

Lessons from Hurricane Ida: Addressing gaps in emergency preparedness planning to protect residents in independent living facilities

Received (in revised form): 10th February, 2023

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Journal of Business Continuity & Emergency Planning
Vol. 17, No. 1, pp. 52–60
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1749–9216

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ABSTRACT

This paper describes how Hurricane Ida exposed gaps in emergency preparedness planning and coordination in New Orleans, particularly related to the health and safety of the residents

of multi-storey independent living facilities designated for seniors and persons with disabilities, where at least ten lives were lost due to the power outages and extreme heat that occurred following the storm. As this paper discusses, New Orleans Health Department leaders responded by taking swift policy action, working with the mayor, city council and community stakeholders to ensure better coordination, preparation and accountability for owners and operators of certain independent living facilities. The article recommends that states and localities with individuals living in independent living facilities should consider similar policy interventions as part of their disaster cycle planning activities.

Keywords: *emergency preparedness, public health, independent living facilities, access and functional needs*

INTRODUCTION

Hurricane Ida was a Category 4 hurricane that hit south-eastern Louisiana on 29th August, 2021 and caused catastrophic damage across the region. In New Orleans, the storm caused widespread extended power outages that threatened the health and safety of many city residents, particularly the elderly and those

with medical needs or mobility challenges who remained in the city following the storm. In the days immediately after the storm, City officials opened cooling and charging centres at local recreational centres and libraries, which were equipped with generators.

Despite those efforts, the New Orleans Health Department (NOHD) staff received reports that there were independent living facilities where conditions continued to deteriorate, and residents were stuck on upper floors of buildings without access to a working elevator, air conditioning or food. In response, NOHD officials took immediate actions to protect the health and safety of individuals in buildings with reported concerns. In the weeks after the storm, City officials used an existing emergency preparedness ordinance as a model for developing a new policy to improve coordination between local emergency response officials and owners, managers and residents of independent living facilities.

PRE-IDA EMERGENCY PREPAREDNESS POLICIES IN NEW ORLEANS

In 2018, the New Orleans City Council approved an ordinance to require local licensure of nursing homes to implement emergency planning and backup generator requirements to ensure climate control during the prolonged loss of electrical power.¹ This ordinance proposed two major changes to take effect on 31st May, 2019:

- Nursing homes must coordinate with the local office of Homeland Security to submit and receive annual approval of an operations and evacuation plan as a component of the licensing process; and
- Nursing homes must have backup generation capacity sufficient to maintain

an ambient indoor temperature of not less than 71 °F and not more than 81 °F (21.7–27.2 °C) for a period of 96 hours (four days). This plan must address onsite fuel storage to avoid reliance on natural gas services, which may be interrupted in the event of a disaster.

This ordinance was developed locally in response to legal actions brought against a nursing home in Hollywood, Florida after 14 residents died (12 related to heat exposure) during a prolonged power outage following Hurricane Irma in 2017. Backup generation requirements for this ordinance were developed based on the State of Florida's Agency for Health Care Administration's Rule No. 59AER17-1.²

In Louisiana, nursing home administrators are required to communicate with City and State agencies ahead of emergencies and daily during declared emergencies. Most facility reporting occurs through the online system, Mstat, which prompts facility staff to provide a daily bed poll of residents/patients, share evacuation/shelter-in-place decisions, share current utility status information and more.³ At the time of Hurricane Ida, similar reporting requirements did not exist for non-health-care facilities in New Orleans.

HURRICANE IDA

In the days following Hurricane Ida's landfall, daytime temperatures in Orleans Parish reached 32 °C (90 °F) or higher each day. With catastrophic damage to the electrical grid at the regional level, safe refuge options were not available for residents in the first week while damage assessments were conducted. Therefore, many individuals without access to reliable transportation sheltered within their homes with limited services available for days with no clear timeline for power restoration. During the first few days of

response, extensive telecommunications outages hampered clear communications, and many individuals, including first responders, were without access to reliable phone service for at least 48 hours post storm.

Once phone and internet lines returned, calls for assistance — including locations of disaster shelters, food distribution locations and calls for post-storm evacuation services — skyrocketed.⁴ City Council members and staff from the Mayor's Office of Neighborhood Engagement were some of the first City officials to receive citizen complaints of seniors who remained in high-rise apartment buildings without access to elevators, food/water and necessary medications. One facility called in the Cajun Navy to conduct a resident welfare check, which prompted a call to 911 that alerted first responders of the gravity of the situation.

To address these concerns within the independent living facilities, leadership from NOHD, New Orleans Police Department, New Orleans Fire Department and New Orleans Emergency Medical Services, along with Project HOPE volunteers who deployed to Louisiana, created small inspection teams to assess immediate human health and life safety concerns. These efforts lasted five days to assess a total of 32 buildings. During each inspection, staff and volunteers were tasked with collecting available facility information including facility name, facility address, date and time of inspection. When possible, these teams identified building manager, owner and/or security company contact information to be able to make contact and provide follow-up on resident and building status. Team leaders created a spontaneous resident census based on door-to-door wellness checks that included resident name, apartment number, evacuation/shelter-in-place status, general population

or medical needs, number and type of pets (if applicable), mobility status and medical equipment type/needs (if applicable).

During every wellness check, residents remaining in buildings without electricity were offered a post-storm evacuation option. By agreeing to evacuate, the inspection team leader would coordinate with the City of New Orleans Emergency Operations Center to coordinate bus transport to the centralised Parish pick-up point for transport out of New Orleans to state-run shelters. While some residents opted to use this service, others decided to shelter within their building and utilise local disaster support services (daytime City-run cooling centres, food/water/ice distribution sites, etc). Some residents cited previous negative experiences with state shelters as reasons to stay within their homes.

In extreme cases, some buildings were deemed not habitable for residents due to unsafe conditions. In these eight facilities, all remaining building residents were evacuated on buses to state shelters. Before this event, City leadership did not have extensive institutional knowledge of the policies or procedures for temporarily ceasing operation of an independent living facility in a post-disaster setting. Upon consult with the City Attorney, it was determined that under a Mayoral Proclamation of Emergency ('Emergency Declaration'), the Superintendents of Police and Fire and the Director of Homeland Security and Emergency Preparedness are designated as the Emergency Authority. As such, they are:

'empowered to direct and compel the evacuation of any and all persons from any part of the City deemed by the Emergency Authority to be suitable for evacuation for the preservation of life or other disaster mitigation, response, or recovery in accordance

with the provisions of Ordinance No. 22,247 M.C.S.⁵

This clarification provided the legal support for NOHD to continue leading joint agency inspections in the days after Ida, in coordination with the Police Superintendent and Director of Homeland Security and Emergency Preparedness.

POST-IDA POLICY DEVELOPMENT AND IMPLEMENTATION

As the active emergency response effort came to a close, it was clear to City officials that the situation required a policy response to protect vulnerable residents of independent living facilities from the impacts of natural disasters and emergencies. Several New Orleans City Council members supported and participated in evacuations from the facilities and were interested in supporting a legislative solution to improve the preparedness of City officials and independent living facility owners, managers and residents. The political will and urgency generated by the storm resulted in NOHD staff writing an ordinance and regulations that were subsequently approved by City Council less than two months after Hurricane Ida. During the legislative process, there was some opposition voiced among building owners and operators related to the proposed ordinance, but several owners and operators acknowledged their shortcomings and were willing to come to the table to develop a workable solution in partnership with the City.

POLICY DETAILS

On 21st October, 2021 the New Orleans City Council considered and approved Ordinance No. 28801, which established requirements for operation of residential facilities for seniors or persons with

disabilities.⁶ The ordinance was signed by New Orleans Mayor Latoya Cantrell on 26th October, 2021 and became effective on 21st November, 2022. The ordinance established Article XVII of Chapter 30 of the New Orleans Municipal Code, which is the chapter that regulates business operations.⁷

City officials developed the new ordinance using the existing municipal ordinance requiring local licensure for nursing homes as a starting point. Officials also consulted the City of New York's Fire Department's Fire Code Guide, which includes a section of requirements for buildings related to emergency planning and preparedness. We are unaware of another local policy that has the same set of requirements for certain residential living facilities as included in Ordinance No. 28801.

Ordinance No. 28801 defines what residential living facilities are covered, created a new licensing requirement for those covered facilities, and established requirements related to emergency planning, emergency response and emergency communication for owners and operators of those covered facilities, as well as fees and fines for non-compliance.

Defining residential living facilities for vulnerable populations

The ordinance defines 'covered facilities' as those residential living facilities that are unregulated by the state and have:

- Six or more units designated for residents aged 55 years or older; or
- Six or more units designated for residents with disabilities; or
- 50 per cent or more units designated for people receiving permanent supportive housing services.

This definition was based on the types of buildings where City officials saw the

greatest public health and safety threats as a result of Hurricane Ida. It does not include group homes, assisted living facilities, or nursing homes, all of which are already regulated by the State.

Emergency preparedness and response requirements

The new local ordinance requires owners and operators of covered facilities to apply for and obtain an annual operating license by completing the following requirements:

- Submitting emergency operations and evacuation plans to the City by 1st April annually;
- Providing contact information of person(s) who will remain on site 24/7 during emergencies or disasters by 1st April annually;
- Submitting a resident census, including emergency contact information and residents who self-identify as having special medical needs by 1st April annually;
- Providing situational updates to City's Emergency Operations Command centre every 24 hours during a declared emergency or disaster;
- Submitting an annual licensing fee of US\$250; and
- Complying with the Life Safety Code as determined by the New Orleans Fire Department and confirmed by annual facility inspections.

Tools developed

To support clear communication and collaboration between the covered facilities and the City, NOHD staff created and distributed the following tools to the owners and operators of the facilities:

- Emergency Operations Survey Template;
- Annual Resident Census Template; and
- Special Medical Need Resident Survey.

The Emergency Operations Survey Template provides a guide for building owners and operators to develop an emergency operations plan (EOP) that is consistent with the requirements of regulations put forth by NOHD.⁸ The regulations require that EOPs include:

- A complete all-hazards plan that describes the facilities' planned response to tropical weather, no-notice flooding, urban heat-related events, prolonged power outages that are expected to last longer than 48 hours, and any other threat deemed required by a hazard vulnerability assessment.
- The name, title, e-mail address and phone number for the person in charge of decision making for the housing facility during a declared emergency and a backup point of contact, including name, title, e-mail address and phone number for the housing facility if the designated decision-maker is not reachable.
- A detailed description of any backup generator resources available at the facility in the event of power loss, including:
 - The wattage of the generator;
 - Type of fuel required;
 - The fuel capacity, burn rate and amount of fuel available on hand at the housing facility for the generator;
 - What areas and functions of the housing facility the generator will power in the event of an outage and how long can the generator power these areas;
- Information about the emergency fuel contracts the facility holds, including details regarding the process of emergency fuel procurement;
- Information about service contracts for any generators at the facility; and
- Information about annual certification or inspections of any generators at the facility.

- A description of how residents will be evacuated from the housing facility during a mandatory evacuation order or following the loss of electrical power that is expected to last longer than 48 hours, if the facility cannot provide sufficient generator capacity to maintain critical facility systems, including heating, ventilation, and/or air-conditioning equipment in housing units, elevator service, illumination of means of egress, alarms and alerting systems and communications systems.

Once received, NOHD, in collaboration with the New Orleans Office of Homeland Security and Emergency Preparedness (NOHSEP), reviews all documents submitted for completion and adequacy. If emergency preparedness staff at the City identify the need for improvements or changes to the plan submitted by a facility, the documents are sent back to the facility management and the licence is not approved until it is resubmitted with updates.

NOHD staff also hosted multiple in-person events, a webinar and engaged in targeted outreach efforts to ensure that all building owners and managers were familiar with the requirements of the new ordinance. The first year of implementation was strongly focused on ordinance education and meeting basic requirements before any new initiatives were proposed.

THE WORK CONTINUES

Entering the second year of ordinance implementation, City of New Orleans staff will continue to take lessons learned from the emergency response and policy development phases to inform annual programming goals and initiatives. Continued engagement with residents will require a

multipronged approach to collaboration and engagement with key stakeholders in this process.

Update of the City-wide integrated preparedness planning process

Public health and public safety agencies must formalise and strengthen the interagency wellness inspection model in post-disaster situations. This plan must be flexible and scalable to a range of partners and scenarios, including voluntary organisations active in disasters and City of New Orleans volunteer programmes, which may have expanded capacity to help in certain events. These plans must be incorporated into the City's Integrated Preparedness Planning cycle, in which ensure they become regular topics for exercise and evaluation.

Investment in a full-time position to support implementation

The time and resources required to address the gaps in City, building and resident emergency preparedness planning required specific investment in staff positions. In year one of policy implementation, NOHD hired a full-time public health emergencies compliance officer to conduct the day-to-day health-related compliance education and outreach duties relating to the local independent living facility and nursing home ordinances. This individual will be responsible for convening stakeholders from City departments, State agencies, community-based organisations, building managers and residents alike to ensure understanding of the ordinances. This individual, with support from other team members, will oversee the creation of a new emergency response function within the NOHD structure to oversee facility compliance during an emergency, which may require 24/7 coverage and surge support.

Regular coordination with facility leadership

The absence of existing relationships with facility leadership led to significant challenges in the response phase. Moving forward, this ordinance establishes a process for maintaining updated contacts and requiring two-way communication between the City's Emergency Operations Center and facility leadership in the event of a declared emergency. Facility leaders are now required to submit contact updates annually and will be placed in redundant communication systems.

In addition to maintaining communication, the City will support facilities in building their all-hazards emergency operations plan in a phased approach. Upon initiation of this process, City officials who reviewed year one documentation noted various levels of comfort among building administrators in writing a formal emergency operations plan or completing the templates provided. Over time, the City anticipates facilitating planning workshops to support facility owners and managers in developing, exercising, evaluating and disseminating their plans.

Active resident engagement in planning process

Public comments from New Orleans City Council meetings emphasised the importance of giving the residents of regulated buildings active roles in the emergency planning process. Before the 2021 hurricane season, public engagement at resident meetings focused on communicating what actions residents needed to take in order to comply with building or City emergency protocols, but did not foster two-way communication about the challenges experienced in preparing for, responding to and recovering from incidents. In 2022, some buildings hesitated to restart in-person engagement due to a summer surge of COVID-19. However, when possible,

2022 facility preparedness discussions were partnered with numerous agencies and stakeholders, including JenCare Senior Medical Center, AARP, New Orleans Regional Transit Authority, NOHD, New Orleans Office of Homeland Security and Emergency Preparedness and others to ensure seniors received comprehensive answers to their preparedness questions. In future years, NOHD hopes to expand these partnerships to facilitate year-round engagement and learning from seniors across New Orleans.

Many older New Orleans residents have lived experience with storms and may be more resilient to the challenges. However, managing chronic conditions, changes in sensory, physiological and cognitive abilities, nutritional requirements, fear of fraud and abuse, among other factors may impact their decisions to leave or shelter.⁹ Emergency planners and responders must be aware of these challenges and be equipped to address them before, during and after an event.

CONCLUSION

Although the City of New Orleans has experienced several major hurricanes and numerous near-misses, local authorities and residents were not adequately prepared to address the environmental health challenges in the aftermath of Hurricane Ida. It is critically important to continue adapting personal and institutional preparedness plans in New Orleans, which have traditionally focused on major hurricane evacuation scenarios, to an all-hazards preparedness model. Due to the rapid intensification of storms due to climate change, the notion of having three to five days of advance notice to make evacuation/shelter-in-place determinations is unrealistic. This new normal alters the fundamental planning assumptions upon which local plans were built and will

require continued refinement with established best practices and lessons learned from disasters, locally, nationally or internationally. When addressing the public health and medical challenges of preparing individuals with access and functional needs for disasters, it is important to engage with the individuals themselves, advocacy organisations and experts in this area. Local emergency responders and planners should intentionally seek out opportunities engage in training opportunities provided by partners with expertise. While recommendations are not new concepts, events like Hurricane Ida serve as stark reminders of the life-saving importance of pre-event whole community planning and interagency collaboration.

States and localities should consider innovative policy and programmatic strategies to avoid complacency in emergency planning and partnerships as climate-related events will become more frequent and intense. If left untested, individuals with access and functional needs, particularly older adults and persons with disabilities, will continue to experience more hardship and have poorer health outcomes as a result of disasters.

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