Eastern Great Lakes Pediatric Consortium for Disaster Response

Advancing Pediatric Telehealth Capability: Use of Technology During Disaster Response



Exercise Plan

20 May 2021

The Exercise Plan (ExPlan) gives primary investigators, state officials, healthcare providers, information technology experts, emergency managers and personnel from participating organizations information needed to participate in the exercise. All exercise participants may view the ExPlan.

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# Exercise Overview

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| --- | --- |
| **Exercise Name** | Advancing Pediatric Telehealth Capability: Use of Technology During Disaster Response |
| **Exercise Date** | 20 May 2021 |
| **Scope** | This exercise is a demonstration exercise with pre-recorded telehealth tasks, planned for four [4] hours to be conducted virtually. Exercise “play” is open to Eastern Great Lakes Pediatric Consortium for Disaster Response (EGLPCDR) members, state and local health departments, community hospitals, and EMS organizations within Michigan and Ohio.  |
| **Mission Area(s)** | Mitigation, Response, and Recovery |
| **Core Capabilities** | Coordinated response to a pediatric disaster emergency and 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 Plans
4. Evaluate the utility of telehealth and video conferencing capability as a tool for pediatric disaster and surge response.
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| **Threat or Hazard** | Pediatric Surge Related to Disaster or Public Health Emergency  |
| **Scenario** | The exercise features a series of pre-recorded, telehealth tasks that support disaster and surge response.  |
| **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 and partner hospitals in Michigan and Ohio, state and local health departments and EMS organizations.  |
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# 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 |
| Assess the value of telehealth and video conferencing capability as a tool for pediatric disaster and surge response.  | 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 together six children’s hospitals, six partner hospitals and two state departments of health from Michigan and Ohio in a virtual Demonstration Exercise to collectively assess telehealth no later than 20 May 2021
* Exercise planners host health care coalitions and health departments for a 4-hour virtual Demonstration Exercise to discuss and develop telehealth policies and practices
* Participating children’s hospitals, partner hospitals and state departments of health each partner to develop and present one, 20-minute telehealth task that is useful during pediatric disaster and surge response.
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| Develop Coordinated Pediatric Disaster Care Capacity | * Over the course of two, 15-minute engagements, Ohio Department of Health and Michigan Department of Health and Human Services cooperatively work to identify critical pediatric supply stocks and formulate plans for emergency re-supply.
* Ohio based pediatric Behavioral Health experts provide 1 hour of Just-in-Time training to Michigan peers on pediatric related mental health issues and treatments in an effort to develop cross-border cooperation
* Two Children’s hospitals will attempt en route telehealth consultation with critical transport, ground and air ambulances
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| Enhance Statewide and Regional Medical Surge | * During opening remarks, the exercise facilitator will highlight the potential of using telehealth and video conferencing as tools for pediatric disaster response to prompt and motivate exercise participants to test, review and modify telehealth practices within their organizations
* For 45-minutes, exercise participants will examine and discuss both positive and negative lessons learned during the telehealth demonstrations to identify best practices and how the practices apply during pediatric disaster and surge
* Grant investigators will synthesize, analyze and report exercise generated data on the utility of telehealth as a tool for pediatric disaster and surge response as identified by exercise participants no later than 31 July 2021
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| Assess the value of telehealth and video conferencing capability as a tool for pediatric disaster and surge response.  | * Children’s hospitals will present nine, 20-minute pre-recorded videos to exercise participants in order to evaluate telehealth as a tool for pediatric disaster and surge response
* Exercise participants will complete pre and post exercise surveys and live exercise polling for exercise planners and grant researchers to assess participant’s telehealth knowledge and identify post exercise gains
* Grant investigators will analyze survey results to identify knowledge gaps in telehealth operations in order to develop education and training recommendations that address the gaps no later than 31 July 2021
* While not a primary goal of the exercise, participants will evaluate the utility of hand held ultra sound scanners as accessory tools of telehealth based pediatric disaster and surge response
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Table 2. Exercise Goals and Associated Objectives

## Exercise Purpose

The purpose of the exercise is to demonstrate and test the application of telehealth technology as tool for pediatric disaster response.

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. Therefore, it is essential to develop regional capabilities to coordinate and respond to pediatric surge conditions.

The purpose of the Advancing Capability demonstration exercise is to evaluate telehealth and video conferencing technology as a tool for disaster and surge response when existing systems are overwhelmed, by enhancing rapid sharing of expertise throughout the region.

## Exercise Timeline

The Advancing Capability demonstration exercise is a 4-hour exercise scheduled on Thursday, May 20 from 9:00 AM -1:00 PM. Participants will evaluate telehealth utility while responding to a series of pre-recorded videos and questions presented during the exercise.

Links to join the Zoom videoconference will “go live” at 8:00am on 20 May 2021. The links are available on the [Advancing Capability website](https://emscimprovement.center/domains/preparedness/asprcoe/eglpcdr/telehealth/#:~:text=Advancing%20Pediatric%20Telehealth%20Capability%3A%20Use%20of%20Technology%20During%20Disaster%20Response&text=The%20Eastern%20Great%20Lakes%20Pediatric,test%20pediatric%20disaster%20telehealth%20activities.). Beginning at 8:30am, in the lull before the exercise begins, a scrolling slide deck will present on the video conference page with exercise information and several interactive questions. Refer to page 8 for the exercise timeline.



 **Note: All times are Eastern Time Zone**

## 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
* Data Collection Plan
* IT, Virtual Platform, and Applications Integration Plan

## 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:

* **Exercise Participants.** Exercise participants are personnel who: 1) actively consider questions and scenarios in response to video recordings, 2) answer Mentimeter questions when posed, 3) submit questions via Zoom chat and 4) complete pre and post exercise surveys. Due to audience size and videoconferencing bandwidth limits, most exercise participants will be in a passive listening role for the duration of the exercise.
* **Facilitator.** Serving as the overarching exercise host, the facilitator 1) welcomes participants, 2) explains exercise objectives, format and procedures, 3) introduces presenters, 4) facilitates transitions between pre-recorded videos and 5) solicits end of exercise Hot Wash comments. The facilitator will also address participant questions submitted in the chat.
* **Controllers.** Controllers plan and manage exercise, set up and operate the virtual platform, 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 participants 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 video conferencing and telehealth experience to contribute to the exercise.
* Pre-recorded videos may only present a limited period of a much longer patient treatment experience. Although the videos may provide a short glimpse of a full story, each video is assumed to be prefaced with appropriate medical interventions and coordination. Additionally, each video is assumed to result in proper follow-on medical care and a successful treatment plan.
* The various video scenarios are plausible, and events may occur as presented.
* Video simulations contains sufficient detail to allow participants to evaluate telehealth and/or video conferencing as tools of pediatric disaster response.
* Participants are responsible for establishing and maintaining internet and telecommunications connectivity as necessary to participate in the exercise.
* The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will not be evaluated.

### Artificialities

During this exercise, the following artificialities apply:

* As a 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 evaluating telehealth and video conferencing as tools for 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.
* For the purposes of focusing the exercise on the specific task of evaluating telehealth and video conferencing platforms as tools for pediatric disaster response, medical treatment and standards of care are auxiliary, secondary concerns for the duration of the exercise. The exercise is narrowly focused on evaluation of telehealth, not medicine.

# Exercise Logistics

## Safety

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

* Home station 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:

* 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 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

Participants are asked questions to assess professional qualifications, telehealth expertise and emergency management experience. The survey is available at [Pre-Exercise Survey](https://umich.qualtrics.com/jfe/form/SV_a95Z2rhIBIG6jLE) (link).

## Video Production Survey

Participants who took part in producing a pre-recorded video are asked to complete a Video-Production survey. This survey asks more detailed, telehealth related. The video production survey is available at [Video Production Survey](https://umich.qualtrics.com/jfe/form/SV_50b9VrhCjIgUPUG) (link).

## Word Cloud

As an ice breaker, a word cloud will display participant responses to interactive questions.

## Menti-Meter

Menti-meter is an interactive presentation platform that provides immediate aggregated responses. Menti-meter will be used throughout the exercise to gather participant responses.

## Zoom Chat

Participant questions can be submitted throughout the exercise via Zoom chat. An exercise controller will monitor the chat, address individual questions where possible and notify the exercise facilitator of questions for group discussion. A transcript of the Zoom chat will be downloaded and added to the exercise record.

## Post-Exercise Survey

Building upon the pre-exercise survey, all participants are asked to complete a short survey to assess changes in opinion of telehealth as a result of the exercise. The post exercise survey is available at [Post-Exercise Survey](https://umich.qualtrics.com/jfe/form/SV_aVGYtvgpZqhHcLY) (link)

## Debriefings

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

### Hot Wash

At the conclusion of exercise play, the exercise facilitator will conduct a short Hot Wash to allow participants to discuss strengths and areas for improvement for the exercise. The facilitator will also solicit final feedback on the utility of telehealth as a tool for pediatric disaster and surge response. The Hot Wash should not exceed 30 minutes.

**Leadership Debriefing**

EGLPCDR senior leadership participate in a facilitated debriefing during the next consortium meeting immediately following the exercise. During this debriefing, leadership provide an overview of their observations and discuss exercise strengths and areas for improvement.

## 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 Hot Wash and Leadership Debriefing 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 ASPR 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.

### 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



 **Note: All times are Eastern Time Zone**

# Appendix B: Exercise Participants



# Appendix C: Acronyms

