POST-EARTHQUAKE Sheltering for LTC Facilities

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ALTADENA, CA 2025



Sinclair School of Nursing University of Missouri

NORTH CAROLINA 2024







MATTHEWS, MO 2018







EARTHQUAKE HAZARD MITIGATION

- Planning & Preparation
- Collaboration & Communication
- Sheltering in Place—Logistics
- Lessons Learned



University of Missour



PLANNING & PREPARATION-PARTNERS



CALIFORNIA ASSOCIATION

PLANNING & PREPARATION

	OBJECTIVES		CIDENT RESPONSE GUIDE
	Account for all residents, visitors, and staff; assess for injuries and need for transfer to	EA	RTHQUAKE
	acute care facility.	Тот	MISSION maintain facility operations for a minimum of 96-hours following a major earthquake that may
Π	Initiate damage assessment of facility; determine need for shelter-in-place or facility		bact the structural integrity of the facility, and to ensure the continuum of care for residents, tors, and casualties of the event.
	evacuation (full or partial).		DIRECTIONS ad this entire response guide and use as a checklist to ensure tasks are addressed and
	Initiate resident tracking if evacuation is required.	She Cus Not	npleted. For each response period, all activated IMT positions should refer to their Job Action tet for additional actions. Each IRG is intended to be a starting point and not all inclusive. itomize to your facility. te: Section duties and responsibilities remain the responsibility of the Incident Commander ess delegated.
	Assess ability for facility self-sustainment for a minimum of 96-hours.	ume	OBJECTIVES Account for all residents, visitors, and staff; assess for injuries and need for transfer to
			evacuation (full or partial). Initiate resident tracking if evacuation is required.
	https://www.cahfdisasterprep.com/earthquakes		 DROP to the ground. Take COVER by getting under a sturdy desk or chair (cover your head and neck with your arms and hands). Keep away from glass, windows or anything that could fall near you. HOLD ON to your shelter until the shaking stops. Be prepared for aftershocks.

RAPID RESPONSE CHECKLIST

- If you are physically able DROP, COVER and HOLD ON
 - DROP to the ground.

- Take COVER by getting under a sturdy desk or chair (cover your head and neck with your arms and hands). Keep away from glass, windows or anything that could fall near you.
- HOLD ON to your shelter until the shaking stops.
- Be prepared for aftershocks.

If a resident is in a wheelchair -

- Tell/assist the resident to LOCK their wheels in a safe position.
- Tell the resident to COVER their head and neck with their arms.

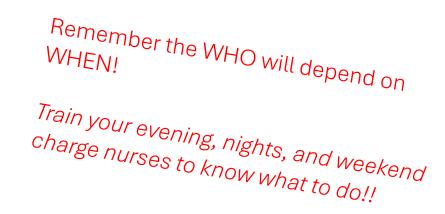
If a resident is confined to a bed -

• Tell the resident to HOLD ON and PROTECT their head with a pillow.

TIME LINE & KEY PLAYERS

- Immediate response (0-2 hours)
 - Maintenance
 - Nursing supervisor (charge nurse, DON/ADON)
 - Administrator
- Intermediate response (2-12 hours)
 - Medical director
 - Corporate liaison (?)
 - Local utilities/EMS/county-city EMD
- Extended response (>12 hours)
 - Financial department
 - Structural engineers
 - Pharmaceutical
 - Medical equipment
 - Food services
- System recovery





uamage and necessary repairs.

	Obtain supplies, equipment, medications, food, and water to sustain			
Logistics Section	operations.			
Chief Assess all onsite communications equipment for operational st				
	activate contingency plans as needed.			
	Assess the status of information technology systems; initiate repairs			
	and downtime procedures if necessary.			
Finance/	Track all costs including those associated with personnel time, loss			
Administration	of revenue, repairs, acquisition of supplies and equipment, and			
Section Chief	altered operations.			



Documents and Tools

Nursing Home Emergency Operations Plan, including:

- Evacuation procedures
- □ Shelter-in-place procedures
- Utility failure procedures
- Business Continuity Pan
- Damage assessment procedures
- Discharge policy
- □ Emergency procurement policy
- □ Earthquake procedures
- Resident, staff, and equipment tracking procedures
- Behavioral health support procedures
- □ Search and rescue policy and procedure
- □ Security procedures
- □ Fatality management procedures
- Volunteer utilization procedures
- Communication plan





GO ON A HAZARD HUNT!

The more an object weighs, the more forcefully it moves in an earthquake. A water heater weighing 400 pounds requires much stronger restraint than a lightweight bookshelf unit.

The more slender the object, the more likely it is to tip over. Objects at least one and onehalf times taller than their narrowest base dimension are the most likely to tip over in earthquakes.



https://www.cusec.org/publications/mitigation/nonstructuralnursinghomes.p df

















Nonstructural Safety Checklist

This list is not all-inclusive but it does itemize the more common hazards. Deal with the most likely or potentially serious conditions first. The following checklist has been adapted from "Checklist of Nonstructural Earthquake Hazards in Child Care Facilities, produced by The Reitherman Company for the Southern California Earthquake Preparedness Project of the California Office of Emergency Services in 1990.

EQUIPMENT AND FURNISHINGS

- File Cabinets: Are tall cabinets, approximately taller than desk height, secured to prevent overturning? As a second choice, cabinets should be bolted to each other to make a more stable or stocky combined shape. A stockier shape (wider footprint) makes an object less likely to overturn, and this technique could be considered partial protection. Teachers should be encouraged to place file cabinets against walls where facilities personnel could anchor them.
- **Shelving:** Are units securely attached to the wall?
- Shelf Contents: Heavy or sharp items are stored on shelves that have lips, elastic cords, or are sloped slightly backward.
- Television Sets, Computers: Are these pieces of equipment restrained so they won't fall? Sturdy brackets are available for wall mounted TVs and are often used in used in hospitals and nursing homes. In addition to attaching the bracket to the wall, the TV must be bolted to the bracket.
- Storage Cabinets: Are tall cabinets secured to the



OVERHEAD ELEMENTS

- Suspended Ceiling Components: In nonresidential buildings with hung ceilings, does the ceiling have diagonal bracing wires? More importantly, are any light fixtures, air diffusers, or speakers resting on the suspended ceiling gridwork provided with the back-up support of two safety wires at diagonally opposite corners?
- Pendant Light Fixtures: Do light fixtures that are supported by stems (metal conduit or "pipe" about an inch in diameter) have safety wires extending up through the stem or otherwise attached to the fixture?
- Spot Lights, Track Lights: Are lights securely mounted so that when the fixtures shake they won't come off and fall?
- Suspended Space Heaters: Are these heaters, especially if supplied with natural gas, hung with vertical rods that also have diagonal bracing?
- Hanging Plants and Displays: If heavy, are they attached to the structure above rather than just to plaster sheetrock or a suspended ceiling's

CENTRAL UNITED STATES EARTHQUAKE CONSORTIUM (CUSEC)

Get the whole checklist here!

https://www.cusec.org/publicati ons/mitigation/nonstructuralnur singhomes.pdf

COLLABORATION & COMMUNICATION



Rules & Response

Community Introductions

Communication Systems





RULES & RESPONSE



Local Emergency Mgmt Director Law Enforcement Fire Department

DHSS

CMS





FEDERAL REGISTER

Purpose: To establish national emergency preparedness requirements, consistent across provider and supplier types.

- Outlines emergency preparedness Conditions of Participation (CoPs) & Conditions for Coverage (CfCs)
 - CoPs and CfCs are health and safety standards all participating providers must meet to receive certificate of compliance
- Applies to 17 provider and supplier types
 - Different emergency preparedness regulations for each provider type



FEDERAL REGISTER

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Part II

Department of Health and Human Services

Carters for Medicana & Medicaid Services

42 CFR Parto 403, 410, 410, et al. Modicare and Medicaid Programs: Emergency Preparadness Requirements for Medicare and Medicaid Participating Providers and Suppliers: Final Data

Bottom line: Providers and Suppliers that wish to participate in Medicare and Medicaid – i.e. the nation's largest insurer – must demonstrate they meet new emergency preparedness requirements in rule.

LTC EMERGENCY RULE BOOK



State Operations Manual Appendix Z- Emergency Preparedness for All Provider and Certified Supplier Types Interpretive Guidance

Table of Contents (*Rev.186, Issued: 03-04-19*)





EMERGENCY PLANS MUST INCLUDE ...

In addition, the emergency plan supports, guides, and ensures a facility's ability to collaborate with local emergency preparedness officials. This approach is specific to the location of the facility and considers particular hazards most likely to occur in the surrounding area. These include, but are not limited to:

- Natural disasters
- Man-made disasters,
- Facility-based disasters that include but are not limited to:
- o Care-related emergencies;
- o Equipment and utility failures, including but not limited to power, water, gas, etc.;
- o Interruptions in communication, including cyber-attacks;
- o Loss of all or portion of a facility; and
- o Interruptions to the normal supply of essential resources, such as water, food, fuel (heating, cooking, and generators), and in some cases, medications and medical supplies (including medical gases, if applicable).



EMERGENCY PLAN MUST INCLUDE ...

- Address resident population, including, but not limited to, persons at-risk; the type of services the LTC facility has the ability to provide in an emergency; and continuity of operations, including delegations of authority and succession plans.
- For LTC facilities and ICF/IIDs, written plans and the procedures are required to also include missing residents and clients, respectively, within their emergency plans.

At a minimum, the policies and procedures must address the following:

(1) The provision of subsistence needs for staff and patients whether they evacuate or shelter in place, include, but are not limited to the following:

- (i) Food, water, medical and pharmaceutical supplies
- (ii) Alternate sources of energy to maintain the following:
- (A) Temperatures to protect patient health and safety and for the safe and sanitary storage of provisions.
- (B) Emergency lighting.
- (C) Fire detection, extinguishing, and alarm systems.
- (D) Sewage and waste disposal





COMMUNITY PARTNER INTRODUCTIONS

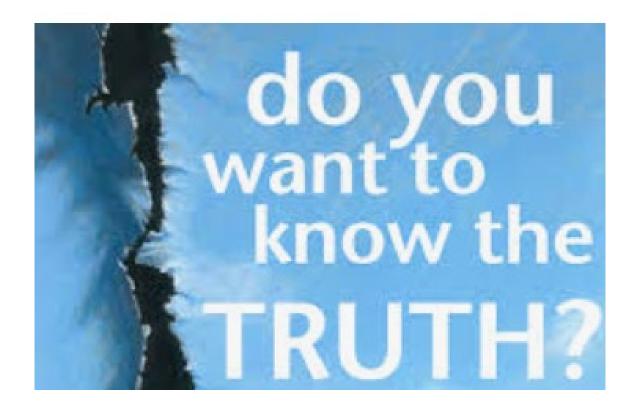
- FEMA
- SEMA
- County level
- City level
- RCF/ALF
- SNF
- Boarding homes
- Other community clinics, hospitals, etc.
- All-hazards approach—review with community partners **annually.**







COMMUNICATION SYSTEMS







COMMUNICATION SYSTEMS-COMING IN/GOING OUT

Bidirectional:

- Land lines
- Cell phone traffic/towers
- Passenger pigeon or 4-wheelers with paper One ways:
- Social media maybes
- Personal phone calls/recordings/posts
- Take a class for Public Information Officers

Your best defense is OFFENSE—be brief, be clear, be honest







SHELTERING IN PLACE-LOGISTICS







STAY OR GO?

STAY

- Revisit emergency roles
- Address checklists per role
- Address staff
- Contacts families, etc.
- Prepare to take in from the community
- Assess what you need to shelter in place
- Communicate with local emergency management director

EVACUATE (NOW OR LATER)

- Identification—on their person
- MARS/TARS/POS's
- Code status
- Family/POA contact information
- Special needs
- Tracking system for each patient





AHCA. NICAL.

Shelter In Place: Planning Resource Guide for Nursing Homes

Purpose of this Document

ompiled and Prepared by

HCA/NCAL Emergency reparedness Committee

ocelyn Montgomery, hair

eggy Connorton, taff Liaison

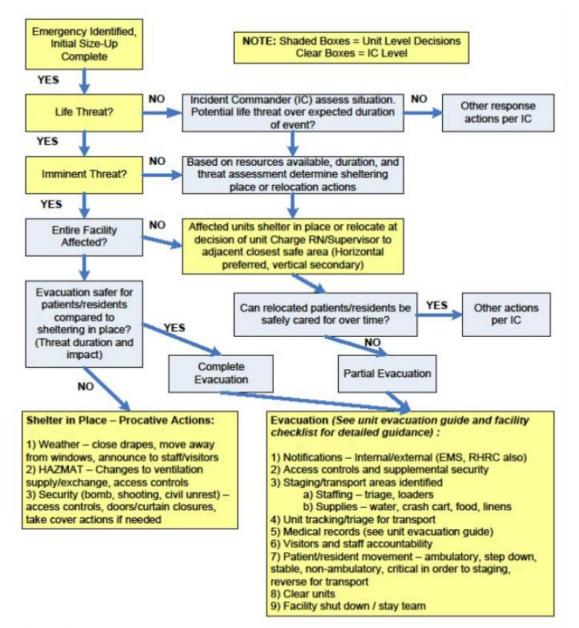
HCA/NCAL 1201 L St NW ashington, D.C. 20005 or stay in the long term care center, many factors need to be considered. Sheltering in Place (SIP) is the preferred option, yet implementing this option calls for a complex chain of decisions and actions that requires these pre-event activities: Planning, Training, Preparation, Collaboration, Continual Vigilance, and Communication with Local Authorities. This guide will provide examples, references, and comparisons to what a care center has already built into its existing Emergency Management Program. Use of these materials is no guarantee that a care center is able to manage successfully an SIP event.

When faced with the difficult decision of having to evacuate

https://www.ahcancal.org/Survey-Regulatory-Legal/Emergency-Preparedness/Documents/SIP_Guidebook_Final.pdf



Sheltering, Relocation, and Evacuation Decision Tree



	Water Needs Under Normal Operating Conditions	Critical to Total Facility Operations	Waterless Alternatives Possible	Water Needs Under Water Restriction Situation	Essential to Specific Operations
Functions	(gpd)	(Yes or No)	(Yes or No)	(gpd)	(Yes or No)
Building					
HVAC					
Fire					
suppression					
sprinkler					
system					
Food service					
Sanitation					
Drinking water					
Laundry					
Laboratory					
Radiology					
Medical care					
Other					
Other					
Total minimum					
water needs to					
keep facility					
open and meet					
patients' needs					

Assess essential functions needs Assess emergency power plan in the moment (also good to pull this in the PLANNING STAGE!) Assess medications and supply stockpile per current needs Assess need for/implementation of a security plan



Shelter in Place Planning Worksheet

SHELTER IN PLACE	STATUS	PERSON(S)	DEADLINE	RESOURCES			
PLANNING TASK	(CHECK ONE)	RESPONSIBLE					
Shelter In Place Decision (page 7)							
Criteria for making shelter-in	not started						
place vs. full or partial	in progress						
evacuation decision	done done						
established							
Procedure established for	not started						
consulting with local	in progress						
emergency management re:	done						
shelter-in-place decision							
Policy established re: whether	not started						
staff families can shelter at	in progress						
Center	done						
Emergency Power Plan (page 1			-				
Center has generator adequate	not started						
to its specific power needs and	in progress						
its placement is not in a	done done						
potentially problematic							
location (i.e., below sea level,							
in a basement in the event of a							
flood, etc.)							
If no generator, Center is	not started						
"quick connect" ready	in progress						
	done done						
Center has 4-5 day fuel supply	not started						
for generator (page 14)	in progress						
	done						
Procedures established for	not started						
regular checking and	in progress						
maintenance of generator	done done						
Center has back-up, manual	not started						
versions of important medical	in progress						
equipment	done						
Center leaders have met with	not started						
local emergency management	in progress						
to discuss power needs of the	done						
facility (page 16)							
Center leaders have met with	not started						
power company to discuss	in progress						
power needs of the facility	done		I				
Food and Water Supplies (page							
Emergency Food & Water	not started						
Supplies reviewed and	in progress						
updated							
Center increases to 5-7 day	not started						
food stockpile for max number	in progress						
of patients and employees	done						
Center has adequate supply of	not started			l			

The American Health Care Association and National Center for Assisted Living (AHCA/NCAL) represent more than 12,000 non-profit and
proprietary skilled nursing and post-acute care centers, assisted living communities, and homes for individuals with intellectual and
developmental disabilities. By delivering solutions for quality care, AHCA/NCAL aims to improve the lives of the millions of individuals who
receive care and services in AHCA/NCAL member facilities each day.

potable water	in progress done		
P			
Emergency food supplies are	not started		
inspected and rotated as	in progress		
needed	done		
Center has active contracts	not started		
with multiple food suppliers,	in progress		
incl. one located out of area	done		
Medications and Supplies Stock			
Center has considered	not started		
increasing to 5-7 day stockpile	in progress		
of common medications	done done		
Center has 5-7 day supply of	not started		
medications for each patient	in progress		
	done		
Center has 5-7 stockpile of	not started		
supplies needed to care for	in progress		
patients	done		
Center has extra supplies of IV	not started		
fluids	in progress		
Indias	done		
Control has made and all home and	not started		
Center has reviewed pharmacy			
delivery with pharmacy as	in progress		
needed	done		
Center has reviewed deliveries	not started		
from vendors of medical	in progress		
supplies	done		
Other Resources	_		
Center has access to cash in	not started		
event of money supply	in progress		
disruption	done done		
Credit and priority	not started		
arrangements made with local	in progress		
hardware, grocer, etc.	done		
	not started		
Center has on hand basic tools	in progress		
and materials to make	done		
emergency repairs/shore up			
structure			
Security Plan (page 21)			
Center leaders have discussed	not started		
emergency security	in progress		
B	done		
Discussions held with local law	not started		
enforcement re: facility	in progress		
security	done		
Lockdown procedure	not started		
established	in progress		
	done		

Source: As adapted from Emergency Preparedness Planning for Nursing Homes & Residential Care Setting in Vermont

The American Health Care Association and National Center for Assisted Living (AHCA/NCAL) represent more than 12,000 non-profit and proprietary skilled nursing and post-acute care centers, assisted living communities, and homes for individuals with intellectual and developmental disabilities. By delivering solutions for quality care, AHCA/NCAL aims to improve the lives of the millions of individuals who receive care and services in AHCA/NCAL member facilities each day.

RAPID RESPONSE CHECKLIST					
	Activate facility's EOP and appoint a Facility Incident Commander (IC) if warranted.				
	Identify safe and unsafe areas of the facility relative to the specific threat.				
	Move residents from unsafe areas to safe areas. Be sure to include medications, important personal items, etc.				
	Increase the safety of "safe areas" by reducing hazards, e.g., close, lock and move away from windows (during extreme winds), exterior doors, and other openings that may create hazards.				
	Plan for the availability of food, water and other essential disaster supplies for residents and staff during the time period anticipated for sheltering in place. In addition to non- perishable food and water and critical medications, consider battery-powered radios, first aid supplies, extra blankets, flashlights, batteries, duct tape, plastic sheeting, garbage bags, and eating utensils.				
	Comfort and assess residents for signs of distress.				
	Notify appropriate state survey agency to report an unusual occurrence and activation of facility's EOP.				

• https://www.cahf.org/Portals/29/DisasterPreparedness/NHICS/ShelterInPlaceIRG_2017.pdf





OTHER CONSIDERATIONS...

• Staffing—can/will they stay? How can you provide comfort for them?

#1 communicating with *their* families

- Generators—what nonessential things can we stop temporarily? When faced with unknowns, people tend to go with routine...this may not be appropriate at this time due to limited resources (water, electricity, meds, etc).
- Incident recorder—everything needs to be documented!! What steps were taken/when/by whom, regular "check-in's" on residents, resources used—there is a high potential for state or federal reimbursement. However, this will ONLY happen if there is documentation!
- Temporary waste management—how will this be handled? Hugely important environmentally and safety-wise for infection control.
- Mental health/trauma—think ahead about having your staff take a Psychological First-Aid class.





LESSONS LEARNED FROM JOPLIN, Mark Francis, QIPMO Coach

3 nursing homes majorly affected

- Direct hit—13-14 dead, some residents, some staff. Residents evacuated to nearby hospitals then disbursed to area nursing homes. There was one resident sent to a home in Webb City—was 3 weeks before someone could identify her. (PTA identified as a friend of a friend). Receiving nursing home didn't know what meds to give, who her family or POA was, etc.
- 2. Significant damage incurred—residents evacuated as soon emergency personnel were able.
- 3. Some damage, sheltered in place for a few days.

All total area nursing homes had to place 300 beds.

It was 3 hours before Webb City was aware of extent of damage at Joplin and the need to take in their neighbors.

Too many towers were down to get cell calls through so it made communicating with hospitals about receiving patients very difficult. Did better via text.



LESSONS LEARNED FROM JOPLIN, MARK FRANCIS, QIPMO COACH

Webb City took in 17 patients the night of the tornado—they housed them in hallways, dining room, activity room—wherever they could.

This put them over bed capacity. When they talked to DHSS, DHSS basically told them, do whatever you need to do to take care of these people. Eventually "official" documentation trickled in.

Had some residents only for a few days as their family's were able to locate them. Less than half stayed for very long.

Key points to remember:

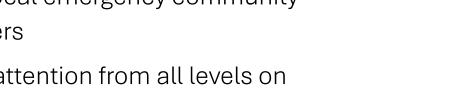
- 1. If you have agreements with other facilities located in the same town, remember they may be in the same shape you're in and cannot take in your residents. Consider having agreements with someone maybe 30 miles or so away.
- 2. Make sure you have access off-site on a **web-based electronic health records system (EHR).** If your system can only be accessed in-house, store information off-site—at least the basics.
- 3. Have bracelets or lanyards or something physical that you can put on each resident with their name, DOB, allergies, and the name of your nursing home. Something tangible so they can be identified.
- 4. Have emergency backpacks or bags for each residents that you can throw on a wheelchair with just some basics.





WHAT'S WORKING FOR US

- Better cooperation and collaboration with local emergency community partners
- More attention from all levels on emergency preparedness for long-term care
- More resources, education, exercises, technology



WHAT'S WORKING AGAINST US

- Bigger natural disasters and more frequently
- More expensive
- Cities getting bigger, rural areas getting less populated
- Red tape





WHAT WORKS FOR ALL OF US







RESOURCES & ADDITIONAL INFORMATION

- I. MO Emergency Mgmt Director Listing <u>https://sema.dps.mo.gov/reports/EMD_Listing.php</u>
- 2. MO Residential Care Homes <u>https://www.causeiq.com/directory/residential-care-facilities-list/missouri-state/</u>
- 3. MO LTC Statutes <u>https://casetext.com/statute/missouri-revised-statutes/title-xii-public-health-and-welfare/chapter-198-convalescent-nursing-and-boarding-homes</u>
- 4. LTC Emergency Preparedness Checklist https://comagine.org/sites/default/files/resources/sqi-qin-ltpac-cms-emergency-preparednessplan-checklist.pdf
- 5. ASPR/TRACIE-CMS Emergency Preparedness Tools <u>https://asprtracie.hhs.gov/cmsrule</u>
- 6. CMS Emergency Preparedness Regulations and Guidelines <u>https://www.cms.gov/medicare/health-safety-standards/quality-safety-oversight-emergency-preparedness-rule</u>
- 7. CMS After-Action Report Template for LTC <u>https://www.cms.gov/medicare/health-safety-</u> <u>standards/quality-safety-oversight-emergency-preparedness/templates-checklists</u>



RESOURCES & ADDITIONAL INFORMATION

	MISSOURI DEPARTMENT OF		MO.gov	Governor Parson	Find an Agency	Online Services	arch Q
HEALTH & SENIOR SERVICES			2 •	You Tube 🗙 Follow Us	Instagram f Like Us	G Select Language 🔻	
	Healthy Living	Senior & Disability Services	Licensing & R	legulations	Disaster & Em	ergency Planning	Data & Statistics
D)isaster and	Emergency Planning			D	isaster & Emerge	ncy Planning

Information for Medical and Public Health Professionals

- Health Alerts, Advisories, Updates and Guidances
- Ebola and Other Highly Infectious Diseases Webinar
- Biological Terrorism/Emergencies
- Chemical Terrorism/Emergencies
- Radiological and Nuclear Terrorism/Emergencies
- Explosions and Traumatic Injuries
- Influenza (Pandemic and Seasonal)
- Coronavirus (COVID-19) Pandemic
- Medical Countermeasures/Strategic National Stockpile (SNS)
- Pediatric Disaster Resources
- Additional Resources for Disasters and Emergencies
- Volunteer Opportunities
- Continuity of Operations (COOP)
- Missouri Healthcare Coalitions
- Emergency Response Public Information Toolkit for Local Public Health Agencies
- Centers for Medicare and Medicaid Services (CMS) Emergency Preparedness Rule Information

Office of Emergency Coordination (OEC)

Department of Health and Senior Services P. O. Box 570 Jefferson City, MO 65102-0570

24/7 Public Health Emergency Hotline: 800-392-0272

Telephone: 573-751-5152 FAX: 573-526-8389 Email: **DRMS@health.mo.gov**

CLINICAL EDUCATION NURSES

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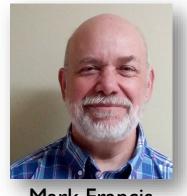
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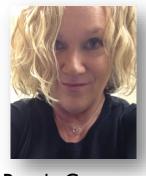




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