

# Challenges and Opportunities After Hurricane Maria: University of Puerto Rico Medical Students' Perspectives

Nicole Yordan-Lopez, BS

Dagmar F. Hernandez-Suarez, MD

William Marrero-Ortiz, BS

Lorraine Marshall-Perez, BS

Angel Lopez-Candales, MD, FACC, FASE

**O**n the morning of September 20, 2017, Hurricane Maria made landfall on the southern coast of Puerto Rico, drastically changing the island's landscape and the lives of its people for months and years to come. By nightfall, the category 5 hurricane had left the island in a total blackout.<sup>1</sup> Hurricane Maria has been classified as the most destructive natural disaster to hit the island since 1928,<sup>2</sup> and its impact was so unprecedented that events are now referred to locally as “before Maria” and “after Maria.” With utility poles and overhead power lines torn away by the strong winds, nearly 3.4 million people were left without electricity; almost half the population was left without potable water.<sup>3</sup> Maria knocked down telecommunication towers, propelling the island back 100 years: communications were severed. Due to collapsed bridges and roads that were scattered with debris, flooded, or otherwise unsafe, many communities remained unreachable, and families struggled to gather news from their loved ones.

Medical students, along with residents and fellows, experienced a unique set of challenges and opportunities that differed from the rest of the population.<sup>4</sup> During the storm, most of the island's hospitals were left without electricity, and many were without fuel for their generators. Four days after the hurricane, only 3 major hospitals were functioning. One was the University District Hospital at the Puerto Rico Medical Center, where most of the clinical rotations of the University of Puerto Rico School of Medicine take place.<sup>5</sup> Despite the hospital being operational, medical students had been given leave to be with their families and were now scattered across the island. With communication still largely nonfunctional outside the metropolitan area, class representatives struggled to locate more

than 400 medical students. Six days after Maria, the whereabouts of most who had remained in San Juan were known. In contrast, those who had retreated farther into the island had no way of contacting their classmates. A single radio station was the sole source of news across Puerto Rico. Many medical students remained cut off from updates until they could physically reach the metropolitan area. Due to the state of public transit and roads, this took weeks for some.

Regardless of where they found themselves after the hurricane, medical students did not lack initiative. Most had many tasks in their own homes, such as taking care of elderly family members, gathering food and water, and joining the long lines at the gas station. Working side by side with members of their communities, many took to the streets to clean up debris and open up roads. San Juan benefited from the concentrated efforts of many students who lived nearby, and class leaders organized volunteers at the University Pediatric Hospital and University District Hospital. Medical students working in conjunction with the University of Puerto Rico School of Medicine were involved in efforts to aid at least 20 municipalities on the island in the first weeks following Maria. Many who lived further away joined forces with local initiatives, including students from other schools, to visit shelters and provide needed medical attention.

Sixteen days after the hurricane, power had been restored to less than 10% of the population, and half of the island still lacked water and cellular service.<sup>6</sup> The scarcity of gasoline, a lack of clear roadways, and an inability to communicate made just reaching the medical school challenging. As the last of the students finally reached San Juan, some realized they had fared better in their hometowns and now had to deal with broken windows, flooded apartments, and ambiguity

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regarding federal aid to Puerto Rico. Nonetheless, classes and clinical rotations were scheduled to resume October 10, 2017. Faculty members offered their homes with running water and electricity to the students to study in, call rooms were repurposed for them to stay in, and the student center was habilitated as a temporary home for those in need. After 3 weeks of missed academic activities, several adjustments had to be made to cover important subjects and complete clinical requirements.

Resuming classes did not mean a return to normalcy. Power went out intermittently, Internet service was unreliable, and students struggled to comply with the increased workload, while also coping with their own personal losses and anxiety. Daily activities such as cooking, bathing, and getting gas for their cars had become challenging and time consuming. Yet the hospital and university grounds became an oasis where food and water were readily available and students could charge their computers and access the Internet.

Amidst the chaos of the aftermath, Puerto Rican medical students were also struggling with the same issues other medical students faced across the United States: obtaining letters of recommendation, communicating with residency programs, scheduling interviews, and, finally, traveling to those interviews. By October 10, nearly 25% of the fourth-year medical students reported that they had not yet submitted their applications through the Electronic Residency Application Service. With airports barely functioning and communication still sporadic across the island, it was difficult for students to arrange flights to the mainland. Those who managed to schedule flights faced last-minute cancellations, leading many students to miss away rotations. Submission delays, communication problems, and an inability to be physically present for some interviews created anxiety for graduating medical students regarding their residency prospects. Residents applying for fellowships through the Electronic Residency Application Service faced similar challenges.

Many students struggled with having to carry on with academic tasks while Puerto Rico awaited relief efforts. Anxiety over residency applications and medical licensing examination preparations clashed with the island's urgent need for power, clean water, food, and medical supplies. Medical students were split between 2 realities: the immediacy of a devastated Puerto Rico they aspired to rebuild and the knowledge that to become physicians, they would need to fulfill certain requirements, regardless of circumstance. In the midst of a humanitarian crisis, students found themselves torn between

complying with academic requirements and using their medical knowledge to help their fellow citizens. Many attempted to do both, but they frequently confronted the nagging question: What should come first?

As Puerto Rico continues to recover, the experience medical students gained through their exposure to Hurricane Maria outweighs that of any basic course or clinical rotation in the medical curriculum. After living through months of concerns and uncertainty, students better understand the plight of victims of natural disasters and the consequences of such events for the health of a population. This was expressed in the words of one medical student: "We have learned to appreciate things more; we are now stronger, more compassionate, and empathic. We must continue this, and never lose sight of why we took this road. There is still a long journey ahead, but these improvised lessons have been rewarding and will certainly make us better physicians."

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All authors are with University of Puerto Rico School of Medicine, San Juan, Puerto Rico. **Nicole Yordan-Lopez, BS**, is Medical Student; **Dagmar F. Hernandez-Suarez, MD**, is Resident, Department of Medicine; **William Marrero-Ortiz, BS**, is Medical Student; **Lorraine Marshall-Perez, BS**, is Medical Student; and

## PERSPECTIVES

**Angel Lopez-Candales, MD, FACC, FASE**, is Attending Physician, Cardiovascular Medicine Division.

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Corresponding author: Angel Lopez-Candales, MD, FACC, FASE, University of Puerto Rico School of Medicine, Cardiovascular Medicine Division, Medical Sciences Building, PO Box 365067, San Juan, PR 00936-5067, 787.758.2525, fax 787.765.2845, angel.lopez17@upr.edu