

Healthcare Coalition Chemical Emergency Surge Annex Template

The [2019-2023 HPP Funding Opportunity Announcement \(FOA\)](#) requires Healthcare Coalitions (HCCs) to develop a coalition-level chemical emergency surge annex complementary to their base medical surge/trauma mass casualty response plan. This annex aims to improve capacity and capabilities to manage exposed or potentially exposed patients during a chemical incident. According to the [2017-2022 Health Care Preparedness and Response Capabilities](#), “Communities should be prepared to manage exposed or potentially exposed patients during a chemical or radiation emergency. During such events, individuals may go to various health care facilities, police and fire stations, and other locations for assistance...” (Capability 4, Objective 2, Activity 5).

This chemical emergency-focused operational annex *complements* the HCC’s Response Plan. It is intended to be a high-level, incident-specific response plan, that identifies the experts and specialized resources that exist within the HCC or external to the HCC that are available. Each hospital and emergency medical service (EMS) agency has obligations under the Occupational Safety and Health Administration (OSHA), and other regulations, to maintain detailed policies and procedures that support their individual operations, however that level of detail is not necessary in this annex.

The initial response to a chemical incident lies with first responders and the hospitals, but HCCs can be critical to a coordinated, consistent response. The OSHA document “[Best Practices for Hospital-Based First Receivers](#)” contains critical information to help hospitals meet Hazardous Waste Operations and Emergency Response (HAZWOPER) standards for decontamination response that is tailored to their role. EMS agencies must meet these HAZWOPER standards in accordance with their response roles (e.g., required operations-level training for any direct contact with contaminated casualties [as often, such contact cannot be prevented due to individuals fleeing the chemical release area]).

This template provides general headers and descriptions for a sample HCC chemical emergency surge annex. The resources used to develop this template include sample HCC plans and the [2017-2022 Health Care Preparedness and Response Capabilities](#). This document is organized as such:

- Sample plan headings/sub-headings;
- Description and considerations (where appropriate, language from the FOA and Health Care Preparedness and Response Capabilities are used; refer to the full text of the capabilities for additional detail/information); and
- Sample resources/plans that may provide guidance or a template for HCCs to assist in their planning efforts. There is no guarantee the resource(s) listed will fully comply with the capability. A sample annex outline is provided in [Appendix A](#) of this document. [Appendix B](#) includes a list of relevant resources.

According to the 2019-2023 [FOA](#), HCCs must develop a series of specialty surge annexes to address pediatric, burn, infectious disease, radiation, and chemical emergencies. It is important to consider trauma, illness, surgical, and behavioral health topics inclusively since those caring for patients will likely be working on these situations simultaneously.

The FOA states, on page 70, “In addition to the usual information management and resource coordination functions, each specialty surge annex framework should be similarly formatted and emphasize the following **core elements**:

- Indicators/triggers and alerting/notifications of a specialty event
- Initial coordination mechanism and information gathering to determine impact and specialty needs
- Documentation of available local, state, and interstate resources that can support the specialty response and key resource gaps that may require external support (including inpatient and outpatient resources)
- Access to subject matter experts (SMEs) – local, regional, and national
- Prioritization method for specialty patient transfers (e.g., which patients are most suited for transfer to a specialty facility)
- Relevant baseline or just-in-time training to support specialty care
- Evaluation and exercise plan for the specialty function.”

The FOA also states that the chemical emergency surge annex *may also address the following*:

- Determine risks for community chemical events (e.g., industrial, terrorist, transportation-related).

- Decontamination assets and throughput (pre-hospital and hospital) including capacity for dry decontamination.
- Determine EMS and hospital personal protective equipment (PPE) for HAZMAT events.
- Review and update CHEMPACK (and/or other chemical countermeasure) mobilization and distribution plan.
- Coordinate training for their members on the provision of wet and dry decontamination and screening to differentiate exposed from unexposed patients.
- Ensure involvement and coordination with regional HAZMAT resources (where available) including EMS, fire service, health care organizations, and public health agencies.
- Develop plans for a community reception center with public health partners.

Prior to developing any emergency operations plan/response plan, HCCs should work with jurisdictional emergency management to conduct or participate in a risk assessment/hazard vulnerability assessment and a resource gap analysis to gather this information and understand the specific risks, hazards, and resources available for a response. Additional guidance on collaborative planning and the role of HCCs through the phases of disaster can be found in the [2017-2022 Health Care Preparedness and Response Capabilities](#). HCCs should also consider identifying incident-specific essential elements of information, integrating with state and local crisis standards of care plans, and assessing supply stockpiles for relevant acquisition and standards of re-use and extended use.

NOTE TO COALITIONS: Although jurisdictions are not required to use this template nor follow this format, the previously listed **core elements** listed in the box must be included in the chemical emergency surge annex. There are many acceptable planning methods and document formats, however HCCs are encouraged to use this template to promote consistent operational planning and formatting of the specialty annexes. The focus of this planning is to facilitate the growth of coalition operational capabilities to address specialty casualties. The planning process should be collaborative between hospitals, community-based healthcare facilities, public health departments (particularly with local and state response teams), emergency medical services, emergency management agencies, and other community organizations to discuss, strategize, and plan for the level of care that can be provided and resources available during and after a chemical emergency. This annex template is consistent with our base [Healthcare Coalition Response Plan](#) format and supports a seamless planning process and facilitated response. The

length and complexity of the annex is directly proportional to the diversity of resources and members within the coalition. Additional ASPR TRACIE resources developed for HCCs include:

- [Preparedness Plan, Response Plan, and Recovery Plan](#) templates
- HCC Specialty Surge Annex Templates: [Pediatric, Burn, Infectious Disease, Radiation](#)
- [Chemical Hazards Topic Collection](#)
- [Select CBRN Resources](#)
- [Hospital Surge Capacity](#)
- [Healthcare Coalition Resource Page](#)

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For more information, visit <https://asprtracie.hhs.gov> or contact our Assistance Center at 1-844-5-TRACIE or askasprtracie@hhs.gov.

1. Introduction

Section Headers/ Subheadings	Description and Considerations	Sample Resources
<p>1.1 Purpose</p>	<p>This section describes what the Chemical Surge Annex will address and related HCC goals/objectives.</p> <p>Sample language:</p> <p>The annex describes a coordinated healthcare response to a chemical emergency in which the number and severity of exposed or possibly exposed patients challenges the capability of HCC member facilities. The annex will outline specific incident and response protocols necessary to properly plan for, manage, and care for patients during a chemical emergency.</p> <p>This Annex does not replace other county or local emergency operations plans or procedures, but rather builds upon the existing plans to provide additional healthcare response detail. The annex also does not replace the need to have separate chemical protocols, equipment, and training for each healthcare facility or EMS agency.</p> <p>This annex should ensure that during a chemical emergency:</p> <ol style="list-style-type: none"> 1. Coalition members understand their roles and responsibilities for containing contamination, decontaminating patients, and providing patient care. 2. Resources within the coalition, and external to it, are documented and coalition members understand the timeframe for their activation and arrival. 3. Each healthcare facility and EMS agency has a plan, proper training, and necessary equipment to address the needs of patients impacted by a chemical incident, including the provision of dry and wet decontamination. 4. Sources of information regarding patient care are documented and available (e.g., job aids, technical expert reach back). 5. Emergency management and public health agencies understand the need for rapid communication to the public; the potential need for shelters where victims can perform self- 	<p>Agency for Toxic Substances Disease Registry (ATSDR) Information for Emergency Responders, Healthcare Professionals, Public Health Partners</p> <p>Allen County Office of Homeland Security Local Emergency Planning Committee Hazardous Materials Emergency Response Plan</p> <p>Albuquerque Emergency Operations Plan Annex 6 Health and Medical</p> <p>ASPR TRACIE</p> <ul style="list-style-type: none"> • Chemical Hazards TC • Exchange Issue 9 Preparing for and Responding to Chemical Incidents • COOP/Business Continuity Planning TC <p>BARDA Primary Response Incident Management (PRISM)</p>



	<p>decontamination (e.g., “dry” decontamination at a minimum) and additional locations for mass decontamination; the coordination of medical countermeasure deployment (e.g., CHEMPACK, Strategic National Stockpile [SNS]); and secondary transport coordination.</p>	<p>California Emergency Medical Services Authority</p> <ul style="list-style-type: none"> • Chemical Incident Response Guide • Chlorine Tank Explosion Incident Planning Guide • Chemical Incident Planning Guide • Nerve Agent Incident Planning Guide
<p>1.2 Scope</p>	<p>This section should be brief and include:</p> <ul style="list-style-type: none"> • Timeframe covered by the plan • Geographic area covered by the plan (may refer to base plan) • Involved coalition and jurisdictional partners (may refer to base plan, but also include nontraditional coalition partners who may only support the coalition during a chemical surge). • Any necessary disclaimers about the plan (e.g., not to supersede authorities of the participating entities), jurisdictional requirements (e.g., SARA Title III), or acknowledgement of other dedicated community plans (e.g., Local Emergency Planning Committee (LEPC). This is especially important as a coalition may cross over jurisdictional boundaries when responding to a chemical emergency that includes multiple LEPCs. <p>This section may also describe elements not addressed and refer the reader to other relevant documents, related considerations, or specialty annexes such as pediatric and burn surge.</p>	<p>California Office of Emergency Services HazMat Toolkit</p> <ul style="list-style-type: none"> • Part 1- Intro • Part 2- Concept of Operations • Part 3- Roles/Responsibilities • Part 4- Attachments
<p>1.3 Overview/Background of HCC and Situation</p>	<p>This section should include a general overview of the HCC and the community relative to a chemical emergency, including:</p> <ul style="list-style-type: none"> • Those potentially at higher risk during a chemical emergency (e.g., industrial/transportation workers, EMS/first responders) and vulnerable populations (e.g., long term care [LTC] facility residents, those with limited evacuation options or in close proximity to a fixed chemical risk, and pediatric patients). • Areas at high risk of a chemical incident (e.g., industrial plants, research facilities, terrorism targets, and transportation hubs). 	<p>Centers for Disease Control and Prevention (CDC)</p> <ul style="list-style-type: none"> • Preparation and Planning for Chemical Emergencies • Emergency Preparedness and Response Chemical Emergencies • NIOSH DERMaL eToolkit

<p>1.4 Assumptions</p>	<p>This section should outline the key points/assumptions of the plan, for example:</p> <ul style="list-style-type: none"> • Each facility or healthcare organization should understand expectations specific to them as part of the coalition, especially within the first minutes and hours of a large-scale chemical incident. • Hospitals may need to shelter in place (or, less likely, evacuate) in response to a chemical release or plume. • There should be an understanding of the general expectations for EMS and fire/rescue personnel during a chemical incident response that is appropriate to regional resources. • Hospitals must have appropriate plans, PPE, and equipment to receive and decontaminate patients as self-referral is common. • On-duty staff will need to quickly evaluate a large number of real versus possible exposures. • Job aids will be needed to help initiate response, decontamination, and treatment guidance for these uncommon events. • Specialty consultation (e.g., poison control center, regional HAZMAT experts) will be needed quickly to provide specific care recommendations for agent type and magnitude of release. • Depending on the scale of the chemical incident, establishment of alternate decontamination or screening locations may be required to assess low-risk patients and provide basic decontamination needs. • There may not be an adequate local supply of specific countermeasures and antidotes for a large-scale chemical emergency. • Health concerns, prolonged response requirements, fatigue, difficult work environments, and stress may contribute to behavioral health challenges among coalition members and the general public. • Depending on the scale, severity, and type of chemical emergency, it may be necessary to contract private organizations to assist with large-scale containment and clean-up efforts. 	<ul style="list-style-type: none"> • Public Health Emergency Response Guide for State, Local, and Tribal Public Health Directors - Version 2.0 <p>Department of Health and Human Services (HHS) Chemical Hazards Emergency Medical Management (CHEMM) Information for Incident Preparedness</p> <p>Department of Homeland Security (DHS)</p> <ul style="list-style-type: none"> • Office of Health Affairs Chemical Resources • Urban Area Recovery Planning with CBR Hazards <p>Department of Transportation</p> <ul style="list-style-type: none"> • Hazardous Materials Safety Assistance Team (HMSAT) • Emergency Response Guidebook <p>EPA Chemicals and Toxics</p> <p>Federal Emergency Management Agency (FEMA)</p>
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		<p>Wisconsin Department of Military Affairs Emergency Response Plan</p> <p>World Health Organization (WHO) Manual for the Public Health Incidents of Chemical Incidents</p> <p>U.S Army Guidelines for Responding to a Chemical Weapons Incident</p>
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2. Concept of Operations

Section Headers/ Subheadings	Description and Considerations	Sample Resources
<p>2.1 Activation</p>	<p>This section should include information on the annex activation process (and levels, if relevant); the indicators and triggers that initiate the plan (including thresholds for notifying hospitals and EMS about a chemical release); and an outline of who is contacted to initiate a regional response, including how that is executed.</p> <p>These activation and notification sections should only detail the differences for a chemical incident versus a general disaster process or should otherwise refer to the base plan.</p>	<p>ATSDR Information for Emergency Responders, Healthcare Professionals, Public Health Partners</p> <p>Allen County Office of Homeland Security Local Emergency Planning Committee Hazardous Materials Emergency Response Plan</p>
<p>2.2 Notifications</p>	<p>This section should outline alerting and notification strategies specific to a chemical emergency. It should detail who will be notified, by whom, when, and how. Content should include information on specific communication systems, management processes, and/or notification/coordination strategies between the HCC, healthcare facilities, specialty facilities, and federal, state, local, tribal, or territorial agencies.</p>	<p>Albuquerque Emergency Operations Plan Annex 6 Health and Medical</p> <p>ASPR TRACIE Chemical Hazards TC</p>

	<p>This section should also include any specific state or federal notifications that may need to be made (e.g., information regarding decontamination wash water runoff), and may also include who provides public notifications about an incident and/or immediate actions.</p> <p>Plans should consider what notification mechanisms are already in place, or what may be needed, to properly notify all responding agencies/organizations in a timely manner to ensure they take proper protective measures.</p>	<p>California Emergency Medical Services Authority</p> <ul style="list-style-type: none"> • Chemical Incident Response Guide • Chlorine Tank Explosion Incident Planning Guide • Chemical Incident Planning Guide • Nerve Agent Incident Planning Guide
<p>2.3 Roles and Responsibilities</p>	<p>This section should define HCC, agency, and healthcare facility functions during a chemical emergency. It should include the role of any specialty response teams (e.g., HAZMAT, Civil Support Teams [CST]) and identify the lead agency coordinating the healthcare aspects of the response.</p> <p>The plan should specifically outline:</p> <ul style="list-style-type: none"> • The designated lead agency for a chemical emergency response. • The agency that will operate community reception centers, or alternate care sites, should they be needed. • The primary agency overseeing risk communication during an incident to ensure rapid public messaging (e.g., shelter-in-place or evacuation orders). • The expectations of fire or other first responders to provide on-scene assessments and patient decontamination needs (e.g., dry and wet decontamination). • The expectations of EMS regarding care of contaminated patients, medical countermeasure administration, patient distribution, and mutual aid for secondary transfers. • The expectations of healthcare facilities, including their ability to provide decontamination. • The agency/entity responsible for obtaining agent/treatment information and circulating to stakeholders. • The state, or other, agencies that would have oversight or must be notified of a chemical incident. 	<p>California Office of Emergency Services HazMat Toolkit</p> <ul style="list-style-type: none"> • Part 1- Intro • Part 2- Concept of Operations • Part 3- Roles/Responsibilities • Part 4- Attachments <p>CDC NIOSH DERMaL eToolkit</p> <p>DHS Urban Area Recovery Planning with CBR Hazards</p> <p>HHS CHEMM Quick Response Guide</p> <p>EPA Office of Chemical Safety and Pollution Prevention</p>



		<p>Federal Emergency Management Agency:</p> <ul style="list-style-type: none"> • Hazardous Materials Incidents Guidance for State, Local, Tribal, Territorial, and Private Sector Partners • Oil and Chemical Incident Annex <p>New Jersey Office of Emergency Management Emergency Response Plan Template</p> <p>Washington State Emergency Response Commission Hazardous Materials Emergency Response Plan</p> <p>Wisconsin Department of Military Affairs Emergency Response Plan</p> <p>U.S Army Guidelines for Responding to a Chemical Weapons Incident</p>
<p>2.4 Logistics</p>	<p>This section should outline the available resources and potential logistics issues that may occur during a chemical incident, as well as discuss strategies for the HCC and member facilities to address these challenges. It should focus on when and how resources are requested and strategies for distribution.</p>	<p>ASPR TRACIE</p> <ul style="list-style-type: none"> • Chemical Hazards TC



	<p>The “space”, “staff”, and “supplies” sections are included for consistency with other annexes, however coalitions may wish to group these differently (e.g., by local resources versus regional/state, by decontamination versus treatment resources, or by EMS versus hospital).</p> <p>Consider if there will be designated facilities within the HCC that are expected to fulfill the majority of decontamination needs. Document available local, state, and interstate resources that can support a chemical incident response as well as their request process and response timeline.</p> <p>Ensure plans include:</p> <ul style="list-style-type: none"> • Available local assets. • Resources for external support (including additional patient decontamination/containment materials, medical countermeasure/treatment supplies). • Any detection equipment, chemical sampling/evaluation, and laboratory resources available for pre-hospital and hospital use. • Contacts for clinical laboratories with chemical expertise. 	<ul style="list-style-type: none"> • Partnering with the Healthcare Supply Chain During Disasters <p>ATSDR Information for Emergency Responders, Healthcare Professionals, Public Health Partners</p> <p>Allen County Office of Homeland Security Local Emergency Planning Committee Hazardous Materials Emergency Response Plan</p> <p>BARDA Primary Response Incident Management (PRISM)</p> <p>California Emergency Medical Services Authority</p> <ul style="list-style-type: none"> • Chemical Incident Response Guide • Chlorine Tank Explosion Incident Planning Guide • Chemical Incident Planning Guide • Nerve Agent Incident Planning Guide
<p>2.4.1 Space</p>	<p>This section should briefly document regional hospital decontamination capabilities including the number of decontamination stations/showers (fixed or temporary) and estimated throughput per hour.</p> <p>This section should also briefly outline community decontamination capabilities, including mobile assets (e.g., fire/rescue), potential community sites for mass decontamination (including who controls and/or approves site use and activation), and may consider including additional information such as regional specialty resources for chemical burn care.</p>	
<p>2.4.2 Staff</p>	<p>This section should outline the expectations for initial and supplemental hospital decontamination teams and staffing. The usual staffing augmentation plans should apply as per the base plan, including use of supplemental staff.</p>	

	<p>This section should also briefly outline fire/rescue assets that could support a hospital decontamination surge and include information on how they can be requested (if not occupied at the site).</p> <p>Consider including information on regional chemical information and response assets that may be needed (e.g., HAZMAT safety officers, toxicologists, poison control, industry hygienists, or CST). Consider how regional Hazardous Materials Safety Assistance Teams (HMSAT), the Agency for Toxic Substances and Disease Registry (ATSDR) emergency response teams, or environmental health agency assets can be integrated and/or utilized (if available).</p>	<p>Centers for Disease Control and Prevention</p> <ul style="list-style-type: none"> • Community Reception Center (CRC) Drill Toolkit • Emergency Preparedness and Response Chemical Emergencies
<p>2.4.3 Supplies</p>	<p>This section should summarize the equipment and resource expectations of member healthcare facilities relevant to a chemical incident, and coalition-level strategies to ensure adequate supply levels and availability. This section should include coalition-level resource inventory management strategies for accessing, mobilizing, storing, and distributing specialized supplies as relevant (e.g., CHEMPACK).</p> <p>This section should:</p> <ul style="list-style-type: none"> • Document baseline chemical PPE for EMS and hospitals in the coalition as appropriate per previously listed assumptions. • Define baseline preparedness threshold levels of supplies for hospitals as appropriate (e.g., PPE, countermeasures) and/or list the locations and contents of hospital-based caches. • Define baseline EMS agency supply expectations for HAZMAT response and patient treatment. • List current local or state countermeasure/stockpile data relevant to your area. • Ensure stockpile/materials release, distribution, replenishment, and sharing policies are clear (e.g., who gets what, when, and how). • Include plans and protocol for accessing and distributing CHEMPACK resources. Ensure the coalition is familiar with how to engage the state to make additional requests. • Document additional decontamination supplies (e.g., dry decontamination kits, wet decontamination equipment, privacy shelters, containment materials). 	<p>Department of Health and Human Services</p> <ul style="list-style-type: none"> • CHEMM Incident Response • CHEMPACK • Patient Decontamination in a Mass Chemical Exposure Incident: National Planning Guidance for Communities <p>Department of Transportation (DOT) Emergency Response Guidebook</p> <p>EPA Chemicals and Toxics</p> <p>FEMA Oil Chemical Incident Annex</p> <p>New Jersey Office of Emergency Management Emergency Response Plan Template</p>



		<p>NIOSH Chemical, Biological, Radiological, and Nuclear (CBRN) Respiratory Protection Handbook</p> <p>OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances</p> <p>Organisation for the Prohibition of Chemical Weapons Practical Guide for Medical Management of Chemical Warfare Casualties</p> <p>United States Army</p> <ul style="list-style-type: none">• Guidelines for Responding to a Chemical Weapons Incident• Medical Department Borden Institute Medical Aspects of Chemical Warfare <p>Washington State Emergency Response Commission Hazardous Materials Emergency Response Plan</p> <p>Wisconsin Department of Military Affairs Emergency Response Plan</p>
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<p>2.5 Operations- Medical Care</p>	<p>This section should document chemical emergency operational patient care considerations.</p>	<p>Agency for Toxic Substances and Disease Registry Emergency Responders</p> <p>Albuquerque Emergency Operations Plan Annex 6 Health and Medical</p> <p>American Burn Association Disaster Response</p> <p>ASPR TRACIE</p> <ul style="list-style-type: none"> Chemical Hazards TC COOP/Business Continuity Planning TC Recovery Planning TC <p>BARDA Primary Response Incident Management (PRISM)</p> <p>California Emergency Medical Services Authority</p> <ul style="list-style-type: none"> Chemical Incident Response Guide Chlorine Tank Explosion Incident Planning Guide Chemical Incident Planning Guide
<p>2.5.1. Triage and Screening</p>	<p>This section should reference any specific triage approaches for exposed, or possibly exposed, patients and outline expectations for hospital transport versus release-at-scene.</p> <p>Outline roles and responsibilities for on-scene evaluation and treatment by medical personnel.</p> <ul style="list-style-type: none"> Discuss the expansion of response needs according to size/scale of the incident as well as thresholds for opening community screening sites and potential /prioritized locations. Highlight what medical information is needed (e.g., exposure level/duration/route, patient history, diagnostic data) to support decision-making. Note how information will be collected, documented, shared, and secured. Identify any tools and or technical resources that may be relied upon in the region for standard treatment and decontamination information (e.g., PRISM, ToxFAQs, ChemView, ChemResponder, CHEMM, WISER). Outline the basis for prioritizing patient decontamination, treatment, and transport (e.g., hazard type, exposure duration, route of exposure, or other trauma). 	
<p>2.5.2 Patient Care/ Management</p>	<p>In this section describe the chemical emergency surge operations plans. Briefly summarize:</p> <ul style="list-style-type: none"> The expectations for dry, gross, and technical decontamination pre-hospital and hospital. The role of EMS in the care of contaminated patients including countermeasure administration. The mechanisms and processes that will be used to track patients, their contamination status, and treatment provided. The expansion of decontamination operations relative to scope of the incident (e.g., transition to dry decontamination, the request/use of additional resources or techniques). Consider the potential need to move a large number of worried well (e.g., for screening/ decontamination). 	

<p>2.5.3 Treatment</p>	<p>This section should describe the coalition role in planning for and circulating treatment protocols for chemically exposed patients.</p> <ul style="list-style-type: none"> • Outline any regional coordination strategies with HAZMAT specialists, toxicologists, industry, local emergency planning council (LEPC) and other subject matter experts (SMEs). • Summarize, or provide links to, available treatment recommendations for common/critical chemical exposures (that should be a common point of reference). • Describe the process to provide agent information to hospitals from the field as well as any mechanism for providing treatment recommendations to the hospitals. 	<ul style="list-style-type: none"> • Nerve Agent Incident Planning Guide
<p>2.5.4 Safety and Control Measures</p>	<p>This section should briefly summarize EMS and hospital expected safety and control measures during a chemical emergency. Plans should reference jurisdictional emergency management protocols as outlined in local emergency response plans. Community safety and control measures will reside with fire/HAZMAT, emergency management, and public health entities.</p> <ul style="list-style-type: none"> • Ensure compliance with OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) standards (including training, establishment of control zones, hot/warm/cold zones, and use of PPE). • Summarize expectations for management of wash water from decontamination operations (e.g., if allowing mass decontamination wash water to run down sanitary sewers who needs to be notified?) • Briefly summarize plans for management of large amounts of victim clothing and belongings as well as large-scale disposal of contaminated waste from patient decontamination and care operations; address any state/local waste transportation/management regulations, include considerations for EMS agencies. • Summarize or reference regional protocols for establishing zones of control for a chemical incident. 	<p>Centers for Disease Control and Prevention (CDC)</p> <ul style="list-style-type: none"> • Emergency Preparedness and Response Chemical Emergencies • Reference Guide for Certification of Deaths in the Event of a Natural, Human-induced, or Chemical /Radiological Disaster <p>Department of Transportation Emergency Response Guidebook</p> <p>EPA Managing Chemical Risks</p> <p>Food and Drug Administration (FDA) Products Approved for Chemical Emergencies</p> <p>Greater New York Hospital Association Mass Casualty Incident Response Toolkit</p>

	<ul style="list-style-type: none"> Summarize or reference expectations/plans for hospital control of spaces to direct ambulance and self-referred patients through the decontamination processes prior to facility entry, or to limit contamination after inadvertent facility entry. 	<p>Department of Health and Human Services</p> <ul style="list-style-type: none"> CHEMM Incident Response DERMaL eToolkit Patient Decontamination in a Mass Chemical Exposure Incident: National Planning Guidance for Communities Public Health Emergency Dealing with Chemical Emergencies <p>Los Angeles Department of Health Services CHEMPACK Deployment for Nerve Agent Release</p> <p>Los Angeles Public Health Terrorism Agent Information and Treatment Guidelines for Hospitals</p> <p>New York State Department of Health Chemical Terrorism Preparedness and Response Cards</p> <p>National Institute for Occupational Safety and Health</p> <ul style="list-style-type: none"> Chemical, Biological, Radiological, and Nuclear
<p>2.5.5 Fatality Management</p>	<p>This section should address handling of chemically contaminated decedents, and:</p> <ul style="list-style-type: none"> Include contingency plans for handling contaminated decedents as well as expectations for decontamination. Identify SMEs who can advise on decontamination and handling of contaminated decedents. Include resources for decontamination of decedents and outline capabilities of the morgue to manage contaminated remains. Describe how information on decedent management will be circulated to hospitals and morgues. 	
<p>2.5.6 Transport</p>	<p>This section should refer to transport policies, plans and procedures, including transport of potentially contaminated patients and the mass movement of persons with significant chemical exposure but who have minimal current symptoms.</p> <p>The base plan for mutual aid and secondary transports should be referenced as needed. EMS should be integrated into the planning process to ensure understanding of capabilities and limitations during a chemical event (e.g., contaminated ambulance issues, roles and PPE, ability to support emergency responses and secondary transfers).</p>	
<p>2.5.7 Deactivation and Recovery</p>	<p>This section should include considerations for facility clean-up, recovery of PPE, waste management, and clinical and incident documentation. The plan should define the specific coalition responsibilities and actions related to deactivation and participation in after-action reviews.</p>	



		<p>(CBRN) Respiratory Protection Handbook</p> <ul style="list-style-type: none">• Pocket Guide to Chemical Hazards <p>OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances</p> <p>Organisation for the Prohibition of Chemical Weapons Practical Guide for Medical Management of Chemical Warfare Casualties</p> <p>U.S National Response Team Guidance, Technical Assistance, and Planning Chemical Hazards</p> <p>United States Army</p> <ul style="list-style-type: none">• Guidelines for Responding to a Chemical Weapons Incident• Medical Department Borden Institute Medical Aspects of Chemical Warfare <p>WHO Manual for the Public Health Management of Chemical Incidents</p>
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		Wisconsin Department of Military Affairs Emergency Response Plan
2.6 Special Considerations		
2.6.1 Behavioral Health	This section should consider the HCC role in supporting short- and long-term, mental health needs after a chemical incident. It may reference base plans for behavioral health support.	<p>Albuquerque Emergency Operations Plan Annex 6 Health and Medical</p> <p>ASPR TRACIE</p> <ul style="list-style-type: none"> • Disaster Behavioral Health Resources • Effect of Chemical Incidents on First Responders • Mental/Behavioral Health (non-responders) <p>Center for the Study of Traumatic Stress Psychological and Behavioral Issues Managing a CBRN Event</p>
2.6.2 Pediatric and At-Risk Populations	<p>This section should include special considerations specific to at-risk populations and individuals with special needs as required (e.g., children, communities of color, elderly populations, individuals with underlying physical and behavioral health conditions, persons experiencing access to care issues, people with limited English proficiency, individuals experiencing homelessness, and incarcerated individuals).</p> <p>The information included should:</p> <ul style="list-style-type: none"> • Ensure that coalition member organizations account for community members who could be more vulnerable during a chemical emergency. • Consider the need for alternate communication and movement strategies regarding sheltering or evacuation orders for at-risk individuals (e.g., LTC facility residents) as well as during the 	<p>ASPR TRACIE</p> <ul style="list-style-type: none"> • Chemical Hazards TC • Health Disparities TC • Long Term Care Facilities and Chemical Spills TA <p>CDC Emergency Preparedness and Response Information for Specific Groups</p>

	<p>decontamination process (e.g., each facility should have protocols in place for pediatric decontamination as well as for other at-risk populations).</p> <ul style="list-style-type: none"> • Summarize considerations specific to caring for pediatric cases including triage, age-appropriate/assisted decontamination, specialty care, transport needs, or specialty resources/supplies. • Consider preparing messages for communication with non-English speaking individuals during decontamination, and plan to engage with differing cultural groups. Facility plans should consider possible scenarios such as patient refusal to remove or surrender articles of clothing during the decontamination process for cultural reasons. • Address the needs of at-risk populations when communicating critical actions (e.g., evacuation, shelter-in-place orders, when/where to seek care) and include use of multi-modal communication and language strategies. 	<p>Chung, S., Baum, C.R., Nyquist, A. Pediatrics Chemical-Biological Terrorism and Its Impact on Children</p> <p>Freyberg, C., Arquilla, B., Tunik, M., et al. Hospital Decontamination and the Pediatric Patient</p> <p>HHS CHEMM Specific Populations</p> <p>New York State Department of Health Chemical Terrorism Preparedness and Response Cards</p>
<p>2.6.3. Communications</p>	<p>This section should outline the entities responsible for disseminating timely, accurate, and consistent information (internally and externally) to partners and the public during a chemical incident. Provision of such messaging, education, and public health information about the event can help reduce a surge of worried well during a response.</p> <p>Coalitions should:</p> <ul style="list-style-type: none"> • Refer to the base plan’s communication expectations and document specifically who will provide community messaging for evacuation/sheltering-in-place orders or when/where to seek care. • Outline how these messages will be coordinated with SMEs and include who will communicate to hospitals about agent/plume information, treatment protocol, and such. • Consider the best mechanism to clearly articulate to the public what they can and cannot do (e.g., an incident has occurred at this location, anyone within a 1-mile radius should..., and should not...). 	<p>ASPR TRACIE</p> <ul style="list-style-type: none"> • Communication Systems • Information Sharing • Risk Communications • Social Media in Emergency Response <p>California Emergency Medical Services Authority Chemical Incident-Incident Planning Guide</p> <p>Federal Emergency Management Agency Oil and Chemical Incident Annex</p>

	<ul style="list-style-type: none"> • Have plans in place to maintain awareness of current conditions within the community and monitor multiple sources of information to identify and counter rumors/misinformation. 	<p>National Association of County & City Health Officials Risk Communication in Rural Settings Chemical Event</p> <p>World Health Organization Manual for the Public Health Incidents of Chemical Incidents</p> <p>Wisconsin Department of Military Affairs Emergency Response Plan</p>
<p>2.6.4. Jurisdictional-Specific Considerations</p>	<p>This section should outline any specific jurisdictional, demographic, and geographic based issues that could impact response and recovery efforts. (e.g., tribal, or territorial policies, and border control laws).</p> <p>Include specific state, local, tribal, or territorial community right-to-know laws, state OSHA rules, local fire codes, and the like that may govern the emergency response.</p> <p>If jurisdictional laws or rules/code are more stringent than the federal law, know which will take precedence.</p>	<p>ASPR TRACIE Rural Disaster Health</p> <p>California Office of Emergency Services HazMat Toolkit</p> <p>CDC Public Health Emergency Preparedness and Response Capabilities</p> <p>Environmental Protection Agency</p> <ul style="list-style-type: none"> • Prepare Your Community for a Chemical Emergency State, Tribal, Local Agency Guide • Chemical Emergency Preparedness and Prevention on Tribal Lands <p>FDA State, Tribal, Local, and Territorial Public Health Preparedness</p>

		<p>FEMA</p> <ul style="list-style-type: none"> • Hazardous Materials Incidents Guidance for State, Local, Tribal, Territorial, and Private Sector Partners • Oil and Chemical Incident Annex
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3. Appendices

Section Headers/ Subheadings	Description and Considerations	Sample Resources
<p>3.1 Training and Exercises</p>	<p>This appendix should include relevant baseline, or just-in-time training information, to support chemical incident care. Include jurisdictional level planning, training, and exercises/drills, as well as chemical specialty personnel. This section should address:</p> <ul style="list-style-type: none"> • Coalition training, exercise, and evaluation efforts to improve response capabilities to a chemical incident scenario. This may include safety, decontamination, screening, and triage training as well as toxidrome recognition and treatment. • Requirements and resources for training on appropriate use of PPE; decontamination protocols; and safety of decontamination team members for pre-hospital and hospital personnel. (Note, the requirements outlined are per OSHA, The Joint Commission, and other authorities rather than HPP requirements). • Exercise plans to coordinate patient management for a variety of chemical incident scenarios with differing levels of impact, to include vulnerable and at-risk populations. 	<p>Agency for Toxic Substances and Disease Registry Education and Training</p> <p>ASPR TRACIE Chemical Hazards TC</p> <p>Centers for Disease Control and Prevention</p> <ul style="list-style-type: none"> • Emergency Preparedness and Response Training and Education • HazMat Emergency Preparedness Training and Tools for Responders • National Hospital Care Survey Facility Questionnaire



		<p>Department of Health and Human Services CHEMM Medical Countermeasures Database</p> <p>HHS Public Health Emergency Hospital Surge Evaluation Tool</p> <p>Preparedness and Emergency Response Learning Centers Introduction to CHEMPACK</p> <p>NACCHO American College of Medical Toxicology Webinar Series on Chemical Agents of Opportunity: New Training Modules</p> <p>National Library of Medicine ToxTutor</p> <p>OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances</p> <p>Tennessee Emergency Medical Services for Children Responding to Chemical Incidents</p> <p>Wisconsin Department of Military Affairs Emergency Response Plan</p>
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<p>3.2 Legal Authorities</p>	<p>This appendix should list any applicable legal authorities and regulatory information specific or relevant to chemical incidents; mass casualties and waste management; surveillance and population monitoring; and pertinent safety and control measures (e.g., evacuation or shelter-in-place procedures). This may refer the reader back to the all-hazard coalition response plan unless related issues are covered in this section.</p> <p>For example:</p> <ul style="list-style-type: none"> • What notifications are required under statute for hazardous materials/wash water disposal? • Are first responders permitted to detain individuals that refuse decontamination? • Are evacuation orders issued by the jurisdiction mandatory or voluntary? • Is there a specific exemption that needs to be made for facilities where the risk of evacuation may exceed benefit (e.g., LTC facilities or hospital environments)? 	<p>ASPR TRACIE Healthcare-Related Disaster Legal/ Regulatory Policy</p> <p>EPA First Responders’ Environmental Liability Due to Mass Decontamination</p> <p>FDA Medical Countermeasures Legal, Regulatory and Policy Framework</p> <p>Wisconsin Department of Military Affairs Emergency Response Plan</p>
<p>3.3 Additional Resources/ References</p>	<p>This appendix lists additional supportive resources that may be necessary to support the chemical response annex. This may include:</p> <ul style="list-style-type: none"> • Medical countermeasure plans/policies and area resources • Patient movement / referral process and EMS mutual aid resources • Decision support tables, graphics • Sample forms • Tools, databases, information packets • Clinical guidance • Decontamination methods 	<p>See Appendix B of this document</p>

Appendix A: Healthcare Coalition Chemical Emergency Surge Annex Outline Example

1. Introduction

- 1.1 Purpose
- 1.2 Scope
- 1.3 Overview/Background of HCC and Situation
- 1.4 Assumptions

2. Concept of Operations

- 2.1 Activation
- 2.2 Notifications
- 2.3 Roles and Responsibilities
- 2.4 Logistics
 - 2.4.1 Space
 - 2.4.2 Staff
 - 2.4.3 Supplies
- 2.5 Operations- Medical Care
 - 2.5.1 Triage and Screening
 - 2.5.2 Patient Care/Management
 - 2.5.3 Treatment
 - 2.5.4 Safety and Control Measures
 - 2.5.5 Fatality Management
 - 2.5.6 Transport
 - 2.5.7 Deactivation and Recovery
- 2.6 Special Considerations
 - 2.6.1 Behavioral Health
 - 2.6.2 Pediatric and At-Risk Populations
 - 2.6.3 Communications
 - 2.6.4 Jurisdictional- Special Considerations

3. Appendices

- 3.1 Training and Exercises
- 3.2 Legal Authorities
- 3.3 Additional Resources/References

Appendix B: Resources

ASPR TRACIE Developed Resources:

- [COOP/Business Continuity Planning TC](#)
- [Healthcare Challenges in Chemical Incidents Webinar](#)
- [Healthcare Coalition Preparedness Plan, Response Plan, and Recovery Plan templates](#)
- [Healthcare Coalition Resources](#)
- [Healthcare Coalition Specialty Surge Annex Templates: Pediatric, Burn, Infectious, Radiation Emergency](#)
- [Hospital Patient Decontamination TC](#)
- [Hospital Pharmacy Disaster Calculator](#)
- [Hospital Surge Capacity/Immediate Bed Availability TC](#)
- [Incident Management TC](#)
- [Partnering with the Healthcare Supply Chain During Disasters](#)
- [Pre-Hospital Patient Decontamination TC](#)

ASPR TRACIE Developed Resources for Chemical Emergencies:

- [Chemical Hazards Topic Collection](#)
- [Major Radiological or Nuclear Incidents: Potential Health and Medical Implications](#)
- [Select CBRN Resources](#)

Agency for Toxic Substances and Disease Registry. (2014). [Assessment of Chemical Exposures \(ACE\) Toolkit](#).

Agency for Toxic Substances and Disease Registry. (2020). [Epi CASE Toolkit](#).

American Hospital Association. (2021). [Hospital Profile Quick Search](#).

Association of American Railroads. (2021). [AskRail](#).

Blakey, D.H., Lafontaine, M., Lavigne, J., et al. (2013). [A Screening Tool to Prioritize Public Health Risk Associated with Accidental or Deliberate Release of Chemicals into the Atmosphere](#).

Cybersecurity and Infrastructure Security Agency (CISA). (2021). [Chemical Security](#).

Department of Health and Human Services, Office of the Assistant Secretary for Preparedness and Response. (2018). [Contingency Medical Countermeasures for Treating Nerve Agent Poisoning](#).

EPA. (n.d.). [EnviroMapper](#). (Accessed 12/15/2021.)

EPA. (n.d.). [State Tier II Reporting Requirements and Procedures](#). (Accessed 12/15/2021.)

EPA. (n.d.). [Emergency Planning and Community Right-to-Know Act](#). (Accessed 12/15/2021.)

FDA. (2019). [Products Approved for Chemical Emergencies](#). (Accessed 12/15/2021.)

Federal Emergency Management Agency. (n.d.). [The National Risk Index](#). (Accessed 12/15/2021.)

Florida Department of Health. (n.d.). [Hospital Medical Surge Planning for a Mass Casualty Incident](#). (Accessed 12/15/2021.)

Massachusetts Department of Public Health. (2014). [Hospital Based Decontamination Preparedness Resources](#).

Minnesota Department of Health. (2018). [Hazardous Materials Exposure Guide](#).

Montachusett Regional Planning Commission. (n.d.). [Chemical Incident Response](#).

National Institutes of Health. (2021). [CounterACT Program](#).

National Library of Medicine. (n.d.). [PubChem](#). (Accessed 12/15/2021.)

New Jersey Department of Health. (n.d.). [Hazardous Substances Fact Sheets](#). (Accessed 12/15/2021.)

New York State Department of Health. (2014). [Chemical Terrorism](#).

NIOSH. (2011). [Emergency Response Safety and Health Database](#).

NOAA. (2021). [Response Tools for Chemical Spills](#).

Oregon Health Authority. (n.d.). [Chemical Preparedness](#). (Accessed 12/15/2021.)

Organisation for the Prohibition of Chemical Weapons. (2015). [Blister Agents and their Countermeasures](#).

Organisation for the Prohibition of Chemical Weapons. (2018). [Organophosphorus \(OP\) Nerve Agents and their Countermeasures](#).

U.S Coast Guard, National Response Center. (2021). [Spill Reports](#).

U.S. Department of Defense, U.S. Department of Health and Human Services, U.S. Department of Transportation, et al. (2019). [Fourth Generation Agents: Medical Management Guidelines](#).

U.S. Department of Labor. (n.d.). [Chemical Reactivity Hazards](#). (Accessed 12/15/2021.)

U.S. Department of Transportation. (2009). [Traffic Incident Management in Hazardous Materials Spills](#).