Indiana

DISTRICT 7

Healthcare Coalition

Radiation Surge Annex

Annex Revision Information

VERSION	DATE	CHANGES	AUTHOR
1.0	2/23/2022	Original Annex	MESH

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Introduction

Purpose

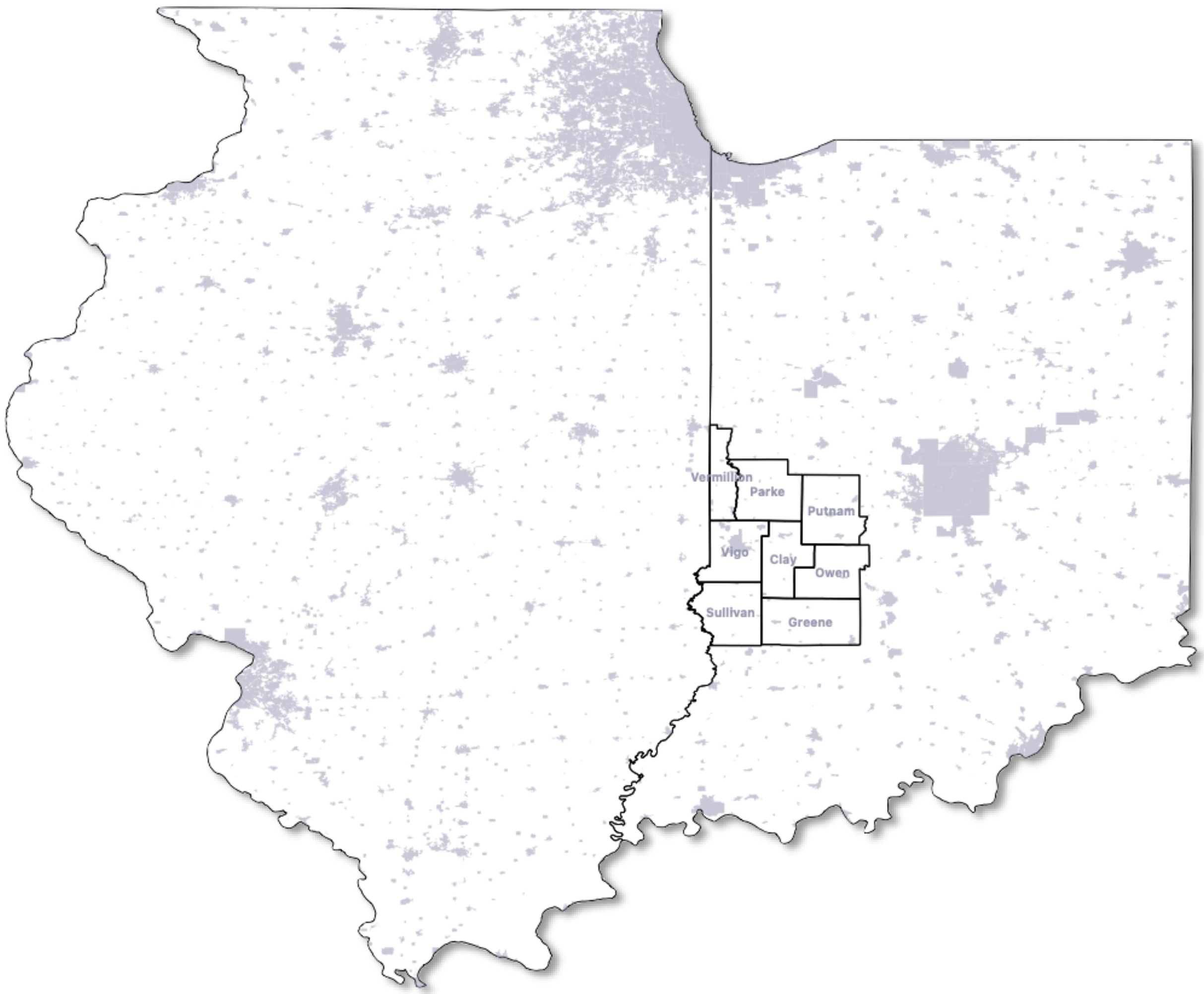
The purpose of the Radiation Surge Annex is to support the Indiana District 7 Healthcare Coalition (D7 HCC) ***Response Plan*** and provide support to the local community in the event of an incident in which the number and severity of radiation patients exceeds the capability of HCC member facilities. This functional annex will identify the experts and specialized resources within D7 and the mechanisms/processes that will be used to determine which patients go to which facilities.

Scope

The scope of the D7 HCC Radiation Surge Annex is limited to supporting the participating Core 4 (eight Emergency Management Agencies; eight Health Departments; seven Hospitals; seventy-five Emergency Medical Services providers) and ancillary member organizations strategic preparedness planning efforts and causing a universal understanding of cooperation and effort within the Indiana District 7 region.

The D7 HCC encompasses 8 counties within west-central Indiana. The coalition is open to all identified member partner types as identified by the Assistant Secretary for Preparedness and Response.

Indiana District 7 HCC Counties



(Map: *MESH Coalition* | Data Source: *US Census Bureau, 2021*)

This document is designed to serve as a supplement to participating organizations, and does not supplant, effective emergency management and/or emergency preparedness programs for each participating organization. Nor does this document supersede any local, county, regional, state, or federal entities preparedness plan.

The District 7 Executive Board Chairperson or designee is responsible for serving as the primary on-call point of contact for the coalition. The Chairperson or designee is responsible for communicating incident emergency status to the coalition as well as to the Indiana Department of Health (IDH).

The D7 Executive Board Chairperson, the Healthcare Coalition Readiness & Response Coordinator, or their designee shall assume the role of Healthcare Coalition Coordination Center (HCCCC) Manager representing the District 7 HCC.

As the HCCCC Manager, the D7 Executive Board Chairperson shall assign HCCCC staff positions as needed.

In the event the D7 Executive Board Chairperson is unavailable or voluntarily relinquishes command, the Vice Chairperson will assume all roles and responsibility with all given authority of the D7 Executive Board Chairperson as the HCCCC Manager.

In like fashion, the Secretary/Treasurer will assume the role of HCCCC Manager given the absence of the aforementioned officers with one exception. An executive session shall be called by the Secretary/Treasurer, for either live attendance in a common place or by virtual meeting, and an interim plan shall be put in place by majority vote for any further succession needs. These provisions will be upheld only for as long as necessary to complete the event or the re-assumption of Management by a higher-level Officer, if possible.

Administrative Support of Annex Review

The District Coalition will review this annex annually to ensure valid and current information. Additionally, the D7 HCC will review this annex after an activation of the annex, whether in response to a real-world incident or exercise.

District 7 Healthcare Coalition Overview and Situation

Overview and Situation

The D7 HCC geographically includes eight counties in west-central Indiana: Clay, Greene, Owen, Parke, Putnam, Sullivan, Vermillion, & Vigo.

Seven hospitals are located within the D7 HCC: Terre Haute Regional, Union Hospital Terre Haute, (and the five Critical Access Hospitals) Ascension St. Vincent-Clay, Greene County General, Putnam County, Sullivan County Community, and Union Hospital Clinton.

Terre Haute Regional Hospital and Union Hospital are verified Level III Trauma Centers in District 7. Indiana relies upon the American College of Surgeons-Committee on Trauma (ACS-COT) to verify trauma centers.

Seventy-five Indiana registered Emergency Medical Services providers are located within the district.[1] The Indiana Department of Homeland Security EMS District Manager actively participates in district meetings.

District 7 Healthcare Coalition Membership

The Indiana District 7 Healthcare Coalition consists of members that contribute to the planning, identification of gaps and mitigation strategies, operational planning and response, information sharing, and resource coordination and management. The District will collaborate with a variety of stakeholders to ensure the community has the necessary medical equipment and supplies, real-time information, communication systems, and trained educated health care personnel to respond to an emergency. The following members are essential in this effort:

[1] Indiana Department of Homeland Security: EMS Providers list. Accessed May 26, 2020

- Hospitals
- Emergency Medical Services
- Emergency Management Agencies
- Public Health Agencies
- Long Term Care Providers
- Mental/Behavioral Providers
- Specialty Services Providers
- Support Service Providers
- Non-Governmental Organizations
- Schools/Universities

The Indiana District 7 Healthcare Coalition consists of a variety of healthcare organizations and membership. A full list of participating organizations and members can be found in ***Response Plan Appendix A – Healthcare Organizations and Coalition Members***. In general, membership is consistent with the following ASPR requirements:

District 7 Healthcare Coalition Core Members

The District 7 Healthcare Coalition ensures it includes the following Core 4 Membership:

- Hospitals (a minimum of two hospitals)
- Emergency Medical Services (including inter-facility and other non-EMS patient transport systems)
- Emergency Management Agencies
- Public Health Agencies

District 7 Healthcare Coalition Ancillary Members

Additional Ancillary District 7 Healthcare Coalition members may include, but are not limited to, the following:

- Behavioral health services and organizations
- Community Emergency Response Team (CERT) and Medical Reserve Corps (MRC)
- Dialysis centers and regional Centers for Medicare & Medicaid Services (CMS)-funded

- End-stage renal disease (ESRD) networks
- Federal facilities (e.g., U.S. Department of Veterans Affairs (VA) Medical Centers, Indian Health Service facilities, military treatment facilities)
- Home health agencies (including home and community-based services)
- Infrastructure companies (e.g., utility and communication companies)
- Jurisdictional partners, including cities, counties, and tribes
- Local chapters of health care professional organizations (e.g., medical society, professional society, hospital association)
- Local public safety agencies (e.g., law enforcement and fire services)
- Medical and device manufacturers and distributors
- Non-governmental organizations (e.g., American Red Cross, voluntary organizations active in disasters, amateur radio operators, etc.)
- Outpatient health care delivery (e.g., ambulatory care, clinics, community and tribal health centers, Federally Qualified Health Centers (FQHCs), urgent care centers, freestanding emergency rooms, stand-alone surgery centers)
- Primary care providers, including pediatric and women’s health care providers
- Schools and universities, including academic medical centers
- Skilled nursing, nursing, and long-term care facilities
- Support service providers (e.g., clinical laboratories, pharmacies, radiology, blood banks, poison control centers)
- Other (e.g., child-care services, dental clinics, social work services, faith-based organizations)

District 7 Healthcare Coalition Demographics

The population of the eight counties included in the Indiana District 7 Healthcare Coalition is:

POPULATION (2020) [2]

DISTRICT 7	**276,137**
CLAY	26,246
GREENE	32,203
OWEN	20,833
PARKE	16,871
PUTNAM	37,469
SULLIVAN	20,578
VERMILLION	15,329
VIGO	106,608

The number of individuals in District 7 counties by age is:

POPULATION BY AGE (2019 ESTIMATE) [3]

AGE	CLAY	GREENE	OWEN	PARKE	PUTNAM	SULLIVAN	VERMILLION	VIGO
UNDER 5 YEARS	1,635	1,712	1,124	1,050	1,863	1,058	830	6,169
5 TO 9 YEARS	1,446	1,958	1,149	1,005	1,987	1,094	882	6,043
10 TO 14 YEARS	1,864	2,038	1,297	970	2,126	1,198	1,059	6,084
15 TO 19 YEARS	1,611	1,998	1,271	921	3,046	1,146	1,022	8,171
20 TO 24 YEARS	1,451	1,689	1,035	964	3,552	1,320	833	11,763
25 TO 29 YEARS	1,593	1,852	1,095	1,052	2,203	1,473	856	7,339
30 TO 34 YEARS	1,535	1,793	1,124	1,015	2,177	1,295	770	6,487

[2] http://www.stats.indiana.edu

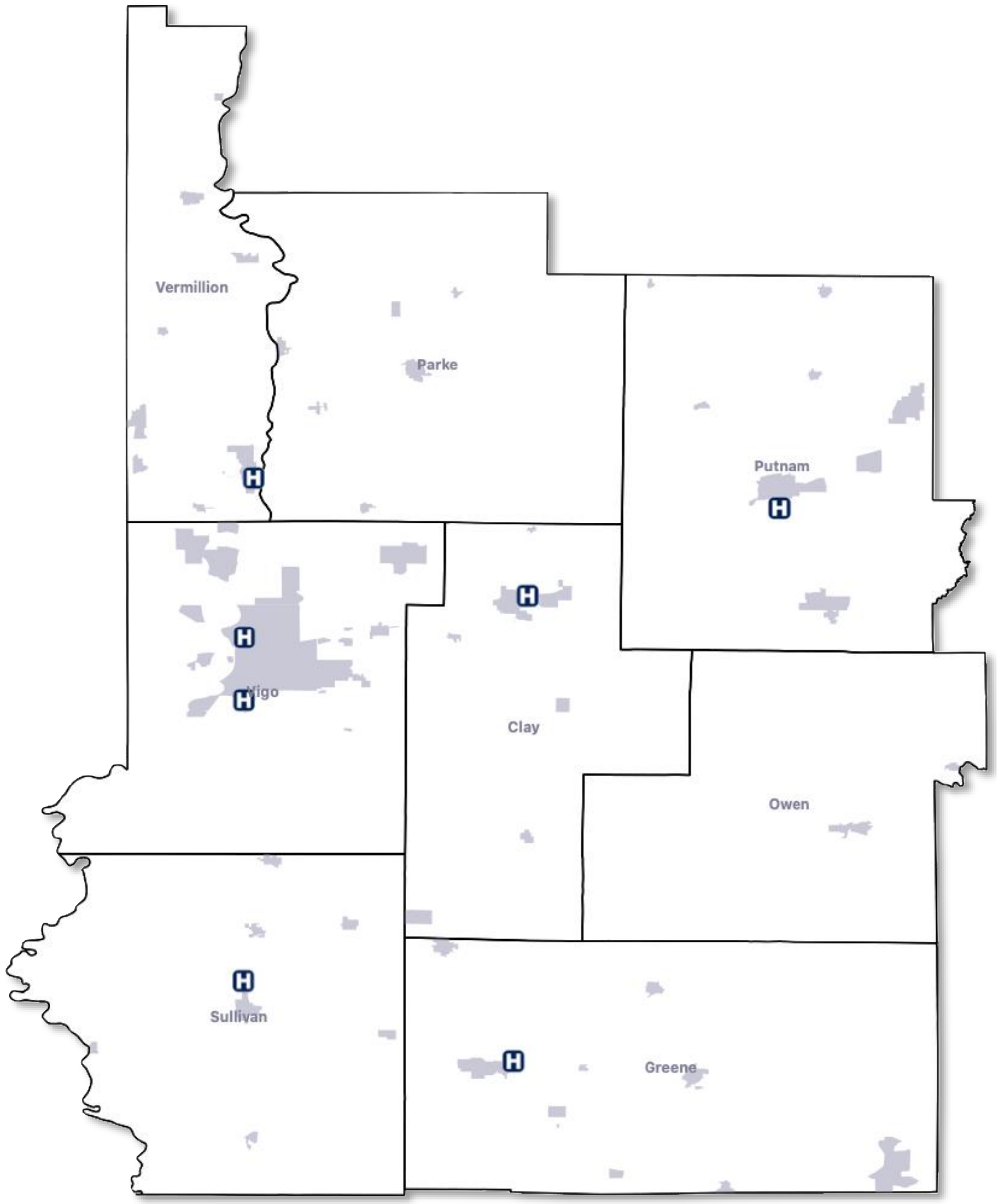
[3] https://data.census.gov/cedsci/table?t=Populations%20and%20People&g=0500000US18021,18055,18119,18121,18133,18153,18165,18167&tid=ACSST5Y2019.S0101&hidePreview=true

35 TO 39 YEARS	1,351	1,691	1,225	853	2,547	1,467	986	6,888
40 TO 44 YEARS	1,817	2,026	1,063	1,016	1,821	1,360	908	5,457
45 TO 49 YEARS	1,670	2,156	1,329	1,105	2,362	1,452	1,064	6,329
50 TO 54 YEARS	1,737	2,374	1,722	1,163	2,577	1,486	1,075	6,530
55 TO 59 YEARS	2,077	2,351	1,880	1,253	2,726	1,617	1,186	6,661

District 7 Healthcare Coalition Hospitals and Radiation Capabilities

Seven hospitals are located within the D7 HCC: Terre Haute Regional, Union Hospital Terre Haute, (and the five Critical Access Hospitals) Ascension St. Vincent-Clay, Greene County General, Putnam County, Sullivan County Community, and Union Hospital Clinton.

Indiana District 7 HCC Hospitals



(Map: *MESH Coalition* | Data Source: *EMResource, 2022*)

Terre Haute Regional Hospital and Union Hospital are verified Level III Trauma Centers in District 7. Indiana relies upon the American College of Surgeons-Committee on Trauma (ACS-COT) to verify trauma centers.

No Radiation Injury Treatment Network (RITN) hospitals or burn centers are in District 7. All hospitals in the district can provide initial stabilization of radiation and burn patients, however, patients with significant radiation exposure and/or burns should be transported to a trauma center for initial stabilization per existing Emergency Medical Services protocols. Radiation Injury Treatment Network (RITN) participating centers in relation to District 7 include:

RADIATION INJURY TREATMENT NETWORK (RITN) PARTICIPATING CENTERS IN RELATION TO DISTRICT 7 [4]

CENTER	Address	City	State	Zip	Adult	Pediatric	Trauma Center	Burn Center
FRANCISCAN HOSPITAL AND HEALTH CENTERS	8111 S Emerson Ave	Indianapolis	IN	46237	YES	NO	NO	NO
NORTHWESTERN UNIVERSITY MC	251 E Huron St	Chicago	IL	60611	YES	NO	YES	NO
RUSH UNIVERSITY MEDICAL CENTER	1620 W Harrison St	Chicago	IL	60612	YES	NO	NO	NO
UNIVERSITY OF CHICAGO (HOSPITAL)	5841 S Maryland Ave	Chicago	IL	60637	YES	YES	YES	YES
UNIVERSITY OF KENTUCKY	1000 S. Limestone	Lexington	KY	40536	YES	NO	YES	NO
CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	3333 Burnet Ave.	Cincinnati	OH	45229	NO	YES	YES	NO
CLEVELAND CLINIC FOUNDATION	9500 Euclid Ave	Cleveland	OH	44195	YES	YES	NO	NO
UNIVERSITY HOSPITALS SEIDMAN CANCER CENTER	11100 Euclid Ave	Cleveland	OH	44106	YES	YES	YES	NO
BARNES-JEWISH HOSPITAL AT WASHINGTON	1 Barnes-Jewish Hospital Plaza	St. Louis	MO	63110	YES	NO	YES	YES

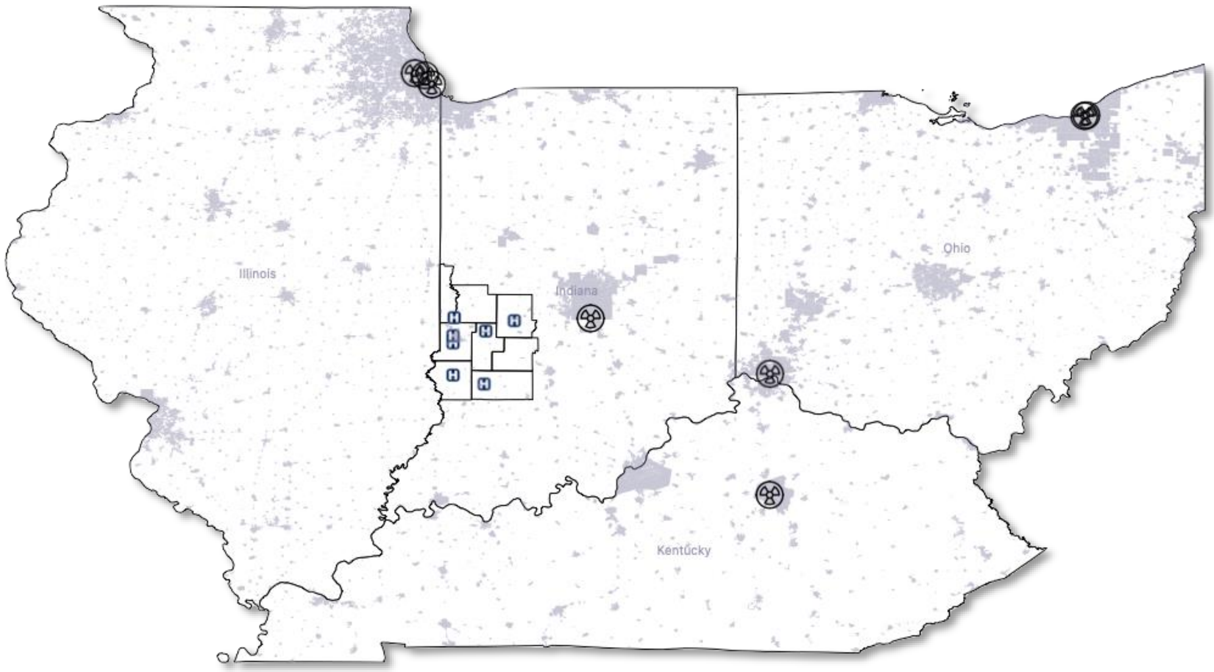
[4] https://ritn.net/

DISTANCE IN MILES BETWEEN RITN CENTERS AND INDIANA DISTRICT 7 HCC HOSPITALS[5]

	Ascension St. Vincent - Clay	Greene County General	Putnam County	Sullivan County Community	Terre Haute Regional	Union Hospital Terre Haute	Union Hospital Clinton
NORTHWESTERN UNIVERSITY MC	167	200	164	192	172	168	156
RUSH UNIVERSITY MEDICAL CENTER	165	198	162	190	170	166	154
UNIVERSITY OF CHICAGO (HOSPITAL)	158	192	155	184	164	160	148
FRANCISCAN HOSPITAL AND HEALTH CENTERS	52	67	37	76	69	68	66
BARNES-JEWISH HOSPITAL AT WASHINGTON	180	171	196	157	163	164	169
UNIVERSITY OF KENTUCKY	174	158	167	174	183	186	192
CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	142	141	130	156	157	157	159
CLEVELAND CLINIC FOUNDATION	319	336	303	346	336	334	329
UNIVERSITY HOSPITALS SEIDMAN CANCER CENTER	320	337	304	347	337	335	330

[5] Distance measured as a straight line between points in rounded statute miles

RITN Centers in Relation to Indiana District 7 HCC Hospitals



(Map: *MESH Coalition* | Data Source: *Radiation Injury Treatment Network, 2022*)

Exposure to radiation can also cause burns as well as marrow-toxic injuries depending upon the exposure. "The Radiation Injury Treatment Network® comprises of medical centers with expertise in the management of bone marrow failure which are preparing to care for patients with Acute Radiation Syndrome following a mass casualty disaster." [6]

According to American Burn Association guidelines: "A burn center may treat adults, children, or both. Burn injuries that should be referred to a burn center include the following:

- Partial thickness burns of greater than 10 percent of the total body surface area.
- Burns that involve the face, hands, feet, genitalia, perineum, or major joints.
- Third-degree burns in any age group
- Electrical burns, including lightning injury
- Chemical burns
- Inhalation injury
- Burn injury in patients with preexisting medical disorders that could complicate management, prolong recovery, or affect mortality

[6] https://ritn.net/

- Burns and concomitant trauma (such as fractures) when the burn injury poses the greatest risk of morbidity or mortality. If the trauma poses the greater immediate risk, the patient's condition may be stabilized initially in a trauma center before transfer to a burn center. Physician judgment will be necessary in such situations and should be in concert with the regional medical control plan and triage protocols
- Burns in children; children with burns should be transferred to a burn center verified to treat children. In the absence of a regional pediatric burn center, an adult burn center may serve as a second option for the management of pediatric burns
- Burn injury in patients who will require special social, emotional, or rehabilitative intervention." [7]

American Burn Association (ABA) verified burn centers in relation to District 7 include:

AMERICAN BURN ASSOCIATION (ABA) VERIFIED BURN CENTERS IN RELATION TO DISTRICT 7 [8]

CENTER	Address	City	State	Zip	# Beds	Ages	Helipad
ESKENAZI HEALTH HOSPITAL	720 Eskenazi Ave	Indianapolis	IN	46202	15	Adults & Pediatrics	Yes
RILEY HOSPITAL	720 Barnhill Dr	Indianapolis	IN	46202	10	Pediatrics Only	Yes
SUMNER L. KOCH BURN CENTER	1901 W Harrison St	Chicago	IL	60612	18	Adults & Pediatrics	Yes
UNIVERSITY OF CHICAGO BURN CENTER	5841 S Maryland Ave	Chicago	IL	60637	16	Adults & Pediatrics	Yes
LOYOLA UNIVERSITY MEDICAL CENTER	2160 S 1st Ave	Maywood	IL	60153	22	Adults & Pediatrics	Yes

[7] http://ameriburn.org/wp-content/uploads/2017/05/acs-resources-burn-chapter-14.pdf
[8] http://ameriburn.org

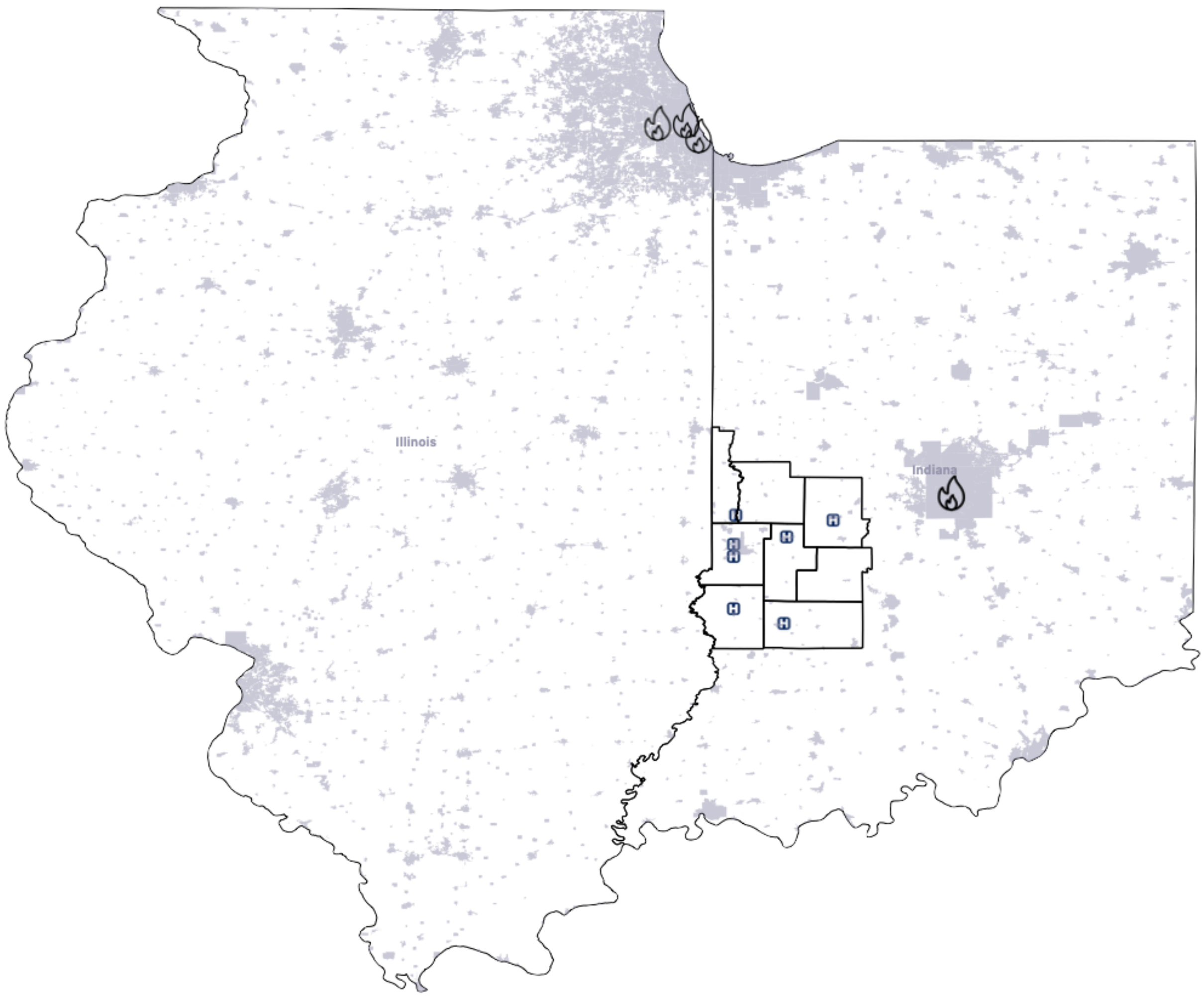
MERCY HOSPITAL ST. LOUIS	615 S New Ballas Rd	St. Louis	MO	63141	12	Adults & Pediatrics	N/A

DISTANCE IN MILES BETWEEN ABA BURN CENTERS AND INDIANA DISTRICT 7 HCC HOSPITALS[9]

	Ascension St. Vincent - Clay	Greene County General	Putnam County	Sullivan County Community	Terre Haute Regional	Union Hospital Terre Haute	Union Hospital Clinton
SUMNER L. KOCH BURN CENTER	165	198	162	190	170	166	154
UNIVERSITY OF CHICAGO BURN CENTER	158	192	155	184	164	159	148
LOYOLA UNIVERSITY MEDICAL CENTER	165	198	163	190	170	166	154
ESKENAZI HEALTH HOSPITAL	52	72	37	79	70	68	65
RILEY HOSPITAL	52	72	37	79	70	68	65
MERCY HOSPITAL ST. LOUIS	189	181	204	167	172	173	178

[9] Distance measured as a straight line between points in rounded statute miles

ABA Verified Burn Centers in relation to Indiana District 7 HCC Hospitals

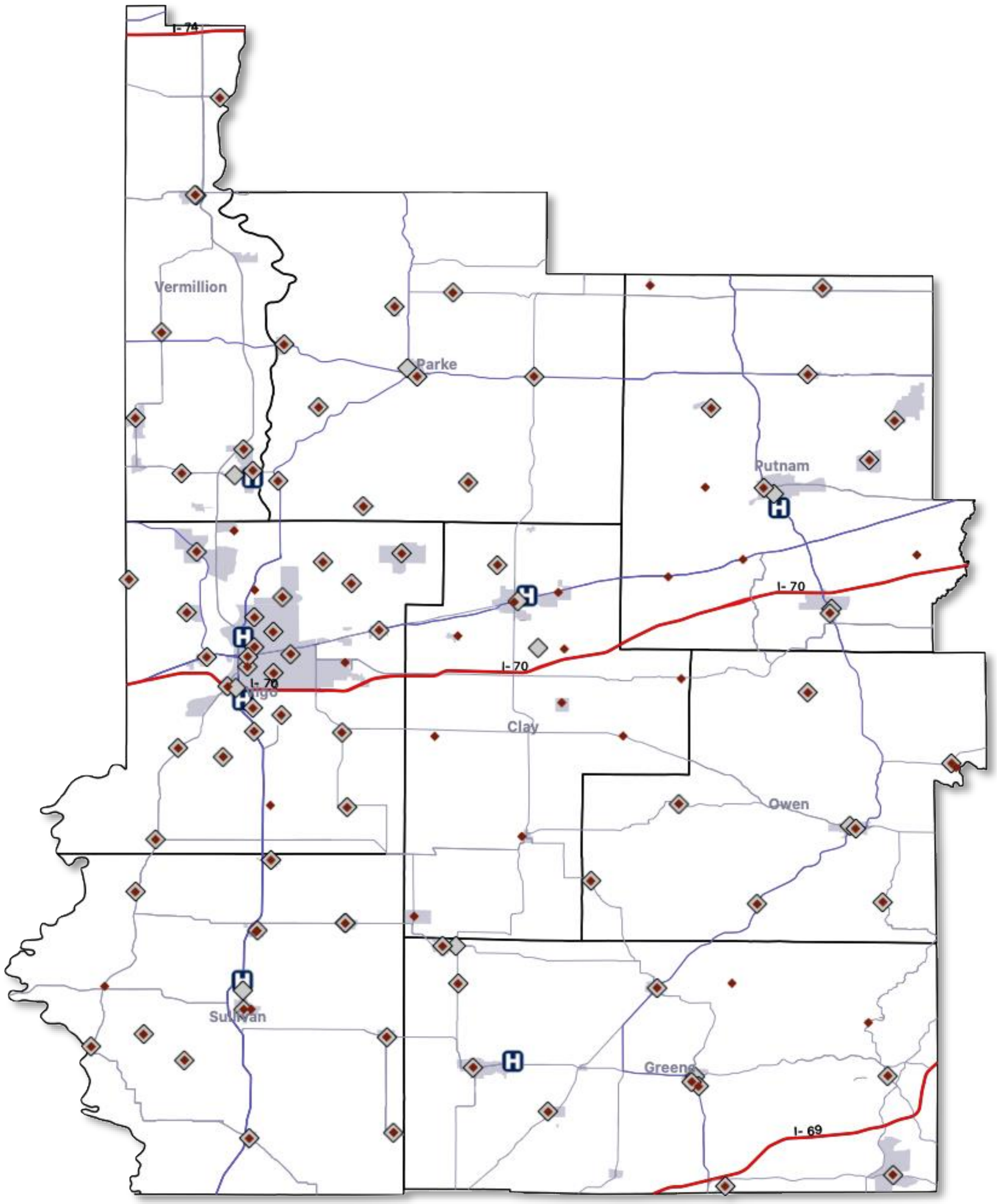


(Map: *MESH Coalition* | Data Source: *American Burn Association, 2022*)

Seventy-five Indiana registered Emergency Medical Services providers are located within the district.[10] The Indiana Department of Homeland Security EMS District Manager actively participates in district meetings.

[10] Indiana Department of Homeland Security: EMS Providers list. Accessed May 26, 2020

Indiana **EMS** (outline diamonds) and **Fire** Agencies in relation to Indiana District 7 HCC Hospitals



(Map: *MESH Coalition* | Data Source: *IDHS, 2009*)

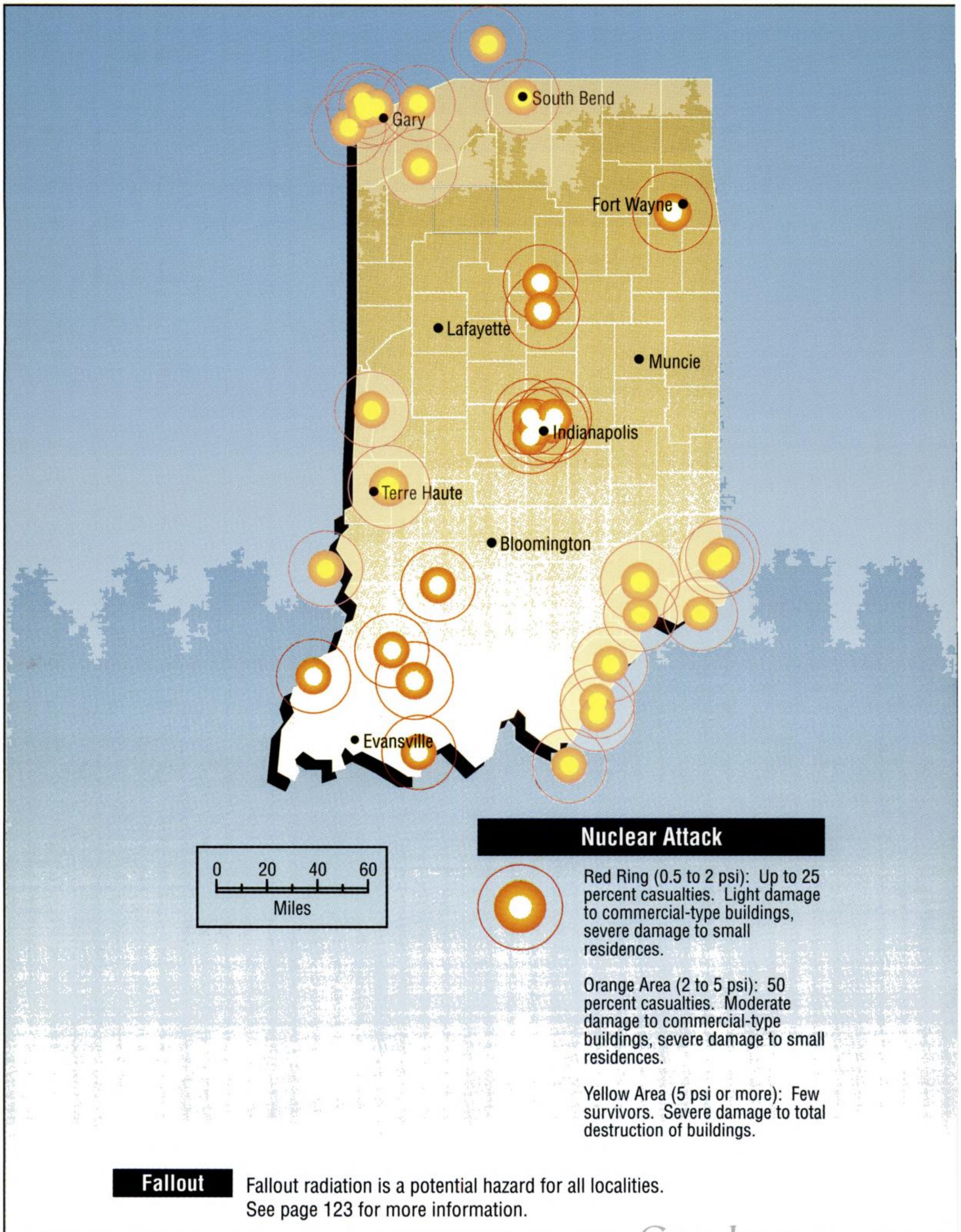
Local Emergency Medical Services providers would provide primary transportation of patients in a Radiation Mass Casualty Incident. Local EMS transportation could be supplemented by private ambulance services and/or Indiana and Illinois hospital-based ground and aeromedical transport assets.

Local Risks for Radiation Mass Casualty Incidents

United States Department of Health & Human Services Radiological Emergency Medical Management describes five types of radiation mass casualty incidents:

1. Nuclear Detonation: Weapons, Improvised Nuclear Devices (INDs)
2. Radiological Dispersion Devices (RDDs)
3. Nuclear Power Plant / Nuclear Reactor Incidents
4. Radiological Exposure Devices (REDs)
5. Transportation Incidents

Indiana District 7 HCC counties are included in Federal Emergency Management Agency (FEMA) maps of potential nuclear attack targets.

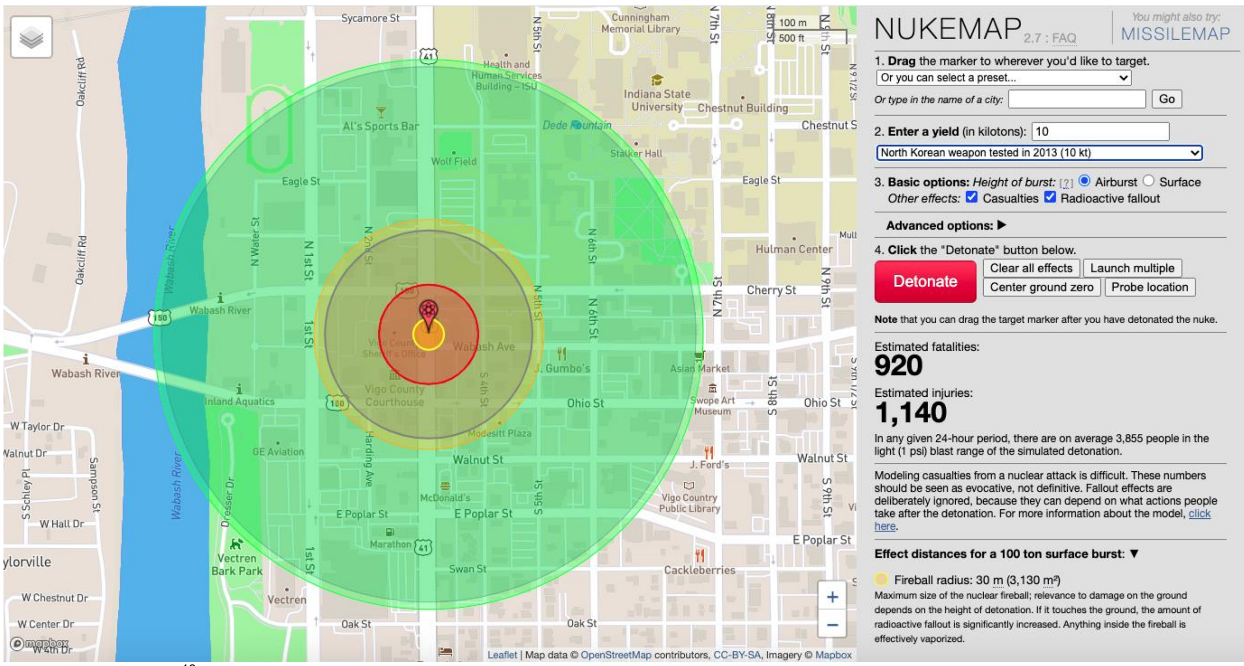


(Source: *FEMA, p. 17* [11])

[11] https://babel.hathitrust.org/cgi/pt?id=uiug.30112026488152&view=1up&seq=1&skin=

A radiation mass casualty incident via nuclear detonation would result from the detonation of a military nuclear weapon from a foreign or domestic source in, over, or near a populated area. See the U.S. Department of Health and Human Services Radiation Emergency Management website for detailed information about nuclear weapons.[12]

Air burst detonation of a 10-kiloton nuclear weapon, such as a North Korean missile tested in 2013 yield was believed to have been, over Terre Haute would result in over 2,000 estimated casualties.



(Source: *NukeMap*[13])

Air burst detonation of a 150-kiloton nuclear weapon, such as a North Korean missile tested in 2017 yield was believed to have been, over Terre Haute would result in over 62,000 estimated casualties.

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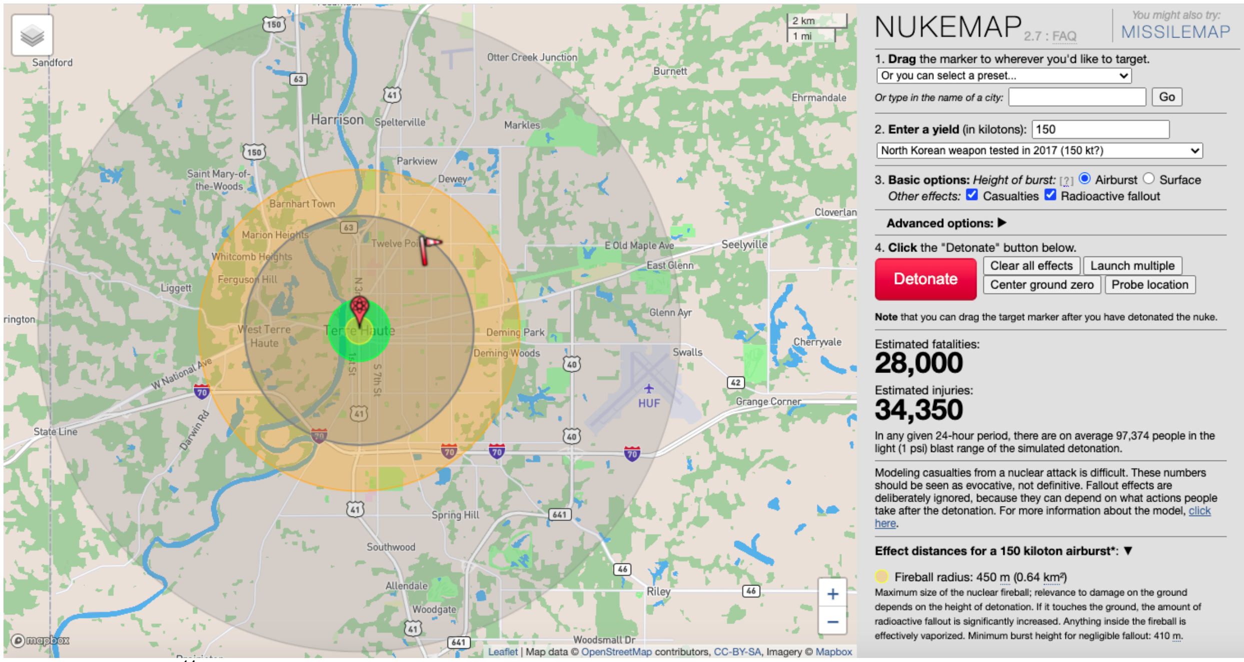
[12] https://remm.hhs.gov/nuclearexplosion.htm

[13] https://nuclearsecrecy.com/nukemap/?&kt=10&lat=39.4667&lng=87.4139&airburst=0&hob_ft=0&casualties=1&fallout=1&psi=20,5,1&zm=14



(Source: *NukeMap*[14])

A radiation mass casualty incident via nuclear detonation would result from the detonation of an improvised nuclear device by foreign or domestic terrorists in, over, or near a populated area. See the U.S. Department of Health and Human Services Radiation Emergency Management website for detailed information about improvised nuclear devices.[15]

Surface detonation of a 100-ton nuclear weapon, such as a crude nuclear terrorist weapon, in Terre Haute would result in over 2,000 estimated casualties.

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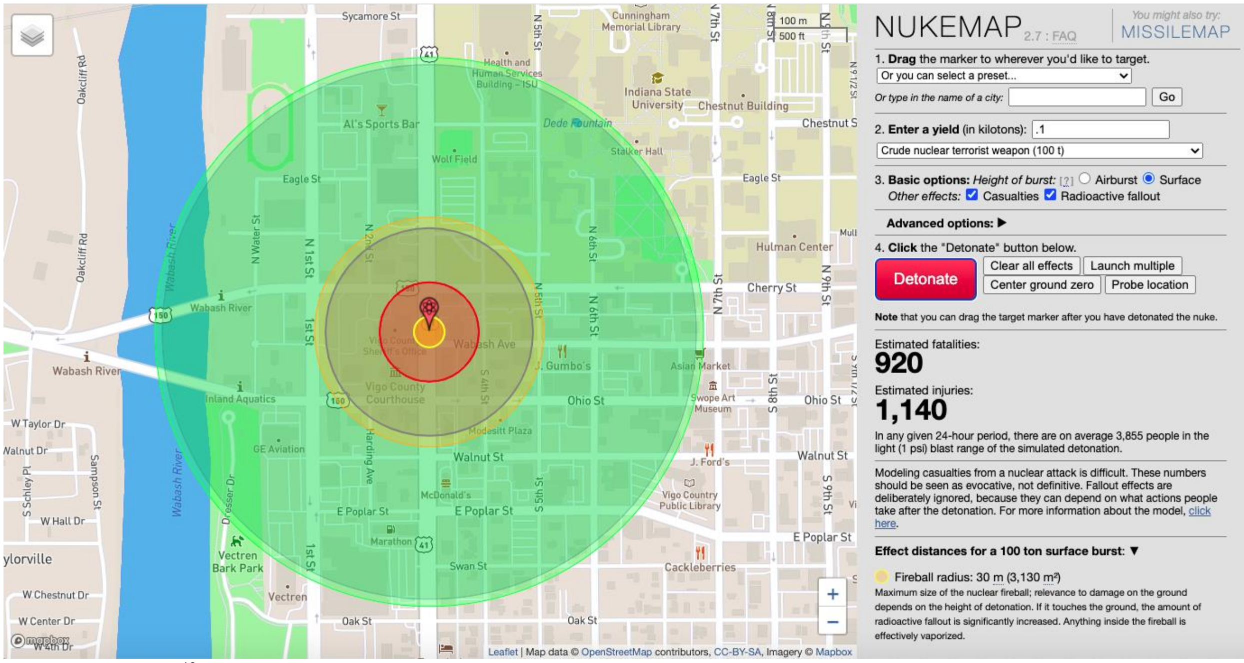
[14] https://nuclearsecrecy.com/nukemap/?&kt=10&lat=39.4667&lng=87.4139&airburst=0&hob_ft=0&casualties=1&fallout=1&psi=20,5,1&zm=14

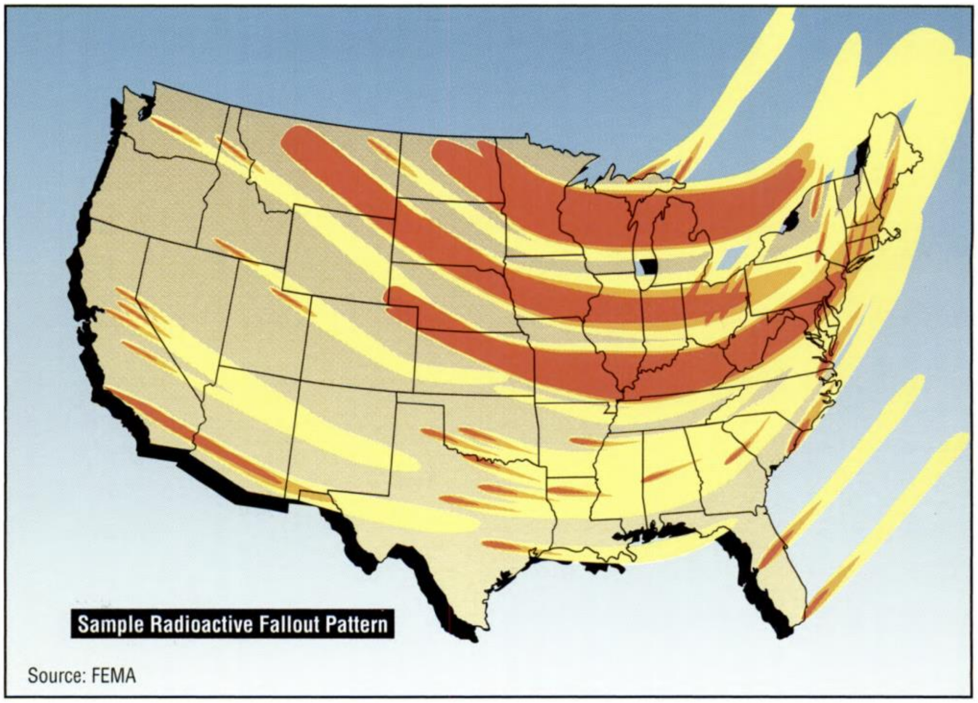
[15] https://remm.hhs.gov/nuclearexplosion.htm



(Source: *NukeMap*[16])

FEMA nuclear attack maps show potential radiation fallout patterns resulting from nuclear weapon attacks on non-Indiana based targets. Because of the prevailing winds in the United States, fallout would impact Indiana District 7.

16 https://nuclearsecrecy.com/nukemap/?&kt=10&lat=39.4667&lng=87.4139&airburst=0&hob_ft=0&casualties=1&fallout=1&psi=20,5,1&zm=14



Sample Radioactive Fallout Pattern

Source: FEMA

Radioactive Fallout

Another effect of nuclear weapons is radioactive fallout. If a nuclear weapon explodes near or on the ground, it sucks up large quantities of earth and debris into a mushroom cloud. This material becomes radioactive, and the particles can be carried by the winds hundreds of miles before they drop back to earth as "fallout."

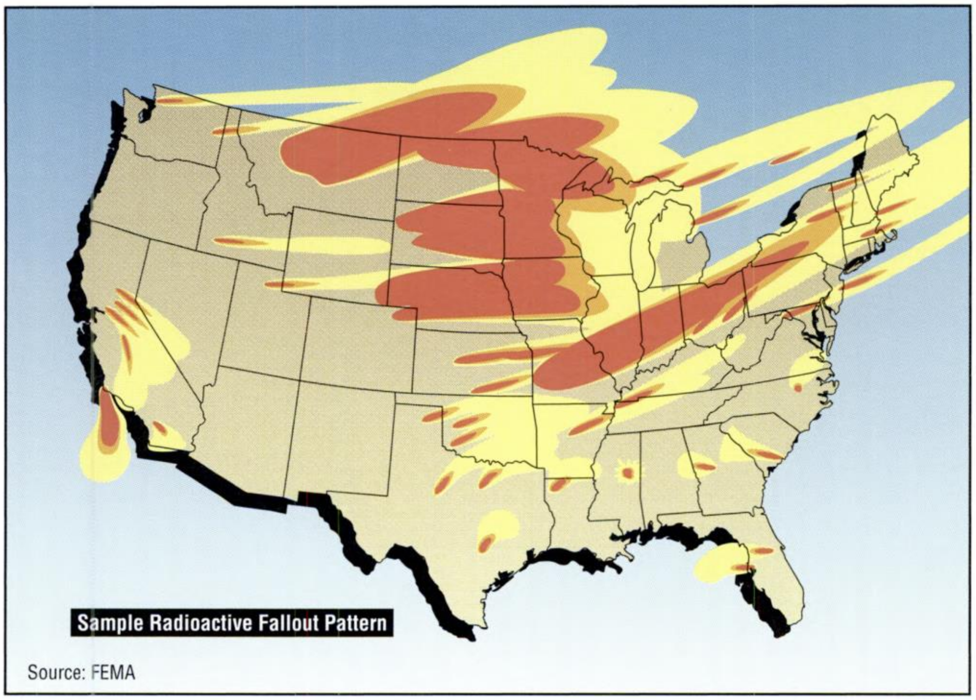
In an attack, many areas of the United States would probably escape fallout altogether or experience non-life-threatening levels of radiation. However, because of the unpredictability of the weather, which determines where fallout will land, *no* locality in the U.S. can be said to be free from the risk of receiving deadly levels of radiation in the event of a strategic attack.

The fallout map above and the map on the next page are among the infinite number of potential fallout patterns based on different attack scenarios and wind patterns.

Page 14

(Source: *FEMA*[17])

[17] https://babel.hathitrust.org/cgi/pt?id=uiug.30112026488152&view=1up&seq=1&skin=



Sample Radioactive Fallout Pattern

Source: FEMA

Potential Nuclear Targets

In a strategic nuclear attack against the United States, first priority would most likely be "counterforce targets"—that is intercontinental ballistic missile (ICBM) launch control sites and Strategic Air Command facilities. (Fallout-producing nuclear detonations would generally be limited to "hard" targets such as missile silos where weapons would be exploded on or near the ground.)

Other high-priority targets would likely include other military installations and facilities, "political" targets like Washington, D.C. and state capitals, electric power and chemical industry facilities, and military-supporting industrial sites such as petroleum refineries.

Note: The maps used in this booklet have been adapted from U.S. government planning data developed in 1988. For the most up-to-date information on whether your community is considered at risk from nuclear direct effects, check with your state or local civil defense office.

(Source: *FEMA*[18])

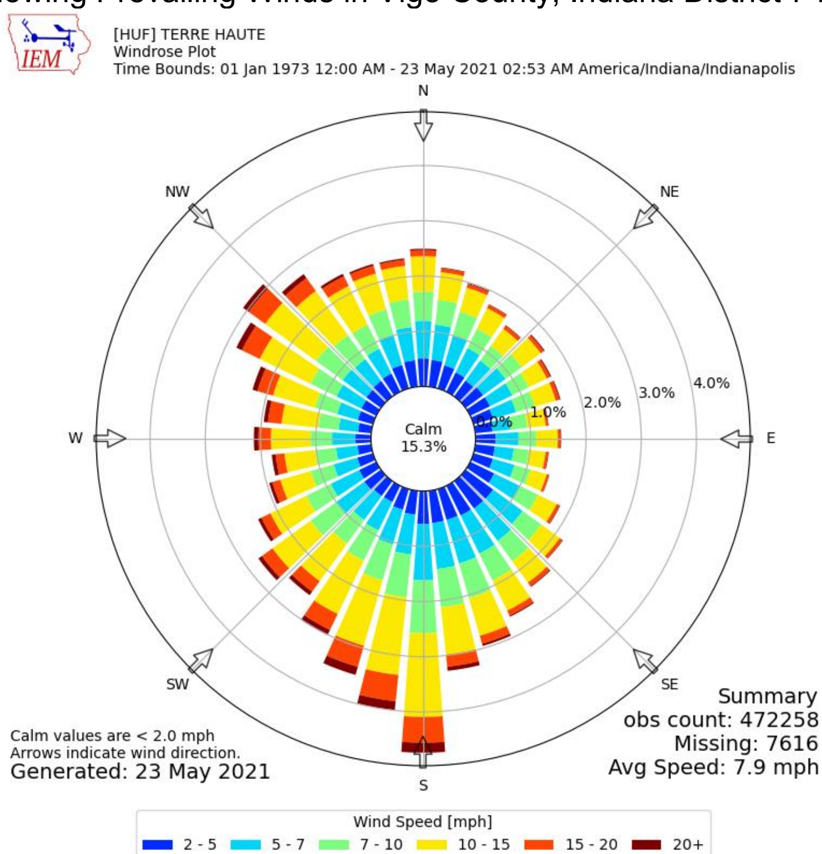
[18] https://babel.hathitrust.org/cgi/pt?id=uiug.30112026488152&view=1up&seq=1&skin=

A radiation mass casualty incident via radiation dispersal device would result from the deployment of an improvised device without a nuclear detonation for the intentional dispersion of radiation by foreign or domestic terrorists in, over, or near a populated area. See the U.S. Department of Health and Human Services Radiation Emergency Management website for detailed information about radiation dispersal devices.[19]

Injuries resulting from deployment and conventional explosive detonation of a radiation dispersal device would more likely result in a traumatic mass casualty incident from the energetic materials than the amount of radiation dispersed[20].

Airborne radiation dispersion would likely follow prevailing winds in Indiana District 7, that, as demonstrated in Terre Haute, are generally southerly to north-westerly.

Wind Rose Showing Prevailing Winds in Vigo County, Indiana District 7 HCC



(Source: *Iowa State Mesonet*[21])

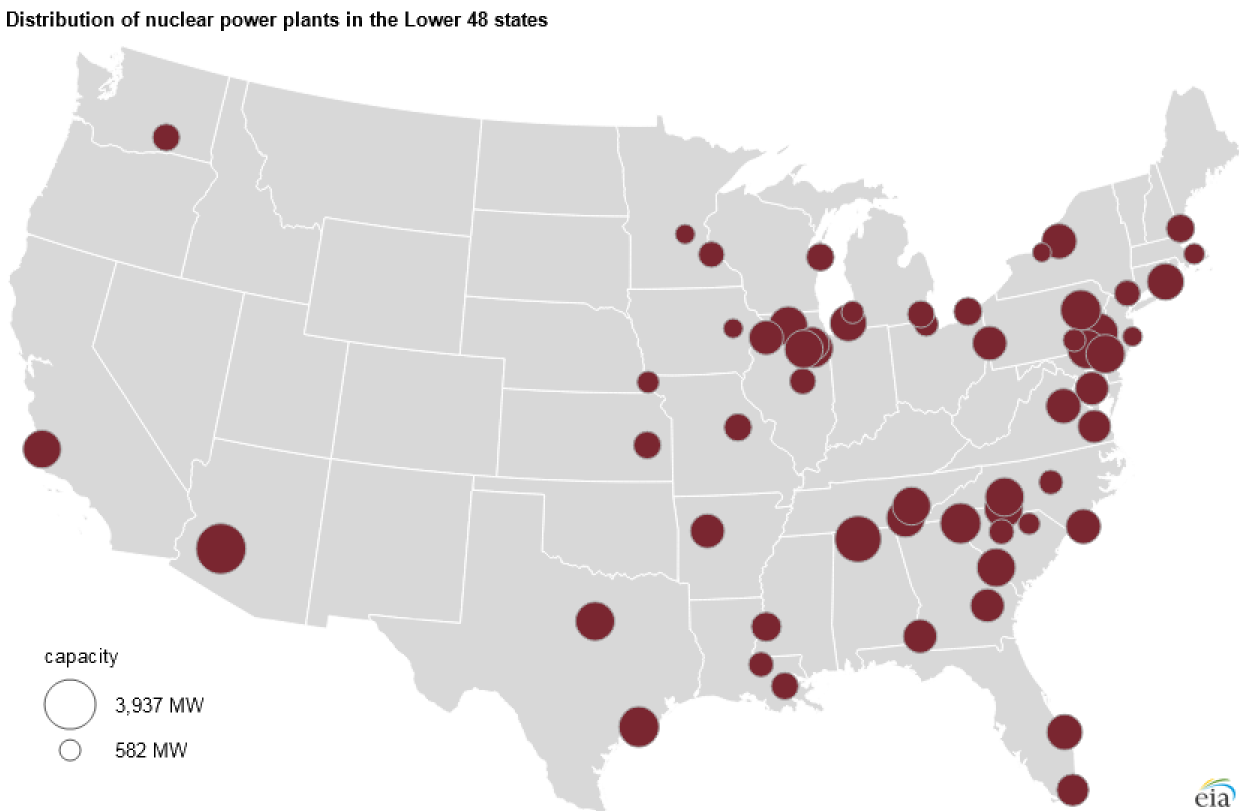
[19] https://remm.hhs.gov/rdd.htm

[20] ibid

[21] http://mesonet.agron.iastate.edu/sites/windrose.phtml?network=IN_ASOS&station=HUF

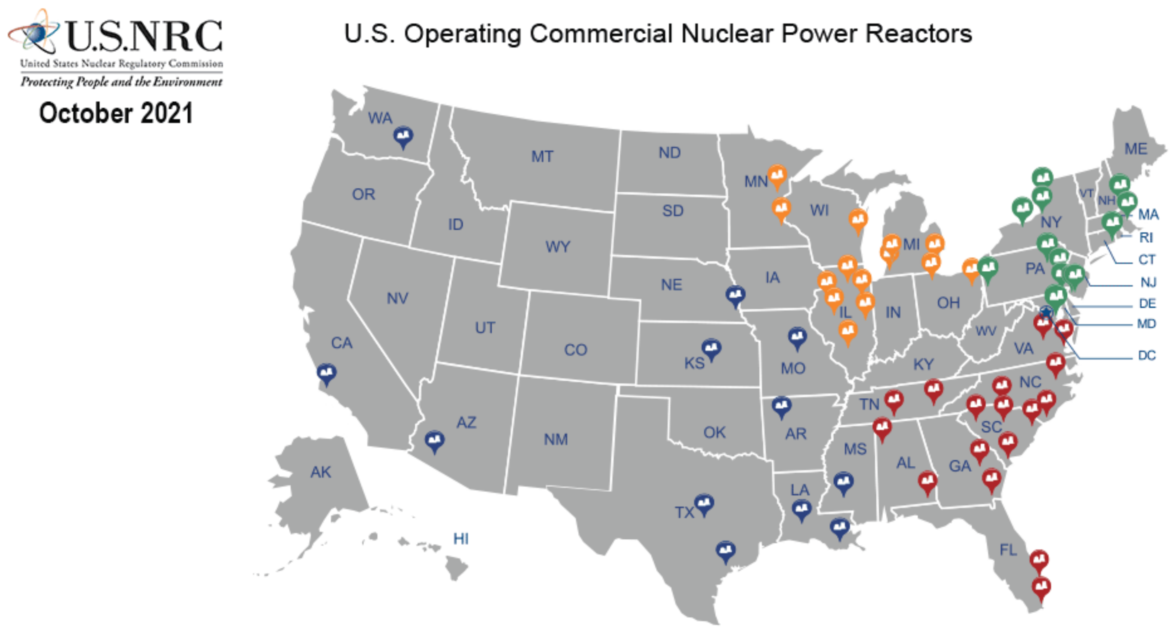
A radiation mass casualty incident via nuclear power plant would result from the accidental release of radiation in, over, or near a populated area. See the U.S. Department of Health and Human Services Radiation Emergency Management website for detailed information about nuclear power plant incidents.[22]

As of September 1, 2021, there were 55 commercially operating nuclear power plants with 93 nuclear power reactors in 28 U.S. states. Of the currently operating nuclear power plants, 32 plants have two reactors, and 3 plants have three reactors.[23]



(Source: *U.S. EIA*[24])

[22] https://remm.hhs.gov/nuclearaccident.htm
[23] https://www.eia.gov/tools/faqs/faq.php?id=207&t=3
[24] https://www.eia.gov/todayinenergy/detail.php?id=30972



(Source: U.S. NRC[25])

Nuclear power plants and reactors closest to Indiana District 7 are in Illinois. Accidental release of radiation from some of these locations could potentially impact the district due to prevailing winds.

ILLINOIS NUCLEAR POWER PLANTS AND REACTORS

PLANT NAME[26]	LOCATION	REACTOR TYPE
BRAIDWOOD 1 05000456	20 miles SSW of Joliet, IL	Power
BRAIDWOOD 2 05000457	20 miles SSW of Joliet, IL	Power
BYRON 1 05000454	17 miles SW of Rockford, IL	Power
BYRON 2 05000455	17 miles SW of Rockford, IL	Power

[25] https://www.nrc.gov/reactors/operating/map-power-reactors.html
[26] https://www.nrc.gov/reactors/operating/list-power-reactor-units.html

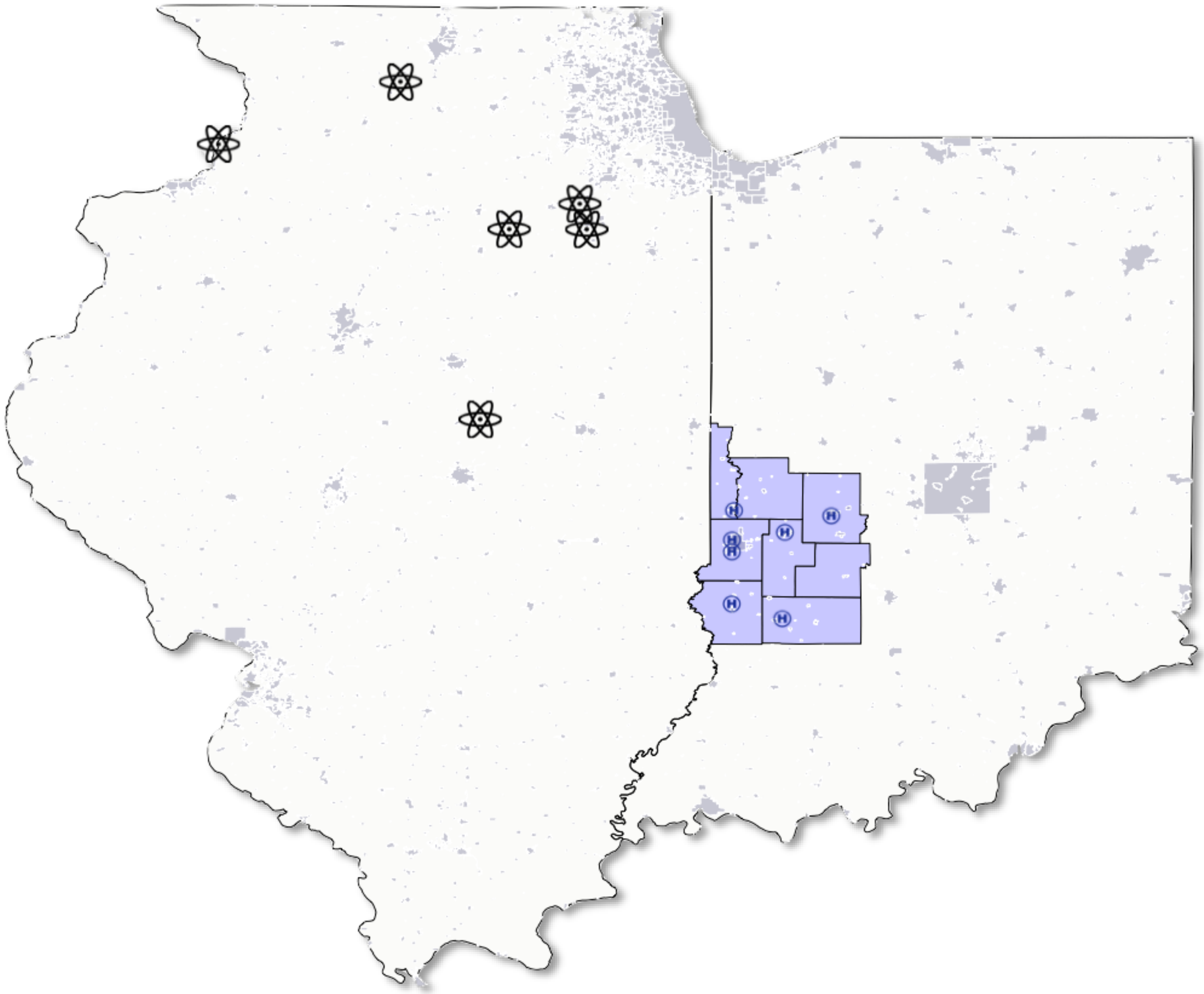
CLINTON 05000461	23 miles SSE of Bloomington, IL	BWR
DRESDEN 2 05000237	5 miles SW of Joliet, IL	BWR
DRESDEN 3 05000249	5 miles SW of Joliet, IL	BWR
LA SALLE 1 05000373	11 miles SE of Ottawa, IL	BWR
LA SALLE 2 05000374	11 miles SE of Ottawa, IL	BWR
QUAD CITIES 1 05000254	20 miles NE of Moline, IL	BWR
QUAD CITIES 2 05000265	20 miles NE of Moline, IL	BWR

DISTANCE IN MILES BETWEEN NUCLEAR FACILITIES AND INDIANA DISTRICT 7 HCC HOSPITALS[27]

	Ascension St. Vincent - Clay	Greene County General	Putnam County	Sullivan County Community	Terre Haute Regional	Union Hospital Terre Haute	Union Hospital Clinton
BRAIDWOOD	132	163	134	153	133	129	118
BYRON	209	238	212	226	208	204	194
CLINTON	102	120	112	105	92	89	84
DRESDEN	142	173	143	163	143	139	128
LA SALLE	144	173	148	161	143	139	129
QUAD CITIES	226	250	233	236	220	217	209

[27] Distance measured as a straight line between points in rounded statute miles

Illinois Nuclear Reactors in relation to Indiana District 7 HCC Hospitals



(Map: *MESH Coalition* | Data Source: *Google, 2022*)

A licensed research nuclear reactor is located at Purdue University in West Lafayette, IN.

“Research and test reactors are typically licensed by the NRC according to the total thermal (heat) energy produced by the reactor. These facilities range in size from 0.10 watt to 20 megawatts-thermal. In contrast, a typical commercial nuclear power reactor is rated at 3,000 megawatts-thermal. Because of this large difference in power generated, the consequence of an accident at a research and test reactor is limited when compared to a commercial power reactor. For this reason, research reactors' emergency planning zones to protect the public from potential radiological accidents are well within owner-controlled areas -- often the boundary of the room in which the reactor is housed.

Because of the low power levels at which research and test reactors operate, they require no or minimal cooling for short periods after shutdown. In addition, many of these reactors operate on a very limited schedule and have a limited amount of radioactive material on hand at any given time."[28]

Any impact to Indiana District 7 would likely be limited to a transportation incident of nuclear waste from the Purdue test reactor.

A radiation mass casualty incident via radiological exposure devices would result from the intentional radiation exposure in a populated area. See the U.S. Department of Health and Human Services Radiation Emergency Management website for detailed information about radiological exposure devices[29].

Local sources of radioactive materials of varying quantities include hospitals, oncology centers, chiropractic offices, veterinarian offices, airports, and industrial sites, including some construction sites.

Detailed information about radiation sources utilized in settings such as health care and industry, as well as information about radiation transportation and waste products can be found in U.S. Army Public Health Center technical guide 238 *Radiological Sources of Potential Exposure and/or Contamination*[30].

A radiation mass casualty incident via transportation incident would result from the accidental release of radioactive materials or waste products in a populated area. See the U.S. Department of Health and Human Services Radiation Emergency Management website for detailed information about radiological exposure devices.

Radioactive and/or nuclear materials are conveyed via vehicular, rail, ship, and air transportation.

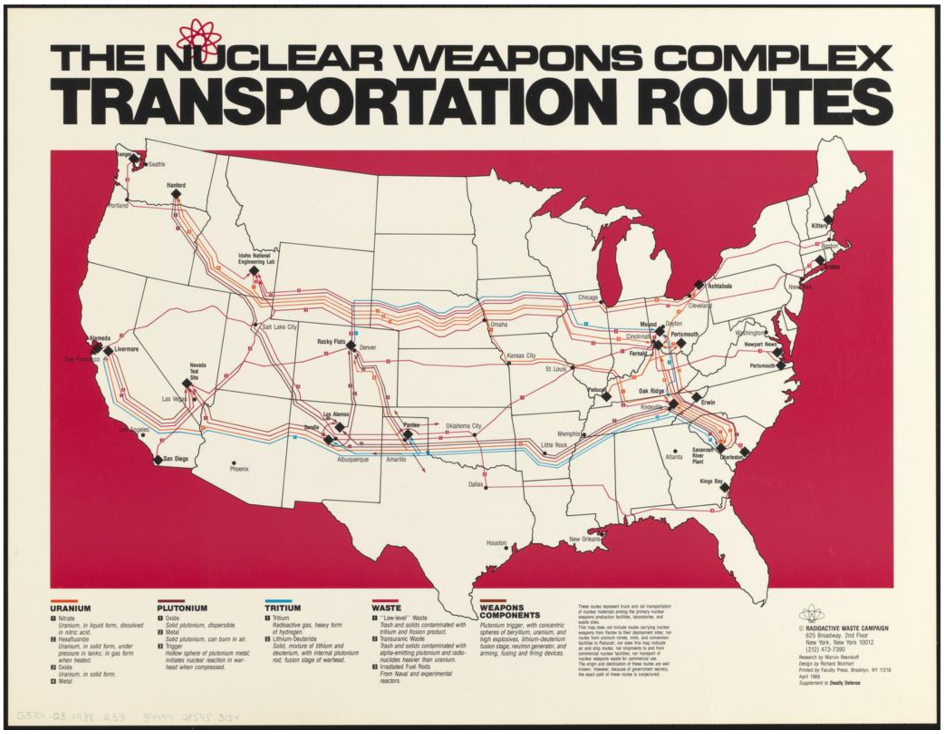
Vehicular radioactive materials, nuclear weapon, and waste transportation routes are in Indiana, and include routes traversing District 7 HCC counties.

"Highway cargo tanks ship most radioactive waste. Trucks transport a wide variety of both low-level and high-level radioactive materials, including fission products used to manufacture nuclear fuel.

[28] https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/research-reactors-bg.html
[29] https://remm.hhs.gov/red.htm
[30] https://phc.amedd.army.mil/PHC%20Resource%20Library/TG238_RadSourcesofPotentialExposure.PDF

Transportation of these materials is highly regulated. Among other restrictions, carriers are required to follow the most direct interstate rout, bypassing heavily populated areas when possible.

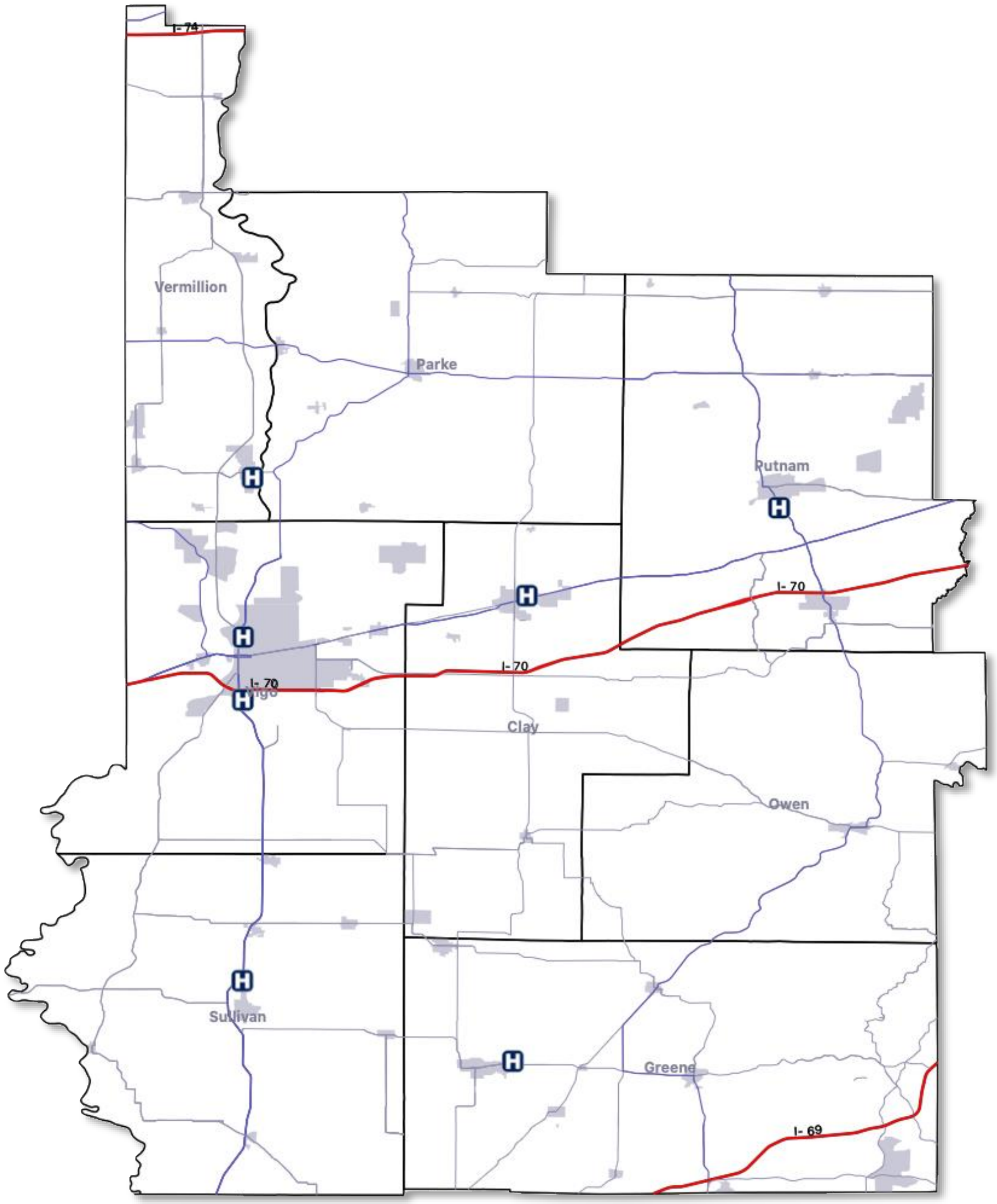
When transportation incidents occur, they are most likely the result of a cargo tank accident. However, containers used for shipping high level radioactive materials are very strong, and releases are extremely rare.”[31]



(Source: *Radioactive Waste Campaign*[32]

[31] https://www.energy.gov/sites/prod/files/2014/04/f14/rmem2_0.pdf p. 6
[32] https://collections.leventhalmap.org/search/commonwealth:fn107c26g

Interstates in relation to Indiana District 7 HCC Hospitals



(Map: *MESH Coalition* | Data Source: *US Census Bureau, 2021*)

(Source: *Nevada National Security Site*[33])

Active railroads are present in D7 counties and provide for the transportation of radioactive materials.

“Rail is the second most frequent method of transporting radioactive materials. Generally, trains carry only large volumes of material, such as uranium hexafluoride.

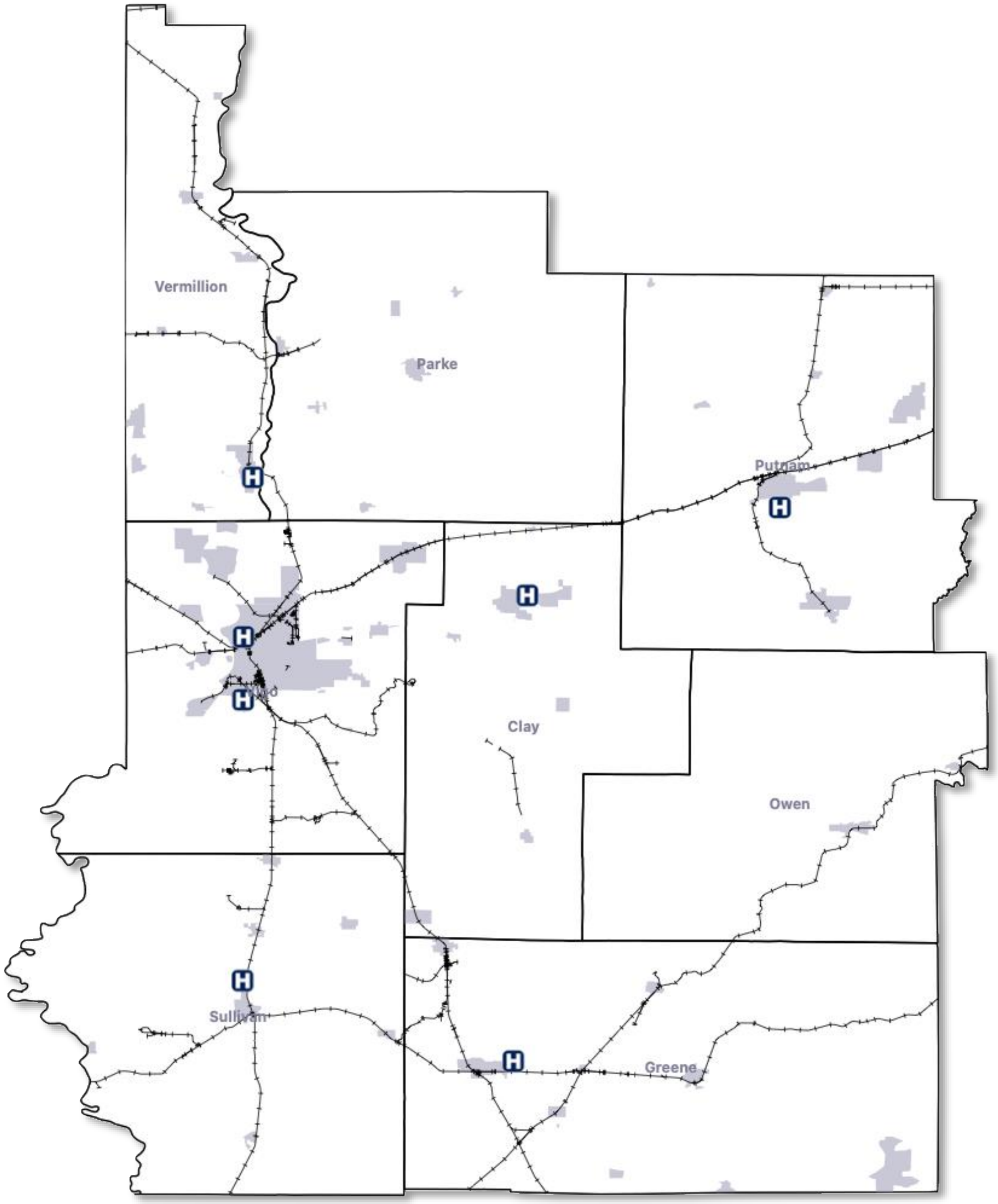
Rail accidents can be particularly dangerous for two reasons. For one, extremely large quantities are involved. Secondly, a serious accident can damage several rail cars, resulting in combinations of hazardous materials.

The preferred method of shipping radioactive materials and waste is by unit train, which runs directly between its point of origin and its destination. It receives priority right-of-way and expedited switching and does not receive or unload any additional cargo along the way. The radioactive loads are contained by a disposable liner and a hard cover and carried in gondola cars.”[34]

[33] https://www.nnss.gov/pages/programs/RWM/Transportation.html

[34] https://www.energy.gov/sites/prod/files/2014/04/f14/rmem2_0.pdf p.7

Railways in relation to Indiana District 7 HCC Hospitals



(Map: *MESH Coalition* | Data Source: *US Census Bureau, 2021*)

Assumptions

- All District 7 Healthcare Coalition hospitals providing emergency care may receive radiation patients and should be able to provide initial assessment and stabilization.
- District 7 Healthcare Coalition Core Members will have primary responsibility for response including initial casualty distribution and subsequent triage of patients for forward movement.
- District 7 Healthcare Coalition Core Members will have primary responsibility for support of the response and will coordinate transfers with the closest Radiation Injury Treatment and/or ABA verified burn centers in accordance with established protocols.
- District 7 Healthcare Coalition Core Members will follow their respective radiation, burn and/or emergency response plan expectations of preparedness and coordination.
- Trauma centers in District 7 should plan for a major role in the receipt and care of radiation patients and understand their role in a radiation mass casualty incident.
- Care of critical burns is extremely resource-intensive and requires specialized staff, expert advice, and critical care transportation assets.
- Severe burn patients often become clinically unstable within 24 hours of injury, complicating transfer plans after this time frame.
- Federal resources (e.g., ambulance contracts, National Disaster Medical System teams), though potentially available to assist, cannot be relied upon to mobilize and deploy for the first 72 hours.

Concept of Operations

District 7 Healthcare Coalition Activation and the Healthcare Coalition Coordination Center

In the event there is an incident involving a Radiation Mass Casualty Incident that has or will have an effect on the ability of the member Healthcare Coalitions/coalition partners to respond, the D7 Healthcare Coalition will activate and identify all appropriate parties that will be providing assistance, support and services from a District level. The Activation, Notification and Roles and Responsibilities processes are outlined in detail in the ***D7 HCC Response Plan***. This plan follows the ICS/NIMS framework.

The District 7 HCC, when activated as needed, shall support each affected coalition member facility by establishing a Healthcare Coalition Coordination Center (HCCCC) for coordination of district wide resources and information sharing.

The D7 Healthcare Coalition Coordination Center (HCCCC) shall assist the individual facilities command structure in the planning process by providing real-time information related to resources and coordinate with D7 support elements such as the Indiana Department of Health, the Indiana Homeland Security Department and local Emergency Management Agencies.

The D7 Healthcare Coalition Coordination Center (HCCCC) provides district healthcare coordination assistance in support of core four coalition members in ensuring life safety, scene stabilization and property preservation.

D7 Healthcare Coalition staff serve in the Healthcare Coalition Coordination Center (HCCCC) as the need arises during simulated or real-world incidents/events.

The D7 Healthcare Coalition Coordination Center (HCCCC) shall assist the individual facilities command structure in the planning process by providing real-time information related to resources and coordinate with D7 support elements such as the Indiana Department of Health, the Indiana Homeland Security Department and local Emergency Management Agencies.

The identification of burn/trauma Subject Matter Experts (SME's) would be led by a Clinical Advisor to the D7 HCC and be based on the incident type and specialty support expertise needed.

District 7 Healthcare Coalition Notifications

The activation, notification and roles and responsibilities processes are outlined in detail in the ***D7 HCC Response Plan***. This plan follows the ICS/NIMS framework.

The priority of the D7 HCC is to maintain life and prevent further injury or illness.

The D7 HCC utilizes EMS and fire personnel with current specific competencies and protocols to assure appropriate triage. Local EMS agencies would follow established medical protocols for initial patient distribution from a Radiation Mass Casualty Incident and mutual aid for secondary transfers. See the ***D7 HCC Emergency Operations Plan***.

Responsibility for patient movement activities including matching patients to available resources in a Radiation Mass Casualty Incident is outlined in detail in the ***D7 HCC Emergency Operations Plan***.

Depending on patient age and triage classification, Radiation Mass Casualty Incident patients may be transported by ground or aeromedical crews to D7 HCC member hospitals, the closest trauma center, or to specialty facilities, such as Radiation Injury Treatment Network hospitals and/or, hospitals with burn-bed capabilities, such as Eskenazi Health Hospital, an American College of Surgeons Verified Level I Adult Trauma Center and American Burn Association Verified Adult Burn Center, and Riley Hospital for Children at IU Health, an American College of Surgeons Verified Level I Pediatric Trauma Center and American Burn Association Verified Pediatric Burn Center, both located in Indianapolis, Indiana.

The identification of local radiation injury Subject Matter Experts (SME's) would be led by a clinical advisor to the D7 HCC and be based on the incident and specialty support expertise needed. Because of their trauma experience, SME's at Terre Haute Regional and Union Hospital Terre Haute could be utilized.

The identification of regional radiation SME's would be led by a clinical advisor to the D7 HCC and be based on the incident type and specialty support expertise needed. SME’s at Franciscan Hospital Indianapolis, a Radiation Injury Treatment Network hospital, could be utilized.

If a longer-term incident requires activation of the Crisis Standard of Care System, D7 HCC hospitals will enact their individual Crisis Standard of Care plan.

During an incident, the D7 HCC works with members to assist them in collecting essential elements of information to be gathered on all patients including name, age, weight, injuries/diagnosis, and care requirements for transport (e.g., IV drip medications, oxygen/vent support), and whether any minor has identified parents or a guardian.

Communication procedures to follow during a Radiation Mass Casualty Incident are outlined in detail in the ***D7 HCC Response Plan.***

Coordination of inpatient and outpatient resources, including behavioral health support for patient, families, and staff will be coordinated with D7 HCC Members and Ancillary Members.

District 7 Healthcare Coalition Logistics

Activation, notification and roles and responsibilities processes are outlined in detail in the ***D7 HCC Response Plan***. This plan follows the ICS/NIMS framework.

The D7 HCC employs a Logistics Manager to oversee supplies.

Space

District 7 hospitals have individually identified surge/flex capabilities and would follow their internal plans for space flex during an influx of patients from a Radiation Mass Casualty Incident. See the ***D7 HCC Emergency Operations Plan***.

The D7 HCC may assist in coordinating movement of tents and/or trailers to members to support space requests.

Staff

In the event of patient surge, D7 HCC hospitals will enact their individual staff surge procedures/emergency plan.

The D7 HCC may assist in coordinating movement of personnel between core member hospitals to support staffing requests.

The D7 HCC may assist in making telephone calls to support member requests.

Emergency Department staff at Terre Haute Regional Hospital and Union Hospital, both verified Level III Trauma Centers in District 7, are required to complete annual Society of Trauma Nurses training which includes specific training in burn and radiation burn care. Completion Trauma Nurse Core Course, which also includes specific training in burn and radiation burn care is also required for ED staff.

Supplies

The D7 HCC maintains a small cache of medical supplies and a Chempack. Supplies are also maintained by each organization/agency and are replenished/supplemented in accordance with their policies and procedures, such as just-in-time supply chain utilization.

During an emergency, D7 HCC core member Emergency Management Agencies and county Health Departments would assist in resource allocation and procurement, such as in requesting the Strategic National Stockpile, at the local, state, and federal levels through the appropriate channels.

District 7 Healthcare Coalition Special Considerations

Behavioral Health

The D7 HCC works with ancillary member organizations and providers, such as social workers and behavioral health counselors to provide behavioral health care and services to the injured, ill and the well to reduce surge on the hospitals if there is no medical necessity.

Eskenazi Health provides Burn Survivor Support Services at https://www.eskenazihealth.edu/programs/burn-support-services 371-880-6878 Survivors Offering Assistance to Recovery-One-to-one peer support visits to those whose lives have been affected by a burn Injury. Burn Survivor Support Group-Monthly group provides survivors to share stories and challenges in a safe environment. Burn Survivor Social Re-Integration Program-burn survivors and families gather to enjoy activities in the community.

ABA Burn Survivor Resources are available at: http://ameriburn.org/public-resources/burn-survivor-resources/

Pediatric

Prior to transport, D7 HCC EMS and Fire Agencies will perform emergency initial treatment to pediatric patients in the field.

The D7 HCC utilizes EMS and fire personnel with current competencies and protocols to assure appropriate triage. D7 HCC core members utilize JumpSTART as their pediatric triage methodology to do the greatest good for the greatest number of victims in the shortest amount of time. See the ***D7 HCC Emergency Operations Plan***, pp. 55-58 for additional information.

All District 7 hospitals providing emergency care may receive pediatric radiation, burn, and/or trauma patients and should be able to provide initial assessment and stabilization.

Terre Haute Regional Hospital and Union Hospital are verified Level III Trauma Centers in District 7. Indiana relies upon the American College of Surgeons-Committee on Trauma (ACS-COT) to verify trauma centers.

Pediatric patients with burns should be transferred to a burn center verified to treat children. In the absence of a regional pediatric burn center, an adult burn center may serve as a second option for the management of pediatric burns.

Regional Verified Pediatric Burn Centers include:

AMERICAN BURN ASSOCIATION (ABA) VERIFIED BURN CENTERS IN RELATION TO DISTRICT 7 [35]

CENTER	Address	City	State	Zip	# Beds	Ages	Helipad
ESKENAZI HEALTH HOSPITAL	720 Eskenazi Ave	Indianapolis	IN	46202	15	Adults & Pediatrics	Yes
RILEY HOSPITAL	720 Barnhill Dr	Indianapolis	IN	46202	10	Pediatrics Only	Yes
SUMNER L. KOCH BURN CENTER	1901 W Harrison St	Chicago	IL	60612	18	Adults & Pediatrics	Yes
UNIVERSITY OF CHICAGO BURN CENTER	5841 S Maryland Ave	Chicago	IL	60637	16	Adults & Pediatrics	Yes
LOYOLA UNIVERSITY MEDICAL CENTER	2160 S 1st Ave	Maywood	IL	60153	22	Adults & Pediatrics	Yes
MERCY HOSPITAL ST. LOUIS	615 S New Ballas Rd	St. Louis	MO	63141	12	Adults & Pediatrics	N/A

[35] http://ameriburn.org

Radiation Injury Treatment Network (RITN) participating centers with pediatric capabilities include:

RADIATION INJURY TREATMENT NETWORK (RITN) PARTICIPATING CENTERS IN RELATION TO DISTRICT 7 [36]

CENTER	Address	City	State	Zip	Adult	Pediatric	Trauma Center	Burn Center
UNIVERSITY OF CHICAGO (HOSPITAL)	5841 S Maryland Ave	Chicago	IL	60637	YES	YES	YES	YES
CINCINNATI CHILDREN'S HOSPITAL MEDICAL CENTER	3333 Burnet Ave.	Cincinnati	OH	45229	NO	YES	YES	NO
CLEVELAND CLINIC FOUNDATION	9500 Euclid Ave	Cleveland	OH	44195	YES	YES	NO	NO
UNIVERSITY HOSPITALS SEIDMAN CANCER CENTER	11100 Euclid Ave	Cleveland	OH	44106	YES	YES	YES	NO

The D7 HCC works with member hospitals to incorporate age-appropriate carry/immobilization devices for transfer transportation.

Combined Injury

The priority of the D7 HCC is to maintain life and prevent further injury or illness.

Nuclear and conventional energetic material explosions produce thermal, blast, and radiation injuries that will often occur in combination. Research has led to the finding that the prognosis of patients suffering from both radiation and traumatic injuries (including burns) will be worse than the

[36] https://ritn.net/

prognosis of patients suffering the same magnitude of either trauma or radiation exposure alone.[37]

The D7 HCC utilizes EMS and fire personnel with current competencies and protocols to assure appropriate triage. D7 HCC core members utilize JumpSTART as their pediatric triage methodology to do the greatest good for the greatest number of victims in the shortest amount of time. See the ***D7 HCC Emergency Operations Plan***, pp. 55-58 for additional information.

Because hospitals in the D7 HCC have limited trauma, radiation, and burn treatment capabilities, Memoranda of Understanding (MOU) are in place for transfer to regional hospitals such for Eskenazi Health Hospital and Riley Hospital for Children for burn center capabilities. Subject Matter Experts from these trauma and burn centers would be contacted to provide telemedicine support. Subject Matter Experts from Radiation Injury Treatment Centers would be contacted to provide telemedicine support.

Adult patients with burns and trauma should be transferred to an adult trauma and burn center. Eskenazi Health Hospital, an American College of Surgeons Verified Level I Adult Trauma Center and American Burn Association Verified Adult Burn Center is located in Indianapolis and is the closest geographically to District 7.

Pediatric patients with burns and trauma should be transferred to a pediatric trauma and burn center. Riley Hospital for Children at IU Health, an American College of Surgeons Verified Level I Pediatric Trauma Center and American Burn Association Verified Pediatric Burn Center is located in Indianapolis and is the closest geographically to District 7.

Additional information on pediatric surge, including decontamination issues, is outlined in detail in the ***D7 HCC Pediatric Surge Annex***.

[37] https://remm.hhs.gov/PlanningGuidanceNuclearDetonation.pdf (p. 35)

District 7 Healthcare Coalition Operations - Medical Care

Triage and Secondary Triage

The D7 HCC will utilize triage officer expertise to identify the mode of transport, priority of transport, and coordination of transportation assets. The D7 HCC Fire Agencies will enact their individual emergency plans to establish triage areas and/or assembly center(s).

The D7 HCC Emergency Management Agencies will enact their individual emergency plans to establish community reception centers, and to facilitate family reunification.

The D7 HCC will utilize multi-agency communication between hospitals/referring facilities/EMS agencies.

Primary transport will match needs to resources when possible.

Secondary transport will include prioritization of patients and coordination of assets.

Transportation Priority

1. Unstable hemodynamic or respiratory status requiring emergency specialty intervention.
2. Currently stable but prior or potential deterioration, intensive care requirements (pressors, complex vent management, etc.).
3. Expectant-not expected to survive transfer despite interventions but transfer once resources become available.
4. Stable, but requires specialty operative or other interventions, no intensive care requirements.
5. Stable, but <8 years of age or congenital/behavioral issues requiring specialized care.

See the ***D7 HCC Emergency Operations Plan*** for additional triage and transportation information.

Because hospitals in the D7 HCC have limited radiation burn capabilities, Memorandum of Understanding (MOU) are in place with regional hospitals such as Riley Hospital for Children at IU Health, and Eskenazi Health with advanced burn capabilities.

Secondary triage may be accomplished via physician consultation with trauma, burn, and/or radiation specialty providers via telemedicine as needed.

Field or hospital-based Medical Command will be involved in making triage decisions about expectant management for patients with significant radiation exposure and/or catastrophic burns.

The D7 HCC shall maintain a list of mutual aid agreements with external support agencies. These agreements shall describe the resource to be utilized for equipment, materials, staff, physical structures, patient transport, and transfer.

The mutual aid agreements shall be kept up to date and located in the ***D7 HCC Emergency Operations Plan***.

Detection and Dosimetry Equipment

District 7 HCC detection and dosimetry equipment is listed in ***APPENDIX C***.

Members of the Indiana National Guard 19th CBRNERFP Battalion (Chemical, Biological, Radiological and Nuclear Enhanced Response Force Package Battalion) would likely be deployed in response to a Radiation Mass Casualty Incident. The 19th CBRNERFP Battalion are equipped with their own detection and dosimetry equipment.

Treatment Protocols / Information

Treatment will be provided based on current protocols.

Because hospitals in the D7 HCC have limited burn capabilities, Memorandum of Understanding (MOU) are in place with regional hospitals such as Riley Hospital for Children at IU Health, and Eskenazi Health with advanced burn capabilities.

Consultations may be accomplished via physician contact with specialty trauma, burn, and/or radiation providers via email, telephone call, and/or video-based telemedicine as needed.

Transfer of radiation injury patients to a Radiation Injury Treatment Network hospital, and/or burn patients to a regional burn center will be accomplished via physician-to-physician with patient and patient information hand-off accomplished through the hospital transfer center.

Just-in-time training would be sought from educators at regional burn centers and would be conducted via video-based telemedicine or other technology platforms as needed.

See the ***D7 HCC Emergency Operations Plan.***

Decontamination Protocols / Information

Prior to transport, D7 HCC EMS and Fire Agencies will perform emergency initial decontamination of pediatric and/or adult patients in the field. Decontamination will be provided based on current protocols.

All hospitals within the D7 HCC have the ability to perform emergency initial decontamination of ambulatory and non-ambulatory adult and/or pediatric patients presenting to their facility.

D7 HCC hospitals, based on their individual plans, policies, and procedures, may request supplemental decontamination assistance from trained HazMat responders with local and state agencies.

If decontamination of adult and/or pediatric patients is needed, D7 HCC hospitals will enact their individual HazMat/Decon procedures/emergency plan.

The D7 HCC works with member hospitals to incorporate age-appropriate carry/immobilization devices; the ability to decontaminate parents and children together; strategies for escorting unaccompanied children; and the use of child-friendly soaps and non-abrasive cloths into their HazMat/Decon procedures/emergency plan.

Members of the Indiana National Guard 19th CBRNERFP Battalion (Chemical, Biological, Radiological and Nuclear Enhanced Response Force Package Battalion) would likely be deployed in response to a Radiation Mass Casualty Incident. The 19th CBRNERFP Battalion follow their established decontamination protocols.

Additional radiological decontamination information is located in ***APPENDIX B***.

Transportation

The D7 HCC will utilize triage officer expertise to identify the mode of transport, priority of transport, and coordination of transport assets. The D7 HCC will utilize multi-agency communication between hospitals/referring facilities/EMS agencies.

Primary transport will match needs to resources when possible.

Secondary transport will include prioritization of patients and coordination of assets.

Transportation Priority

1. Unstable hemodynamic or respiratory status requiring emergency specialty intervention.
2. Currently stable but prior or potential deterioration, intensive care requirements (pressors, complex vent management, etc.).
3. Expectant-not expected to survive transfer despite interventions but transfer once resources become available.
4. Stable, but requires specialty operative or other interventions, no intensive care requirements.
5. Stable, but <8 years of age or congenital/behavioral issues requiring specialized care.

Because hospitals in the D7 HCC have limited burn treatment capabilities, Memoranda of Understanding (MOU) are in place with regional hospitals such as Eskenazi Health Hospital Burn Center and Riley Hospital for Children at IU Health Burn Center.

The mutual aid agreements shall be kept up to date and located in the D7 HCC Emergency Operations Plan (EOP).

Seventy-five Indiana registered Emergency Medical Services providers are located within the district.[38] The Indiana Department of Homeland Security EMS District Manager actively participates in district meetings.

Local Emergency Medical Services providers would provide primary transportation of patients in a Radiation Mass Casualty Incident. Local EMS transportation could be supplemented by private ambulance services and/or Indiana and Illinois hospital-based ground and aeromedical

[38] Indiana Department of Homeland Security: EMS Providers list. Accessed May 26, 2020

transport assets.

Tracking

When the D7 Healthcare Coalition Coordination Center has been activated and under evacuation conditions involving one or more of the D7 HCC members, a patient tracking group shall be assigned under the operations section of the Healthcare Coalition command structure to support and monitor evacuation tracking, transportation and ensure accountability for patients.

Coordination with Hematology/Oncology Centers and RITN

The District 7 HCC, when activated as needed, shall support each affected coalition member facility by establishing a Healthcare Coalition Coordination Center (HCCCC) for coordination of district wide resources and information sharing.

The identification of radiation/burn/trauma Subject Matter Experts (SME's) would be led by a Clinical Advisor to the D7 HCC and be based on the incident type and specialty support expertise needed.

The District 7 HCCCC will support member facility coordination with hematology/oncology centers and/or Radiation Injury Treatment Network centers as needed.

Additional Hematology, Oncology, and RITN information is located in ***APPENDIX D***.

Rehabilitation and Outpatient Follow-Up Services

No radiation injury or burn rehabilitation or outpatient follow-up services for radiation or burn patients are available in District 7.

Patients transported to regional burn centers will work with the burn center to coordinate and obtain rehabilitation and/or outpatient follow-up services.

Deactivation and Recovery

The demobilization process begins at the onset of the disaster as the Incident Command System is established.

Demobilization is the release and return of resources that are no longer required and may occur at any time during or after the incident.

The Incident Commander may either assign a member of the response team (Planning Section if established) to coordinate the demobilization process or manage it themselves.

The responsible person for demobilization can utilize the ICS demobilization check-out form 221 as a guideline for the process.

Demobilization of an incident involving radiation surge should ensure that public perspective and issues are addressed, and address roles and responsibilities for behavioral health support, and assistance with reimbursements as applicable.

Refer to the ***D7 HCC Response Plan*** for additional guidance on the demobilization and continuity process.

Indiana

DISTRICT 7

Healthcare Coalition

Radiation Surge Annex

Appendix A

Training and Exercises

The Radiation Injury Treatment Network provides numerous training resources available at: https://ritn.net/training/

The Radiation Injury Treatment Network provides numerous exercise resources available at: https://ritn.net/exercises/

The American Burn Association provides a number of online training resources available at: http://ameriburn.org/education/education-resources/

The *Advanced Burn Life Support Course* Provider Manual – 2018 update is available online at: http://ameriburn.org/wp-content/uploads/2019/08/2018-abls-providermanual.pdf

The *Just-in-Time Training Summary Sheet Patient Care Priorities for the First 24 hours in Burn Mass Casualty for Non-Burn Physicians (Based upon "Guidelines for Burn Care Under Austere Conditions")* is available at: http://ameriburn.org/wp-content/uploads/2020/03/austere-guidelines-just-in-time-training.pdf

Indiana

DISTRICT 7

Healthcare Coalition

Radiation Surge Annex

Appendix B

Radiation Triage, Treatment, and Care Referral Resources

The Radiation Injury Treatment Network provides numerous triage and care referral resources available at: https://ritn.net/triage/

The Radiation Injury Treatment Network provides numerous treatment resources available at: https://ritn.net/treatment/

U.S Health & Human Services Radiation Emergency Medical Management provides numerous treatment resources available at: https://remm.hhs.gov/interactivetools.htm and https://remm.hhs.gov/diagnosistreatment.htm

U.S Health & Human Services Radiation Emergency Medical Management provides numerous triage resources available at: https://remm.hhs.gov/onsite.htm

U.S Health & Human Services Radiation Emergency Medical Management provides numerous hospital resources available at: https://remm.hhs.gov/hospitalprep.htm

Burn Center Referral Criteria: http://ameriburn.org/wp-content/uploads/2017/05/burncenterreferralcriteria.pdf

Indiana

DISTRICT 7

Healthcare Coalition

Radiation Surge Annex

Appendix C

Detection and Dosimetry Equipment

[INSERT UPDATED DISTRICT EQUIPMENT LIST BEHIND THIS PAGE]

Indiana

DISTRICT 7

Healthcare Coalition

Radiation Surge Annex

Appendix D

Oncology, Hematology, and RITN Information

U.S. Centers for Medicare & Medicaid Services CMS National Plan and Provider Enumeration System **Oncology** Providers in Indiana: https://npiregistry.cms.hhs.gov/registry/search-results-table?state=IN&taxonomy_description=ONCOLOGY&addressType=ANY&exactMatch=TRUE

U.S. Centers for Medicare & Medicaid Services CMS National Plan and Provider Enumeration System **Hematology** Providers in Indiana: https://npiregistry.cms.hhs.gov/registry/search-results-table?state=IN&taxonomy_description=HEMATOLOGY&addressType=ANY&exactMatch=TRUE

Radiation Injury Treatment Network national map and center listing: https://ritn.net/workarea/downloadasset.aspx?id=17179869263

Indiana

DISTRICT 7

Healthcare Coalition

Radiation Surge Annex

Appendix E

Additional Resources/References

ASPR TRACIE: Healthcare Challenges after Radiological Incidents
https://files.asprtracie.hhs.gov/documents/aspr-tracie-radiological-incidentsvwebinar-ppt-final-508.pdf

Healthcare Coalition Radiation Emergency Surge Annex Template
https://files.asprtracie.hhs.gov/documents/aspr-tracie-coalition-rad-surge-ttx-template-presentation-final.pdf

Emergency Preparedness and Response
https://www.nrc.gov/about-nrc/emerg-preparedness.html

Indiana Department of Homeland Security (IDHS) Hazmat and Radiation Programs
https://www.in.gov/dhs/fire-and-building-safety/fire-investigations/hazmat-and-radiation/

National Alliance for Radiation Readiness (NARR) (Public health training)
https://www.radiationready.org/posted-tools/national-alliance-for-radiation-readiness-radiation-training-modules-for-public-health/

National Disaster Medical System (NDMS)
https://www.phe.gov/Preparedness/responders/ndms/definitive-care/Pages/default.aspx

OSHA Ionizing Radiation
https://www.osha.gov/ionizing-radiation/standards

Radiological Emergency Response
https://www.epa.gov/radiation/radiological-emergency-response

Radiation Emergency Medical Management (REMM)
https://remm.hhs.gov/

Radiation Glossary
https://sor.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&vocabName=Radiation%20Glossary&uid=1869530&taxonomyName=Radiation%20Glossary

Radiation Injury Treatment Network (RITN)
https://ritn.net/

US Department of Energy
https://www.energy.gov/

US Environmental Protection Agency: Radiation Regulations and Laws
https://www.epa.gov/radiation/radiation-regulations-and-laws

US Nuclear Regulatory Commission (NRC)
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