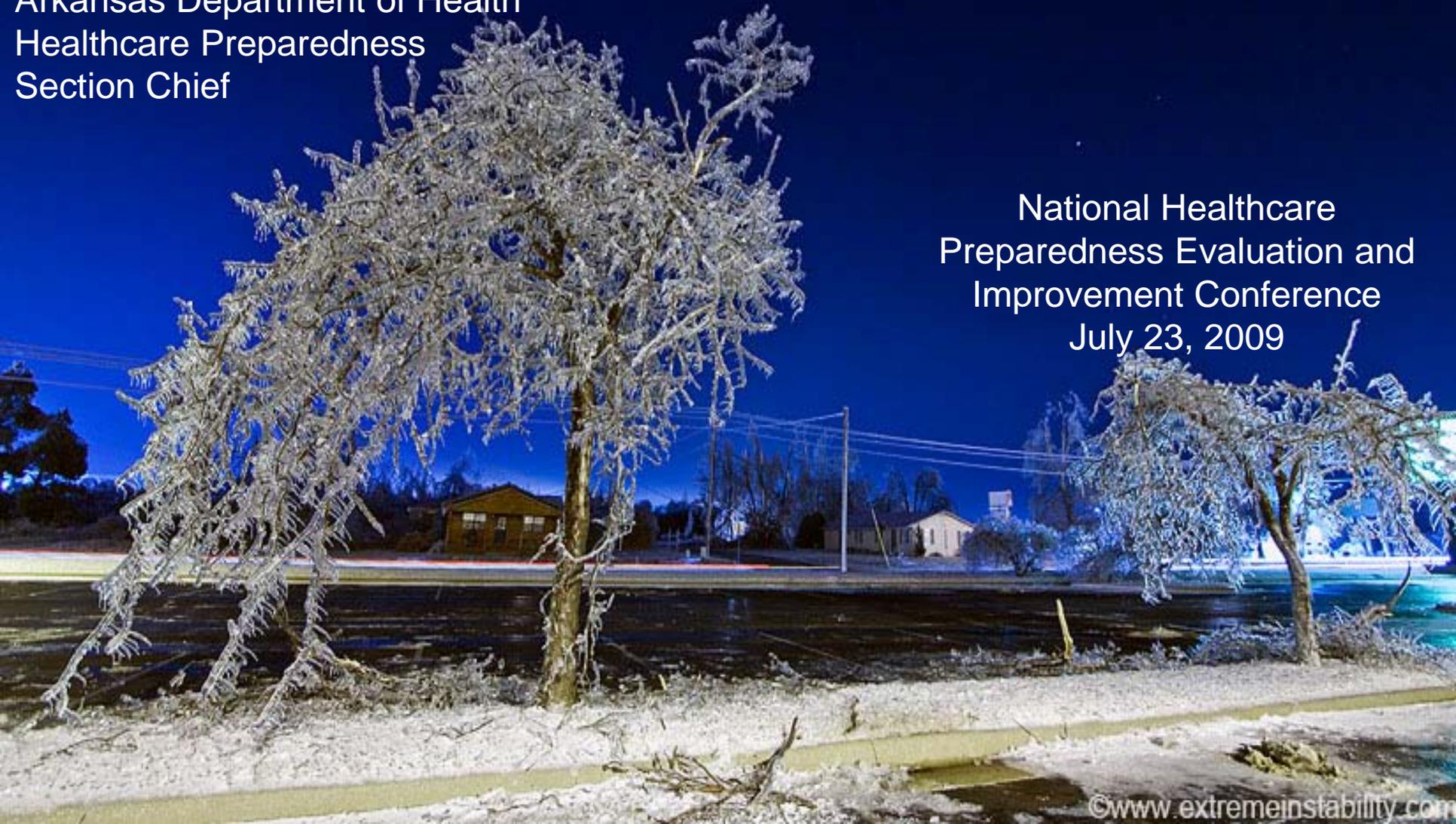


Arkansas Hospitals' Ice Storm Experiences
January/February/March 2009:
Lessons Learned

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National Healthcare
Preparedness Evaluation and
Improvement Conference
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- A cold front stalled along the Gulf Coast on January 24th/25th. The system drove moisture northward over the front, with precipitation breaking out late on the 26th/early on the 27th. It was cold enough for areas of freezing rain and sleet across northern and central Arkansas.





- The dire situation was summed up by Mel Coleman, CEO of North Arkansas Electric Cooperative (on the night of the 27th):
- *"In all of my years I have never seen anything that compares to the damage this storm has caused. From the beginning forecasts yesterday morning it seemed the worst could happen, but we tried to believe it wouldn't happen. It did happen.... Just opening the door to the outside sounds like a war zone, with the continuous sounds of trees and limbs breaking...like gunshots over the next hill. "*



- * Approximately 350,000 homes and businesses without power
- * About 32,200 poles were downed or snapped during the event
- * As many as 18 fatalities were reported across the state, due to hypothermia, post-event hazards (i.e. downed trees/power lines) or traffic related
- * At one point, 12 hospitals were without power and two hospitals were without water.









Boston Mountain Ranger District



Near Fairview, Arkansas

Near Hwy. 341, Mountain View, Arkansas

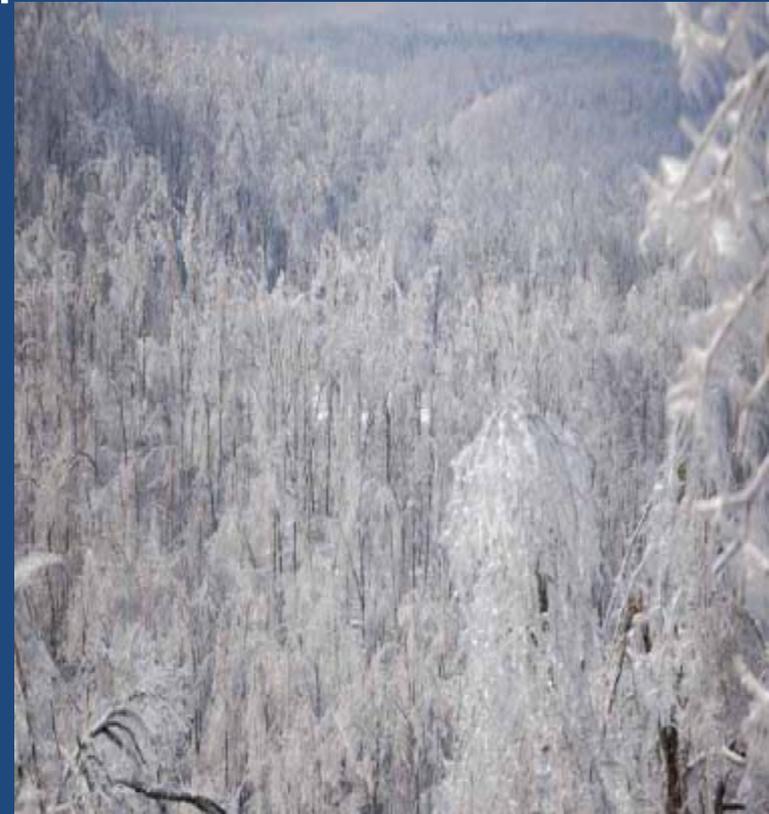




What went wrong?



- Sustained power outage; Ran out of fuel for generator
- Staff was unable to get to the hospital
- Transportation for staff; Who and where to pick up staff
- Water supply shut down for days
- Needed more flashlights





What went wrong?



- Energy company did not have hospital listed on their repair maps
- All land lines, cell phones, and Internet connections were down for days
- Supplies ran low/out (linens, water, dietary supplies)
- Not allowing employees that were without electricity to stay at the hospital but expecting them to work.





What went wrong?



- Found these items were not on emergency power circuit: Controls for HVAC, sewage pumps, water pumps
- Generators not working properly; back-ups fail
- Unable to locate backup generator; Backup generator is located in Tennessee
- Need more working hospital beds





What went wrong?



- Had a patient that needed to be transferred out due to hip fracture; EMS was not allowed to leave county; Air service was not flying due to the weather
- Unable to safely provide BIPAP/CPAP or ventilator care due to the unpredictable nature of the back-up electricity
- No red outlet in Arterial Blood Gas Lab
- Did not receive timely oxygen delivery; very few back up tanks





What went wrong?



- AWIN Radio was locked in an office; was useless
- AWIN radio reception is low to none inside the building; HAM radio operator was needed
- No radios for Internal communication; communication was poor within
- AWIN Radio unable to reach OEM
- AWIN Radio was not charged







Arkansas Methodist
Medical Center

What went right?



- Staff were prepared for the forecast and started their shift ready to stay as long as necessary
- Night shift nurses kept the IV pumps plugged into the red outlets and kept them rotated out throughout the night so that they all were charged and usable.
- In-town staff covered the shifts by working extra and staying late for the ones that could not make it to work.





What went right?



- Members of the leadership team came in and helped on the floor, pass trays, answer call lights, and even brought donuts for the staff.

- Hospital allowed employees and families to use the facility for showers, laundry, cooking, and sleeping

- Some emergency generators worked without problem.

- Electric Company made Hospital priority





What went right?



- EMS brought food/supplies as they made transports to/from Hospital Network; transported some staff into hospital/back home
- EMS and Police worked efficiently to transfer patients to shelters
- Area hospitals utilized AWIN system and two-way radios for communication if phones/internet not working
- No problems with food or water supply; Linen supply was adequate





2009/01/25

What went right?



- Blocks of motel rooms were reserved for staff to stay in the city.
- Had surge beds available to help meet sheltering needs of community.
- Medical Reserve Corps physicians collaborated with staff of Clinic (that had electricity), and hospital. This prevented the ED from being overwhelmed by patient surge.



What went right?



- Nursing faculty called and adopted en mass into Medical Reserve Corp to man shelter at Convocation Center so hospital staff could work at medical center.
- House physicians went on high alert and worked together to cover the hospital, depending on who could get in/out
- Facilities Crew able to transport staff when they were able to get into work



What went right?



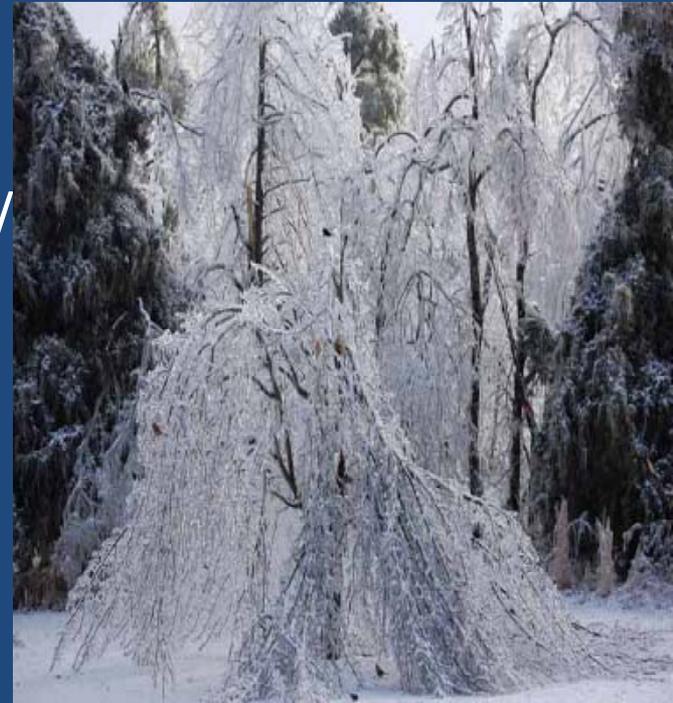
- Diesel fuel loaned from local physician and school; Local fire department parked a water truck on site
- Other hospitals sent supplies, including dietary, cots, and linens; Prison took over handling the laundry
- Willingness of other departments to work together as a team and help anywhere needed when possible



What went right?



- Staff pulled together, worked long shifts, and handled the situation extremely well
- Allowing employees and even their family to stay at the hospital in an empty room for a small fee
- All the preparedness drills/exercises/trainings really paid off for us







Lesson Learned



- Interoperable communications are important
 - AWIN/Ham radio operations must be kept updated; adequate antennas; know channels
 - Radios must be assessable, batteries charged
 - Multiple persons should be trained
 - AWIN programmed to include OEM
 - Have an internal radio system
- Back-up Generators and operation are essential
 - Multiple personnel trained to operate
 - Regular system checks and maintenance operations
 - Ample fuel supply
 - Ensure adequate facility/departmental connections



Lesson Learned



- Inclement weather policy is also essential
 - Who reports when and where
- Periodically updating emergency call roster
 - Include cell numbers whenever possible
- Establish a team to work with disaster coordinator in planning and response efforts
 - Emergency operations staff
 - Plan for staff & family needs during disaster situations
 - Establish options for staff travel during communications black-outs and dangerous driving conditions



Lesson Learned



- By using periodic drills/exercises, strengths are developed for real world events; and integration of public and private sector medical needs can be accomplished
 - Build Community partnerships during down-time and increase cooperation during disaster
 - Encourage involvement of OEM, LHU, EMS, Nursing Homes, Long Term Care Facilities in Hospital Preparedness activities
- Encourage MRC (Medical Reserve Corp) and ESAR VHP (Emergency Systems for Advance Registration of Volunteer Health Professions) as a way to help facility in time of need



Lesson Learned



- The community will come to your hospital in times of power outage for warmth, food, and oxygen needs
 - Develop plan with community to help serve needs of these individuals, including those of At Risk individuals and Special Needs populations





NO SE PERMITE...
NO...
RS W...
E P...
SE LES COBR...
MULTA A...
VIOLADOR









SPEED
LIMIT
30

SLOW

CHILDREN

2009/01/29









“My closing thoughts for the night: I sincerely hope that each of you make it through this disaster stronger than when you went in. This event will take everything we have...from our spirit to our never ending dedication ... to get us through this. It will take days and possibly weeks...but it will come together. Good luck, stay safe & hang in there.” Mel Coleman

