

# **The Mobile Pediatric Emergency Response Team (MPERT)**

## **One Tertiary Pediatric Care Center's Regional Response to Surge**

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All disaster planners should focus on regional resource utilization rather than resource recreation when preparing for a multifaceted response. While adhering to the local incident command system (ICS), experienced and resource-rich experts from every subspecialty (i.e. pediatrics, anesthesiology, geriatrics, obstetrics, etc) and every sector (i.e. private, non-profit, municipal, etc) of the community must be invited to participate in the planning of a regions disaster response. The resources must also be allowed to operate independently within their fields of expertise. These recommendations may sound inherently obvious to most, but intentionally or unintentionally, the lead governmental agencies in charge of disaster planning and response (LGAs) too often discount the importance of accessing and involving regional resources, citing concerns over battling egos, too many “cooks in the kitchen”, budgetary constraints, and/or schedule conflicts. While those concerns are legitimate, and often in fact the reality, the benefits of collaboration include a more efficient product that results in:

- A shortened preparation time
- A better distribution of the workload among knowledgeable partners
- Practice drills that focus more on maintenance and less on the recreation of preexisting processes that have already been tested, retested, and fine-tuned by the resource
- A more functional and reproducible model for an all-hazards multi-faceted disaster response
- Sound exit strategies

The content of this presentation is applicable and essential to existing pediatric tertiary care resources, as well as to the LGAs that require their expertise before, during, and after a disaster response. Regional tertiary care centers will be affected by any disaster response in their community and regardless of whether or not they are invited to the table, those centers must be proactive and force their way into the planning of the every phase of a disaster response. This presentation details two examples of one region's utilization of a willing and able tertiary pediatric care resource, resulting in the successful creation and implementation of a field-tested mobile pediatric emergency response team (MPERT):

- 1) Caring for Evacuated Children Housed in the Astrodome: Creation and Implementation of a Mobile Pediatric Emergency Response Team: Regionalized Caring for Displaced Children After a Disaster<sup>1</sup>

2) Outside the Box and Into Thick Air: Implementation of an Exterior Mobile Pediatric Emergency Response Team (MPERT) for North American H1N1 (Swine) Influenza Virus in Houston, Texas<sup>2</sup>

Using the resources of a regional tertiary pediatric care hospital (RTPCH), the MPERT, in less than 24 hours, recreated a scaled-down version of the resource's emergency center and provided around-the-clock staffing, equipment and supplies to an alternate care facility (ACF). The MPERT virtually doubled the RTPCH's surge capacity.

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<sup>1</sup> Sirbaugh PE, Gurwitch KD, Macias CG, Ligon BL, Gavagan T, Feigin RD. Caring for Evacuated Children Housed in the Astrodome: Creation and Implementation of a Mobile Pediatric Emergency Response Team: Regionalized Caring for Displaced Children After a Disaster. *Pediatrics*. 2006; 117(5): S428-438. <http://pediatrics.aappublications.org/cgi/content/full/117/5/S2/S428>

<sup>2</sup> Cruz AT, Patel B, DiStefino, MC, et al. Outside the Box and Into Thick Air: Implementation of an Exterior Mobile Pediatric Emergency Response Team (MPERT) for North American H1N1 (Swine) Influenza Virus in Houston, Texas. *Accepted for publication in Annals of Emergency Medicine – attached abstract for review.*

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**Outside the Box and Into Thick Air:**

**Implementation of an Exterior Mobile Pediatric Emergency Response Team (MPERT) for North American H1N1 (Swine) Influenza Virus in Houston, Texas**

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**ABSTRACT**

**Context:** Reports of H1N1 swine influenza initially in Mexico, California, and Texas, and subsequently in other parts of the United States, led to increased pediatric emergency center visits. The surge capacity of local emergency centers was tested, and the threat of pandemic influenza posed new challenges.

**Objective:** To describe the implementation and effect on emergency center flow of a mobile pediatric emergency response team (MPERT) for mildly ill children with influenza-like illnesses.

**Design:** Descriptive feasibility study conducted in April and May of 2009.

**Setting:** Pediatric emergency center (EC) open-air parking lot, Texas Children's Hospital (TCH), Houston, Texas.

**Patients:** Children  $\leq$  18 years of age seen with fever and viral respiratory symptoms from April 30-May 8, 2009 in MPERT.

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**Results:** MPERT saw 18% of the total ED volume, or an average of 50 patients daily, peaking at 83 patients seen on May 3<sup>rd</sup>. While few children had positive rapid influenza assays, and the morbidity of disease in the community appeared to be minimal for the majority of children, anxiety about pandemic influenza drove a large number of EC visits, necessitating an increase in surge capacity. This was accomplished both through utilization of existing institutional resources and by creating a novel arena in which to see patients with potential airborne pathogens.

**Conclusions:** MPERT and screening and triage algorithms were able to safely and effectively identify a group of low-acuity patients who could be rapidly evaluated and discharged, alleviating EC volume and potentially preventing transmission of H1N1 virus.

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