

# Internal Medicine Resident Perceptions of Hurricane Irma: A View from Miami, FL

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## BACKGROUND

- During the week of Sept. 4, 2017, Hurricane Irma caused catastrophic destruction in the Antilles islands and then headed directly toward South Florida with “category 4” intensity.
- The University of Miami and Miami-Dade County’s county hospital, Jackson Memorial, activated hurricane plans on Sat. Sept. 9.
- Medicine residents not on vacation were assigned to a “during” or “after” team to staff inpatient services at the university, VA and main county hospitals.
- “After” team members were expected to report for inpatient duties on Tues. Sept. 12.
- Post-storm, all residents were invited to participate in an anonymous online survey to assess their experience. Results were tabulated via Qualtrix.

## SURVEY OBJECTIVES

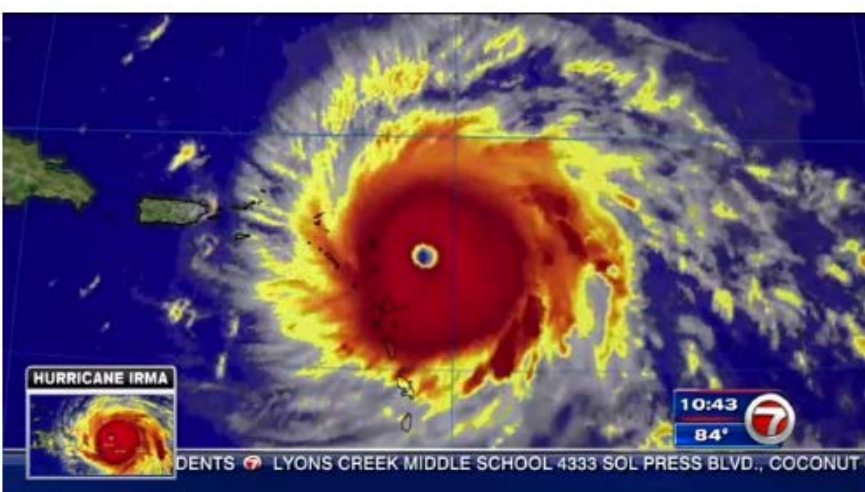
- Assess resident perception of:
  - Experiences during the storm
  - Experiences after the storm
- Assess resident needs in the storm’s aftermath
- Assess resident perceptions of patient needs post-storm

## SURVEY DESIGN

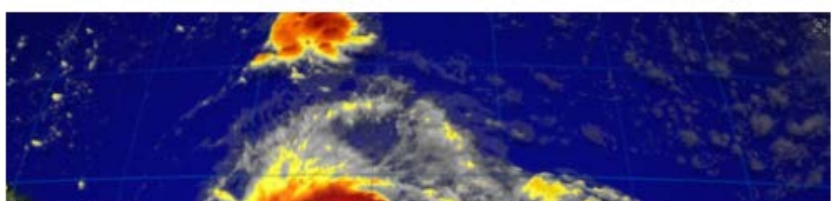
- Methods:
  - Cross-sectional survey
  - Voluntary and anonymous
  - 128 residents were sent a link
  - Results tabulated via the Qualtrix system

SHARE SEPTEMBER 7, 2017

Hurricane Irma likely to be far worse than monster Andrew



Hurricane Irma is showing up on devices designed to detect earthquakes



SHARE SEPTEMBER 6, 2017

Florida braces for Hurricane Irma amid dire warnings



HURRICANE

Hurricane Irma now a Category 4, and Governor Scott declares a state of emergency



BY DAVID J. NEAL  
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September 04, 2017 05:13 PM  
Updated September 05, 2017 05:46 AM

Florida Governor Rick Scott declared a state of emergency Monday afternoon as Hurricane Irma strengthened into a Category 4 storm.

According to the National Hurricane Center’s 8 p.m. advisory Monday, Irma grew to 140 mph sustained winds as it chugged at 13 mph through the Caribbean. Irma’s projected to turn west-northwest by the end of the day Tuesday, moving on an overall track that increased the possibility that South Florida will feel its effects, if not take a direct hit.

It’s also supposed to strengthen over the next two days. At its

Irma evacuations begin: ‘This storm is bigger, faster and stronger than Andrew’



BY PATRICIA MAZZEI, DOUGLAS HANKS AND DAVID SMILEY  
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September 06, 2017 08:04 PM  
Updated September 07, 2017 01:24 PM

MIAMI-DADE EVACUATION ORDERS HAVE EXPANDED. PLEASE READ MORE HERE.

Mandatory evacuations of vast swaths of coastal South Florida began Wednesday as anxious residents continued to watch and wait — and watch, and wait — for the massive storm to roll closer

“This storm is bigger, faster and stronger than Hurricane Andrew,” cautioned Florida Gov. Rick Scott, who made Wednesday stops in Marathon, Doral and Naples to warn of potential widespread devastation.

## FINDINGS

### Respondents

- 51 of 128 residents responded to the survey (40% response rate)
  - 25 ( 49%) were on the during team
  - 22 (43%) were on the after team
  - 4 (7.8%) were on vacation
- 5 (9%) of respondents have children under the age of 18; of those,
  - 2 stayed w/ them during the storm; 2 stayed w/ friends/relatives out of town; 1 w/ friends/relatives in town

### During Team (n=25)

- The majority of those on the during team (n=12; 48%) were stationed at the county hospital
- 7 (28%) were at the VA hospital
- 6 (24%) were at the university hospital
- Of those on duty during the storm:
  - 16 (64%) felt on call accommodations were similar to usual accommodations;
  - 25 (100%) felt attending supervision was comparable to usual level
  - 21 (84%) felt ancillary services were comparable to usual level

### Post Team (n=22)

- 20 (91%) lived in a mandatory evacuation zone
- 4 (18%) stayed at home during the storm
- 10 (45%) stayed at a friend or relative’s home in the region
- 1 (4%) stayed at a public shelter
- 1 (4%) stayed at a local hotel
- 6 (27%) left the area
- 20 (91%) were able to report to work on Tuesday, Sept. 12
- 2 respondents could not get plane tickets before Sept. 12.

### Clinic

- 25 (49%) have continuity clinic at the county hospital
- 17 (33.3%) have continuity clinic at the VA
- 7 (13.7%) have continuity clinic at the university faculty practice
- 2 (4%) of respondents were prelim interns without continuity clinic
- 11 (21%) felt the storm interrupted continuity of care for their patients
- 31 (61%) felt their clinic patients were anxious or stressed as a result of the storm
- 22 (43%) felt social services were inadequate to help patients with their increased needs post-storm

### Personal

- 7 (14%) reported damage to their home
- 13 (25%) could not enter their home in a normal way post-storm
- 35 (69%) lost power post-storm; 13 (25%) for more than 72 hours
- 16 (31%) reported having family members or close ones who had been negatively affected by natural disasters this year
- 16 (32%) felt they had additional financial needs due to the storm
- 35 (70%) reported feeling more anxious or stressed as a result of the storm

### Representative Comments

What were your biggest anxieties and stresses related to the storm?

Time prior to the storm to prepare – I was unable to secure any water ... gas or other essentials

Balancing going back to work when home life was disrupted

Finding a place to stay, figuring out how to get back to work, being able to contact loved ones

Damages and danger to life

The general feeling that no one knew what really was going to happen

Other Comments

The post-storm team was less appreciated than the storm team ... we had to struggle to find a place to stay ... some had to pay hotels ...we struggled to find routes and transportation to get back to work. Once back, our shifts were long and we had to deal with a lot of issues pending from the storm.

For those NOT on the storm team, you need to clarify whether or not residents are allowed to evacuate out of the state.

Give residents time off to prepare; perhaps in the future rations could be provided

The emails sent out appreciated the storm team and they were the only ones that were paid.

Those of us who stayed did not get any payment and were overworked.

## CONCLUSIONS

- Findings may be influenced by low response rate.
- Nonetheless, survey found:
  - A significant number of residents had issues with electrical power and home damage post storm
  - A significant number of residents reported feeling stressed or anxious as a result of the storm
  - Residents observed their clinic patients were more anxious post-storm, with inadequate resources to help them cope
  - Post-storm team residents felt stressed about finding a place to stay during the storm and getting back to work
  - Post-storm team residents felt underappreciated
  - Residents felt there needed to be clarification of whether they could evacuate out of state
- For future planning:
  - Consider providing incoming residents with guidance for hurricane planning (i.e., adequate stores of nonperishable food, water, cash & a full tank of gas, be aware of evacuation zones)
  - Try to give residents time to prepare pre-storm
  - Consider providing post-storm resident teams with shelter on the hospital campus & paying them in a similar way to the during-storm team
  - Ensure adequate social service support for patients post-storm