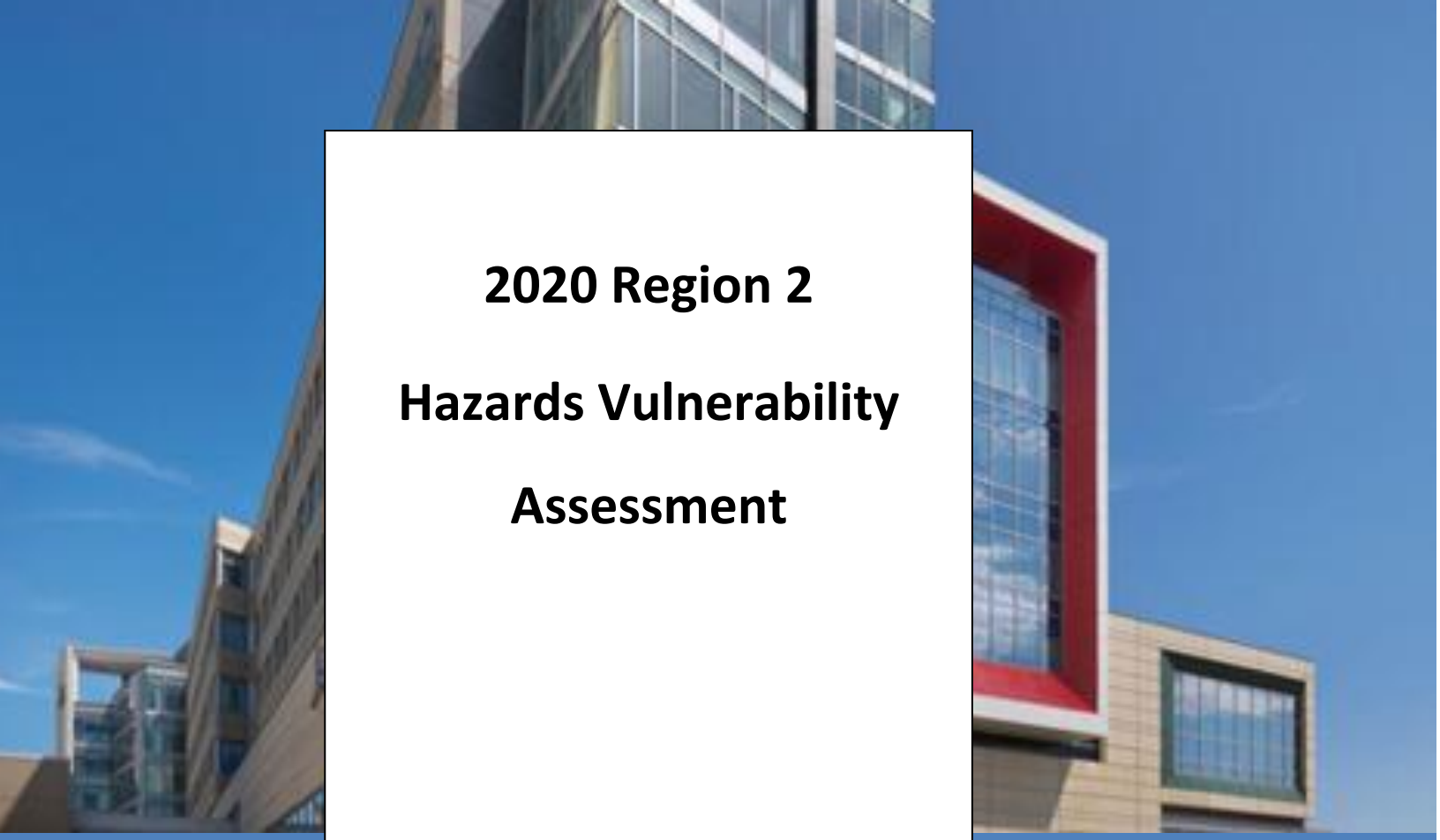


2020 Region 2

Hazards Vulnerability Assessment

Illinois Emergency Medical Services Region 2

This Hazard Vulnerability Assessment is to help Illinois Emergency Medical Services Region 2 in making risk based choices to address vulnerabilities, mitigate hazards and prepare for response to and recovery from hazard events.

Purpose

The purpose of the Hazard Vulnerability Assessment is to rank the hazards in Illinois Emergency Medical Services Region 2. With the hazards ranked emergency management professionals can ensure that Illinois Emergency Medical Services Region 2 is planning and preparing for these hazards. Additionally it will prioritize those hazards that should be exercised for response and recovery. The 2020 HVA was coordinated by the Illinois Region 2 Hospital Coordinating Center.

Summary

Methodology

The Regional Hospitals were asked to use their counties Hazard Vulnerability Analysis results and complete an electronic form inputting their counties top 5 ranked hazards. Their counties top ranked hazard was given 5 points, the second ranked hazard was given 4 points, third ranked hazard was given 3, fourth ranked hazard was given 2 points, and 5th highest ranked hazard was given 1 point. The total points were then averaged out across the results and given a percentage of their total ranking. There were a total of 271 points given during the survey. For example.

Active Shooter:

Ranked #1 in 6 counties HVA and given 30 points

Ranked #2 in 2 counties HVA and given 8 points

Ranked #3 in 0 counties HVA and given 0 points

Ranked #4 in 6 counties HVA and given 12 points

Ranked #5 in 2 counties HVA and given 2 points

Ranking Points: 52
Percentage 19.19% = (Hazard Points / Total Points) (52 / 271)

Regional Results

Rank	Hazard	Total Points	Percentage
1	Active Shooter	52	19.19%
2	Tornado	38	14.02%
3	Severe Thunderstorm	32	11.81%
4	Mass Casualty Incident	24	8.86%
5	Winter Storm	23	8.49%
6	Blizzard	16	5.90%
7	Labor Shortage	12	4.42%
8	Ice Strom	10	3.69%
9	IT Failure	9	3.32%
10	Extreme Cold	8	2.95%
	Civil Disorder	8	2.95%
11	Terrorist Use of a WMD	7	2.58%
	Flood	7	2.58%
12	HazMat Transportation	4	1.48%
	Large Scale Aircraft Incident	4	1.48%
	Extreme Heat	4	1.48%
13	Extended Power Outage	3	1.11%
	Bridge Collapse	3	1.11%
	Large Scale Fire Incident	3	1.11%
14	Earthquake	2	0.74%
15	Drought	1	0.37%
	Landslide	1	0.37%
	Fuel Shortage HazMat Fixed Location Mine Collapse / Sink Hole VIP Visit Water Service Disruption	Were not elected in the top 5 of any regional county HVA	

2020 HVA - Mitigation, Preparedness, Response, and Recovery Chart

The Emergency Management (EM) Sub-Committee has developed appropriate event-specific emergency response plans based on priorities established in the Hazard Vulnerability Analysis and EM sub-committee input. The attached matrix summarizes the key actions which may be taken for each identified “high risk” situation. This Matrix will be updated annually as the new HVA is conducted

Situation	Mitigation	Preparedness	Response	Recovery
Active Shooter / Active Threat	- Security Procedures - Panic Buttons - Interaction with Outside agencies - Facility Design - Staff Training - Risk Assessments	- Security Procedures - Security Plan - Discussion with Law Enforcement - Staff Education	- Overhead Announcement - Implementation of Plan - Staff Response to Area - Access Control - Notification of Law Enforcement - Security Procedures	- Critical Incident Stress Debriefing - Recovery Procedures - Incident Reports - Debriefing - Review of Procedures and Protocols - Documentation AAR
Bomb Threat	- Security Procedures - Facility Design - Staff Training - Risk Assessments - Patient/Visitor Assessment - Risk Assessment - HVA	- Security Procedures - Security Plans - Discussion with Law Enforcement - Staff education and drills - Coordination with Law Enforcement - Other Plans (i.e. Evacuation) - Crisis Communication Plan	- NIMS \ ICS \ HICS \ ICS - Standup HCC \ EOC - Implementation of EOP - HCC / EOC Staff Response - Notification of Law Enforcement - Security Procedures - Evacuation of Affected Area - Search of Areas for devices - Mass Notification System - Two-Way Radios	- Insurance Contacts - Equipment assessment - Facilities damage assessment - Incident Reports - Financial Impact Analysis - Debriefing and AAR documentation
Civil Disorder	- Staff training - Security Procedures - Panic Buttons - Facility Design - Risk Assessment - Patient/Visitor Assessment	- Staff Education - Response Plans - Discussion with Law Enforcement - Security Procedures	- Overhead Announcement Implementation of Plan - Staff Response to Area - Security Access Control - Notification of Law Enforcement - Security Procedures	- Recovery Procedures - Incident Reports - Debriefing - Review of Procedures and Protocols - Documentation - AAR - Analysis of Security Plans
Communications Failure	- Redundant forms of communications - HVA - Mass notification system	- Communication Plan - Overhead Announcements	- IT Response - NIMS \ ICS \ HICS \ ICS - HCC \ EOC - PIO	- Records and documentation - Debriefing and AAR documentation - Root cause analysis

	- Two-Way radio program - Communications Inventory	- Activation/Notification of Emergency Response Protocols - Communications Protocols - STARCOM radios with state channels	- Media communication - Mass Notification Systems - Internal Two Way Radios	
Terrorism / WMD	- Staff Training - Hazard Vulnerability Analysis - Disaster Plan - Disaster Boxes/Supplies - Incident Command System - Bioterrorism Planning - Regional Planning - HAZMAT Team	- Disaster Drills - LEPC - Staff Education - Disaster Plan - Vendor Supply List - Alternative Care Site Agreement	- Overhead Announcement - Call Back System - Automatic Job Assignments - Incident Command Post - Personnel Pool - Medical Staff Pool - Facility Lockdown - Implementation of plans	- Critical Incident Stress Debriefing - Recovery Procedures - Incident Reports - Facility Damage Reports - Patient Census Information - Financial Impact Analysis
Decontamination	- Fixed Decontamination Rooms - Consider need for Decon Tent - MSDS Online System / ERG - Labeling of Hazardous Materials - Radiation Detector - Hazardous Materials Inventory - Hazardous Materials Storage - HVA	- Staff Education - Decontamination Plan - Coordination with Police and Fire Departments - Hazardous Materials Waste Plan / RCRA Plan - Decontamination equipment Spill Clean-up materials - Shutdown of HVAC System - Hazard Communication Program - Safe Handling Procedures - Radiation Dosimeters - Decontamination Team - Spill Clean Up Guidelines	- Evacuation of area - Shut-off of Ventilation System - Spill Containment - Decontamination/Clean-up Procedures - NIMS \ ICS \ HICS \ ICS - Medical Monitoring of Decon Team - Mass Notification - Two-Way Radios	- Critical Incident Stress Debriefing - Incident Reports - Facility Damage Reports - Financial Impact Analysis - Waste Disposal Procedures - EPA Paperwork - Records and documentation - Debriefing and AAR documentation
Drought	- Pre-planning based on weather report - Building construction - HVAC System - Notification network in place - Structurally sound buildings, landscaping - Community Hazard Vulnerability Assessment (HVA)	- Equipment maintenance - Staff training - Severe Weather Plan - Weather Alert Radios - Water Inventories	- Facilities Operations department procedures - Staffing procedures - Communication plan - Mass Notification System - Two-Way Radios - Department/site response - NIMS \ ICS \ HICS \ ICS - HCC \ EOC - PIO	- Insurance Contacts - Equipment assessment - Facilities damage assessment - Incident Reports - Financial Impact Analysis - Debriefing and AAR documentation

Electrical Failure	- Multiple feeds into the building - Two-way radios - Cell phones - Messengers/runners - Back-up generator - Licensed electricians - HVA - Generator testing program	- Flashlights - Loss of Power Departmental Guidelines - Electrical Safety Plan - Contractor agreements - Restoration Plan - Maintenance and Testing	- Power failure response procedure - NIMS \ ICS \ HICS \ ICS - HCC \ EOC - PIO - Facilities response procedure - Mass Notification Systems - Internal Two-Way Radios	- Facility Assessments - Insurance Contacts - Financial Impact Analysis - Records and documentation - Debriefing and AAR documentation
Epidemic/ Pandemic	- Pre Immunizations - Isolation rooms - Negative Pressure rooms - Communication lines to proper authority - Assessments / screening process for vaccines - Building Automation System Fan Controls - HVA - Participation in local healthcare coalitions	- Staff Training to include recognition, correct medical protocol, and treatment - Personal Protective Equipment (PPE) stockpiles - Lockdown procedures - Respiratory Etiquette - Clinic Closure and Staffing Plan for Inclement Weather and Holidays - Risk Assessment - MOUs - Alternate care sites	- Pandemic Plan - Infection Prevention policies and related procedures - NIMS \ ICS \ HICS \ ICS - HCC \ EOC - Media communication - Volunteer Practitioners \ ILHELPS - Assignment of Disaster Responsibilities/Disaster Staffing Guidelines - Mass Notification - Two Way Radios	- Re-stock medications and supplies - Financial Impact Analysis - Insurance Contacts - Staffing evaluation - Records and documentation - Debriefing and After Action Reports (AAR) documentation - Critical Incident Stress Debriefing - Continuity of Operations (COOP)
Fire	- Fire Extinguishers - Sprinkler Systems - Staff Training - PM of Fire System - Building Code Compliance - Policies for purchasing flame retardant materials - No Smoking Policy - Inventory of combustible materials - Construction safety procedures	- Fire Drills - Fire Inspections - Survey Readiness - Code Red Plan - Staff Education - Potential Evacuation Planning - Coordination with Police and Fire Departments	- Overhead Announcement - Implementation of Code red Plan - Security Procedures - Notification of Fire Department - Evacuation of Area (as necessary) - Notification of Insurance Company	- Recovery Procedures - Incident Reports - Facility Damage Reports - Financial Impact Analysis - Debriefing - Fire Reports - Water Damage Reports - Additional Staff for Clean-up
Flood	- Wet vacuums - Power scrubbers - Sewers and drainage - HVA	- Shut-off valves labeled - Single-line drawings - Evaluate flood damage issues during Safety Assessments - Loss of Domestic Water Plan - Sanitary Sewer Cont. Plan	- Maintenance procedures - Departmental procedures - NIMS \ ICS \ HICS \ ICS - HCC \ EOC - PIO - Mass Notification	- Clean up procedures - Facility Assessments - Insurance Contacts - Financial Impact Analysis - Records and documentation

		- Storm Sewer Cont. Plan - Facility Flooding Plan - Potable Water Plan - Indoor Air Quality Plan - Two Hour Cont. Plan	- Two Way Radios	- Debriefing and AAR documentation - COOP
HAZMAT Spill (Internal)	- Fixed Decontamination Rooms - Consider need for Decon tent - MSDS System - Labeling of Hazardous Materials - Radiation Detector - Hazardous Materials Inventory - Hazardous Materials Storage - HVA	- Staff Education - Decontamination Plan - Coordination with First Responders - Hazardous Materials and Waste Plan - Decontamination equipment Spill Clean-up materials - Shutdown of HVAC System - Decontamination Plan - Hazards Communication Program - Safe Handling Procedures - Two new Radiation Dosimeters - Decontamination Training HAZMAT Team	- Evacuation of area - Shut-off of Ventilation System - Use of Gas Monitoring Equipment - Spill Containment - Decontamination Clean-up Procedures - NIMS \ ICS \ HICS - Mass Notification - Two-Way Radios	- Critical Incident Stress Debriefing - Incident Reports - Facility Damage Reports - Financial Impact Analysis - Waste Disposal Procedures - IEMA\EPA Paperwork - Records and documentation - Debriefing and AAR documentation
HAZMAT Spill (External)	- Fixed Decontamination Rooms - Consider need for Decon tent - MSDS \ERG\SDS Sheets - Radiation Detector - Tier II reports - Hazardous Materials Inventory - Hazardous Materials Storage - HVA	- Staff Education - Decontamination Plan - Coordination with First Responders - Decontamination equipment - Hazard Communication Program - Radiation Dosimeters - Trained Decon Team - Annual Training	- Decontamination of patients - Hazards Containment - Decontamination Procedures - NIMS \ ICS \ HICS - Mass Notification - Two-Way Radios	- Critical Incident Stress Debriefing - Incident Reports - Facility Damage Reports - Financial Impact Analysis - Waste Disposal Procedures - IEMA\EPA Paperwork - Records and documentation - Debriefing and AAR documentation

Ice Storm	- Pre-planning based on weather report - Building construction - Emergency Generator - Alternative communications - HVAC System - Notification network in place - Structurally sound buildings, landscaping - HVA	- Snow/ice removal training - Staff call in procedures - Equipment maintenance - Hand-held radios - Staff training - Patient relocation procedure - Generator start up procedures - Severe Weather Plan - Weather Alert Radios - Snow removal and salting / sanding procedures - Surge Inventories	- Facilities Operations department procedures - Staffing procedures - Communication plan - Surge capacity plan - Department/site response - NIMS \ ICS \ HICS - HCC \ EOC - PIO - Announcement of Severe Weather Plan - Mass Notification - Two – Way Radios	- Insurance Contacts - Equipment assessment - Staffing Evaluation - Facilities damage assessment - Incident Reports - Financial Impact Analysis - Debriefing and AAR documentation Clean up procedures
Information Systems Failure	- Ability to access charting systems (EMR, etc.) - Crisis Communication Plan - Backup center - HVA - Capital project planning activities - Downtime and Recovery	- Hand-held radios - Cell Phones - Staff training - Staff education and drills - Two Hour Contingency Plan - Disaster Recovery Plan - Maintenance and Testing	- Policies / procedures for failure and repair - Down Time Procedures - NIMS \ ICS \ HICS - HCC/EOC - PIO - Mass Notification - Two-Way Radios	- IT Assessments - Insurance Contacts - Financial Impact Analysis - Records and documentation - Debriefing and AAR documentation - Recovery procedures - COOP
Mass Casualty Incident	- Patient Identification - Access Control - Staff Training - Triage - Security Surveillance - Risk Assessment	- Drills \ Exercise - Staff Education - Coordination with First Responders	- Overhead Announcement - Implementation of Plan - Security Procedures - Departmental Response Plan - Mass Notification - Internal Two-Way radios - Communications with responders - Staffing procedures - NIMS \ ICS \ HICS - PIO	- Critical Incident Stress Debriefing - Recovery Procedures - Incident Reports - Debriefing - Review of Procedures and Protocols - Reassessment of Patient Counts and appropriate treatment - AAR Documentation
Pharmacy Medication Dispenser Failure	- Relationships with vendors - Redundant resources - Par levels - HVA	- PPE stockpile/inventories - System facilities - SNS availability - Stockpiles - MOUs/Contacts with suppliers - Agreements with other healthcare providers	- Purchasing resources - Courier delivery - Mass notification system - Two-Way radios	- Financial Impact Analysis - Insurance Contacts - Re-stock medications and supplies - Review of resources - Records and documents - Debriefing and AAR documentation

Severe Blizzard/Snow Fall	- Pre-planning based on weather report - Emergency Generator - Alternative communications - HVAC System - Notification network in place - Structurally sound buildings, landscaping - HVA	- Snow removal training - Staff call in procedures - Equipment maintenance - Hand-held radios - Staff training - Generator start up procedures - Severe Weather Plan - Weather Alert Radios - Snow removal and salting / sanding procedures - Accommodations guidelines	- Facilities Operations department procedures - Staffing procedures - Communication plan - Department/site response - NIMS \ ICS \ HICS - HCC \ EOC - PIO - Announcement of Severe Weather Plan - Mass Notification - Two-Way Radios	- Insurance Contacts - Equipment assessment - Staffing Evaluation - Facilities damage assessment - Incident Reports - Financial Impact Analysis - Debriefing and AAR documentation
Severe Thunderstorm	- Pre-planning based on weather report - Building construction - Emergency Generator - Alternative communications - HVAC System - Notification network in place - Structurally sound buildings, landscaping - HVA	- Staff call in procedures - Equipment maintenance - Hand-held radios - Staff training - Generator start up procedures - Severe Weather Plan - Weather Alert Radios	- Facilities Operations department procedures - Staffing procedures - Communication plan - Department/site response - NIMS \ ICS \ HICS - HCC \ EOC - PIO - Announcement of Severe Weather Plan - Close curtains \ blinds - Mass Notification - Two Way Radios	- Insurance Contacts - Equipment assessment - Staffing Evaluation - Facilities damage assessment - Incident Reports - Financial Impact Analysis - Debriefing and AAR documentation - Clean up procedures
Staffing Shortage	- Staffing levels - HVA - Historical data	- Staffing plans - MOUs - Call in rosters - Department staffing plans - Staffing Inventory Tools	- NIMS \ ICS \ HICS - HCC \ EOC - House Supervisor - Department Response - Call back plans - Mass Notification - Two-Way Radios	- Risk reporting system - Financial Impact Analysis - Debriefing and AAR documentation - Critical Incident Stress Debriefing
Supply Shortage	- Relationships with vendors - Redundant resources - Par levels - HVA	- PPE stockpile/inventories - System facilities - SNS availability - Stockpiles - MOUs/Contacts with suppliers - Agreements with other healthcare providers	- Purchasing resources - Courier delivery - NIMS \ ICS \ HICS - HCC \ EOC - Mass Notification - Two-Way Radio	- Financial Impact Analysis - Insurance Contacts - Re-stock medications and supplies - Review of resources - Media Communication - Records and documents

				- Debriefing and AAR documentation
Temperature Extreme (Cold)	- Pre-planning based on weather report - Building construction - Emergency Generator - Alternative communications - HVAC System - Notification network in place - Structurally sound buildings, landscaping - HVA	- Staff call in procedures - Equipment maintenance - Hand-held radios - Staff training - Patient relocation procedure - Generator start up procedures - Severe Weather Plan - Weather Alert Radios - Evacuation Plan - Internal evacuation to corridors - Snow removal and salting / sanding procedures	- Facilities Operations department procedures - Staffing procedures - Communication plan - Surge capacity plan - Department/site response - NIMS \ ICS \ HICS - HCC \ EOC - PIO - Announcement of Severe Weather Plan - Mass Notification - Two Way Radios	- Insurance Contacts - Equipment assessment - Staffing Evaluation - Facilities damage assessment - Incident Reports - Financial Impact Analysis - Debriefing and AAR documentation
Temperature Extreme (Heat)	- Pre-planning based on weather report - Building construction - Emergency Generator - Alternative communications - HVAC System - Additional Cooling Systems - Notification network in place - Structurally sound buildings, landscaping - HVA	- Staff call in procedures - Equipment maintenance - Hand-held radios - Staff training - Patient relocation procedure - Generator start up procedures - Severe Weather Plan - Weather Alert Radios - Evacuation Plan - Internal evacuation to corridors	- Facilities Operations department procedures - Staffing procedures - Communication plan - Surge capacity plan - Department/site response - NIMS \ ICS \ HICS - HCC \ EOC - PIO - Announcement of Severe Weather Plan - Mass Notification - Two Way Radios	- Insurance Contacts - Equipment assessment - Staffing Evaluation - Facilities & HVAC systems assessment - Incident Reports - Financial Impact Analysis - Debriefing and AAR documentation
Tornado	- Pre-planning based on weather report - Building construction - Emergency Generator - Alternative communications - Notification network in place - Structurally sound buildings, landscaping - Corridor construction for patient protection - HVA	- Staff call in procedures - Equipment maintenance - Hand-held radios - Staff training - Patient relocation procedure - Generator start up procedures - Severe Weather Plan - Weather Alert Radios - Evacuation Plan - Internal evacuation to corridors	- Facilities Operations department procedures - Staffing procedures - Communication plan - Surge capacity plan - Department/site response - NIMS \ ICS \ HICS - HCC \ EOC - PIO - Announcement of Severe Weather Plan - Removal of objects from window sills	- Insurance Contacts - Equipment assessment - Staffing Evaluation - Incident Reports - Financial Impact Analysis - Debriefing and AAR documentation - Clean up procedures

			- Mass Notification - Two Way Radios	
Wind Storm	- Notification systems in place - Structurally sound buildings - Corridor construction for patient protection - Weather Alert System - HVA	- Staff training for appropriate response - Patient relocation procedure - Weather Alert Radios - Emergency Operations Plan	- NIMS \ ICS \ HICS training - Standup HCC \ EOC - PIO - Mass Notification - Two-Way Radios	- Facility Assessments - Insurance Contacts - Financial Impact Analysis - Records and documentation - Debriefing and AAR documentation
Workplace Violence	- Security Procedures - Panic Buttons - Interaction with Law Enforcement - Facility Design - Staff Training - Risk Assessments - Patient/Visitor Assessment - Checklists - ID's - Authorized Personnel Signs - Crisis Intervention training - HVA - Workplace Violence Team/Program	- Security Procedures - Security Plans - Discussion with Police - Staff Education - Coordination with Police - Other Plans (i.e. Evacuation) - Workplace Violence Policy - Threat Assessment \ Risk Analysis - Crisis Communication Plan	- Overhead Announcement - Implementation of Plan - Staff Response to Area - Security Access Control - Notification of Police - Security Procedures - Evacuation of Affected Area - Security Procedures - Search of Areas - Interview of Witnesses - Police Department back-up - Mass Notification - Two Way Radios	- Records and documentation - Debriefing and AAR documentation Critical Incident Stress Debriefing - Incident Reports - Reassessment of Victim - Facility Damage Reports - Financial Impact Analysis - Insurance contacts

Community Priorities

1. Active Shooter

Hazard Profile

The United States Department of Homeland Security defines the active shooter as "an individual actively engaged in killing or attempting to kill people in a confined and populated area; in most cases, active shooters use firearms and there is no pattern or method to their selection of victims. Most incidents occur at locations in which the killers find little impediment in pressing their attack. Locations are generally described as soft targets, that is, they carry limited security measures to protect members of the public. In most instances, shooters commit suicide, are shot by police, or surrender when confrontation with responding law enforcement becomes unavoidable. The term "active" emphasizes to notified authorities the urgency of situations which are "unpredictable and evolve quickly," and in which "immediate deployment of law enforcement is required to stop the shooting and mitigate harm to victims."

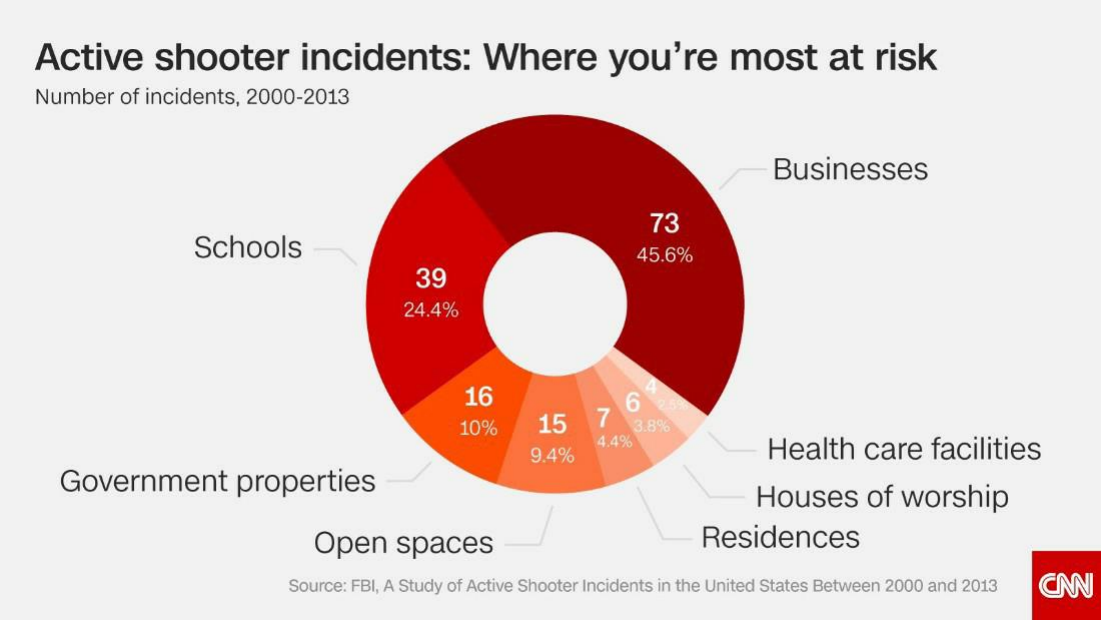
From a layman's perspective, the term "active shooter" is problematic in the sense that the phrase is composed of neutral terms and therefore does not provide the kind of differentiation essential to effective description for civilians untrained in law enforcement terminology. Hence, the average citizen could not conceive of the antonym "inactive shooter". (Shooting someone is, by nature, active whether during a domestic incident, a gang initiation, a drug transaction or a mass murder event.) More problematic still is that the term fails to adequately describe the phenomenon, devolving into contradiction. This phrase has the advantage of focusing on the essential activity rather than on the inessential choice of instrument in carrying out the activity, which, as noted, varies. That said, the phrase "active shooter", despite obvious flaws, has come into widespread usage by law enforcement officials.

The active shooter is a mass murderer. Not all mass murderers are active shooters. Noting the similarities and differences among several types of mass murder will help to isolate and define what is meant by the term "active shooter". The goal of the mass murderer is neither to defend turf or territory nor to initiate himself into nor elevate his status within a criminal organization. The mass murderer does not kill for drugs or money. The serial killer is one kind of mass murderer. He claims many lives in multiple events across time. The events are discontinuous, punctuated by "a cooling-off period". By contrast, the active shooter claims many lives in a single event along a compressed frame of time. In practice, this appears to carry a corollary: broadly, the serial killer seeks anonymity; the active shooter, notoriety. Repetition through multiple events across time answers the pathology of the serial killer. Savage as they are, his acts are not designed to excite publicity. The serial killer will conceal a corpse or bury evidence. He wants to kill again. By contrast, the active shooter seeks infamy through slaughter. He means to fuse his name forever to a place, a date, an event. Thus, his acts are designed to maximize publicity.

The serial killer murders at close quarters. He delights in experiencing the horror of his victims as he shares their space. In his distorted estimation, his victims "mean" something to him. Consider that the serial killer often secures keepsakes from victims to memorialize the "relationship". The active shooter also murders at close quarters. He delights in experiencing the horror of his victims as he shares their space. Crucially, however, while the victims of the serial killer "mean" something to him, to the active shooter they mean nothing. The active shooter moves rapidly and randomly from one victim to the next. Integrating the elements elicited by comparison and contrast, the "active shooter (killer)"

may be defined as a mass murderer who kills (or attempts to kill) at close-quarters, in multiples, at random in a single, planned event.

The active shooter does not negotiate, but goes out to kill as many victims he or she can. A victim has nothing to offer but his or her life. More, to negotiate under the threat of mass murder is, in the nature of the case, to adopt a posture of conciliation, pleading, and begging. The posture serves to reinforce the victim's status as a victim. Active shooters



initiate their "killing spree" in populated areas and exhibit no discernible pattern in the selection of victims. In some instances, active shooters have planted improvised explosive devices both to maximize casualties and to act as an impediment to responding law enforcement and emergency service personnel. Current models of understanding the tactical contours of active shooter incidents demand immediate deployment of law enforcement resources in order to minimize carnage, although many have been stopped by civilians— even unarmed civilians. Research has determined that aggressive action— by even a single police officer— is the most effective countermeasure in stopping the active shooter. Active shooters do not reason or negotiate. The agenda of the active shooter is straightforward: harm as many as possible until stopped. Escape is rare. Many active shooters commit suicide.

(Chart on next page)

Date	State	City	# Killed	# Injured
31-Dec-17	Illinois	Chicago	0	4
6-Dec-17	Illinois	Chicago	0	4
6-Oct-17	Illinois	Chicago	0	5
23-Sept-17	Illinois	Danville	0	5
6-Sept-17	Illinois	Chicago	0	4
4-Sept-17	Illinois	Bellwood	0	4
2-Sept-17	Illinois	Chicago	1	3
22-Aug-17	Illinois	Chicago	0	4
20-Aug-17	Illinois	Chicago	2	5
8-Aug-17	Illinois	Chicago	1	6
1-Aug-17	Illinois	Chicago	0	4
31-Jul-17	Illinois	Decatur	0	4
27-Jul-17	Illinois	Chicago	1	4
23-Jul-17	Illinois	Chicago	1	3
15-Jul-17	Illinois	Chicago	0	4
8-Jul-17	Illinois	Alton	0	4
5-Jul-17	Illinois	Chicago (Roseland)	2	2
1-Jul-17	Illinois	Momence	0	4
27-Jun-17	Illinois	Chicago	0	5
18-Jun-17	Illinois	Chicago	0	4
17-Jun-17	Illinois	Chicago	0	4
11-Jun-17	Illinois	Chicago	0	9
14-May-17	Illinois	Dolton	0	5
7-May-17	Illinois	Chicago	2	8
15-Apr-17	Illinois	Rock Falls	0	4

15-Apr-17	**Illinois**	**Harvey**	**0**	**4**
7-Apr-17	**Illinois**	**Chicago**	**1**	**5**
2-Apr-17	**Illinois**	**Chicago**	**2**	**4**
30-Mar-17	**Illinois**	**Chicago**	**4**	**0**
10-Mar-17	**Illinois**	**Chicago**	**2**	**2**
7-Mar-17	**Illinois**	**Chicago**	**0**	**4**
15-Feb-17	**Illinois**	**Chicago**	**3**	**2**
11-Feb-17	**Illinois**	**Chicago**	**1**	**3**
25-Jan-17	**Illinois**	**Chicago**	**0**	**6**
22-Jan-17	**Illinois**	**Chicago (Englewood)**	**0**	**4**
11-Jan-17	**Illinois**	**Chicago**	**1**	**3**

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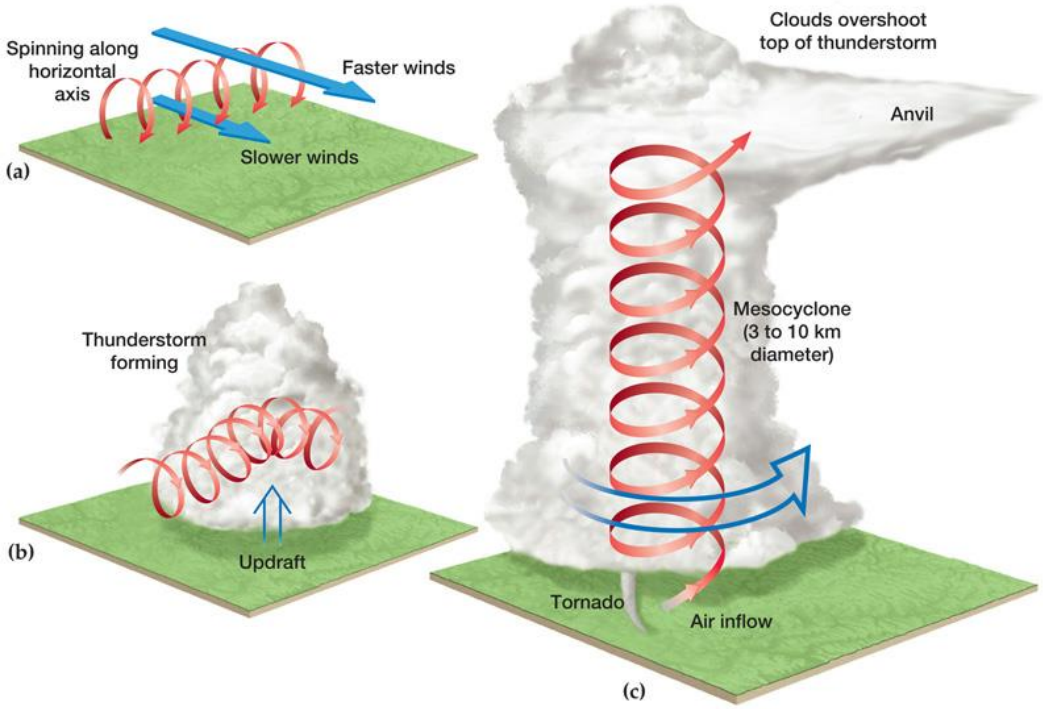
2. Tornado

Hazard Basics

Tornadoes, nature's most violent storms, can cause mass fatalities and devastate a neighborhood within seconds. Tornadoes usually appear as rotating, funnel-shaped cloud that extends from a thunderstorm to the ground with whirling winds that can reach hundreds of miles per hour. Damage paths can be in excess of one mile wide and 50 miles long.

Before thunderstorms develop, a change in wind direction and an increase in wind speed with increasing height create an invisible, horizontal spinning effect in the lower atmosphere. Rising air within the thunderstorm updraft tilts the rotating air from horizontal to vertical. An area of rotation, 2 to 6 miles (3t o 10 km) wide, now extends through much of the storm. Most strong and violent tornadoes form within this 2 to 6 mile area of strong rotation. The National Weather Service (NWS) Doppler radar can detect these areas of rotation, leading to earlier tornado warning times.



Every state is at some risk from a tornado hazard. Illinois is ranked high in terms of the number of tornadoes and tornado impacts (damages, deaths, and injuries) it has received over the years. In fact, Illinois has experienced some of the worst tornadoes in the nation's history. The average number of tornadoes in Illinois is 64 per year, but the numbers very greatly from year to year.

Hazard Rating Scale

The Enhanced Fujita Scale (EF Scale) was revised from the original Fujita Scale to better reflect examinations of tornado damage surveys. The assessment of the damage surveys helped to align wind speeds more closely with associated storm damage. The EF scale is a set of wind estimates (not measurements) based on damage. When rating a tornado the EF Scale is used along with eight levels of damage associated with 28 predetermined damage indicators. The three second

gust (shown in table below) is not the same wind as in standard surface observations. Standard measurements are taken by weather stations in open exposures, using a directly measured "one minute mile" speed. The scale is not 100 percent accurate but is used nationally by the National Weather Service to rate tornadoes.

FUJUITA SCALE			EF SCALE	
F NUMBER	FASTEST ¼-MILE (MPH)	3 SECOND GUST (MPH)	EF NUMBER	3 SECOND GUST (MPH)
0	40-72	45-78	0	65-85
1	73-112	79-117	1	86-110
2	113-157	118-161	2	111-135
3	158-206	162-209	3	136-165
4	207-260	210-261	4	166-200
5	261-318	262-317	5	0VER 200

As previously mentioned the EF scale currently has 28 damage indicators (DI). Each indicator is a type of structure or vegetation, and is associated with a varying number (1 to 8) of degrees of damage based on wind speed. The larger degrees of damage done to the damage indicators correspond to higher wind speeds.

NUMBER	DAMAGE INDICATOR	ABBREVIATION
1	Small barns, farm outbuildings	SBO
2	One- or two-family residences	FR12
3	Single-wide mobile home (MHSW)	MHSW
4	Double-wide mobile home	MHDW
5	Apt, condo, townhouse (3 stories or less)	ACT
6	Motel	M
7	Masonry apt. or motel	MAM
8	Small retail bldg. (fast food)	SRB
9	Small professional (doctor office, branch bank)	SPB
10	Strip mall	SM
11	Large shopping mall	LSM
12	Large, isolated ("big box") retail bldg.	LIRB
13	Automobile showroom	ASR
14	Automotive service building	ASB
15	School - 1-story elementary (interior or exterior halls)	ES
16	School - jr. or sr. high school	JHSH
17	Low-rise (1-4 story) bldg.	LRB
18	Mid-rise (5-20 story) bldg.	MRB
19	High-rise (over 20 stories)	HRB
20	Institutional bldg. (hospital, govt. or university)	IB
21	Metal building system	MBS
22	Service station canopy	SSC
23	Warehouse (tilt-up walls or heavy timber)	WHB
24	Transmission line tower	TLT
25	Free-standing tower	FST
26	Free standing pole (light, flag, luminary)	FSP
27	Tree - hardwood	TH
28	Tree - softwood	TS

Hazard Warning Levels

The National Weather Service Storm Prediction Center alerts affected counties/areas in the event of a tornado. The following tables provide information on the different

Watches and Warnings used leading up to or during a tornado.

Warning Issued	Criteria
Tornado Watch	Watch issued by the National Storm Prediction Center indicates conditions are favorable for the development of severe thunderstorms and tornadoes in and close to the watch area. These watches are issued for areas usually larger than one county.
Tornado Warning	Warning issued by the NWS indicating a tornado spotted by radar or sighted by storm spotters. The warning will include where the tornado is and what towns will be in its path (also automatically indicates a Severe Thunderstorm Warning).

Hazard Damages

Tornadoes can cause fatalities and widespread devastation in seconds. The force of a tornado can lift vehicles, houses, trees, and other large items or structures and toss them hundreds of feet away. Some of the most destructive tornadoes can move at speeds greater than 250 miles per hour and leave a path of destruction miles long and yards wide. Because of the hurling debris associated with a tornado, physical injury and damage to homes and buildings can be expected

During a tornado the public is encouraged to take shelter in approved tornado shelter locations (e.g. basement). Following correct sheltering techniques saves many lives, but injury and even death may result from shelters becoming buried beneath debris. Injury also often occurs after a tornado event has ended, when people walk among debris and enter damaged buildings. A study of injuries after a tornado in Marion, Illinois, showed that 50 percent of the tornado-related injuries were suffered during rescue attempts, cleanup and other post-tornado activities.

Hazard Time/Season

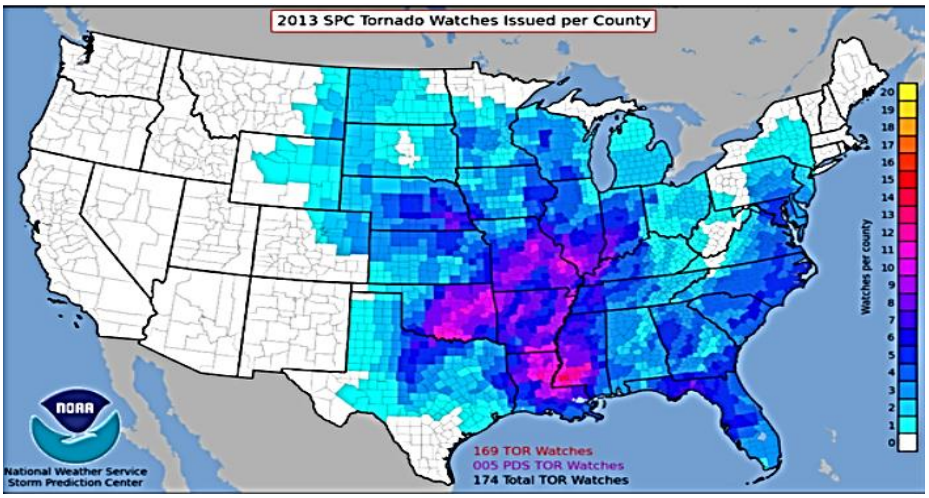
In the United States tornadoes have occurred in every month. In Illinois tornado season is generally March through May. Although tornadoes can and do occur at any time of the year 63% of tornadoes occur during these months. Tornadoes tend to occur in the afternoons and evenings with 50% occurring between 3 p.m. and 7 p.m.

Hazard Duration and Speed of Onset

Tornadoes develop at an extremely quick pace, making them difficult to predict and initiate warning for. Tornadoes can last from seconds to more than an hour. Most tornadoes last less than 10 minutes.

Hazard Frequency and Magnitude

Documented tornado occurrences exist for practically every continent in the world. Annually about 1,200 tornadoes occur in North America, the United States more specifically, making it the highest hit continent.



A majority of tornadoes are designated EF1 or EF0, and are also known as "weak" tornadoes. Even though they are on the lower side of the scale for tornadoes they can still cause damage and death.

Hazard Historical Analysis

Location	Date of Occurrence	Magnitude	Injuries	Deaths	Property Damage
Washington Tazewell County	11/17/2013@ 1059	EF4	121	3	91.0M
Metamora Woodford County	11/17/2013 @ 1112	EF3	4	0	25.0M
Pekin Tazewell County	11/17/2013 @1053	EF2	10	0	45.0M

Referees

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3. Severe Thunderstorms

Hazard Basics

Severe thunderstorms occur at any time day or night but are more common in warmer evenings. For a thunderstorm to be considered severe it must meet one of three criteria.

Severe Thunderstorm Criteria (must meet at least one of three to qualify).

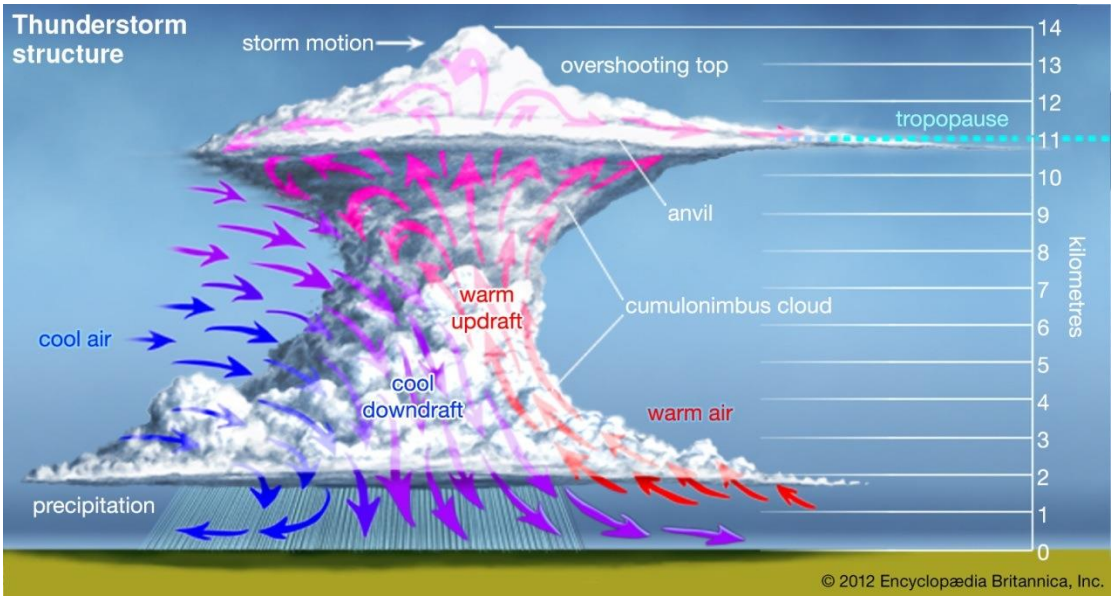
1. Winds of at least 58 mph (50Knots)
2. Produce hail of at least one inch in diameter
3. Produce a tornado

In the United States, only about ten percent of thunderstorms become severe and only around one percent of severe thunderstorms produce tornadoes.

Thunderstorms need three things to form.

1. moisture
2. rising unstable air
3. a lifting mechanism

Besides strong wind, hail, heavy rain, and the possibility of a tornado, severe thunderstorms also carry the serious risk of lightning. Lightening accompanies all thunderstorms.



Life Cycle of a Thunderstorm

The building block of all thunderstorms is the thunderstorm cell. The thunderstorm cell has a distinct life-cycle that lasts about 30 minutes.

The Towering Cumulus Stage

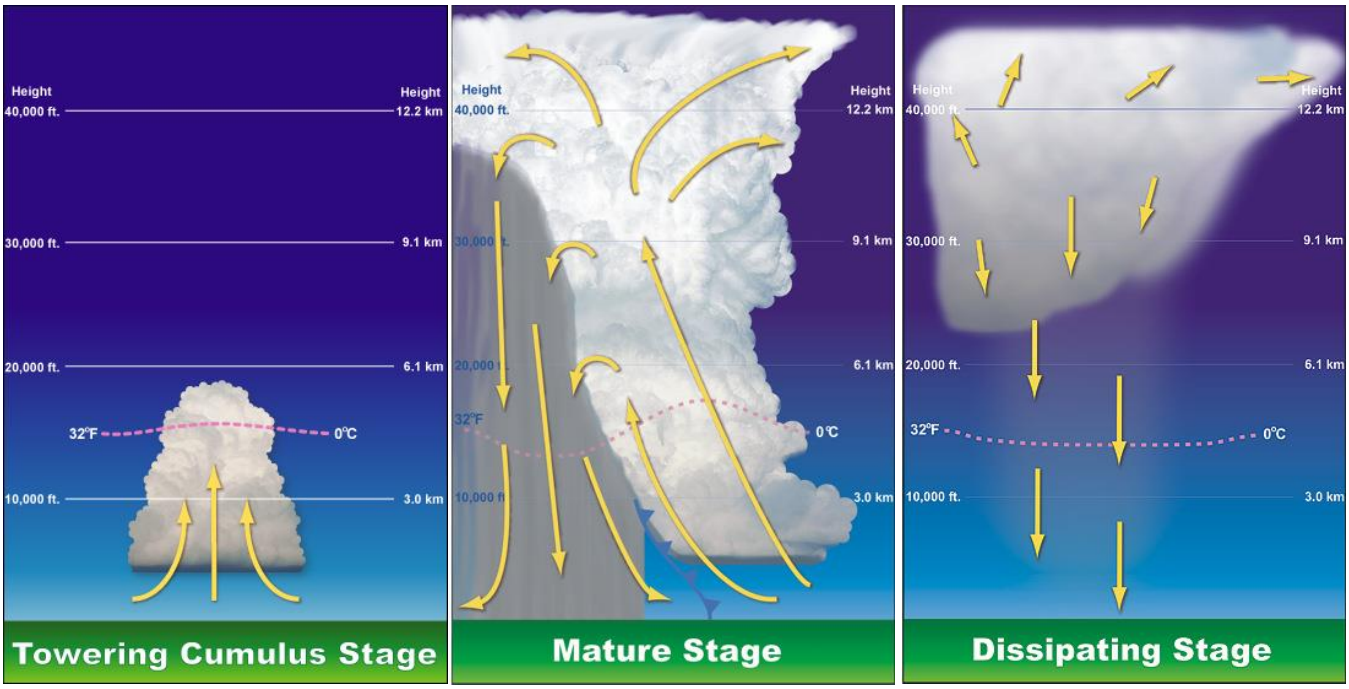
A cumulus cloud begins to grow vertically, perhaps to a height of 20,000 feet (6 km). Air within the cloud is dominated by updraft with some turbulent eddies around the edges.

The Mature Cumulus Stage

The storm has considerable depth, often reaching 40,000 to 60,000 feet (12 to 18 km). Strong updrafts and downdrafts coexist. This is the most dangerous stage when large hail, damaging winds, and flash flooding may occur.

The Dissipating Stage

The downdraft cuts off the updraft. The storm no longer has a supply of warm moist air to maintain itself and therefore it dissipates. Light rain and weak outflow winds may remain for a while during this stage, before leaving behind just a remnant anvil top.



Thunderstorm Types:

1. Single Cell: typically last 20-30 minutes and can produce severe weather elements such as downbursts, hail, some heavy rainfall and occasionally weak tornadoes.
2. Multicell Cluster Storms: A group of cells moving as a single unit, with each cell in a different stage of the thunderstorm life cycle. Multicell storms can produce moderate size hail, flash floods and weak tornadoes.
3. Multicell Line Storms: Multicell line storms consist of a line of storms with a continuous, well developed gust front at the leading edge of the line. Also known as squall lines, these storms can produce small to moderate size hail, occasional flash floods and weak tornadoes.
4. Supercells: Defined as a thunderstorm with a rotating updraft, these storms can produce strong downbursts, large hail, occasional flash floods and weak to violent tornadoes.

Hazard Warning Levels

The National Weather Service (NWS) and the National Storm Prediction Center alert affected areas in the event of a severe thunderstorm. The following table provides information on the different watches and warnings used leading up to or during a severe thunderstorm.

Warning Issued	Criteria
Severe Thunderstorm Watch	Watch issued by the National Storm Prediction Center indicating conditions are conducive to the development of severe thunderstorms in and close to the watch area.
Severe Thunderstorm Warning	Warning issued by the NWS indicating a severe thunderstorm has actually been observed by spotters or indicated on radar, and is occurring or imminent in the warning area.

Tornados when they occur are associated with severe thunderstorms and have their own separate alerts issued by either the NWS or the National Storm Prediction Center.

Warning Issued	Criteria
Tornado Watch	Watch issued by the National Storm Prediction Center indicates conditions are favorable for the development of severe thunderstorms and tornadoes in and close to the watch area. These watches are issued for areas usually larger than one county.
Tornado Warning	Warning issued by the NWS indicating a tornado spotted by radar or sighted by storm spotters. The warning will include where the tornado is and what towns will be in its path (also automatically indicates a Severe Thunderstorm Warning).

Hazard Damages

Although many hazardous weather events are associated with thunderstorms a majority of the property damage and injuries each year is from high thunderstorm winds and large hail. Illinois has more than 550 reports of wind damage and large hail, on average, every year. Hail up to the size of softballs can be formed by thunderstorms. Hail damages cars and windows, and can also kills livestock caught out in the open. Strong winds associated with thunderstorms can knock down trees, power lines and mobile homes.

Also, under the right conditions, rainfall from thunderstorms causes flash flooding, which can be devastating to humans, animals, and infrastructure. Lightning, another a hazard of thunderstorms, is responsible for many highly damaging fires around the world each year. Lightning also poses a striking hazard and could lead to electrical shock injuries and fatalities. As discussed, severe thunderstorms sometimes lead to the development of a tornado. Tornados severe wind can destroy land, infrastructure, and take lives.

Hazard Time/Season

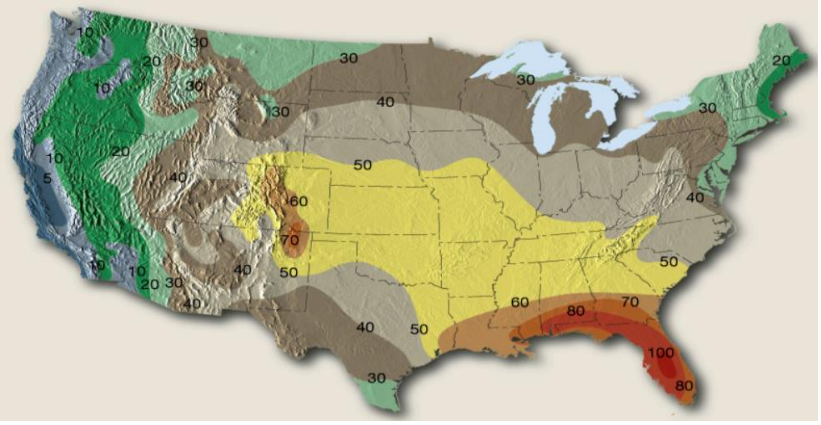
Thunderstorms are most likely in the spring and summer months during warm afternoon and evening hours, but they can occur year-round and at all hours.

Hazard Duration and Speed of Onset

Severe thunderstorms can last from 20 minutes to several hours. The speed of onset when referring to a thunderstorm can be predicted by National Storm Prediction Center but onset may range from a few hours to a few days' notice.

Hazard Frequency and Magnitude

Thunderstorm Frequency in the United States (numbers represent days per year)



Thunderstorms are one of the most frequent severe storms in the Midwest, occurring on average, 50 days a year. Out of 100,000 thunderstorms that occur within the United States each year, approximately 1 out of every 10 storms can become severe, causing damage or posing a threat to life.

Hazard Historical Analysis

Location	Date of Occurrence	Magnitude	Injuries	Deaths	Property Damage
Saybrook, Mclean County	1/17/2013@ 1228	61knots, large hail	0	0	200.00K
Ranson, La Salle County	11/17/2013@ 1220	60knots, tornado producing	0	0	0
Bloomington, Mclean County	11/17/2013 @1215	61knots, large hail	0	0	60.00K

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4. Winter Storm

Introduction/Overview

Severe winter weather consists of various forms of precipitation and strong weather conditions.

Winter storms including blizzards are generated from disturbances along the boundary between cold polar and warm tropical air masses. The disturbances may become intense low-pressure systems. In order for disturbances to become winter storms there are three key factors: cold air (below-freezing temperatures facilitate the production of snow and ice); moisture (which forms clouds and precipitation); and lift (this raises the moist air to form clouds, precipitation, and fronts).

This may include one or more of the following conditions: freezing rain, sleet, heavy snow, blizzards, icy roadways, extreme low temperatures, and strong winds. These conditions can cause human health risks such as frostbite, hypothermia, and death.

Ice (glazing) and Sleet Storms

Ice or sleet, even in small quantities, can result in hazardous driving conditions and can cause property damage. Sleet involves frozen raindrops that bounce when they hit the ground or other objects. Sleet does not stick to trees and wires. Ice storms, on the other hand, involve liquid rain that falls through subfreezing air and/or onto sub-freezing surfaces, freezing on contact with those surfaces. The ice coats trees, buildings, overhead wires, and roadways, sometimes causing extensive damage.

The most damaging winter storms in southern Illinois have been ice storms. Ice storms occur when moisture-laden gulf air converges with the northern jet stream causing strong winds and heavy precipitation. This precipitation takes the form of freezing rain coating power and communication lines and trees with heavy ice.

The winds will then cause the overburdened limbs and cables to snap; leaving large sectors of the population without power, heat, or communication. I n the past few decades, including the winter of 2007–08, numerous ice storm events have occurred in southern Illinois.

Snow Storms

Significant snow storms are characterized by the rapid accumulation of snow, often accompanied by high winds, cold temperatures, and low visibility. A blizzard is categorized as a snow storm with winds of 35 miles per hour or greater and/or visibility of less than ¼ mile for three or more hours. Blizzards are the most dramatic and perilous of all winter storm events. Most snow within a blizzard is in the form of fine, powdery particles, which are wind-blown in such great quantities that visibility is reduced to only a few feet. Blizzards have the potential to result in property damage. Illinois has repeatedly been struck by blizzards, although they are less common in the southern part of the state. Blizzard conditions can cause power outages, loss of communication, and make transportation impossible. The blowing of snow can reduce visibility to less than ¼ mile, resulting in disorientation that can make even travel by foot dangerous.

Severe Cold

Severe cold is characterized by the ambient air temperature that may drop to 0°F or below. These extreme temperatures can increase the likelihood of frostbite and hyperthermia. High winds during severe cold events can enhance the air temperature's effects. Fast winds during cold weather events can lower the Wind Chill Factor (how cold the air feels on your skin), which can lower the time it takes for frostbite and hypothermia to affect a person's body

Wind chill index (chart shown below) is used to show the difference between actual air temperature and perceived temperature, based on the effects of wind and temperature on the human body. The chart also shows the amount of time until frostbite occurs.

NWS Windchill Chart

Wind (mph) \ Temperature (°F)	Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
5		36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63
10		34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72
15		32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77
20		30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81
25		29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84
30		28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87
35		28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89
40		27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91
45		26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93
50		26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95
55		25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97
60		25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98

Frostbite Times — 30 minutes — 10 minutes — 5 minutes

$$\text{Wind Chill (°F)} = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})$$

Where, T= Air Temperature (°F) V= Wind Speed (mph)

Effective 11/01/01

Hazard Time/Season

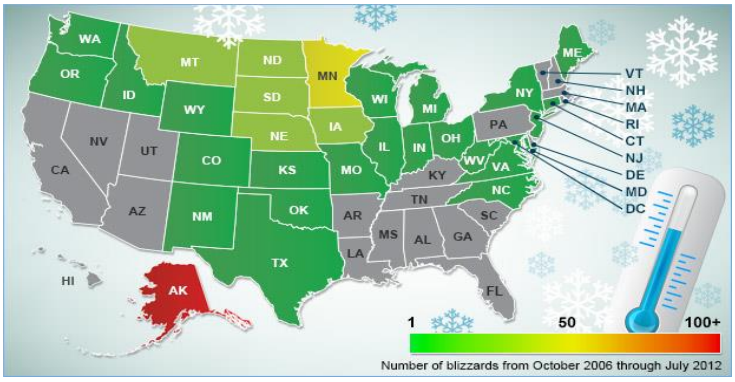
Winter storms, including blizzards, in the Midwest can occur anytime from mid to late October well into April, but typically occur during the winter months of December through February.

Hazard Duration and Speed of Onset

The shortest duration for a winter storm to be considered a blizzard must be at least three hours, but, blizzards can last anywhere from that three hours to multiple days. The time span of a blizzard and speed in which it occurs can be forecasted by the National Weather Service (NWS) but predicting the exact time of the event and length in which it will last is impossible to do at this time.

Hazardous Frequency and Magnitude

The graphic below shows the average number of blizzards across America between the years 2006 and 2012. The frequency and magnitude of a blizzard is influenced by many unpredictable factors and occurrences changes year to year.



5. Mass Casualty Incident

Introduction/Overview

Natural and man-made hazards have the potential to generate large numbers of casualties. Many communities are vulnerable in varying probability to hurricanes, tornadoes, earthquakes, severe summer and winter storms, flooding, and their hazards. The increasing risk of technological disasters may also cause many casualties. Additionally, certain communicable diseases have the potential to spread among populations and cause illness and fatality in such large numbers that the capacity of a community's medical infrastructure would be overwhelmed.

In disaster terms, casualty is oftentimes referred to as persons injured, permanently lost or missing, or killed/deceased as a direct or indirect result of the hazard. Casualty should not be confused with fatality. The term casualty represents a much broader categorization than fatality. It is commonly understood that fatality represents the state or condition of death whereas casualties, as a general category, represent those who are both injured and dead.

Mass Casualty

Disasters oftentimes result in mass casualties. A mass casualty incident may be generally regarded as any incident in which the number of victims exceeds the number of rescuers and resources that can immediately triage, treat, and transport them, and is also estimated to require significant additional resources or time to adequately manage, control, or mitigate the situation. There is no predetermined number of victims that triggers a mass casualty incident response .However, a mass casualty event may usually be distinguished from an emergency incident that initially overwhelms the first responders but can subsequently be managed by routine calls for mutual aid.

- "Closed" Mass Casualty Event

  A mass casualty event is considered a closed incident when the victims are confined to a small geographical area. Automobile accidents, train wrecks, and building explosions are examples of a closed incident. In a closed mass casualty event, the span of control is such that the scene can be managed on-scene by an Incident Commander.

- "Open" Mass Casualty Incident

A mass casualty event is considered an open incident when the victims are scattered over a large geographical area. Tornadoes, floods, and earthquakes are examples of an open incident. In an open mass casualty event, the span of control is so large that the incident must be divided into multiple "scenes" within the community or impacted area.

At-Risk Populations

- Individuals At or Near the Disaster Area
- Elderly: Disasters of all kinds affect older adults disproportionately, especially those with chronic diseases, disabilities or conditions that require extra assistance to leave an unsafe area or recover from an event. For example, in New Orleans, people aged 60 and older comprised 15 percent of the population prior to Hurricane Katrina. However, more than 70 percent of those who died as a result of the hurricane were elderly. Older adults with chronic illnesses, such as diabetes or breathing disorders, may also suffer high casualties because of the inability to access medications or medical technologies/equipment that help them function independently.

- Poor People: According to many studies, it is commonly understood that there is a strong correlation between disasters and poverty. These hazards threaten poor people by imposing human and economic costs, including loss of life, injuries, disabilities and displacement, as well as damage to agriculture, livestock, and infrastructure. Poor people oftentimes live in marginal or hazard-prone areas, or live in poorly constructed and/or vulnerable homes. Additionally, they are increasingly vulnerable due to their limited access to services and resources before, during, and after a disaster.
- Women and Children: In many disasters, death rates among women and children are higher when compared to men. This death rate disparity is more pronounced in third world nations.

Operational Considerations

- Develop mutual aid and cultivate relationships with volunteer organizations, healthcare providers, and other private sector services and professional associations that may be available to assist during a mass casualty event.
- Develop and maintain a comprehensive inventory system (i.e. NIMS Resource Typing) of essential medical supplies, equipment, and emergency medical services. A list of hospitals, clinics, and other medically relevant resources (including their capabilities) should also be maintained.
- Ensure medical facilities have established plans and procedures to handle a certain level of increased patient load by transferring less critical patients to other treatment facilities, canceling elective procedures, call back staff for extra shifts, and expanding to surge capacity.
- Establish communication and information systems to convey real-time data, such as hospital bed capacity.
- Establish provisions to coordinate identification and credential verification of medical volunteers. This is especially important for out-of-state volunteers.
- During a mass casualty event, activate mutual aid agreements to obtain access to additional resources.
- Identify and coordinate the deployment of EMTs, doctors, nurses, technicians, and other medical personnel to disaster areas.
- Identify staging areas for medical personnel, supplies, and equipment.
- Coordinate the activation of mobile field hospitals, as needed.
- Triage to provide medical stabilization, and continued monitoring and care for patients until they can be transported to more functioning facilities.
- Establish and implement provisions to transport victims to outlying areas that have not been affected by the mass casualty-producing event.
- In extreme mass casualty situations, consider coordinating with appropriate labor, licensing, and regulatory agencies to allow medical students, pharmacy students, emergency medical technician students, paramedic students, and nursing students, on a case-by-case basis, to practice prior to the completion of their licensing requirements.
- Ensure roads are passable for emergency ground transportation assets.
- Select airfields to transport critically injured patients to the nearest functional treatment facilities. The need for air transportation should be determined at the triage scene.
- Establish and initiate patient tracking procedures. Tracking of individuals associated in a mass casualty emergency from “first” medical contact to final release from a medical facility is a critical activity. Proper patient tracking will help promote accountability, facilitate information sharing to family members of patients, and provide accurate incident casualty numbers and status to incident management staff.
- Provide accurate and timely public information.
    - Information of greatest public interest during and immediately following a mass casualty incident may include: quarantine and isolation issues; medical-care issues, including listings of available functional

hospitals and health-care facilities; family assistance services; traffic management; law enforcement; transportation issues, including road closures; shelter locations; air quality; and water quality and water-borne disease.

- Provide counseling services to mitigate psychosocial effects of the mass casualty event. Develop procedures for rapidly providing crisis counseling and mental health assistance to individuals and families.
- Establish next-of-kin procedures and coordinate the notification process, as needed.
- Establish a Family Assistance Center, if necessary
- Develop and activate Mass Fatality Plan as appropriate.

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