CDC’s Division of STD Prevention

TTX Toolkit Overview

## Antibiotic-Resistant Gonorrhea

## Tabletop Exercise Toolkit Overview Document

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## **Purpose**

The purpose of this document is to prescribe a toolkit for the planning and conducting of a Sexually Transmitted Infection (STI)/Antibiotic-Resistant Gonorrhea (ARGC) tabletop exercise (TTX).

## Background

In the United States during 2018, an estimated 820,000 new Neisseria *gonorrhoeae* infections occur each year (Antibiotic Threats in the United States 2019). Gonorrhea is the third most commonly reported communicable disease. Urethral infections caused by Neisseria *gonorrhoeae* among men can produce symptoms that cause them to seek curative treatment soon enough to prevent sequelae, but often not soon enough to prevent transmission to others. Among women, gonococcal infections are commonly asymptomatic or might not produce recognizable symptoms until complications have occurred.

Antibiotic resistance is the ability of bacteria to resist the effects of the drugs used to treat them. This means the bacteria are no longer killed by a drug that used to kill them before. The bacteria are then free to keep multiplying. Gonorrhea has progressively developed resistance to the antibiotic drugs prescribed to treat it. We are currently down to one last recommended and effective class of antibiotics to treat this common infection. Following the spread of gonococcal fluoroquinolone resistance, the cephalosporin antibiotics have been the foundation of recommended treatment for gonorrhea. The emergence of cephalosporin-resistant gonorrhea would significantly complicate the ability of providers to treat gonorrhea successfully, since we have few antibiotic options left that are simple, well-studied, well-tolerated, and highly effective.

This is an urgent public health threat because gonorrhea control in the United States largely relies on our ability to successfully treat the infection. It is critical to continuously monitor antibiotic resistance in Neisseria gonorrhoeae and encourage research and development of new treatment regimens. For this reason, state and local jurisdictions must have plans, policies, and procedures in place and conduct periodic exercises to test, validate, and identify gaps in the plans, policies, and procedures, and to enhance preparedness to respond to an outbreak of ARGC.

## Overview

This toolkit was produced with input, advice, and assistance from the Centers for Disease Control and Prevention’s (CDC) Antibiotic-Resistant Gonorrhea (ARGC) exercise planning team and state and local subject matter experts, following the guidance set forth in the Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA), Homeland Security Exercise and Evaluation Program (HSEEP).

Discussion-based exercises, such as this TTX, center on participant discussion. The purpose of a TTX is to assess existing plans, policies, and procedures or develop new plans, policies and procedures without incurring the costs associated with deploying resources. A TTX uses a hypothetical scenario to provide participating agencies the opportunity to practice group problem solving, familiarize senior officials with a situation, examine contingencies, assess interagency coordination and collaboration, etc.

The exercise usually involves senior staff and key personnel, subject matter experts, and personnel from the emergency management community of practice. The TTX process involves participants reviewing a pre-packaged set of exercise materials then convening for a specified amount of time to discuss a simulated scenario. Exercise Planners may conduct the exercise in-person, virtually, or a combination of both to achieve the essential training audience.

## Goals

This toolkit will provide users the tools and information to conduct an ARGC TTX. The purpose of the TTX is to enhance local, state, and federal preparedness for an outbreak of an ARGC in the United States. The TTX will enable the participants to exercise their knowledge, skills, and abilities needed to effectively conduct outbreak preparedness, response, and recovery activities. The goals of the TTX Toolkit are the following:

* Improve participating state and local jurisdiction’s capacity to effectively respond to an outbreak
* Exercise the locally developed ARGC outbreak response plan
* Review the communications and collaboration processes and procedures—coordinate with and integrate local, state, and federal partners; and private sector and nongovernmental organizations
* Identify outbreak response triggers, decisions, actions, and data requirements
* Document identified response steps and further outbreak response and preparedness needs

For purposes of this TTX Toolkit, the information is presented in three phases: Pre-event Activities, Event Conduct Activities, and Post-event Activities.

## Pre-Event Activities

### Conduct Planning Activities:

Concept and Objectives (C&O) Meeting: The C&O meeting is the formal beginning of the planning process. It is held to identify the scope and objectives of the exercise. Senior officials, representatives from the sponsoring organization, participating organizations, exercise director, and the exercise planning team leaders typically attend this meeting. The C&O meeting helps planners determine the exercise program priorities to be addressed based on guidance, design objectives based on those priorities, align exercise objectives to core capabilities, and identify exercise planning team members. The C&O meeting can be conducted in conjunction with the Initial Planning Meeting (IPM).

Topics or issues generally covered during a C&O meeting include the following:

* Exercise scope
* Proposed exercise objectives and their aligned core capabilities
* Proposed exercise location, date, and duration (recommend 4-6 hours)
* Participants and anticipated extent of play for exercise participants
* Exercise planners
* Exercise assumptions and artificialities
* Exercise control and evaluation concepts
* Exercise security organization and structure
* Available exercise resources
* Exercise logistics
* Exercise planning timeline and milestones
* Local issues, concerns, and sensitivities

The primary tools for the C&O meeting are the following:

* Agenda
* Background and rationale for conducting the exercise
* Briefing to present exercise background, rationale, and methodology

The C&O meeting desired outcomes are the following:

* Agreement regarding exercise concept (scope, type, mission area[s], exercise program priorities to be addressed), exercise objectives, and aligned core capabilities
* Consensus on the target exercise timeframe
* Anticipated extent of participation
* Identification of exercise planners
* Exercise planning timeline with milestones, including the date of the next planning meeting

#### Initial Planning Meeting (IPM):

The IPM marks the beginning of the exercise development phase and should be conducted for all exercises. Its purpose is to determine exercise scope by getting intent and direction from senior officials and gathering input from the exercise planners; and to identify exercise design requirements and conditions (e.g., assumptions and artificialities), exercise objectives, participant extent of play, and scenario variables (e.g., time, location, hazard selection). The IPM is also used to develop exercise documentation by obtaining the planners’ input on exercise location, schedule, duration, and other relevant details.

During the IPM, exercise planners are assigned responsibility for activities associated with designing and developing exercise documents, such as the Situation Manual (SitMan), and coordinating exercise logistics.

Topics or issues generally covered during an IPM include the following:

* Clearly defined exercise objectives and aligned core capabilities
* Evaluation requirements, including capability targets and critical tasks
* Relevant plans, policies, and procedures to be tested in the exercise
* Exercise scenario
* Modeling and simulation planning
* Extent of play agreement (XPA) for each participating organization
* Optimum duration of the exercise (recommend 4-6 hours)
* Exercise planners’ roles and responsibilities
* Decision to record exercise proceedings (audio or video)
* Local issues, concerns, or sensitivities
* Any discussion points typically covered during a C&O meeting if a C&O meeting was not conducted
* Consensus regarding the date, time, and location for the next meeting

The primary tools for the IPM are the following:

* Read-ahead packet
* Agenda
* Core capabilities
* Threat and hazard information
* Proposed room layout
* Exercise planning timeline with milestones
* Briefing to present an overview of the exercise and meeting discussion points

The IPM desired outcomes are the following:

* Any outcomes listed in the C&O meeting section above if a C&O meeting was not conducted
* Clearly defined exercise objectives and aligned core capabilities
* Initial capability targets and critical tasks, which will be reviewed and confirmed prior to the next planning meeting
* Identified exercise scenario variables (e.g., threat scenario, scope of hazard, venue, conditions)
* A list of participating exercise organizations and anticipated organizational extent of play
* Draft SitMan
* Identification and availability of all source documents (e.g., policies, plans, procedures) needed to draft exercise documents and presentations
* A refined exercise planning timeline with milestones
* Identification and availability of subject matter experts, as necessary, for scenario vetting and/or expert evaluation
* Determination of preferred communication methods among the exercise planners
* Clearly identified and assigned responsibility for exercise logistical issues
* A list of tasks to be accomplished by the next planning meeting with established dates for completion and responsible planners identified
* An agreed-upon date, time, and location for the next planning meeting and the actual exercise. Planners should issue a ***Training Exercise Announcement/Invitation*** to all participating agencies immediately after actual exercise date, time, and location are confirmed.

#### Evaluation Planning:

Exercise evaluation maintains the fundamental link between the exercise and improvement planning. Through exercise evaluation, organizations assess the capabilities needed to accomplish a mission, function, or objective. This assessment is based on the performance of critical tasks to capability target levels. Effective exercise evaluation involves

* Planning for exercise evaluation
* Observing and collecting exercise data during exercise
* Analyzing collected data to identify strengths and areas for improvement
* Reporting exercise outcomes in a draft After-Action Report (AAR)

It is important that evaluation planning begins during the initial planning phases of the exercise to ensure that the design, development, and conduct of the exercise best support an effective evaluation. Evaluators should engage senior officials early in evaluation planning in order to identify any specific evaluation requirements. The lead evaluator participates fully as a member of the exercise planning team and should be familiar with the exercise’s objectives. Planning an exercise evaluation typically includes:

* Selecting lead evaluator and define evaluation team requirements
* Developing Exercise Evaluation Guides (EEGs), which include objectives, core capabilities, capability targets, and critical tasks
* Recruiting, training, and assigning evaluators
* Developing and finalizing evaluation documentation
* Conducting a pre-exercise Evaluator Briefing

Midterm Planning Meeting (MPM): The MPM is to discuss exercise organization and staffing concepts, scenario and timeline development, scheduling, logistics, and administrative requirements. It is also held to review draft documentation. Prior to the MPM, the exercise team leader should engage senior officials to provide awareness of the planning process, address any questions, and ensure alignment with guidance and intent.

Topics or issues generally covered during an MPM include the following:

* Comments on draft exercise documentation
* Construction of the scenario timeline
* Identification of exercise venue artificialities and/or limitations
* Agreement on final logistical items
* Assignment of additional responsibilities

The primary tools for the MPM are the following:

* Agenda
* IPM minutes
* Draft scenario timeline
* Draft documentation (e.g., SitMan, Facilitator’s Guide, Multimedia Presentation)
* Other selected documentation needed to illustrate exercise concepts and provide planning guidance

The MPM desired outcomes are the following:

* Fully reviewed SitMan
* Draft Facilitator Guide
* A fully reviewed exercise scenario timeline
* Well-developed scenario injects or questions
* Agreement on the exercise site
* Finalization of date, time, and location of the final planning meeting

#### Final Planning Meeting (FPM):

The FPM is conducted to ensure that all elements of the exercise are ready. Prior to the FPM, the exercise planners receive final drafts of all exercise materials. No major changes to the exercise’s design, scope, or supporting documentation should take place at or following the FPM. The FPM ensures that all logistical requirements have been met, outstanding issues have been identified and resolved, and exercise products are ready for printing. Both before and after the FPM, the exercise planning team leader should engage senior officials to ensure that the exercise is aligning with their intent, address any questions, and receive any last-minute guidance.

Topics or issues generally covered during an FPM include the following:

* Conduct a comprehensive, final review and approve all remaining draft exercise documents (e.g., SitMan, Facilitator’s Guide, Participant Feedback Form) and presentation materials
* Resolve any open exercise planning issues and identify last-minute concerns
* Review all exercise logistical activities (e.g., schedule, sign-in, attire, special needs, supplies, food, and refreshments)

The primary tools for the FPM are the following:

* IPM and/or MPM minutes
* Agenda
* Previously finalized and/or drafted exercise documents

The FPM should not generate any significant changes. The desired outcomes are the following:

* Exercise documents and materials for production are approved
* Attendees understand and approve exercise processes and procedures
* Last-minute issues are identified and resolved
* Logistical elements, including equipment, venues, and schedule, are confirmed

### Identify Participants:

#### Leadership:

Senior officials should provide overarching guidance and direction for the exercise and evaluation. Engage senior leaders early to establish TTX priorities and objectives and often to ensure support necessary for success.

#### Exercise Director:

The Exercise Director, designated by the leadership, is responsible for all strategic planning actions, preparation, execution, and assessment in support of the TTX. The director, with authority to make decisions for the sponsoring organization, provides direction to, and oversight of, the exercise planning team; oversees all exercise functions during exercise conduct; oversees and remains in contact with evaluators; debriefs evaluators following the exercise; and oversees setup and cleanup of the exercise.

#### Exercise Planners:

The exercise planners manage, and is ultimately responsible for, exercise design, development, conduct, and evaluation. Using the exercise program priorities and guidance from senior officials, the team determines:

* Exercise objectives and core capabilities to be assessed
* Creates a realistic scenario to assess objectives and capabilities
* Develops supporting documentation, processes, and systems that are used in evaluation, control, and simulation

Planners also help with developing and distributing pre-exercise materials, and conducting exercise planning meetings, briefings, and training sessions. The team should be of manageable size yet represent the full range of participating organizations as well as other relevant stakeholders.

* All levels of government
* Volunteer organizations
* Community groups
* Private entities
* Nonprofit organizations
* Groups working with individuals with disabilities or special needs

For multi-jurisdictional exercises, planners should include representatives from each jurisdiction and participating functional areas or relevant disciplines.

#### Training Audience/Players:

Players are personnel who have an active role in discussing or performing their regular roles and responsibilities during the exercise. Players discuss or initiate actions in response to the simulated outbreak.

#### Facilitator:

The Facilitator is responsible to conduct the TTX. Facilitator maintains exercise scope, pace, and integrity during conduct under safe conditions. He/she keeps participant discussions on track with exercise objectives, provides situation updates and additional information, resolves questions, and ensures all issues and objectives are explored as thoroughly as possible within time constraints. If an exercise uses breakout groups, more than one facilitator may be needed. Key Exercise Planners also may assist with facilitation as subject matter experts during the exercise. A good facilitator should possess:

* Ability to keep discussions focused on exercise objectives, core capabilities, capability targets, critical tasks, and within time limits; keep side conversations to a minimum; control group dynamics and strong personalities; and speak competently and confidently about the subject without dominating conversation
* Functional area expertise or experience
* Awareness of appropriate plans and procedures
* The ability to listen well and summarize player discussions

#### Trusted Agents:

Each member of the exercise planning team is a trusted agent. Trusted agents are the individuals who are trusted not to reveal exercise and scenario details to players or third parties before exercise conduct. Generally, planning team members are not exercise players. However, when resources are limited, planners may play, but should be especially careful not to divulge sensitive exercise information to other players. Trusted agents also develop pre-exercise materials, conduct exercise briefings, and support training sessions.

#### Spokesperson:

Spokesperson represents the group in the report-back session(s). The spokesperson presents all participants with summarized results from a group’s facilitated discussion. This spokesperson is selected before the facilitated discussion so that he or she can prepare to speak on behalf of the group. Spokespersons summarize the facilitated discussion, present key findings and issues, and discuss any unresolved issues or questions. Each group may select any number of spokespersons—one for all sessions, a different one for each session, or a different one for each discussion topic and question.

#### Recorder:

Recorder takes notes, records activities, and develops presentation materials for the report-back sessions. Each group should assign a recorder. Facilitator also may assign a recorder.

#### Evaluators:

Evaluators are assigned to observe and document certain objectives during the exercise. Evaluators are chosen based on their expertise in the specific functional areas they will observe. Their primary role is to document player discussions and observations, capture unresolved issues, and analyze exercise results, including how and if those discussions conform to plans, policies, and procedures. Evaluators do not interfere with exercise flow. Early in the exercise planning process, the Exercise Director should appoint a lead evaluator to oversee all facets of the evaluation process.

#### Observers:

Observers do not directly participate in the exercise; rather, they observe selected segments of the exercise as it unfolds, while remaining separated from player activities. However, they may support the development of player responses to the situation during the discussion by asking relevant questions or providing subject matter expertise.

### Prepare Exercise Documents:

#### Plan of Actions and Milestones (POA&M):

The POA&M is a tool that identifies and sets milestones for tasks that need to be accomplished. Exercise planners use the tool to reflect progress against planned efforts and identify and track vulnerabilities.

#### Situation Manual (SitMan):

The SitMan supports the scenario narrative and serves as the primary reference material for all participants during the exercise. The ***Introduction*** provides an overview of the exercise—including scope, objectives and core capabilities, structure, rules, and conduct—and an exercise agenda. The next section of the SitMan is the ***Scenario***, which may be chronologically sequenced into modules. Each module represents a specific time segment of the overall scenario, based on exercise objectives and scenario requirements. ***Discussion questions and key issues*** follow each module and are usually divided by organization or discipline. Responses to the modules’ discussion questions are the focus of the exercise and reviewing them provides the basis for evaluating exercise results. These discussion questions should be derived from the exercise objectives and associated core capabilities, capability targets, and critical tasks documented in each exercise evaluation guide.

The SitMan is distributed to all participants and generally includes the following information:

* Exercise scope, objectives, and core capabilities
* Exercise assumptions and artificialities
* Instructions for exercise participants
* Exercise structure (i.e., order of the modules)
* Exercise scenario background (including scenario location information)
* Discussion questions and key issues
* Schedule of events
* Relevant documents regarding plans, Standard Operating Procedures (SOPs), etc.
* Jurisdiction- or organization-specific threat information
* Data and Fact Sheets
* List of reference terms

#### Facilitator’s Guide:

The Facilitator’s Guide provides detailed instructions on the process, how to organize and prepare the players, and how to conduct the TTX. It usually outlines instructions and key issues for discussion during the event and provides background information to help the facilitator answer questions from participants. This guide may also include an evaluation section that provides evaluation staff members with guidance and instructions on evaluation or observation methodology to be used as well as essential materials required to execute their specific functions. The Facilitator’s Guide is distributed to facilitators.

#### Multimedia Presentation:

The presentation serves as the “script” for the exercise and is often used to illustrate the general scenario for participants. It is given at the Start of Exercise (StartEx) and support the SitMan. The presentation should concisely summarize information contained in the written documentation and is intended to help focus and drive the exercise as well as add realism. Like the SitMan, the multimedia presentation is also divided into distinct, chronologically segmented modules that, when combined, create the entire scenario. This presentation is distributed to all participants and typically contains, at a minimum, the following information:

* Introduction
* Exercise scope, objectives, and core capabilities
* Exercise play rules and administrative information, including safety and security
* Modules that describe the scenario and provide the discussion questions and key issues

#### Participant Feedback Form:

The participant feedback form asks for input regarding observed strengths and areas for improvement that participants identified during the exercise. Providing participant feedback forms during the exercise wrap up activities allows participants to provide their insights into decisions made and actions taken. The form also provides participants the opportunity to provide constructive criticism about the design, control, or logistics of the exercise to help enhance the planning of future exercises. The participant feedback form is distributed to all participants and at a minimum, should solicit the following:

* Strengths and areas for improvement pertaining to the implementation of participating agencies and organizations’ policies, plans, and SOPs
* Impressions about exercise conduct and logistics.

Information collected from feedback forms contributes to the issues, observations, recommendations, and corrective actions in the AAR/IP.

#### The Outbreak Response Plan:

State and local jurisdictions should have an approved outbreak response plan prior to StartEx. The purpose of the TTX is to assess existing plans, policies, and procedures or develop new plans, policies and procedures. If plan is not available, an ***Outbreak Response Plan Guide*** is enclosed to assist jurisdictions develop local plans. This guidance is not meant to be prescriptive, but rather is meant to (1) highlight content areas and considerations that jurisdictions might choose to address in local plans and (2) spur discussions within health departments as response plans are bring crafted.

### Conduct Coordination Activities:

In addition to coordination conducted during the meetings described in the “Conduct Planning Activities” section, planners might conduct the following activities.

#### Facilitator Coordination Meeting (FaCM):

The FaCM is conducted to review the detailed instructions on the process, how to organize and prepare the players, and how to conduct the TTX. Planners and facilitator attend this meeting and may use it as a rehearsal. This meeting is specially conducted to prepare the facilitator to conduct the TTX. The facilitator should ensure all questions are answered, issues are resolved, and needs have been or will be met.

#### Final Coordination Meeting (FCM):

Planners conduct an FCM when all elements of the exercise are not ready at the FPM. This meeting uses the same format, topics, and tools as the FPM, plus the FPM minutes.

#### Communications Rehearsal:

The communications rehearsal is conducted to test audio and video equipment and communications between all venues. The rehearsal should be conducted with the same equipment and systems setup in the same facilities/rooms as planned for the TTX. Planners should perform sound checks at various locations around the room to ensure all participants will be able to hear the facilitator. Also, if venues are available several hours before StartEx, planners should conduct another test of equipment and communications, allowing time to react to issues prior to StartEx. An information technology specialist for each venue should participate in the rehearsal and subsequent tests and be available during exercise conduct.

### Procure Venues and Supplies:

#### Procure Venues:

Planners should procure appropriate venues and rooms to accommodate exercise scope, all participants, and planned equipment. Venues should be free from distractions. If single-room acoustics does not support separate group discussions, planners should consider breakout rooms. Other logistics to consider are parking, transportation, accessibility, food and refreshments, safety, and security.

#### Procure Supplies:

Planners should procure necessary supplies, which might include the following:

* Tables
* Chairs
* Appropriate audio and video equipment (recording capability is recommended)
* Writing utensils
* Notepads
* Easels
* Copies of Outbreak Response Plan
* Copies of SitMans or other written materials for exercise participants
* Copies of multimedia presentation
* Table tents for each table (identify organization or functional area seated at table)
* Name tents for each participant (place on tables prior to StartEx to ensure proper seating arrangements)
* Badges (form of identification for security purposes; identify exercise participant by name, organization, and role)
* Participant Sign-in Sheets (name, organization, telephone number, and e-mail address)
* Participant Feedback Forms
* Food and refreshments (in accordance with applicable funding guidance or venue policies; note, working lunch minimizes disruption to exercise)

### Prepare Participants and Venues:

#### Prepare Participants:

All participants are expected to review read ahead documents (e.g., local outbreak plans and SOPs, TTX guidance and instructions, and SitMan), to attend exercise orientation briefings, and to understand and be able to perform roles and responsibilities. The orientation briefings educate each participant group about its unique roles and responsibilities during the TTX.

#### Prepare Venues:

Exercise planners assigned to support exercise setup should visit the exercise venues at least one day prior to the TTX to arrange the room(s), test audio and video equipment, and discuss administrative and logistical issues. On the day of the exercise, planners should arrive several hours before StartEx to handle setup activities and arrange for sign-in. If breakout rooms will be used for group discussions, planners must also prepare these rooms.

### Conduct Evaluator Activities:

#### Recruit and Assign Evaluators:

Once evaluation requirements have been defined by the planning team, the lead evaluator oversees the recruiting, assigning, and training of evaluators. The evaluation requirements play a critical role in determining how many evaluators are needed, the type of subject matter expertise they should possess, their assignment during the exercise, and the type of training or instruction required prior to the exercise. Evaluator assignments should be communicated to evaluators prior to exercise conduct.

#### Train Evaluators:

Effective evaluator training ensures that exercise evaluators have a shared understanding of the key data to be collected and how that data will contribute to the evaluation of the exercise. Evaluator training typically includes the following:

* General information about the exercise, including scope, objectives and aligned core capabilities, scenario, and schedule
* Relevant evaluator documentation (e.g., SitMan, EEGs, evaluation tools)
* Appropriate plans, policies, procedures, agreements, or other information that are the focus of the exercise
* Guidance on observing exercise discussion or operations, and criteria for inclusion of data in the final exercise analysis.

#### Prepare Exercise Evaluation Guide (EEG):

EEGs provide a consistent tool to guide exercise observation and data collection. EEGs are aligned to exercise objectives and core capabilities and list the relevant capability targets and critical tasks. They are designed to accomplish several goals:

* Streamline data collection
* Enable thorough assessments of the participant organizations’ capability targets
* Support development of the AAR
* Provide a consistent process for assessing preparedness through exercises
* Help organizations map exercise results to exercise objectives, core capabilities, capability targets, and critical tasks for further analysis and assessment

#### Conduct Pre-Exercise Evaluator Briefing:

Before exercise play begins, the lead evaluator should meet with all evaluators to verify roles, responsibilities, and assignments, and to provide any significant updates (e.g., last-minute changes to the scenario, new assignments). The evaluator briefing provides an opportunity for evaluators to ask questions and to ensure complete understanding of their roles and responsibilities. Depending on the exercise organization, it may be necessary to conduct briefings at more than one exercise site.

## **Activities During the Event**

### Test Audio and Video Equipment and Connections:

Facilitator should confirm audio and video equipment are operational and connections with all sites.

### Distribute TTX Materials and Equipment:

Prior to conducting the exercise, the facilitator distributes the necessary exercise materials and equipment, which might include the following:

* SitMans or other written materials for exercise participants
* Multimedia presentation
* Appropriate audio and video equipment
* Table tents for each table (identify organization or functional area seated at table)
* Name tents for each participant (place on tables prior to StartEx to ensure proper seating arrangements)
* Badges (form of identification for security purposes; identify exercise participant by name, organization, and role)
* Participant Sign-in Sheets (name, organization, telephone number, and e-mail address)
* Participant Feedback Forms

### Conduct Sign-in:

Facilitator should ensure all participants sign-in upon arrival, for identification, security, and emergency purposes. Planners retain copies of the sign-in sheets, so that participants can receive follow-up correspondence such as thank-you notes, certificates of completion, copies of the AAR/IP, and invitations to future planning meetings and exercises.

### Conduct TTX:

Facilitator conducts the TTX in accordance with the Facilitator’s Guide. The multimedia presentation is a crucial vehicle for conveying information to the players. The presentation typically starts with brief remarks by representatives from the exercise planning team or sponsoring organization, and/or senior officials from the jurisdiction. After the opening remarks, the presentation moves into a brief introductory and explanatory phase led by a facilitator. During this phase, participants will be introduced to any other facilitators, evaluators, and observers; given background on the exercise process; and advised about their individual roles and responsibilities. All participants should introduce themselves, providing name, organization, position within organization, and role during the exercise. The facilitator generally presents the multimedia briefing, which describes the scenario and any relevant background information. The facilitator also leads the discussion, introduces spokespersons, poses questions to the audience, and ensures that the schedule remains on track.

### Facilitated Discussion:

Facilitated group discussions can occur in a plenary session or in breakout groups, which are typically organized by discipline or agency/organization. In both formats, a facilitator is responsible for keeping the discussion focused on the exercise objectives and making sure all issues are explored within the time allotted.

If feasible and/or appropriate, co-facilitators who are knowledgeable about local issues, plans, and procedures may assist the lead facilitator. Also, designating a recorder to take notes allows the facilitator to focus on key discussion issues.

### Moderated Discussion:

Moderated discussions generally follow breakout discussions. In moderated discussions, a representative from each group presents all participants with summarized results from a group’s facilitated discussion. This spokesperson is selected before the facilitated discussion so that he or she can prepare to speak on behalf of the group. During moderated discussions, spokespersons summarize the facilitated discussion, present key findings and issues, and discuss any unresolved issues or questions. At the end of the moderated discussion period, the facilitator opens the floor for questions.

Time for moderated discussion is generally scheduled at the end of each module, with another longer period for each at the conclusion of the exercise. During the moderated discussion, groups should focus only on the material presented in a given module.

### Collect Exercise Data:

During the exercise, each evaluator and observer should use the EEGs to record both quantitative and qualitative data for capabilities, capability targets, and critical tasks, as assigned or selected.

Evaluators should observe exercise activity in a non-attribution environment, in accordance with the evaluation training and EEGs. Evaluators will generally be able to observe many of the following topics:

* Plans, policies, and procedures used during the exercise
* Legislative authorities used or implemented
* Roles and responsibilities of the government agencies and private organizations
* Pertinent decisions made, including information gathered to make decisions
* Activation or implementation of processes and procedures, requests for resources, use of mutual aid agreements, etc.
* How and what information is shared with other agencies and the public

### Conduct Hot Wash and Complete Participant Feedback Form:

A Hot Wash is conducted by facilitator immediately following the exercise, during which facilitators, evaluators, and observers capture participant perspectives on the key strengths and areas for improvement identified during the exercise. The Hot Wash should be led by an experienced facilitator who can ensure that the discussion remains brief and constructive. The information gathered during a Hot Wash can be used during the AAR/IP process, and exercise suggestions can be used to improve future exercises.

Hot Washes also provide opportunities to distribute/complete Participant Feedback Forms, which can be used to help generate the AAR/IP. If not already distributed, recommend taking a short break after end of exercise (EndEx), prior to the Hot Wash, to distribute/complete form. All participants should complete the Participant Feedback Form.

## Post-Event Activities:

### Collect Participant Sign-in Sheets:

Planners should collect Participant Sign-in Sheets from all venues. Planners retain copies of the sign-in sheets, so that participants can receive follow-up correspondence such as thank-you notes, certificates of completion, copies of the AAR/IP, and invitations to future planning meetings and exercises.

### Collect/Review Participant Feedback Forms:

Planners should collect forms from all participants (recommend collecting forms prior to departure) and review prior to the After-Action Meeting. Information collected from feedback forms contributes to the issues, observations, recommendations, and corrective actions in the AAR/IP. The form also provides participants the opportunity to provide constructive criticism about the design, control, or logistics of the exercise to help enhance the planning of future exercises.

### Conduct Facilitator/Evaluator Debriefing:

 A Facilitator/Evaluator Debriefing is held to review exercise conduct. This debriefing can be facilitated by the exercise director or planning team leader and provides a forum for facilitators, evaluators, planners, and observers to discuss strengths, areas for improvement, and progress in completing exercise objectives.

### Prepare After-Action Report/Improvement Plan (AAR/IP):

The AAR is the document that summarizes key information related to evaluation. The focus of the AAR is the analysis of core capabilities. Generally, AARs also include basic exercise information, such as the exercise name, type of exercise, dates, location, participating organizations, mission area(s), specific threat or hazard, a brief scenario description, and the name of the exercise sponsor and points of contact (POCs).

The AAR should include an overview of performance related to each exercise objective and associated core capabilities, while highlighting strengths and areas for improvement. Therefore, evaluators should review their evaluation notes and documentation to identify the strengths and areas for improvement relevant to the participating organizations’ ability to meet exercise objectives and demonstrate core capabilities.

The evaluation team provides the draft AAR to the exercise sponsor, who distributes it to participating organizations. Senior officials, or their designees, review and confirm observations identified in the formal AAR, and determine which areas for improvement require further action. Areas for improvement that require action are those that will continue to seriously impede capability performance if left unresolved. As part of the improvement planning process, senior officials identify corrective actions to bring areas for improvement to resolution and determine the organization with responsibility for those actions.

Once all corrective actions have been consolidated in the final IP, the IP may be included as an appendix to the AAR. The AAR/IP is then considered final, and may be distributed to exercise planners, participants, and other preparedness stakeholders as appropriate.

### Conduct After-Action Meeting (AAM):

Once the organization’s reviewer has confirmed the draft areas for improvement and identified initial corrective actions, a draft IP is developed for review at an AAM. The meeting serves as a forum to review the revised AAR and the draft IP. Prior to the AAM, as appropriate, the exercise sponsor will distribute the revised AAR, which incorporates feedback on the strengths and areas for improvement, and the draft IP to participants. Distributing these documents for review prior to the meeting helps to ensure that all attendees are familiar with the content and are prepared to discuss exercise results, identified areas for improvement, and corrective actions. The organization’s senior officials, or their designees, should attend the AAM along with exercise planners to answer any questions or provide necessary details on the exercise itself.

During the AAM, participants should seek to reach final consensus on strengths and areas for improvement, as well as revise and gain consensus on draft corrective actions. Additionally, as appropriate, participants should develop concrete deadlines for implementation of corrective actions and identify specific corrective action owners/assignees. Participant organizations are responsible for developing implementation processes and timelines and keeping their senior officials informed of the implementation status.

### Develop/Execute Corrective Action Program (CAP):

After evaluators complete the evaluation phase, organizations should perform an assessment to identify potential corrective actions. Corrective actions are concrete, actionable steps that are intended to resolve capability gaps and shortcomings identified in the TTX. In developing corrective actions, senior officials or their designees should first review and revise the draft AAR, as needed, prior to the after-action meeting to confirm that the issues identified by evaluators are valid and require resolution. The reviewers then identify which issues fall within the organization’s authority and assume responsibility for acting on those issues. Finally, they determine an initial list of appropriate corrective actions to resolve identified issues.

The organization’s reviewers should use the following questions to guide their discussion when 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 management processes to improve performance?
* What changes to equipment or resources are needed to improve performance?
* What training is needed to improve performance?
* What are the lessons learned for approaching similar problems in the future?

Corrective actions captured in the AAR/IP should be tracked and continually reported on until completion. Organizations should assign POCs responsible for tracking and reporting on their progress in implementing corrective actions. By tracking corrective actions to completion, preparedness stakeholders can demonstrate that exercises have yielded tangible improvements in preparedness. Stakeholders should also ensure there is a system in place to validate previous corrective actions that have been successfully implemented.

## Definitions

|  |
| --- |
| A |
| Term | Description |
| Actor | Actors are volunteers who simulate specific roles in order to add realism to an exercise. |
| After-Action Meeting (AAM) | The AAM is a meeting held among elected and appointed officials or their designees from the exercising organizations, as well as the lead evaluator and members of the exercise planning team, to debrief the exercise and to review and refine the draft AAR/IP. The AAM should be an interactive session, providing attendees the opportunity to discuss and validate the analytical findings and corrective actions in the draft AAR/IP. |
| After-Action Report (AAR) | The AAR summarizes key exercise-related evaluation information, including the exercise overview and analysis of objectives and core capabilities. The AAR is usually developed in conjunction with an IP. The lead evaluator and exercise planning team draft the AAR and submit it to meeting participants before the AAM. |
| Antibiotic | A medicine that kills or inhibits the growth of bacteria. In medical usage, antibiotics refer specifically to antibacterial medicines that are produced naturally by a microorganism (such as penicillin). |
| Antibiotic-Resistant Gonorrhea (ARGC) | A general designation of a gonococcal infection that demonstrates resistance to at least one antimicrobial agent.While a useful term for communicating with the general public, the clinical and public health importance of the infection is better conveyed to providers and public health officials by labeling the infection with the specific antimicrobials to which the infection is resistant (such as ceftriaxone-resistant *Neisseria gonorrhoeae; see below*). |
| Antibiotic Susceptibility Testing (AST) | Laboratory testing of live bacteria (isolates) that involves exposing the bacteria to a series of concentrations of antimicrobials. AST is used to determine which antibiotics and at which antibiotic concentration keep a particular gonococcal infection from growing on an agar plate. Types of *Neisseria gonorrhoeae* AST include disc diffusion, Etest, and agar dilution. A bacterium is considered to be susceptible to an antimicrobial agent if the bacteria do not grow in the presence of antibiotic. If bacteria grow in the presence of antibiotic, the bacteria may have reduced susceptibility to the antimicrobial agent. |
| Antimicrobial | A broad category of medicines that kill or inhibit the growth of microorganisms, and includes antibacterials, antivirals, and antifungals. Antimicrobials can be produced naturally by a microorganism (referred to as antibiotics) or can be synthetically produced. “Antimicrobial” is more precise than “antibiotic” when describing cefixime, ceftriaxone, and azithromycin; however, “antimicrobial” and “antibiotic” are often used interchangeably. |
| Antimicrobial Regional Laboratory Network (ARLN) | The Antimicrobial Regional Laboratory Network is a network of regional public health laboratories equipped to respond to emerging health threats and provide cutting-edge antimicrobial resistance laboratory support. The ARLN has capacity for culture-based antimicrobial susceptibility testing and genomic sequencing. |
| Asymptomatic | A disease or infection is considered asymptomatic if a patient is a carrier of the disease or infection but experiences no symptoms. |
| Azithromycin | A widely-used and broad-spectrum macrolide antimicrobial that is currently recommended to be administered with ceftriaxone for treatment of gonorrhea. Common brands names include Zithromax, AzaSite, and Zmax, and is often prescribed for other infectious conditions as a multiday Zpack. |
| B |
| Best Practices | Best practices are peer-validated techniques, procedures, and solutions that prove successful and are solidly grounded in actual experience in operations, training, and exercises. |
| C |
| Capabilities-Based Planning | Capabilities-based planning is defined as planning, under uncertainty, to build capabilities suitable for a wide range of threats and hazards while working within an economic framework that necessitates prioritization and choice. Capabilities-based planning is the basis for guidance such as the National Preparedness Goal. |
| Capability | A capability may be delivered with any combination of properly planned, organized, equipped, trained, and exercised personnel to achieve an intended target. |
| Capability Target | Capability targets are the performance thresholds for a core capability. Capability targets may be derived from Threat and Hazard Identification and Risk Assessments (THIRAs), subject-matter experts, national guidance, or industry standards. |
| Cefixime | An oral cephalosporin antimicrobial that is listed as an alternative treatment for gonorrhea in CDC’s Sexually Transmitted Diseases Treatment Guidelines, 2015. Until 2012, cefixime was a recommended treatment for gonorrhea. A common brand name of cefixime is Suprax. |
| Ceftriaxone | An injectable cephalosporin antimicrobial that can be delivered intramuscularly or intravenously. Ceftriaxone is the recommended treatment for gonorrhea and should be administered with azithromycin. A common brand name is Rocephin. |
| Ceftriaxone-Resistant *Neisseria Gonorrhoeae* | A gonococcal infection that demonstrates laboratory-based antimicrobial resistance (as evidenced by substantially elevated minimum inhibitory concentrations by AST, such as ceftriaxone MICs ≥1.0 µg/ml) and which may have been unsuccessfully treated with recommended ceftriaxone-based therapy. |
| Centers for Disease Control and Prevention (CDC) | The Centers for Disease Control and Prevention, a federal agency in the Department of Health and Human Services (DHHS), provide management and financial support for the SURRG program, lead national surveillance of gonococcal resistance, and publish national treatment guidelines for STDs, including gonorrhea. |
| Cephalosporin | A large group of broad-spectrum antimicrobials that function by inhibition of bacterial cell wall synthesis. The cephalosporin class includes third-generation cephalosporins ceftriaxone and cefixime. |
| Concept and Objectives (C&O) Meeting | A C&O Meeting is the formal beginning of the exercise planning process. It is held to identify the scope and objectives of the exercise. For less complex exercises and for organizations with limited resources, the C&O Meeting can be conducted in conjunction with the IPM. |
| Core Capabilities | Distinct critical elements necessary to achieve the National Preparedness Goal. |
| Corrective Action | Corrective actions are the concrete, actionable steps outlined in an IP that are intended to resolve preparedness gaps and shortcomings experienced in exercises or real-world events. |
| Critical Tasks | Critical tasks are the distinct elements required to perform a core capability. Critical tasks may be derived from Mission Area Frameworks, organizational operations plans or SOPs, or discipline-specific standards. |
| Culture | A laboratory method of growing bacteria by letting them reproduce in culture medium under controlled laboratory conditions. Bacterial cultures are used to determine the type of organism, the abundance of organisms in the sample, and the viability of the organism (can help distinguish an active gonococcal infection from residual DNA [detected by NAAT] from a successfully treated infection). *N. gonorrhoeae* culture provides a specimen for antibiotic susceptibility testing (AST). |
| D |
| Disease Intervention Specialists (DIS) | A backbone of public health in the United States, DIS confirm treatment, conduct patient interviews, provide patient counseling, conduct partner services (locate sexual partners to cases and link them to testing and treatment), and provide a growing number of other critical public health services, such as linkage to HIV care. |
| Drill | A drill is a coordinated, supervised activity usually employed to validate a specific operation or function in a single agency or organization. Drills are commonly used to provide training on new equipment, develop or validate new policies or procedures, or practice and maintain current skills. |
| E |
| End of Exercise (EndEx)  | The official conclusion of an exercise. |
| Enhanced Gonococcal Isolate Surveillance Project (eGISP) | The Enhanced Gonococcal Isolate Surveillance Project strengthens surveillance of resistant gonorrhea and increases state and local capacity to detect and monitor it. In select STD clinics, eGISP collects samples from men with gonococcal urethritis as well as from women and extragenital sites. These specimens are sent to regional laboratories for susceptibility testing. |
| Epsilometer Test (Etest) | Epsilometer **test (Etest)** is an ‘exponential gradient’ method of determining of antimicrobial susceptibility Etest consists of a predefined gradient of antibiotic concentrations on a plastic strip and is used to determine the Minimum Inhibitory Concentration (MIC) of antibiotics. |
| Ertapenem | Ertapenem is a [carbapenem](https://en.wikipedia.org/wiki/Carbapenem) [antibiotic](https://en.wikipedia.org/wiki/Antibiotic) that is delivered intravenously. Ertapenem is a last round treatment for gonorrhea cases that are resistant to cephalosporins. A common brand name is Invanz. |
| Eswab | A collection and transport system that maintains viability of bacteria at room and refrigerator temperature for up to 48 hours prior. |
| Evaluation Plan (EvalPlan) | The EvalPlan is typically used for exercises of a large scope and scale. An EvalPlan provides evaluation staff with guidance and instructions on evaluation or observation methodology to be used as well as essential materials required to execute their specific functions. |
| Evaluation Team | The evaluation team consists of evaluators trained to observe and record participant actions. These individuals should be familiar with the exercising jurisdiction’s plans, policies, procedures, and agreements. |
| Evaluator | Evaluators, selected from participating agencies, are chosen based on their expertise in the functional areas they will observe. Evaluators use EEGs to measure and assess performance, capture unresolved issues, and analyze exercise results. Evaluators passively assess and document players’ performance against established emergency plans and exercise evaluation criteria, in accordance with HSEEP standards and without interfering with exercise flow. |
| Evaluator Briefing | The Evaluator Briefing is a pre-exercise overview for evaluators and the exercise administrative staff. The briefing summarizes the EvalPlan and focuses on explaining the roles and responsibilities of evaluators. |
| Evaluator Debriefing | The Evaluator Debriefing provides a forum for functional area evaluators and observers to review the exercise. The exercise planning team leader facilitates this debriefing, which provides each evaluator and observer with an opportunity to provide an overview of the functional area they observed and to discuss both strengths and areas for improvement. During the debriefing, evaluators complete and submit their EEGs and their Participant Feedback Forms. Debriefing results are captured for inclusion in the AAR/IP. |
| Event | Within the MSEL, an event is an expected action that is anticipated to take place during an exercise. |
| Exercise | An exercise is an instrument to train for, assess, practice, and improve performance in prevention, protection, mitigation, response, and recovery capabilities in a risk-free environment. Exercises can be used for testing and validating policies, plans, procedures, training, equipment, and interagency agreements; clarifying and training personnel in roles and responsibilities; improving interagency coordination and communications; improving individual performance; identifying gaps in resources; and identifying opportunities for improvement. |
| Exercise Director | The Exercise Director oversees all exercise functions during exercise conduct; oversees and remains in contact with controllers and evaluators; debriefs controllers and evaluators following the exercise; and oversees setup and cleanup of the exercise as well as positioning of controllers and evaluators. |
| Exercise Evaluation Guide (EEG) | EEGs provide a template for observing and collecting exercise data in relation to objectives and associated core capabilities. EEGs typically identify targets and critical tasks for exercise objectives and core capabilities and enable evaluators to capture structured and unstructured data regarding exercise performance. Evaluators should develop and customize EEGs to meet the unique objectives of their exercise and to reflect jurisdiction-specific capability targets. |
| Exercise Planning Team | The exercise planning team is responsible for the successful execution of all aspects of an individual exercise. The planning team determines exercise objectives and core capabilities, creates a realistic scenario to achieve the exercise objectives, and develops documents to guide exercise conduct and evaluation. The planning team’s organization and management principles should include clearly defined roles and responsibilities and a manageable span of control. |
| Exercise Play Rules | Exercise play rules are the parameters that exercise participants follow during the exercise. Exercise play rules describe appropriate exercise behavior, particularly in the case of real-world emergencies. |
| Exercise Program Management | Exercise program management is the process of overseeing a variety of individual exercises and supporting activities sustained over time. An effective exercise program helps whole community stakeholders maximize efficiency, resources, time, and funding by ensuring that individual exercises are part of a coordinated, integrated approach to building, sustaining, and delivering core capabilities. |
| Exercise Program Manager | The exercise program manager develops a self-sustaining exercise program through program budget management oversight, exercise conduct, and improvement tracking monitoring and reporting. |
| Exercise Project Management | Exercise project management is the act of engaging in design and development, conduct, evaluation, and improvement planning for an individual exercise. Effective project management ensures that all aspects of planning and executing an individual exercise are done efficiently and are grounded in common approaches and best practices. |
| F |
| Facilitated Discussion | A facilitated discussion is the focused discussion of specific issues through a facilitator with functional area or subject-matter expertise. |
| Facilitator | During a discussion-based exercise, the facilitator(s) is responsible for keeping participant discussions on track with exercise objectives and ensuring all issues and objectives are explored as thoroughly as possible within time constraints. If an exercise uses breakout groups, more than one facilitator may be needed. |
| Final Planning Meeting (FPM) | The FPM is the final forum for reviewing exercise processes and procedures. An FPM should be conducted for all exercises to ensure that all elements of the exercise are ready for conduct. Prior to the FPM, the exercise planning team receives final drafts of all exercise materials. No major changes to exercise’s design, scope, or supporting documentation should take place at or following the FPM. The FPM ensures that all logistical requirements have been met, outstanding issues have been identified and resolved, and exercise products are ready for printing. |
| G |
| Gonococcal Isolate Surveillance Project (GISP) | The Gonococcal Isolate Surveillance Project monitors U.S. antibiotic resistance trends in gonorrhea. Through the collaborative effort of selected STD clinics and their local laboratories, regional laboratories, and CDC, GISP’s collected data helps ensure gonorrhea receives the right antibiotic treatment. GISP monitors antimicrobial susceptibility of approximately 5,000 male gonococcal urethritis cases seen in 26 STD clinics. |
| Gram Stain | Gram stain is a laboratory technique used to differentiate Gram-positive and Gram-negative bacteria by adding a stain to a slide of a specimen and looking under a microscope. Gram stain is often used in STD clinics with male urethral discharge specimens to quickly diagnose *Neisseria gonorrhoeae*. For *Neisseria gonorrhoeae,* Gram stain is not sensitive to and therefore not recommended for use on specimens collected from the cervix, throat, or rectum. |
| H |
| Health Alert Network (HAN) | CDC’s Health Alert Network (HAN) is CDC’s primary method of sharing cleared information about urgent public health incidents with public information officers; federal, state, territorial, tribal, and local public health practitioners; clinicians; and public health laboratories. |
| Homeland Security Exercise and Evaluation Program (HSEEP) | HSEEP is a 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. |
| Hot Wash | A Hot Wash is a facilitated discussion held immediately after an exercise among exercise players. It captures feedback about any issues, concerns, or proposed improvements players may have about the exercise. The Hot Wash is an opportunity for players to voice their opinions on the exercise and their own performance. |
| I |
| Improvement Plan (IP) | The IP identifies specific corrective actions, assigns them to responsible parties, and establishes target dates for their completion. The IP is developed in conjunction with the After-Action Report. |
| Incident Command Structure (ICS) | An incident management structure is a predetermined organizational structure used to manage the planning, operational, logistical, financial, and administrative components of an outbreak event. The ICS is an essential tool for command, control, and coordination of resources during an outbreak. |
| Incubation Period | The time from the moment of exposure to an infectious agent until signs and symptoms of the disease appear. |
| Initial Planning Meeting (IPM) | The IPM marks the beginning of the exercise development phase. An IPM’s purpose is to determine exercise scope by gathering input from the exercise planning team; design requirements and conditions (e.g., assumptions and artificialities); objectives; extent of play; and scenario variables (e.g., time, location, hazard selection). The IPM is also used to develop exercise documentation by obtaining the planning team’s input on exercise location, schedule, duration, and other relevant details. |
| Inject | Injects are Master Scenario Event Lists (MSEL) events that prompt players to implement the plans, policies, and procedures that planners want the exercise to validate. Exercise controllers provide injects to exercise players to drive exercise play toward achievement of objectives. Injects can be written, oral, televised, and/or transmitted via any means (e.g., fax, phone, e-mail, voice, radio). Injects can be contextual or contingency. |
| L |
| Lead Evaluator | The lead evaluator should participate fully as a member of the exercise planning team and should be a senior-level individual familiar with all relevant issues associated with the exercise, including plans, policies, and procedures of the exercising organizations; Incident Command and decision-making processes of the exercising organizations; and interagency and/or inter-jurisdictional coordination issues relevant to the exercise. The lead evaluator should have the management skills needed to oversee a team of evaluators over an extended process as well as the knowledge and analytical skills to undertake a thorough and accurate analysis of all capabilities being tested during an exercise. |
| Logistics Section | The Logistics Section of the exercise planning team provides the supplies, materials, facilities, and services that enable the exercise to function smoothly without outside interference or disruption. This section consists of two subsections: service and support. The service subsection provides transportation, signage, food and drinks, real-life medical capability, and exercise security. The support subsection provides communications, purchasing, general supplies, management of VIPs, observer processing, and recruitment and management of actors. |
| M |
| Midterm Planning Meeting (MPM) | The MPM is a planning meeting for exercises. It is used to discuss exercise organization and staffing concepts; scenario and timeline development; and scheduling, logistics, and administrative requirements. It is also a session to review draft documentation. |
| Minimum Inhibitory Concentrations (MICs) | The lowest antibiotic concentration that inhibits visible growth of bacteria in the laboratory. AST by Etest and agar dilution generate results in MICs. |
| Moderated Discussion | A moderated discussion is a facilitated, discussion-based forum where a representative from each functional area breakout presents to participants a summary and results from a group’s earlier facilitated discussion. During moderated discussions, spokespersons summarize the facilitated discussion, present key findings and issues, and discuss any unresolved issues or questions. At the end of the moderated discussion period, the floor is open for questions. |
| Morbidity and Mortality Weekly Report *(*MMWR*)* | The Morbidity and Mortality Weekly Report (MMWR) is weekly scientific public health publications prepared by the Centers for Disease Control and Prevention (CDC). |
| Multidrug Resistance/Extensively Drug Resistance | [Multidrug resistance is antimicrobial resistance](https://en.wikipedia.org/wiki/Antimicrobial_resistance) shown by a species of [microorganism](https://en.wikipedia.org/wiki/Microorganism), such as bacteria, to multiple [antimicrobial](https://en.wikipedia.org/wiki/Antimicrobial) drugs. Extensively drug-resistant TB (XDR TB) is a rare type of multidrug-resistance in which bacteria are resistant to first- and second-line treatment options. |
| N |
| National Exercise Program (NEP) | The NEP’s mission is to serve as the principal exercise mechanism for examining the preparedness and measuring the readiness of the United States across the entire homeland security enterprise by designing, coordinating, conducting, and evaluating a progressive cycle of exercises that rigorously test the Nation’s ability to perform missions or functions that prevent, protect against, respond to, recover from, and mitigate all hazards. |
| National Incident Management System (NIMS) | The NIMS standard was designed to enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive system for incident management. It is a system mandated by Homeland Security Presidential Directive 5 (HSPD-5) that provides a consistent, nationwide approach for Federal, State, local, tribal, and territorial governments; the private sector; and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. |
| Nucleic Acid Amplification Testing (NAAT) | Nucleic acid amplification testing is a laboratory technique that can detect very small amounts of DNA or RNA in test samples. NAATs test this DNA or RNA to identify specific bacteria, such as *N. gonorrhoeae* and *C. trachomatis*. |
| O |
| Objectives | Objectives are the distinct outcomes an organization wishes to achieve during an individual exercise. Objectives should reflect the exercise sponsor’s specific needs, environment, plans, and procedures, while providing a framework for scenario development and a basis for evaluation. Objectives can be based on outcomes from a THIRA, from Homeland Security Strategies, and other preparedness documents. Planners should create objectives that are specific, measurable, achievable, relevant, and time-bound (SMART) and should limit the number of exercise objectives to enable timely exercise conduct, facilitate reasonable scenario design, and support successful evaluation. |
| Observer | Observers do not directly participate in the exercise; rather, they observe selected segments of the exercise as it unfolds, while remaining separated from player activities. Observers view the exercise from a designated observation area and are asked to remain within the observation area during the exercise. A dedicated controller or public information officer should be assigned to manage these groups. In a discussion-based exercise, observers may support the development of player responses to the situation during the discussion by delivering messages or citing references. |
| P |
| Participant | Participants are the overarching group that includes all players, controllers, evaluators, and staff members involved in conducting an exercise. |
| Participant Feedback Form | Players and observers receive a Participant Feedback Form after the end of the exercise that asks for input regarding observed strengths and areas for improvement that players identified during the exercise. Providing Participant Feedback Forms to players during the exercise Hot Wash allows them to provide evaluators with their insights into decisions made and actions taken. A Participant Feedback Form also provides players the opportunity to provide constructive criticism about the design, control, or logistics of the exercise to help enhance future exercises. Information collected from feedback forms contributes to the issues, observations, recommendations, and corrective actions in the After-Action Report/Improvement Plan. |
| Planning Meetings | Effective exercise design and development involve a combination of exercise planning meetings. These meetings bring together the full range of exercise stakeholders to discuss and agree on key aspects of the exercise’s design and development. Various factors—including exercise scope, type, and complexity—inform the types of meetings needed, and exercise planners should tailor the planning meeting schedule to suit the nature of the exercise. |
| Planning Section | The Planning Section of the exercise planning team is responsible for compiling and developing all exercise documentation. To accomplish this effectively, the Planning Section also collects and reviews policies, plans, and procedures that will be assessed in the exercise. This group is also responsible for planning exercise evaluation. During the exercise, the Planning Section may be responsible for developing simulated actions by agencies not participating in the exercise and for setting up a simulation cell (SimCell) as required. |
| Player | Players have an active role in preventing, responding to, or recovering from the risks and hazards presented in the scenario, by either discussing or performing their regular roles and responsibilities. Players initiate actions that will respond to and/or mitigate the simulated emergency. |
| Player Briefing | A Player Briefing is held immediately before an exercise and addresses individual roles and responsibilities, exercise parameters, safety, badges, and any other logistical items. For a drill or full-scale exercise, Player Briefings typically occur in the exercise assembly area. |
| Preparedness | The actions taken to plan, organize, equip, train, and exercise to build and sustain the capabilities necessary to prevent, protect against, mitigate the effects of, respond to, and recover from those threats that pose the greatest risk to the security of the Nation. |
| Prevention | The capabilities necessary to avoid, prevent, or stop a threatened or actual act of terrorism. |
| R |
| Recovery | The capabilities necessary to assist communities affected by an incident to recover effectively. |
| Response | The capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred. |
| S |
| Scenario | A scenario provides the storyline that drives an exercise to test objectives. The scenario selected for an exercise should be informed by the actual threats and hazards faced by the exercise stakeholders. The exercise scenario should realistically stress the delivery of core capabilities, providing a mechanism for testing objectives and assessing core capability levels and gaps. |
| Scope | Scope is an indicator of extent of the exercise. The key elements in defining exercise scope include exercise type, participation level, exercise duration, exercise location, and exercise parameters. |
| Seminar | Seminars generally orient participants to, or provide an overview of, authorities, strategies, plans, policies, procedures, protocols, resources, concepts, and ideas. As a discussion-based exercise, seminars can be valuable for entities that are developing or making major changes to existing plans or procedures. Seminars can be similarly helpful when attempting to gain awareness of, or assess, the capabilities of interagency or inter-jurisdictional operations. |
| Sensitivity | Sensitivity, or test sensitivity, is the ability of a screening or diagnostic test to correctly identify patients with the disease. A test with 100% sensitivity correctly identifies all patients with the disease. A test with 80% sensitivity identifies 80% of patients with the disease (true positives) and fails to identify 20% of patients with disease (false negatives). |
| Situation Manual (SitMan) | A SitMan is provided for TTXs and games as the core documentation that provides the textual background for a multimedia, facilitated exercise. The SitMan supports the scenario narrative and serves as the primary reference material for all participants during conduct. |
| Specificity | Specificity, or test specificity, is the ability of a screening or diagnostic test to correctly identify patients who do not have a disease. A test with 100% specificity correctly identifies all patients who do not have a disease. A test with 90% specificity identifies 90% of patients who do not have a disease (true negatives) and fails to identify 10% of patients who do not have disease (false positives). |
| Sponsor | The sponsor is the primary funding organization for an exercise. |
| Start of Exercise (StartEx) | The official beginning of an exercise. |
| Strengthening the U.S. Response to Resistant Gonorrhea (SURRG) | Strengthening the U.S. Response to Resistant Gonorrhea began in 2016 with three goals: 1) enhance domestic antibiotic-resistant gonorrhea surveillance and infrastructure; 2) build capacity for rapid detection and response to resistant gonorrhea through increased culturing and local antibiotic susceptibility testing; and 3) conduct rapid field investigations to stop the spread of resistant infections. The project also aims to gain a better understanding of the epidemiological factors contributing to resistant gonorrhea. Eight jurisdictions collect specimens, perform local antibiotic susceptibility testing, and analyze data, helping guide national recommendations for the public health response to resistant gonorrhea. |
| Subject-Matter Expert (SME) | SMEs add functional knowledge and expertise in a specific area or in performing a specialized job, task, or skill to the exercise planning team. They help make the scenario realistic and plausible and ensure jurisdictions have the appropriate capabilities to respond. SMEs are ideal for the positions of controllers and evaluators. |
| Support Staff | The exercise support staff includes individuals who are assigned administrative and logistical support tasks during the exercise (e.g., registration, catering). |
| T |
| Tabletop Exercise (TTX) | A TTX is typically held in an informal setting intended to generate discussion of various issues regarding a hypothetical, simulated emergency. TTXs can be used to enhance general awareness, validate plans and procedures, rehearse concepts, and/or assess the types of systems needed to guide the prevention of, protection from, mitigation of, response to, and recovery from a defined incident. Generally, TTXs are aimed at facilitating conceptual understanding, identifying strengths and areas for improvement, and/or achieving changes in attitudes. |
| Test-of-Cure (TOC) | Repeat testing for gonorrhea, either by nucleic acid amplification testing (NAAT) or culture performed within two weeks of diagnosis and treatment, to ensure that an infection was cured. TOC can identify treatment failures in asymptomatic patients. |
| Training and Exercise Plan (TEP) | The TEP is the foundation document guiding a successful exercise program. The TEP articulates overall exercise program priorities and outlines a schedule of training and exercise activities designed to meet those priorities. |
| Training and Exercise Planning Workshop (TEPW) | A TEPW is usually conducted to create a Multi-year TEP. At a TEPW, stakeholders work together in a collaborative workshop environment to identify and set exercise program priorities based on core capabilities. Based on these program priorities, TEPW stakeholders develop a multi-year schedule of specific training and exercises. |
| Treatment Failure | Unsuccessful treatment of gonorrhea despite administration of CDC-recommended treatment with ceftriaxone and azithromycin. Treatment failure may be evident clinically through persistence of symptoms despite treatment or may be evident through retesting of patients with asymptomatic gonococcal infections. |
| V |
| Venue | A venue is the primary location where exercise is conducted. |
| W |
| Whole Community | A focus on enabling the participation in national preparedness activities of a wider range of stakeholders from the Federal, State, local, tribal, and territorial government, the private and nonprofit sectors, including nongovernmental organizations (NGOs), and the general public in order to foster better coordination and working relationships. Used interchangeably with “all-of-Nation.” |
| Workshop | Although like seminars, workshops differ in two important aspects: participant interaction is increased, and the focus is placed on achieving or building a product. Effective workshops entail the broadest attendance by relevant stakeholders. Products produced from a workshop can include new standard operating procedures, emergency operations plans, continuity of operations plans, and mutual aid agreements. To be effective, workshops should focus on a specific issue, and the desired objective, product, or goal must be clearly defined. |

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## Acronyms and Abbreviations

|  |  |
| --- | --- |
| Acronym/Abbreviation | Description |
| AAM  | After-Action Meeting |
| AAR  | After-Action Report |
| ARGC  | Antibiotic-Resistant Gonorrhea |
| ARLN | Antimicrobial Regional Laboratory Network |
| AST | Antibiotic Susceptibility Testing |
| C | Chlamydia |
| CAP | Corrective Action Program |
| CDC | Centers for Disease Control and Prevention |
| CDIP | Communicable Disease & Immunization Program |
| Ceph-R NG | Cephalosporin-Resistant *Neisseria Gonorrhoeae* |
| CLSI | Clinical and Laboratory Standards Institute |
| C&O  | Concept and Objectives |
| DHHS | U.S. Department of Health and Human Services |
| DHS  | U.S. Department of Homeland Security |
| DIS | Disease Intervention Specialists |
| DNA | Deoxyribonucleic Acid |
| EEG  | Exercise Evaluation Guide |
| eGISP | Enhanced Gonococcal Isolate Surveillance Project |
| EndEx  | End of Exercise |
| EPT | Expedited Partner Therapy |
| Etest | Epsilometer Test |
| EvalPlan  | Evaluation Plan |
| FaCM | Facilitator Coordination Meeting |
| FCM | Final Coordination Meeting |
| FEMA  | Federal Emergency Management Agency |
| FPM  | Final Planning Meeting |
| GC | Gonorrhea |
| GISP | Gonococcal Isolate Surveillance Project |
| HAN | Health Alert Network |
| HIV | Human Immunodeficiency Virus |
| HSEEP  | Homeland Security Exercise and Evaluation Program |
| HSPD | Homeland Security Presidential Directive |
| ICS  | Incident Command System |
| IP  | Improvement Plan |
| IPM  | Initial Planning Meeting |
| IV | Intravenous |
| MIC | Minimum Inhibitory Concentration |
| MMWR | Morbidity and Mortality Weekly Report |
| MPM  | Midterm Planning Meeting |
| MSEL | Master Scenario Events List |
| MSM | Men who have Sex with Men |
| N | *Neisseria* |
| NAAT | Nucleic Acid Amplification Testing |
| NEP  | National Exercise Program |
| NG | *Neisseria Gonorrhoeae* |
| NGO  | Nongovernmental Organization |
| NIMS  | National Incident Management System |
| NNPTC | National Network of STD Clinical Prevention Training Centers |
| POA&M | Plan of Action & Milestones |
| POC  | Point of Contact |
| RNA | Ribonucleic Acid |
| SimCell  | Simulation Cell |
| SitMan  | Situational Manual |
| SMART  | Specific, Measurable, Achievable, Relevant, Time-bound |
| SME  | Subject-Matter Expert |
| SOP  | Standard Operating Procedure |
| StartEx  | Start of Exercise |
| STD | Sexually Transmitted Disease |
| STDPP | STD Prevention Program |
| STI | Sexually Transmitted Infection |
| SURRG | Strengthening the U.S. Response to Resistant Gonorrhea |
| TB | Tuberculosis |
| TEP  | Training and Exercise Plan |
| TEPW  | Training and Exercise Planning Workshop |
| THIRA  | Threat and Hazard Identification and Risk Assessment |
| TOC | Test-of-Cure |
| TTX  | Tabletop Exercise |
| Tx | Treatment |
| VIP | Very Important Person |
| XDR | Extreme Drug Resistant |
| XPA  | Extent of Play Agreement |

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## References and Resources

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* Antibiotic Threats in the United States 2019, Centers for Disease Control and Prevention
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* Ceftriaxone-Resistant Gonorrhea Outbreak Response Plan Guide, Centers for Disease Control and Prevention
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* National Incident Management System (NIMS), Department of Homeland Security Federal Emergency Management Agency
<https://www.fema.gov/national-incident-management-system>
* National Incident Management System Doctrine Supporting Guides & Tools, Department of Homeland Security Federal Emergency Management Agency <https://www.fema.gov/nims-doctrine-supporting-guides-tools>
* National Network of STD Clinical Prevention Training Centers (NNPTC) STD Clinical Consultation Network
<https://www.stdccn.org>
* National Sexually Transmitted Disease Curriculum, University of Washington STD Prevention Training Center and the University of Washington
<https://www.std.uw.edu/>
* Preparedness Toolkit, Department of Homeland Security Federal Emergency Management Agency
<https://preptoolkit.fema.gov/>
* Sexually Transmitted Diseases Prevention Resources, Centers for Disease Control and Prevention
<https://www.cdc.gov/std/publications/STDPreventionResources_WEB.pdf>
* Sexually Transmitted Disease (STD) Treatment Guidelines 2015, Centers for Disease Control and Prevention
<https://www.cdc.gov/std/tg2015/gonorrhea.htm>
	+ The 2015 STD Treatment (Tx) Guide mobile app is free and available for [Apple devices](https://itunes.apple.com/us/app/std-tx-guide/id655206856?mt=8) and [Android devices](https://play.google.com/store/apps/details?id=gov.cdc.stdtxguide&hl=en)
* Talking Points for Gonorrhea with Reduced Susceptibility, Centers for Disease Control and Prevention
<https://www.cdc.gov/std/program/outbreakresources/default.htm>