Pediatric State Preparedness Learning Collaborative
Virtual Meeting #1

Thursday, August 8, 2019
11:00am ET/10:00am CT
ROLL CALL, WELCOME, AND INTRODUCTIONS

Centers for Disease Control and Prevention (CDC)
Children’s Preparedness Unit
• Kevin Chatham-Stephens, MD, MPH, FAAP
• Rebecca Leeb, PhD

American Academy of Pediatrics (AAP)
• Steven E. Krug, MD, FAAP, Chairperson, AAP Council on Disaster Preparedness and Recovery
Children’s Preparedness Unit (CPU)
Centers for Disease Control and Prevention (CDC)
National Center on Birth Defects and Developmental Disabilities

Build an evidence base of best practices during emergencies

Develop partnerships with leaders in preparedness planning and program implementation

Offer technical assistance on preparedness planning to states and localities

Increase awareness of children’s needs during preparedness planning

Visit www.cdc.gov/childrenindisasters for more information.

- Participated in emergency responses, including Ebola, Flint water crisis, Zika virus, and hurricanes
- Conducted tabletop exercises with the American Academy of Pediatrics (AAP), state health departments, and hospitals to help prepare their communities for emergencies
- Coordinated communications materials, including Ready Wrigley books, with CDC’s Center for Preparedness and Response and AAP
- Developed guidelines with other subject matter experts to improve quality of care

The CPU is CDC’s only unit focused solely on the specific needs of children in public health emergencies.
COUNCIL ON DISASTER PREPAREDNESS AND RECOVERY

• Approved in July 2019
• Formerly known as the Disaster Preparedness Advisory Council
• Allows for an important expansion of activities, including education and membership opportunities
• Details on Executive Committee appointments and membership opportunities coming soon!
LEARNING COLLABORATIVE OUTCOMES AND APPROACHES

• Four 1-hour Learning Collaborative sessions
• Connect pediatric and public health partners
• Determine what types of education are needed to support improved pediatric preparedness at the state-level
• Identify criteria/benchmarks to assess and improve state pediatric preparedness
• Learn, share, and network
• Expand efforts through state or regional pediatric teams or discussions
LC Survey Results: Desired Outcomes

1. Learn from others
2. Networking, share information and best practices
3. Make better connections/increase knowledge of what colleagues are doing in public health and medicine
4. Contribute to disaster preparedness and response efforts and related research
LC Survey Results: State Challenges

1. Funding
2. Engagement
3. Organization
4. Rural population
5. Lack of resources
NATIONAL HEALTHCARE COALITION PREPAREDNESS CONFERENCE

- **Details**: December 2–5, 2019, in Houston, TX
- **Description**: This conference highlights best practices of US healthcare coalitions and provides opportunities for attendees to network with peers, share ideas, and learn from others' experiences.
- **ASPR Pediatric Annex session** on December 5th!
- **Please join us...registration/housing is open!**
Healthcare Coalition Pediatric Surge Annex Template

The 2019-2023 HPP Funding Opportunity Announcement (FOA) requires Healthcare Coalitions (HCCs) to develop a complementary coalition-level Pediatric Annex to its base medical surge/trauma mass casualty response plan to improve capacity and capabilities to manage a large number of casualties that are children. According to the 2017-2022 Health Care Preparedness and Response Capabilities, HCCs "should promote…members’ planning for pediatric medical emergencies and foster relationships and initiatives with emergency departments that are able to stabilize and/or manage pediatric medical emergencies" (Capability 4, Objective 2, Activity 4).

Available at: https://files.asprtracie.hhs.gov/documents/aspr-tracie-hcc-pediatric-surge-annex-template-final-508.pdf
ANNEX COMPONENTS

• What is the area/pediatric population covered by this Annex?
• Needs assessments (Experts: where to find them?)
• Purpose, scope, overview, needs of pediatric population
• Activation, roles/responsibilities, logistics
• Space, staff, supplies (Pediatric Readiness in the ED Policy)
• Special considerations: behavioral health, decontamination, evacuation, pathogens, security
• Medical care (triage, treatment, transportation, reunification)
• Deactivation
PRESENTATIONS ON PEDIATRIC SURGE

Oregon

Michigan
Pediatric Surge Summit
June 6, 2019
Portland, OR
• Understand the impetus for conducting pediatric surge planning
• Understand Pediatric Surge Project Goal
• Understand development of the PSLG
• Review staged approach and project phases
Pediatric Surge Planning: Project History

HPO Strategic Planning

Where are we now?

How do we get there?

Where do we want to be?
### Pediatric Surge Planning: Project History

#### HPO Strategic Planning

**How do we get there?**

### Prioritized Projects

<table>
<thead>
<tr>
<th>Project</th>
<th>Timeline</th>
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<tbody>
<tr>
<td>ED/ICU Surge</td>
<td>2010-2011</td>
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<tr>
<td>Trauma Surge</td>
<td>2005-2007</td>
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<td>2010-2016</td>
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<tr>
<td>Burn Surge</td>
<td>2005-2007</td>
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<tr>
<td>Pediatric Surge</td>
<td>2016-current</td>
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<tr>
<td>Emerging Infectious Disease Surge</td>
<td>New HPP Grant</td>
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</table>
Framework for Surge Planning

- Current Operations & Capacities
- Disaster Impacts
- Surge Benchmarks
Pediatric Surge Planning: Project History

**Pandemic Flu**

- Depends on Influenza Virus (severity, communicability)
  - 2009 H1N1 type
    - Impacted children disproportionately
    - ~70% of hospitalized children had underlying medical conditions
- 1968-1969 Hong Kong Flu
  - 34,000 U.S. Deaths
- 1957-1958 Asian Flu
  - Killed 68,000 Americans
- 1918 Spanish Flu – 20-44 year olds impacted predominately
  - Secondary bacterial pneumonia

**Different Resources Needed for Each Scenario!**

- ~23k injured disaster survivors
  - ~1,000 children needing acute hospitalization
  - ~200 children needing critical care hospitalization
- Loss of infrastructure & staff loss
  - 50% damage estimates
  - 25% staff loss
- Includes those already in a 95% capacity hospital pre-event
Pediatric Surge Planning: Project History

- Oregon’s Pediatric Specialty Care Hospitals have limited capacity to handle a surge of ill/injured children
- Potentially, many children will need at least temporary care at a non-pediatric specialty care hospital after a disaster
  - Many of these hospitals lack sufficient resources to care for them
Pediatric Surge Project Goal

Under the guidance of a Pediatric Surge Leadership Group:

Create a Pediatric Surge System built on an understanding of all hospitals’ (pediatric and non-pediatric) and associated organizations’ capacities, capabilities, and needs.
Pediatric Surge Leadership Group

Hospital Emergency Managers, Pediatric Specialist Physicians, Nursing Leaders

NW Oregon Health Preparedness Organization

Provides staff to convene and facilitate people and processes
Pediatric Surge Planning: Project History

Phased Approach to Pediatric Surge Planning

- Pediatric Specialty Care Hospitals
- Non-Pediatric Hospitals
- Non-Hospital Clinic Resources (affiliated and non-affiliated)
Pediatric Surge Planning: Project History

Phased Approach to Pediatric Surge Planning

Sector: Pediatric Specialty Care Hospitals
Phase I: Strategic Planning & Engagement

executive engagement

SURVEY

Regional Pediatric Specialty Care Capacity Report
Sector: Pediatric Specialty Care Hospitals
Phase II: Pediatric Surge Planning

Hospital Pediatric Surge Toolkit

Pediatric Annex for a Hospital Emergency Operations Plan
Sector: Non-Pediatric Specialty Care Hospitals
Phase III: Engage Non-Specialty Hospitals in Pediatric Surge Planning
Pediatric Surge Planning

**Space**
- Unique places for children

**Staff**
- Sufficient Staffing
- Training Programs
- Credentialing
- MRC – consider creating a pediatric specific
- CRC – Unique individuals in community that work with children (child care providers)

**Stuff**
- Medications
- Equipment
- Non-medical (formula, diapers, toys)

**Systems**
- Transport
- Triage Tags
- Age Exceptions for hospitals
Hospital Pediatric Surge Toolkit Purpose:

To assist hospitals, both pediatric specialty and non-specialty, to plan a hospital-wide strategy for a scenario where patient needs out number assets on hand (space, staff, or stuff).

<table>
<thead>
<tr>
<th>Toolkit Element</th>
<th>Target Audience</th>
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<tbody>
<tr>
<td>Hospital-Wide Strategy Worksheet</td>
<td>Emergency Manager/Hospital</td>
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<td>Administrator</td>
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<tr>
<td>Inpatient Unit Surge Planning Worksheet</td>
<td>Nursing Managers</td>
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<td>Hospital Support Units Planning</td>
<td>Hospital Administrators</td>
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<tr>
<td>Worksheet</td>
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<tr>
<td>Master Surge Planning Spreadsheet</td>
<td>Emergency Manager/Hospital</td>
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Supporting Non-Pediatric Specialty Hospitals in Pediatric Surge

Worksheet #1
Hospital Wide Strategy

Worksheet #2
Inpatient Units

Worksheet #3
Hospital Support Units

Master Excel Spreadsheet Tracker

All worksheets and spreadsheets come with a robust example and pdf blank worksheets
Objectives:

- Promote awareness of simulation educational research
- Identify simulation training options
- Enhance understanding of simulation modalities
- Support access to simulation resources
Data Report Recommendation:

Develop a concept of operations for the use of telehealth services across the state and across health systems to support patient management/wait periods at acute care hospitals (up to 72-96 hours)
Phase IV
Activities

- Support planners at non-pediatric specialty care hospitals (webinars, technical assistance)
- Develop online learning tools to support post-summit education (videos, e-learning)
- Develop a Regional Pediatric Disaster System of Care
  - Compile information from hospital capacity surveys
  - Develop recommendations for Regional Medical Hospital (RMH) at OHSU to guide patient destinations for EMS pediatric transports in a surge event
Phase IV
Activities

- Develop an exercise to test pediatric evacuations from hospitals
- Build awareness with community partners (EMS, Ambulatory Sector) about Pediatric Surge Plan
Planning for Hospital Pediatric Patient Surge

AAP Pediatric State Learning Collaborative
Thursday August 8,
11:00 am ET

Stuart Bradin DO, Marie Lozon MD, Ronald Ruffing MD
Medical Surge

“The ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community.”

(ASPR)
Surge Response: 4 S

- STAFF
- STUFF
- SPACE
- SYSTEMS
Surge Response: Staff

**PEDIATRIC CONCERNS**

1. Critical Skills
   a. IV/IO access
   b. Airway management
   c. Medication administration

2. Knowledge
   1. Unique anatomy and physiology
   2. Medications
   3. Special pediatric conditions

3. Emotional Resilience

TRAINING

- Pre-event
- Just in Time
**Surge Response: Stuff**

**PEDIATRIC CONCERNS**

1. Equipment
   a. IV/IO access
   b. Airway management (including NIPPV)
   c. Medication administration
   d. Surgical
   e. Ventilators

**SUPPLY CHAIN**

- Pre-event
- Just in Time
Surge Response: Space

**PEDIATRIC CONCERNS**

1. Adapt
   a. Reverse triage and “Immediate Bed Availability” Concepts
   b. Use adult resources
   c. Expand/Adapt nursery
   d. Adapt non-clinical/nonstandard care areas

2. Transfer

3. Temporary or Alternative Care Site
Surge Response: System

SYSTEM

PEDERATRIC CONCERNS
1. Command and Control
2. Process
3. Local integration
4. Regional integration
5. MOUs

Planning

Pre-event

Just in Time
“Pediatric Annex”
Work in Michigan
Classifying Hospitals for Pediatric Care

<table>
<thead>
<tr>
<th>Three Tier System</th>
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<tbody>
<tr>
<td>• Pediatric Level 1:</td>
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<tr>
<td>– Comprehensive pediatric care</td>
</tr>
<tr>
<td>• Pediatric Level 2:</td>
</tr>
<tr>
<td>– Pediatric Medical Center</td>
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<tr>
<td>• Pediatric Level 3:</td>
</tr>
<tr>
<td>– ED Approved for Pediatrics</td>
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<table>
<thead>
<tr>
<th>Four Tier System</th>
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<tbody>
<tr>
<td>• Level 1 Pediatric Facility:</td>
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<tr>
<td>– Comprehensive pediatric care</td>
</tr>
<tr>
<td>• Level 2 Pediatric Facility:</td>
</tr>
<tr>
<td>– Limited pediatric inpatient capacity (age &gt; 12)</td>
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<tr>
<td>• Level 3 Pediatric Facility</td>
</tr>
<tr>
<td>– No pediatric facilities</td>
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<tr>
<td>– ED stabilize transfer</td>
</tr>
<tr>
<td>• Level 4 Pediatric Facility</td>
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<tr>
<td>– Newborn nursery level I or II (age &lt; 1 year)</td>
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Comparison 3 vs. 4 Tier Systems

**Three Tier System**
- **Pediatric Level 1**: Comprehensive pediatric care 3
- **Pediatric Level 2**: Pediatric Medical Center 6
- **Pediatric Level 3**: ED Approved for Pediatrics ?

**Four Tier System**
- **Category 1**: Pediatric Specialty Care Facilities 9
- **Category 2**: Community hospitals with some pediatric services 18
- **Category 3**: Community hospitals with no pediatric services 40
- **Category 4**: Community hospitals with level 1 or 2 nursery services 34
Successful Responding to Patient Surge: 4 Ps

- PREPARE
- PLANNING
- PARTICIPATION
- PRACTICE
INPUT/QUESTIONS?

• Discussion: comments, suggestions, ideas
**Next Steps**

- Connect with AAP Chapter, ASPR Hospital Preparedness Program, CDC Public Health Emergency Preparedness, and Emergency Medical Services for Children state contacts.
  - Need help? Email DisasterReady@aap.org.
- Draft action plan for states
  - Have an e-mail or call discussion with your state or regional colleagues
  - E-mail ideas for pediatric education and action steps/benchmarks to achieve pediatric preparedness (we will remind you!)
  - In a week or so, we will ask you to share your takeaways and ideas for improving this LC
- Next LC meeting: Thursday, Sept 12, 2019, at 11:00am ET/10:00am CT
- Listserv name: AAPState@listserv.aap.org
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Thank you!