Health Care Coalition Radiation Emergency Surge Annex Template

Updated July 2026

The FY 2024-2028 Hospital Preparedness Program Cooperative Agreement Notice of Funding Opportunity (NOFO) requires Health Care Coalitions (HCCs) to perform specific core functions to include specialty care planning. The development of a complementary coalition-level **Radiation Emergency Surge Annex** supplements the coalition's base medical surge/trauma mass casualty response plan to improve capacity and capabilities during a medical surge incident when managing exposed or potentially exposed patients during a large-scale radiation emergency.

This radiation-focused operational annex is meant to complement the HCC Response Plan. It is intended to reflect high-level strategy for radiation incidents and identify available experts and specialized resources that exist within, or are external to, the HCC. Each facility and agency should maintain more detailed policies and procedures that support individual operations based on their roles and responsibilities; that level of detail is not necessary in this annex.

This template provides general headers and descriptions needed to develop a sample HCC Radiation Emergency Surge Annex. The resources used to develop this template include sample HCC plans and Health Care Preparedness and Response Capabilities for Health Care Coalitions guidance. This document is organized to include:

- Sample plan headings/sub-headings,
- Description and considerations,
- Sample resources/plans/templates that may provide guidance to assist HCCs in their planning efforts. *Please note: the resource(s) listed may not directly apply to the unique circumstances of the HCC.*
- A sample annex outline in Appendix A.

While developing this annex, it is important to note that health care organizations respond to emergent patient care needs daily and prepare for and simultaneously respond to emerging threats that might impact the public's health. The FY 2024-2028 NOFO states, "In addition to the usual information management and resource coordination functions, each specialty surge annex 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[1]),
- 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."

Additionally, the FY 2024-2028 NOFO states that the Radiation Emergency Surge Annex should include:

- Local risks for radiation mass casualty incidents (e.g., industrial/research, power plant and radiological dispersal devices, nuclear detonation).
- Detection and dosimetry equipment for EMS/hospitals.
- Decontamination protocols.
- On-scene triage/screening, assembly center, and community reception center (CRC) activities.

[1] While some resources may not be located within the healthcare coalition itself, the availability of resources can vary and effective response efforts may require coordination with entities both within and beyond the coalition's geographic region.

- Treatment protocols/information.
- Coordination mechanisms with thematology/oncology centers and the National Special Pathogen System (NSPS).

Prior to developing any emergency response plan, HCCs should work with jurisdictional emergency management to complete a new risk assessment and should conduct a hazard vulnerability assessment (HVA) for their state or jurisdiction. HCCs should also consider identifying incident-specific essential elements of information, integrating plans with state and local crisis standards of care planning, and assessing supply stockpiles and their policies for activation and use.

NOTE TO COALITIONS: Although jurisdictions are not required to use this template or follow its format, they are encouraged to do so. While there are many acceptable planning methods and document formats, this template specifically considers coalition and jurisdictional needs that promote operational planning and capability-based response during a medical surge event. It is also structured to address the necessary elements of the FY 2024-2028 NOFO as previously outlined. The planning process should be collaborative between hospitals, community-based health care facilities, public health departments (particularly with local and state response teams), EMS, 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 radiation emergency. This annex template is consistent with our base Health Care 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 templates and resources developed by ASPR TRACIE to support HCCs can be found on their Health Care Coalitions Resource Page. For more information, visit https://asprtracie.hhs.gov or contact our Assistance Center at 1-844-5-TRACIE or askasprtracie@hhs.gov.

Acknowledgements

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1. Introduction

Section Headers/ Subheadings	Description and Considerations	Sample Resources
1.1 Purpose	This section describes what the Radiation Emergency surge annex will address and related HCC goals/objectives for this annex. **Sample language:** The annex describes a coordinated health care response to a large-scale radiation emergency in which the number and severity of exposed, or possibly exposed, patients challenge the capabilities of HCC member facilities. The annex outlines specific incident and response protocols necessary to properly plan for, manage, and care for patients during a radiological emergency. This annex does not replace or supplant jurisdictional emergency operations plans or procedures; it synthesizes and builds upon the existing plans to provide additional health response details. The annex also does not replace the need to have separate radiological protocols, equipment, and training for each health care facility or agency. This annex should ensure that during a radiological emergency: • Coalition members understand their roles and responsibilities for identifying, responding to, and caring for those impacted by a radiological incident. • Resources within the coalition, and external to it, are documented and coalition members understand the timeframe for resource activation and arrival.	American College of Radiology Disaster Preparedness for Radiology Professionals ASPR TRACIE Major Radiological or Nuclear Incidents: Potential Health and Medical Implications ASPR TRACIE Radiological and Nuclear Topic Collection CDC Radiation Emergencies Information for Public Health Professionals Department of Homeland Security Nuclear/Radiological Incident Annex to the Response and Recovery Federal Interagency Operational Plan Environmental Protection Agency Radiological Emergency Response

Section Headers/ Subheadings	Description and Considerations	Sample Resources
	• Each health care facility and EMS agency has a plan, proper training, and the necessary equipment to address the needs of patients impacted by a radiological incident, including the provision of specialty care/treatment plans. • Sources of information regarding care for those impacted by radiological exposure are documented and readily available (e.g., job aids, technical expert consultation). • Emergency management and public health agencies should understand the need for rapid communication to the public; the potential need for shelters and/or additional locations for mass screening and/or decontamination (e.g., CRCs); the coordination of medical countermeasure deployment and secondary transport/transfer coordination.	Health Physics Society Preparation for Receiving Radiation Exposed/ Contaminated Patients Louisiana ESF8 Health & Medical Preparedness and Response Network Coalition State Health Care Coalition Radiologic Surge Annex Miami-Dade County Healthcare Coalition Radiation Emergency Surge Annex National Academies of Sciences Engineering Medicine Federal Planning for Nuclear Incidents National Association of County and City Health Officials Public Health Radiological Response Annex National Council on Radiation Protection and Measurements Responding to a
1.2 Scope	This section should be brief and include: • The timeframe covered by the plan. • The geographic area covered by the plan (refer to base plan). • The involved coalition and jurisdictional partners (may refer to base plan but also include non-traditional coalition partners who may only support the coalition during a radiological emergency). • Any necessary disclaimers about the plan (e.g., not to supersede authorities of the participating entities), jurisdictional requirements, 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 radiological incident that includes multiple LEPCs. • General command structure and communication protocols (may refer to base plan). • Definitions of key terms.	

Section Headers/ Subheadings	Description and Considerations	Sample Resources
	This section may also describe elements not addressed in the plan and refer the reader to other relevant documents, related considerations, or specialty annexes such as pediatric, burn surge, or chemical.	Radiological or Nuclear Terrorism Incident: A Guide for Decision Makers Oak Ridge Institute for Science and Education (ORISE) Radiation Emergency Assistance Center/Training Site (REAC/TS) Pennsylvania Emergency Management Agency Response Resources Radiation Emergency Medical Management (REMM) Hospital Activities During Radiation Emergencies State of Florida Radiological and Nuclear Incident Emergency Response Plan University of Nevada Las Vegas Radiation Emergency Response Plan Wisconsin Department of Military Affairs Radiological Emergency Preparedness
1.3 Overview/ Background of HCC and Situation	This section should include a general overview of the HCC and the community, relative to a radiation emergency, including: • A list of HCC members. • Demographics, including local at-risk groups (e.g., power plant workers, EMS/first responders, industrial/research communities) and at-risk populations (e.g., older residents, pediatric populations). • Geography, to include areas at higher risk of an accidental or intentional radiological event (e.g., power plants, industrial/research facilities). Facilities specializing in or with resources for radiation emergency response, including health care facilities that are Radiation Injury Treatment Network (RITN) members and/or have radiation oncology resources, trauma centers, specialized treatment centers, urgent care facilities, coalition hospitals, poison control centers, and community health centers. A description of the health care system and their potential role during a radiological incident. Coalition agreements (e.g., transfer agreements, resource exchanges, staffing transfers) Key partners and external resources with the necessary radiological expertise needed to temporarily provide treatment, support, and recovery skills. Coalition resources and/or capabilities that will be key during a radiological emergency. This section may also include a comparison of health care facilities' projected in-patient capacity under normal and surge conditions or refer to other such documentation.	

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1.4 Assumptions	This section should outline the key points/assumptions of the plan, such as: • Radiation incidents may be accidental or deliberate in nature (e.g., industrial or transportation accident) and will require prolonged response and extensive resource management challenges. • Substantial differences in response protocols and priorities exist between power plant/industrial, terrorist (e.g., radiological dispersal device/dirty bomb), and nuclear detonation responses. The plan should emphasize the scenario(s) most relevant to the community. Note that communities not directly targeted may still experience substantial effects due to population displacement and diaspora. • The coalition annex does not replace the need for protocols at each hospital and member agency. • Different agencies may have authority over management of accidental or intentional incidents, including the authority to implement shelter-in-place and evacuation orders. • The roles and responsibilities of agencies and organizations will change depending on the severity and scale of the incident and the respective level of activation by impacted jurisdictions and should be outlined ahead of an incident. • There should be an understanding of the general expectations for EMS and fire/rescue personnel during a radiological incident response that is appropriate to regional resources. • Federal, state, and local emergency resources will all be needed during a large-scale event. • Contamination assessments, proper PPE utilization, and decontamination efforts will be essential to protect coalition partners, staff, and the public. • Staff at coalition facilities may be impacted by exposure, fear of exposure, or family obligations (e.g., child/family care if schools are closed). • Fear related to the incident will lead to a surge of asymptomatic/low-acuity patients to local emergency departments, urgent care, and pharmacies. Consider how limited understanding of	

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	exposure to and contamination with radioactive material will contribute to public anxiety and will require multi-modal solutions. • Public safety (e.g., police, fire, EMS) and other first responder personnel are considered a high-risk population; the implementation of protocols for monitoring control zones and effective contamination control measures will be essential for workforce protection. • Federal resources (e.g., ambulance contracts, National Disaster Medical System [NDMS] teams) will not be reliably available in the first 72 hours. • Management of contaminated waste from decontamination efforts should be carried out in consultation with SMEs, U.S. Environmental Protection Agency (EPA), and local water authorities. Each facility or health care organization should understand their specific expectations as coalition members. For example: • Surge protocols specific to a radiation emergency—particularly for screening and potential decontamination— will be needed quickly. Staff must be prepared to pivot operational procedures immediately. • Initial trauma care should precede radiation injury management. Life-saving interventions should not be delayed in order to perform a radiation survey and decontamination. Low level contamination of ambulances and hospitals should be expected but also minimized through clothing control and reduction of tracking (e.g., using “walk-off” barriers or contamination control mats at entry points). • Radiation contamination assessments will require rapid protocol and education implementation. Staff will need to evaluate real versus possible exposure, internal versus external contamination, and assess overall exposure levels for at-risk patients based on serial blood testing.	

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	• Specialized expertise (such as clinical advisors) will be needed to manage the complexities of a major radiological incident (e.g., dose estimation, exposure type, treatment plans, site evaluations, decontamination protocol). • Contaminated injury care and decontamination may require rapid expert consultation. • Screening sites like CRCs will be required to assess low-risk patients. • Depending on the scale of the radiological event, it may be necessary to establish alternate care sites, especially for radiological exposure requiring higher levels of care. • Emergency departments, outpatient care centers, and alternate care sites must be prepared to rapidly screen large groups of potentially exposed individuals, triage, and transport as needed. • Allocation of limited/scarce resources and their distribution should be based on agreed upon prioritization systems/methods. • Large-scale radiological incidents may require volunteers (e.g., Medical Reserve Corps), health care retirees, and trainees to support and relieve screeners and health care workers. • Large-scale fatality management support may be required and plans to address contaminated casualties should be in place. • Community-based interventions will require significant public health effort if an evacuation or shelter-in-place order is necessary. Critical infrastructures may be impacted (e.g., food distribution, isolation assistance, surveillance activities). • Health concerns, prolonged response requirements, difficult work environments, and stress may present behavioral health challenges among staff of coalition members and the general public. • Rural areas may be severely impacted by citizens fleeing an affected area and seeking care.	

2. Concept of Operations

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2.1 Activation	This section should include information on the annex activation process (and levels as relevant); the indicators and triggers that initiate the plan; the use of incident command; and a description of the system if relevant (including the processes/protocols for notifying hospitals and EMS about a radiological incident, and who is contacted). This section should also detail who will be responsible for characterizing the incident severity level to establish accurate timelines, impact zones, and assess infrastructure damage. These activation and notification sections be specific to a radiological incident versus a general disaster process or should otherwise refer to the base plan.	Department of Homeland Security Nuclear/Radiological Incident Annex to the Response and Recovery Federal Interagency Operational Plan Environmental Protection Agency Radiological Emergency Response Authorities Environmental Protection Agency Radiological Emergency Response Planning Federal Emergency Management Agency (FEMA) Planning Guidance for Response to a Nuclear Incident
2.2 Notifications	This section should outline alerting and notification strategies specific to a radiation emergency. It should detail who will be notified, by whom, when, and how. Content should include information on specific communication systems, information management processes, and notification/coordination strategies between the HCC, health care facilities, specialty facilities, and federal, state, local, tribal, or territorial agencies. This section should also consider what mechanisms are in place, or needed, to properly gather information to determine impact and specialty needs, followed by steps for notifying all responding agencies/organizations in a timely manner to ensure proper protective measures are taken (e.g.,	

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	specific state or federal notifications that may need to be made regarding decontamination wash water runoff or public safety notifications about the incident and related immediate actions required).	Health Physics Society Preparation for Receiving Radiation Exposed/ Contaminated Patients National Academies of Sciences Engineering Medicine Federal Planning for Nuclear Incidents National Council on Radiation Protection and Measurements Responding to a Radiological or Nuclear Terrorism Incident: A Guide for Decision Makers Hospital Activities During Radiation Emergencies REMM Terminology to Describe Radiation Incidents State of Florida Radiological and Nuclear Incident Emergency Response Plan University Nevada Las Vegas Radiation Emergency Response Plan
2.3 Roles and Responsibilities	This section should clearly outline HCC, agency, and special facility functions during a radiation emergency, to include: • The role of specialty response teams. • The designated agency charged with leading the radiologic event response, and operating CRCs, detection equipment, and resources for pre-hospital and hospital use, including screening equipment at each hospital. • The expected decontamination capabilities of each facility. • Whether or not facilities have radiation safety/nuclear medicine services/staff. • Whether or not a facility can provide oncology/hematology service and medical toxicology consultation. • Which specific institution, agency, or partner will be responsible for coordinating health care aspects of the response. Note: this may be the same agency listed in an all-hazards plan, or there may be a need to designate specialized entities to assist with the coordinated movement of radiation affected individuals, evacuation or shelter in place activities, and decontamination efforts. Information should differentiate the roles between agencies involved directly with clinical surge care and those actively navigating environmental components of a radiological incident- understanding that some	

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	of these roles may vary depending on the nature of the event (e.g., nuclear power plant incident, nuclear detonation, radiological dispersal device, industrial/lab accident). Information should further detail: • Evacuation and or shelter-in-place orders • Contamination and decontamination protocol • Environmental monitoring • Population-based screening • Investigations • Safety assessments This section should also consider how to identify and manage issues and gaps among responding members, other coalitions, and/or jurisdictions to improve response activities. It should detail the application of crisis standards of care principles with essential radiation exposure protocol following a nuclear detonation, to include how critical resources will be allocated across a region and how new clinical policy will be developed, approved, and implemented. Note that there may *not* be consensus around thresholds and treatment efficacy; the state should be prepared to deconflict and determine recommendations. This section should also define HCC, agency, and specialty facility support and coordination roles (specific to a radiation emergency) such as:	Wisconsin Department of Military Affairs Radiological Emergency Preparedness

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	• Identify which facilities can provide care for patients with severe radiation injury (e.g., hematology/oncology services, familiar with chemotherapy patients) or contamination with radioactive materials (e.g., medical toxicology services). • Define expectations of EMS regarding initial patient distribution from a radiological incident and mutual aid for secondary transfers. • Establish who has responsibility for patient movement activities including matching patients to available resources. • Emphasize and discuss the coordination plan with regional trauma centers and identify local, regional, and national sub-specialty sources of expertise available to support a response- or provide specialty consult (this may include state radiation control program directors, Radiation Operation Support Specialists, radiation safety officers, health physicists, and other consultation resources such as the Radiation Emergency Assistance Center/Training Site (REAC/TS), RITN centers, poison control centers, Civil Support Teams, and others. • Describe how radiation treatment expertise is obtained for crisis standards of care decision-making that is consistent with facility, HCC, and state crisis standards of care plans. • Describe initial coordination and information gathering strategies to determine impact, contamination levels, and the involved isotope(s). • Determine the specific roles of public health entities and emergency management personnel in assessing exposed residents without acute medical needs (e.g., at CRCs).	

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2.4 Logistics	This section should outline any anticipated resource issues during a radiological incident (particularly a nuclear detonation situation) and the strategies for the HCC and member facilities to address these challenges. These should include: • Resource shortages • Resource allocation • Supply chain issues • Protocol for how resources are requested (e.g. radiation countermeasures such as Prussian Blue) • Thresholds to identify inadequate supply levels to meet demand consistent with the HCC crisis standards of care plans • Specific mechanisms to prioritize resource allocation if necessary This section should also include documentation of available local, state, and interstate resources and activation procedures that can support a specialty radiological response and key resource gaps that may require external support (including inpatient and outpatient resources). Special consideration should include behavioral health support for patients, families, and staff. There may also be a need to collect and process evidence and utilize laboratory resources to assess bodily fluids and other samples. Depending on the severity of the incident, this may cause strain on existing resources. Policies and plans should include strategies for expanding laboratory capabilities and consider safety guidance and protocol for safe evidence gathering/processing.	ASPR TRACIE Resources • The Exchange Issue 8: Supporting Hospital Surge—Meeting Patient and Staff Needs • Disaster Available Supplies in Hospitals (DASH) Tool • Disaster Available Supplies in Hospitals (DASH) Tool: Personal Protective Equipment (PPE) • Partnering with the Healthcare Supply Chain During Disasters Caro, J.J., DeRenzo, E.G., Coleman, C.N. et al. Resource Allocation After a Nuclear Detonation Incident CDC Community Reception Center (CRC) Drill Toolkit Nuclear/Radiological Incident Annex to the Response and Recovery Federal Interagency Operational Plan

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2.4.1 Space	This section should include information on the available space needed for a radiation emergency response, including strategies for setting up, occupying, and managing these spaces (e.g., alternate care sites or reverse isolation in hospitals). This should include regulatory considerations, use limitations, access restrictions, and security needs. Coalition members may integrate at the jurisdictional emergency operations command during a radiation event. Plans should consider the need for: • CRCs, shelter-in-place sites, virtual assessments, or alternate care sites • On-scene triage/screening, assembly center, and community center space • Specialty treatment facilities or space to accommodate at-risk population needs (e.g., pediatric, incarcerated, unsheltered). • Virtual and on-site coordination (e.g., at a Continuity of Operations [COOP] site).	FEMA Planning Guidance for Response to a Nuclear Detonation National Academies of Sciences Engineering Medicine Federal Planning for Nuclear Incidents Pennsylvania Emergency Management Agency: Nuclear Power Plants Pennsylvania Emergency Management Agency Radiological Responder Certification Program REDi Healthcare Coalition Resource Coordination Process Radiation Emergency Medical Management Nuclear Detonation: Weapons, Improvised Nuclear Devices Radiation Response Volunteer Corps Development Toolkit
2.4.2 Staff	This section should include strategies for increasing/maintaining staffing levels, including specialty care staff and those needed to adequately respond to a large-scale radiological event. Plans should consider: • Referencing base/other plans for general staff support/surge staffing. • Just-in-time training strategies. • How limited staffing may impact facilities, health care providers, and overall HCC duties during a radiation event.	

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	• Plans for staff to shelter in place, who may be unable to travel, or who may be unwilling to assist due to fears of exposure/contamination. • Available health care facility radiation safety/nuclear medicine personnel to assist with critical decision making and response coordination. • Cross-training staff on radiological safety and response protocol and leveraging staff from RITN medical centers, pediatric critical care hospitals, or other major medical centers. • Protocols for decontamination teams at hospitals to guide radiologic decontamination activities. • How to leverage existing government and non-governmental volunteer registration programs (e.g., Emergency System for Advance Registration of Volunteer Health Professionals [ESAR-VHP] or Medical Reserve Corps [MRC] personnel) or NDMS staffing support for radiation incident support. • How to incorporate hospital, HCC, jurisdictional, or state-based medical assistance teams/expertise into medical surge planning and response. • Support services, including health care and non-health care staff or material resources required to support the care of radiologically exposed patients (e.g., blood banks/ blood product providers, laboratories, waste and contaminated material management, food and dietary services, pharmacy, and environmental services). • Long-term engagement with a specialist or SMEs (e.g., radiologists, radiation oncologists, medical toxicologists, and medical physicists).	State of Florida Radiological and Nuclear Incident Emergency Response Plan University Nevada Las Vegas Radiation Emergency Response Plan A Decision Makers Guide: Medical Planning and Response for a Nuclear Detonation Wisconsin Department of Military Affairs Radiological Emergency Preparedness
2.4.3 Supplies	This section should document the coalition-level equipment expectations of member health care facilities relevant to a radiological incident including the coalition-level strategies that would ensure adequate supply levels and equipment are made available. This section may also include: • Information on coalition-level resources and usual capacity data expectations.	

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	• Documentation of essential elements of supply information to be shared across the coalition (e.g., availability of detection and dosimetry equipment for EMS/hospitals). • Policies to request, receive, and distribute radiation incident-specific assets in accord with jurisdictional public health and emergency management processes, including personal protective equipment (PPE), respirators, medical treatments, radiation countermeasures, and decontamination materials/supplies. • Documentation of public safety and hospital radiation assessment resources (e.g., dosimeters, hand-held and portal detectors/survey instruments). • Documentation of appropriate PPE and other resources needed for hospital decontamination, equipping CRCs. • State plans to request and distribute local, state, and federal radiation countermeasures (e.g., Prussian Blue for cesium 137 and thallium, a chelating agent for radioactive plutonium, bone marrow cytokines for acute radiation illness). • Cached/regional detection equipment/supplies for hospitals/EMS agencies.	
2.5 Operations-Medical Care	This section should document categories of clinical care and emergency management needs associated with a radiation emergency. Specific operational requirements for each category should be outlined.	American College of Radiology Disaster Preparedness for Radiology Professionals ASPR TRACIE Resources • Continuity of Operations (COOP)/ Business Continuity Planning Topic Collection
2.5.1. Triage and Screening	This section should include triage guidelines for exposed or possibly exposed patients (e.g., ensuring that EMS does *not* use vomiting as a triage basis, mentioning use of the Exposure and Symptom Triage (EAST) sorting tool after a nuclear detonation), and outline expectations for hospital transport to	

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	adequate treatment facilities (e.g., establishing screening criteria for CRCs, developing capabilities for conducting outpatient absolute lymphocyte counts). Note: To determine who should receive limited resource bone marrow cytokines, review the RITN Cytokine Administration Triage Guidelines for Acute Radiation Syndrome (Adult and Pediatric). These guidelines provide health care providers with myeloid cytokine triage guidelines to assist with the administration of these pharmaceuticals to adult and pediatric casualties in the immediate aftermath of a radiological disaster. This section should also list: • Available local experts in radiation injury/response who may be located outside the immediately affected area who will need to be engaged. • What information is needed to support decision-making (e.g., exposure level, patient history, diagnostic data, lab/test results, presence of external and/or internal contamination with radioactive materials). • How the coalition will engage with needed SMEs and specialty staff.	• Major Radiological or Nuclear Incidents: Potential Health and Medical Implications • Recovery Planning Topic Collection CDC Radiation Emergencies Information for Public Health Professionals CDC Radiation Emergencies: Population Monitoring Department of Homeland Security Health and Safety Planning Guide for Protecting First Responders Following a Nuclear Detonation Nuclear/Radiological Incident Annex to the Response and Recovery Federal Interagency Operational Plan FEMA Resources • Planning Guidance for Response to a Nuclear Detonation
2.5.2 Patient Care/ Management	This section should describe the HCC resources available to support radiation emergency surge operations. It should include the HCC role in developing and helping to implement strategies to maintain patient care when the system is overwhelmed.	

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	Plans should include the ability to shift from conventional to contingency to crisis care and back as the situation requires, and outline/consider: • What guidelines will be used to prioritize or guide treatment or decontamination (e.g., extent of trauma, external contamination counts, partial or whole-body exposure.). • How just-in-time training will be conducted to support care of radiation patients in a limited resource setting, and how related information will be circulated to other facilities. • How patient movement will be coordinated and by whom. • The potential need to move a large number of patients with minimal current symptoms but who are at significant risk for complications due to significant radiation exposure. • Mechanisms and processes to track patients, contamination levels, lab results, and treatments. • The need for palliative care during a large-scale incident.	• Improvised Nuclear Device Response and Recovery: Communicating in the Immediate Aftermath • Radiological Emergency Preparedness (REP) National Public Information Map • Resilience Analysis and Planning Tool (RAPT) Greater New York Hospital Association Acute Care Needs for Responding to a Detonated Improvised Nuclear Device Greater New York Hospital Association Mass Casualty Incident Response Toolkit Hick, J.L, Coleman, C.N. Population-Based Triage, Treatment, and Evacuation Functions Following a Nuclear Detonation Los Angeles County Multi-Agency Radiological Response Plan Monitoring People for Contamination at Public Reception Centers
2.5.3 Treatment	This section should detail the role of the HCC in planning for and implementing monitoring and treatment protocols for patients with bone marrow injury. This should include: • How specialty consultations would be initiated and maintained for the duration of patient care, including transport to different facilities. • An overview of the coalition's role in distribution/administration of treatments. • The need to establish consultation and coordination mechanisms with hematology-oncology, and radiological facilities, including engagement with the RITN and other similar organizations (e.g., NSPS) to stay current on approved treatment protocol. • Connecting with the poison control center especially in situations where contamination with radioactive materials is the predominant issue.	

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	• A clear understanding of the request process and guidance for use of radiation countermeasures.	Lawrence Livermore National Laboratory Nuclear Detonation Fallout: Key Considerations for Internal Exposure and Population Monitoring National Academies of Sciences Engineering Medicine Federal Planning for Nuclear Incidents National Council on Radiation Protection and Measurements Responding to a Radiological or Nuclear Terrorism Incident: A Guide for Decision Makers Oak Ridge Institute for Science and Education Radiation Countermeasures REMM Resources • Diagnosis and Treatment • Hospital Activities During Radiation Emergencies • Nuclear Detonation: Medical Management
2.5.4 Safety and Control Measures	This section should summarize agency policy and outline the role of the coalition in establishing and implementing necessary safety and control measures during a radiological emergency (i.e., limiting exposures and avoiding spread of radioactive/contaminated materials). Plans should: • Incorporate jurisdictional emergency management protocols. • Outline the coalition involvement and strategy for supporting and communicating evacuation or shelter-in-place orders. • Consider the need for large-scale disposal of contaminated waste from decontamination and patient care operations. • Consider any special transportation waste management protocol (e.g., state, local regulations on the disposition or transportation of certain types of medical waste, including nuclear contaminated materials). • Reference specific decontamination protocols for self-care, pre-hospital, community reception centers, and health care facilities, and highlight the need for just-in-time training on standard safety measures. • Include relevant waste management protocols for EMS agencies. • Ensure there are local protocols for establishing thresholds for rescue (e.g., > 10 mrem/h) and safe zones (e.g., <1 mrem/h) for first responder operations.	
2.5.5 Fatality Management	This section should describe the role of the HCC relative to management of contaminated decedents with hospitals and relevant partners.	

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2.5.6 Transport	This section should refer to transport policies, plans, and procedures, including transport of potentially contaminated casualties and the mass movement of persons with significant radiation exposure but who have minimal current symptoms (i.e., latent phase radiation illness). This section should also reference any use of EMS for "level loading" during a radiological emergency and consider the need for safe inter-facility transport of stable, unstable, and potentially unstable or contaminated patients. Plans should Include regional resources for ground and air transport for patient movement.	• Recovery/Resilience after Radiation Emergencies Radiation Injury Treatment Network Triage State of Florida Radiological and Nuclear Incident Emergency Response Plan University of Nevada Las Vegas Radiation Emergency Response Plan Western Region Burn Disaster Consortium Burn Injury Guidelines for Care Wisconsin Department of Military Affairs Radiological Emergency Preparedness
2.5.7 Surveillance, Tracking, and Situational Awareness	This section should describe the HCC's role in monitoring populations impacted by a radiological incident and include: • Coalition strategies for tracking patient's radiological exposure information. • Coalition-based protocol for developing and sharing situational awareness information (e.g., patient/bed tracking, availability of essential resources and burn beds, surge capacity status, decontamination sites, shelter in place recommendations, evacuation status). • Plans for family reunification efforts as needed.	
2.5.8 Rehabilitation and Outpatient Follow Up Services	This section should discuss the use of a registry and patient tracking strategies for those who were screened and treated. This should include: • Outpatient follow-up services during the acute phase, such as serial lymphocyte counts (as appropriate).	

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	• Coordination of continued care following a surge incident. • Procedures for repatriation of patients transferred out of the area. • Developing a tracking mechanism (e.g., a registry) to monitor long-term needs of affected patients.	
2.6 Special Considerations		
2.6.1 Behavioral Health	This section should include considerations for access (including via telehealth) to a continuum of stepped-care mental health services for patients, caregivers, and providers specific to radiation survivor support and community radiation counseling. Consider the role of the coalition in supporting long-term mental health implications in cases with prolonged or severe dose rate exposure.	ASPR TRACIE Resources • Disaster Behavioral Health Resources Page • Mental/Behavioral Health (non-responders) Topic Collection • Disaster Behavioral Health Self Care for Healthcare Workers Modules CDC Psychological First Aid in Radiation Disasters
2.6.2 Combined Injury	Combined injury also results in significantly worsened prognosis which should be accounted for in decisions about prioritization and resource allocation in conjunction with crisis standards of care plans.	

Section Headers/ Subheadings	Description and Considerations	Sample Resources
	This section should consider regional resources for combined radiation plus trauma or burn injury and may reference HCC base and burn plans to ensure that decision-making about transfers and treatment incorporate consideration of multiple injury mechanisms.	
2.6.3 Pediatric and At-Risk Populations	This section should outline considerations specific to at-risk populations and people with special needs (e.g., children, pregnant or breastfeeding women, older adults, individuals with underlying physical and behavioral health conditions, persons experiencing access to care issues and/or language barriers, individuals experiencing homelessness, and incarcerated individuals). Plans should consider: • The need to support special interventions (e.g., higher sensitivity to radiation, smaller body size, physical characteristics, and increased stress/panic levels) to ensure access to appropriate services and care. • Conditions specific to caring for pediatric cases including triage, specialty care, transport needs, or specialty resources/supplies. • Decision-making for pediatric patients with trauma (e.g., is the regional care center that receives children capable of caring for trauma and radiation illness? If not, what factors will decide where a pediatric patient goes?) • Possible issues surrounding suddenly orphaned children, children separated from family, and the need to reunite family members/caretakers.	American Academy of Pediatrics Considerations Before, During, and After Radiological or Nuclear Emergencies Institute for Disaster Mental Health at SUNY New Paltz Disaster Mental Health Assisting People Exposed to Radiation Institute for Disaster Mental Health at SUNY New Paltz Disaster Mental Health Participant Manual At-Risk/ Special Needs Populations During Radiation Emergencies
2.6.4 Communications	This section should detail the role of the HCC in disseminating timely, accurate, and consistent information to partners and the public. Coalition partners should:	ASPR TRACIE Topic Collections: • Communication Systems • Information Sharing

Section Headers/ Subheadings	Description and Considerations	Sample Resources
	• Work with member organizations and local jurisdictions to ensure streamlined communications efforts across the community to prevent the public from overwhelming health care systems. • Ensure consistent messaging and understanding of incident status and severity via use of the CDC Radiation Hazard Scale. • Have mechanisms in place to maintain awareness of current conditions within the community. • Monitor multiple sources of information to identify and counter rumors and misinformation. • Consider the best mechanism to inform public what actions to take and avoid (e.g., instructions for individuals within a 1-mile radius of the incident). Provide specific guidance on what to do if they were in a contaminated area or are experiencing symptoms. • Provide real-time information through coordinated HCC and jurisdictional public health information sharing systems. Adjust timing and content to fit operational tempo of the response. • Consider how the HCC will share situational awareness information or other essential data received from the state, Medical Operations Coordination Cell (MOCC), or other organization within the reporting chain. • Consider designating media-trained clinicians to speak on behalf of the HCC. FEMA offers a Public Information Officer training program that covers the entirety of public information communications concepts.	• Risk Communications/ Emergency Public Information and Warning • Social Media in Emergency Response CDC's Response to Nuclear or Radiological Emergencies Department of Homeland Security Nuclear Radiological Incident Annex to the Response and Recovery Federal Interagency Operational Plan Executive FEMA Planning Guidance for Response to a Nuclear Detonation FEMA Improvised Nuclear Device Response and Recovery: Communicating in the Immediate Aftermath State of Florida Radiological and Nuclear Incident Emergency Response Plan University Nevada Las Vegas Radiation Emergency Response Plan

Section Headers/ Subheadings	Description and Considerations	Sample Resources
2.6.5 Jurisdictional-Specific Considerations	This section should outline and specific jurisdictional/demographic/geographic based protocol that could impact response and recovery efforts. (e.g., tribal, or territorial policies, border control laws).	ASPR TRACIE Rural Disaster Health Topic Collection Emergency Information for Illinois Farmers, Food Processors, and Distributors Near Nuclear Power Stations in Illinois Medical Response to a Nuclear Detonation: Creating a Playbook for State and Local Planners and Responders Talen Energy 2026-2027 Emergency Preparedness Guide Washington State Department of Health State Radiological Emergency Preparedness Agencies

3. Appendices

Section Headers/ Subheadings	Description and Considerations	Sample Resources
3.1 Training and Exercises	This appendix should include relevant baseline or just-in-time training for radiological incident care. This section should address how to: • Develop a coalition-wide training, exercise, and evaluation program to improve response capabilities in a radiological incident scenario. This may include safety, decontamination, and screening or triage training; exercise planning; implementation of acute radiation syndrome resources; and establishment of community reception centers. • Ensure ongoing training on appropriate use of PPE; radiation, contamination, and exposure assessments; decontamination protocols; and treatment regimens. • Include radiologic incident specialty personnel and jurisdictional level planning/training/exercises. • Develop exercise plans to coordinate patient management and distribution for a variety of radiation incident scenarios with differing levels of severity and impacts. These exercises should include assessing and treating complex medical cases, to include at-risk populations.	ASPR TRACIE Radiation Emergency Surge Annex Tabletop Exercise Template Situation Manual California Emergency Medical Services Authority Nuclear Detonation Improvised Nuclear Device Scenarios California Office of Emergency Services: Nuclear Power Preparedness Program CDC Radiological Terrorism: Just-in-Time Training for Hospital Clinicians Department of Homeland Security Radiological Emergency Preparedness Program (REPP) FEMA: IS 302: Modular Emergency Radiological Response Transportation Training

Section Headers/ Subheadings	Description and Considerations	Sample Resources
		FEMA: REP Program Manual Institute for Disaster Mental Health at SUNY New Paltz Disaster Mental Health: Assisting People Exposed to Radiation Minnesota Multi-year Planning, Training, and Exercise Plan Template National Alliance for Radiation Readiness Radiation Training Modules for Public Health Oak Ridge Institute for Science and Education Radiation Emergency Assistance Center Training Site Radiation Emergency Medical Management Implementing the Scarce Resources Project Guidance: Video Teaching Tools RITN Resources • Tabletop Exercises • Training Materials

Section Headers/ Subheadings	Description and Considerations	Sample Resources
		• Functional Radiological/ Nuclear Exercise Toolkit Radiation Response Volunteer Corps Development Toolkit State of Florida Radiological and Nuclear Incident Emergency Response Plan University Nevada Las Vegas Radiation Emergency Response Plan CDC Radiological Terrorism: Just-In-Time Training for Hospital Clinicians
3.2 Legal Authorities	This appendix should list applicable legal authorities/regulatory information specific or relevant to radiological incidents, mass casualties, and waste management, surveillance and population monitoring, and any pertinent safety and control measures (e.g., evaluation procedures or shelter in place). This may refer the reader back to the base plan unless related issues are covered in this section. Interstate issues of staff licensure/sharing, use of volunteers, or patient transport may be particularly relevant for radiological incidents when both providers and patients cross state lines.	ASPR TRACIE Healthcare-Related Disaster Legal/ Regulatory/ Federal Policy Topic Collection

Section Headers/ Subheadings	Description and Considerations	Sample Resources
3.3 Additional Resources/ References	This appendix lists applicable plans, tools, templates, and/or resources that were used to develop the radiation emergency surge annex. This may include: • Decision support tables, graphics • Sample forms • Treatment visuals • Clinical guidance tip sheets • Decontamination methods and instructions • Media packages related to public messaging and crisis communications best practices	American Hospital Association Emergency Readiness Department of Labor Radiation Emergency Preparedness and Response FEMA Planning Guidance for Response to a Nuclear Detonation Oak Ridge Institute for Science and Education Occupational Safety and Health Administration Ionizing Radiation Radiology Medical Response to a Major Radiologic Emergency: A Primer for Medical and Public Health Professionals University of Rochester Medical Center Radiation Emergencies

Appendix A: Health Care Coalition Radiation 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 Surveillance, Tracking, and Situational Awareness
2.5.8 Rehabilitation and Outpatient Follow Up Services
2.6 Special Considerations
2.6.1 Behavioral Health
2.6.2 Combined Injury
2.6.3 Pediatric and At-Risk Populations
2.6.4 Communications
2.6.5 Jurisdictional-Specific Considerations

3. Appendices

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