INTRODUCTION

Background

Disaster preparedness and emergency planning ensure that needs, including medical needs, are addressed in the event of a catastrophic incident, such as an infectious disease outbreak, a natural disaster, or a man-made disaster. Should a pandemic or public health disaster occur, it is crucial to have an effective response. The American Academy of Pediatrics (AAP) describes requirements for children in its Ensuring the Health of Children in Disasters policy statement.

There are a variety of exercises that can help stakeholders develop or test emergency preparedness plans. A tabletop exercise utilizes informal group discussion, led by a facilitator, to solve a problem presented in a hypothetical, simulated emergency scenario. Participants discuss their roles during the emergency and what their response would be. Tabletop exercises with a progressive approach are often used prior to a full-scale exercise, which mimics, as closely as possible, a real event and typically requires far more resources than a tabletop exercise. This ensures that participants have a higher likelihood of knowing what to do before expending substantial resources to solidify skills and demonstrate mastery. Conducting a full-scale exercise before teams are ready is not only a waste of limited preparedness resources, but it may be discouraging if teams are overwhelmed by the experience.

Purpose

The purpose of this resource kit, the AAP Pediatric and Public Health Preparedness Exercise Resource Kit, is to provide the tools and templates to make it easier for states, communities, hospitals, or healthcare coalitions to conduct a pediatric tabletop exercise, which provides participants with the opportunity to discuss and assess preparedness plans and capabilities for a disaster that affects children.

The resource kit is the result of a collaboration between the AAP and the Centers for Disease Control and Prevention. It has been prepared and reviewed by experts in disaster preparedness. Information on this collaboration specific to tabletop exercises is summarized within the AAP Pediatric and Public Health Tabletop Exercise page.

Pediatric Exercises are Important

Children have unique medical needs. Being prepared to address the emergency needs of children, who are the most vulnerable population in a disaster, lowers risk, reduces loss, improves financial stability of medical practices and hospitals, strengthens the medical home and helps promote the health of children in the community.
A 2010 report from the National Commission on Children and Disasters indicates there are gaps in disaster preparedness for children and calls for the prioritization of children’s needs before, during and after a disaster. Therefore, holding exercises that focus on pediatrics or include a pediatric component are necessary.

**Emergency Preparedness Rule**

Exercises will become more commonplace because of the Emergency Preparedness Rule (Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers) from the Centers for Medicare & Medicaid Services. The purpose of the rule is “to establish national emergency preparedness requirements to ensure adequate planning for both natural and man-made disasters, and coordination with federal, state, tribal, regional and local emergency preparedness systems.” This rule requires that all 17 supplier and provider types be able to demonstrate compliance with the rule by November 2017 in order to participate in the Medicare and Medicaid programs. While this rule typically does not apply to pediatric physician offices, health care facilities or physician offices that are part of a Medicare participating facility are affected.

**Resource Kit Contents**

The AAP Pediatric and Public Health Preparedness Exercise Resource Kit includes the following tools to assist with implementation of a pediatric tabletop exercise:
- Guidance on planning a pediatric tabletop exercise
- Recommendations on who the participants in the tabletop exercise should be and the roles of the participants
- Template/sample materials, including an invitation letter and agendas (both half-day virtual and full-day in person examples are included)
- In addition, the following materials are available by emailing DisasterReady@aap.org: a smallpox outbreak scenario (includes 5 modules that add details in stages about the situation, as well as a script and discussion questions), a PowerPoint presentation, access to video clips and a post-exercise survey

**PLANNING A PEDIATRIC TABLETOP EXERCISE**

This section provides suggestions on the planning process for a pediatric tabletop exercise. Planning should begin at least 2 months before the tabletop exercise is scheduled to occur. Not only does this section include recommendations on what to do in advance of the meeting, but it also includes action items for the day of the exercise, as well as after it has concluded.
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At least 2 months before the event date

- The first step is to establish a planning team. The team should consist of people who have expertise in different topic areas. For example, one person can be charged with identifying participants to invite to the exercise, someone else can be responsible for coordinating all the exercise schedule and logistics, and a subject-matter expert can modify the smallpox scenario included with this resource kit, which also includes a list of links to other existing scenarios. Appoint one person to oversee the planning team.
- Determine the date the exercise will be held.
- Schedule regular planning meetings for the planning team to stay on schedule and keep everybody accountable for their responsibilities.
- Decide if the exercise will be held in person or virtually. Both approaches have their benefits. An in-person exercise allows for better interaction, while a virtual event may be more convenient if participants are located far from each other or to conserve on travel funds and other exercise costs.
- Determine the exercise location, reserve the room, and arrange for any audiovisual equipment or virtual meeting platform capabilities.
- Adapt the purpose, scope and objectives of the tabletop exercise as needed. The purpose explains why the exercise is being held, the scope explains the goal, plan and length of the event, and the objectives indicate what the exercise should achieve. The objectives also help participants respond effectively to the scenario.
- Decide on the scenario that will be used, whether it is the smallpox outbreak scenario available with this resource kit, one of the scenarios from the list included with the kit or developed new, based on an existing scenario. The most effective scenario is one that is most likely to occur locally. Adapt the scenario as needed.
- If an emergency plan already exists for the scenario topic, distribute copies of the disaster plan to the planning team members. This will help with the direction of the exercise.
- Appoint a facilitator who will be responsible for directing participants through the exercise and scenario, leading large group discussions and keeping the agenda on track.
- Create a list of people to invite and distribute invitation letters. Include pediatricians and public health officials at the state and local levels. Consider a pre-exercise survey, allowing invitees to make suggestions for other stakeholders. A sample invitation letter is included with this resource kit.
- Decide whether you want to administer a pre- and post-exercise evaluation (to capture changes in understanding or skill) or a post-exercise evaluation (to evaluate the exercise itself). Both can occur, depending on what the planning team feels is important.
- Adapt, as necessary, the slides and written materials, including the agenda, scenario, discussion questions and survey.
Two weeks prior to exercise

- **Finalize the scenario** with relevant details. The scenario, whether it is an existing scenario or developed new, should reflect information that is pertinent to participants and local patients.
- **Finalize the discussion questions.** Samples are available by emailing DisasterReady@aap.org.
- **Finalize the agenda.** Template agendas are included in this resource kit and can be adapted as needed.
- **Finalize the slides.** Samples are available by emailing DisasterReady@aap.org.
- **Administer a pre-exercise evaluation if desired.**
- **Convene an orientation call to share basic information about the structure of the exercise and answer participant questions if desired.**
- **Finalize a post-exercise survey.** A sample survey is available by emailing DisasterReady@aap.org. It can be revised to reflect the focus of the exercise.
- **Divide participants into small groups** that will meet during the exercise to discuss their roles, responsibilities and response to the scenario.
- **Make copies of written materials** that will be distributed to participants at the exercise. When the AAP conducted its exercises, scenario information was kept confidential until it was time for each module and related details to be offered to the participants.
- **Confirm electronic or audiovisual equipment** will be available the day of the exercise.
- **Obtain flip charts and markers, as well as paper and pens** for participants.
- **Order refreshments.**
- **Provide written materials to facilitator.** This includes copies of slides, the agenda, scenario, and discussion questions.
- **Practice the exercise** by conducting a shortened run-through of the exercise.

Day of exercise

- The facilitator should **explain the ground rules, purpose, scope and objectives** of the pediatric tabletop exercise to the participants.
- **Conduct the exercise.** The scenario will be presented to the group. Small groups will meet to discuss the scenario, including their response, roles, and responsibilities. After an allotted time for the small group discussions, participants will report their discussion results to the entire group. This process will be repeated as more modules to the scenario are presented.
- **Perform a “hotwash”** at the end of the exercise to debrief on the day’s events and elicit feedback. A hotwash is the immediate evaluation or discussion by participants following an exercise, training or major event. Conclusions or suggestions shared can be used to improve future exercises and related scenarios.
- **Distribute a post-exercise survey.** The survey can be distributed in paper form and collected at the end of the exercise or sent via email to participants after the exercise.
Within one week after the exercise

- **The planning group should meet** to discuss the successes and challenges of the exercise. This is often referred to as an “after-action” event.
- **Develop a report about the exercise** that includes the survey results and post-exercise feedback. An after-action report should include an action item for each challenge identified and the responsible parties assigned to follow-up on each action item. Share the report with the participants when it is complete.
- **Develop an action plan** for making necessary corrections to the exercise or for addressing the gaps in preparedness and response highlighted by the exercise.

**PEDIATRIC TABLETOP EXERCISE PARTICIPANTS**

A tabletop exercise consists of a number of participants that each have a vital role in ensuring the exercise is effective and engaging.

**Planning team:** This group is charged with organizing the details of the tabletop exercise. An appropriate size for the group is 6 to 8 members. The section on planning a tabletop exercise outlines the roles and responsibilities of this group.

**Exercise director:** This person leads the planning team to ensure that team members stay on track with their assigned responsibilities. In addition, the exercise director “oversees all exercise functions during exercise conduct,” according to the Homeland Security Exercise and Evaluation Program. The exercise director along with an identified expert specific to the scenario can respond to questions during the exercise.

**Facilitator:** A facilitator is responsible for guiding the flow of the exercise and discussions so that participants remain focused on the exercise objectives. The facilitator explains the process of the exercise and draws out information from the participants during discussions. In addition, the facilitator moderates discussions, although a separate moderator can be appointed if so desired. It is helpful if the facilitator has facilitation and relevant content expertise.

**Time-keeper:** This person is responsible for keeping the components of the meeting on time according to the agenda and advising the facilitator or participants when it’s time to move on.

**Players:** The number of “players,” otherwise known as participants, can range from 8 to 100. However, more players will require co-facilitators at a ratio of approximately 15 or 20:1. Following are some of the players that can be included in a pediatric tabletop exercise, depending on the scenario topic:

- AAP chapter leaders
- Behavioral health experts
- Emergency medical service professionals
- Medical trainees
Diverse organizations, such as Spanish-speaking organizations, American Sign Language interpreters, and organizations that partner with people who speak English as a second language
- Family-to-family health network center representatives
- Hospital leaders, including the chief information officer
- Public health epidemiologists (when using a disease scenario)
- School district representatives and/or school superintendents
- Child care or early childhood educational program representatives
- Healthcare coalition coordinators
- State health officials (emergency preparedness departments and children and families departments)
- State hospital association leaders
- State Department of Human Services (children’s department)
- State medical association representatives
- Statewide nursing line specialists
- Nonprofit children’s organizations or non-governmental organizations that respond to disasters
- First responders (police, fire officials)
- Medical transportation service authorities
- Media spokespersons (multi-lingual representatives, including Spanish speaking and American Sign Language interpreters). Communications and messaging are important components of a preparedness plan and therefore crucial to include in an exercise. Suboptimal messaging can worsen a crisis, so an exercise provides participants with the opportunity to discuss appropriate messaging and how those messages will be communicated. It can also be determined to whom messages will be communicated, as well as when and where.

Pediatric experts can play a key role in ensuring children’s needs are met during a pandemic or public health emergency. Including pediatric experts and national, state and local decision-makers together in a pediatric tabletop exercise can reinforce the important roles each person has in planning for an emergency and identify potential gaps in pediatric readiness. Sometimes various pediatric disciplines are recommended, as primary care providers, hospitalists, or medical subspecialists offer differing perspectives. Therefore, players may include experts from outside of the state. Consider including representatives from some of the following organizations:
- Emergency Support Function 8 Network
- Joint Information Center
- Regional Advisory Councils or designated regional coordinators
- National medical associations
- Pediatric societies
- Emergency responders in other states that have knowledge of children in disasters
- Children
There are national organizations that may be willing to partner on a tabletop exercise, providing valuable resources. Following are some organizations to consider contacting about the possibility of partnering together on a pediatric tabletop exercise:

- Administration for Children and Families
- American Academy of Pediatrics
- American Academy of Family Physicians
- American College of Obstetrics and Gynecologists
- American College of Emergency Physicians
- American Nurses Association
- Association of State and Territorial Health Officials
- Emergency Medical Services for Children Innovation and Improvement Center
- Emergency Nurses Association
- National Association of County and City Health Officials
- National Association of Pediatric Nurse Practitioners
- National Association of School Nurses
- National Pediatric Disaster Coalition
- National Human Trafficking Center

In addition, there may be occasion to partner with the following federal programs that fund state grantees to work on preparedness efforts. Therefore, these projects might have existing exercise plans, experts, and resources for exercises that are not otherwise known:

- Emergency Medical Services for Children (EMSC)
- Hospital Preparedness Program (HPP)
- Public Health Emergency Preparedness (PHEP) (state and local agencies)
- State Emergency Management Agency
- Local Emergency Management Agency

**EXERCISE EVALUATION**

As mentioned, it is important to consider how you will evaluate the exercise. A key component of the evaluation approach relates to the goal of your specific exercise. Exercises can be designed to test out whether a plan or approach works, to determine if employees understand their role in disaster response, or to address a gap identified as part of a hazards analysis. Key questions to answer with your evaluation approach might be:

- Did the exercise result in changes in understanding of pediatric preparedness concepts?
- Did participants report changes in knowledge or confidence because of the exercise?
- Did the exercise lead to increased skills?
- Were there changes in reported communications between critical stakeholders or participants because of the exercise?
- Was there an increase in pediatric preparedness efforts after the exercise, such as enacting changes in local planning, additional pediatric exercises, incorporation of pediatric considerations into preparedness plans, or building of community partnerships?
• Was the exercise perceived as successful or helpful?

Once the goals or the focus of the evaluation is determined, then you can decide on the approach, such as a pre- and post-evaluation survey, in-person hotwash, after-action discussion, etc.
TEMPLATE EMAIL INVITATION TO PEDIATRIC TABLETOP EXERCISE

Dear (insert name):

You are invited to participate in a pediatric tabletop exercise, a discussion-based session where participants meet to discuss their roles during an emergency and their responses to an emergency scenario. The session will be held (insert date, time and location). The exercise will present a scenario on a (insert disaster scenario description, i.e. smallpox outbreak). Information and questions will be provided in writing and by a facilitator, followed by guided discussions. The goal is for participants to discuss existing plans and capabilities and to share strategies to enhance emergency preparedness in the community. Participants will include representatives of both the public health and pediatric community so that they collectively learn how to better support each other during all phases of a disaster response.

The American Academy of Pediatrics and the Centers for Disease Control and Prevention have collaborated to develop the Pediatric and Public Health Preparedness Exercise Resource Kit that is being used to guide the exercise. The resource kit has been prepared and reviewed by experts in disaster preparedness.

We hope you will be able to join us for this important event. Being prepared to address the emergency needs of children, who are the most vulnerable population in a disaster, lowers risk, reduces loss, improves financial stability, strengthens the medical home and helps promote the health of children in the community.

Please respond whether or not you will be able to participate by (emailing/calling) (contact information) by (insert date).

Thank you. We look forward to hearing from you.

Sincerely,

(Insert Name)
(Insert Title)
(Insert Business Name)
(Insert contact information)
TEMPLATE IN PERSON TABLETOP EXERCISE AGENDA

(INSERT DATE OF EVENT)

(Insert Event Location)

8:00 a.m.   ARRIVE

8:30 a.m.   WELCOME AND OPENING REMARKS

9:00 a.m.   EXERCISE OVERVIEW
   Participant Introductions
   Exercise Details

9:15 a.m.   EXERCISE PROCESS
   Ground Rules
   Scenario

9:45 a.m.   BREAK

10:00 a.m.  EXERCISE MODULE ONE
   Presentation of Scenario Details (5 minutes)
   Team Discussions (40 minutes)
   Team Report-Outs (15 minutes)

11:00 a.m.  EXERCISE MODULE TWO
   Presentation of Scenario Details (5 minutes)
   Team Discussions (40 minutes)
   Team Report-Outs (15 minutes)

12:00 p.m.  LUNCH

12:30 p.m.  EXERCISE MODULE THREE
   Presentation of Scenario Details (5 minutes)
   Team Discussions (40 minutes)
   Team Report-Outs (15 minutes)

1:30 p.m.   EXERCISE MODULE FOUR
   Presentation of Scenario Details (5 minutes)
   Team Discussions (40 minutes)
   Team Report-Outs (15 minutes)

2:30 p.m.   BREAK

2:45 p.m.   EXERCISE MODULE FIVE
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Presentation of Scenario Details (5 minutes)
Team Discussions (40 minutes)
Team Report-Outs (15 minutes)

3:45 p.m. SCENARIO ENDINGS/FINAL DISCUSSION
4:15 p.m. HOTWASH
4:45 p.m. FINAL COMMENTS
5:00 p.m. ADJOURN
TEMPLATE VIRTUAL TABLETOP EXERCISE AGENDA

(INsert title of exercise/Name of organization)

11:30 a.m. WELCOME AND OPENING REMARKS

11:45 a.m. EXERCISE OVERVIEW
Purpose of Exercise
Exercise Objectives
Participant Introductions

12:00 p.m. EXERCISE PROCESS
Ground Rules

12:05 p.m. EXERCISE MODULE ONE
Presentation of Scenario Details (5 minutes)
Team Discussions (30 minutes)
Team Report-Outs (20 minutes)

1:00 p.m. EXERCISE MODULE TWO
Presentation of Scenario Details (5 minutes)
Team Discussions (30 minutes)
Team Report-Outs (20 minutes)

1:55 p.m. BREAK

2:10 p.m. EXERCISE MODULE THREE
Presentation of Scenario Details (5 minutes)
Team Discussions (30 minutes)
Team Report-Outs (25 minutes)

3:10 p.m. SCENARIO ENDINGS/FINAL DISCUSSION

3:30 p.m. HOTWASH

3:55 p.m. FINAL COMMENTS

4:15 p.m. ADJOURN
PEDIATRIC TABLETOP EXERCISE SCENARIOS

One of the main components of a pediatric tabletop exercise is the scenario. During the tabletop exercise, a hypothetical scenario is introduced and participants are divided into groups to discuss how they might address the emergency situation outlined in the scenario, as well as their roles and responsibilities. Following are links to some existing scenarios. The first section includes scenarios that are specific to pediatrics, while the second section includes scenarios in which pediatrics may be injected.

Existing pediatric tabletop exercise scenarios:

Center for Pediatric Emergency Medicine for New York City in collaboration with the New York City Department of Health and Mental Hygiene Healthcare Emergency Preparedness Program. Scenario: Explosion at a school. This document also includes extensive sample materials for a pediatric tabletop exercise.

Colorado School Safety Resource Center (Colorado Department of Public Safety), Governor’s Office of Homeland Security, Colorado Division of Emergency Management. Scenario: A school bus accident, among several other scenarios without injuries.


Illinois Emergency Medical Services for Children (2016). This document includes six scenarios: 1) school bus accident; 2) chemical leak at a swimming pool; 3) community flooding; 4) influenza outbreak; 5) tornado; and 6) violent intruder at a school.
https://ssom.luc.edu/media/stritchschoolofmedicine/emergencymedicine/emsforchildren/documents/disasterpreparedness/otherresources/disastertrainingandexercises/Addressing%20Needs%20of%20Children%20in%20Disaster%20Prep%20Exercises%20Sept%202016%20Final(2).pdf

Illinois Emergency Medical Services for Children. Scenario: NICU/nursery evacuation due to an earthquake.
https://ssom.luc.edu/media/stritchschoolofmedicine/emergencymedicine/emsforchildren
National Association of School Psychologists. Scenarios: 1) chemical spill; 2) escaped inmate; 3) house fire; 4) unconscious student; 5) gas leak; and 6) suicidal student.
http://www.starstoolkit.org/sites/default/files/_files/NASP%20PREPaRE%20Tabletop%20Exercises.pdf

Ohio Department of Health. Scenario: A tornado occurs near a preschool, resulting in a surge of pediatric patients
http://www.prepareohio.com/education/default.htm

Tabletop exercise scenarios in which pediatric information can be inserted:

Central Ohio Trauma System. Scenarios: An influenza outbreak a tornado/shelter-in-place scenario and a Sarin nerve agent attack.
(http://www.prepareohio.com/education/default.htm)

https://www.fema.gov/media-library/assets/documents/27307


http://slideplayer.com/slide/4433918/

Homeland Security Exercise and Evaluation Program. Scenario and supporting materials: Hospitals are evacuated due to a heat surge.

Missouri Hospital Association. Scenario: A transportation accident with mass casualties.
https://web.mhanet.com/Patient_Surge.Triage.TTX.pptx
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**Northwest Center for Public Health Practice, University of Washington.** Several scenarios and template materials on the following topics: 1) bioterrorist attack on food; 2) large disaster; 3) pandemic influenza; 4) SARS; and 5) anthrax.  
[https://www.nwcphp.org/training/opportunities/drills-exercises](https://www.nwcphp.org/training/opportunities/drills-exercises)

**RAND Corporation.** Scenario and supporting materials: Pandemic influenza outbreak.  
[https://www.rand.org/content/dam/rand/pubs/technical_reports/2006/RAND_TR319.pdf](https://www.rand.org/content/dam/rand/pubs/technical_reports/2006/RAND_TR319.pdf)

**San Francisco Department of Public Health, Charles Schwab & Co. and San Francisco Department of Emergency Management.** Scenario: Mass antibiotic dispensing after anthrax release.  

**Shasta Medical and Health.** Scenario and situation manual: Mass casualties from train/car accident.  

**Virginia Department of Health.** Six scenarios and supporting materials: 1) botulism; 2) ebola; 3) HIV/AIDS; 4) measles; 5) monkey pox; and 6) zika.  

**Additional Sample Scenarios:**

* **Pediatric Intensive Care Unit (PICU) Surge:**
  - Natural disaster that causes another hospital to evacuate pediatric patients, creating a surge at your facility (e.g., hurricane)
  - Structural damage at another hospital that causes them to evacuate the PICU, creating a surge at your facility (e.g., fire, flood, power outage)
  - Man-made mass casualty event (e.g., active shooter, terrorist attack)

* **Neonatal Intensive Care Unit (NICU) Evacuation:**
  - Structural damage to your facility’s NICU (e.g., flood, fire)
  - Natural disaster that creates the need for an evacuation
RESOURCES

- AAP Pediatric and Public Health Tabletop Exercise

- AAP Pediatric and Public Health Preparedness Exercise Resource Kit

- Ensuring the Health of Children in Disasters Policy Statement
  http://pediatrics.aappublications.org/content/136/5/e1407

- Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers