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Are Ohio's Nursing Homes Ready for an Emergency?

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Background

On any given day in Ohio's nursing homes, there are nearly 78,000 residents receiving care. Most of these residents need hands-on help with their daily activities such as bathing and dressing and four in ten have cognitive impairments. This means that nursing homes may be vulnerable during emergencies that require either evacuation or necessitate sheltering in place.

The devastation following the Gulf Coast hurricane, Katrina, brought to the forefront the importance of emergency planning in long-term care facilities. Many problems occurred during the hurricane, such as a loss of power, breakdown in cell phone service, inadequate plans for evacuation, and a lack of food, water, and medical supplies (Laditka, Laditka, Cornman, Davis, and Richter, 2009). Coastal regions are not the only areas vulnerable to the catastrophic impact of natural disasters. Tornadoes and strong windstorms are especially problematic in Ohio. One of the more notorious tornado outbreaks destroyed more than 1000 homes in Xenia in the 1970s. Since 2000, Ohio has seen over 250 tornadoes (National Climatic Data Center, 2015). In July 2012, a major windstorm left nearly a million households and businesses without power, some for as long as a week. Nursing homes had to rely on their backup generators for power.

Accidents also pose a threat to Ohio facilities. Between 2001 and 2015, the state experienced nearly 4000 railroad accidents, some of which resulted in the release of toxic cargo (U.S. Department of Transportation, 2015).

Staff from the Ohio Departments of Aging, Health, and Emergency Management requested the inclusion of a series of questions in the 2013 Biennial Long-Term Care Survey administered by the Scripps Gerontology Center regarding emergency preparedness and planning in Ohio nursing homes. The collected information is expected to support future preparedness, response, and recovery activities. The module included questions about facility proximity to potential hazards, emergency planning, on-hand emergency resources, and communication with local, state, and federal agencies. Over 90% of Ohio's 962 (N=890) nursing homes responded to the module questions.

OF OHIO'S 88 COUNTIES,

82%

have had 1 or more federally-declared major disaster declarations between 2005 and 2015¹.

100%

of respondents reported having an emergency plan.

OVER

50%

of plans were developed in coordination with local partners (i.e., hospitals, emergency responders, and public health officials).

Study Findings

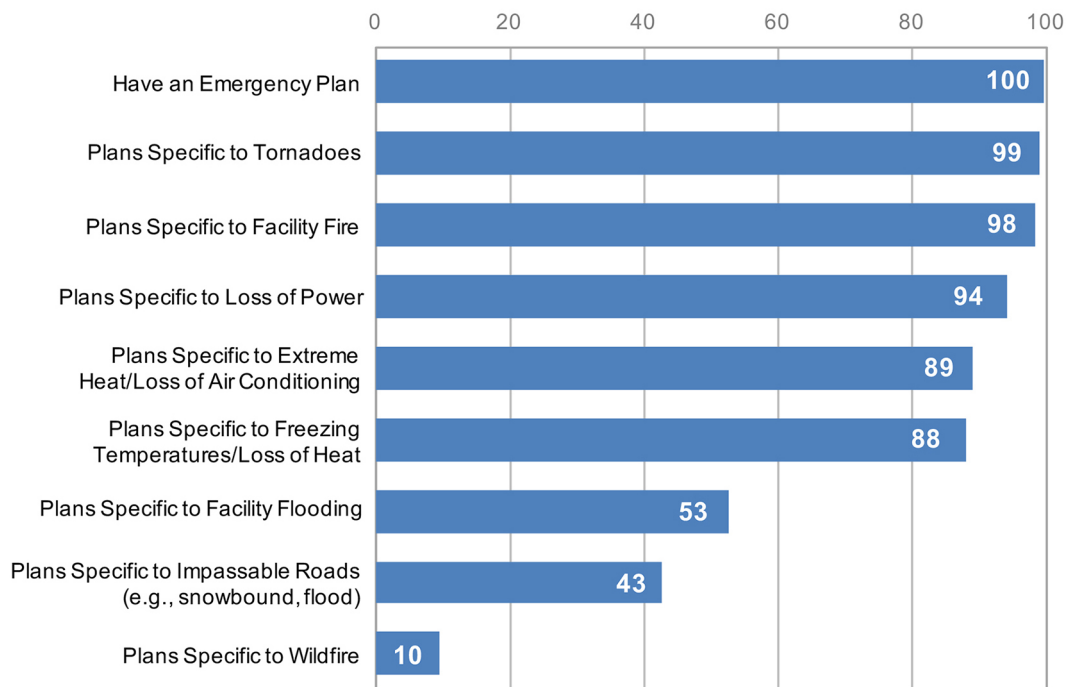
At Risk Locations

Respondents were asked about proximity of their facility to flood plains, active railroad tracks, and nuclear facilities. Nearly 3% of facilities reported that they were located in a flood plain. A review of available public records confirmed these findings. One-quarter of the facilities responded that they were located within one-half mile of an actively used railroad track. A review of public records showed that even more facilities may be near active railroad tracks than reported by administrators. Facilities near an active railroad tended to be located in urban counties. Finally, 5% of all facilities reported that they were located in an emergency planning zone around a nuclear power plant. Our estimates indicated that over 500 residents are within a 10-mile radius of an active nuclear power plant and 25,000 of Ohio's nursing home residents are within a 50-mile radius of a nuclear power plant.

Emergency Plan Details

One hundred percent of long-term care facilities statewide report having an emergency plan. Slightly more than one-half of the plans (55%) were developed in coordination with local partners such as hospitals, emergency responders, and public health officials. One quarter reported not working with local partners and nearly 20% were unsure. Not-for-profit and government nursing homes partnered with these agencies more than for-profit nursing homes. Additionally, nearly eight in ten respondents either had not or were unsure of whether their facility had been contacted by or engaged with one of the seven regional healthcare coalitions which focus on preparedness activities in the community².

Figure 1: Proportion of Facilities Addressing Specific Hazardous Issues in Emergency Plan



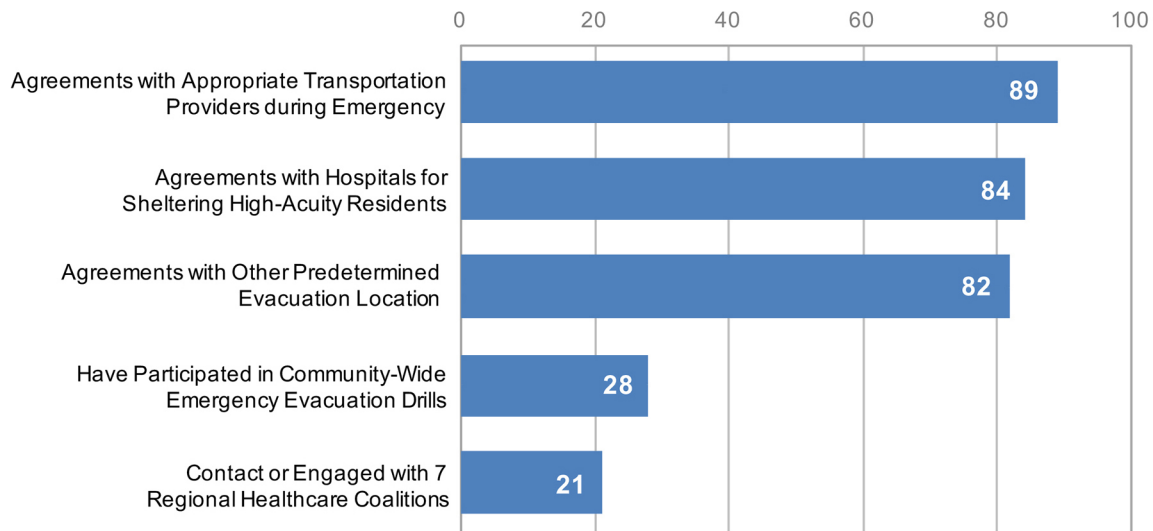
Our survey asked respondents detailed questions about plans for different types of emergencies, staffing issues, and coordination agreements with evacuation sites. Most facilities appeared to be prepared for fires, tornadoes, and mechanical related failures such as extended power outages (see Figure 1). Planning for impassable roads was an area where facilities reported less preparation.

Staffing during emergencies is an essential component of an emergency plan. Nearly eight in ten facilities had requirements for staffing during emergencies. A similar proportion of the nursing homes had staffing

back-up plans in place. A smaller proportion (30%) of nursing homes included housing of staff, families, and pets during emergencies in their plans.

Evacuation requires significant planning and action. Just over 80% had formal agreements with a predetermined evacuation location (See Figure 2). Nine in ten had agreements with transportation services to evacuate the residents. Most facilities had ways to identify, track residents, and transfer resident information. Three in ten nursing homes had participated in a community-wide emergency exercise or drill.

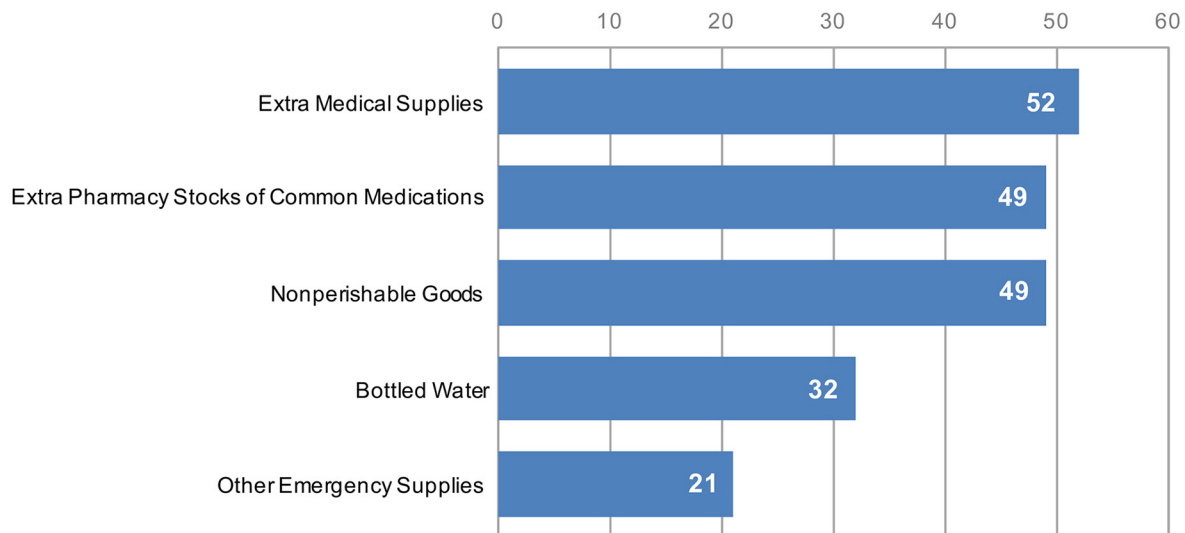
Figure 2: Proportion of Facilities that Report Communicating with Community Partners about Emergency Plan



Emergency Supplies

For nursing homes to shelter in place they need to have adequate supplies to ensure that they can care for their residents for a prolonged period of time. The majority of facilities had one week or more of extra medical supplies, as shown in Figure 3. Thirty percent of facilities reported having a week or more of water and about one half reported having a week or more supply of nonperishable food. For frail older adults, maintaining regular doses of medical supplies is critical. About one half reported having a week or more pharmacy stocks of common medications. Other supplies, such as an extra stock of hygiene items and batteries, can also be critical during a power outage. More than 20% of facilities reported having other emergency supplies.

Figure 3: Proportion of Facilities Reporting Having One Week or More of Emergency Supplies



Implications

Ohio's nursing home administrators report that they plan for emergencies. Based on our survey results, most nursing homes have plans prepared for natural disasters, mechanical failures, and evacuations. About half of nursing homes have not developed plans in coordination with local partners and 80% have not been contacted or are unsure about contact with Ohio's seven regional healthcare coalitions. In times of emergencies these partners will be necessary, if not essential, allies. The more communication and practice, the more likely that what is written on paper will actually occur. We recommend that more nursing facilities engage with their local and regional partners to develop emergency plans and to participate in emergency preparation activities such as community-wide drills.

Effective sheltering in place is an additional challenge. What is an adequate supply of water, food, and medicines that a facility needs to have on hand? Moving forward, further conversation between local, state, and federal officials is needed to decide the appropriate amount of perishable supplies, such as medicines, that will be necessary. Although facilities report plans for emergencies, policy questions need to address preparedness expectations and providers, and regulatory staff need to work together to make sure that Ohio nursing homes are ready should a disaster hit the state.

¹ Authors accessed and analyzed data using Federal Emergency Management Agency's Application Programming Interface found at www.fema.gov/openfema-dataset-disaster-declarations-summaries-v1 on September 1, 2015. The results are not endorsed by FEMA.

² Healthcare coalitions are groups of healthcare organizations, public safety and public health partners that join forces for the common cause of making their communities safer, healthier and more resilient. Coalitions support communities before, during and after disasters and other crises.

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