Healthcare System Emergency Response Plan

Pediatric Surge Annex

Version 1, September 2020 – FINAL

Record of Changes

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1.	Plan development and review by partner agencies	2020	Vicki L. Sakata, MD Josh Edrich, MPH

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Introduction: Overview and Background

Children (age<18 y/o) make up an estimated 25% of the U.S. population.[1] Within Washington State, there are approximately 2 million children, with nearly 460,000 under the age of 5.[1] Specific to the Northwest Healthcare Response Network (NWHRN), children make up 20-24% of the population of the 15 counties in our service area[1]

In the event of a disaster or emergency, all hospitals, including those that are not necessarily pediatric trauma centers or specialized pediatric hospitals, may receive critically ill or injured patients. The unique needs of children make it necessary to identify and integrate thoughtful and special considerations with regards to disaster preparedness, response, and recovery planning. Pediatric preparedness has historically been lacking[2, 3] however, multiple studies have shown that with ongoing focused planning significant improvements in pediatric readiness and coordination can be attained.[4,5]

During a large-scale medical emergency (either a no-notice event such as an earthquake or prolonged event such as a pandemic), critically ill or injured children will present to any and all hospitals, which may be the hospital that is closest, most convenient or most familiar. A landmark study done in King County, Washington showed this geographic disparity between where children live (and go to school) and the location of pediatric specialty hospitals. This study found that over 80% of pediatric subspecialty beds are located in the Seattle King County central response zone, whereas 80% of the pediatric population live outside this zone.[6] In subsequent analysis this was found to be true in Pierce County as well, the second most populous county in the state. This Annex is meant to provide planning and response guidance for all healthcare facilities in the NWHRN service area with special focus on non-pediatric facilities.

Pediatric planning in King County began in earnest in 2008 with the development of the Pediatric Workgroup by the King County Healthcare Coalition. This led to the publication of "Hospital Guidelines for Pediatric Patients in Disaster", (also known as the 'Pediatric Toolkit') released by Public Health Seattle King County in 2010.

Although many basic principles developed in the original Pediatric Toolkit still apply, gaps have been identified and updates needed. The Toolkit has been expanded to include resources for neonatal resuscitation, outpatient pediatric disaster planning, and an expanded behavioral/mental health section. (See Appendix A, "Planning and Caring for Pediatric and Neonatal Patients in Disasters: Outpatient and Inpatient Guidelines.")

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[1] U.S. Census Bureau. (2019, July 1). QuickFacts: Washington Population Estimates. Census Bureau QuickFacts. https://www.census.gov/quickfacts/fact/table/WA/PST045219; Washington: 2020, Population and Housing Unit Counts, August 2012; https://www2.census.gov/library/publications/decennial/2010/cph-2/cph-2-49.pdf
[2] Institute of Medicine. 2007. Emergency Care for Children: Growing Pains. Washington, DC: The National Academies Press. https://doi.org/10.17226/11655.
[3] Disaster Preparedness Advisory Council and Committee on Pediatric Emergency Medicine. (2015, October 13). Ensuring the Health of Children in Disasters. American Academy of Pediatrics. https://pediatrics.aappublications.org/content/early/2015/10/13/peds.2015-3112
[4] Gausche-Hill M, Ely M, Schmuhl P, et al. A National Assessment of Pediatric Readiness of Emergency Departments. *JAMA Pediatrics*. 2015;169(6):527. doi:10.1001/jamapediatrics.2015.138
[5] Disaster Preparedness Advisory Council, Committee On Pediatric Emergency Medicine. Ensuring the Health of Children in Disasters. *Pediatrics*. 2015;136(5). doi:10.1542/peds.2015-3112
[6] King MA, Koelemay K, Zimmerman J, Rubinson L. Geographical maldistribution of pediatric medical resources in Seattle-King County. Prehosp Disaster Med. 2010;25(4):326-332. doi:10.1017/s1049023x00008281

Purpose

The purpose of this Annex is twofold: 1) to provide healthcare with the information and tools they need to develop internal pediatric disaster response plans; and 2) to provide a concept of operations for a coordinated pediatric regional response in the NWHRN service area. The Annex describes the coordination of decision making, operations, communication and deactivation/recovery for pediatric disaster response. Specifically, the purpose of the Annex is to:

1. Ensure that all in-patient hospital facilities will be prepared to care for pediatric patients and have disaster surge plans to accommodate pediatric surge.
2. Provide clinical resources (i.e. the Pediatric Toolkit) especially for those not routinely caring for the pediatric patient.
3. Provide pediatric specific information needed to inform response coordination between healthcare and all stakeholders who are vital for a successful pediatric response, to include but not limited to: public health, prehospital agencies, Disaster Medical Coordinating Centers (DMCC), emergency management and any state and federal partners.
4. Provide pediatric specific information regarding patient tracking specifically addressing unique aspects pertaining to the care of pediatric patients: (i.e. unaccompanied minors, non-verbal, critically ill, etc.).
5. Describe procedures for sharing and/or prioritizing scarce resources.
6. Define roles and responsibilities for healthcare, the NWHRN, LHJs, local response agencies, emergency management, state, and federal partners in a pediatric preparedness and response.
7. Describe procedures for communications and coordination among public health, healthcare agencies and other local partners during a pediatric response.
8. Link this Annex to appropriate NWHRN plans and Toolkits.

Scope

This document is an appendix to the NWHRN's overall Healthcare Emergency Response Plan. (See Appendix A) This Annex is intended to be used in conjunction with this and other planning documents and not as a stand-alone plan. For general patient movement or healthcare response concepts, please refer to this annex's superordinate planning documents. The Pediatric Surge Annex is applicable for pediatric events necessitating local and/or regional healthcare response coordination among partners within jurisdictions encompassed by the NWHRN.

Planning Assumptions

All planning assumptions outlined in the NWHRN Healthcare Emergency Response Plan apply to this Annex. Specific assumptions to this Pediatric Annex are as follows:

- All healthcare facilities will develop and maintain pediatric specific disaster plans.
- All healthcare facilities will maintain an updated list of their individual pediatric resources to provide regional situational awareness in times of response.
- Child is defined in this Annex as any person less than or equal to 18 years of age.

Access and Functional Needs

This Annex acknowledges special pediatric populations to include pediatric group homes, palliative care, complex medical and medically fragile children. Please see Pediatric Toolkit (Appendix B) for details.

Concept of Operations

A. Activation of the Annex

- This Annex may be activated during any known or suspected pediatric-related scenario that warrants coordination between one or more healthcare organizations and other emergency response partners when the day-to-day resources and plans are insufficient to address the current or anticipated pediatric response needs. This activation may occur concurrently with activation of other plans within and/or outside the area.
- A request for activation of this Annex may originate from any local healthcare organization, local and/or state Disaster Medical Control/Coordination Center (DMCC), Local Health Jurisdictions (LHJ), emergency management agency, as well as the NWHRN Duty Officer and leadership.

B. Notification and Warning

- The NWHRN Healthcare Emergency Coordination Center (HECC) will activate prior to or immediately following activation of this Annex.
- Partner emergency coordination centers may activate prior to or following activation of this Annex. The HECC will operate in coordination with any other activated local/regional/state coordination centers.
- The NWHRN and many local health jurisdictions maintain a 24/7 contact numbers for pediatric specialists. Following activation LHJs, hospitals, and NWHRN should notify each other, if not already notified prior to activation.
- NWHRN will notify the Washington State Department of Health (DOH) Preparedness Duty Officer; the LHJs will notify the DOH Epidemiology Duty Officer and may additionally notify the DOH Preparedness Duty Officer concerning regional response.
- If the Annex is only activated to support operations in one county, NWHRN and the activated LHJ will communicate with the other LHJ and DOH regarding the situation and potential need for wider activation.
- In the event of a mass causality incident when the DMCC is activated, the DMCC will notify a/the LHJ duty officer and/or the NWHRN duty officer.
- Following notification, the NWHRN and the LHJs will identify the appropriate partners to further notify. Partners may include:
    - Neighboring LHJs
    - DOH (preparedness and communicable disease)
    - Local healthcare organizations/providers
    - Local EMS
    - DMCC(s)
    - CDC/Assistant Secretary for Preparedness and Response (ASPR)
    - Local emergency management

C. Command, Control and Coordination

- When the Healthcare Emergency Coordination Center (HECC) is activated for a pediatric event, this Annex will simultaneously be activated to support NWHRN response and coordination to the incident. Please refer to NWHRN HECC Emergency Response Plan (Appendix A).
- Essential Elements of Information (EEI): The use of situational awareness to inform a common operating picture for healthcare during an incident or event requires targeted and strategic data and information gathering from healthcare organizations, LHJs, vendors (situation dependent), and other partners. This vital data and information may be collected through several methods, but the majority will come directly from healthcare organizations in responses to targeted questions concerning healthcare's capacity during a response. The questions developed for the situational awareness/essential elements of information are developed based on key decisions that may have to be addressed during an incident or event, and the clear triggers and indicators that will inform these decisions. Each question is tied to one or more vital triggers or indicators to aid in decision making. Once the questions and timetable for requested data and information have been identified from operational objectives, explicit communications to relevant partners will be sent to establish expectations of data collection and dissemination.
    - EEI critical for a pediatric event would include but not limited to: number and ages of ill or injured patients, triage categories, location and special clinical needs including specialty staff, space or supplies, family situational awareness, presence of unaccompanied minors for patient tracking purposes, etc.
    - For more information on EEI, see Appendix C, the NWHRN Situational Awareness Annex.

Responsibilities

Roles and responsibilities for all stakeholders to include healthcare, NWHRN, LHJs, local response agencies, emergency management, state, local, tribal and federal partners will be consistent with those outlined in the NWHRN Healthcare Emergency Response Plan.

Specific Pediatric Roles and Responsibilities:

A. Primary Organizations

a. Northwest Healthcare Response Network:
   - Maintain and update Coalition Pediatric Annex per Annex maintenance requirements listed below. See the Authorities and Maintenance Section.

b. Local Health Jurisdictions (Public Health):
   - Acknowledgement and awareness of Coalition Pediatric Annex

c. DMCC:
- Immediate access to Pediatric Annex information to assist in pediatric placement during response
- Supply EEI and situational awareness as needed to support coordinated response

d. Emergency Management Agencies:
- Acknowledgement and awareness of Coalition Pediatric Annex

e. Hospitals:
- Have and maintain a pediatric disaster plan which should include stabilization, consultation and transfer protocols for pediatric patients.
- Supply EEI and situational awareness as needed to support coordinated response.
- Update annually the Pediatric Resource Data Form. (See Appendix F)

f. Emergency Medical Services:
- Have and maintain a pediatric disaster plan which should include stabilization, consultation and transfer protocols for pediatric patients.
- Supply EEI and situational awareness as needed to support coordinated response

g. Outpatient/Urgent Care:
- Have and maintain a pediatric disaster plan which should include stabilization, consultation and transfer protocols for pediatric patients.
- Ensure your pediatric patients have a disaster plan, especially those patients with complex medical problems, specialty care, require medical durable equipment, etc.
- Supply EEI and situational awareness as needed to support coordinated response

B. Supporting Organizations

- DOH
  - Maintain awareness of Coalition Pediatric Annex.
  - Aid through state Pediatric Strike Teams when possible given the situation at hand.
- Federal
  - Coordinate with DOH when a response exceeds local and state resources.
  - Coordinate federal level resources, requests, and any national stockpiles of resources.
  - Military partners may support regional medical and non-medical response with resources, personnel, and coordination. There are several major military installations within NWHRN's service aera with numerous resources that could support response efforts.

Logistics: Pediatric Resources

A. Pediatric Resource Requests

Requests for pediatric specific supplies will follow local resource request procedures either through the NWHRN and/or local jurisdiction as outlined in the NWHRN Emergency Response Plan. (See Appendix A)

B. Crisis Standards of Care (CSC)

When an event overwhelms healthcare, resources may become scarce. If there is a significant change in the standard of care, WA State may declare crisis standards of care and the WA State CSC Framework will be activated. All pediatric protocols contained within this Framework will be reviewed, updated and activated per plan. (See Appendix H)

C. Coalition Pediatric Capabilities

A survey of all in-patient facilities with pediatric capabilities was performed in Fall, 2020 providing the information in the Appendices listed below. This information will be critical for decision making in a large-scale pediatric event (e.g. evacuation of pediatric hospital) and should be kept in both hard copy and electronic versions. This information will be updated annually.

Appendices D-F:

- Regional Pediatric Clinical Contact Information
- Regional Neonatal and Pediatric Potential Evacuation Locations
- Summary of Special Patient Care Levels and Capabilities
- Number of Beds at all Regional Hospitals with Neonatal and Pediatric Capabilities
- Regional Surge Capacity and Resource Capabilities
- Regional Group Home Special Needs Capabilities

Special Considerations

A. Hospital Evacuation

a. It is understood that all facilities will maintain and exercise their own internal evacuation plans. This document does not replace the requirement for all healthcare facilities to have the following in place:
    - Internal Incident Command Systems (ICS) compliant with the National
    - Incident Management System (NIMS)
    - Full building evacuation plans
    - Communications plans
    - Mass Casualty Incident and/or Medical Surge plan

b. Patients will be evacuated to equivalent level facilities when possible (e.g. PICU patient to PICU, NICU to equivalent NICU, etc.).

c. Each in-patient facility in NWHRN coalition service area with >10 identified pediatric beds, has provided a list of preferred evacuation destinations given geographic

proximity, provider availability and potential transfer challenges (i.e. infrastructure damage). These pre-identified locations are listed in Appendix E and will aid in quickly identifying appropriate destination facilities.

Pediatric Medical Care

Caring for children requires continued training especially for those who do not routinely care for children. Planning for children can be a daunting task. Therefore, Appendix B, the Planning and Caring for Pediatric and Neonatal Patients in Disasters: Inpatient and Outpatient Guidelines, 2020 (the Pediatric Toolkit) is provided with step by step instructions on how to prepare and care for children during a disaster.

This Toolkit supplies information on pediatric triage, treatment, pharmacy, equipment, decontamination, security, behavioral health, infection control and neonatal preparedness and resuscitation, along with links to Just-In-Time training for basic pediatric skills.

Patient Tracking (WA Trac)

Pediatric patients will be tracked to their final hospital destination via WATrac or a paper-based method per NWHRN Patient Tracking Appendix. (See Appendix G)

See NWHRN Pediatric Toolkit, Section 3 "Pediatric Security Issues", regarding Pediatric Tracking and unaccompanied minors including forms and procedures. If an unaccompanied minor is transferred between facilities it is crucial that a Child Identification Survey is completed and kept on record. A copy of this form should accompany the child at all times. The child should always be escorted by a responsible adult. If medical attention is needed appropriate medical transfer should be arranged, when possible given the situation at hand.

Reunification

Every healthcare facility will maintain internal procedures for family reunification. Planning for a Pediatric Safe Area (PSA) is key to pediatric security and pediatric tracking during response. Procedures for establishing a PSA are outlined in the Pediatric Toolkit. (See Appendix B)

If the event requires resources beyond what individual healthcare facilities can provide, then local, regional and/or federal Family Assistance Center plans will be activated and family reunification will follow designated procedures.

Children with Special Needs

There are several pediatric group homes within the NWHRN coalition service area that care for high risk vulnerable pediatric populations. These patients require 24/7 care, are primarily non-mobile and non-verbal. They depend on durable medical equipment and are vulnerable to infrastructure damage

(i.e. loss of power, transportation, etc.). It is of utmost importance that these institutions maintain and exercise their internal disaster plans and remain connected with regional response planning. Appendix F contains a list of these locations and numbers of licensed beds.

Cultural/Religious/non-English speaking Considerations

It is important to consider language barriers and varying cultural traditions that may affect how patients and their families respond in a disaster situation. This is especially true with children as their cognitive ability at certain ages may lead them to misinterpret what is happening to them and their families. Please see the Pediatric Toolkit (Appendix B) for more in depth information and resources to address these important issues.

Demobilization and Recovery

A. Demobilization Indicators

Throughout the Annex activation, the HECC, in consultation with applicable partners, will determine the appropriate conditions to partially or fully demobilize and deactivate the Annex. Demobilization indicators may include:

- The pediatric healthcare impact from the incident is at a low level sufficient for ending response coordination.
- Partner agencies have deactivated any EOC/ECC and/or emergency response plans.
- The threat of a reoccurrence of the pediatric incident or similar events is sufficiently low to not require response coordination.

B. Demobilization Communications

The HECC, in consultation with any applicable partners, will communicate deactivation of the Annex to the same partners that received the activation notice. Annex deactivation will likely be communicated by, at a minimum, email or WATrac alerting tools.

Depending on the severity or scope of the incident, the NWHRN will lead and/or participate in an after-action process. If the NWHRN leads an after-action process, results will be communicated and distributed to partners following completion of the after-action report.

C. Recovery

After demobilization and during recovery the following activities should be completed:

- Return of any borrowed assets (e.g. equipment, staff).
- Debrief participating local, regional, and/or state partners with after action reports, discuss improvement plans, and create a coordinated approach to incorporating recommendations into future planning.
- Communications concerning payment and reimbursement for the response.
- Communication of any operational activities that need to be revised or continued.

Transportation

Pediatric transport at times requires specific equipment and always requires appropriately trained staff. Facilities will have in place proper procedures to transport pediatric patients safely to the appropriate facility.

In a large event when a regional and/or state DMCC(s) has been activated, transport control will follow established procedures as outlined in the NWHRN Patient Movement Plan (Appendix I). Incident Command on scene will communicate with the appropriate DMCC to coordinate vehicle and destination.

There are several facilities within NWHRN coalition that maintain their own hospital pediatric transport vehicles. These are listed in Appendix F.

It is understood that there are limited EMS vehicles with pediatric capabilities, primarily due to lack of appropriately trained staff. Therefore, it may be necessary to transport pediatric patients with staff from the referral institution in order to provide safe transport. Alternate means of transportation such as transit buses, facility shuttles and vans, "cabulances", private vehicles etc. should also be considered and equipped with appropriate safety measures and staff when transporting children.

In an out-of-hospital event, pediatric patients should be triaged and prioritized by established pediatric MCI triage algorithms to include JumpSTART or SALT. Please see Pediatric Toolkit, Appendix B, for details.

In a hospital evacuation event, patients should be prioritized by the hospital Medical Triage Officer on scene who will be in communication with Incident Command and appropriate DMCC.

Training and Exercise

Training on roles and responsibilities for all relevant partner agencies will occur following the adoption of the finalized Pediatric Surge Annex. The NWHRN assesses yearly the training and exercise needs of all coalition partners using a capabilities assessment, which informs the goals and objectives for training and exercising in the years to come.

Exercises of portions of this annexes or attachments, including tabletops and functional will occur with healthcare organization, LHJs, DCACs, and other relevant stakeholders. All trainings and exercises will involve post-event evaluations and/or After-Action Reports (See Appendix J) which will include Improvement Plans addressing Core Capabilities.

Authorities and Maintenance

A. Review Process and Annex Update

Sections of this Annex will be updated as needed based on the evolution of planning activities and partnerships or in coordination with Regional Improvement Plans after exercises or real-world incidents.

The Annex will be provided to the LHJs, healthcare organizations, and regional partners for review and input.

Following review, modifications will be made, and a copy will be provided to all regional partners. Healthcare organizations are expected to share the updated plan internally within their appropriate committees and with their leadership.

The NWHRN Board of Directors will be briefed when updates to this Annex are completed.

B. Maintenance

The Annex will be reviewed every three years or as needed following the process outlined above.

Appendices

A. NWHRN Emergency Response Plan
B. Planning and Caring for Pediatric and Neonatal Patients in Disasters: Outpatient and Inpatient Guidelines
C. NWHRN Situational Awareness Annex
D. Regional Pediatric Clinical Contact Information
E. Regional Neonatal and Pediatric Potential Evacuation Locations
F. Regional Pediatric Surge Capacity Information
G. NWHRN Patient Tracking Appendix
H. Scarce Resource Management and Crisis Standards of Care Overview and Materials
I. NWHRN Patient Movement Plan
J. After-Action Report Templates

Definitions & Acronyms

Definitions

Northwest Healthcare Response Network (NWHRN) – Is a regional Healthcare Coalition that leads a regional effort to build a disaster-resilient healthcare system through collaboration with healthcare providers, public health agencies and the community partners they depend on. NWHRN works to keep hospitals and other healthcare facilities open and operating during and after disasters, enabling them to continue serving the community.

Healthcare Emergency Coordination Center (HECC) – In the event of an emergency the NWHRN will activate the Healthcare Emergency Coordination Center (HECC) to facilitate situational awareness, resource matching, communications, and coordination among regional healthcare providers and partner agencies.

Disaster Clinical Advisory Committees (DCAC) – Is an integral component of an ethical, responsive, transparent and clinically responsible health emergency decision-making structure. These multi-disciplinary committees meet regularly and as necessary in an emergency to provide expert clinical advice on issues such as regional medical surge and crisis standards of care. The DCACs may also advises local health officers and other policymakers during health emergencies.

Acronyms

CDC – Center for Disease Control and Prevention
CSC – Crisis Standards of Care
DCAC – Disaster Clinical Advisory Committee
DMCC – Disaster Medical Coordination Center
EMS – Emergency Medical Services
EOC/ECC – Emergency Operations/Coordination Center
ESF-8 – Emergency Support Function #8
HECC – Healthcare Emergency Coordination Center
JIS – Joint Information System
LHJ – Local Health Jurisdiction
LHO – Local Health Officer
MAC – Multi-agency Coordination
MAP – Mutual Aid Plan
MCI – Mass Casualty Incident
NIMS – National Incident Management System
NWHRN – Northwest Healthcare Response Network
OSHA – Occupational Safety and Health Administration
PIO – Public Information Officer
PSA – Pediatric Safe Area
WAC – Washington Administrative Code
WA State DOH – Washington State Department of Health