

Meta-Leadership Lessons from The 2017 Hurricane Season

An NPLI Case History

Authors

Dr. Leonard J. Marcus, Ph.D.
Dr. Barry C. Dorn, M.D., M.H.C.M.
Joseph Henderson, M.P.A.
Eric J. McNulty, M.A.
Richard Serino
Lisa B. Flynn, J.D., M.P.H.

National Preparedness Leadership Initiative

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Leadership Development, Harvard TH Chan School of Public Health
and the Center of Public Leadership, Harvard's Kennedy School of
Government*

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National Preparedness Leadership Initiative
Harvard School of Public Health
<http://npli.sph.harvard.edu>
P.O. Box 381488, Cambridge, MA 02238-1488
617-496-0867

Meta-Leadership: 2017 Hurricane Season



Hurricane Irma winds (Credit: Josh Escobar via Flickr Commons)

Background

The 2017 hurricane season left mass destruction in its path, with devastating impacts in the southern United States, Puerto Rico, Caribbean islands, and parts of South America. The season included 17 tropical storms and 10 hurricanes, with 6 of those a Category 3 or higher. Hurricane Harvey hit first, followed by Irma, Jose, and then the strongest of the season, Maria.¹ Hurricane Harvey was the “most significant tropical cyclone

rainfall event in United States history, both in scope and peak rainfall amounts” since 1880, dumping more than 60 inches – or 27 trillion gallons – of rain on Texas and Louisiana.² Adding in winds over 100mph, the storm sent more than 30,000 people to shelters and left hundreds of thousands of homes damaged or destroyed.³ Hurricane Irma alone left more than 5 million Americans without power and 6.5 million under evacuation orders.⁴ Hurricane Maria hit just two weeks after Irma, slamming into Puerto Rico as a Category 4 storm and leaving 3.4 million Puerto Ricans without power.⁵

Just as the worst of Maria ended, Tropical Storm Nate caused deadly mudslides in Central America, with fear of deadly storm surges and winds over 90mph leading to states of emergency being declared in Alabama, Florida, Louisiana, and Mississippi.⁶

As of early summer 2018, a number of southern states were still in recovery. Eight months after being hit by Hurricane Maria, thousands of Puerto Ricans remained without power.⁷ According to the

¹ Bennett, A. (2018, June 25). Last year's hurricane season was devastating. The ocean may offer good news this year. *News Observer*. Retrieved from <https://www.newsobserver.com/news/weather/article213799039.html>

² Blake, E. & Zelinsky, D (2018, May 9). National Hurricane Center Tropical cyclone report – Hurricane Harvey. Retrieved from https://www.nhc.noaa.gov/data/tcr/AL092017_Harvey.pdf

³ Mericas, L. F. (2017, October 2). How bad was Harvey? We have the numbers. *Houstonian Magazine*. Retrieved from <https://www.houstoniamag.com/articles/2017/10/2/hurricane-harvey-records-numbers>

⁴ Keneally, M., Shapiro, E., Kelsey, A., & Jacobo, J. (2017, September 12). Hurricane IrmaL by the numbers. ABC News. Retrieved from <https://abcnews.go.com/US/hurricane-irma-numbers/story?id=49677062>

⁵ Robles, R. & J. Bigood. (2017, December 29). Three months after Maria, Roughly half of Puerto Ricans still without power. *The New York Times*. Retrieved from <https://www.nytimes.com/2017/12/29/us/puerto-rico-power-outage.html>

⁶ Serino, R (2017, October 12). Coordinating emergency response: lessons from the 2017 hurricane season [Webinar]. *Everbridge Webinar Series*.

⁷ Bacon, J. (2018, May 31). Battered Puerto Rico still 2 months from full power as hurricane season opens. *USA Today*. Retrieved from

National Oceanic and Atmospheric Administration, Harvey, Irma and Maria were three of the five costliest U.S. hurricanes on record with a total cost of \$265 billion as of January 2018.

The response to this intense, deadly hurricane season was historic.⁸ Despite the breadth and depth of the response, the aftermath of this hurricane season continues, with thousands still without access to power and basic services in Puerto Rico, as well as an ongoing discrepancy over the total number of deaths attributable to Hurricane Maria.⁹ As of this writing, Puerto Rico's governor has updated the official death toll to reflect an independent study done by George Washington University to 2,975.¹⁰

A number of key lessons learned through the 2017 season will be critical for leaders as they prepare for future seasons.

Meta-Leadership Lessons

Dimension 1:

The Person of the Meta-Leader

Successful leadership during the hurricanes of 2017 really hinged on leaders' ability to recognize

<https://www.usatoday.com/story/news/nation/2018/05/31/puerto-rico-still-2-months-full-power-hurricane-season-opens/660559002/>

⁸ Serino, Everbridge Webinar, 2018.

⁹ See Rodriguez, C.H. (2018, August 2.). Trying to pinpoint hurricane's true toll, researchers say 1,139 died in Puerto Rico, though other studies put the estimate much higher. *Kaiser Health News*. Retrieved from [https://khn.org/news/trying-to-pinpoint-hurricanes-](https://khn.org/news/trying-to-pinpoint-hurricanes-true-toll-researchers-say-1139-died-in-puerto-rico/)

the immediate needs of their communities and to understand the need for cross-sector collaboration. Maintaining and showing compassion at all levels for the survivors was also crucial, particularly given the devastating impact of these hurricanes.



Hurricane Maria's devastating impact on Puerto Rico (Credit: U.S. Customs and Border Protection via Flickr Commons)

Recommendations:

- *Leaders must be ready to collaborate and take on a whole of community approach to response and recovery. It's crucial to understand that not just one agency, organization, person, or department can be responsible for response of this magnitude. In Texas, it was reported that FEMA leaders did a great job of inspiring people to get involved and keeping the*

[true-toll-researchers-say-1139-died-in-puerto-rico/](https://www.nytimes.com/2018/08/09/us/puerto-rico-death-toll-maria.html). See also Robles, F. (2018, August 9). In a July 2018 report, the Puerto Rican government placed the number of deaths at 1,427. *The New York Times*. Retrieved from <https://www.nytimes.com/2018/08/09/us/puerto-rico-death-toll-maria.html>

¹⁰

public informed of ways to help. During the rescue phase, neighbors were very engaged in helping neighbors and saving lives. This continued on during the recovery phase, when the public helped with donations to help affected communities rebuild.

- *Compassion and empathy:* Maintain a compassionate and empathic approach to leadership at all levels during disaster. Conveying an understanding of the impact on affected communities and their resulting needs can help in building and sustaining a relationship of trust with survivors. Leaders also should take particular interest in and be aware of how first responders and staff who have been deployed to affected areas are coping. Taking care of the people on the ground is important in building long-term resiliency.
- *Be ready for the long haul.* Leaders must understand that the “whole of community” approach must continue not just for weeks or months, but maybe even years during the recovery phase. Building resilience through a whole of community approach will help sustain long-term recovery efforts.

Dimension 2: The Situation

The 2017 season presented an incredibly complex situation for leaders to understand and address. From tracking the direction of the storms to ensuring the right areas had the right resources, to effectively communicating with the

public, to navigating the political landscape, to understanding the public health impacts of disasters, leaders had much to consider.



"Red Cross Mega Shelter" in Houston during Hurricane Harvey (Credit: American Red Cross via Flickr Commons)

Recommendations:

- *Pre-positioning of assets.* Among the biggest issues faced in a number of affected areas was keeping up with the demand for shelter and ensuring shelters were in place in the right areas. In Florida, maintaining adequate staffing in shelters was a serious issue, and sheltering pets became an unforeseen problem. Leaders can strategically position assets in advance by tracking the storms as accurately as possible, understanding where shelter capacity might be an issue, and thinking in advance about shelter staffing. Ensuring the safety of shelters and having backup options is also critical, as shelters in affected areas became flooded and unsafe in Texas during Hurricane Harvey, and evacuees were forced to move to alternative locations during the storm.

- *Communication:* While communication up and down the chain of command and across agencies is very important to build a united response effort, communication with the public is absolutely key to an effective response. Leaders must be ready to communicate early and often, to reassure the public as well as alert them of new developments and keep them informed as the recovery progresses. Former FEMA Deputy Administrator Rich Serino suggests communicating to the public the way you would to your family. Leaders should think about what they would want their mother and other family members to know. Also be aware of communication barriers —cellular service, long-term power loss, remote locations, etc. Develop a plan in advance for overcoming these barriers and getting the information to the people who need it.
- *Be aware of the political environment locally and nationally.* Those in charge of response and recovery should be aware of which important political leaders need to be kept informed as efforts are underway. Identify in advance who may be critical allies during the preparedness and response phases — particularly for recovery — and make those alliances early, before disaster strikes.
- *Recognize the public health implications of hurricanes and other natural disasters.*¹¹ Leaders should prepare for major public health emergencies as a result of hurricane seasons. Aside from the immediate risk of death and injury that a major storm poses, the longer-term effects such as flooding, power outages, and displaced persons (e.g., hospital workers), can have an adverse impact on critical health infrastructure. During the worst of Harvey, hospitals faced medication and food shortages in addition to the difficult choice between sheltering in place and evacuating those with chronic illnesses. Millions of people were faced with medication shortages. In Puerto Rico, the death toll continued to rise during the recovery phase as residents lacked access to medical care, running water, and electricity.¹² Leaders should actively work to integrate public health considerations into disaster preparedness planning. Leaders must work with public health officials, hospitals, community health organizations, and volunteer agencies like the Red Cross and Doctors Without Borders to plan to

¹¹ Newkirk II, V.R. (2017, September 2). Hurricane Harvey's public health nightmare. *The Atlantic*. Retrieved from <https://www.theatlantic.com/politics/archive/2017/09/hurricane-harveys-public-health-nightmare/538767/>

¹² Abel, D. (2017, October 9). One man's tale shows how casualties of Maria go beyond official death toll.

Boston Globe. Retrieved from <https://www.bostonglobe.com/news/nation/2017/10/08/one-man-tale-shows-how-casualties-hurricane-maria-beyond-official-death-toll/25M2sIVb8XQAQ7evs3pdSHO/story.html>

address the public health ramifications of hurricanes. Focusing future efforts on restoring power more quickly, getting survivors clean and safe food and water, and providing access to medication and medical attention is crucial to avoiding a public health disaster.

Dimension 3: Connectivity



Texas National Guard during rescue operations in flooded Houston (Credit: National Guard via Flickr Commons)

As part of a “whole of community” approach to disaster response, leaders must be proactive in the planning phase to create strategic relationships with government agencies, the private sector, and the public. Leaders also faced evacuation challenges with Hurricane Irma due to the track of the storm. Irma’s long tail made flying through the storm impossible, so military aid via amphibious vehicles was critical for saving lives.

In Puerto Rico, FEMA became a first responder due to a lack of state and local capabilities to respond to a mass disaster. These resource limitations added to the challenge of response and recovery on an island, which made this already complex situation even more difficult to manage.

Recommendations:

- *Think creatively and strategically about what organizations need to be involved in planning.* Leaders should engage the military, volunteer agencies, faith-based organizations, political leaders, and private sector partners in preparedness efforts. Particular lessons learned in the 2017 season included the need to partner with agencies that care for vulnerable populations, like nursing homes. A dramatic rescue at a nursing home in Texas happened only after relatives used Twitter as a substitute for 911 as a means for requesting help. Many nursing homes in the United States are unprepared for disaster, and the 2017 hurricanes exposed major problems with execution in emergency preparedness plans.¹³ Leaders should consider which populations within their communities are most vulnerable and make sure to address gaps or inadequacies in preparedness before disaster hits.

¹³ Waldron, T. (2018, September 27). The Florida nursing home disaster could have happened almost anywhere. *The Huffington Post*. Retrieved from https://www.huffingtonpost.com/entry/nursing-homes-natural-disasters_us_59c53875e4b01cc57ff1de5a

- *View the public as a resource:* In Texas and Florida, leaders were successful in engaging volunteers from the public to help with response and recovery. This included neighbors helping neighbors with food, evacuation, blood, and monetary donations. Moving forward, leaders must consider how to integrate the public as a key resource in preparedness planning. Considering the long-term recovery in all areas of 2017, leaders should determine how to best engage the public and inspire them to help in sustained recovery efforts — from clearing debris to rebuilding communities to donating time and services.
- *Social Media — use it!* Establishing a strong social media presence in advance of a storm is a great way to ensure the public knows where to look for official information and to manage the narrative from the beginning. As noted above, the public used social media to communicate a need to rescue elderly residents of a nursing home in Texas. Survivors also widely used social media to get information and send messages to loved ones when other communication was down — using Twitter, Facebook, and LinkedIn. Use of social media allows for communication in real time. During disasters, leaders must delegate authority to trusted staff to communicate effectively and clearly, keeping a flow of information moving to the public and other partners, without having to wait for official approval of messaging.

Other Key Takeaways

- *Always put the survivors first.* Saving lives and providing life-sustaining measures (food, water, and shelter) are the most important in the initial response. Keeping the survivors first can help maintain focus in a chaotic situation.
- *Don't be afraid to succeed in the middle of a disaster.* Be willing and able to act creatively to get resources where and when you need them. Look for opportunities for innovation during response and recovery that can help you succeed; don't just rely on what you've done in the past.
- *Insular areas need additional consideration.* Future response to devastating hurricanes in island areas will require more pre-planning and collaboration to allocate resources, particularly in terms of first responder capacity. Local and state agencies should reach out ahead of hurricane season to determine what aid can be delivered in advance of landfall to help prevent loss of life. Leaders should look to the failures in the Puerto Rico response to gain an understanding of the logistical challenges of sustaining a response to an affected island.

About the National Preparedness Leadership Initiative

The NPLI, a joint program of the Harvard T.H. Chan School of Public Health and the Harvard Kennedy School of Government, was established in 2003 at the request of the federal government. The program conducts research on homeland security, emergency preparedness, public health, and public safety leaders in times of crisis and change, turning lessons learned into an executive education curriculum, case studies, and scholarship that highlight best practices.

About Meta-Leadership

The Meta-leadership framework and practice method is core to the NPLI's curriculum. The methodology has been developed and tested through years of field research, academic inquiry, and real-time feedback from practitioners. It continues to evolve. "Graduates of the NPLI executive education program report that this framework has made a significant difference when applied in their real-world problem solving and crisis response," said NPLI Founding Co-director Leonard Marcus. "They reach out to one another and coordinate their actions more pro-actively than they otherwise would have. This sort of Meta-leadership in a crisis or other major event has important public health impact, insofar as agencies are better able to serve the population and reduce the loss of life."

The Meta-leadership framework has three dimensions to teach leadership skills:

- 1) The Person of the Meta-Leader: self-knowledge, awareness, and discipline;
- 2) The Situation: discerning the context for leadership, what is happening, and what to do about it;
- 3) Connectivity: fostering positive, productive relationships. Connectivity includes four key directions:
 - a) leading down the formal chain of command to subordinates — within one's chain of command — creating a cohesive high-performance team with a unified mission;
 - b) leading up to superiors, inspiring confidence, and delivering on expectations; enabling and supporting good decisions and priority setting;
 - c) leading across to peers and intra-organizational units to foster collaboration and coordination within the same chain of command, which includes other departments, offices, or professional groups within the same organization.
 - d) leading beyond to engage external entities, including affected agencies, the general public, and the media to create unity of purpose and effort in large-scale response to complex events.

The Meta-leadership framework and vocabulary are commonly used across many homeland security, preparedness, and response organizations. Faculty have conducted hundreds of training sessions, including executive education programs at Harvard, as well as on site programs at the White House, Departments of Homeland Security, Health and Human Services, Defense, Veterans Affairs, the Centers for Disease Control and Prevention, Secret Service, FEMA Transportation Security Administration, and numerous private sector organizations.