



**14th Annual Miami-Dade Healthcare Preparedness Coalition
HVAC Benchmarks for Evacuations**

April 10, 2024

11:15AM-12:15PM

Kimberly Smoak

Deputy Secretary

**Health Care Policy and Oversight
Agency for Health Care Administration**

Objectives

- Discuss why buildings heat up
- Review ways to reduce heat
- Regulations for evacuation
- Evacuation data



Why do buildings heat up?



- Outdoor temperatures are the most obvious factor.
- Lighting, equipment in the building.
- Building occupants are significant sources of heat.
- During a power loss, the heat load from lightening and equipment are negligible, but the heat given off by building occupants remains.



When the heat rises

- High variability in the numerous sources of building heat makes it difficult to predict how long a “typical” building will remain at safe temperature following the loss of its HVAC system.
- Our Agency engineers in consultation with outside engineers estimate a building with a 72-degree interior temperature will rise to between 85 to 90 degrees within 3-5 hours when the outdoor temperature is 100 degrees after HVAC system failure.



Safe Temperatures

- Once HVAC system is restored, safe temperatures are likely to be restored between 1 to 2.5 hours.
- No residents should be allowed to reenter the building until safe temperatures are confirmed.



Ways to reduce heat gain

- Keep any operable windows closed.
- Keep doors closed as much as possible.
- Use shades to limit solar heat gain.
- Avoid congregation of large groups, especially in enclosed areas (rooms).
- Lowering the thermostat setpoint can significantly increase the amount of time that safe conditions can be maintained after the HVAC system failure.



Health Care Reminders

- Facilities should ensure all resident bedrooms are on standby alternate power source (generators) to operate their HVAC units.
- HVAC systems not only control room temperature but also air quality.
- Most residents/patients in our health care facilities are already facing respiratory illnesses.
- Indoor air with low quality could be fatal because of the dust and allergens in the air.



Health Care Reminders

- Remember to ensure staff are trained to regularly perform maintenance checks on air filters and units to maintain indoors air quality.
- It is critical to have a professional handle your HVAC installation and mechanical maintenance needs.
- Cool zones are not effective.



Regulations for Evacuation

- Develop and implement emergency preparedness policies/procedures at a minimum must address:
 - Alternate sources of energy to maintain.
 - Temperatures to protect patient health and safety
- Each individual facility, based on its risk assessment, must determine the most appropriate alternate energy sources to maintain temperatures to protect patient health and safety.



Regulations for Evacuation, cont.

- If a facility is unable to meet the temperature needs, a facility must have a relocation/evacuation plan.
- The relocation/evacuation must take place in a timely manner so as not to expose residents/patients to unsafe temperatures.



Evacuation Reminders

- Facilities must develop a means to track residents/patients and on-duty staff in the facility's care during an emergency event.
- If evacuation occurs, the facility must document the specific name, and location of the receiving facility or other location for sheltered residents/patients and on-duty staff who leave the facility during the emergency.



Evacuation Data



Evacuation Data- Hurricane Ian

Facility Type	Facility Type Detail	Facilities	Residents Patients
ASSISTED LIVING FACILITY	ASSISTED LIVING FACILITY	49	890
	HOSPITAL & HOSPITAL-ED	15	67
NURSING HOME Other	NURSING HOME	18	619
	CRISIS STABILIZATION AND SHORT-TERM RTF	3	38
	HOSPICE - INPATIENT	6	20
	RESIDENTIAL TREATMENT FACILITY	4	7
Grand Total		95	1,641



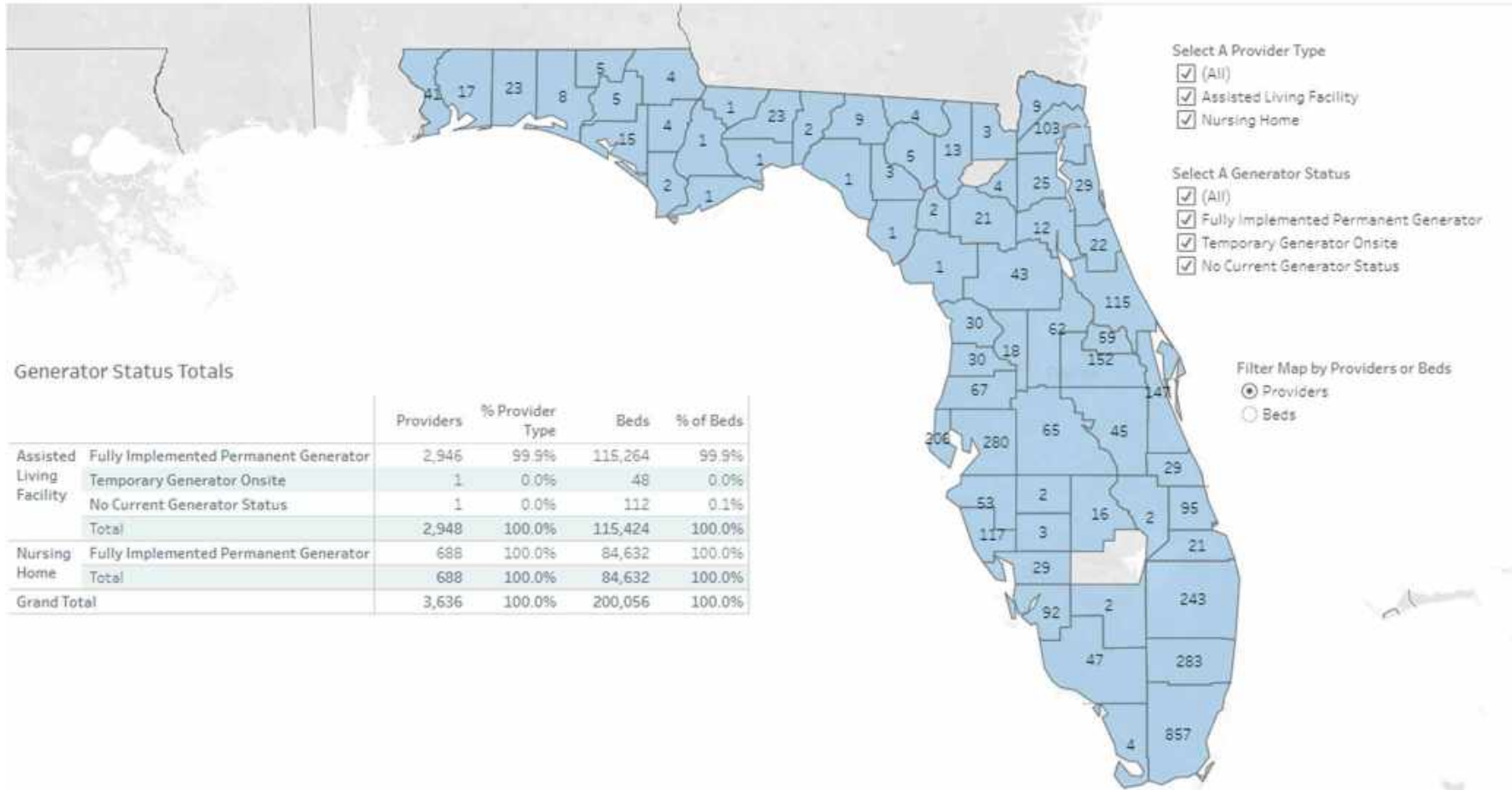
Evacuation Data- Hurricane Idalia

Facility Type	Facility Type Detail	Facilities	Residents Patients
ASSISTED LIVING FACILITY	ASSISTED LIVING FACILITY	44	1,632
HOSPITAL & HOSPITAL-ED	HOSPITAL HOSPITAL-ED	8	196
NURSING HOME	NURSING HOME	25	2,040
Other	HOSPICE - INPATIENT	1	5
	RESIDENTIAL TREATMENT FACILITY	6	50
Grand Total		84	3,923



Generator Status Map

Last Updated: 3/31/2024 6:30:59 AM



Generator Status Totals

		Providers	% Provider Type	Beds	% of Beds
Assisted Living Facility	Fully Implemented Permanent Generator	2,946	99.9%	115,264	99.9%
	Temporary Generator Onsite	1	0.0%	48	0.0%
	No Current Generator Status	1	0.0%	112	0.1%
Total		2,948	100.0%	115,424	100.0%
Nursing Home	Fully Implemented Permanent Generator	688	100.0%	84,632	100.0%
	Total	688	100.0%	84,632	100.0%
Grand Total		3,636	100.0%	200,056	100.0%



Kimberly R. Smoak, MSH, QIDP

(850) 412-4516 or (850) 559-8273

Kimberly.Smoak@ahca.myflorida.com

