Eastern Great Lakes Pediatric Consortium for Disaster Response

Avoiding “the Darkest Winter in Modern History”, Actions to Consider Now?



Exercise Plan

10 September 2020

The Exercise Plan (ExPlan) gives primary investigators, state officials, healthcare providers, emergency managers and personnel from participating organizations information needed to participate in the exercise. Some exercise materials are primarily intended for exercise planners, controllers, and evaluators, but exercise participants may view materials necessary to their participation. All exercise participants may view the ExPlan.

# Exercise Overview

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| --- | --- |
| **Exercise Name** | Avoiding “the Darkest Winter in Modern History”, Actions to Consider Now? |
| **Exercise Dates** | 10 September 2020 |
| **Scope** | This exercise is a table top discussion, planned for five [5] hours to be conducted virtually. Exercise play is limited to Eastern Great Lakes Pediatric Consortium for Disaster Response (EGLPCDR) members, state and local health departments, community hospitals and local organizations within the states of Michigan and Ohio. |
| **Mission Area(s)** | Mitigation, Response, and Recovery |
| **Core Capabilities** | Coordinated response to regional pediatric public health emergency and pediatric surge. |
| **Objectives** | 1. Strengthen Pediatric Disaster Care Preparedness and Healthcare System Coordination 2. Develop Coordinated Pediatric Disaster Care Capacity 3. Enhance Statewide and Regional Medical Surge 4. Increase and Maintain Healthcare Professional Competency through Development and Delivery of Standardized Training 5. Enhance Situational Awareness of Pediatric Disaster Care Capacity, Capability, and Assess Regional Readiness |
| **Threat or Hazard** | Pediatric Surge Related to Public Health Emergency / Pandemic |
| **Scenario** | The exercise features two phases: Reflections and Shelter in Place. In Phase I, participants reflect and identify lessons learned during the Covid-19 pandemic and develop pediatric resource and situational awareness. A surge of pediatric patients in Phase II exceeds critical pediatric resources, requiring participant organizations to conduct shelter in place operations. |
| **Sponsor** | Eastern Great Lakes Pediatric Consortium for Disaster Response conducts the exercise in support of an Assistant Secretary for Preparedness Response (ASPR) Pediatric Disaster Care Centers of Excellence grant. |
| **Participating Organizations** | Exercise participants will include the six Children’s Hospitals in Michigan and Ohio, state and local health departments and EMS organizations. A wide variety of community and NGO organizations are invited to participate. See Appendix B for a full list of participants. |
| **Point of Contact** | Ronald Ruffing MD,  Chief, Division of Pediatric Emergency Medicine  Children's Hospital of Michigan  RRuffing@dmc.org |

# General Information

## Exercise Goals, Objectives and Core Capabilities

The following exercise goals in Table 1 describe the expected outcomes for the exercise. The goals are linked to core capabilities, which are distinct critical elements necessary to achieve the specific mission areas. Table 2 refines exercise goals to exercise objectives, with objectives representing the tasks necessary to achieve each goal. The goals, objectives and aligned core capabilities are guided by ASPR grant guidelines and EGLPCDR senior leadership and selected by the Exercise Planning Team.

| Exercise Goal | Core Capability |
| --- | --- |
| Strengthen Pediatric Disaster Care Preparedness and Healthcare System Coordination | Coordinated regional pediatric response |
| Develop Coordinated Pediatric Disaster Care Capacity | Coordinated regional pediatric response |
| Enhance Statewide and Regional Medical Surge | Coordinated regional pediatric surge |
| Increase and Maintain Healthcare Professional Competency through Development and Delivery of Standardized Training | Coordinated regional pediatric response |
| Enhance Situational Awareness of Pediatric Disaster Care Capacity, Capability, and Assess Regional Readiness | Coordinated regional pediatric response |

Table 1. Exercise Goals and Associated Core Capabilities

| Exercise Goal | Objectives |
| --- | --- |
| Strengthen Pediatric Disaster Care Preparedness and Healthcare System Coordination | * Exercise planners bring six children’s hospitals and two state departments of health from Michigan and Ohio together in a virtual Table Top Exercise to collectively address a pediatric surge scenario no later than 30 September 2020 * Exercise planners host regional and local health care coalitions and health departments for a 5-hour virtual Table Top Exercise to discuss and develop pediatric surge policies and practices * Michigan Burn Coordination Center provides a 15-miunte presentation on burn center command, structure, policies, practices, and government partnership in order to illustrate a model of regional, pediatric disaster and surge response coordination * Participating children’s hospitals, healthcare coalitions and state departments of health react and discuss for 45 minutes, steps required of their organization to externally support other organizations responding to a notional, 48-hour, shelter in place pediatric surge scenario in order to identify efficient and effective policies and practices for providing external support * Bed reporting experts from Michigan and Ohio brief the pediatric bed reporting mechanism and format of each state in order for exercise participants to develop an understanding of the other state’s systems, policies and practices |
| Develop Coordinated Pediatric Disaster Care  Capacity | * For 45 minutes, exercise participants will react and discuss steps required of their organization to respond to an extreme, notional, 48-hour, shelter in place pediatric surge scenario that exceeds organizational capacity in order to develop new and innovative actions for pediatric disaster and surge response * Exercise participants will react and discuss the steps required of their organization to respond to a notional, 48-hour, shelter in place pediatric surge scenario in order to identify efficient and effective policies and practices for pediatric disaster and surge response within 45 minutes * Grant investigators will synthesize, analyze and report efficient and effective policies and practices as identified by exercise participants no later than 31 March 2021 |
| Enhance Statewide and Regional Medical Surge | * During opening remarks, the exercise controller combine background and seasonal influenza information with pandemic projections to prompt and motivate exercise participants to test, review and modify surge plans within their organizations * Exercise participants will examine and discuss both positive and negative lessons learned during the recent Covid-19 pandemic to identify best practices and how the practices apply during pediatric disaster and surge for 45 minutes * Exercise participants will examine issues hindering a coordinated cross-border response to pediatric disaster and surge to identity two long-term policy and two short-term orders that resolve cross-border issues |
| Increase and Maintain Healthcare Professional Competency through Development and Delivery of Standardized Training | * Pediatric and disaster response experts will provide six briefings over a 90-minute span to exercise participants in order to establish a base line understanding of pediatric disaster and surge response * The identified medical ethics expert will provide a 15-minute briefing to exercise participants on Supply Chain Management and Ethical Resource Allocation to train participants on ethically responding to supply constraints during pediatric disaster and surge * Exercise participants will complete pre and post exercise surveys for exercise planners and grant researchers to assess the non-pediatric community’s knowledge of pediatric disaster and surge response and identify post exercise gains * The primary investigators will analyze survey results to identify knowledge gaps in pediatric disaster and surge response in order to develop education and training recommendations that address the gaps no later than 31 March 2021 |
| Enhance Situational Awareness of Pediatric Disaster Care Capacity, Capability, and Assess Regional Readiness | * Each participating hospital with pediatric bad space will submit a 10 September 2020 bed status report to their respective States no later than 12:01pm in order for exercise participants to develop real-time situational awareness of pediatric assets * Ohio and Michigan Department of Health representatives will provide two, 15-minute briefs to exercise participants on the Covid-19 and MIS-C status, projections and state-wide readiness status of their respective states * Michigan and Ohio bed reporting experts will brief the pediatric bed report of each state to identify for exercise participants the regional pediatric bad capacity * A BioSpatial representative provides a five-minute demonstration to exercise participants of a medical asset mapping application in order to develop awareness of geographic planning tools |

Table 2. Exercise Goals and Associated Objectives

## Exercise Purpose

During a disaster or emergency, healthcare delivery capacity and capabilities can become compromised. As recently experienced, viral pandemics can easily overwhelm health systems. In this context, likely hazards for the Michigan and Ohio region are limited infrastructure, resources and expertise dedicated to the pediatric population.

Annual influenza seasons tax healthcare systems across the region and may occur in tandem with other viral outbreaks. Therefore, it is essential to develop regional capabilities to coordinate and respond to pediatric surge conditions.

The purpose of the Darkest Winter TTX is to define the delivery of optimal pediatric clinical care when existing systems are overwhelmed by enhancing rapid sharing of expertise and assets throughout the region.

## Exercise Timeline

The Darkest Winter TTX is a 5-hour exercise scheduled on Thursday, September 10 from 10:00 AM -3:00 PM. Participants will identify pandemic lessons and describe optimal surge response while responding to a series of questions and scenarios presented during the event. Refer to page 4 for the exercise timeline.



## Supporting and Planning Materials

As tools of information dissemination, exercise management and coordination, the following documents will be published to further describe and refine the exercise:

* Participant Handbook 6 August 2020
* Moderator’s Guide 7 August 2020
* Data Collection Plan 5 August 2020
* IT, Virtual Platform, and Applications Integration Plan 4 August 2020

## Participant Roles and Responsibilities

The term *participant* encompasses many groups of people. Groups of participants involved in the exercise, and their respective roles and responsibilities, are as follows:

* **Participants.** Participants are personnel who actively address questions and scenarios, discussing their regular roles and responsibilities during the exercise. Players discuss or initiate actions in response to controller injects.
* **Controllers.** Controllers plan and manage exercise, set up and operate the virtual platform, moderate large and small group discussions, present questions for response, and inject scenarios where necessary. Controllers direct the pace of the exercise and provide key data to participants. In addition, they issue exercise material to players as required, monitor the exercise timeline, and urge active participation of all participants.
* **Evaluators.** Evaluators assess and provide feedback on designated functional areas of the exercise.
* **Support Staff.** The exercise support staff includes individuals who perform administrative and logistical support tasks during the exercise (e.g., webinar management, time keeping).

## Exercise Assumptions and Artificialities

In any exercise, assumptions and artificialities may be necessary to achieve the exercise goals and objectives. Exercise participants should accept that assumptions and artificialities are inherent in any exercise, and should not allow these considerations to negatively impact their participation.

### Assumptions

Assumptions constitute the implied factual foundation for the exercise and, as such, are assumed to be present before the exercise starts. The following assumptions apply to the exercise:

* Whether personally or professionally, all participants have relevant Covid-19 experience to contribute to the exercise.
* A combination of annual influenza season plus viral outbreak can create a patient load that exceeds pediatric infrastructure, resources and expertise in the region. The exercise scenario is plausible, and events may occur as presented.
* Exercise simulation contains sufficient detail to allow players to react to information and scenarios presented.
* The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will be evaluated.
* At all times, real-world emergencies take priority over exercise participation.

### Artificialities

During this exercise, the following artificialities apply:

* As a Proof of Concept demonstration exercise, the event does not seek to test and validate existing plans and operations. Rather, the exercise generates information and data for use in developing a coordinated regional response to pediatric disaster and surge.
* Prior knowledge of exercise questions, injects and scenarios does not hinder exercise outcomes. Prior knowledge serves to refine and improve the data and information collected.
* Although presented a pediatric specific scenario, relief from resource constraints cannot be found in adult medical systems, facilities or supply chains. Assume non-pediatric systems and resource are equally stressed and unavailable to assist pediatric disaster response.
* For the purposes of focusing the exercise on a specific resource scarcity, a single medical condition with definitive resource and care requirements is injected in order to create a uniform problem for participants to address.
* Exercise communication and coordination is limited to participating exercise organizations, platforms and exercise operations center.

# Exercise Logistics

## Safety

Exercise participant safety takes priority over exercise events. The following general requirements apply to the exercise:

* Home stations organizations are responsible for providing a safe and secure environment for exercise participants. Any safety concerns must be immediately reported in accordance with home station organizational policies and procedures.
* The exercise will occur virtually to support social distancing preventive measures due to an ongoing viral pandemic. Home station organizations are responsible to implement appropriate public health measures at their locations.

## Site Access

### Security

Measures to implement and maintain security of the virtual video conferencing platform include:

* Just in time delivery of connectivity links to the virtual platform. Links will be made public 30 minutes before use.
* Limiting participation in large group discussion to select panel members with the audience in a passive listening role
* Onsite AV/IT support to address disruptions occurring on the platform
* Moderated break out discussions
* Dedicated monitoring of conversations to identify disruptive participants
* Moderator muting of disruptive participants
* Moderator removal from the meeting of disruptive participants
* Recording of virtual discussions
* Collection of participant commentary and feedback in accessory platforms not critical to exercise management

# Data Gathering and Post-exercise Activities

## Surveys and Polls

## Pre-Exercise Survey

Linked to exercise registration, participants will be asked a series of questions to assess professional qualifications, pediatric background and emergency management experience.

## Word Cloud

As an ice breaker activity, a word cloud will query and display participant responses to an initial question.

## Menti-Meter

Menti-meter is an interactive presentation platform that provides immediate aggregated response from participants. Menti-meter will be used throughout Phases I and II of the exercise to gather participant responses.

## Zoom Polling

In combination with Menti-Meter, questions to participants will be asked with Zoom Polling to capture live, immediate responses during educational presentations.

## Post-Exercise Survey

Building upon the pre-exercise survey, all participant will be asked to complete a short survey to assess gains in pediatric disaster response knowledge.

## Debriefings

Post-exercise debriefings aim to collect sufficient relevant data to support effective evaluation and improvement planning.

### Hot Wash

At the conclusion of exercise play, controllers facilitate a Hot Wash to allow players to discuss strengths and areas for improvement, and evaluators to seek clarification regarding player actions and decision-making processes. The Hot Wash should not exceed 30 minutes.

### Controller and Evaluator Debriefing

Controllers and evaluators attend a facilitated C/E Debriefing immediately following the exercise. During this debriefing, controllers and evaluators provide an overview of their observed functional areas and discuss strengths and areas for improvement.

### Participant Feedback Forms

Participant Feedback Forms provide players with the opportunity to comment candidly on exercise activities and exercise design. Feedback forms address exercise format and proficiency, not subject matter content. Participant Feedback Forms should be collected at the conclusion of the Hot Wash.

## Evaluation

### Exercise Evaluation Guides

EEGs assist evaluators in collecting relevant exercise observations. EEGs document exercise objectives and aligned core capabilities, capability targets, and critical tasks. Each EEG provides evaluators with information on what they should expect to see demonstrated in their functional area. The EEGs, coupled with Participant Feedback Forms and Hot Wash notes, are used to evaluate the exercise and compile the After-Action Report (AAR).

### After-Action Report

The AAR summarizes key information related to evaluation. The AAR primarily focuses on the analysis of core capabilities, including capability performance, strengths, and areas for improvement. AARs also include basic exercise information, including the exercise name, type of exercise, dates, location, participating organizations, mission area(s), specific threat or hazard, a brief scenario description, and the name of the exercise sponsor and POC.

## Proof of Concept Reporting

In support of ASPT grant objectives and end of grant reporting, Proof of Concept Reporting is a process by which the observations recorded in the AAR are resolved through development of policy proposals, which are tracked and collated as a part of end of grant report development.

### Primary Investigators Meeting

Taking advantage of an existing schedule of bi-monthly, Primary Investigators meetings, an exercise evaluation session is conducted with leaders within the grant consortium to debrief the exercise and to review and refine a draft AAR and end of grant report. The Primary Investigators meeting should be an interactive session, providing attendees the opportunity to discuss and validate the observations and policy recommendation in the draft documents.

### End of Grant Report

The End of Grant Report identifies specific policies, models, obstacles, and recommendations for development of regional pediatric disaster and surge response.

# Appendix A: Exercise Schedule

# Appendix B: Exercise Participants

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| Participating Organizations |
| **Eastern Great Lakes Pediatric Consortium for Disaster Response** |
| Rainbow Babies & Children's Hospital |
| C.S. Mott Children's Hospital |
| Children's Hospital of Michigan |
| Cincinnati Children's Hospital Medical Center |
| Helen DeVos Children's Hospital |
| Nationwide Children's Hospital |
| **State** |
| Michigan Department of Health and Human Services |
| Ohio Department of Health |
| **Medical organizations** |
| Western Regional Alliance for Pediatric Emergency Management |
| State regional Public Health Departments |
| **Vendors** |
| Biospatial |
|  |
| **Community Organizations** |
| Local Hospitals |
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# Appendix C: Acronyms

| **Acronym** | **Term** |
| --- | --- |
| ASPR | Assistant Secretary for Preparedness and Response |
| DHS | U.S. Department of Homeland Security |
| EGLPCDR | Eastern Great Lakes Pediatric Consortium for Disaster Response |
| ExPlan | Exercise Plan |
| HSEEP | Homeland Security Exercise and Evaluation Program |
| SME | Subject Matter Expert |
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