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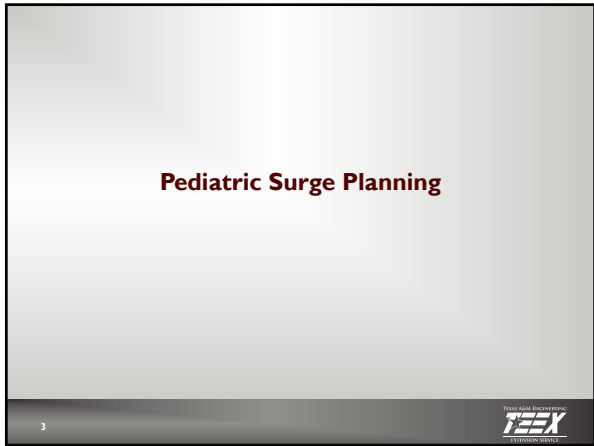
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**Objective**

Describe the concepts of surge with specific focus on pediatric implications in a disaster event that are unique to the pediatric population, as well as discuss the impact of those considerations on planning and response efforts.

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**Introduction**

- Planning for Pediatric Surge Capacity
- The Four Ss: Key Planning Concept
- Behavioral / Mental Health Considerations

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**Pediatric Health Care Trends**

- 9.3% decrease in pediatric admissions
- 24.6% increase in pediatric interhospital transports:
  - Largest change was for common conditions

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**Unique Needs of Children in Disasters**

- May experience long-lasting effects
- More susceptible to threats & require different medications, dosages, & delivery systems than adults
- Young children may not be able escape danger, identify themselves, & make critical decisions
- Dependent on adults for care, shelter, transportation, & protection from predators

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**Unique Needs of Children in Disasters**

- Often away from parents, in care of schools, child care providers, Head Start, or other child congregate care environments
- Must be expeditiously reunified with legal guardians if separated from them during a disaster
- Shelters require age-appropriate supplies such as diapers, cribs, baby formula, & food

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**The Four Ss: Key Planning Concept**

- Defining pediatric surge:
  - Staff
  - Supplies
  - Space
  - Systems

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**Impact of Potential Pediatric Surge**

- Events that contribute to pediatric surge:
  - Community-wide events involving children
  - Events impacting the family unit as a whole
  - Events impacting specific demographic groups

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**Are Hospitals Prepared?**

- 98% of EDs were in nonchildren's hospitals:
  - Handle 83% of ED visits for U.S. children
- Only 15% of physicians caring for children in EDs were specifically trained in pediatric emergency medicine
- Only 39% of emergency physicians had same mandatory competency training

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**Pediatric Surge Guidance**

- HHS / CDC:
  - *Public Health Preparedness Capabilities: National Standards for State and Local Planning Capability 10: Medical Surge*

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### Pediatric Surge Guidance

- Needs of children:
  - Mental / Behavioral health needs
  - Nutritional needs
  - Shelter considerations
  - Pediatric medical competency



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13




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### Pediatric Surge Guidance

- DHS:
  - 2017 National Preparedness Report
- HHS:
  - Post-Disaster Child Care Needs and Resources (2016)

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### Pediatric Surge Guidance

- NACCD
  - Near-Term Strategies to Improve Pediatric Surge Capacity During Infectious Disease Outbreaks: A Report of the NACCD Surge Capacity Work Group (2015)
  - Healthcare Preparedness for Children in Disasters: A Report of the NACCD Healthcare Preparedness Working Group (2015)

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### Pediatric Surge Guidance

- NACCD recommendations:
  - Coordinated transportation system
  - Real-time monitoring
  - Mitigate gaps in care
  - Expand coalitions
  - Pediatric education standards



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### Staff Considerations

- Small care teams overseen by clinician with higher competency / comfort level working with children
- Relocating staff from pediatric facility
- Cross-training staff from NICU & mother / baby units in ED

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### Staff Considerations

- Staff recall procedures
- Non-conventional staffing sources
- Modification of staff / patient ratios
- Dependent care for staff
- Just-in-Time (JIT) training programs

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**Supplies Considerations**

- Pharmaceuticals & compounding
- Respiratory equipment
- Fluids & nutrition
- Safety systems
- Replacement of daily use of disposable items
- Age-appropriate medical supplies & equipment
- Replenishment / Resupply of consumable items
- Alternate vendors

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**Space Considerations**

- Decompression
- Reverse triage
- Early discharge
- Conversion of outpatient areas, adult beds, & non-PICU to PICU
- Discharge holding area
- Increase room capacity
- Use non-traditional areas
- Consider space outside facility

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**Systems Considerations**

- Security:
  - Reunification
  - Tracking of accompanied & unaccompanied children
  - Identify & protect displaced children
  - Create Pediatric Safe Areas (PSA)
- Telemedicine:
  - Augment pediatric capability
  - Facilitate surge
  - Increase provider confidence

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### Systems Considerations

- Educational systems:
  - JIT training programs on pediatric to assist in making more confident & comfortable
  - Short, formal Computer-Based Training (CBT) session
- Coalitions:
  - Coordinates activities to prevent redundancy
  - Protects at-risk individuals
  - Maintains continuity of operations
  - Supports jurisdictional situational awareness

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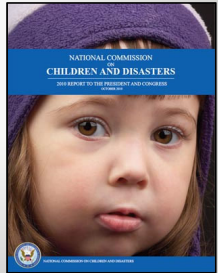
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### Sheltering Considerations

- Health care facilities not an optimal location:
  - Recommendations from 2010 Report to the President and Congress
  - Supplies for infants & toddlers (refer to Appendix C)



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### Behavioral / Mental Health Considerations

- Department of Health and Human Services Disaster Behavioral Health Concept of Operations:
  - Children lack experience, skills, & resources to independently meet their own behavioral health needs
  - Children known to be at greater risk for behavioral health problems following exposure to trauma & violence

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**Behavioral / Mental Health Considerations**

- Psychological First Aid (PFA):
  - EM & staff responsibilities:
    - Identify children who may be in need of psychological support
    - Understand common signs of psychological distress in children of various age groups
    - Make initial contact & gain information
    - Listen through active communication techniques
    - Link children to appropriate resources
    - Identify children in need of advanced care
    - Assist in reunification

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**Behavioral / Mental Health Considerations**

- Behavioral / Mental health assets:
  - Factors affecting mental health issues:
    - Age
    - Gender
    - Ethnicity
    - Proximity to disaster
    - Direct impact of disaster to child

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**Behavioral / Mental Health Considerations**

- Behavioral / Mental health assets:
  - Pre-event planning:
    - Provide timely access to all available resources
    - Develop clear & concise language regarding threat
    - Develop coalition of community assets to address problems (emphasize professional credentials & education to work with children)
    - Develop tactical mental health element to function in schools, hospitals, shelters, etc.
    - Identify pre-event distribution of at-risk children

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**Behavioral / Mental Health Considerations**

- Behavioral / Mental health assets:
  - National Children’s Disaster Mental Health Concept of Operations
  - PsySTART screening tool
  - Long-term concern:
    - Ongoing monitoring essential:
      - Project Heartland
      - Project Liberty

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**Summary**

- Understand the unique needs of children in disasters
- Pediatric surge capacity:
  - Staff, supplies, space, & systems
- Behavioral / Mental health considerations



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**Classes Available**

- Pediatric Disaster Response and Emergency Preparedness
- Medical Management of CBRNE
- Medical Countermeasures – Points of Dispensing
- Medical Preparedness and Response to Bombing Incidents

<https://teex.org/program/ems-public-health-emergency-preparedness/>

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**Contact Information**

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