



14th Century Problems: A Pneumonic Plague Tabletop Exercise

Situation Manual

May 6, 2022

This Situation Manual (SitMan) provides exercise participants with all the necessary tools for their roles in the exercise. Some exercise material is intended for the exclusive use of exercise planners, facilitators, and evaluators, but players may view other materials that are necessary to their performance. All exercise participants may view the SitMan.

EXERCISE OVERVIEW

Exercise Name	14th Century Problems: A Pneumonic Plague Tabletop Exercise
Exercise Dates	Friday, May 6, 2022 10:00AM-12:00PM MST
Scope	This is a virtual discussion-based exercise planned for two-hours. Exercise play is limited to the South Region Healthcare Coalition members and partner organizations.
Mission Area(s)	<ul style="list-style-type: none"> • Mitigation • Response
Core Capabilities	<ul style="list-style-type: none"> • Operational Coordination • Public Health and Medical Services • Situational Awareness • Information Sharing
Hospital Preparedness Program (HPP) Capabilities	<ul style="list-style-type: none"> • HPP Capability 2: Health Care and Medical Response Coordination • HPP Capability 3: Continuity of Health Care Service Delivery • HPP Capability 4: Medical Surge
Objectives	<ol style="list-style-type: none"> 1. Validate the plan and procedures of the SRHCC Infectious Disease Surge Annex. 2. Identify changes that need to be made in the SRHCC Infectious Disease Surge Annex based on the roles and capabilities of the involved partners. 3. Identify what information should be shared with SRHCC members during an infectious disease surge incident of this type.
Threat or Hazard	Infectious Disease Surge Incident
Scenario	Pneumonic Plague impacting the South Region of Colorado
Sponsor	South Region Healthcare Coalition (SRHCC)
Participating Organizations	For a full list of registered participants, please see Appendix B

Exercise Name	14th Century Problems: A Pneumonic Plague Tabletop Exercise
Point of Contact	Kimber Weddle SRHCC, Readiness and Response Coordination 970-343-2992 SRHCC.Coordinator@gmail.com https://www.southregionhcc.org/ Lauren Smith All Clear, Planning Specialist 458-225-4684 LaurenS@AllClearEMG.com

GENERAL INFORMATION

Exercise Purpose

The purpose of the 14th Century Problems TTX is to provide a common framework of understanding for the coalition-level Infectious Disease Surge Annex and an opportunity to identify planning elements to further develop the annex. *The goal of this exercise is to focus on information sharing and coordination strategies during an infectious disease surge incident, and to understand how public fear may impact coordination needs and efforts.*

Exercise Objectives and Core Capabilities

The following exercise objectives in Table 1 describe the expected outcomes for the exercise. The objectives are linked to Hospital Preparedness Program (HPP), Public Health Emergency Preparedness (PHEP) and Federal Emergency Management Agency (FEMA) core capabilities, which are distinct critical elements necessary to achieve the specific mission area(s). The objectives and aligned capabilities were developed and selected by the SRHCC Core Planning Team.

Table 1. Exercise Objectives and Associated Capabilities

Exercise Objective	HPP Capability	PHEP Capability	Core Capability
Objective One: Validate the plan and procedures of the SRHCC Infectious Disease Surge Annex.	<ul style="list-style-type: none"> • HPP Capability 2: Health Care and Medical Response Coordination • HPP Capability 3: Continuity of Health Care Service Delivery • HPP Capability 4: Medical Surge 	<ul style="list-style-type: none"> • Emergency Operations Coordination • Information Sharing 	<ul style="list-style-type: none"> • Operational Coordination • Public Health and Medical Services
Objective Two: Identify changes that need to be made in the SRHCC Infectious Disease Surge Annex based on the roles and capabilities of the involved partners.	<ul style="list-style-type: none"> • HPP Capability 2: Health Care and Medical Response Coordination 	<ul style="list-style-type: none"> • Emergency Operations Coordination • Information Sharing 	<ul style="list-style-type: none"> • Operational Coordination
Objective Three: Identify what information should be shared with SRHCC members during an infectious disease surge incident of this type.	<ul style="list-style-type: none"> • HPP Capability 2: Health Care and Medical Response Coordination 	<ul style="list-style-type: none"> • Emergency Operations Coordination • Information Sharing 	<ul style="list-style-type: none"> • Operational Coordination • Situational Awareness

PARTICIPANT ROLES AND RESPONSIBILITIES

The term *participant* encompasses many groups of people, not just those playing in the exercise. Groups of participants involved in the exercise, and their respective roles and responsibilities, are as follows:

- **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 emergency.
- **Observers:** Observers do not directly participate in the exercise. However, they may support the development of player responses to the situation during the discussion by asking relevant questions or providing subject matter expertise.
- **Facilitators:** Facilitators provide situation updates and moderate discussions. They also provide additional information or resolve questions as required. Key Exercise Planning Team members also may assist with facilitation as subject matter experts (SMEs) during the exercise.
- **Evaluators:** Evaluators are assigned to observe and document certain objectives during the exercise. Their primary role is to document player discussions, including how and if those discussions conform to plans, policies, and procedures.

VIRTUAL EXERCISE PARTICIPATION

Exercise Structure

This exercise will be a virtual, discussion-based exercise utilizing Zoom. Players will participate in the following modules:

- Module 1: Identification and Information Sharing
- Module 2: Coordination and Situational Awareness

Each module begins with a scenario update that summarizes key events occurring within that time. A series of questions following the scenario summary will guide the facilitated discussion of critical issues in each of the modules.

After each module, participants will engage in a brief report out based on the scenario and improvement areas noted.

Before the Exercise

- Register for the exercise by [Clicking Here](#). After registering for the exercise, participants will receive information on how to log in to the exercise on the exercise date. Please keep your registration confirmation email as it contains the link to log in on the day of the exercise.
- Please test audio and visual equipment on your computer or device prior to the exercise to ensure your technology is in good working order. If you require assistance logging in to the exercise, please speak with a member of your organization's Information Technology Team.
- Review the Zoom Guide ([Appendix C](#)).
- Review this SitMan in its entirety.

- Review the SRHCC Infectious Disease Surge Annex and the SRHCC Response Plan. See [Appendix E](#) for links to these plans.
- Review your organization's current Emergency Operations Plan.
- Identify the staff that you wish to participate on the day of the exercise. If they will be in an alternate location for participation, please also have them [register](#) for the exercise.

During the Exercise

- Due to the anticipated large number of participants, everyone will be initially placed in a Zoom waiting room. Once you have been admitted to the meeting, all attendees will be muted until exercise facilitation begins.
- Participation is welcome and encouraged. To participate you may unmute yourself on the Zoom Task Bar, by pressing *6 on your phone to unmute your device, or by using the chat feature.
- Have a copy of your organization's Emergency Operations Plan available for reference.
- Have access to this SitMan. You may choose to complete this SitMan on your computer or by hand on a printed copy.
- Login to the Zoom Meeting using your computer. The Zoom login information can be found in your registration confirmation email. Do not forget to link your audio to your computer and rename yourself as First Name, Last Name, Organization. For more information on how to complete this, please see [Appendix C](#).

Following the Exercise

- Participate in the exercise Hot Wash sharing Areas for Improvement, Strengths, and Gaps identified during the exercise.
- All exercise materials, including the PowerPoint and requested resources, will be shared following the exercise.
- Complete the Participant Feedback Form by Friday, May 13, 2022, by [Clicking Here](#).
- The exercise After-Action Report/Improvement (AAR/IP) will be shared with participants within 30 days of exercise completion (June 3, 2022). Once the After-Action Report/Improvement Plan has been shared, check to ensure that your organization is listed on the Exercise Participants Appendix. If necessary, for your organization, complete the organization specific Improvement Plan in the After-Action Report using your Organization Evaluation Charts at the end of each module.
- Keep a copy of the completed SitMan and AAR/IP for your records.

Exercise Guidelines

- This exercise will be held in an open, low-stress, no-fault environment. Varying viewpoints, even disagreements, may occur.

- Responses should be based on knowledge of current plans and capabilities – you do not have to have all the answers.
- Exercise-based decisions are not precedent setting.
- Problem-solving efforts should be the focus – It is expected that more questions than answers may be generated.
- Decisions are not precedent setting and may not reflect your organization’s final position on a given issue. This exercise is an opportunity to discuss and present multiple options and possible solutions.
- The situation updates, written material, and resources provided are the basis for discussion; it is not expected that participants will need to do additional research or review other materials prior to participation in this exercise.
- Participants are encouraged to use the SitMan as a reference and to fill out the Participant Feedback Form as you go; feedback is welcome!
- Use the notes pages available in the SitMan.

Exercise Assumptions and Artificialities

In any exercise, assumptions and artificialities may be necessary to complete play in the time allotted and/or account for logistical limitations. Exercise participants should accept that assumptions and artificialities are inherent in any exercise and should not allow these considerations to negatively impact their participation. During this exercise, the following apply:

- The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will be evaluated.
- All players receive information at the same time.
- The scenario for this exercise is artificial, however, it is plausible, and events occur as they are presented.
- There is no “hidden agenda” or any “trick questions.”
- ***Important: For the purposes of this exercise, the current COVID-19 situation and response is not a factor for exercise play. This exercise is not meant to diagnose the illness; the goal is to focus on information sharing and coordination strategies during an infectious disease surge incident.***

Exercise Evaluation

Evaluation of the exercise is based on the exercise objectives and aligned capabilities, capability targets, and critical tasks, which are documented in Exercise Evaluation Guides (EEGs). Evaluators have EEGs for each of their assigned areas. Additionally, players will be asked to complete [Participant Feedback Forms](#) by Friday, May 13, 2022. These documents, coupled with facilitator observations and notes, will be used to evaluate the exercise, and compile the After-Action Report (AAR).

CDC Frequently Asked Questions about Plague¹

What is plague?

Plague is a disease caused by *Yersinia pestis* (*Y. pestis*), a bacterium found in rodents and their fleas in many areas around the world.

Why are we concerned about pneumonic plague as a bioweapon?

Yersinia pestis used in an aerosol attack could cause cases of the pneumonic form of plague. One to six days after becoming infected with the bacteria, people would develop pneumonic plague. Once people have the disease, the bacteria can spread to others who have close contact with them. Because of the delay between being exposed to the bacteria and becoming sick, people could travel over a large area before becoming contagious and possibly infecting others. Controlling the disease would then be more difficult. A bioweapon carrying *Y. pestis* is possible because the bacterium occurs in nature and could be isolated and grown in quantity in a laboratory. Even so, manufacturing an effective weapon using *Y. pestis* would require advanced knowledge and technology.

Is pneumonic plague different from bubonic plague?

Yes. Both are caused by *Yersinia pestis*, but they are transmitted differently, and their symptoms differ. Pneumonic plague can be transmitted from person to person; bubonic plague cannot. Pneumonic plague affects the lungs and is transmitted when a person breathes in *Y. pestis* particles in the air. Bubonic plague is transmitted through the bite of an infected flea or exposure to infected material through a break in the skin. Symptoms include swollen, tender lymph glands called buboes. Buboes are not present in pneumonic plague. If bubonic plague is not treated, however, the bacteria can spread through the bloodstream and infect the lungs, causing a secondary case of pneumonic plague.

¹ Source: <https://emergency.cdc.gov/agent/plague/faq.asp>

MODULE ONE: NOTIFICATION AND ACTIVATION

Scenario

The birds of prey populations in Colorado have been decimated by a novel avian virus. As a result, there has been a significant increase in the rats, mice, moles, voles and prairie dog populations. This has led to an increase in the number of human interactions with these small mammal populations. As a result, the number of bubonic plague occurrences in Colorado has increased significantly, from less than 5 on average to 22 so far confirmed cases this year. No cases of pneumonic plague have been reported so far. Other western states are reporting similar patterns in birds of prey, small mammal populations and an increase in bubonic plague numbers. The national news media outlets have picked up the story and it is being delivered as the “summer to fear for your life from bubonic plague” and other states are issuing travel warnings to their Western state partners.

Public fear has caused irrational behaviors within communities. Pest exterminators are overwhelmed with requests to help eradicate mice and rats from people’s homes. Small provider practices are overwhelmed with people convinced they have bubonic plague, demanding to be tested. Call centers are noticing a significant uptick in calls from the community with plague questions such as “My cat caught a mouse and I disposed of it. I am worried I am now at risk for plague. Where do I go to get tested?” Call centers also observe that the public does not generally understand the difference between bubonic and pneumonic plague (the first being unable to be transmitted person-to-person, the latter able to do so via airborne droplets). CDPHE is refusing to test people who do not meet the testing criteria, causing anger and frustration from local patient populations.

Key Issues

- An uptick in Bubonic Plague cases is being reported across the healthcare system in Colorado.
- 22 cases have been reported so far this year alone, which is up significantly from the typical less than 5. CDPHE has been unable to identify epidemiological links to the confirmed plague cases. The CDC has been called in to provide technical assistance and support.
- The national news media outlets have picked up the story and there is growing public fear about ‘bubonic plague sweeping the nation.’ The media influences public perception and sparks rising fears and fear-based behaviors.
- Local providers have been overrun with patients convinced they have the plague, demanding to be tested.

Discussion Questions

Based on the information provided, participate in the large group discussion based on the following questions. ***Not all questions may pertain to your organization. Please respond to the questions as they apply.*** Identify any critical issues, decisions, requirements, or challenges that should be addressed at this time. Use the areas below to document any notes.

1. What alerts and notification mechanisms are in place to ensure response partners are aware of the emerging situation?

2. How can the SRHCC support local and state public health with messaging?

3. What is your organization’s initial actions upon notification of this emerging infectious disease?

4. What are the roles and responsibilities of your organization regarding an emerging infectious disease?

Operational Mission Area	Lead Organization	Support Organization	Notes
Surveillance			
Safety and Infection Control			
Non-pharmaceutical interventions			
Surge staffing			
Laboratory			
Waste management and decontamination			
Patient care/management			
Medical countermeasures			
Community based testing			
Patient transport			
Mass fatality			
Behavioral health			
At-risk populations			

5. Where/how would your organization obtain operational guidance for infectious disease surge care prior to and/or during an emerging infectious disease incident?

6. Which agencies are you looking to obtain this guidance?

7. Describe how your information sharing plan addresses the following (as applicable):
 - External Partners
 - Patients and visitors
 - Staff
 - Public

8. Would this incident prompt the activation of the SRHCC Response Plan?

9. Identify key notification and activation triggers for your respective EOPs to become activated regarding an emerging infectious disease incident. Consideration: What role does public fear play (if any) in the trigger decisions to begin activation and notifications within your response plan?

MODULE ONE: BRIEF-BACK

Identify a notetaker/spokesperson who can report out during the Module One Brief-Back.

Discipline	Organization Role	Identified Gaps	Areas for Improvement
Ancillary Healthcare			
Emergency Management			
Emergency Medical Services			
Healthcare Organizations Serving Aging Populations			
Hospitals			
Public Health			

MODULE ONE: ORGANIZATION EVALUATION CHART

Use the following chart to document any organization specific strengths or areas for improvement. For each area for improvement, identify a mitigation action item.

Strengths	
1.	
2.	
3.	
Areas for Improvement	Mitigation Action Items (i.e., planning, training, exercise, equipment)
1.	1.
2.	2.
3.	3.

MODULE 2: COORDINATION AND SITUATIONAL AWARENESS

Scenario

Suddenly, within the span of a week, southern Colorado has 7 pneumonic plague patients, all requiring hospitalization. Now there is confirmed human-to-human pneumonic plague happening within your community. The total community spread remains unknown.

As this investigation is underway, there is an acute media frenzy. This causes an extreme spike in public fear and public behaviors due to fear become increasingly burdensome on the healthcare system. Additionally, public behaviors are having unanticipated consequences such as the demand for home rodent eradication systems; stores are unable to keep mouse traps in stock and rat poison is nowhere to be found on the shelves; and local shelters report a huge surge in cat adoptions.

Upon further investigation by state and local health officials it appears that patient zero was a small kid who contracted it from the family cat. The child then spread it to his sibling and parents. The child also went to a daycare where he had given it to one teacher and two other students.

Key Issues

- 7 pneumonic plague patients are hospitalized. 2 of which then ultimately die, one of whom is a 5 year old child.
- Public fear has caused dramatic increases in the demand for plague tests, rodent eradication systems, and cat adoptions.
- CDPHE has activated the State Emergency Operations Center to respond to the pneumonic plague outbreak in the south Colorado.

Module 2 Discussion Questions

Based on the information provided, participate in the large group discussion based on the following questions. *Not all questions may pertain to your organization. Please respond to the questions as they apply.* Identify any critical issues, decisions, requirements, or challenges that should be addressed at this time. Use the areas below to document any notes.

1. What are the top actions your organization is engaged in, based on the current situation in the scenario?

MODULE TWO: BRIEF-BACK

Identify a notetaker/spokesperson who can report out at the Module Two Brief-Back.

Discipline	Current Process for Receiving Situational Awareness	Identified Gaps	Areas for Improvement
Ancillary Healthcare			
Emergency Management			
Emergency Medical Services			
Healthcare Organizations Serving Aging Populations			
Healthcare Coalition			
Hospitals			
Public Health			

MODULE TWO: ORGANIZATION EVALUATION CHART

Use the following chart to document any organization specific strengths or areas for improvement. For each area for improvement, identify a mitigation action item.

Strengths	
1.	
2.	
3.	
Areas for Improvement	Mitigation Action Items (i.e., planning, training, exercise, equipment)
1.	1.
2.	2.
3.	3.

APPENDIX A: EXERCISE SCHEDULE

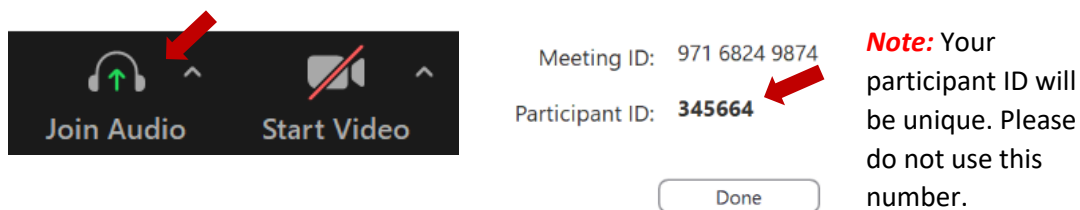
Time	Activity
Friday, May 6, 2022	
9:45AM	Registration- Enter the Zoom Room
10:00AM	Welcome and Opening Remarks
10:15AM	Module 1: Briefing and Discussion
10:45AM	Module 1: Report Out
11:00AM	Module 2: Briefing and Discussion
11:20AM	Module 2: Report Out
11:30AM	Hotwash
11:55AM	Closing Comments and Next Steps

APPENDIX C: ZOOM GUIDE

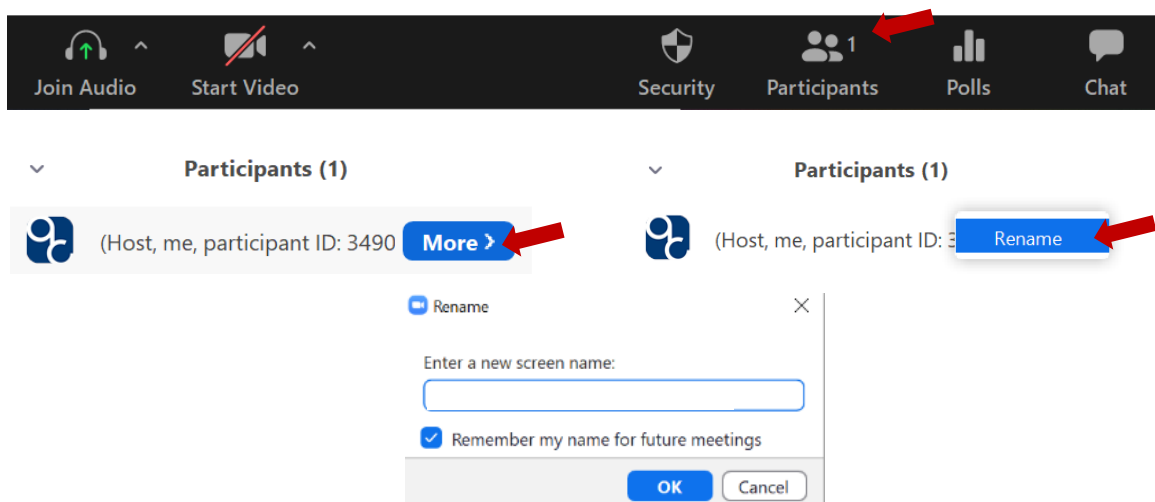
Thank you for participating in the SRHCC Virtual Tabletop Exercise. We understand the virtual experience can be difficult to navigate. If you have any additional questions not covered by this Cheat Sheet, please feel free to reach out to Lauren Smith at LaurenS@AllClearEMG.com

Log in to the Zoom meeting on your computer at least 15 minutes prior to the exercise (**9:45AM MST 5/6/2022**). Your login information can be found in your exercise confirmation email sent via Zoom.

IMPORTANT: Please log in to the Zoom meeting using your computer. For audio, you may use either your phone or your computer. If you plan to use your phone for audio, please ensure that you link your computer with the audio by pressing #Participant ID# (See below). **By simply dialing in with your phone and not using your computer, we will be unable to guarantee you the full virtual exercise experience and the use of the zoom breakout rooms.**



Once logged in to Zoom, please ensure that you rename yourself as **First Name, Last Name, and Organization** under the Participant List. See below for instructions.



APPENDIX D: ACRONYMS

Acronym	Term
AAR/IP	After-Action Report/Improvement Plan
CDPHE	Colorado Department of Public Health and Environment
DHS	U.S. Department of Homeland Security
EID	Emerging Infectious Disease
EMS	Emergency Medical Services
FEMA	Federal Emergency Management Agency
HCC	Healthcare Coalition
HPP	Hospital Preparedness Program
HSEEP	Homeland Security Exercise and Evaluation Program
PHEP	Public Health Emergency Preparedness
SitMan	Situation Manual
SME	Subject-Matter Expert
SRHCC	South Region Healthcare Coalition
TTX	Tabletop Exercise

APPENDIX E: RELEVANT PLANS

1. [2021-2022 SRHCC Response Plan](#)
2. [2021-2022 SRHCC Infectious Disease Surge Annex](#)

APPENDIX F: REFERENCES AND RESOURCES

1. [Emerging Infectious Disease TTX: Emergency Resource Directory and Supply Chain Analysis Situation Manual](#) (SitMan) (2018). Ventura County Healthcare Coalition.
2. [Pediatric Surge Annex Tabletop Exercise Template: Situation Manual](#) (2019). Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE).
3. [Public Health Emergency Preparedness Capabilities](#) (2018.) Centers for Disease Control and Prevention.
4. Vermont Healthcare Emergency Preparedness Coalition (VHEPC) Infectious Disease Surge Annex (2021). Vermont Healthcare Emergency Preparedness Coalition (VHEPC)