

NWWIHERC Region 1 Nuclear/Radiation (Nuc/Rad) TTX AAR

Summary of Findings and Improvement Plan



Northwest Wisconsin
**Healthcare Emergency
Readiness Coalition**

Incident Date: April 14, 2023

Incident Overview

Incident Hazard or Threat: Nuclear/Radiological Incident, somewhere in the NWWIHERC Region (15 Counties and four Tribes).

Monday Morning, 1030

Your hospital is at current staffing and supply levels, with current daily occupancy this morning (8:00 am). You become aware of a transportation incident on a local highway that is impacting multiple vehicles including an overturned turned construction truck. The incident occurred in a relatively populated area with a skilled nursing home, school, and houses nearby. Within minutes, local EMS begin transferring wounded to all nearby medical facilities for a variety of major/minor traumas.

About a half hour later, after receiving a few patients, you are notified that the driver of the construction truck was able to tell responders that he was carrying a Nuclear Density Gauge in his truck. The local fire departments' notice the gauge appears damaged. Radiation detectors are indicating higher than normal levels of gamma radiation.

Monday 11:30 a.m. (radiation identification + 1 hour)

By 11:30 a.m. it is verified that there is radiation leaking from the nuclear density gauge. All patients have been transported from the scene including 1 Red Trauma patient that may have been exposed.

The Type 1 Haz Mat Team has been requested through the WEM Duty Officer and is on their way to the scene.

Social media outlets have reported that the accident involved something "radioactive"; 911 operators/Poison Control Centers are being inundated with calls.

Healthcare facilities are beginning to see patients and EMS transports of people who were nearby and are now worried about potential contamination.

After Action Report: The purpose of this document is to provide an analysis of the operational coordination and communications provided by NWWIHERC Region 1.

Participants in the exercise included:

Organization	Name
NWWIHERC Program Coordinator	Aimee Wollman Nesseth
NWWIRTAC Coordinator	Robert Goodland
WISCOM SME and Baldwin EMS	John Kruk
Radiation Protection, WI DHS	DJ LeClear
Radiation Protection, WI DHS	Mark Paulson
Emergency Management	
Polk County Emergency Management	Lisa McMahan
EMS/Air Medical	
Brule Fire/Douglas County Vacationland Fire/EMS Association	Keith Kessler
Iron River Ambulance/Bayfield/Ashland EMS Council	Jan Victorson
Eau Claire Fire Rescue/Type 1 HazMat Team	Jon Schultz
Lakeview EMS	Andrew Rieder
Tilden Volunteer Fire Department	Kathy Shear
Home Health/Hospice	
Aveanna Home Health and Hospice	Denise McNeely
	Donna Shellenberger
Mayo Clinic Home Care and Hospice	Samantha McDonald
Hospitals	
Advent Health	Amanda Brommer
Amery Hospital	Alisa Lang
Burnett Medical Center	Todd Snyder
Cumberland Healthcare	Jamie McCready
Hayward Area Memorial Hospital	Mark Manning
HealthPartners Valley Hospitals (Amery, Hudson and Westfields)-	Darren Van Blaricom
Marshfield Medical Center-Rice Lake	Sarah Barahona
	Ien Novak
	Lexie Schwartz
Mayo Clinic Health System-Eau Claire	Bobby King
Mayo Clinic Health System-Northland	Melissa Miller
	Jennie Jenkinson
Memorial Medical Center-Ashland	Doug Jennings
River Falls Area Hospital	Ashley Greengard
	Chris Breitbach
Spooner Health	Kathy Semrad
Western WI Health-Baldwin	Robb Paulson
	Shonda Helgeson
Local Public and Tribal Health	
Ashland County Public Health	Liz Szot

Barron County Public Health	Laura Sauve
	Karla Potts-Shufelt
	Nicole Nelson
Bayfield County Public Health	Sara Wartman
	Peter Morrissette
Burnett County Public Health	Jessica DeMontigny
Chippewa County Public Health	Jenny Lenbom
	Allie Isaacson
Douglas County Public Health	Cindy Freeberg
Eau Claire City-County Public Health	Joe Kalscheur
	Jackie Krumenauer
Pepin County Public Health	Heidi Stewart
Sawyer County Public Health	Julia Lyons
St. Croix County Public Health	Kelli Engen
	Mary Wienke
Washburn County Public Health	Cheri Nickell
Western WI Public Health Readiness Consortium	Brittany Fry
	Autumn Cernohous
	Tori Lammar
Long Term Care	
Chippewa Manor	Jill Gengler
Christian Community Home-Hudson	Jennie Orman
Dove Healthcare-Osseo	Mandy Olson
Glenhaven	Sherry Goodman
Meadowbrook at Bloomer	Tim Hearden
Spring Valley Care Center	Kevin Larson

The brief hotwash and follow up participant survey allowed an opportunity to solicit stakeholder feedback and collect response data to validate processes that worked and identify areas of improvement for processes that were not effective and provide recommendations to enhance these areas. These identified strengths, areas for improvement and suggested corrective actions are captured in this After-Action Report (AAR) and associated Improvement Plan (IP) Matrix.

Analysis of Incident Core Capability Performance

Aligning incident objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual events to support preparedness reporting and trend analysis. Table 1 includes the incident core capabilities with associated overall performance ratings (P, S, M, or U) as evaluated in the event after action debriefing.

Table 1-Summary of Core Capability Performance

Core Capability Performance	Rating
Operational Communication <ul style="list-style-type: none"> • Know how to access resources and expertise from Radiation Protection team at Wisconsin Department of Health Services (WI DHS) • Ensure situational awareness throughout the simulated event. 	S
Healthcare and Medical Response Coordination <ul style="list-style-type: none"> • Utilize information sharing procedures and platforms • Coordinate response strategy, resources, and communication 	S
Continuity of Health Care Services Delivery <ul style="list-style-type: none"> • Maintain access to non-personnel resources during an emergency • Protect responder’s safety and health 	S
Ratings Definitions	
<ul style="list-style-type: none"> • (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s). • (S): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. However, opportunities to enhance effectiveness and/or efficiency were identified. • (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance; contributed to additional health and/or safety risks; and/or was not conducted in accordance with applicable plans, policies or procedures. 	

Core Capability: Operational Communication

Description: Ensure members of the NWWIHERC know how to access resources and expertise from the Radiation Protection team at WI DHS and ensure situational awareness throughout the simulated event.

Analysis and Key Observations:

Radiological events are rare and response to these incidents is often misunderstood. Participants in this exercise expressed appreciation for the educational presentation describing the work of the Radiation Protection team at the Wisconsin Department of Health Services (WI DHS). Communication is always identified as an opportunity for improvement in any exercise. Preparing for community-wide communication will be especially important in this type of incident to prevent “worried-well” from overwhelming our health care systems.

Strength(s):

- Presentation from State of WI Radiation Emergency Preparedness (REP) team was easy to follow, informative, highly valuable, and reassuring with good take away information.
- Presentation from State REP team raised awareness of the types of radiological events and materials being transported throughout our region.
- Relief was expressed knowing the WI REP team is available and has many resources and expertise to support these types of uncommon incidents.
- Information presented regarding the Wisconsin Type 1-Type 4 HazMat team capabilities was valuable.
- Contact information for the Radiation Protection team and HERC Coordinator was shared and all organizations were encouraged to include these 24/7 numbers in their emergency preparedness plans.
- Participation in this exercise included individuals from many different disciplines and organizations who are willing to learn about this type of event and able to work together to provide a robust response as needed.
- Helpful to understand how crucial public information would be in this type of event and the need to have trained public information officers ready to address public concerns and misunderstandings of radiological events.
- Helpful to have Prairie Island Nuclear Reactor near our region. Pierce County has robust plans and teams of people trained to respond quickly for things such as a reception center. These resources and plans could potentially be utilized by other counties in the region if necessary.

Recommendation(s):

- There is an identified need for increased communication between WI DHS REP team and potential responding agencies for situational awareness of available resources and capabilities.
- The WI DHS REP team contact information needs to be added to plans and policies and readily available.

- The exercise served as a reminder that communication between on-scene responders, dispatch centers, and receiving hospitals must be a priority to allow the hospital time to prepare for incoming patients.
- The importance of the role of the public information officer was emphasized, particularly if broad communication to the public or specific neighborhoods is necessary. Coordination between all core members of the HERC would be crucial.

Core Capability: Health Care and Medical Response Coordination

Description: Utilize Information Sharing Procedures and Platforms and coordinate response strategy, resources, and communications.

Analysis and Key Observations:

Healthcare and medical response for a radiological event requires good communication and coordination between the responders in the field, emergency department, and other health organizations to care for the injured, protect responder safety and health, and the assure the community at large. This exercise offered an opportunity to discuss key roles and responsibilities in a radiological event and identified areas for additional training, equipment, and education.

Strength(s):

- It was helpful to learn about and understand the low risk of a major radiological event causing serious health risks.
- It was beneficial to learn about the process of triage and treatment during a radiological event and to have identified resources to assist with questions, guidance, or concerns.
- It was helpful to have good conversation between response partners and to gain a better understanding of the health care perspective on this topic.
- It is always helpful to work through a case study or scenario to problem-solve response coordination with colleagues in a safe place.

Recommendation(s):

- Identified a need to train and practice response coordination for a transportation related radiological event with local law enforcement, fire and EMS services.
- There is a need to train medical staff of decontamination processes for radiological exposure.
- Coordination between on scene responders and hospitals needs to be explored in more depth.
- Emergency response plans in all disciplines and organizations may need to be reviewed and updated to reflect EMS capabilities regarding hazardous materials responses.
- Consider creating a crosswalk of roles and responsibilities for all partners who may be called upon to respond to a major or minor radiological event.
- It is not always clear which responding agency is responsible for contacting external resources. Is it the Incident Commander from the scene, or someone else?

Core Capability: Continuity of Health Care Service Delivery

Description: Maintain access to non-personnel resources during an emergency and protect responder's safety and health.

Analysis and Key Observations:

It remains unclear what type of additional equipment and resources hospitals in the NWWIHERC need to have on hand to provide safe and effective care for patients who may be exposed to radiological materials and to protect responder safety and health. The majority of hospitals have the necessary personal protective equipment to protect health care providers. Radiological detection equipment within the hospital is limited unless the hospital has a nuclear medicine department. Therefore, there would need to be coordination and communication from the field if there was any concern regarding radiological exposure.

Strength(s):

- It is helpful to understand that the public or community at large may have limited knowledge or understanding of radiological exposure or events and may overwhelm the health care system as they seek answers and reassurance. We can plan for this, now that we are aware it may be an issue.
- Helpful to understand the low risk of a large radiological event.
- Helpful to understand the availability of resources and expertise within the region (Type 1 team in Eau Claire and Chippewa counties) as well as resources from the State REP team.
- This exercise raised awareness of other types of radiological materials being produced or transported in our region other than the Prairie Island reactor. This emphasizes the need for up-to-date decontamination and hazardous materials plans and policies.
- Prairie Island Nuclear Reactor emergency plans and policies are in place and there are experts in the region who know how to respond to a radiological event and are willing to share their expertise.

Recommendation(s):

- Take a deeper dive into plans and policies for general awareness of emergency preparedness plans for this type of emergency.
- Some emergency preparedness decontamination plans do not include radiological events due to the infrequency of these types of events.
- Medical staff is trained and has a good understanding of a radiological emergency. Administration may not have the same training or understanding and this may impact response decisions.
- Many hospitals in the NWWIHERC do not have radiation detection equipment and this may be cost-prohibitive.

Appendix A-Improvement Plan (IP)

This IP has been developed specifically for NWWIHERC based on the response to the Radiological Event TTX and Facilitated Discussion held April 14, 2023.

Core Capability	Recommendations	Capability Element¹	Primary Responsible Organization	Target Completion Date
Operational Communication	Post WI DHS Radiation Emergency Preparedness team contact information and website link to the NWWIHERC website under "Resources".	Planning	HERC Program Coordinator	June 30, 2023
	Support in-person and on-line Public Information Officer training by posting opportunities on the NWWIHERC website under "Calendar and Resources".	Training	HERC Program Coordinator	June 30, 2023
Health Care and Medical Response Coordination	Create a crosswalk of roles and responsibilities for all partner disciplines who may be called upon to respond to a major or minor radiological event.	Planning	HERC Program Coordinator with Board of Director Representatives	June 30, 2023
Continuity of Health Care Service Delivery	Consider what, if any, radiological or hazardous materials related detection equipment makes sense for the hospitals in the NWWIHERC to have readily available and consider making a purchase for all hospitals in the region.	Equipment	HERC Board of Directors HERC Clinical Advisor	June 30, 2023

¹ Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.