AMERICAN ACADEMY OF PEDIATRICS

PEDIATRIC DISASTER PREPAREDNESS AND RESPONSE

TOPICAL COLLECTION

CHAPTER 6: PEDIATRIC PREPAREDNESS EXERCISES

January 2019

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American Academy of Pediatrics

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Published by the American Academy of Pediatrics
345 Park Boulevard
Itasca, IL 60143
Telephone: 630-626-6000
Facsimile: 847-434-8000
www.aap.org
www.healthychildren.org
www.aap.org/disaster/manual

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CHAPTER SIX: PEDIATRIC PREPAREDNESS EXERCISES

WHAT IS AN EXERCISE?

Exercises are designed to help an organization test a hypothetical situation, such as a natural or man-made disaster, and evaluate the group's ability to cooperate and work together and to test their readiness to respond. Some exercises "test out" components of a written preparedness plan. Exercises can enhance knowledge of plans, allow members to improve their own performance, and identify opportunities to improve capabilities to respond to real events. Exercise objectives provide the framework for addressing gaps or developing or improving the pediatric plan.

Exercises and their objectives can focus on:

- Testing a plan, protocol, or new procedure
- Practicing skills (such as those used for patient triage or tracking)
- Preparing for more complex exercises
- Training on new equipment (such as radio equipment or devices used during patient evacuation)
- Assessing/improving ways in which stakeholders work with each other in various situations

Exercises can be conducted in-person or virtually. Virtual exercises are options to enhance response capability and conserve resources.

Pediatric Exercises Are Different

Although hospital and community exercises concentrate on various aspects of operations and medical treatment and provide an opportunity to prepare for disasters and enhance disaster planning and preparedness, in many cases exercises lack specific planning for the pediatric population and may not include children in sufficient numbers to test the system. During disasters, pediatric patients may represent a significant portion of the casualties. Children may need specialized resources related to their needs on the basis of anatomic, developmental, immunologic, and psychosocial differences from the general population. Pediatric patients may present to community providers and hospitals that do not routinely care for children. In conducting exercises specifically geared toward pediatric populations, hospitals and community-based providers can identify gaps in preparedness, training, response, and recovery for children in disasters and address issues such as:

1. Treating children who arrive without a parent or caregiver;
2. Identifying and reuniting children with their families;
3. Pediatric triage;
4. Utilizing pediatric-sized equipment; and
5. Addressing disaster mental health problems in pediatric patients.

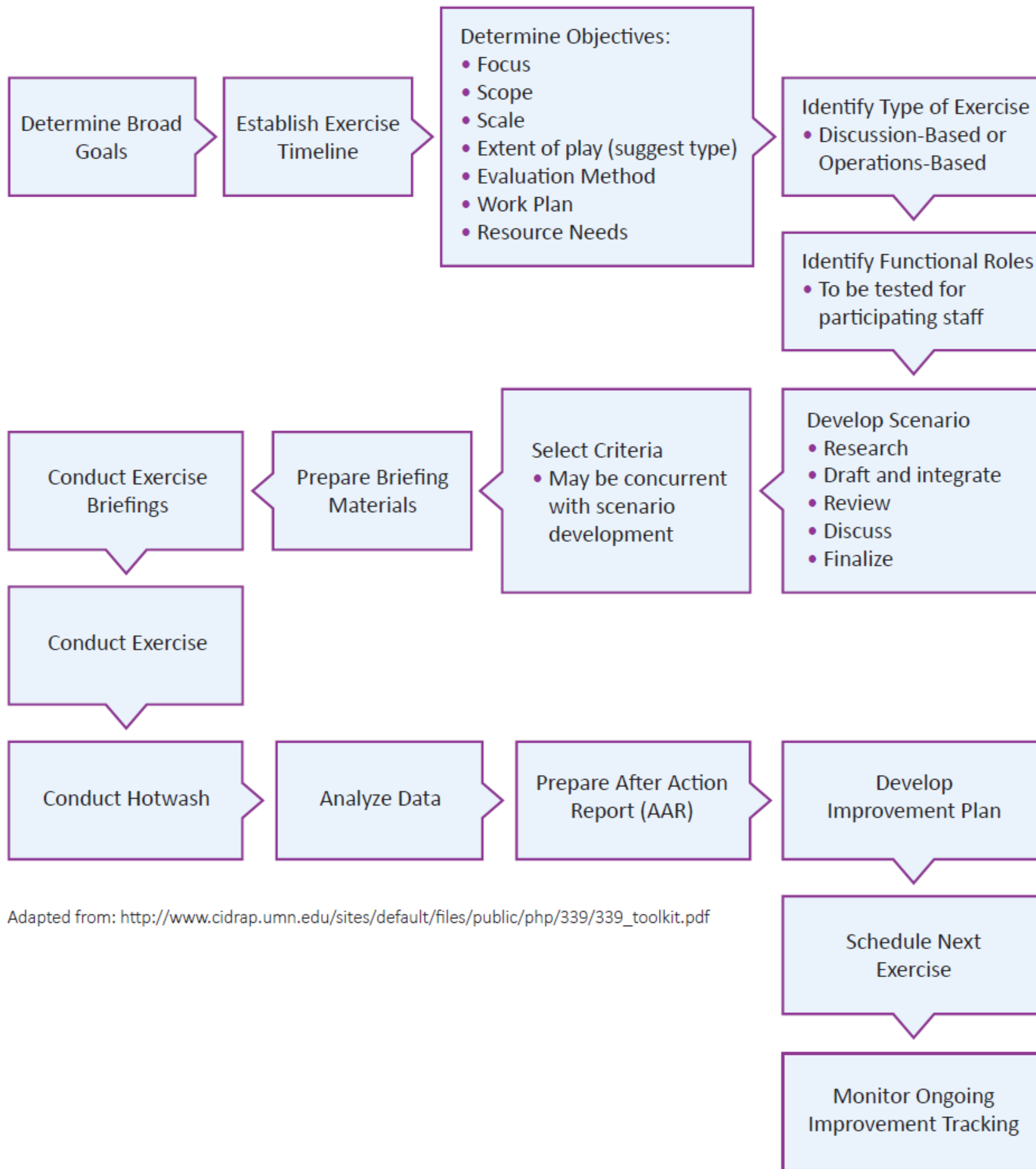
Optimally, all disaster-related exercises should include a component or subset of pediatric victims based on their representation in the population and likelihood of being affected by mass-casualty events.

Pediatric-Specific Exercise Versus Incorporating Pediatrics Into General Exercises

Most hospitals conduct exercises to meet requirements, such as those of The Joint Commission or Centers for Medicaid and Medicare Emergency Preparedness Rule (www.cms.gov/Medicare/Provider-Enrollment-and-Certification/SurveyCertEmergPrep/Emergency-Prep-Rule.html). Planning exercises to simulate 25% of the casualties as pediatric patients allows for a response that is a more realistic mix of the entire patient population. Some hospitals may choose to conduct a pediatric-specific exercise. This type of exercise is most suitable for pediatric hospitals, but pediatric-specific exercises can also be a good tool for hospitals who wish to develop or improve their pediatric-specific disaster plan. Community, state, and federal disaster exercises and drills should include community pediatricians, pediatric casualties, and pediatric scenarios as part of a "whole community" approach to preparedness. Although those typically involved in disaster planning and response may have little experience or comfort with children's issues, exercises provide opportunities for education and discovery of potential problems in advance of a disaster.

It should be noted that for the vast majority of pediatricians in non-hospital-based practice, there may not be much of an opportunity to participate in these kinds of exercises. Hospitals and coalitions involved in exercise planning can consider ways to specifically include community pediatricians in private practice in exercises as a way to promote the importance of disaster preparedness. Schools and child care programs are required to conduct exercises and drills, and there are opportunities for pediatricians to have input into these exercises and disaster planning.

EXERCISE CYCLE



Adapted from: http://www.cidrap.umn.edu/sites/default/files/public/php/339/339_toolkit.pdf

GENERAL EXERCISE GUIDELINES AND TYPES

The Homeland Security Exercise and Evaluation Program

The Homeland Security Exercise and Evaluation Program (HSEEP) provides a standardized policy, methodology, and terminology for exercise design, development, conduct, evaluation, and improvement planning. Exercises that use or receive Homeland Security Grant Program funds require HSEEP compliance. The New York State Division of Homeland Security and Emergency Services provides resources and training on designing and conducting HSEEP-compliant exercises (www.dhses.ny.gov/oem/exercise/hseep.cfm).

The HSEEP suggests a progressive approach: as exercises escalate in complexity and planning, they also increase the hospital's or the community's ability to respond to the type of scenario for which they are preparing.

There are various types of exercises. Typically, exercises are discussion-based (meeting-type format held in 1 location, with all participants in the room together) or operational in nature (can be held in various locations; a real-time simulation with participants serving as "players"). A basic description of various exercise types is provided below. Additional information about each of these exercises can be found in the HSEEP manual (https://preptoolkit.fema.gov/web/hseep-resources). Although the hospital or community group that is planning the exercise can skip a step, the HSEEP guidance recommends that exercises proceed upward from discussion to operations-based exercises, depending on existing capabilities and the stage of plan development.

Discussion-Based Exercises

- ***Seminars:*** Orient participants to authorities, strategies, plans, policies, and protocols.
- ***Workshops:*** Like seminars with increased participant interaction and a focused product. The purpose of a workshop is to fine-tune a protocol, plan outline, portion of a plan, or a full plan.
- ***Tabletop Exercises:*** Generate discussion around a hypothetical emergency to facilitate conceptual understanding. Can enhance general awareness, validate plans and procedures, rehearse concepts, and assess systems needed to guide preparedness for a defined incident. The AAP offers a Pediatric and Public Health Preparedness Exercise Resource Kit (www.aap.org/en-us/Documents/Tabletop_Exercise_Resource_Kit.pdf) that provides tools and templates to make it easier for states, communities, hospitals, or health care coalitions to conduct a pediatric tabletop exercise. This kit was based on implementation of an AAP and CDC virtual exercise, using the Zoom platform.
- ***Games:*** Simulation of operations with 2 or more teams to use rules, data, and procedures to depict a hypothetical situation and explore the consequences of player decisions and actions.

Operations-Based Exercises

- ***Drill:*** Designed to test a specific operation with a single entity. Only one procedure or plan aspect is exercised to determine whether the plan will work as designed or if training is required.
- ***Functional Exercises:*** Designed to validate and evaluate capabilities and various functions. Functional exercises are focused on exercising plans, policies, procedures, and staff involvement in management, direction, command, and control functions. The events are

projected through an exercise scenario with updates that drive activity. These exercises are conducted in a realistic, real-time environment with some aspects simulated.

- ***Full-Scale Exercise:*** This is the most complex and resource-intensive type of exercise and involves multiple agencies, organizations, and jurisdictions and validates many facets of preparedness. A full-scale exercise includes many players operating under cooperative systems such as the Incident Command System or Unified Command. Events are projected through an exercise scenario with event updates that drive activity at the operational level. Full-scale exercises are conducted in a real-time, stressful environment that mirrors a real incident. Personnel and resources may be mobilized and deployed to the scene, where actions are performed as if a real incident had occurred. The exercise simulates reality by presenting complex and realistic problems that require critical thinking, rapid problem solving, and effective responses by trained personnel. A summary of the various exercise types and the respective components is shown below. However, it is important to keep in mind that depending on the objectives and planning team input for each exercise, the components vary.

Table 6.1 provides an overview of the different types of exercises and respective components.

Table 6.1: Comparison of Exercise Types

	Discussion-Based Exercise				**Operation-Based Exercise**		
Component* • = *YES	**Seminar**	**Workshop**	**Tabletop Exercise**	**Game**	**Drill**	**Functional Exercise**	**Full-Scale Exercise**
Length*	2-5 hours	3-8 hours	4-8 hours	2-5 hours	2-4 hours	Varies	1 to 5 days
Planning Time	Minimal	1 month	5 months	Varies	Varies	6-12 months	6-12 months
Planning Team	Presenter	Small group	•	•	•	•	•
Objectives	•	•	•	•	•	•	•
Planning Meetings			•	•	•	•	•
Scenario			•	•	•	•	•
PowerPoint	•	•	•			•	•
Moderator		•	•			•	•
Facilitator	•	•	•	•	Controller	Controller	Controller
Facilitator Guide	Optional	Optional	•	•			
Situation Manual	Optional	Optional	•				
Participant Feedback Form	•	•	•	•	•	•	•

**The length of an exercise will depend on the capability being tested, the preferences of organizational leaders, and input from the planning team. Refer to the subject matter experts and the planning team to determine the proper length for each exercise.*

STEPS FOR PLANNING AN EXERCISE

Although the word "hospital" is used throughout the sections below, it is recognized that another community organization could be taking the lead on planning an exercise.

Selecting Exercise Participants
Participants should be invited to participate in an exercise based on the capabilities being exercised. Too many participants can be unmanageable and can make the exercise difficult to evaluate. Too few participants may place a burden on those who are playing and can make the exercise seem unrealistic. Defer to the planning team and the plan to strike the right balance and mixture of the type and number of players.

Creating a Planning Team
The exercise planning team designs and conducts the exercise. If the hospital is planning to conduct series of exercises, the planning team should remain the same throughout the entire process.

The planning team should include people who are integral to the hospital's response operations (see **Table 6.2: Exercise Planning Team Representatives Within a Hospital**). This is not an exhaustive list of participating departments. Hospitals or organizations can create the planning team at their own discretion. Designate one person on this team—usually the hospital's Emergency Preparedness Coordinator—to lead the project and manage the planning team.

Table 6.2: Exercise Planning Team Representatives Within a Hospital		
Emergency Preparedness Coordinator	Hospital Administration	Social Work
Pediatric and/or Neonatal Intensive Care Unit (medical and nursing)	Respiratory Therapy	Facilities/Engineering
Emergency Management or Emergency Medical Services (if applicable)	Emergency Department	Admitting/Patient Tracking/Bed Management
Security/Safety	Labor and Delivery	Surgery
Trauma Team	Patient Safety/Quality Risk	Child Life (if applicable)

The planning team's responsibilities include conducting the meetings outlined in the HSEEP manual and the steps below:

- Creating objectives for the exercise
- Preparing a dynamic scenario for the exercise
- Identifying a date and location for the exercise
- Inviting participants
- Deciding on evaluation activities
- Creating various guides, such as a situation manual, facilitator's guide, or evaluation guide
- Developing a PowerPoint presentation to guide presentations and discussions
- Choosing and training exercise evaluators

- Conducting a hot wash, if planned (described below)
- Holding an after action meeting, if relevant (described below)
- Drafting a postexercise report and/or improvement plan

Conducting Planning Team Meetings
Table 6.3 provides an overview of the exercise planning meetings referenced in the HSEEP manual and relevant actions to be taken during each one:

Table 6.3: Overview of Exercise Planning Meetings

Meeting	Purpose
1. Scenario, Concept, and Objectives Meeting	• Determine exercise objectives • Create a scenario • Define circumstances/triggers that set the plan in motion
2. Initial Planning Meeting	• Choose date and location • Designate team members • Review objectives and scenario • Discuss next steps for drafting the situation manual, exercise evaluation guide, and PowerPoint presentation
3. Midterm Planning Meeting	• Review draft situation manual, exercise evaluation guide, and presentation
4. Final Planning Meeting	• Complete final review of all documents • Verify exercise logistics • Review planning team roles (eg, facilitators, evaluators)

Conduct Exercise Evaluation
There are various evaluation aspects that can be considered by the exercise planning team. Evaluations can address the logistical aspects of the exercise (like a meeting evaluation) as well as whether the exercise led to increased topical awareness or skills.

Questions to consider for the evaluation plan include:
1. Should participant awareness of certain topics or protocols be assessed before and/or after the exercise to document changes in awareness or skills?
2. If participant awareness or skill level is part of the evaluation plan, should a participant feedback form or pre- and postexercise survey be used?
3. Should the exercise include a hot wash?
4. Should the planning team hold an after action meeting?

What is a Hot Wash? A hot wash is a briefing or an opportunity for exercise participants to share their thoughts on the exercise, including feedback, concerns, and what they think was accomplished. Participants can discuss exercise strengths and areas for improvement together with the planning team. The hospital can use this information to identify gaps in the response and

to learn about what worked or did not work well in the exercise The hot wash is held immediately following the conclusion of the exercise.

What is an After Action? An after action is a meeting that is held among elected and appointed officials or their designees from the exercising organizations, as well as the lead evaluator and members of the exercise planning team, to debrief on the exercise, decide on needed improvements, and review and refine written recommendations that could be included within a report or follow-up action plan.

It is recommended to conduct an after action meeting within 3 weeks after the exercise. After the exercise is completed, the responsible parties can update any protocol or plan documents as needed and create a report or improvement plan. The report should include an outline of the exercise as well as strengths and weaknesses. The improvement plan should include recommendations and designate staff members to follow up on those recommendations. Sometimes these are considered "summary reports" or "after action reports." Planning team members can use the after action meeting to review draft reports and improvement plans for accuracy and to determine who will follow up on the recommendations in the improvement plan by when. Members of the leadership should make sure to address any recommendations before moving on to the next exercise, and they should also hold staff accountable for the improvements. Exercise participants can be invited to attend or participate in the after action meeting if that is desired.

Information on the evaluation mechanisms and assessments used during AAP tabletop exercises is summarized in the literature. The *Disaster Medicine and Public Health Preparedness Journal* published an article titled "Addressing Children's Needs in Disasters: A Regional Pediatric Tabletop Exercise," which describes the activities and outcomes specific to the 2016 tabletop exercise (www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/addressing-childrens-needs-in-disasters-a-regional-pediatric-tabletop-exercise/EC4FF759A0119768D355D5C475F1AAC1). An article titled "Extending the Reach of Pediatric Preparedness: A Virtual Tabletop Exercise Targeting Children's Needs" is pending publication in *Public Health Reports*. The AAP can provide evaluation instruments on request.

Developing a Situation Manual

A situation manual is developed by the planning team and used by this team and all participants. The situation manual is generally used in discussion-based exercises, and it serves as the core document that provides the textual background for a facilitated exercise. The situation manual supports the scenario narrative and serves as the primary reference material for all participants during exercises. The situation manual generally includes the following information:

- Exercise scope, objectives, and core capabilities
- Exercise assumptions and artificialities
- Instructions for exercise participants
- Exercise structure (ie, order of the modules)
- Exercise scenario background (including scenario location information)
- Discussion questions and key issues
- Schedule of events

The AAP can provide a sample situation manual that was developed for the in-person and virtual AAP/CDC Pediatric and Public Health Tabletop Exercises (www.aap.org/disasters/tabletop).

Determining Facilitator Guidelines
During a discussion-based exercise, the facilitator(s) are responsible for keeping participant discussions on track with exercise objectives and ensuring all issues and objectives are explored as thoroughly as possible within time constraints. If an exercise uses breakout groups, more than one facilitator may be needed.

It is recommended that facilitators:

- Attend an HSEEP training program.
- Support the development of realistic and solvable scenarios.
- Prepare injects (adjustments to scenarios) to keep the exercise moving forward.
- Set “ground rules” to encourage participants to stay on task and remain “in role.”
- Aim for full participation from all participants.
- Discourage individuals from dominating the conversation. The exercise should be a collaborative effort, and the facilitator should aim to control the pace and tenor of the exchanges.
- Incorporate new information into the exercise to get or keep participates engaged, if needed.

According to the HSEEP guidelines, a facilitator guide is designed to help facilitators to manage a discussion-based exercise. The facilitator guide usually outlines instructions and key issues for discussion during the event and provides background information to help the facilitator answer questions from participants or players. This guide may also include an evaluation section that provides evaluation staff members with guidance and instructions on evaluation or observation methodology to be used as well as essential materials required to execute their specific functions.

Determining Exercise Ground Rules
The AAP conducted exercises in 2016 and 2017 (www.aap.org/disasters/tabletop). An example of exercise ground rules can be found in the 2016 AAP Pediatric and Public Health Preparedness Exercise meeting proceedings on page 7 (www.aap.org/en-us/Documents/disasters_meeting_proceedings.pdf).

Developing Controller Guidelines
According to the HSEEP manual, in operations-based exercises and some games, “controllers” plan and manage exercise play and set up and operate the exercise incident site. Controllers can represent or assume the roles of individuals and agencies not actually participating in the exercise. Controllers direct the pace of exercise play, provide key data to players, and may prompt or initiate certain player actions and injects to the players as described in the master scenario events list to ensure exercise continuity. Controllers issue exercise materials to players as required, monitor the exercise timeline, and supervise the safety of all exercise participants. Controllers are the only participants who should provide information or direction to players. All controllers should be accountable to an exercise director or senior controller.

Choose controllers who are familiar with the processes being evaluated. Controllers should use both the exercise evaluation guide and the master scenario events list to control the exercise

flow. They should also be very familiar with the exercise process and how it is meant to unfold. It is recommended that facilities choose members of the planning team to work as controllers. Be sure to train controllers before the exercise to ensure that they understand their responsibilities, the scenario, and the objectives of the exercise.

Determining the Room Set-up

The discussion-based exercises can be set up using a conference table or by arranging tables/chairs in a U-shape so that everyone can see and interact with each other and view the presentations.

WORKSHOP

A workshop resembles a seminar in how it is conducted, but it aims to build a specific product, such as a draft plan or policy. Some planning team members recommend not using time within a workshop to draft written policies, but instead suggest that participants review, update, or test written policies already developed. The workshop objectives provide the framework for developing or improving the pediatric plan. Conducting a workshop is the first exercise in a series. If the hospital is not conducting any operations-based exercises, it is possible to use discussion-based exercises for both plan writing/revision and plan socialization purposes. It is recommended that hospitals conduct a workshop once a year to review and update their plan.

One of the first steps in developing a workshop (see **Table 6.4: Steps to Conduct a Workshop**) will be to designate an exercise facilitator. This person should be familiar with emergency preparedness and with the plan, if one exists. The exercise facilitator should be able to engage the audience in a discussion about any shortfalls or gaps in the plan. To do this, the facilitator will need to create a stress-free environment where people feel comfortable expressing their opinions. If feasible, give participants a hard copy of the plan for editing, and encourage everyone to actively engage in plan revision and recommendations. At the end of the workshop, exercise evaluation staff should collect and analyze participants' suggested revisions. The exercise evaluation staff can include members of the planning team or others brought in to assist with evaluating and an analyzing the exercise. Encourage participants to read the plan in advance of, and during the workshop, and discuss gaps in planning as well as potential solutions. Instruct participants to refrain from dwelling on details that cannot be addressed during the exercise series. Workshops are not performance-based and therefore can require a significant amount of moderating by the facilitator. Group discussions and problem solving should occur with the guidance of the facilitator and without time pressures.

Workshop Logistics

Who Should Be Involved? The following groups of people should participate in the workshop:

- Managers from departments who have a role in the plan
- People who would support or inform decision makers in writing or editing the plan
- People who are able to make decisions during an actual event

If any of the above participants were not involved in the process when the plan was developed, be sure to get their input early on in the exercise design process.

Table 6.4: Steps to Conduct a Workshop	
Day Before the Workshop	**Day of the Workshop**
Review the list of attendees	Confirm room set-up (tables, chairs, etc)
Send an e-mail reminder to participants	Check audiovisual connections and set-up
Confirm room reservation	Load presentations
Confirm catering order and set-up	Position all documents (eg, plans, table tents, sign-in sheets, forms)
Review and organize printed materials	Ensure caterers are set up before the event
Designate a notetaker and timekeeper	Confirm responsibilities with planning team

After the Workshop

Plan Revision or Creation: After the workshop is completed, the planning team (or relevant designee) should be sure to update or create the plan that was exercised or discussed. It is recommended that hospitals complete this step within 1 month after the workshop to keep up momentum and handle revisions while the information is still fresh. The timeline will, of course, depend on when any after action meetings are scheduled to review the plan updates or improvement steps.

Summary Report: A summary report outlines the workshop's main discussion items, observations, and any necessary follow-up. It also serves as a written record of any decisions, identified gaps, and/or established goals. The summary report should be based on the workshop structure and objectives, as well as information from the participant evaluations. The report can either be presented as a formal report or as meeting minutes with action items (if applicable), to be shared with individuals who were unable to attend the workshop. It is important to share the summary report with department heads and interested parties.

TABLETOP EXERCISES

As mentioned previously, the AAP offers a Pediatric and Public Health Preparedness Exercise Resource Kit (www.aap.org/en-us/Documents/Tabletop_Exercise_Resource_Kit.pdf) to provide tools and templates to make it easier for states, communities, hospitals, or health care coalitions to conduct a pediatric tabletop exercise. Additional items to consider when conducting a tabletop exercise can be found below.

During a tabletop exercise, key personnel discuss simulated scenarios and assess plans, policies, and procedures. The main difference between a tabletop exercise and a workshop is that in the tabletop exercise, participants are expected to perform or play out actions and decisions based on the well-developed scenario provided by the facilitator. There is an expectation that participants will utilize the plan and identify any practical or operational issues that impede the facility's capacity to respond to the scenario as prescribed in the plan.

A tabletop exercise is the second exercise in the series, after the workshop has been completed. If the hospital is planning a drill and/or full-scale exercise, the tabletop exercise should be conducted once the planning team has decided on the objectives for the drill or full-scale exercise. Tabletop exercises allow the exercise planning group or facility to test objectives to

determine whether they are appropriate for a drill or full-scale exercise. Planners should allow enough time between the workshop and the tabletop to make any necessary plan and exercise design changes. A tabletop exercise should be held once a year to update and review the plan, unless this is occurring during a functional or full-scale exercise.

If the hospital is planning an exercise series or using the progressive approach, it is suggested that the same scenario be used throughout the entire process. If desired, hospitals can increase the complexity of the scenario as they progress in the exercise series.

Scenario

The scenario is the driving force behind the tabletop exercise. Exercise planners must develop a plausible scenario that is solvable within the timeframe allotted for the tabletop exercise. It will be the facilitator's job to make the participants feel as if the exercise is realistic. This is accomplished only through synergy between the scenario, the presentation, and the delivery of the facilitator. The scenario should not make the participants feel as though they are in a "no win" situation; realistic hazards and numbers of patients are crucial to getting the most out of the tabletop exercise. Lastly, the scenario can unfold in waves or phases in which the situation progressively gets a little worse. This allows the group to build confidence in each other and themselves as they solve increasingly complex situations. See sample scenarios in the AAP Pediatric and Public Health Preparedness Exercise Resource Kit (www.aap.org/en-us/Documents/Tabletop_Exercise_Resource_Kit.pdf).

Developing Presentation Materials

The tabletop exercise designer and facilitator should work hard to create not only a plausible scenario, but also a realistic PowerPoint presentation that will simulate the stressful conditions that the facility is perceived to encounter. The presentation should include as many visual images and details as required to stimulate the discussion. High-quality images should be used from simulated scenarios or from previous exercises to help participants "feel" like they are actually experiencing the crisis being simulated. The AAP can provide the presentation materials used for its tabletop exercises on request.

What to Bring to the Tabletop Exercise

- PowerPoint presentation
- A copy or outline of the existing plan for participants to reference
- Sign-in sheets
- Name tents
- Participant feedback forms (if appropriate)
- Writing pads, pens, and highlighters for participants
- Situation manual
- Exercise evaluation guides
- Controller/evaluator handbook

Conducting a Tabletop Exercise

The HSEEP manual and the AAP Resource Kit provide many details on the process of planning and conducting a tabletop exercise (see **Table 6.5: Conducting a Tabletop Exercise**).

Table 6.5: Conducting a Tabletop Exercise	
Week Before the Tabletop	**Day of the Tabletop**
Review the list of attendees	Confirm that the room is properly set up (tables, chairs, etc)
Send an e-mail reminder	Confirm audiovisual connections work
Confirm room reservation	Load presentations
Confirm catering order, if applicable	Set up table tents (if used)
Ensure print materials are ready	Set up all documents, including plans, sign-in sheets, and feedback forms
Designate a note taker or person to draft any necessary reports	Ensure caterers set up before the event

The following are guidelines for a successful tabletop exercise:

The facilitator can begin the tabletop exercise with these steps:
- Introduce themselves and give the participants an idea of their background and what they bring to the exercise.
- Ask participants to briefly introduce themselves; make sure to ask them if they have read the pediatric plan that is being exercised. Consider the level of detail participants should include in their introductions. Examples are: name, current profession, organization/department they work for, why they wanted to attend the session, and what they hope to gain.
- Use the information gleaned from the introductions to help facilitate the session.
- Read the exercise ground rules out loud. Explain that participants are operating in a **"no-fault environment,"** in which all participants' feedback is respected, and comments or suggestions should be constructive.
- Fully articulate the exercise goal and objectives.
- Provide a brief overview of the schedule or timeline for the tabletop exercise schedule.
- Encourage participants to speak up, and explain that this will add to their learning experience.
- Reading the scenario and offering directions on next steps for the participants.

End the tabletop exercise by:
- Conducting the hot wash.
- Summarize key points illustrated by the exercise; tie these points back to the learning objectives.
- Acknowledging gaps in the plan or the hospital's ability to operationalize certain aspects of the plan.
- Listing "parking lot" issues and how they will be captured and/or addressed.
- Ensuring that participant feedback or evaluation forms are completed and collected.
- Discussing next steps (ie, after action report, future exercises, etc).
- Thank the group and end the exercise.

FULL-SCALE EXERCISES

A full-scale exercise is a multiagency, multijurisdictional, and multidisciplinary exercise involving functional (eg, emergency operation centers) and frontline (eg, firefighters) response officials. Once the hospital or other facility is confident in the plan and the staff's ability to execute it, it can consider conducting an full-scale exercise to test plan components and coordination among hospital decision makers, unit-level staff, partners, and public health and/or government officials. These exercises require a significant amount of planning and should be as realistic as possible (consider using props, mannequins, and actors). A full-scale exercise should be the last exercise in the exercise series. Hospitals should not plan a full-scale exercise without first conducting a workshop and tabletop exercise.

Exercise Director Guidelines for Full-Scale Exercises

There are often gaps in the following capabilities during full-scale exercises at various hospitals. Consider these gaps when setting objectives for a pediatric disaster-based full-scale exercise:

- ***Notifications:*** The ability to effectively provide internal emergency communications during a crisis is a leading cause of concern for many hospitals that conduct full-scale exercises. Consider testing for timely notifications, call trees that show the correct individual to contact, and reliable notification methods.
- ***Communications:*** Hospitals often experience challenges with in-house communications. When choosing an alternate evacuation location or surge space, note the available phones, write down the numbers, and identify any "dead zones" (areas where portable radios or cell phones do not work).
- ***Establishment of an Emergency Operations Center (EOC):*** In certain circumstances, EOCs are not set up quickly enough to respond to an event. In rapidly expanding situations, assign a liaison to affected areas. This person can provide critical information to the EOC once it has been set up to help leadership maintain situational awareness and give guidance as soon as possible.
- ***Security and Patient Tracking:*** Pediatric intensive care units (PICUs) and neonatal intensive care units (NICUs) have some of the most intensive security in hospitals. Although these systems prevent problems in daily operations, many hospitals found that the systems either did not work or hindered operations during an emergency. It is recommended that hospitals meet with security and patient tracking experts in their facility to review existing plans and devise mechanisms to properly track and secure pediatric patients during a crisis.

Master Scenario Events List Planning Meeting

For a full-scale exercise, an additional meeting is recommended for the planning team. The master scenario events list is a chronologic outline of event synopses, including expected participant responses, objectives, and responsible personnel. It includes specific scenario events (or "injects") that will prompt participants to implement plans, policies, and procedures that require testing during the exercise. The master scenario events list also records the methods (eg, phone call, facsimile, radio call, e-mail) that will be used to provide injects. This meeting should take approximately 3 hours and should include all members of the planning team.

Consider the following when drafting the master scenario events list:

- Is the event directly related to meeting an exercise objective?

- What is the desired task?
- Who will demonstrate the task?
- Who or what will provide inject(s) (eg, course of play, phone call, actor, video) and who will receive it/them?
- What tasks are the participants expected to complete?
- What are the back-up injects in case the participants fail to complete a task?

Controller and Evaluator (C/E) Training
The C/E training should be held no more than a week before the exercise date. Use this meeting to train the designated controllers and evaluators on how to use the master scenario events list, exercise evaluation guide, and communication device(s). If controllers and evaluators are using cellular telephones to communicate, be sure to distribute a list of everyone's phone numbers at this meeting. This meeting should take approximately 2 hours and should include all members of the planning team as well as any additional controllers or evaluators selected.

DEVELOPING A DRILL OR A FULL-SCALE EXERCISE

Exercise Director Guidelines
For every drill, clearly define protocols, concepts, and objective and areas of play, and make sure that personnel are familiar with the plans and trained in the procedures to be drilled.

Determine Areas of Play
The planning team should identify which locations will be drilled and/or affected during a full-scale exercise on the basis of what capabilities the hospital is exercising. Areas of play are particular physical locations where the hospital wants to test, practice, and evaluate a process or function. When deciding areas of play, special attention should be paid to exercise play and its effect on operations or functions in nearby areas.

Develop Drill and Full-Scale Exercise Documents
To conduct an organized and HSEEP-compliant exercise (see **Table 6.6: Conducting a Full-Scale Exercise**), planners will need to develop and utilize standardized documents.

- Master scenario events list
- Exercise evaluation guide
- Player handout
- Exercise plan
- Controller/evaluator handbook
- Controller/evaluator training
- Participant briefing
- Exercise badges
- Participant feedback forms
- Sign-in sheets

Table 6.6: Conducting a Full-Scale Exercise	
Week Before the Full-Scale Exercise	**Day of the Full-Scale Exercise**
Review the list of attendees	Confirm that the room is properly set up (tables, chairs, etc)
Send an email reminder	If multiple spaces are being exercised, make sure all spaces are prepared
Confirm catering order, if applicable	Confirm audiovisual connections work
Ensure print materials are ready	Load presentations
Prepare signage for public spaces (if needed)	Set up table tents
Conduct a controller and evaluator training and walkthrough. Make sure that all controller and evaluation staff: • Have reviewed and understand the exercise evaluation guide and the master scenario events list • Have no questions or concerns • Are capable of communicating with the entire exercise staff or lead exercise controller • Have received their assignments and documentation	Set up all documents, including plans, sign-in sheets, and feedback forms Ensure caterers set up before the event

NEXT STEPS AFTER COMPLETION OF EXERCISES

After an exercise is completed, be sure to update or create the plan that was exercised or discussed. It is recommended that hospitals complete this step within a month after the workshop to keep up momentum and while the information is still fresh. Most plans are written by a small group of people with an idealistic mindset of how the actual event will be handled. This can lead to problems when it comes to operationalizing the plan. The purpose of certain exercises is to share the plan with exercise participants who can offer input to improve the plan and the professionals' abilities to use plan concepts in a real-world situation.

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