

Exercise Guide for Ebola Concept of Operations (ConOps) Planning

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Acknowledgments

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Chapter 1 – Introduction

This *Exercise Guide for Ebola ConOps* is a tool to aid planners in creating exercises to test Ebola Concept of Operations (ConOps). The purpose of the guide is to

- Provide recommendations for the development of smaller exercises to evaluate key system elements in an Ebola ConOps plan and larger exercises to evaluate the overall plan.
- Provide templates, scenarios, tools, and examples to facilitate the development of an Ebola ConOps plan exercise.
- Provide considerations for evaluating an Ebola ConOps plan exercise.
- Describe ways to incorporate evaluation data to improve an Ebola ConOps plan.

Also available is the *Discussion Guide for Ebola ConOps*, which is designed to aid in engaging partners to help develop their Ebola ConOps plan. The partners involved in that process may be the same as those participating in these exercises and the exercise process can validate their planning efforts.

1.1. What is Included in this Guide

This guide provides recommendations on how jurisdictions can develop, conduct, and evaluate discussion-based exercises related to their Ebola ConOps plan. The chapters included in the guide are described below.

- **Chapter 1** provides information on the guide such as definitions, target audience, cooperative agreement, exercise requirements, and ways to provide feedback on the guide.
- **Chapter 2** provides a short overview of elements needed for the design, conduct, and evaluation of any exercise.¹
- **Chapter 3** provides a more focused overview of exercise material and includes instructions on objective and scenario development.
- **Chapter 4** provides six exercise modules, including a series of four discussion-based exercises and two tabletop exercises (TTXs).

¹ For more information on exercise guidelines, refer to the Homeland Security Exercise and Evaluation Program (HSEEP) at http://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep_apr13_.pdf.

- **Appendices** provide examples of exercise templates, worksheets, as well as a listing of acronyms and definitions.

The modules in the first part of Chapter 4 include material to aid in developing a series of smaller exercises involving partners at the state level to help evaluate select key system elements in an Ebola ConOps plan. Lessons learned and findings from these modules are incorporated into planning for the TTX modules. The TTXs include key jurisdictional-level participants as well as local (e.g., city, county)-level participants.

1.2. Definitions

The following terms are used throughout this document:

- **ConOps:** A conceptual overview of the processes and steps for the proper functioning of a system or for the proper execution of an operation. This overview also can include responsibilities and authorities, available resources, and methods to improve communications and coordination.
- **Exercise Participant²:** All levels of personnel involved in the exercise, including policymakers, coordination and operations personnel, and field personnel.
- **Jurisdiction:** For the purpose of this document, this term refers to the state, local (city, county), territorial, and major metropolitan area awardees that receive funds through the Epidemiology and Laboratory Capacity for Infectious Diseases (ELC), Public Health Emergency Preparedness (PHEP), and Hospital Preparedness Program (HPP) cooperative agreements.
- **Sector:** Agencies, organizations, or entities that serve the same general purpose in the community (e.g., the healthcare sector consists of those that provide healthcare services, including hospitals, clinics, and long-term care).

1.3. Target Audience

The target audience for this guide is personnel who have a primary role in preparedness or response planning. An assumption made in this document is that its readers are part of a jurisdiction (as defined in 1.2 above), have completed an Ebola ConOps plan, and have identified key partners³ involved in Ebola ConOps planning to participate in exercises.

² For the purposes of this guide, exercise participant and exercise player are used interchangeably.

³ Key partners can be identified by use of the *Discussion Guide for Ebola ConOps Planning*, which can be found at (insert URL).

1.4. Providing Feedback

Feedback about the *Exercise Guide for Ebola ConOps Planning* can be sent to healthcareprepared@cdc.gov.

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Chapter 2 – Exercise Design, Conduct, and Evaluation

This chapter provides guidance on using the **Homeland Security Exercise and Evaluation Program (HSEEP)** methodology, including additional information on exercise design, conduct, and evaluation. The guidance provided is not intended to be inclusive of all relevant information needed to plan an exercise. This chapter is also intended for those who are not familiar with developing exercises; those more familiar can move on to Chapter 3. For more information about HSEEP methodology, refer to <https://hseep.preptoolkit.org/>.

2.1. Exercise Design

Roles and Responsibilities

According to HSEEP guidance, participants perform specific roles and responsibilities during an exercise. The table below outlines the types of participant roles and responsibilities that are most relevant to a discussion-based exercise.

Participant Roles and Responsibilities

Role	Responsibility	Exercise Participation
Exercise Director	Oversees all exercise functions, including conduct, briefings, debriefings, setup, and cleanup.	Passive
Lead Evaluator	Part of planning team and oversees exercise evaluators. May be sole evaluator in smaller exercises.	Passive
Evaluator	Observes, captures unresolved issues, and analyzes exercise results.	Passive
Facilitator	Keeps discussions relevant to exercise objectives and ensures all objectives and issues are discussed as thoroughly as possible.	Active
Observer	Observes the exercise as it takes place and may support players by asking relevant questions.	Passive or Somewhat Active
Player*	Discusses his or her role and responsibilities in preventing, responding to, or recovering from the Ebola risks and hazards presented in the scenario.	Active
Scribe	Keeps a written record of all discussions that take place during the exercise (in addition to evaluator notes).	Passive

* At a minimum, public health, healthcare, emergency management, EMS and fire/rescue should participate as players in the exercise.

Documentation

According to HSEEP guidance, comprehensive and organized documentation for exercises is crucial to ensuring critical issues, lessons learned, and corrective actions are appropriately captured to support improvement efforts (see section 2.3 Exercise Evaluation for more information on evaluation and improvement planning). The documentation most relevant to discussion-based exercises, such as the exercise series and TTX, are:

- Situation Manual (SitMan)
- Facilitator Guide
- Multimedia Presentation
- Master Scenario Events List (MSEL)⁴ (optional)
- Participant Feedback Form⁵

Refer to HSEEP guidance for more information on how to develop and use these documents.

Desired Outcomes

The purpose of determining desired outcomes is to better articulate what players are expected to know and do as a result of their involvement in an Ebola response. Player knowledge and actions should mirror what is outlined in the Ebola ConOps plan. Desired outcomes differ for each exercise. Desired outcomes should be realistic and appropriate responses to the scenario, be observed during the conduct of an exercise, and meet exercise objectives.

Desired outcomes are designed to:

- Assess response planning.
- Reinforce exercise objectives.
- Serve as guidance for facilitators and evaluators during the conduct of an exercise.

In order to identify desired outcomes, jurisdictional planners should first identify what they want players to know, understand, and be able to do. During an exercise, facilitators can ask questions related to each desired outcome to test player understanding of the functional roles and responsibilities. These questions should relate directly to the desired outcome and also align with

⁴ An example MSEL is provided in Appendix F.

⁵ An example Participant Feedback Form is provided in Appendix I

exercise objectives. Chapter 3 includes questions to achieve desired outcomes in each of the exercise modules.

2.2. Exercise Conduct

Facilitated vs. Moderated Discussion

According to HSEEP guidance, discussion-based exercises typically work best through facilitated or moderated discussions. Facilitated discussions occur in a plenary session or in breakout groups that are typically organized by discipline or agency/organization. Moderated discussions generally follow breakout group discussions where a representative from each group provides participants with a summary of their facilitated discussion.

Whether the exercise is facilitated or moderated, or both, the facilitator is responsible for keeping discussion relevant to exercise objectives. The facilitator also is responsible for ensuring all objectives and issues are discussed as thoroughly as possible and for ensuring relevant discussion questions are asked in order to gather information for desired outcomes.

Wrap-Up Activities

Wrap-up activities after exercise conduct may include player hot washes and debriefings. Player hot washes are essential to successful exercise conduct. They provide an opportunity for participants to discuss strengths and areas for improvement while their thoughts are still fresh in minds. Hot washes should be led by a facilitator and occur immediately following an exercise. Debriefings allow team members to express their thoughts about the exercise, discuss any issues or concerns, and propose improvements for the next exercise. They should occur within a week following the exercise.

Logistics

HSEEP guidance notes that logistical considerations are often overlooked, despite their importance for conducting a successful exercise. HSEEP recommends considering the following logistical considerations for a discussion-based exercise, including an exercise series and TTX.

- Venue (e.g., facility and room, audio/visual equipment, supplies).
- Badging and identification (e.g., registration, table/breakout identification).
- Parking, transportation, and designated areas (e.g., observer/media area).

In addition, exercise setup is an important part of conducting a successful exercise. HSEEP recommends visiting the exercise site at least 1 day prior to the event, testing audio/visual equipment, and discussing administrative and logistical issues prior to the day of the exercise.

Virtual Exercise Considerations

Jurisdictions can use video and teleconferencing as a medium for conducting exercises simulating an Ebola-focused ConOps scenario. Virtual exercises allow connected participants access to training materials, such as plans and procedures, PowerPoint presentations, and discussions. Participants have the ability to learn from other participants facing similar situations. In addition, virtual meetings have several logistical advantages for planners including mitigating space concerns, being more cost and resource effective, reducing travel requirements and planning, and increasing opportunity to engage participants who would not otherwise be able to participate.

However, virtual exercises do require special considerations pertaining to set-up and logistics. At a minimum for an exercise series, teleconferencing capabilities are required for each virtual discussion exercise. Jurisdiction planners will need to determine the best software to use for each meeting based on resources, needs, and partner capabilities. Some common conferencing software includes, but is not limited to, GoToMeeting™, GoToWebinar™, Microsoft Lync™, and VIA3™.

Video-Teleconference (VTC)⁶ technology is ideal for a virtual TTX. VTC technology permits users at two or more different locations to interact with each other through a virtual face-to-face environment. VTC is capable of transmitting bi-directional audio, video, and data in real time. VTC requires more in-depth logistical preparations than the more common conferencing technology mentioned above.

2.3. Exercise Evaluation

Evaluation Steps

Evaluating an exercise series or TTX streamlines jurisdictional approaches for collecting exercise data through observation, collection, and analysis of data. Evaluation is used to:

- Assess capabilities and elements.
- Standardize and assess preparedness processes.
- Determine if exercise goals and objectives were met.
- Support development of an evaluation report, such as a corrective action plan (CAP).⁷

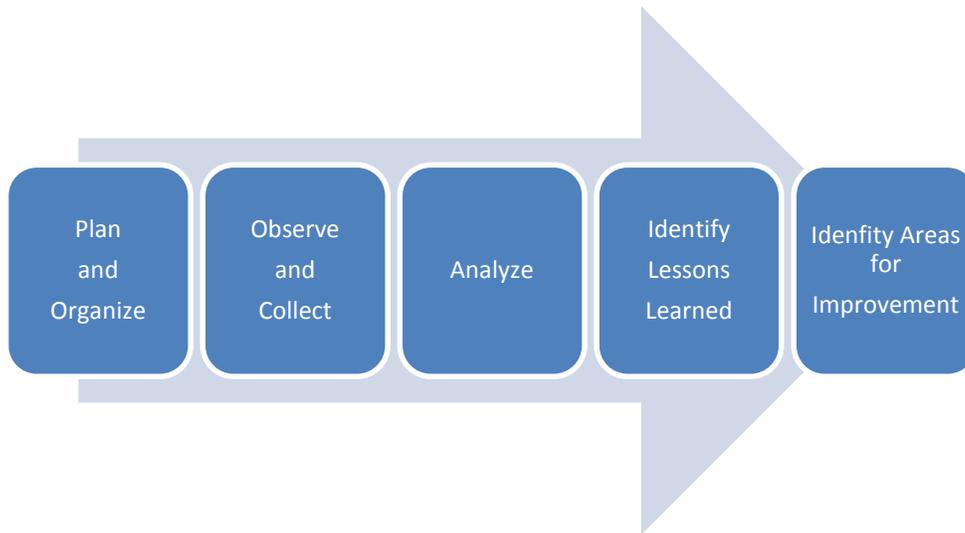
⁶ For more information about VTC, refer to National Security Agency Video Teleconferencing, available at https://www.nsa.gov/ia/files/factsheets/video_teleconferencing.pdf.

⁷ A CAP worksheet is provided in Appendix K and a CAP template is provided in Appendix L.

Exercise planners should determine the number and type of evaluation team staff based on exercise requirements and scope. Upon conclusion of an exercise, HSEEP guidance recommends the evaluation team compile their observations and determine actions that should occur after the exercise. Although not required for a discussion-based exercise, an after-action report (AAR) can be used to determine areas for improvement or areas that require further action.

The five key steps to evaluating an exercise are shown in the figure below. Questions to consider for each step of the evaluation process are outlined in Appendix H.

Figure 1. Evaluation Steps



Lessons Learned and Corrective Actions

Capturing key issues and lessons learned originating from discussion-based exercises provides opportunities for planners and participants to debrief, document, and recommend improvements for a future discussion exercises or TTXs. Lessons learned also may include best practices, exemplary, peer-validated techniques, procedures, good ideas, or solutions that work and are solidly grounded in actual operations, training, and exercise experience.⁸ Key exercise events that should be recorded as part of an evaluation are:

- Event initiation.
- Key decisions.
- Times actions occurred or were observed.

⁸ From HSEEP AAR-IP Template.

- Incoming or outgoing messages.
- Activities
- Definable and observable actions
- Player actions
- Scenario deviations
- Movement of personnel/equipment/resources
- Injects necessary to move exercise play forward
- Strengths
- Areas for improvement
- Best practices

CAPs assist planners in developing actions related to personnel, organization and leadership, training, planning, equipment, exercises, and evaluations. Corrective actions must be written to include attainable benchmarks that gauge progress toward full implementation.

Participating entities should use the following questions as a guide for developing corrective actions.

- What changes need to be made to plans and procedures to improve performance?
- What changes need to be made to organizational structures to improve performance?
- What changes need to be made to leadership and management processes to improve performance?
- What training is needed to improve performance?
- What changes to (or additional) equipment is needed to improve performance?
- What lessons can be learned that will direct how to approach a similar problem differently in the future?

Capturing this information in an evaluation report, such as an AAR, will enable planners to update existing Ebola ConOps plans, implement necessary changes, and brief officials, partners, and other participants based on results, documentation, and observations.

Reports and Improvement Planning

Capturing and documenting notes and observations during an exercise provides an opportunity to increase agency capacity and capability. Corrective actions and lessons learned are key elements to incorporate when developing an evaluation report. Incorporating these elements improves the design, development, and conduct of future exercise series and TTXs, improves the quality of plans and procedures, and sustains response efforts for future exercises or emergency response efforts.

Steps for incorporating corrective actions and lessons learned into improvement plans are:

1. Develop the appropriate evaluation process.
2. Observe and collect exercise data.
3. Analyze the data.
4. Develop an evaluation report and plan to include lessons learned, corrective actions, and recommendations.
5. Meet with participants to discuss and address the lessons learned and plans for improvement.
6. Implement the corrective action plan.
7. Track implementation of corrective actions and recommendations.

Ultimately, the outcome of an exercise evaluation is a document that identifies gaps, lessons learned, and corrective actions for the Ebola ConOps plan. Documentation should identify responsible agencies and a timeline to complete the actions and improvements.

Timeline

For a less complex exercise with minimal documentation requirements, such as a discussion-based exercise, the planning timeline provided below may be useful for jurisdictional planners.⁹

Activity	Timeline
Kick-off Meeting	3 to 6 months before the exercise
Initial Planning Meeting (IPM)	4 to 6 weeks before the exercise
Final Planning Meeting (FPM)	2 to 3 weeks before the exercise
Conduct exercise	N/A
Hot wash with participants	Immediately following the exercise
Debrief with facilitators, evaluators, and exercise planning team	Within a week after the exercise following the exercise
Corrective Action Planning Meeting	2 to 3 weeks after the exercise
Interim corrective action status check	4 to 6 weeks after the exercise
Interim corrective action status check	3 to 6 months after the exercise

In addition, an example timeline based on HSEEP guidance for exercise planning can be found in Appendix F.

⁹ Adapted from the Homeland Security Protection and Resilience Toolkit, https://emilms.fema.gov/is921/921_toolkit/downloads/nppd_ep.pdf.

Chapter 3 - Overview of Exercises in this Publication

Discussion-based exercises are an effective approach for participating in exercises that meet cooperative agreement requirements. These exercises address strategic, policy-oriented issues whereas operations-based exercises address actual reaction to an exercise scenario. These exercises also require less time and resources to design, conduct, and evaluate because they do not involve the deployment of physical resources, and they are generally less complicated than operations-based exercises.^{10 11} The value of a discussion-based exercise comes from bringing multiple agencies and jurisdictions together to improve coordination, train staff and agencies, identify jurisdictional roles and responsibilities, improve performance, and evaluate response actions and activities. Planners can use lessons learned from discussion-based exercises to update Ebola ConOps plans, inform training, and provide a foundation for more complex operations-based exercises.

3.1. Ebola Discussion-Based Exercise Overview

This guide provides considerations for developing smaller, discussion-based exercises and TTXs to test an Ebola ConOps plan.¹² The difference between the two is that:

- Smaller, discussion-based exercises cover a key element or scenario in the Ebola ConOps plan. They are designed to acquaint participants with each other's roles and responsibilities and to review plans and procedures.
- TTXs include multiple elements of the Ebola ConOps plan and involve a larger group of participants¹³.

Each exercise in this guide is designed to accomplish the following:

- Define clear goals and objectives for addressing each key system element as described in the *Ebola ConOps Plan Template*.
- Determine how sectors in the jurisdiction(s) interact and respond to the chosen scenario for the key system element(s).

¹⁰ IS-120a – An Introduction to Exercises, Federal Emergency Management Agency, <https://emilms.fema.gov/IS120A/m1summary.htm>.

¹¹ IS-130 – Exercise Evaluation and Improvement Planning, Federal Emergency Management Agency, <https://training.fema.gov/is/courseoverview.aspx?code=IS-130>.

¹² According to HSEEP guidelines, discussion-based exercises include seminars, workshops, TTXs, and games.

¹³ For more information on key elements, refer to the *Ebola ConOps Planning Template*.

- Provide a platform for the collection of observations and processes used to meet goals and objectives.

This guide is set up as a two-part exercise program that includes a series of smaller exercises and TTXs. When determining what type of exercise to conduct, a planner should consider the following:

- CDC's PHEP cooperative agreement requires a TTX or functional exercise.
- Conducting a TTX meets multiple cooperative agreement requirements in a single exercise.
- A TTX may require more resources, active planning time, and staffing than a series of discussion-based exercises.
- Planners can determine the number of exercises to include in an exercise series based on resources and time.
- Lessons learned from smaller, discussion-based exercises can be incorporated into plans and further tested in a TTX.

3.2. Design and Development

Goals and Objectives

Goals and objectives assist planners in structuring exercise scenarios, serve as a roadmap for conducting an exercise, and help determine if capabilities, capacities, and resources exist to conduct successful exercises. Each exercise objective should be **specific, measurable achievable, relevant, and time-oriented, or SMART**.

The **SMART** Objectives worksheet in Appendix A may be beneficial in helping build objectives for an exercise series or TTX. Each objective should relate clearly to the goal of the exercise. In addition, aligning objectives with PHEP and HPP capabilities, as shown in the tables below, will help to integrate Ebola exercises into overall preparedness planning efforts.

Table 1: Example Goal and Objective with PHEP and HPP Capability Alignment

Goal	Evaluate the waste management element of the community Ebola ConOps plan.
Objective 1	Ensure the process for transporting and destroying Ebola-contaminated waste allows for the safe and efficient handling of Category-A waste in communities and healthcare systems.
PHEP/HPP Capability	<p>Capability 1 – Community Preparedness/Healthcare System Preparedness</p> <p>Capability 3 – Emergency Operations Coordination</p> <p>Capability 14 – Responder Safety and Health</p>

Table 2: Example Goal and Objective with PHEP and HPP Capability Alignment

Goal	Evaluate the ability of sectors in the jurisdiction to identify, transport, and care for a patient confirmed with Ebola.
Objective 1	Identify gaps in the communication and coordination process between hospitals (e.g., frontline, assessment) involved with a person under investigation (PUI) and a patient confirmed with Ebola.
PHEP/HPP Capability	<p>Capability 1 – Community Preparedness/Healthcare System Preparedness</p> <p>Capability 3 – Emergency Operations Coordination</p> <p>Capability 6 – Information Sharing</p> <p>Capability 14 – Responder Safety and Health</p>

Scenarios and Key System Elements

The scenario is an essential part of exercises because it drives the exercise play. Jurisdictions should choose scenarios that are risk-based, realistic, challenging, and, most importantly, include conditions for participants to demonstrate proficiency and competency based on the Ebola ConOps plan key system elements. Table 3 contains examples of Ebola ConOps plan key system elements and a description of the focus for that element. These examples correlate directly with the modules outlined in Chapter 4. Key system elements can be used as a foundation for creating exercise scenarios. Example exercise scenarios also are outlined in Chapter 4.

Table 3: Example ConOps Plan Elements

Element	Description
Public Health Monitoring and Movement/Isolation and Quarantine	Description of the process within the jurisdiction for identifying, tracking, isolating, and quarantining PUIs.
EMS Support for the Transport of PUIs or confirmed with Ebola	Coordination of transport by EMS for PUIs or patients confirmed with Ebola both at the jurisdiction level and at the local level.
Waste Management	Coordination for the packaging and transport of waste material generated during the care of a patient confirmed with Ebola or at sites outside the hospital where a patient confirmed with Ebola visited.
Laboratory Services	Coordination of collecting, packaging, and shipping samples from a PUI or patient confirmed with Ebola to the state's public health laboratory or the jurisdiction's nearest Laboratory Response Network (LRN) laboratory for testing.

Participants

Partner engagement is crucial for the success of any exercise. During the development process, consider the following strategies for engaging exercise participants from partner organizations.

- Involve partner agencies in the planning, development, and facilitation. Invite them to serve as participants and observers during the exercise.
- Network with state, local, and territorial emergency management agencies to involve them in exercise planning.
- Consider virtual (e.g., GoToMeeting™) in addition to in-person meetings to encourage participation.

For more information on engaging partners, read the *Discussion Guide for Ebola ConOps Planning*.¹⁴

¹⁴ [Insert reference to the Discussion Guide for Ebola ConOps Planning when posted](#)

Public health, healthcare, EMS, fire, emergency management, and local government officials are key partners in any public health emergency and should be involved in both the Ebola exercise series and TTXs. Additional participants are dependent on the scenarios chosen for the exercise. Sectors to consider for discussion-based exercises are listed in Appendix C.

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Chapter 4 – Exercise Modules

4.1. Module Overview

The modules outlined in sections 4.2 and 4.3 are meant to provide sample material and information to help jurisdictions begin developing an Ebola ConOps plan exercise series and subsequent TTXs. Exercise series modules are based on four key elements that should be included in any Ebola ConOps plan.

Module 1: Public Health Monitoring and Movement

Modules 2a and 2b: EMS Preparation and Support at the Jurisdictional Level for the Transport of Persons Under Investigation (PUIs) or Patients Confirmed with Ebola

Module 3: Waste Management Considerations

Module 4: Laboratory Services Support and Coordination

All four elements are then incorporated into two TTX modules:

Module 5: Jurisdictional Coordination

Module 6: Regional (Interstate) Coordination

These modules are not meant to be inclusive of everything required to design an Ebola ConOps plan exercise, but can be used as a starting point for exercise planning. For detailed information on exercise methodology, refer to HSEEP guidance.

Each module contains sample material for the following categories:

- Objectives
- Related PHEP/HPP capabilities
- Scenario¹⁵
- Key issues
- Players¹⁶
- Questions for players

¹⁵ Additional Ebola scenario topics for planners are provided at the end of some modules as well as in Appendix E.

¹⁶ The four major sectors referred to in this category include public health, healthcare, EMS, and emergency management.

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4.2. Part I – Modules Focused on Plan Elements

Module 1: Public Health Monitoring and Movement

Objective 1: Identify gaps in the process of public health monitoring, communication, and movement of PUIs.

Objective 2: Ensure roles and responsibilities are clearly defined for public health monitoring, communication, movement, and isolation.

PHEP/HPP Capabilities

PHEP/HPP Capability 6: Information Sharing

PHEP Capability 13: Public Health Surveillance and Epidemiological Investigation

Scenario 1

A family consisting of one mother and three children returned to the United States from [Insert country with current transmission] on [Insert date within 21 days of exercise]. The mother was instructed on the requirements for active monitoring (AM), but contact was lost 5 days after the family arrived. Contact was regained today and the mother reports that one child staying with her has a fever and another child staying with her brother in [Insert name of city within the state] is also complaining of a fever.

Key Issues

- A person under AM was not in compliance with monitoring requirements.
- Children within the 21-day monitoring period in multiple locations have developed symptoms compatible with Ebola, to include one who is not with a parent or official guardian.
- How long the children were symptomatic or how many people they have been in contact with since return to the United States is not clear.

Players

Players in this exercise include, but are not limited to, the four major sectors as well as representatives from assessment hospitals, healthcare coalitions, and law enforcement.

Questions for Players

General

- Who is the lead agency and what are their responsibilities?
- What other agencies are directly involved?
- Who should be involved if public health cannot directly monitor the patient? Who should be informed?

Public Health

- How should the children be assessed? Should the children be transferred to a healthcare facility? If so, how?
- When should contact tracing be initiated? Is contact tracing tracked at the jurisdiction level for this type of event?
- What are the triggers that prompt partner notification? What partners are notified? How are they notified?

Healthcare

- Would the hospital be notified when the family arrives at their destination?
- Would the hospital be notified when new information becomes available?
- What does a healthcare provider need to know about the monitored patients?
- How is the patient transported (e.g., ambulance, private vehicle)?

EMS

- Would EMS be notified when the family arrives at their destination?
- Would EMS be notified when the new information becomes available?
- What do EMS personnel need to know about the monitored patients?

Emergency Management

- How, if at all, will the emergency operations center assist in tracking actions pertaining to this event?
- If the Joint Information Center (JIC) is activated, how, if at all, will they assist with messaging?

9-1-1/Public Safety Answering Points (PSAPs)

Will the medical director/supervisor who oversees 9-1-1 operations need any information pertaining to this scenario?

Government

Are the jurisdictional and local government officials willing to enforce strict quarantine measures, if necessary? What laws would provide justification for these officials to quarantine people?

Law Enforcement and Support Services

- How will law enforcement be integrated in the operations should the mother resist quarantine efforts?
- How will law enforcement personnel be instructed on the proper use of PPE to protect themselves from exposure?

Planners may also consider using the following additional scenarios. Key issues are provided and planners should determine which questions to ask participants.

Scenario 2

A healthcare provider who treated patients confirmed with Ebola in Liberia 1 week earlier arrives in your jurisdiction. He has been fully compliant with direct active monitoring (DAM) for [Insert number of days] and has developed no symptoms. On day [Insert day] of DAM, he receives news that his father who lives in another state has had a heart attack and is in critical condition. He wants to depart immediately to see his father and support his mother.

Key Issues

A person under DAM wants to:

- Travel out of state because of a family emergency
- Visit a hospitalized family member

Scenario 3

A visitor from [Insert country with current transmission] arrived in your jurisdiction yesterday and must be placed under AM. On calling the provided cell phone, the health department worker gets no connection. No one answers the alternate number after multiple tries. The listed address is in a part of town with frequent gang violence and muggings. The person who answers the door acts belligerent and says he has never heard of this person.

Key Issues

- A person under AM cannot be contacted despite multiple calls and an in-person visit.
- The health department worker is concerned for her safety when visiting the provided address.

Module 2A: EMS Preparation and Support at the Local Level for the Transport of PUIs or Patients Confirmed with Ebola

Objective 1: Identify gaps in the process for the movement of PUIs.

Objective 2: Ensure roles and responsibilities are clearly defined for notification of possible exposure to a PUI.

PHEP/HPP Capabilities

PHEP/HPP	Capability 1: Community Preparedness
HPP	Capability 3: Emergency Operations Coordination
PHEP	Capability 14: Responder Safety and Health

Scenario

Local: At [Insert time of day] today, a [Insert age] pregnant female calls 9-1-1 to request EMS transport to a local hospital in your jurisdiction. She reports symptoms that include a [Insert number of days]-day history of fever, muscle pain, severe headache, and abdominal cramps. Public health is no longer doing active (or direct active) monitoring for returnees from West Africa. Upon arriving at a frontline hospital, she informs the nurse that she has just returned from an area in Africa that has seen resurgence in Ebola cases.

Jurisdiction: A frontline hospital in your jurisdiction has informed local public health that a [Insert age] pregnant female in their facility is suspected to be at risk for Ebola. Public health officials and their partners must coordinate the effort to minimize Ebola exposure.

Key Issues

- The patient may have been exposed to Ebola, but responders did not ask about recent travel; therefore, they did not identify the risk prior to transport.
- First responders did not wear the personal protective equipment (PPE) recommended for transporting a PUI.
- A decision must be made as to where to send the PUI and by what means.

Players

Players in this exercise include, but are not limited to, the four major sectors as well as representatives from assessment hospitals, 9-1-1, healthcare coalitions, and laboratory services.

Questions for Players

General

- Who is the lead agency and what are their responsibilities?
- Which partners need to know about this event?

Public Health

- What guidance will EMS and frontline hospital staff receive regarding monitoring requirements and appropriate PPE?
- When will contact tracing operations begin? What are the procedures for contact tracing?

Healthcare

- What are the steps for arranging for the transport of a PUI to an assessment hospital or ETC?
- What just-in-time training will take place at the receiving hospital before the PUI arrives?

EMS

- Is a review of travel history a normal part of the patient history for EMS?
- In the event that an EMS crew transported a PUI, what instructions are provided related to monitoring, exposure, and further use of the vehicle and equipment?
- Is the vehicle that will transport the PUI to an assessment hospital or ETC dedicated solely to that purpose with a crew properly trained on PPE use?
- What plans are in place for critical incident stress management (CISM) for the EMS crew and their families?

Emergency Management

Does emergency management have a primary role or responsibility for coordination and tracking for this event, or is this managed by public health with emergency management being kept informed? What about media events and messaging?

9-1-1/PSAPs

- Is asking about travel history part of the protocols for 9-1-1 operators?
- If the caller meets the criteria for a PUI, what instructions do provided? What information do you give EMS providers?

Government

Does the jurisdictional or local government take the lead in developing messages for the public related to this event?

Support Services

What are the primary roles and responsibilities of support services (e.g., laboratory services, waste management)?

Module 2B: EMS Preparation and Support at the Jurisdictional Level for the Transport of PUIs or Patients Confirmed with Ebola

Objective 1: Identify gaps in the processes for the movement of patients confirmed with Ebola.

Objective 2: Ensure roles and responsibilities are clearly defined for making decisions related to the transportation of a patient confirmed with Ebola to a facility capable of providing the best care.

PHEP/HPP Capabilities

PHEP/HPP	Capability 1: Community Preparedness
HPP	Capability 1: Healthcare System Preparedness
HPP	Capability 3: Emergency Operations Coordination
PHEP	Capability 14: Responder Safety and Health

Scenario

Local: At [Insert time of day] today, a [Insert age] pregnant female at an assessment hospital in your jurisdiction was confirmed to have Ebola. The patient requires transport to the closest Ebola treatment center (ETC) in your jurisdiction.

Jurisdiction: A public health official in your jurisdiction receives a call from the ETC identified to receive a patient that there is a patient confirmed to have Ebola. The staff at the ETC do not think they are qualified to care for a pregnant patient and do not think they have the resources to care for her properly.

Key Issues

- A patient confirmed to have Ebola has special needs that may affect transportation requirements and medical care.
- The facility designated to receive a patient confirmed to have Ebola is unable to take the patient.
- A decision must be made as to where to send a patient confirmed to have Ebola and by what means.

Players

Players in this exercise include, but are not limited to, the four major sectors as well as representatives from the regional ETC, healthcare coalitions, and laboratory services.

Questions for Players

General

- Who is the lead agency and what are their responsibilities?
- Is a process in place for periodically reviewing the capabilities and willingness of healthcare facilities to receive and care for a patient confirmed to have Ebola?

Public Health

- What is the protocol for coordinating with ETCs to accept patients?
- Who is responsible for determining which ETC can accept this patient?
- If public health or healthcare authorities determine that this patient should be transported out of the jurisdiction for care, who arranges this transportation and determines the level of care needed during transportation?

Healthcare

- How will EMS be notified about the need for transport?
- What is the protocol for and ETC to receive a patient confirmed to have Ebola from EMS?
- Do pregnant women have different/additional considerations?

EMS

- If a vehicle is configured for transporting a patient confirmed to have Ebola, does the fact that the patient is a pregnant woman make a difference?
- Transport of this patient may involve longer distances than normal. Are procedures in place to arrange for the transfer of the patient to another ambulance or mode of transportation?

Emergency Management

What is emergency management's primary role and responsibility in this event?

Government

What role will the jurisdictional government play in helping to coordinate this patient's transportation to another jurisdiction if it is required?

Support Services

What are the primary roles and responsibilities of support services (e.g., laboratory services, waste management)?

Module 3: Waste Management Considerations

Objective: Ensure the process for transporting and destroying Ebola-contaminated waste allows for the safe and efficient handling of Category-A waste in communities and healthcare systems.

PHEP/HPP Capabilities

PHEP/HPP	Capability 1: Community Preparedness
HPP	Capability 1: Healthcare System Preparedness
PHEP	Capability 14: Responder Safety and Health

Scenario

Local: An ETC in your jurisdiction has waste material generated from caring for a 10-year-old male patient confirmed to have Ebola. The ETC ensures public health they have followed all proper waste handling and packaging procedures. Waste material must now be transported out of the ETC to a waste management center in [Insert your jurisdiction or another jurisdiction].

Jurisdiction: Public health authorities and their partners must coordinate the effort to dispose of the waste material generated from caring for a 10-year-old male patient confirmed to have Ebola while avoiding potential exposure hazards and security risks.

Key Issues

- Special contracts and permits are required to transport waste material from the point of origin to the point of final disposal.
- Transportation of hazardous waste across jurisdictional boundaries may require coordination at that level.
- Education on the safety of the material is required.

Players

Players in this exercise include, but are not limited to, the four major sectors as well as representatives from transportation agencies (e.g., state and federal departments of transportation), healthcare coalitions, waste management companies, and occupational safety and health.

Questions for Players

General

- Who is the lead agency and what are their responsibilities?
- Who is responsible for ensuring personnel are properly protected during waste transport?
- Who is responsible for coordinating the movement of Category-A waste within the jurisdiction and across other jurisdictions?

Public Health

- What state regulations apply regarding final disposal of treated and disinfected (e.g., thermal heat, autoclaving, incineration, a combination of some or all) waste?
- What contracts are in place for the collection and transport of Category-A waste outside the hospital setting (i.e., after disinfecting a residence where a patient confirmed with Ebola lived)?

Healthcare

At what point does the hospital transfer responsibility for monitoring the proper destruction of hazardous waste?

Emergency Management

What is emergency management's primary role and responsibility for tracking actions related to this event?

Support Services

Does the jurisdiction require that law enforcement be notified or used when Category-A waste is transported?

Module 4: Laboratory Services Support and Coordination

Objective: Identify gaps in the processes for the packaging, transport, and testing of samples from a PUI.

PHEP/HPP Capabilities

PHEP/HPP	Capability 1: Community Preparedness
HPP	Capability 1: Healthcare System Preparedness
PHEP	Capability 12: Public Health Laboratory Testing
PHEP	Capability 14: Responder Safety and Health

Scenario

Local: A [Insert age and gender of patient] arrived at an assessment hospital in your jurisdiction with a travel history, vital signs, and symptoms consistent with Ebola. A clinician has determined that, along with the tests necessary to rule out Ebola, this patient will also need to be tested for Ebola. The laboratory at this hospital does not have the capability to test for Ebola.

Jurisdiction: Public health officials and their partners must coordinate the effort for packaging, transporting, and shipping (if required) Ebola specimens to a testing facility.

Key Issues

- Packaging and shipping Category-A infectious substances must be done by trained and certified professionals.
- Definitive testing for Ebola virus is generally only available in certain LRN laboratories and at CDC.

Players

Players in this exercise include, but are not limited to, public health and healthcare coalitions as well as representatives from the LRN or other state laboratory services.

Questions for Players

General

- Who is the lead agency and what are their responsibilities?
- What laboratories in the jurisdiction are capable of Ebola testing?

Public Health

- What is the procedure for notifying the nearest LRN laboratory capable of specimen testing for Ebola? Is that facility within the jurisdiction or outside of it?
- What is the protocol for packaging and shipping Ebola specimens? Who leads coordination?

Healthcare

- What is the procedure for notifying public health about patient testing?
- What are the local health department procedures for notification and consultation for Ebola testing requests? Does the state public health department have additional requirements?
- Who is notified of test results?

Support Services

What are the procedures for shipping samples to LRN? CDC? Is this handled through a regular mail carrier or special courier?

4.3. Part II – Tabletop Exercise Modules

Module 5: Jurisdiction Tabletop Exercise

Objective 1: Identify gaps in the processes for coordinating for the transport, testing, and care for PUIs.

Objective 2: Identify gaps in the processes for coordinating for the transport of a patient confirmed with Ebola.

Objectives 3 and beyond: [Choose objectives from modules 1 to 4].

PHEP/HPP	Capability 1: Community Preparedness
HPP	Capability 1: Healthcare System Preparedness
HPP	Capability 3: Emergency Operations Coordination
PHEP/HPP	Capability 6: Information Sharing
PHEP	Capability 12: Public Health Laboratory Testing
PHEP	Capability 13: Public Health Surveillance and Epidemiological Investigation
PHEP/HPP	Capability 14: Responder Safety and Health

Scenario

Local: A family of five, including a 32-year-old female, 35-year-old male, 18-year-old female, 10-year-old male, and 76-year-old female, arrive at a frontline hospital emergency department in your jurisdiction. All family members arrive with a history of travel to countries with Ebola outbreaks and exhibit dry symptoms consistent with Ebola. A visitor to the hospital heard the family talk about Ebola and contacted local media who have already set up outside the hospital.

Jurisdiction: A local news station has reported that at least [insert number] people are inside a hospital in your jurisdiction who are being tested for Ebola. Public health officials and their partners must coordinate the efforts to effectively respond to the surge of PUIs, minimize Ebola exposure in their jurisdiction, and provide accurate and timely information to partners and the general public.

Scenario Update #1

The frontline hospital is not equipped to deal with PUIs. All five family members need to be transported to assessment hospitals or ETCs.

Scenario Update #2

The [10-year-old male or insert other family member] is now confirmed to have Ebola and needs transport to an ETC. Decisions need to be made regarding the other family members.

Key Issues

- A cluster of persons with clinical suspicion for Ebola requires coordination with multiple facilities and partners, including assessment hospitals and EMS providers.
- The family includes children and the grandmother who is in a wheelchair.
- Management of close contacts needs to be considered.
- Media may be difficult to manage.

Players

Players in this exercise include all of the players in Modules 1 through 4.

Questions for Players

General

- Who is the lead agency and what are their responsibilities?
- What other agencies must be involved for an effective response? Is this a situation that the jurisdiction can manage or will it require a regional response?
- How would this situation change if the four additional family members were confirmed with Ebola?

Public Health

- What are public health's primary roles and responsibilities?
- What is the primary mode of communication for information sharing?
- Once public health disseminates messaging, what action do you expect partners within the jurisdictions to take?

- What processes are in place to ensure messaging is disseminated accurately and in a timely manner?
- Would public health take responsibility for housing the PUIs near the hospital(s) where the patients confirmed to have Ebola are being treated?

Healthcare

- What is healthcare's primary role and responsibility?
- What policies are in place to allow family members to visit a pediatric patient? What measures can be taken if a parent of that patient also is confirmed with Ebola?
- Will family members, including parent and child, be transported to different hospitals?

EMS

- What is EMS's primary role and responsibility?
- What agreements or procedures are in place to increase the number of vehicles and crew available to transport patients?

Emergency Management

- What is emergency management's primary role and responsibility?
- If this becomes a response that involves other jurisdictions, which agency will direct the response and media coordination?

Government

- If this response is handled with assets available in the jurisdiction, what is the jurisdictional government's primary role and responsibility?
- What changes if other jurisdictions within the region become involved?

Support Services

What are the primary roles and responsibilities of support services (e.g., laboratory services, waste management)?

Module 6: Regional (Interstate) Tabletop Exercise

Objective 1: Ensure procedures are prepared for coordinating care for PUI and patients confirmed with Ebola within the jurisdiction and with regional treatments centers.

Objective 2: Identify gaps in identifying, transporting, testing, and caring for PUIs or patients confirmed with Ebola.

PHEP/HPP Capabilities

PHEP/HPP Capability 1: Community Preparedness

HPP Capability 1: Healthcare System Preparedness

PHEP/HPP Capability 6: Information Sharing

PHEP Capability 7: Mass Care

PHEP/HPP Capability 10: Medical Surge

PHEP/HPP Capability 14: Responder Safety and Health

Scenario

Local: A family of five, including a 32-year-old female, 35-year-old male, 18-year-old female, 10-year-old male, and 76-year-old female, arrive at a frontline hospital emergency department in your jurisdiction. All family members arrive with a history of travel to countries with Ebola outbreaks with [Insert number] exhibiting dry symptoms and [Insert number] exhibiting wet symptoms consistent with Ebola. They have recently returned on a flight from [Insert country].

Jurisdiction: The public health department receives a report that a hospital in your jurisdiction has [Insert number] PUIs in isolation awaiting transport to an assessment hospital or hospitals. Public health officials and their partners must coordinate the efforts to effectively respond to the surge of PUIs, minimize Ebola exposure in their jurisdiction, and provide accurate timely information to partners and the general public.

Scenario Update #1

The 10-year-old male and 76-year-old female are now confirmed to have Ebola. [Insert neighboring jurisdiction] has [Insert number] ETCs with space for additional patients confirmed to have Ebola. [Insert neighboring jurisdiction] will only accept transport from their contracted EMS provider. The neighboring EMS provider will not cross state lines to receive a patient, but is willing to do a transfer at the border of your jurisdiction and [Insert neighboring jurisdiction].

Scenario Update #2

The remaining [Insert number] family members were diagnosed and treated for malaria, but will still require monitoring. The waste management centers in your jurisdiction are overwhelmed. They can no longer accept waste material generated by patients confirmed to have Ebola. [Insert neighboring jurisdiction] has one waste management center willing to accept waste material from your jurisdiction.

Key Issues

- Multiple patients confirmed to have Ebola can overwhelm the healthcare systems of many jurisdictions and will require a regional response.
- A cluster of patients confirmed to have Ebola can tax support systems that would otherwise be able to meet the needs of the healthcare system.
- Travel from areas no longer monitoring for Ebola will be an issue if those countries have a resurgence in cases.

Players

Players in this exercise include, but not limited to, all of the players in Modules 1 through 4 in addition to personnel from the regional Ebola and Other Special Pathogen Treatment Center and HHS.

Questions for Players

General

- Who is the lead agency and what are their responsibilities?
- What other agencies must be involved for an effective response? Since this situation may require a regional response, how is this coordinated differently?

Public Health

- What are public health's primary roles and responsibilities?
- What is the primary mode of communication for information sharing?
- Once public health disseminates messaging, what action do you expect partners within the jurisdictions to take?
- What is public health's role in coordinating with airport authorities?

Healthcare

- What is healthcare's primary role and responsibility?
- What measures can be taken now that a parent of the 10-year-old male child also is confirmed to have Ebola?

EMS

- What is EMS's primary role and responsibility?
- What agreements or procedures are in place to increase the number of vehicles and crew available to transport patients?
- Are protocols in place to allow for the transfer of a patient between EMS agencies?

Emergency Management

- What is emergency management's primary role and responsibility?
- Now that this response involves other jurisdictions, which agency will direct the response and media coordination?

Government

What is jurisdictional government's primary role and responsibility now that other jurisdictions within the region are involved?

Support Services

- What are the primary roles and responsibilities of support services (e.g., laboratory services, waste management)?
- How can assets at the jurisdictional level assist with the transportation of waste to another jurisdiction? Is the entity that generated the waste responsible for overseeing its destruction?

Conclusion

The use of this exercise guide can provide opportunities for local, state, tribal, and territorial partners to apply, assess, and revise existing emergency plans and procedures with credible scenarios. These partners can work together to train and equip participants with the knowledge, skills, and attitudes necessary for response, recovery, and re-entry operations to produce a rewarding and productive experience for all participants. This guide can promote discussion among partners on ways to develop, conduct, and evaluate Ebola ConOps plan exercises.

Two types of exercise modules were described in this guide—small, discussion-based modules and more complex TTXs. These modules provide material to aid in developing exercises that evaluate key system elements found in an Ebola ConOps plan, as well as lessons learned and findings that can be incorporated into TTXs applying multiple system elements.

Ebola ConOps planning is an ongoing process. Additional exercises should take place to further test and refine jurisdictional plans. Operations-based exercises, which are not covered in this guide, should be considered by partners as they determine next steps and plans for improvement.

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Appendix A: Smart Objectives Worksheet

This worksheet is designed to help jurisdictional planners develop SMART exercise objectives. Using focused questions, the worksheet helps break down the criteria for a specific, measurable, achievable, relevant, and time-oriented objective.

What is the topic you want to address? _____

What are the relevant PHEP or HPP Capabilities? _____

Additional Comments: _____

SMART Criteria	Related Question(s)	Your Answers to Each Question
Specific	<ul style="list-style-type: none"> • What is to be done? • What can be observed? • How will you know it is done? 	
Measurable	How will you know it meets expectations?	
Achievable	<ul style="list-style-type: none"> • Can the measurable objective be achieved by the person? • Does he/she have the experience, knowledge, or capability to fulfill the expectation? • Can it be done given the time frame, opportunity, and resources? 	
Relevant	<ul style="list-style-type: none"> • Should it be done? • Why should it be done? • What will be the impact? • Is it aligned with the exercise or implementation plan? 	
Time-oriented	When will it be done?	

Objective: _____

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Appendix B: Sectors and Subsectors Involved in an Ebola Response

This table provides jurisdictional planners with the sectors and subsectors that may be suitable as participants in an exercise of the Ebola ConOps plan.

Sector	Related Subsectors
Public Health	<ul style="list-style-type: none"> • State public health • Local public health • Public health clinics
Healthcare	<ul style="list-style-type: none"> • Behavioral and mental health agencies • Federally-qualified health centers/free clinics • Home health agencies • Hospitals • Hospital emergency departments • Hospital outpatient centers • Hospice care agencies • Laboratory services or networks • Long-term care/skilled nursing/assisted living centers • Outpatient/retail clinics • Palliative care agencies • Pharmacies • Primary care offices • School clinics • Urgent care centers • Veterans Affairs (VA) medical centers

Sector	Related Subsectors
Emergency Management	<ul style="list-style-type: none"> • Emergency management agency • Emergency operations center (EOC) • Fire departments • Law enforcement • Public affairs/public information agencies
Emergency Medical Services (EMS)	Privately-owned/contracted transportation services
Call Centers	<ul style="list-style-type: none"> • 2-1-1 • 3-1-1 • 9-1-1 • Nurse triage lines
Government	<ul style="list-style-type: none"> • State • Local
Support Services	<ul style="list-style-type: none"> • American Red Cross • Community-based organizations • Faith-based organizations • Fatality management services • Legal services • Medical examiner/coroner offices • Social media • Volunteer organizations active in disasters (VOAD) partners • Waste management services

Appendix C: Exercise Participant Contact List Template

This template provides a list of potential sector participants and space to record their contact information. This list is not meant to be exhaustive, and planners may tailor it to the situation and involve other partners.

[Insert Exercise Name Here] Exercise Participants

Sector	Name	Organization	E-mail	Phone Number
Public Health				
Public Health				
Healthcare				
Healthcare				
EMS				
EMS				
Emergency Management				
Emergency Management				
[Insert sector name here]				
[Insert sector name here]				
[Insert sector name here]				
[Insert sector name here]				

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Appendix D: Example Ebola Scenario Topics

The following list of Ebola scenario topics provides suggestions for jurisdictional planners when developing an Ebola ConOps plan exercise scenario. Each scenario topic is aligned with the applicable Public Health Emergency Preparedness (PHEP) Core Capabilities. Refer to Public Health Preparedness Capabilities: National Standards for State and Local Planning (<http://www.cdc.gov/phpr/capabilities/DSLRCapabilitiesJuly.pdf>) for more information.

PHEP Core Capabilities	Ebola Scenario Topics
Community Preparedness	<ul style="list-style-type: none"> • Communication with public health, medical, and mental/behavioral health entities. • Relocation of nursing home patients to other facilities after a fire. • Address cultural, socio-economic, jurisdictional issues.
Community Recovery	<ul style="list-style-type: none"> • Identify and monitor public health, medical, and mental/behavioral health system recovery needs. • Coordinate community public health, medical, and mental/behavioral health system recovery operations. • Implement corrective actions to mitigate damages from future incidents.
Emergency Operations Coordination	<ul style="list-style-type: none"> • Coordinate emergency response with partners. • Assess Ebola impact on EMS/fire rescue and law enforcement. • Develop consistent/uniform response throughout jurisdictions. • Devolve after an Ebola incident.
Emergency Public Information and Warning	<ul style="list-style-type: none"> • Activation of the JIC. • Use of social media platforms. • Interaction with the media.
Fatality Management	<ul style="list-style-type: none"> • Coordinate public health, EMS, hospital, and mortuaries roles and responsibilities. • Activation of Disaster Mortuary Operational Response Teams (DMORT) Teams. • Provisions of survivor mental health behavioral services. • Transportation, processing, and storage of remains.

PHEP Core Capabilities	Ebola Scenario Topics
Information Sharing	<ul style="list-style-type: none"> • Multijurisdictional notifications. • Standardizing information sharing platforms/formats.
Mass Care	<ul style="list-style-type: none"> • Role of public health, regional and local healthcare facilities. • Population monitoring. • Patient transport.
Medical Countermeasure Dispensing	<ul style="list-style-type: none"> • Proper use of personal protective equipment (PPE). • Disposal of waste material and products (e.g., human, PPE). • Review plans, procedures, guidelines, treatment protocols.
Medical Materiel Management and Distribution	<ul style="list-style-type: none"> • Management of medical materials. • Establishment of security at regional/local treatment centers.
Medical Surge	<ul style="list-style-type: none"> • Description of medical surge processes. • Description of medical surge jurisdictional operations. • Demobilization of medical surge operations.
Non-Pharmaceutical Interventions	<ul style="list-style-type: none"> • Institution of administrative procedures within treatment centers. • Protection of patient/staff at treatment facilities.
Public Health Laboratory Testing	<ul style="list-style-type: none"> • Initiation of rapid testing processes. • Conducting and reporting sample analysis. • Communication of analysis results to partners/jurisdictions.
Public Health Surveillance and Epidemiological Investigation	<ul style="list-style-type: none"> • Monitoring of mitigation actions. • Contact tracing.
Responder Safety and Health	<ul style="list-style-type: none"> • Monitoring of EMS personnel post-transporting PUI/Ebola patients. • Assessment of healthcare provider exposure risk.

Appendix E: Master Scenario Events List Example

The Master Scenario Events List (MSEL) provides the detailed exercise control messages (inject), data, and expected outcomes/actions by the responders. The time indicated in the MSEL is typically written as time in minute in reference to the exercise start or other reference point. The messages are numbered in sequence. The MSEL also identifies which role issues the message, which role receives the message, and an overview of the message content. The expected outcome/action provides the expected sequence of events that will occur in response to the scenario or exercise inject.

NOTE: Numbers seen listed under the column "Objective/Task" refer to the corresponding "Activity/Task" found in the associated Exercise Evaluation Guide.

<i>Inject No.</i>	<i>Inject Time Actual</i>	<i>Objective Capability/ Task</i>	<i>Joint Commission Standard</i>	<i>From</i>	<i>To</i>	<i>Message</i>	<i>Expected Outcomes/Actions</i>	<i>Observed Outcomes/Actions or Comments</i>
1	0900	Start of exercise Health Alert network (HAN) alert		Department of Public Health (DPH)- Emergency Preparedness Office (EPO) Duty Officer	Exercise participants	Exercise activities for the 2015 Statewide Medical and Health Exercise have begun. Patient X is currently at Assessment Hospital A and the LRN Laboratory is testing blood samples.	Exercise participants will initiate play.	
2	Inject 45 minutes after start of exercise	Medical and Health Coordination Center (MHCC) activation HAN alert Objective C1		DPH-EPO Duty Officer	DPH and Emergency Medical Services Agency (EMSA) exercise participants, State Operations Center (SOC), Regional Operations Centers (ROCs).	DPH, EMSA, and OES staff identified as participants in the 2015 Statewide Medical and Health Exercise should report to their assigned positions within 1 hour of receiving HAN alert.	DPH, EMSA, and Office of Emergency Services (OES) staff with an assigned role in the exercise will report to their positions at the MHCC within 1 hour of receiving HAN alert.	

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<i>Inject No.</i>	<i>Inject Time Actual</i>	<i>Objective Capability/ Task</i>	<i>Joint Commission Standard</i>	<i>From</i>	<i>To</i>	<i>Message</i>	<i>Expected Outcomes/Actions</i>	<i>Observed Outcomes/Actions or Comments</i>
3	Inject 90 minutes after start of exercise	Objective 1 (Additional objectives E10 and E13 for local public health)		Director, State LRN	DPH, DEMS, Assessment Hospital-A, ETC-A	Health Alert: Ebola virus disease has been laboratory-confirmed in the Operational Area.	Public health and medical providers are notified of the emerging infectious disease.	
4	Inject 120 minutes after start of exercise			State DPH	Governor's Office	Ebola virus disease has been laboratory-confirmed.	Governor's Office will request a briefing and will, in cooperation with the DPH, issue a press release.	
5	Inject 120 minutes after start of exercise	Objective 2 (Additional objectives E5 and E13 for local public health)		KWES News Network	DPH	Media Request: Seeking confirmation of social media messages stating that Patient X is confirmed to have Ebola.	The DPH will work with relevant partners to initiate the media plan.	
6	Inject 15 minutes after the Governor is notified (e.g., 135 minutes after start of exercise)	Objective 3 (Additional objectives E7 and E8 for local public health)		Governor's Office	DPH	Governor's Request: Request for a briefing, outlining plans to transport Patient X to a state or regional treatment center.	Exercise participants will begin planning for the brief.	

Exercise Guide for Ebola ConOps Planning

<i>Inject No.</i>	<i>Inject Time Actual</i>	<i>Objective Capability/ Task</i>	<i>Joint Commission Standard</i>	<i>From</i>	<i>To</i>	<i>Message</i>	<i>Expected Outcomes/Actions</i>	<i>Observed Outcomes/Actions or Comments</i>
7	Inject 140 minutes after start of exercise	Objective 1 (Additional objectives E10 and E13 for local public health)		Local health department (LHD) monitoring contacts of Patient X	DPH, Assessment Hospital-A	Health Alert: The 12-year-old daughter of Patient X has a fever of 102 degrees.	Exercise participants will determine how to transport the PUI and to which assessment hospital.	
8	Inject 150 minutes after start of exercise	Objective 4 (Additional objectives E5 and E6 for local public health)		LHD monitoring contacts of Patient X	DPH	Request for Guidance: The hotel manager where Patient X resided is requesting the decontamination of the patient's hotel room and reimbursement for lost revenue.	<ul style="list-style-type: none"> • Initiate plans for decontamination of the hotel room and removal of contaminated waste. • Engage legal office to determine liabilities. • Engage public communications office to determine messaging needs. 	
9	Inject 150 minutes after start of exercise	Objective 3 (Additional objectives E7 and E8 for local public health)	EM01.01.01 (7) EM02.01.01 (2,5,6,7) EM03.01.03 (1,2,3,4,5)	Charge Nurse/ Supervisor (Assessment Hospital-A)	DPH	The condition of Patient X rapidly deteriorated and he is now exhibiting "wet" symptoms including vomiting and diarrhea.	<ul style="list-style-type: none"> • Based on established protocols, determine if this changes transport plans or ultimate destination. • Determine communications activities related to the incident. 	

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Appendix F: Example Exercise Planning Timeline

The following exercise planning timeline has been developed as an example only. The timeline includes example tasks, materials, and timeframes for completion. Completion times for each task and activity will vary depending on the scope and type of exercise conducted.

Activity: Initial Planning Meeting (IPM)

Task	Task Materials	Timeframe for Completion
<ul style="list-style-type: none"> Identify exercise planning team members. Review plans, procedures, after-action reports, lessons learned and corrective action plans. Conduct kick-off planning meeting. Develop overall concept and objectives meeting. 	<ul style="list-style-type: none"> Exercise planning team organization chart. After-action reports, lessons learned, and corrective action plans. 	Minimum 3 to 6 months before exercise.

Activity: Planning Team Tabletop Exercise Training (Optional)

Task	Task Materials	Timeframe for Completion
Develop tabletop exercise (TTX) training materials.	<ul style="list-style-type: none"> Presentation Sign-in sheets 	After kick-off meeting.
Conduct TTX Training (2 to 4 hours).	(None)	Prior to IPM.

Activity: Second Planning Meeting (SPM)

Task	Task Materials	Timeframe for Completion
Develop meeting materials.	<ul style="list-style-type: none"> • IPM presentation • Agenda • Sign-in sheets • Invitations • Read-ahead packet • Participating agency list 	3 to 4 weeks before meeting.
Send meeting invitations and read-ahead packet to exercise planning team.	<ul style="list-style-type: none"> • Invitations • Read-ahead packet 	2 to 3 weeks before meeting.
Finalize meeting materials.	<ul style="list-style-type: none"> • IPM presentation • Agenda • Sign-in sheets • Master task list 	3 days before meeting.
Conduct meeting (4 to 6 hours).	<p>Outcomes include the following decisions and materials development:</p> <ul style="list-style-type: none"> • Final participants • Extent of play • Objectives • Scenario type • Draft timeline and messages • Facilitator assignments 	6 to 7 weeks before exercise.
Provide meeting minutes to exercise planning team and conduct walkthrough of TTX site.	IPM minutes	7 to 9 days after IPM.

Activity: Final Planning Meeting

Task	Task Materials	Timeframe for Completion
Develop draft Situation Manual (SitMan).	Draft SitMan	2 weeks before meeting.
Finalize meeting materials.	Meeting presentation <ul style="list-style-type: none"> • Agenda • Master task list • Sign-in sheet • Draft SitMan 	1 week before meeting.
Conduct meeting (4 to 6 hours) Outcomes include final SitMan, and facilitator assignments.		2 to 3 weeks before exercise.
Conduct walkthrough of exercise site facilities.	(None)	Following conclusion of meeting.
Provide meeting minutes to exercise planning team.	Meeting minutes	7 to 9 days after meeting.

Activity: Conduct Tabletop Exercise

Task	Task Materials	Timeframe for Completion
Finalize SitMan and exercise presentation.	<ul style="list-style-type: none"> • SitMan • Presentation 	5 to 10 days before exercise.
Debrief with facilitators, evaluators, and planning team.	<ul style="list-style-type: none"> • SitMan • Facilitator guidance • Evaluation guidance 	1 to 5 days before exercise.
Set up facility and review presentation.	<ul style="list-style-type: none"> • Presentation • Room layout 	1 day before exercise.
Conduct exercise.	<ul style="list-style-type: none"> • Presentation • SitMan • Sign-in sheets • Badges and tent cards 	Exercise
Conduct hot wash.	Participant feedback forms	Immediately after exercise.

Activity: Corrective Action Meeting

Task	Task Materials	Timeframe for Completion
Send draft evaluation report/improvement plan (IP) to sponsoring agency and exercise planning team.	Draft evaluation report/IP	1 to 2 weeks after exercise.
Conduct corrective action meeting.	<ul style="list-style-type: none"> • Presentation • Agenda • Sign-in sheets • IP matrix • Draft evaluation report/IP 	2 to 3 weeks after exercise.

Activity: Evaluation Report/Improvement Plan

Task	Task Materials	Timeframe for Completion
Develop draft evaluation report, such as an after-action report (AAR)/IP.	<ul style="list-style-type: none"> • Hot wash minutes • Participant feedback forms • Draft AAR/IP document 	1 to 2 weeks after exercise.
<ul style="list-style-type: none"> • Finalize evaluation report/IP and distribute to sponsor agency and exercise planning team. • Conduct interim corrective action status meeting. 	Final draft AAR/IP document	45 days after exercise.

Activity: Final Evaluation Report/IP

Task	Task Materials	Timeframe for Completion
Share lessons learned, best practices, and successes identified in final evaluation report/IP and conduct interim corrective action status meeting.	Final evaluation report/IP	90 days after exercise.

Appendix G: Evaluation Steps

HSEEP methodology provides five steps to follow to successfully evaluate an exercise. The following table provides questions to aid in planning each step of an evaluation.

Evaluation Steps	Questions
Plan and Organize	<ul style="list-style-type: none"> • Who will collect the data? • What is the collection process?
Observe and Collect	<ul style="list-style-type: none"> • Who (by name or position) performed the action or made the decision? • What occurred (the observed action)? • Where (the location) did the action or decision take place? • When (the time) did the action take place? • Why did the action take place or what decision was the trigger? • How did they perform the action or make the decision (the process)?
Analyze	<ul style="list-style-type: none"> • What really happened? • What was supposed to happen? • What was the effect • What did not happen? • What can be learned? • What improvements should be made or exemplary practices adopted?
Identify Lessons Learned	<ul style="list-style-type: none"> • What worked well? • What did not work well? • What should be done over or differently? • What surprises were addressed during the exercise? • Were unanticipated events observed? Is so, how did they impact the exercise?

Evaluation Steps	Questions
	<ul style="list-style-type: none"> • Were the objectives met? If not, what changes would help to meet the objectives?
Identify Areas for Improvement	<ul style="list-style-type: none"> • What changes are needed to plans and procedures to improve performance? • What changes are needed to organizational structures to improve performance? • What changes are needed to leadership and management processes to improve performance? • What training is needed to improve performance? • What changes to (or additional) equipment are needed to improve performance?

Appendix H: Participant Feedback Form Template

This form was adapted from the HSEEP Participant Feedback Form template, which can be found at <https://hseep.preptoolkit.org/>.

1. Please select the organization or area of expertise you are representing during this exercise.
 - Public Health
 - Healthcare
 - EMS
 - Emergency Management
 - Other: _____
2. Please indicate how many years you have worked in this area of expertise.
 - <5 years
 - 5 to 15 years
 - >15 years
3. Are your primary duties in emergency preparedness and response?
 - Yes
 - No
4. Please indicate the primary area served by your organization.
 - [Insert local area here]
 - [Insert jurisdiction here]
 - Tribal Nation
 - Region
 - State
 - Federal

5. Please rate how well each exercise objective was addressed.

Objective	Not addressed			Addressed well
[Insert objective here]	1	2	3	4
[Insert objective here]	1	2	3	4
[Insert objective here]	1	2	3	4

6. Please rate how well you agree with each of the factors below.

Factor	Strongly Disagree			Strongly Agree
Pre-exercise briefings were informative and provided the necessary information for my role in the exercise.	1	2	3	4
The exercise scenario was plausible and realistic.	1	2	3	4
Exercise participants included the right people in terms of level and mix of disciplines.	1	2	3	4
Participants were actively involved in the exercise.	1	2	3	4
Exercise participation was appropriate for someone in my field with my level of experience.	1	2	3	4
The exercise increased my understanding about and familiarity with the Ebola-related capabilities and resources of other participating organizations.	1	2	3	4
The exercise provided the opportunity to address significant decisions in support of the Ebola ConOps plan.	1	2	3	4

7. What strengths did you observe during today's exercise?

Strength	PHEP/HPP Capabilities	Element
	Capability 1: Community Preparedness/Healthcare System Preparedness	Planning <input type="checkbox"/> Organization <input type="checkbox"/> Equipment <input type="checkbox"/> Training <input type="checkbox"/> Exercise <input type="checkbox"/>
	Capability 6: Information Sharing	Planning <input type="checkbox"/> Organization <input type="checkbox"/> Equipment <input type="checkbox"/> Training <input type="checkbox"/> Exercise <input type="checkbox"/>
	[Insert capability here]	Planning <input type="checkbox"/> Organization <input type="checkbox"/> Equipment <input type="checkbox"/> Training <input type="checkbox"/> Exercise <input type="checkbox"/>

8. What areas for improvement did you observe during today's exercise?

Area for Improvement	PHEP/HPP Capabilities	Element
	Capability 1: Community Preparedness/Healthcare System Preparedness	Planning <input type="checkbox"/> Organization <input type="checkbox"/> Equipment <input type="checkbox"/> Training <input type="checkbox"/> Exercise <input type="checkbox"/>
	Capability 6: Information Sharing	Planning <input type="checkbox"/> Organization <input type="checkbox"/> Equipment <input type="checkbox"/> Training <input type="checkbox"/> Exercise <input type="checkbox"/>
	[Insert capability here]	Planning <input type="checkbox"/> Organization <input type="checkbox"/> Equipment <input type="checkbox"/> Training <input type="checkbox"/> Exercise <input type="checkbox"/>

9. What specific training opportunities helped you (or could have helped you) prepare for this exercise?

Training	Completed Prior to the Exercise?
	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Yes <input type="checkbox"/> No <input type="checkbox"/>
	Yes <input type="checkbox"/> No <input type="checkbox"/>

10. Please indicate your agreement with the following statements

After this exercise, I have a better understanding of my roles and responsibilities as they relate to the Ebola ConOps plan.

Strongly Disagree				Strongly Agree
1	2	3	4	

After this exercise, I am better prepared to deal with the capabilities and Ebola-related hazards addressed.

Strongly Disagree				Strongly Agree
1	2	3	4	

11. Please provide any additional comments you may have related to today's exercise.

Appendix I: Tabletop Exercise Evaluation Guide Template

The following tabletop exercise (TTX) evaluation guide template was developed for jurisdictional planners to use to evaluate an Ebola ConOps plan TTX. The evaluation guide can serve as a means for observing and collecting relevant data during an exercise and aligns exercise objectives and core capabilities in order to evaluate the exercise.

Evaluator Name: _____ Exercise Name: _____

Exercise Date: _____ Organization/Jurisdiction: _____ Venue: _____

Objectives and Core Capabilities
<p><u><i>Exercise Objective</i></u></p> <p><u><i>PHEP and HPP Capabilities</i></u></p>

SCENARIO AND PLAYER QUESTIONS
<p>MAIN SCENARIO</p> <p>[Insert Main Scenario and Key Issues]</p> <p>PLAYER QUESTIONS</p> <p>[Insert question]</p> <p>[Insert question]</p> <p>[Insert question]</p>
<p>SCENARIO UPDATE #1</p> <p>[Insert Main Scenario and Key Issues]</p> <p>PLAYER QUESTIONS</p> <p>[Insert question]</p> <p>[Insert question]</p> <p>[Insert question]</p>
<p>SCENARIO UPDATE #2</p> <p>[Insert Main Scenario and Key Issues]</p> <p>PLAYER QUESTIONS</p> <p>[Insert question]</p> <p>[Insert question]</p> <p>[Insert question]</p>

Key Performance Indicator	Final Observation and Explanation

NOTES:

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Appendix J: Corrective Action Plan Worksheet

This worksheet is intended to help jurisdictional planners develop corrective actions to implement in a post-exercise improvement plan. Corrective actions draw from data collected as part of the exercise evaluation.

NOTE: This can be used with the CAP template in Appendix K to aggregate data.

Issue Overview

Proposed action(s) to address issue

- Objective 1:
- Objective 2:
- [continue as needed]

Data Needs

Resource Needs (Staff, equipment, materials, training)

Timeline

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Appendix K: Corrective Action Plan Template

This template was designed for use in conjunction with the Corrective Action Plan Worksheet in Appendix J. Jurisdictional planners can use the worksheet to develop each corrective action, and then transfer that information into one large template. The template can be used to track who is responsible, the status, and completion date.

Matrix Item	Observation/ Issue	Recommendation	Priority Level	PHEP/HPP Capability	Person(s) Responsible	Status	Completion Date	Notes
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

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Appendix L: Summary Template for a Tabletop Exercise (TTX)

This template was developed to aid in creating a summary of an Ebola ConOps plan TTX. The information provided in the summary should include key recommendations and corrective actions, evaluation data collected during the exercise, and feedback provided by participants.

Executive Summary

Scope

On [Insert date], [Insert jurisdiction] conducted an Ebola ConOps plan tabletop exercise TTX at the [Insert location]. The TTX was designed to test [Insert what is to be tested].

Participants included representatives from [Insert list of participants].

The objectives of the TTX were to

1. [Insert objective]
2. [Insert objective]
3. [Insert objective]

Scenario

[Insert Ebola scenario]

Summary

Areas for improvement were identified during the TTX. Each of the identified areas aligned with the TTX objectives.

1) [Insert area for improvement]

- [Insert key point]
- [Insert key point]

2) [Insert area for improvement]

- [Insert key point]
- [Insert key point]

3) [Insert area for improvement]

- [Insert key point]
- [Insert key point]

Participant Feedback Summary

Quantitative Data

[Insert description of quantitative data collected from participants (e.g., X number of participants had 5 to 15 years of experience, 50% of participants indicated emergency preparedness is part of their primary duties) based on questions 1 through 6 and question 10 on the Participant Feedback Form.]

Qualitative Data

Strengths

[Insert summary of strengths identified by exercise players]

Summary

Key themes noted in this area

- [Insert key theme]
- [Insert key theme]
- [Insert key theme]

Areas for Improvement

[Insert the top three areas for improvement identified by exercise players]

Summary

Key themes noted in this area

- [Insert key theme]
- [Insert key theme]
- [Insert key theme]

Training

[Insert training opportunities identified by exercise players that helped (or could have helped) prepare for the exercise]

Summary

Key themes noted in this area

- [Insert key theme]
- [Insert key theme]
- [Insert key theme]

Appendix M: Acronyms

AAR	After-action report
AM	Active monitoring
ASPR	Office of the Assistant Secretary for Preparedness and Response
CDC	Centers for Disease Control and Prevention
ConOps	Concept of Operations
DAM	Direct active monitoring
ELC	Epidemiology and Laboratory Capacity for Infectious Diseases
EMS	Emergency medical services
EOC	Emergency operations center
ETC	Ebola treatment center
HHS	U.S. Department of Health and Human Services
HPP	Hospital Preparedness Program
HSEEP	Homeland Security Exercise and Evaluation Program
IP	Improvement plan
JIC	Joint information center
LRN	Laboratory Response Network
NETEC	National Ebola Training and Education Center
PHEP	Public Health Emergency Preparedness
PPE	Personal protective equipment
PSAP	Public Safety Answering Point
PUI	Person under investigation
ROC	Regional operations center

SMART.....Specific, measurable, achievable, relevant, and time-oriented

SOC.....State operations center

TTX.....Tabletop exercise

Appendix N: Definitions

Discussion-based exercises

Includes seminars, workshops, tabletop exercises, and games. These are used to familiarize players with, or develop new plans for, policies, agreements, and procedures.

Homeland Security Exercise and Evaluation Program

Program that provides a set of guiding principles for exercise programs, as well as a common approach to exercise program management, design and development, conduct, evaluation, and improvement planning.

Active monitoring

Post-arrival monitoring of travelers from countries with Ebola outbreaks by health departments (<http://www.cdc.gov/vhf/ebola/exposure/qas-monitoring-and-movement-guidance.html>).

Direct active monitoring

A higher standard of monitoring for healthcare workers that includes daily direct observation by public health officials. (<http://www.cdc.gov/vhf/ebola/exposure/qas-monitoring-and-movement-guidance.html>).

Person under investigation

See CDC case definition (<http://www.cdc.gov/vhf/ebola/healthcare-us/evaluating-patients/case-definition.html>).

Frontline healthcare facilities

Acute care hospitals and other emergency care settings including urgent care clinics, and critical access hospitals. Frontline healthcare facilities do NOT include primary care offices and other non-emergency ambulatory care settings (<http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/frontline-healthcare-facilities.html>).

Ebola assessment hospital

Hospitals prepared to receive and isolate a PUI for Ebola and provide care for the patient until an Ebola diagnosis can be confirmed or ruled out (<http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/assessment-hospitals.html>).

Ebola treatment center

Facilities prepared to provide comprehensive care to patients diagnosed with Ebola for the duration of the patient's illness (<http://www.cdc.gov/vhf/ebola/healthcare-us/preparing/treatment-centers.html>).

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