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Climate and Extreme Weather Event Impacts on Administrators, Direct Care Staff, and Residents in Oregon Assisted Living, Residential Care, and Memory Care Communities, 2024

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Citation Details

Himes, D., Kohon, J., Fox, M., Rodriguez, L., Dys, S., Jacoby, D., & Carder, P. (2024). Climate and Extreme Weather Event Impacts on Residents and Staff in Oregon Assisted Living, Residential Care, and Memory Care Communities, 2024. Portland, OR: Portland State University Institute on Aging.

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August 2024

Climate and Extreme Weather Event Impacts on Residents and Staff in Oregon Assisted Living, Residential Care, and Memory Care Communities, 2024

A study completed by the Institute on Aging at Portland State University in partnership with Oregon Department of Human Services

About the Institute on Aging at Portland State University

IOA/PSU strives to enhance understanding of aging and facilitates opportunities for elders, families, and communities to thrive.

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Oregon Department of Human Services

ODHS is Oregon’s principal agency for helping Oregonians achieve well-being and independence through opportunities that protect, empower, respect choice, and preserve dignity, especially for those who are least able to help themselves.

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Special thanks to the 68 study participants who generously shared their stories, experiences and time to make this report possible.

Suggested Citation:

Himes, D., Kohon, J., Fox, M., Rodriguez, L., Dys, S., Jacoby, D., & Carder, P. (2024). Climate and Extreme Weather Event Impacts on Residents and Staff in Oregon Assisted Living, Residential Care, and Memory Care Communities, 2024. Portland, OR: Portland State University Institute on Aging. www.pdx.edu/institute-on-aging/climate-change-and-older-adults-impacts-and-adaptations

Introduction

The global challenges of climate change and population aging have extraordinary consequences for societies worldwide.¹ The impacts of these two global phenomena will be felt most significantly at the local level. In recent years, Oregon has experienced an increasing number of climate emergencies, such as heat waves, wildfires, ice storms, and flooding. Extreme heat, poor air quality, power outages, and evacuations from these events can cause significant disruptions for residents and staff in assisted living, residential care, and memory care communities (AL/RC).

Older adults are among the most vulnerable to health impacts and mortality as a result of these events due to a higher likelihood of chronic conditions, physical and cognitive impairments, and reliance on durable medical equipment.^{2,3,4} Residents with Alzheimer’s disease and related dementias (ADRD) face elevated risk of climate-related health impacts due to the social and environmental components of the disease.^{5,6}

These events place additional burdens on our public health systems, particularly in AL/RC across the state, where residents rely on care staff for support. During and following these climate events, care staff may face environmental, logistical, and family caregiving barriers that prevent them from getting to work. Resident safety and quality of care are negatively affected by inadequate staff support. Ongoing workforce training and emergency preparedness measures are essential for preparing the AL/RC workforce for future climate emergencies.

This brief report on AL/RC staff and resident experiences with climate events highlights the voices of AL/RC direct care staff, former direct care staff, residents, administrators, and

¹ Haq, G., & Gutman, G. (2014). Climate gerontology: Meeting the challenge of population ageing and climate change. *Zeitschrift für Gerontologie und Geriatrie*, 47, 462–467. <https://www.doi.org/10.1007/s00391-014-0677-y>

² Balbus, J., Crimmins, A. R., Gamble, J. L., Easterling, D. R., Kunkel, K. E., Saha, S., & Sarofim, M. C. (2016). Introduction: Climate change and human health. In *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment* (pp. 25–42). U.S. Global Change Research Program. <https://brewminate.com/climate-change-and-human-health/>

³ Gamble, J. L., Hurley, B. J., Schultz, P. A., Jaglom, W. S., Krishnan, N., & Harris, M. (2013). Climate change and older Americans: state of the science. *Environmental Health Perspectives*, 121(1), 15–22. <https://doi.org/10.1289/ehp.1205223>

⁴ Bryant, N., Stone, R., Connelly, C., & Boerner, K. (2022). Research report: The impact of climate change: Why older adults are vulnerable. The LeadingAge LTSS Center, University of Massachusetts Boston. <https://ltsscenter.org/resources/>

⁵ Zuelsdorff, M., Vijay, S., and Limaye, A. (2024). Framework for Assessing the Effects of Climate Change on Dementia Risk and Burden, *The Gerontologist*, 64(3), gnad082. <https://doi.org/10.1093/geront/gnad082>

⁶ Bell, S.A., Miranda, M.L., Bynum, J.P.W., Davis, M.A. (2023). Mortality After Exposure to a Hurricane Among Older Adults Living With Dementia. *JAMA Netw Open*, 6(3):e232043. <https://www.doi.org/10.1001/jamanetworkopen.2023.2043>

management representatives to promote well-being in these care settings. This study can inform Oregon’s efforts to support long-term care workforce readiness for future climate emergencies and inform future quantitative data collection on AL/RC and other long-term care workers, including those employed in home health agencies, nursing facilities, and adult foster homes.

Study Goal

Understand how extreme weather events may impact resident care, direct care workers’ work-life balance, and AL/RC readiness plans.

The IOA team interviewed currently employed and former direct care staff, administrators, management, and residents in AL/RC settings to understand how extreme weather events impact resident care, direct care workers’ work-life balance, and AL/RC readiness plans. The following describes the main themes from this research and highlights voices from 68 participants of group and individual interviews, as well as responses from 164 survey respondents, some of whom also participated in a group or individual interview. Of the 68 interview participants, 31 were from the Portland Metro area, 15 were from the Willamette Valley/North Coast region, 9 were from East of the Cascades, and 3 were from Southern Oregon; 7 participants represented communities in multiple regions and 3 participants did not provide this information. See the main report from a larger workforce study for a full description of study methods.⁷ To reflect participants’ voices, we use direct quotes from individual and focus group interview conversations and typed responses from a sign-up form, which might not include proper grammar and word usage.

Findings

This section synthesizes information collected from individual and focus group interviews. Appendix A contains the subset of questions that were asked during different participant group interviews and focus groups related to climate change, extreme weather events, and emergency preparedness. We organize findings based on the types of weather events participants have experienced, descriptions of impact on work and care, and the four phases of the disaster management cycle: mitigation, preparedness, response, and recovery.⁸

⁷ Kohon, J., Himes, D., Fox, M., Rodriguez, L., Dys, S., Jacoby, D., & Carder, P. (2024). Promoting Cultural Humility, Belonging and Inclusion to Improve Well-Being among Direct Care Staff in Oregon Assisted Living, Residential Care and Memory Care Communities, 2024. Portland, OR: Portland State University Institute on Aging. <https://www.pdx.edu/institute-on-aging/cost-wages-and-staffing-study>

⁸ Four Phases of Emergency Management. Emergency Management in the United States. FEMA. https://training.fema.gov/emiweb/downloads/is111_unit%204.pdf

Participant Experiences with Extreme Weather Events

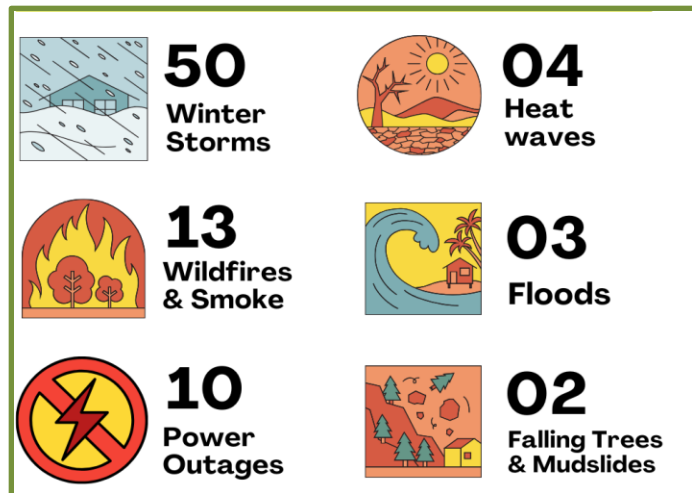
All participants who completed a sign-up form for the study were asked “Have you had experiences with extreme weather events such as wildfire, heat wave, flooding, ice storms, etc. that have impacted your work or care?” Of the 164 responses, nearly half indicated that an extreme weather event had an impact on their work or care (Table 1).

Table 1. Participants who experienced extreme weather events, by group.

	%	N
Direct care workers	46	101
Former direct care workers	38	29
Administrators	53	17
Residents	59	17
Total Respondents	46	164

Participants were then asked, “If you answered yes above, can you please tell us more about your experiences? For example, what kind of event? How was your community impacted? How did it impact your ability to care for residents? Were there complications that made it difficult for you to make it to work?” Figure 1 illustrates the types of emergency weather situations most frequently mentioned by participants. It is important to note that the majority of data collection for this project was conducted during the winter and spring months. This timing may have impacted participants' responses, especially depending on their job tenure.

Figure 1. Count of extreme weather events participants mentioned experiencing, by type.



The most common categories of impacts described by respondents included being short-staffed, unable to get to work, impacts on work-life balance, decreased resident well-being, the emotional toll the event had on the larger community, and the physical toll on individuals (Figure 2).

SHORT-STAFFED	<ul style="list-style-type: none"> "We've had bad storms come through where we were extremely short-staffed and it makes meeting the needs of residents much more difficult and it is very stressful."
UNABLE TO GET TO WORK	<ul style="list-style-type: none"> "Just not able to get to work due to icy conditions while driving an hour to work. So I was unable to get to work."
IMPACTS ON WORK-LIFE BALANCE	<ul style="list-style-type: none"> "I had to stay the night at work and miss time with my daughter."
DECREASED RESIDENT WELL-BEING	<ul style="list-style-type: none"> "One side didn't have heat (16 residents). Had to open doors for them to roam around to get warm. No showers were done, laundry piling up, etc. They didn't understand what was really going on."
EMOTIONAL TOLL ON COMMUNITY	<ul style="list-style-type: none"> "Fires, back home my community fought forest fires for 4 years in a row. Many people lost family, friends, pets, homes, and jobs."
PHYSICAL TOLL ON INDIVIDUALS	<ul style="list-style-type: none"> "Recent ice storm caused me to slip and fall on ice fracturing my radial bone (elbow)."

Figure 2. Most common categories of impacts experienced and associated quotes from respondents.

Mitigation

Addressing staffing, interagency communication, and broader consideration of emergency planning could significantly improve AL/RC's ability to handle emergencies.

Mitigation in emergency management refers to strategies and actions that can lessen the scale or severity of hazards' adverse impacts, even when they cannot be fully prevented.⁹ These strategies include engineering techniques, social policies, and public awareness initiatives. In the context of community-based care settings, participants highlighted several key areas where mitigation efforts could significantly improve their ability to handle emergencies.

Participants shared that understaffing and low pay are barriers to proper disaster preparedness. When human resources are constrained, even under normal circumstances, any shocks to the system can be difficult to manage and can put staff and residents at risk.

⁹ Mitigation. Sendai Framework Terminology on Disaster Risk Reduction. United Nations Office for Disaster Risk Reduction. <https://www.undrr.org/terminology/mitigation>

“I think I can speak for most of my direct care colleagues, if they could budget to pay people better, and pay people what their time was worth, then we could actually hire competitively, staff the place appropriately. And then every challenge, there’s a little bit less of that overall stress to alleviate.” ~direct care worker

Participants who felt more connected and in communication with local and state agencies, other facilities, businesses such as water distributors, and residents’ families felt more confident in their facility’s ability to meet worker and resident needs during climate emergencies. Some participants talked about appreciating the alerts from ODHS and suggested the state could go a step further and open up a hotline that could provide planning and response information before, during, and after emergencies.

This participant shared the perception that facilities in urban areas are better networked, and therefore more ready for an emergency:

“Yeah, I suppose I would probably feel pretty comfortable if something happened. Although that’s that maybe. I mean, we’re in the middle of Portland. So I mean, we have the whole city around to support.” ~direct care worker

Another important point shared by a management company representative was that emergency planning should consider the resident acuity mix.

“Part of that is learning who you put in your buildings, you can’t have too many people who require two or three people to help them get out of bed and into a wheelchair. Because you’ll never get them out in time.” ~management

Preparedness

Emergency preparedness takes on unique dimensions due to the specific needs and vulnerabilities of residents.

Preparedness in the context of disaster risk management is a critical process aimed at building the capacities necessary to efficiently manage all types of emergencies and facilitate smooth transitions from response to sustained recovery.¹⁰

Participants spoke about the special considerations and challenges to emergency planning for communities with residents who have unique vulnerabilities and needs. Power outages were commonly brought up as a major challenge.

¹⁰ Preparedness. Sendai Framework Terminology on Disaster Risk Reduction. United Nations Office for Disaster Risk Reduction. <https://www.undrr.org/terminology/preparedness>

“And so my biggest fear is, we have some residents with oxygen. and so, when we do have a power outage, that's immediately where we go. Go to those ones that have oxygen and their generators don't work in their room, so we have to get them out of their room and bring them downstairs to where there is a safety, what we call a safety plugin that is hooked up to the generator. Now, once again I work nights so, trying to wake them up in the middle of the night to tell them they have to go get oxygen is very scary for them.” ~direct care worker

This resident participant shared what it is like to live in a community where staff do not have a predetermined plan for which residents will need checking on and assistance during emergencies,

“Where I used to live when there was a heatwave or a cold wave, they would know which people needed attention. They don't do that here. I mean, nobody comes unless, you know you ring your bell and say I need help. But there's no program initiated since the storm. If she has, we haven't heard about it.” ~ resident

Internet outages caused by power outages or for other reasons can also lead to issues with providing quality care. This participant shared how critical access to the Internet has become to the day-to-day functioning of their community,

“I think that the Internet outages are challenging and that's how we distribute medications. That's how our phone works. Now, it's all of those things that are really required to keep people healthy and safe here. So, the workarounds for those are a little more challenging.” ~ administrator

Transportation to and from work was a major issue for many of the participants, especially in an ice storm like the one that took place several weeks before the interviews. They shared that their facilities either did not have plans at all, *“the facility where I work, kind of let it slip through the cracks and didn't have a backup plan on how to get people to work”* or engaged in informal planning in the days before the storm.

“I think there was a lot of discussion, you know, there were emails sent and just kind of informal checking in with everybody to see if they thought that the weather was going to be a barrier. And then anybody who was in walking distance was kind of asked to be available, if they could, because it was anticipated that a lot of people weren't going to be able to come in for their scheduled shifts.” ~direct care worker

Facilities that do plan for transportation interruptions typically take one of two approaches: have salaried employees who have all-wheel drive vehicles pick up and drop off hourly employees or pay for rideshare vehicles or taxis. This participant describes their experience of the first approach,

“So, they came in on their day off and they were basically taxiing us caregivers, med passers from our residence to the actual facility itself. So, they I guess went up and beyond the call of duty.” ~direct care worker

Residents were also impacted by transportation with several participants sharing they were unable to make important medical appointments and one sharing they were stranded by a cab company and the administrator had to come pick them up.

Most participants did have experiences with tabletop and hands-on training at some point at their facilities. Oregon Administrative Rules Chapter 411 Division 54 § 0093 states that AL/RC settings must review or update their emergency preparedness plan at least once a year and conduct a drill of their emergency preparedness plan at least twice a year. Administrators can make training more effective when extreme weather events occur through timely review of emergency plans. One participant shared how their management implemented this,

“The management contacted all the caregivers in the homes and med passers and told us to review the evacuation plans that we have on-site in case of an evacuation.” ~direct care worker

While resident participants had a high degree of confidence that their facilities were prepared for extreme weather events, they had little knowledge of specific plans. This participant illustrates the attitude shared by several residents,

“So I think they probably have it covered, I'm hoping, but no, they've never really shared that with me you know. I just know that there's emergency drinking water because I saw it off in the cupboard... I mean, I think the biggest fear is you know, like medication... does the city itself have a big plan for you know, something horrible happens you know, roads are, you know. I would like to have some type of something in plan. But yet I don't know. I don't worry about it.” ~resident

Response

The response phase is particularly complex due to residents' increased vulnerability, and the unique challenges care staff face. Support systems facilitated by leadership are critical.

Response in emergency management refers to the actions taken directly before, during, or immediately after a disaster to save lives, reduce health impacts, ensure public safety, and meet the basic needs of affected people.¹¹

In community-based care settings, participants shared many examples of needing to figure it out as they went due to low planning or support from management. For example, a direct care worker described the challenge of keeping residents safe during a power outage,

“They had to go buy generators to try to get some houses hooked up and get some heat. And other than that, we just did our best to keep them comfortable and warm with a whole bunch of blankets and layers until we could just get the power back on.”

~direct care worker

While doing whatever they can to care for residents when at work is a challenge that the direct care workforce is eager to meet, many also gave examples of receiving little support or sympathy for the challenges that extreme weather events cause them personally. For those who do not feel supported by their administrators, there is a sense that their employment could be impacted if they do not do whatever it takes to get there despite their personal circumstances. This participant expressed feeling surprised by the support other care workers described receiving because of their own experiences of feeling unsupported.

“I've never had a company go out of their way like that. Most of the time. It's like when the weather is bad. They're like, yep, you need to be here, no matter what, you know? Call outs aren't okay this late, you know? Or you're stuck on the side of road, okay, get here as soon as you can.”

~direct care worker

Many participants talked about their management taking an “all hands on deck” approach to getting through extreme weather events, such as ice storms and associated power outages.

“And the thing I found pretty awesome was that all of our nursing management team, they all just stayed through the whole storm, our director actually was probably in facility on site for about seven days total, like straight.”

~direct care worker

¹¹ Response. Sendai Framework Terminology on Disaster Risk Reduction. United Nations Office for Disaster Risk Reduction. <https://www.undrr.org/terminology/response>

While most participants shared stories of sheltering in place, and in some cases, preferring to shelter in place, there were several who spoke to needing the support of emergency management to help orchestrate evacuations. For this population, evacuations could take place due to natural disasters such as wildfires and floods, but also due to power outages as this participant described.

“We were without power for about four days, we were able to manage for the first 24 hours after that we had to evacuate somebody to the city. So, it was residents with oxygen to the hospital. I thought it went very well. We worked with our emergency management that we had to evacuate about 60 residents.” ~direct care worker

This participant talked about the difficulties of evacuating residents because of wildfires during the COVID-19 pandemic.

“So those that went to the fairgrounds then had to isolate when they got home so they were very upset and angry about that. And so they learned a lot through that process and how to evacuate better and more efficiently.” ~ direct care worker

Several participants talked about increased challenging behaviors from residents who were distressed and taken out of their routines by the weather emergencies.

“It was tough because you had to deal with a lot of behaviors because they couldn't go outside or they couldn't do what they and they were cold so we had to keep them wrapped up and some of them just didn't like that. We have a 100-year-old who doesn't like to, she's very particular on what she wears. And she doesn't like to be layered. So, it's very tough to get her to stay warm.” ~direct care worker

This management company participant shared more about why, especially with behavioral health and memory care communities, it is better for the residents to be ready to evacuate but only if absolutely necessary; their response to a call from the state asking about evacuation was,

“This is my challenging behavior, mental health, and dementia facilities... I'm like I'm not disrupting success with all these people because you were uncomfortable when I'm not uncomfortable. I have two buses sitting right there that will evacuate every one of those people in five minutes. I'm not moving until that fire moves.” ~management

Participants shared that they were greatly impacted by missing work, being short-staffed due to co-workers missing work, or being stuck at work for days at a time; some participants shared that this situation caused tension among staff and management. This participant describes a situation shared by many,

“There were a few days during this last ice storm where I couldn't make it in. And I think some of my co-workers were stuck at work more than 36 hours because they couldn't leave until they were relieved. And then even when they were relieved, they couldn't leave the building safely. So they had to make special arrangements to kind of let people sleep there.”

~direct care worker

Another participant talked about how they have to miss work when the same extreme weather that impacts their workplace disrupts school schedules,

“So, like, there's an ice storm and they don't have school, then I have to be home with them kind of thing... I mean, I may have been called in but again have to tell them but I can't, you know, come in because I've got kids at home.” ~direct care worker

Quite a few participants described what it was like to move through challenging weather emergency events with supportive management who ensured staff had transportation, a safe and comfortable place to stay, meals, hazard pay, and appropriate breaks. This participant shared a positive experience that differed from previous places they have worked,

“It was really like different to have them be more aware of people's needs. But my director really fought for those of us who are hourly to be compensated for our whole time being spent there. So, it was really kind of nice to see how much they would advocate on our behalf. So, if we made sacrifices, they would also step up. So that was really awesome.”

~direct care worker

Another participant shared that their manager went as far as allowing them to bring their dog with them to stay since their residence had no power.

“My boss let me bring my dog to work with me because my power was out, and I didn't want to leave him alone in the cold dark. And so she was like, oh, yeah, just bring your dog in like, yeah, you're fine.”

~direct care worker

This management representative talked about working with administrators to not pressure staff to go to work despite risk to personal safety, an issue that was also shared by many direct care workers:

“I get it, it's a 24/7 job, we have to staff it right. But let's reward those that took that extra time. And then let's not penalize those that were scared.”

~management

Recovery

Emergency events and disasters have long-lasting impacts on administration, staff, and residents and require additional flexibility and support to continuously revise, adapt, and recover.

Recovery in the context of disaster management is defined as the process of restoring or improving the livelihoods, health, and various assets of a disaster-affected community or society. This includes economic, physical, social, cultural, and environmental systems and activities. The goal of recovery is not just to return to pre-disaster conditions, but to align with principles of sustainable development and to "build back better," thereby reducing future disaster risks.¹²

A common theme amongst participants is that emergency planning within their communities is an **iterative process**. They shared things that could have gone better and lessons learned so that they're more prepared for future weather emergencies. One example given many times was obtaining backup generators in the case of power outages. This participant describes a perspective and attitude shared by many participants,

"I think we'll do things differently. You know, you always have your disaster plan. But there was a lot of things that happened that was not in our venue of what we should do. But we'll work on the holes to improve that for the future." ~administrator

There were several participants who expressed frustration about the parameters for support from ODHS. They described the recovery period as a busy time within a sector that is overburdened even without the impacts of a weather emergency. They expressed the need for support from the state that is flexible rather than rigid and bureaucratic. One participant describes long surveys and data collection as a barrier to needed support in times of crisis.

"So, we need you to do this 10 hours of data collection. And give us this information so we can figure out how to best help. And I'm like, that's very frustrating when you're drowning. And they're like, we want to give some help." ~administrator

Several management participants shared ideas for how ODHS could be more supportive, including providing templates for emergency plans and consultants to review plans. Others don't want to have to write plans for events that don't take place in their region. This

¹² Recovery. Sendai Framework Terminology on Disaster Risk Reduction. United Nations Office for Disaster Risk Reduction. <https://www.undrr.org/terminology/recovery>

participant shared a vision based on experiences in community-based care in other states for working with the state's support on developing emergency plans,

"I think it would be good for them to be in our buildings as a supportive role for those emergency situations, if they could come in. I mean, we have that here in Idaho. They'll come in and educate our staff on, you know, the things that whether it's wildfires or they'll meet with our maintenance guys and talk about keeping the ground clear for the wildfires to prevent them from spreading... Not going in to, you know, to investigate or even survey anything, but to actually go in and be a support." ~ management

Many participants shared how recent extreme weather events impacted them mentally, physically, and financially. This participant shared how even in a relatively well-supported workplace, their mental health suffered.

"It was very tiring, it was very, it took a lot out of my mental health. It kind of burnt me out a little bit, but the rides, my management had rides set up for us to be able to get to work, and they provided food for everybody. They gave us hazard pay. So, I mean, but it was very, it took a lot out of my mental health." ~direct care worker

Another participant illustrated how there was stress associated with remaining at home instead of working during an emergency.

"Yeah, I found it really stressful. I lost power for about four days. And there were two days that I was scheduled to be at work where I had to just call and admit that it was not safe for me to drive or even try to get in. And I think I felt relieved at the time. That, you know, my supervisors didn't put a lot of pressure on me. I've had other situations where, you know, it was really, there was a lot of pressure when you weren't available. But yeah, I think just the stress of like, worrying about my own household and knowing that the work community was kind of in distress so the whole thing was pretty stressful, even though I didn't have to be there on two of my scheduled days." ~direct care worker

Several participants, including a resident, were injured by slipping on the ice while trying to make it into work which has impacted their ability to do their physical job, impacting both their co-workers and their financial situation. One participant describes,

"I've hit hard on that ice. Oh, I went to the hospital. Hey, I had a huge hematoma. They made sure that I didn't go outside again." ~resident

"I ended up falling on the ice walking out to the vehicle that was picking me up. And I ended up fracturing my elbow. So, I've been out of work for the past three weeks now."
~direct care worker

Recommendations

AL/RC staff and residents face significant challenges during extreme weather events and other emergencies. Key issues include understaffing, transportation difficulties, lack of preparedness, and the unique needs of vulnerable residents. While some facilities have robust emergency plans and supportive management, others struggle with inadequate resources and planning. The experiences shared highlight the physical and mental toll these situations take on staff, as well as the importance of and desire for flexible support from state agencies. Moving forward, there is a need for improved emergency preparedness, better staffing and compensation, and more comprehensive support systems to ensure the safety and well-being of both residents and care workers during crises. These findings underscore the critical importance of addressing these issues to enhance resilience in long-term residential care settings. The following recommendations are based on the experiences shared by participants.

Workforce Wellbeing

1. Improve staff compensation and benefits to address understaffing issues and enhance retention of skilled workers.
2. Implement a hazard pay policy for staff who work extended hours or in challenging conditions during emergencies.
3. Provide on-site accommodation and meals for staff who need to remain at work during extreme weather events. Ensure staff are provided with proper breaks.
4. Develop mental health support programs for staff coping with the stress of emergency situations.
5. Implement policies that allow for flexible scheduling to accommodate staff with childcare or other personal responsibilities because of climate impacts
6. Establish clear guidelines for determining unsafe conditions and protect employees from being pressured to come in if they cannot safely travel to work during extreme weather events.

Partnerships & Communications

7. Develop comprehensive emergency transportation plans, consider partnerships with ride-share services or designated staff with all-wheel drive vehicles.
8. Establish a state-run hotline to provide real-time planning and response information before, during, and after emergencies.
9. Create networks between facilities, especially in rural areas, to share resources and best practices during emergencies.

10. Establish clear communication channels between facilities, families, and local emergency management departments.
11. Create a streamlined process for facilities to request and receive emergency assistance from state agencies, reducing bureaucratic barriers.

Infrastructure & Planning

12. Invest in backup power systems, including generators, for all facilities to ensure continuous care during outages.
13. Develop specific protocols for evacuating and caring for residents with special needs or medical equipment dependencies. Develop enhanced shelter-in-place plans, such as by storing extra oxygen.
14. Conduct regular, timely reviews of emergency plans, especially before anticipated extreme weather events.
15. Provide equipment that will help employees safely travel in inclement weather conditions, such as traction devices for shoes and chains for cars.
16. Create a post-emergency review process to identify lessons learned and continuously improve emergency response plans.

Appendix A. Climate-Related Focus Group and Interview Questions

The following questions represent a subset of full interview and focus group guides that can be found in the main report.¹³

Direct Care Worker

These next questions are about your experiences with extreme weather events or climate emergencies such as heat waves, wildfires, smoke, ice storms, power outages, or flooding.

- Have you experienced any of these things while working as a resident care assistant?
 - How did it affect your work as a resident care assistant? [probe: difficult to pass meds, unable to get to work, increased resident illness]
 - And personally?
 - What barriers did you experience, if any? [probe: transportation, childcare, psychological or physical distress]
- How did management respond?
- Do you feel informed and prepared with the community's policies and plans for future extreme weather events or disasters if they were to occur?
- Any suggestions for improvement?

Administrator

This question is about your experience with extreme weather events or other climate related emergencies such as heat waves, wildfires, smoke, ice storms, power outages, or flooding. Did you experience any of these things while working as the administrator at this community? What impacts did it have on you / your long-term care community? [probe: transportation; childcare; psychological or physical distress]

- How did you respond?
- How have you / are you preparing for future extreme weather events? Including, how are you communicating with and preparing residents and direct care staff?
- Does your facility have a backup generator?
- Suggestions for your community? For ODHS to support long-term care communities in these situations?

Management

This question is about your experience with extreme weather events or other climate related emergencies such as heat waves, wildfires, smoke, ice storms, power outages, or flooding. Did you experience any of these things while working as you've worked for this company?

¹³ Kohon, J., Himes, D., Fox, M., Rodriguez, L., Dys, S., Jacoby, D., & Carder, P. (2024). Promoting Cultural Humility, Belonging and Inclusion to Improve Well-Being among Direct Care Staff in Oregon Assisted Living, Residential Care and Memory Care Communities, 2024. Portland, OR: Portland State University Institute on Aging. <https://www.pdx.edu/institute-on-aging/cost-wages-and-staffing-study>

- How did you respond in order to support the affected communities?
- How have you / are you preparing for future extreme weather events? Including, how are you communicating with and preparing administrators?
- Do all of your communities have backup generators?
- Suggestions for improving disaster preparedness within/across your communities?
Suggestions for ODHS to support long-term care communities in these situations?

Resident

This question is about your experience with extreme weather events or other climate related emergencies such as heat waves, wildfires, smoke, ice storms, power outages, or flooding. Did you experience any of these things while living in this community?

- How were you affected? How did the community's management and staff respond?
- Do you know the community's policies and plans for future extreme weather events or disasters if they were to occur?
 - Do you feel confident in your community's ability to maintain care should these events occur in the future?
- Are there any suggestions you have for improving preparedness or response at your community?