη ενημέρωση και **οργάνωση με ειδικό ενημερωτικό υλικό** και κατάλληλα μέσα όλες τις δομές που φιλοξενούν παιδιά στην κοινότητα (σχολεία, παιδικούς σταθμούς, κέντρα παιδιού, αθλητικά κέντρα κα).
- **Σχεδιασμό κατάλληλων σχεδίων αντιμετώπισης ΜΚ**, με παροχή γραπτών οδηγιών σε παιδιά και γονείς και τη **χρήση επαγγελματιών για την εκπαίδευση** των παιδιών για την εφαρμογή του σχεδίου στο σχολείο ή την κοινότητα.
- Υιοθέτηση προϋποθέσεων, προδιαγραφών και ελάχιστων πόρων για **το σχεδιασμό καταφυγίων στην κοινότητα** ή την μετατροπή του σχολείου σε καταφύγιο.



1

### A PLAN FOR EVACUATING KIDS IN CHILD CARE

The state requires all licensed child care facilities to have a written plan for evacuating and moving kids to a safe location for multiple disasters.

*If your local community floods, does your child's child care center have plans for moving kids to higher ground or another safe place?*

2

### REUNIFYING FAMILIES AFTER A DISASTER

The state requires all licensed child care facilities to have a written plan to notify parents of an emergency and reunite them with their kids.

*Does your child's day care have a list with your name and phone number to contact you and reunite you with your child?*



**Save the Children.**

For more information about this report, including methodology or background materials, please contact Save the Children's U.S. Programs at 202-640-6600.

[www.savethechildren.org/USA](http://www.savethechildren.org/USA)

3

### CHILDREN WITH SPECIAL NEEDS

The state requires all licensed child care facilities to have a written plan that accounts for kids with special needs.

*If there is a fire, does your child care center have a plan for evacuating and transporting children in wheelchairs?*

4

### AN EVACUATION PLAN FOR SCHOOLS

The state requires all schools to have a disaster plan that accounts for multiple hazards.

*Does your child's school have plans that account for the kinds of disasters your community might encounter, such as earthquakes, wildfires and terror attacks?*

# Ενσωμάτωση επαγγελματιών υγείας...

**Table 11-1. Training recommendations for staff in pediatric surge areas.**

| Provider Level                                                                                    | ACLS <sup>1</sup> | ATLS <sup>2</sup> | PALS <sup>3</sup> | Basic Disaster Training <sup>4</sup> | Disaster Drills that Include Pediatric Patients |
|---------------------------------------------------------------------------------------------------|-------------------|-------------------|-------------------|--------------------------------------|-------------------------------------------------|
| Emergency department nurses and physicians                                                        | Yes               | Yes               | Yes               | Yes                                  | Yes                                             |
| Pediatric inpatient unit nurses and physicians                                                    | Yes               | No                | Yes               | Yes                                  | Yes                                             |
| Pediatric intensive care unit nurses and physicians                                               | Yes               | No                | Yes               | Yes                                  | Yes                                             |
| Pediatric surge capacity nurses and physicians <sup>5</sup>                                       | Yes               | No                | Yes               | Yes                                  | Yes                                             |
| Medical and surgical intensive care unit nurses and physicians <sup>6</sup>                       | Yes               | No                | Yes               | Yes                                  | Yes                                             |
| Other surgical and medical physicians likely to respond to emergency departments during disasters | Yes               | Yes               | Yes               | Yes                                  | Yes                                             |

<sup>1</sup> Advanced Cardiac Life Support.

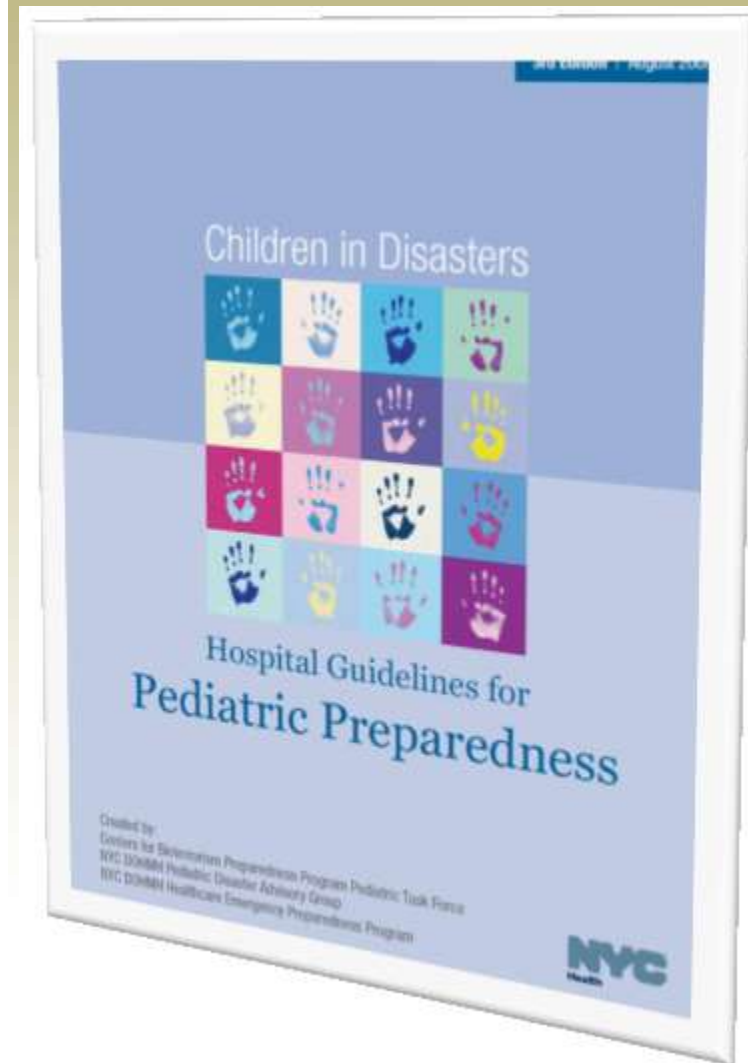
<sup>2</sup> Advanced Trauma Life Support.

<sup>3</sup> Pediatric Advanced Life Support.

<sup>4</sup> "Basic Disaster Training" indicates an introductory or awareness level course covering the basics of individual risk assessment and response to chemical, biological, radiological, nuclear and explosive agents.

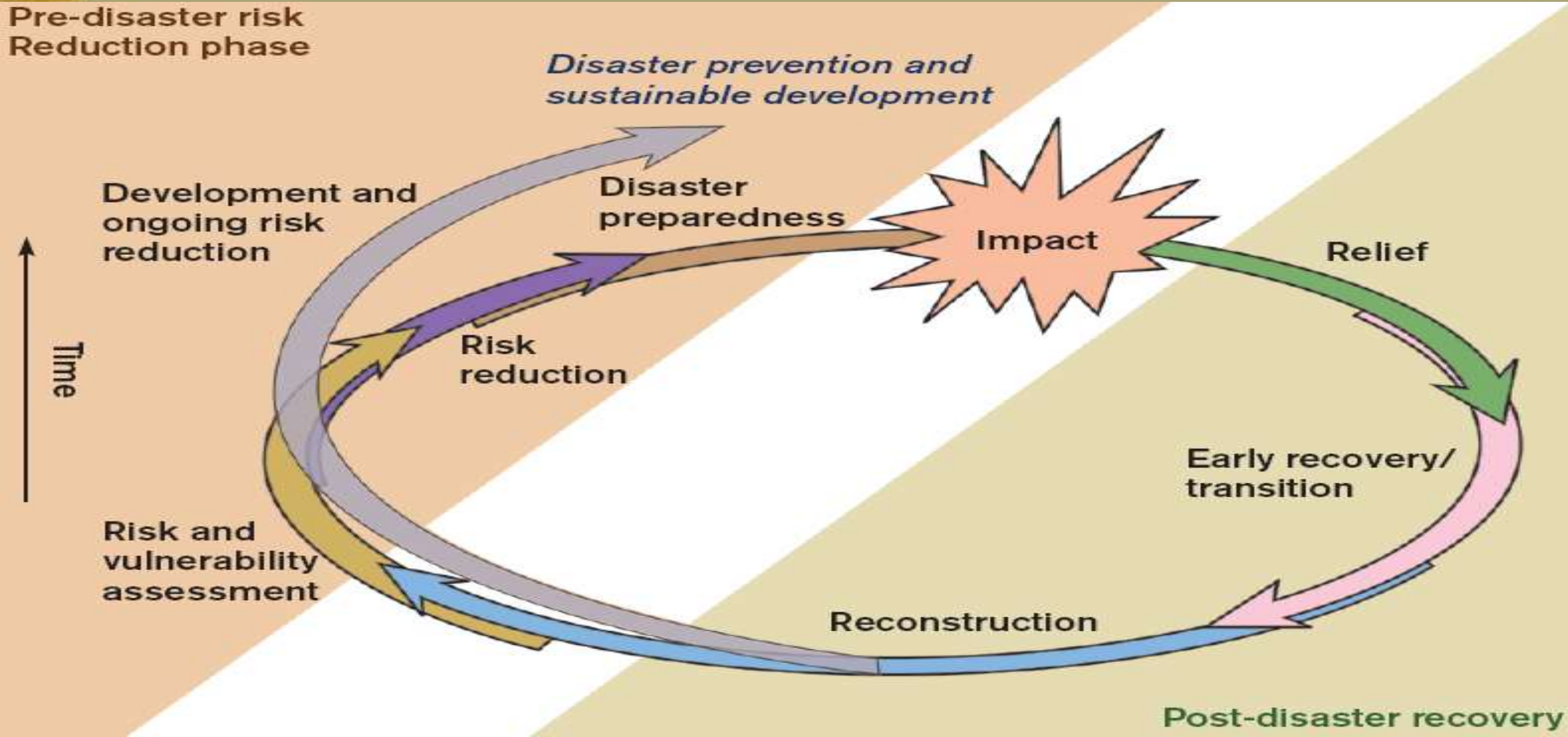
<sup>5</sup> Pediatric surge capacity nurses and physicians indicates staff designated as part of the hospital disaster plan to care for pediatric patients and their families in the event the usual hospital inpatient pediatric capacity is exceeded and these patients can not be transferred.

<sup>6</sup> Medical and Surgical ICU Nurses and Physicians (or Recovery Room or other intensive care area) indicates staff that might be required to care for critical pediatric patients who can not be transferred.





# Guide: Disaster management 'spiral' as framework for involving BE professions





# Checklist



In 2013, the American Academy of Pediatrics, the American College of Emergency Physicians, the Emergency Nurses Association, and the EMSC Program collaborated jointly on a quality improvement initiative, the National Pediatric Readiness Project.

The project initiated an assessment of more than 5,000 U.S. emergency departments and more than 4,100 facilities responded (83%).<sup>4</sup> Preliminary results illustrated that less than half of all U.S. hospitals reported having written disaster plans addressing issues specific to the care of children.

Based on these findings, the National Pediatric Readiness Project stakeholder group recommended convening a multidisciplinary workgroup to develop a tool to assist hospitals to assure pediatric considerations are included in existing or future disaster plans.

## Essential Pediatric Domains and Considerations

### Every Hospital's Disaster Preparedness Policies

for

# Ψυχοκοινωνική υποστήριξη & θεραπευτική...

## Listen Protect and Connect

PSYCHOLOGICAL  
FIRST AID FOR  
CHILDREN AND PARENTS



Helping you and your child  
in times of disaster.

- Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)
  - [www.musc.edu](http://www.musc.edu)
- Cognitive Behavioral Interventions for Trauma in Schools (CBITS)
  - [www.nctsn.org](http://www.nctsn.org)
- Healing After Trauma Skills (HATS)
  - [www.nctsn.org](http://www.nctsn.org)
- Listen, Protect, and Connect (Model and Teach): Psychological First Aid for Parents (and Teachers)
  - [www.ready.gov](http://www.ready.gov)
- Skills for Psychological Recovery
  - [www.nctsn.org](http://www.nctsn.org)

Available at:

[http://www.ready.gov/kids/\\_downloads/PFA\\_Parents.pdf](http://www.ready.gov/kids/_downloads/PFA_Parents.pdf)

## Listen, Protect, Connect — Model & Teach

PSYCHOLOGICAL  
FIRST AID (PFA) FOR  
STUDENTS AND TEACHERS



Helping you help your students  
in times of disaster.



**OUR MISSION** is to raise the standard of care and improve access to **services** for **traumatized children, their families and communities** throughout the United States.

DEFINING CHILD TRAUMATIC STRESS ▶





# ALL HAZARDS DISASTER RESPONSE



**Floods &  
Tornadoes**



**Earthquakes &  
Hurricanes**



**Active Shooter &  
Terror Attacks**

**Learn to analyze potential hazards,  
assess available resources,  
create a response plan,  
and save lives in your area.**

NAEMT's All Hazards Disaster Response course is designed for emergency practitioners at all levels to respond to a variety of disaster scenarios they may encounter in their environment – both natural and man-made – to assess risk, and to evaluate the needs of the community.

AHDR is presented in the context of a disaster scenario that culminates in a large-scale mass casualty incident. Topics include:

- Communicating effectively during disasters.
- Mutual aid and interoperability.
- Managing resources such as supplies, medications and equipment.
- Triage and transportation strategies and challenges.
- Patient tracking and evacuation.

Γιατί είναι η  
προσέγγιση που  
κερδίζει έδαφος &  
ειδικά με αναφορά  
στον παιδιατρικό  
πληθυσμό;

## Children and Disasters

### About

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[Strategic Plan for  
Disaster  
Preparedness](#)

### Audience

## Children & Disasters

Disaster preparedness to meet children's needs



## Strategic Plan for Disaster Preparedness

The American Academy of Pediatrics (AAP) Disaster Preparedness Advisory Council (DPAC) has developed the following 5-year AAP Strategic Plan for Disaster Preparedness. Download a [PDF](#) of the Strategic Plan for 2016-2020.

## Στρατηγικό πλάνο σε 3 άξονες

- Εκτίμηση των αναγκών των παιδιών
- Υποστήριξη των παιδιατρικών δομών κατά την παροχή υπηρεσιών σε ΜΚ
- Διεθνής διασύνδεση και συνεργασία



# Σύνοψη οδηγιών (1)

- **Περιορισμός επίπτωσης & προετοιμασία**

- Αναθεώρηση υπάρχοντος σχεδίου αντιμετώπισης ΜΚ ή σχεδιασμός σχεδίου αντιμετώπισης ΜΚ προσαρμοσμένο στις ανάγκες της παιδικής ηλικίας.
- Επισημάνετε τους πιθανότερους κινδύνους ΜΚ και καταγράψτε πιθανές επιδράσεις.
- Διανείμετε ρόλους στην κοινότητα και τις υπηρεσίες υγείας του τομέα στον οποίο πραγματοποιείτε τον σχεδιασμό.
- Καταγράψτε αναλυτικά το σχέδιο δράσης.
- Κάντε τον προϋπολογισμό της δράσης και ζητήστε χρηματοδότηση.
- Εξασφαλίστε ότι έχει γίνει η ενημέρωση της κοινότητας (γονείς, σχολείο, παιδιά).
- Προετοιμάστε ένα αρχείο καταγραφής πριν και μετά την εμφάνιση ΜΚ.
- Εφαρμόστε ασκήσεις ετοιμότητας στο σχεδιασμό σας και ανατροφοδοτήστε κατάλληλα.



## Σύνοψη οδηγιών (2)

- **Ανταπόκριση**

- Εφαρμόστε το σχέδιο δράσης όποτε χρειάζεται.
- Αναγνωρίστε και ανταποκριθείτε στις άμεσες ανάγκες παιδιών και οικογένειας αμέσως μετά την επίδραση της ΜΚ.
- Ταυτοποιήστε τα παιδιά που παρέχετε φροντίδα και βοηθήστε στην κάλυψη των αναγκών τους.

- **Αποκατάσταση**

- Επανεκτιμήστε την επάρκεια (αριθμητικά και ποιότητα) του προσωπικού που χρησιμοποιήθηκε για την αντιμετώπιση της ΜΚ
- Βοηθήστε στην επανένωση των οικογενειών με συντονισμό των κέντρων παροχής φροντίδας
- Καταγράψτε τα αποτελέσματα των παρεμβάσεων σας
- Συντονίστε την αποκατάσταση της υγείας των παιδιών
- Εξασφαλίστε την αρμονική επιστροφή των παιδιών στην κοινότητα και την επανέναρξη του σχολείου
- Καταγράψτε τα κενά ή τα λάθη του σχεδίου και αναθεωρήστε το.
- Βοηθήστε στην αποκατάσταση των παιδιών που χρειάζονται σημαντικό χρόνο για την ανάκτηση της πλήρους λειτουργικότητάς τους ή μέρους αυτής.
- Ελέγξτε εάν καλύφθηκαν οι ανάγκες των παιδιών με ειδικές ανάγκες.

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## Humanitarian Health Action

[Humanitarian Health Action](#)[Crises](#)[Technical guidelines](#)[Key policy documents](#)[Donor centre](#)[Global network](#)[Health Cluster](#)

### Myths and realities in disaster situations



#### **Myth: Dead bodies pose a health risk**

Reality: Contrary to popular belief, dead bodies pose no more risk of disease outbreak in the aftermath of a natural disaster than survivors.

[In natural disasters, cadavers pose no threat of disease - September 23, 2004](#)

[Dead bodies do not pose health risk in natural disasters \(BNJ\) - June 5, 2004](#)

[Management of dead bodies after disaster situations \[pdf, 1007 KB\]](#)

A field manual for first responders

#### **Myth: Epidemics and plagues are inevitable after every disaster.**

Reality: Epidemics do not spontaneously occur after a disaster and dead bodies will not lead to catastrophic outbreaks of exotic diseases. The key to preventing disease is to improve sanitary conditions and educate the public.

**Myth: The fastest way to dispose of bodies and avoid the spread of disease is through mass burials or cremations. This can help create a sense of relief among survivors.**

Reality: Survivors will feel more at peace and manage their sense of loss better if they are allowed to follow their beliefs and religious practices and if they are able to

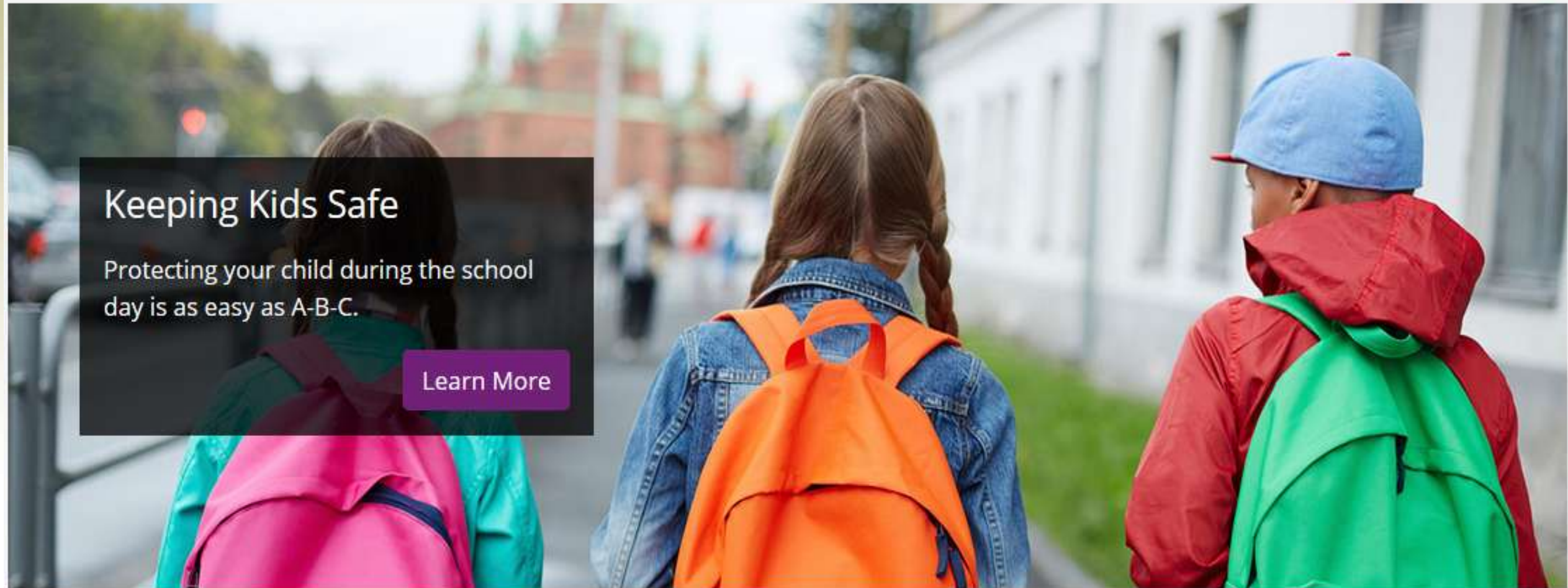
## Caring for Children in a Disaster



### Keeping Kids Safe

Protecting your child during the school day is as easy as A-B-C.

[Learn More](#)





# Children & Disasters

## Disaster preparedness to meet children's needs

### Welcome

Children have unique physical, mental, behavioral, developmental, communication, therapeutic, and social needs that must be addressed in all aspects of disaster preparedness, response, and recovery. Pediatricians have key roles to play in preparing and treating families in cases of disasters.

#### Pediatric Disaster Care

#### Centers of Excellence

The US Department of Health  
and Human Services (HHS)  
Office of the Assistant Secretary

#### UPCOMING EVENTS

Disaster related conferences,  
webinars, and trainings for  
pediatricians



#### PEDIATRIC EDUCATION DISASTERS

Children and Disasters

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# Society of Critical Care

## Pediatric Fundamental Critical Care Support



Society of Critical Care Medicine  
The Intensive Care Professionals

SCCM > FCCS, FDM & PFCCS > PFCCS Home

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**Annual Congress** ▶

**Conferences** ▶

**FCCS, FDM & PFCCS** ▶

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### Pediatric Fundamental Critical Care Support Course

*A two-day comprehensive course addressing fundamental management principles for the first 24 hours of pediatric critical care.*

The First Edition of Pediatric Fundamental Critical Care Support (PFCCS) was released in May 2008. The First Edition of the PFCCS text and the upcoming Course are a welcome addition to the Society of Critical Care Medicine's (SCCM) fundamentals of critical care education series. PFCCS will be a major resource for those interested in learning how to recognize critical illness and initiate care for the critically ill pediatric patient, in the absence of an intensivist. It will also serve as a valuable education tool for those entering the field of pediatric critical care.

SCCM has offered its Fundamental Critical Care Support (FCCS) course to global audiences since the mid-1990s. While FCCS addresses both adult and pediatric issues, its primary focus is the adult patient. PFCCS will disseminate fundamental pediatric critical care concepts to professional providers who may be involved in the initial management and transfer of critically ill or injured infants and children.

**PFCCS Home**

- Course Calendar
- Hotel/Travel Information
- Invited Faculty
- PFCCS - Resources
- Program Agenda
- Registration
- Sponsored Course

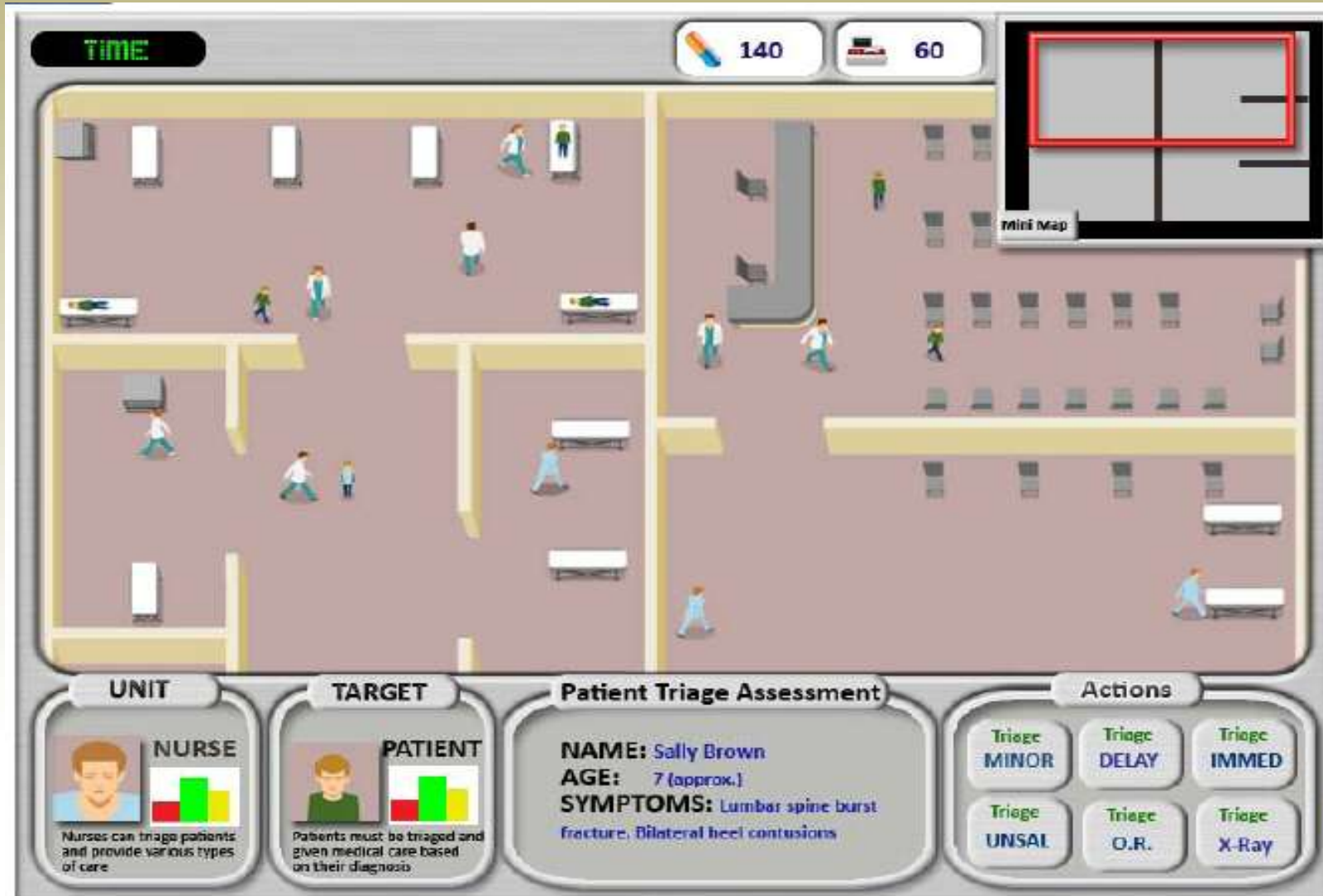
[http://www.sccm.org/FCCS\\_and\\_Training\\_Courses/PFCCS/Pages/default.aspx](http://www.sccm.org/FCCS_and_Training_Courses/PFCCS/Pages/default.aspx)



# *Think Out of The Box!*

## Pediatric Disaster/Triage Gaming

[www.chladisastercenter.org](http://www.chladisastercenter.org)





## Σύνοψη – Βασικές αρχές

- Όλα τα νοσοκομεία (γενικά & παιδιατρικά) θα πρέπει να εμπεριέχουν πρωτόκολλα αντιμετώπισης παιδιατρικών θυμάτων ΜΚ.
- Διαχείριση παιδιατρικού εξοπλισμού. Προμήθειες εκτάκτου ανάγκης.
- All hazards approach – Στρατηγική του σχεδιασμού αντιμετώπισης ΜΚ ανεξάρτητα από την αιτία.
- Μέτρα πρόληψης & αντιμετώπισης τρομοκρατίας με θύματα παιδιά.
- Η διαχείριση παιδιών & οικογενειών συνεχίζεται και μετά την οξεία αντιμετώπιση.
- Ασφαλείς & «φιλικοί» προς τα παιδιά χώροι υποδοχής.
- Αναγνώριση ταυτότητας & επανένωση οικογενειών.



# Ερωτήσεις





## Αντί επιλόγου...

Οι μαζικές καταστροφές οι οποίες οδηγούν σε υπερβολικούς αριθμούς παιδιών σε κρίσιμη κατάσταση είναι σπάνιες.

Αν όμως έστω και μια ζωή χαθεί λόγω έλλειψης σχεδίου οργανωμένης δράσης τότε το τίμημα είναι μεγάλο.

**Σας ευχαριστώ για την  
προσοχή σας!**