

Alexandra Bova  
2/5/2024

## **Hurricane Sandy: A Case Study**

### **Introduction**

Hurricane Sandy occurred from October 29 to November 1, 2012.<sup>1</sup> The storm resulted in 162 deaths and damages costing tens of billions of dollars.<sup>2</sup> This natural disaster exposed a need to improve the disaster policies and plans of the United States, in addition to improving the integration of better communication practices between those who are in supervisory positions for disaster management and those who are responsible for recovery.<sup>2</sup>

### **Facts of the Case**

Hurricane Sandy began forming on October 22nd, 2012 in the Caribbean Sea.<sup>2</sup> The storm passed through Cuba and as it was moving towards the Southeastern United States, it merged with an arctic cold front.<sup>2</sup> This shift allowed the winds of the storm to have a wider reach and affect more states.<sup>2</sup> New York and New Jersey were affected the most, but 24 states experienced the impact of the storm.<sup>3</sup> When the storm had passed, \$1.2 billion for housing assistance and \$800 million to restore infrastructure and remove debris were required.<sup>2</sup> Additionally, 265,300 businesses were affected and required \$6 million to begin repairs in New York State.<sup>7</sup> In addition to homes and businesses being damaged, FEMA reported 162 deaths from this disaster.<sup>2</sup>

### **Epidemiological Aspects of the Event**

To determine the amount of casualties, the American Red Cross developed statistical models utilizing chi-squared tests and t-tests.<sup>4</sup> According to the organization, the leading direct cause of death for this disaster was drowning, whereas the leading indirect cause of death was carbon monoxide poisoning.<sup>4</sup> The Red Cross reported 117 deaths, which conflicts with the 162 reported by FEMA.<sup>4</sup> The conflicting casualty tolls could be caused by ineffective communication between FEMA and the Red Cross. Additionally, the 117 deaths reported by the Red Cross are likely related to only the United States.

### **Management of the Event**

The management of this disaster began with FEMA preparing communities that were likely to experience the largest impact by developing response plans and distributing supplies to these areas.<sup>2</sup> During the storm, FEMA focused on restoring power, maintaining the safety of civilians, pumping flooded tunnels, and determining the points to distribute commodities.<sup>2</sup> To accomplish these goals, at least 17,000 federal employees provided assistance across affected states during the storm.<sup>5</sup> This assistance came in the form of shipping liters of water, tarps, cots, generators, and infant and toddler kits.<sup>5</sup>

Additionally, evacuations from coastal hospitals took place. In New York City, Bellevue Hospital is in a vulnerable coastal area, and 700 patients were evacuated.<sup>4</sup> However, many citizens refused to evacuate their homes.<sup>7</sup> The refusal to evacuate was due to confusion about the areas that were designated mandatory evacuation areas and which ones were recommended

evacuation areas.<sup>7</sup> This aspect of the disaster led to emergency responders allocating their energy and resources towards areas that were not as vulnerable to the storm, as opposed to other places that had a greater need for emergency aid.<sup>7</sup>

To respond to the aftermath, the Red Cross allocated \$112,612 towards individual casework, \$94,128 for food and shelter assistance, and \$48,471 for housing and community assistance.<sup>4</sup> Additionally, \$51 billions of aid was provided by Congress, in addition to a \$3 million grant from FEMA for repairs to infrastructure.<sup>4</sup>

The gaps that were found in preparation involved communications between the federal government and the public regarding evacuation. This aspect of the disaster posed the greatest danger to the citizens and emergency responders, as well as to those who were located in more vulnerable areas with fewer options or resources.

### **Communication of the Event**

To prepare for Hurricane Sandy, nonprofits and volunteer groups had prepared webpages where citizens could find information on where to find certain resources and preparation measures to take before the storm due to an absence of resources provided by the government.<sup>6</sup> During the storm, however, there were rumors that exaggerated its severity, leading to misinformation that spread quickly due to social media.<sup>6</sup> Additionally, the reports from news outlets, such as CNN and News 12, pertained to the damage and fatalities that occurred due to the storm.<sup>9</sup> These reports were given as the disaster was happening. The communication was handled well, but the nonprofit and government organizations could have improved discussions on preparation measures and clearly disclosed which areas were mandatory for evacuation.

### **Summary**

The 2012 Hurricane Sandy resulted in the loss of life and property. Given the confusion surrounding evacuation requirements and the lack of information provided by the federal government regarding disaster relief resources, overall improvements in disaster communication will allow for more effective responses to similar future events.

## References

1. Sandy and Its Impacts. *New York City Government*. Accessed January 30, 2024. [https://www.nyc.gov/html/sirr/downloads/pdf/final\\_report/Ch\\_1\\_SandyImpacts\\_FINAL\\_singles.pdf](https://www.nyc.gov/html/sirr/downloads/pdf/final_report/Ch_1_SandyImpacts_FINAL_singles.pdf)
2. Hurricane Sandy After-Action Report. *FEMA*. July 1, 2013. <https://drive.google.com/drive/folders/1F6QVur3gNAgJJgaKknQGLDeHC-IW1jsG>
3. Hu, Winnie and McGeehan, Patrick. A Timeline of Hurricane Sandy. *The New York Times*. October 28, 2022. <https://www.nytimes.com/2022/10/28/nyregion/hurricane-sandy-timeline.html>
4. Sandy Response. *American Red Cross*. <https://www.redcross.org/about-us/our-work/disaster-relief/hurricane-relief/sandy-response.html>
5. Remembering Hurricane Sandy 10 Years Later. *FEMA*. October 27, 2022. <https://www.fema.gov/blog/remembering-hurricane-sandy-10-years-later#:~:text=Here%20are%20some%20of%20the,to%20more%20than%20174%2C000%20survivors.>
6. Lessons Learned: Social Media and Hurricane Sandy. *Homeland Security*. June 2013. <https://www.dhs.gov/sites/default/files/publications/Lessons%20Learned%20Social%20Media%20and%20Hurricane%20Sandy.pdf>
7. Savino, Diane et. al. Preliminary Response & Recovery Report. *Bipartisan Task Force on Hurricane Sandy Recovery*. February 2013. <https://www.nysenate.gov/sites/default/files/articles/attachments/Senate%20Bipartisan%20Task%20Force%20on%20Hurricane%20Sandy%20Report%20FINAL%202-5.pdf>
8. WPRI. 12 on 12: Superstorm Sandy Reports – Oct. 2012. [News Content]. *WPRI*. 2022. <https://www.youtube.com/watch?v=v0YwMNO1Wc>
9. Smith, Matt and Shoichet, Catherine E. Sandy's aftermath: 33 dead, millions without power. *CNN*. October 30, 2012. <https://www.cnn.com/2012/10/30/us/tropical-weather-sandy/index.html>