

Chemical Emergency Exercise in a Box for HCCs

Situation Manual

[Insert Date Here]

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	Chemical Emergency Exercise in a Box
Exercise Dates	[Insert date and time here]
Scope	This exercise is a tabletop exercise, planned for [#] hours at the [location]. Exercise play is limited to [insert participants here].
Mission Area(s)	Response
HPP Capabilities	Capability 2: Health Care and Medical Response Coordination <ul style="list-style-type: none">Objective 1: Develop and Coordinate Health Care Organization and Health Care Coalition Response PlansObjective 3: Coordinate Response Strategy, Resources, and Communications Capability 3: Continuity of Health Care Service Delivery <ul style="list-style-type: none">Objective 3: Maintain Access to Non-Personnel Resources during an EmergencyObjective 5: Protect Responders' Safety and HealthObjective 6: Plan for and Coordinate Health Care Evacuations and Relocation Capability 4: Medical Surge <ul style="list-style-type: none">Objective 1: Plan for a Medical SurgeObjective 2: Respond to a Medical Surge
Objectives	<ul style="list-style-type: none">Review existing chemical emergency care assets and identify gaps that may occur during a chemical mass casualty incident.Review agency/facility role during a chemical emergency incident.Identify changes that need to be made in the HCC Chemical Emergency Surge Annex based on the roles and capabilities of the involved partners.
Threat or Hazard	Chemical Spill/Release
Scenario	A chemical emergency has occurred [Jurisdiction name] has requested assistance from the Health Care Coalitions, Minnesota Department of Health, and federal entities.
Sponsor	[Insert jurisdiction name]
Participating Organizations	See Appendix A for a complete list of participants.

Point of Contact

[Insert name, title, organization, and contact information]

GENERAL INFORMATION

Exercise Objectives and HPP Capabilities

The following exercise objectives in Table 1 describe the expected outcomes for the exercise. The objectives are linked to HPP capabilities, which are distinct critical elements necessary to achieve the specific mission area(s). The objectives and aligned HPP capabilities are selected by the Exercise Planning Team.

Exercise Objective	HPP Capability
Review existing chemical emergency care assets and identify gaps that may occur during a chemical emergency mass casualty incident.	Capability 2: Health Care and Medical Response Coordination Objective 1: Develop and Coordinate Health Care Organization and Health Care Coalition Response Plans Capability 4: Medical Surge Objective 1: Plan for a Medical Surge
Review agency/facility role during a chemical emergency incident.	Capability 2: Health Care and Medical Response Coordination Objective 1: Develop and Coordinate Health Care Organization and Health Care Coalition Response Plans
Identify changes that need to be made in the HCC Chemical Emergency Surge Annex based on the roles and capabilities of the involved partners.	Capability 2: Health Care and Medical Response Coordination Objective 1: Develop and Coordinate Health Care Organization and Health Care Coalition Response Plans
Enter other objectives as identified by region.	

Table 1. Exercise Objectives and Associated HPP Capabilities

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.

Exercise Structure

This exercise will be a multimedia, facilitated exercise. Players will participate in the following three modules:

- Module 1: Initial Recognition and Response
- Module 2: Community Coordination and Collaboration
- Module 3: Ongoing Healthcare Response

Module One provides a scenario background that leads exercise participants to walk through the act of a large chemical release, and the next steps in handling the after affects. Participants will review the situation and engage in discussion using the series of questions provided.

In Module Two exercise participants will discuss issues of stakeholder information sharing during an MCM incident. Participants will review the situation and engage in discussion using the series of questions provided.

In Module Three exercise participants will focus on healthcare surge response, in the days after a large chemical release. Participants will review the situation and engage in discussion using the series of questions provided.

Exercise Guidelines

- This exercise will be held in an open, low-stress, no-fault environment. Varying viewpoints, even disagreements, are expected.
- Respond to the scenario using your knowledge of current plans and capabilities (i.e., you may use only existing assets) and insights derived from your training.
- 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.
- Issue identification is not as valuable as suggestions and recommended actions that could improve response efforts. Problem-solving efforts should be the focus.

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:

- There will be much more activity going on across the US and greater Minnesota in the scenario depicted in this exercise. Players will need to think of more than their jurisdiction, and how other jurisdictions are affected.
 - The exercise is conducted in a no-fault learning environment wherein capabilities, plans, systems, and processes will be evaluated.
 - The exercise scenario is plausible, and events occur as they are presented.
 - All players receive information at the same time.
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Exercise Evaluation

Evaluation of the exercise is based on the exercise objectives and aligned HPP capabilities 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. These documents, coupled with facilitator observations and notes, will be used to evaluate the exercise, and compile the After-Action Report (AAR).

Module 1: INITIAL RECOGNITION AND RESPONSE

On a Monday morning at 8:00 am

Hospitals and other healthcare facilities served by your HCC are at normal staffing/supply levels early in the morning. Hospitals were at average daily occupancy for both general inpatient and ICU beds yesterday and into the evening. You are notified by local EMS that an explosion occurred at a chemical manufacturing plant. The location is in an industrial area, but the adjacent area is densely populated with office buildings, retail spaces, schools.

Initial fire reports indicate a significant chemical release, multiple injuries. But the specific chemical is not confirmed. Local EMS begin transferring wounded to all nearby medical facilities. Within minutes patients arrive to your facility with a variety of major and minor traumas, respiratory issues, and burns/skin irritations.

Group Discussion

Based on the information provided above, and using the questions below, assign a scribe in your group and have a discussion for the next 30 minutes. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

Module 1 Discussion Questions

1. What are your initial actions upon notification? Do you know/understand your role during an emergency? Prioritize those actions.
 - a. What initial actions do you anticipate taking based on the location of the attack and the potential surge in emergency department and inpatient demand?
 2. If the HCC has an operations center, how is it activated and staffed and what functions does it serve during a chemical event?
 - a. How does it interface with Hospital Emergency Operations Centers (EOC)?
 - b. How does it interface with the Minnesota Department of Health (MDH) Department Operations Center?
 3. Do you know who your local, regional, and/or national facility chemical experts are and how to contact them?
 - a. Where would you obtain guidance or additional clinical advice if needed, in real time?
 4. What specialized resources/supplies will be needed to respond to a chemical attack? What is the role of the HCC in acquiring these resources? What other chemical response resources are available within the region?
 - a. What detection equipment do your fire/EMS services have?
 - b. What chemical response equipment does your state have and how will you request it?
 - c. How are SNS assets requested and received if countermeasures are needed?
 - d. Is there a protocol or are processes in place for resource sharing among coalition members and jurisdictional healthcare facilities?
 5. Who initiates information sharing for HCC members?
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- a. What alerts and notification mechanisms are in place to ensure that HCC members and partners are aware of the incident and can share real-time information about the disaster and plans/strategies for patient care/transport/distribution/decontamination/supplies?

Notes:

MODULE 2: COMMUNITY COORDINATION & COLLABORATION

Monday, late morning, 10:00 am 2+ hours after incident

By 10am it's verified the explosion was caused by faulty equipment. It was accidental, and the chemical of concern is chloring gas. Aside from a high number of injuries, impacts to those in the immediate area, plume models show that an xxx (pick what makes the most since for your HCCC) area/radius may be affected. A shelter-in-place order is issued, and the plant has been evacuated.

The governor declares a state of emergency to support disaster services and to support federal requests for Strategic National Stockpile (SNS) assets and additional disaster services. News and social media outlets are reporting on the health concerns related to chlorine gas exposure and urging anyone affected to seek care. 911 operators and Poison Control Centers are overwhelmed with calls from those concerned about exposure.

Hospitals, clinics, physician offices, and other healthcare facilities in the area are beginning to receive patients and EMS transports of people who were exposed or near the site and now worried about potential exposure. You received patients with burn, major/minor trauma, respiratory distress, and self-evacuated individuals, as well as uninjured concerned citizens. Capacity is becoming overwhelmed as more victims present with respiratory irritation.

Group Discussion

Based on the information provided above, and using the questions below, assign a scribe in your group and have a discussion for the next 30 minutes. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

Module 2 Discussion Questions

1. Who has the healthcare coordination role at this point? What is it?
2. Who is coordinating messaging to the public? What are the key messages to get out?
3. Who decides and communicates shelter-in-place or evacuation orders to the community? How would a hospital be informed of those orders? What actions would a hospital take if it was in the affected zone?
4. What plans do your facilities have for a large number of contaminated, or potentially contaminated, patients? Is there an alternate area for triage/assessment? Do you have the ability to provide 'dry' decontamination (i.e., clothing removal, dry absorbent material for blotting skin, redress)?
5. If a surge of concerned citizens requires additional screening areas or treatment spaces (e.g., community screening centers, alternate care sites) how is that initiated? Who has responsibility for community screening/reception center's locations for persons that are worried about potential exposure?
 - a. Who decides if a reception/screening center is activated? Who will operate the community reception center?
 - b. When/how would this be coordinated, managed, supplied? How will the community screening site be staffed?
 - c. Can dry or wet decontamination be provided on-site if needed?

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- d. How you would you get information out about CRCs? Who are the partners you're coordinating with?
 - e. How will the "worried well" patients fit into community reception center (CRC)?
 6. Do facility staff understand plans for chemical decontamination and safety/exposure protocols?
 - a. Where will PPE come from if facilities run out?
 - b. Do staff members know how to don and doff PPE equipment correctly, and know which to use for the different types of chemicals?
 7. How will you communicate and coordinate with local law enforcement, fire, and EMS services?
 - a. Where is incident command set up?
 - b. How do you keep people safe while being triaged?
 - c. What do you do if you need to bring in extra EMS personal/services or EMS personal/service from a different jurisdiction?
 8. How will requests from the SNS be made?
 - a. Where will they be delivered?
 - b. Who has information about local/federal stockpiles?
 - i. How do you communicate with them?
 - c. Will supplies require special storage conditions or security protocol?
 9. With public concern high, who is coordinating messaging to the public? What are the key messages?
 - a. How will the EOC Joint Information Center (JIC) coordinate public information with HCC members?
 - b. How will you ensure clear and consistent risk communication messaging to the public and media to prevent/mitigate mass panic?
 - c. Are there readily available chemical release/sheltering-in-place/evacuation scripts available for patients, staff, public messaging?
 - d. How will you address provider/public safety information needs to ensure that workers feel safe?
 10. How is HCC clinical and surge information being collected and distributed (e.g., via email, special portal, messaging boards) to ensure consistent care and guidance across facilities?
 - a. Are special reporting requirements, metrics, or data being collected for situational awareness (e.g., hospital capacity, number exposed, transport needs, supply requests)?
 - b. How will the HCC coordinate and share patient information across multiple facilities for patient tracking and family re-unification?

MODULE 3: ONGOING HEALTHCARE COORDINATION

Monday evening, 8:00p pm and beyond (explosion + 12 hours):

Danger from the plume is over and the shelter-in-place order has been lifted. The number of new patients presenting has decreased slightly but media coverage remains intense leading to ongoing emergency department burden to conduct exams. Many state and federal agencies including SNS are providing the necessary supplies and resources for screening, personal protection, and decontamination. Some hospitals within the HCC are still operating over capacity. Many state and federal agencies including SNS are providing the necessary supplies and resources for screening, personal protection, and decontamination.

A community reception center remains open to support screening of concerned residents. Patients suffering from chlorine exposure (e.g., minor/major traumas, burns, other injuries) were stabilized but may now require secondary transfer for ongoing care. Some will need to be cared for locally until transport/inpatient capacity catches up. Specialty (critical care) transportation resources are also needed for patient movement. The medical examiner needs guidance on the decontamination of decedents. Hospitals/EMS have clothing/belongings they're not sure can be returned. Victims are asking for belongings from the decontamination process. Mental health/wellness experts warn of negative mental health impacts

Group Discussion

Based on the information provided above, and using the questions below, assign a scribe in your group and have a discussion for the next 30 minutes. Identify any critical issues, decisions, requirements, or questions that should be addressed at this time.

Module 3 Discussion Questions

1. You have intubated many patients for airway inflammation that you cannot accommodate- how would you expand capacity at your hospital and/or coordinate referring those cases to a facility that has appropriate capacity and resources?
 - a. What is the current referral process and how would this change for this incident?
 - b. How will you prioritize/triage multiple referrals from your facility?
 - c. What transportation resources will you need?
2. Does the HCC have a coordination role at this point? What is it? If not, who is coordinating healthcare resource issues?
3. What experts will hospitals work with to address contaminated belongings and low-level contamination if needed?
4. What types of staffing shortages and resource needs are likely to occur and how can the HCC help to address them? How many hospital staff, especially in the ER, have been properly trained for a chemical emergency response?

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5. For materials and waste that require special disposal, what partners can support the exponential increased need for collection and disposal of contaminated materials?
 6. Who do hospitals need to notify if they have conducted 'wet' decontamination activities that resulted in contaminated water moving into sanitary or storm sewers?
 6. How will patients be tracked? Does the tracking mechanism support family reunification efforts?
 7. What is the process for providing ongoing situational awareness communication among the HCC and jurisdictional health facilities/partners that includes up to date capacity, patient transport, and treatment guideline information?
 8. What is your communication strategy to alleviate public fear and misinformation?
 9. What efforts can be made to divert concerned but not exposed residents to seek medical attention at facilities other than hospital settings?
 10. What mass fatality management plans are in place to support a large-scale incident. What considerations should be made for storing and final disposition of contaminated bodies.

Notes:

NEXT STEPS/ ASSIGNMENTS (HOT WASH):

Discuss the following questions immediately after the exercise and take notes to inform your After-Action Report:

1. Which processes need additional work to be operational?
2. Which partners do we need to do more work to coordinate with?
3. Which trainings need to be given in advance? Which just-in-time training materials are needed?
4. What information isn't in the MDH guidance that you still need?
5. What are the action steps to address the issues you've identified? Who is responsible for each action step?

Other notes:

Appendix I: Exercise Participants

Participating Organizations

APPENDIX J: ACRONYM LIST

Acronym	Definition
AAR	After Action Report
AAR-IP	After Action Report-Improvement Plan
ASPR	Office of the Assistant Secretary for Preparedness and Response
CDC	Centers for Disease Control and Prevention
CRC	Community reception center
ED	Emergency Department
EMS	Emergency Medical Services
HPP	Hospital Preparedness Program
HSEEP	Homeland Security Exercise and Evaluation Program
POC	Point of Contact
PPE	Personal Protective Equipment
PUI	Person Under Investigation
SitMan	Situation Manual
SME	Subject matter expert
TTX	Tabletop exercise

APPENDIX K: PARTICIPANT FEEDBACK FORM

Name (optional): _____

Facilities represented: _____

Participant Recommendations and Corrective Actions

1. Based on your facility actions and your opinions (not the results of the hotwash), list the top **three strengths** you identified.

2. Based on your facility actions and your opinions (not the results of the hotwash), list the top areas you identified that need **improvement**.

The information you provide in this document will be used to inform the After-Action Report and After-Action Conference.

Overall program rating:

- Excellent
- Above average
- Average
- Fair
- Poor

Please provide any recommendations on how this exercise or future exercises could be improved and/or enhanced.
