Non-Pediatric Hospital Emergency Preparedness: Overview

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Continuing Education Statements

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Financial Disclosures:

- The faculty and planners of this educational training do not have relevant financial interests and/or relationships to disclose.
Questions for Presenters?

- Use the “chat” feature to submit a question or comment at any time during the presentation.
- Direct all questions and comments to the participant named “Questions”.
Presenters

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  Director, Florida Department of Health Escambia County Health Department

- Rex Latta Northup, MD, FAAP, FCCP, FCCM Co-Medical Director Sacred Heart Children’s Hospital; Northwest Florida Regional Medical Director, FDOH Children’s Medical Services

- Deborah Ann Mulligan, MD, FAAP, FACEP
  Director, Institute for Child Health Policy; Professor, Pediatrics COM; Institute for Disaster & Emergency Preparedness, Pediatric Expert, Nova Southeastern University
Objectives

- To recognize the needs of children and youth in emergencies.
- To outline the current efforts towards emergency preparedness for children and youth and those with special health care needs (CYSHCN).
“Children are not small adults!”

- Physical and physiological differences
  - Breathe faster \(\rightarrow\) ↑ inhalation
  - Less blood and fluid reserves
- Larger surface area to mass ratio
  - More sensitive to skin toxins
- Higher metabolic rate
- More sensitive to changes in temp
- Developmental vulnerabilities
  - Lack cognitive decision making
Pediatric Preparedness

- Local hospital preparedness
- State EMS-C
- DOH Children’s Preparedness Coalition
- Southeast Regional Pediatric Disaster Surge Response Network
- Federal and National Initiatives
All Disasters are Local

- Pediatric preparedness and response is local starting with county emergency management
- Local facility compliance with NRF/NIMS/ICS-HICS and The Joint Commission:
  - Hospitals, clinics, FQHCs, etc.
  - Plan, train, exercise in pediatric specific job responsibilities
  - Plan of what to do with CYSHCN
Disaster Planning

- Community/facility planning process should include:
  - Pediatricians and other specialists
  - Nurses
  - Respiratory therapists
  - Child life specialists
  - Nutritionists
  - Behavioral health specialists
Practical Considerations for Children and Youth

- Pediatric readiness
  - Emergency manager aware/planning
  - Disaster drills
    - Hospitals
    - Schools, child care centers, home
  - Surge capacity—hospitals
  - Emergency pediatric equip/techniques
    - Broselow-Luten tapes/JumpStart triage
    - Medications-liquid
    - Strategic National Stockpile
  - Shelters vs. evacuation
Where do Children Go in a Disaster?

- **Shelter-In-Place**
  - Home
  - Other
- **Evacuate**
  - Another region
  - Another state
- **General shelter**
- **Local Special Needs Shelter (SpNS)**
  - Hospital
  - Adult SpNS
  - Peds SpNS
  - General shelter (FNSS)
- **Regional SpNS**
Summary

- Children are not small adults
- Children and youth and those with special health care needs must be considered in local, regional, state, national preparedness planning
Emergencies/ Disasters

- Sudden
- Acute
- Unexpected
- Crashes
- Explosions
- Natural Disasters
- Acts of Terrorism
Anticipated/ Unanticipated

- Known – Hurricanes, Pandemics, Epidemics
- Unanticipated – Crashes, Explosions, Acts of Terrorism
- Scope – Small, Moderate, Severe, Catastrophic
Preparedness Approaches

- Ostrich: Head in the sand
- Boy Scouts of America: Be prepared
- Intensivists: Plan for the worst, pray for the best!
- Pessimists vs. Optimists: We’re all gonna die!! vs We can get through this!
In An Emergency Disaster/ Situation

- “Usual” will not exist
- Inadequate staff
- Equipment shortages
- “Transport” can & will take place
- Transport Personnel
- Transport Equipment
- Patient flow variable
- Arrival of the cavalry!
- All of these variables increase potential for problems
Hospital & ICU Issues

- Again, “usual” will not exist
- Children’s Hospitals alone will not be able to address all needs
- Triage will be a vital function
- True pediatric resources are relatively limited
- Pediatric “patients” may begin arriving prior to the event
Hospital & ICU Issues (cont.)

- Planned discharges may be hampered
- When help arrives, similar problems as cited in transport comments earlier
- In some cases, transport out of the area is the better option
DOH Children’s Preparedness Coalition

- To make recommendations and identify resources that establish a systematic approach to post-disaster tools for use statewide.
- Comprised of organization and agency individuals who have the experience and knowledge in the areas of pediatric preparedness, response, and recovery
- Two key focuses:
  - Preparedness considerations for children
  - Pediatric disaster care guidelines
Southeast Regional Pediatric Disaster Surge Response Network

- Purpose: to improve the pediatric preparedness response strategies of public health, emergency response, and pediatric providers in the event of large-scale emergencies or disasters that overwhelm local or state pediatric resources.
Southeast Regional Pediatric Disaster Surge Response Network

- Reps from the Alabama Department of Public Health, the Mississippi State Department of Health, & the South Central Center for Public Health Preparedness (SCCPHP)
- More than forty organizations participating
- Voluntary network of health care providers, public health departments, volunteers, & emergency responders from Alabama, Florida, Louisiana, Mississippi, & Tennessee
Southeast Regional Pediatric Disaster Surge Response Network

- Phase 1 - Planning
- Phase 2 - Operational Handbook
- Phase 3 – Exercise & Evaluations
- Florida significant efforts – DOH, FHA, FACH, EMSC, & many other Partners
Roles for Non-Pediatric Hospitals

- Pre-incident
  - Plan
  - Prepare
  - Anticipate known & possible needs
  - Participate in collaborative efforts
  - Exercise
Roles for Non-Pediatric Hospitals

- Pre-incident
  - Work w/ local, state & regional agencies pre-incident to develop effective triage plans & mechanisms to help maximize efficiencies, effectiveness & optimal outcomes
Roles for Non-Pediatric Hospitals

- **During**
  - Realistically determine what your organization & team can contribute
  - Do what you can to maximize efficiencies, effectiveness & optimal outcomes
  - ??
Roles for Non-Pediatric Hospitals

- Post-incident
  - Review outcomes
  - Use after action reports to make improvements for the next time
  - Learn from the experience
American Academy of Pediatrics

Briefing on

Disaster Preparedness and Response

Deborah A Mulligan MD FAAP FACEP

*Executive Committee Chair,*
*Council on Communications and Media*

*Director, Institute for Child Health Policy*
*Institute for Disaster and Emergency Preparedness*
*Nova Southeastern University*

*Special thanks to: Disaster Preparedness Advisory Council*
Today’s Briefing

- History
- DPAC Goals and Strategic Plan
- Progress
- Key Achievements
- Current Status
- Future Directions
AAP Involvement

- Work Group on Disasters (1993)
- Disaster Preparedness Team (2005)
- Disaster Preparedness Declared an AAP Strategic Health Priority (2006)
- Disaster Preparedness Advisory Council (2007)
- Disaster Preparedness Integrated (2008)
Disaster Preparedness Advisory Council (DPAC)

- “Advisory Council” appointed by the Board
- To ensure an enduring AAP disaster initiative with close ties to key federal agencies
- Current members
  - Sarita Chung, MD, FAAP
  - MAJ Daniel Fagbuyi, MD, FAAP
  - Margaret Fisher, MD, FAAP
  - Steven Krug, MD, FAAP
  - Scott Needle, MD, FAAP
  - David Schonfeld, MD, FAAP
DPAC Liaisons

- **Georgina Peacock, MD, FAAP** and Pam Diaz, MD
  Centers for Disease Control and Prevention (CDC)

- **Lisa Mathis, MD, FAAP**
  US Food and Drug Administration (FDA)

- **TBD**
  US Department of Homeland Security (DHS)

- **David Siegel, MD, FAAP**
  National Institute for Child Health and Human Development (NICHD)

- **Andrew Garrett, MD, MPH, FAAP; Kevin Yeskey, MD; and Daniel Dodgen, PhD**
  HHS Office of the Assistant Secretary for Preparedness and Response (ASPR)

‘Pearl’ – The presence of an advocate/partner is a key success factor!!
DPAC: Desired Outcomes

- Pediatricians and pediatric office practices are prepared to assist children, families, and communities with disaster planning.

- Children’s needs are fully integrated and exercised within Federal, state, and local plans for all hazards/emergencies having a public health impact.

- The AAP has an ongoing mechanism to:
  - Implement disaster preparedness initiatives,
  - Respond to requests for pediatric expertise, and
  - Integrate activities across internal and external groups.
DPAC Strategic Plan

- Increase awareness of pediatric preparedness principles at all levels
- Continue legislative and public health policy advocacy – federal (and state/local)
- Evaluate federal and state plans to see if they are “child friendly”
- Increase ability of AAP and DPAC to respond to ongoing opportunities
- Ensure inclusion of children in federally-funded initiatives and research
DPAC Strategic Plan

- Expand pediatrician education and training (with Sections, Councils and Chapters)
- Produce and maintain comprehensive website linked to federal & other partners
- Provide resources to help practices develop a disaster plan
- Consider ways to match provider needs with available resources
- Promote Chapter and state public health and disaster management partnerships
Funding and Other Resources

- **American Academy of Pediatrics**
- **Tomorrow’s Children Endowment**
- **Centers for Disease Control and Prevention**
  - Needs assessment of licensed child care centers, preparing for a pandemic influenza
  - Newborn screening after disasters
  - “Enhancing Pediatric Partnerships to Promote Pandemic Preparedness” meeting and follow-up
- Proposal revise and reproduce “Feelings Need Check-ups Too” and “Family Readiness Kit” (funding pending)
When The DPAC Was Created...

- AAP not initially at table
- Families were separated during disasters
- Shelters not well prepared to care for children
- Protocols for animals in plans, none for children
- Countermeasures for adults, few for children
- Little or no mention of children in state disaster plans
- Education resources developed without pediatric input
- National workshops with no pediatric speakers
- Federally-funded programs with no pediatric requirements
- Federal response teams with limited pediatric skills
- Annual grantee meetings with no pediatric players
With Progress Comes New Challenges

- AAP invited to federal meetings, but 1 of 50 (non-pediatric) members or groups at table
- Federal agencies developed divisions or initiatives focused on all ‘at-risk populations’
- Plethora of invitations, typically last minute
- Connections made with individual pediatricians, not the AAP or Chapters
- Requests for input on *lengthy* documents that did not mention children
- Call for pediatric specialists by the NDMS
- Disasters seemed to increased in frequency
  - Lead federal agency differed
  - Each situation unique
  - Communication fatigue
Children & Disasters Website

Available at: www.aap.org/disasters/index.cfm
Legislative/ Federal Advocacy

- Endorsed, worked towards passage of *Addressing the Disaster Needs of Children Act of 2007*, which created the National Commission on Children and Disasters
- Supported inclusion of pediatricians on Commission (3 of the 10 Commissioners were AAP members)
- Provided pediatric expertise and input on federal regulations and documents
- Increased visibility of AAP and disaster preparedness issues on Capitol Hill
  - Led AAP Partnership for Children’s Disaster Preparedness
  - Partnered with other groups through the Coalition on Children and Disasters
  - Progress in getting pediatricians on federal councils, panels
Congressional Testimony

- Senate Health, Education, Labor and Pensions Committee (Public health preparedness, May 2011)
- House Homeland Security Subcommittee on Disaster Preparedness, Response, and Communications of the Homeland Security Committee (Medical countermeasures, April 2011)
- House Committee on Small Business (H1N1 impact on small businesses, September 2009)
- House Energy and Commerce Subcommittee on Oversight and Investigations (Post-Katrina healthcare, August 2007)
- House Committee on Oversight and Government Reform (Formaldehyde in trailers, July 2007)
Disaster Preparedness for Pediatric Practices: An Online Tool

Disasters are unpredictable and can cause loss of life, destruction of property, and disruption of business operations. Pediatricians face special concerns including the inadequacy of disaster planning in addressing the needs of children (especially those with special needs), and the ongoing need to develop or improve their pediatric offices and personal disaster plans. A working plan can help practices reduce risks, maintain practice operations, and ensure a medical home for children in their care.

Develop your Disaster Plan Now

Instructions
Create a disaster preparedness plan for your medical home practice by answering questions in this interactive tool.

Choose a topic below:
- Practice Information
- Review Key Resources
- Plan for Continuing Operations
- Review Insurance Coverage

Key Resource:
A pediatrician who practiced in Mississippi during and after Hurricane Katrina prepared A Disaster Preparedness Plan for Pediatricians to encourage practitioners to develop a written disaster plan. This article includes detailed information on action steps to help staff prepare the office and guidance on issues that should be considered in advance of a disaster.

Supplemental Resources:
Education/ Training

- Annual Leadership Forum (ALF) presentations
- National Conference and Exhibition (NCE) sessions
- Expert presentations at other national conferences
- Calls and webinars with CDC
- Pediatric drills and exercises
- Connections with pediatrician-led national disaster centers
- Pediatric disaster preparedness curriculum development (NCDM)
- Pediatrics in Disasters training for international settings
Key Achievements
National Commission on Children and Disasters

- NCCD members/leaders
  - Michael Anderson, MD, FAAP
  - Irwin Redlener, MD, FAAP
  - David Schonfeld, MD, FAAP

- AAP member collaboration
  - NCCD committees
  - Interim and final reports
  - Advocacy/public policy

- Federal agency collaboration
  - HHS/ASPR, HRSA, CDC, FDA

- Academy leadership role for advocacy/public policy
  - Washington DC staff
  - Marist public opinion poll
Disaster = Opportunity?

- **H1N1 pandemic**
  - CDC Pediatric Desk - algorithms, messaging
  - Led by Georgina Peacock, MD, FAAP
  - AAP identified member and staff response teams

- **Haiti earthquake**
  - AAP, NDMS, NACHRI partnership and survey

- **Financial crisis**
  - “Talking to kids about the economy” handouts

- **Oil spill**
  - New focus on recovery, environmental issues

- **Japan tsunami/ nuclear crisis**
  - Pediatric countermeasures and mental health
Great Partnerships at Work

Strained resources
Chaos in EDs and pediatric offices during early weeks of H1N1 outbreak provides lessons

2009-2010 Influenza Season Triage Algorithm for Children (≤18 years) With Influenza-Like Illness

This algorithm was developed for use only by physicians and those under their direct supervision, not for use by the general public, to help in discussions and providing advice to parents or other caregivers of ill children regarding seeking medical care for an influenza-like illness. The algorithm can be used regardless of whether or not the child has been vaccinated for influenza. Caregivers of children who may have potentially life-threatening signs and symptoms, such as unresponsiveness, or respiratory distress and cyanosis (blue-colored skin), should be instructed to dial 911.

<table>
<thead>
<tr>
<th>If child &lt; 2 years old are all of the following present?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fever or feels feverish (if no thermometer available)*</td>
</tr>
<tr>
<td>2. Irritability or cough or vomiting/unable to keep fluids down</td>
</tr>
<tr>
<td>If child ≥ 2 years old are all of the following present?</td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
</tr>
<tr>
<td>1. Fever or feverishness*</td>
</tr>
<tr>
<td>2. Cough or sore throat</td>
</tr>
</tbody>
</table>
*If antipyretics are taken this may inhibit a patient’s ability to mount a fever. If antipyretics have been taken, the patient can be reassessed 4 to 6 hours after acetaminophen or 6 to 8 hours after ibuprofen. 

Although some children with influenza may not exhibit the usual influenza symptoms including fever, this child’s symptoms suggest that influenza is less likely. They do not meet criteria for this algorithm. The child should be assessed for alternative diagnoses.
Pediatric Countermeasures

- Pediatric labeling of pralidoxime (2-PAM) finally approved!!
  - Required multiple meetings with FDA along with the National Commission
- Presentations on MCM gaps at HHS/ASPR pediatric readiness workshop
- Assistance from champions at the NICHD
  - David Siegel, MD, FAAP
- On-going discussions regarding other gaps in the Strategic National Stockpile
  - Midazolam, vaccines, potassium iodide, others
Current Status
Save the Children: *Pediatric Scorecard*

- **Plan for safely evacuating children in licensed child care settings**
  - 26 of 51 states (plus DC) complied
- **Plan for reunifying families after a disaster**
  - 26 of 51 have this in their state plan
- **Plan for children with special needs in licensed child care settings**
  - 18 of 51 presently require this
- **Plan for evacuation of children in schools for all-hazards**
  - 40 of 51 states are ‘prepared’
  - Only 12 states met all 4 criteria, 11 met all 4 criteria, 11 met 3 of 4 criteria
  - 7 states failed to meet any of the four criteria

Hospital Disaster Preparedness
Niska RW, Shimizu IM. National Health Statistics Report #37, 2011

- 2008 National Hospital Ambulatory Medical Care Survey
  - Tracking system for children (43%)
  - Reunification of children and families (34%)
  - Increasing pediatric surge capacity (32%)
  - Plan for supplies/sheltering of children (29%)
  - Countermeasures
    - Plan for distribution of KI (33%)
  - Disaster drills (89%)
    - Pediatric victims included (45%) - median # victims: 1[16]
    - School system included (31%)

Available at: http://www.cdc.gov/nchs/data/nhsr/nhsr037.pdf
Hospital Emergency Surge Capacity


- Federal (HHS) policy calls for surge capacity of 500 beds per 1M population
- Study of bed capacity in NY State (1996-2002)
  - 242 hospitals -- peak inpatient bed capacity to care for 2700 children [≤14 yr] and 46,600 adults
    - Average bed occupancy for children: 60% of peak
    - Average bed occupancy for adults: 82% of peak
- Average statewide surge capacity
  - 268 children and 555 adults per 1M population
- **NOT ENOUGH** available pediatric beds
  - Must consider modified care standards to ↑ capacity
Family Preparedness and PCP Role


- Survey study of family compliance with readiness guidelines
  - Community evacuation plan awareness, family emergency response plan, emergency/disaster supply kit, maintenance of family emergency plan
  - Bronx (NY) & Dauphin (PA) Counties, 2008 [N=1024]
    - 35% familiar with community evacuation plan
    - 43% had a family emergency response plan
      - Only 42% of those with a plan had practiced
    - 22% had a disaster supply kit
    - 17% had discussed preparedness with PCP
  - Those that discussed preparedness with Primary Care Providers were twice more likely to be prepared
Future Directions
Federal Legislation Strategy (PAHPA)

- Children are classified in most federal/state plans as
  - “At risk populations”
  - “Vulnerable populations”
  - “Underserved populations”

“*The wastebasket of benign neglect*”

- The needs of children need to be prioritized
- Federal grant programs need **pediatric specific performance measures** as it is difficult to plan, let alone improve, what one does not measure and for which there are no specific goals to be achieved

Future AAP Opportunities

- Provide an AAP “network of support” for members who are practicing in ongoing adverse conditions (i.e., disaster recovery area)
  - Promote physician wellness
  - Customize materials for members to offer families
  - Support adults to promote adjustment and help children cope with disasters, bereavement, etc.
- Develop a plan for long-term recovery
- Assist AAP Chapters to connect with various preparedness contacts and resources
- Offer education and training for members
- Maintain networks of pediatric experts, connect with other AAP groups
Issues DPAC Is Considering

- The extent to which the AAP should focus on implementation of the recommendations identified by the National Commission on Children and Disasters
- The role of the AAP in US and international disaster response
- Where the AAP should strategically focus its expertise and resources to better enable members to advocate for children’s issues in preparedness and response
Questions, Comments, Direction?
Thank You!
Thank You for Your Participation!

For more information:

- [www.doh.state.fl.us/demo/BPR/hospprepared.html](http://www.doh.state.fl.us/demo/BPR/hospprepared.html)
- Christie_Luce@doh.state.fl.us