

**NIST HURRICANE MARIA STUDY,  
HURRICANE MARIA RECOVERY OF CRITICAL SOCIAL FUNCTIONS PROJECT:  
HOSPITAL RECOVERY FOLLOWING HURRICANE MARIA  
HOSPITAL RECOVERY INTERVIEW WAVE 1**

**OMB Control #0693-0078  
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*[Interviewer Note: Questions 1, 1a, and 1b are designed to be easily answered. This is your opportunity to personally connect and establish rapport with the respondent.]*

1. First, can you begin by describing your role and what you do on a daily basis?
    - 1a. How have your responsibilities changed, if at all, since the beginning of the COVID-19 pandemic?
    - 1b. How have your responsibilities changed, if at all, because of Hurricane Maria?
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*[Interviewer Note: Questions 2-5 are about exploring the impacts of Hurricane Maria and the experience of assessing and responding to these impacts. Because Hurricane Maria happened some time ago, we want to help respondents recall details by first situating them in the context of the hurricane (Q2). Allow the respondent to speak freely and do not probe responses to Q2.]*

2. Thinking back to when Hurricane Maria made landfall, what do you want people to know about your school's experience of those moments?

*[Interviewer Note: In questions 2a and 2b, we want to briefly ask about specific impacts. As you listen to the response given, check-off items on the checklists provided. If the respondent mentions some but not all items on the checklist, gently probe for the remaining items.]*

2a. Can you briefly describe some of Hurricane Maria's **physical** impacts to your hospital? [Interviewer Note: If needed, ask "Any others, for example..."]

- Damage to buildings
- Damage to property
- Damage to utilities
- Damage to equipment
- Damage to machinery
- Other: \_\_\_\_\_

2b. Can you describe some of the **non-physical** impacts to your hospital? [Interviewer Note: If needed, ask "Any others, for example..."]

- Population dislocation (People forced or compelled to leave home)
- Impaired access to resources
- Disruption of hospital services
- Disruption to daily routines
- Other: \_\_\_\_\_

*[Interviewer Note: In questions 2c and 2d, we want to understand processes supporting recovery and how these processes were implemented. For example, a formal process of damage assessment is typically required for repair work, insurance claims, and requests for federal relief and/or other kinds of assistance, as well as for ensuring employee and patient safety, quality standards of care, and availability of resources before staff can return to the workplace. Ideally, we will capture details about this experience by walking respondents through the process. Asking how they felt in the moment (e.g., frustrated, pleasantly surprised, etc.) may facilitate recall.]*

[PROGRAMMING: Insert respondent's Q2a physical and Q2b non-physical examples where indicated in Q2c and Q2d]

2c. How did your hospital assess the damage associated with [INSERT ANY Q2a PHYSICAL EXAMPLE]? What was your experience of this process?

*Probe with: What aspects of this experience were easy? What was frustrating?*

2d. Given the [INSERT ANY Q2b NON-PHYSICAL EXAMPLE], what was your experience of bringing staff back into work?

*Probe with: What aspects of this experience were easy? What was frustrating?*

[PROGRAMMING: Insert respondent's Q2a physical and Q2b non-physical examples where indicated in Q3]

3. How did [INSERT Q2a PHYSICAL EXAMPLE] and [INSERT Q2b NON-PHYSICAL EXAMPLE] affect the ability of your hospital to provide routine services, such as administering intravenous (IV) fluids and temperature monitoring?

4. In addition to routine services (e.g., administering intravenous (IV) fluids, temperature monitoring), what were some unexpected requests for assistance received by your hospital?

*Example of requests in disaster contexts [Interviewer Note: Use the list below to check-off items mentioned by respondent. If the respondent mentions some but not all items on the checklist, gently probe for the remaining items.]*

- Water? If yes, who made the requests? Were they successfully met?
  - Meals? If yes, who made the requests? Were they successfully met?
  - Medical supplies? If yes, who made the requests? Were they successfully met?
  - Temporary housing of hospital personnel? If yes, who made the requests? Were they successfully met?
  - Emergency shelter? If yes, who made the requests? Were they successfully met?
  - Storage space? If yes, who made the requests? Were they successfully met?
  - Staging area for relief efforts? If yes, who made the requests? Were they successfully met?
  - Other? (describe): \_\_\_\_\_ If yes, who made the requests? Were they successfully met?
5. Tell me about the return of these services following the hurricane. What preparation was needed before patients could return for medical care?
- 5a. What had to be addressed before staff could return to work?
- 5b. How did conditions at the hospital and in the local area (e.g., utility access) affect reopening?

*[Interviewer Note: Questions 6-7i are about exploring how hospitals can be better supported through improved policies and regulations.]*

I would now like to discuss the procedural and/or regulatory aspects of your hospital during and following Hurricane Maria. Specifically, your hospital's experience might provide insight into how procedures and regulations could be improved to address the needs of administrators during and following hurricanes.

6. In thinking about your hospital's recovery following the hurricane, what was a policy or regulation that worked well? In other words, can you recall a policy or regulation that facilitated your hospital's recovery?
- 6a. What about policies or regulations that delayed your hospital's recovery? Can you recall a moment when you were frustrated with a policy and/or regulation that created (or added to) a delay? Please describe this situation.
- i. At what level of government was this policy or regulation enforced?
- Federal
  - Local
  - Institutional (internal)
  - Other: \_\_\_\_\_

- ii. How could this policy or regulation be improved to better support hospital recovery from future disasters?
  7. Did your hospital adopt or implement any new policies or regulations following Hurricane Maria? [IF YES] What motivated these policy changes?
    - 7a. Based on your hospital's experience, are there any other policies or regulations that could be improved to better support your hospital's recovery from future disasters?
      - i. [If 7a=YES] Do you have any suggestions for how these could be improved?
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*[Interviewer: Questions 8-11 explore how respondents define the recovery of their hospital from Hurricane Maria. Importantly, we want respondents to suggest on their own **when** recovery began and **how** they came to realize this, using **concrete, measurable** aspects of/conditions associated with recovery.]*

I would now like to learn about your hospital's recovery, specifically what recovery means to your hospital and how your hospital has measured its progress toward recovery.

8. What was a key milestone that signaled the crisis phase had ended and that your hospital was beginning to recover?

*Probe with: When did you realize conditions at your hospital were improving?*
9. How have you tracked your hospital's progress toward recovery, besides typical measures of recovery such as monies allocated and/or spent and the completion of repairs?
10. How was your hospital's progress toward recovery affected by the earthquake sequence of 2019?
11. How was your hospital's progress toward recovery affected by the COVID-19 pandemic?

*[Interviewer Note: Questions 12-16 are about exploring the multiple benefits of and processes involved in recovery planning and how recovery planning can be better supported.]*

Recovery planning following a disaster can simultaneously achieve multiple goals. For example, disaster mitigation funding can be strategically used to address issues that existed prior to the disaster, such as dilapidated physical infrastructure.

12. At what point was your hospital able to begin planning for recovery, including planning for the use of recovery financial assistance (e.g., insurance monies, federal aid)?
  - 12a. How was recovery planning taken as an opportunity to address other issues not caused by Hurricane Maria, if at all? Can you describe one example?
13. Have you exchanged experiences of your hospital's recovery and/or lessons learned with other hospital administrators either in Puerto Rico or elsewhere? Can you briefly describe how this sharing occurred?

*[Interviewer Note: In question 14, allow time for respondents to introduce, on their own, at least two examples of agencies/public offices. If the respondent does not provide examples, please provide examples from the list below to probe their response.]*

<p>14. What agencies and/or public offices have been involved in the recovery planning process for your hospital?</p> <p><i>[Interview Note: If yes, ask 14a. &amp; 14b.]</i></p>	<p>14a. What were these interactions like?</p> <p><i>[Probe: Was your overall experience positive or negative?</i></p>	<p>14b. How responsive was your point-of-contact to your questions and concerns?</p> <p><i>[Probe: Was the level of responsiveness Poor, Fair, Good, Very good, Excellent? ]</i></p>
U.S. Department of Health and Human Services (HSS) (federal)		
Federal Emergency Management Agency (FEMA) (federal)		
Government of Puerto Rico		
Puerto Rico Department of Health		
Central Office of Recovery, Reconstruction and Resilience (COR3)		
Other:		
Other:		
Other:		

15. What have been significant barriers to finding, applying, and/or receiving financial assistance?

15a. How did your hospital overcome these barriers?

16. What kinds of information or data would support your hospital's recovery?

16a. Have you sought this information or data? If so, what did this information-seeking look like?

*[Interviewer Note: Question 17 refers to the recovery plan adopted in 2018 under Governor Ricardo Rosselló Nevares. It seeks insight into how and to what extent hospitals were sought-out and involved in the development of Courses of Action (COAs). COAs address challenges resulting from Hurricane Maria, as well as pre-existing challenges, and were developed by health experts and other stakeholders (health COAs are designated by "HSS"). A partial list of*

*COAs is provided and can be read to the respondent to demonstrate examples and facilitate recall.]*

I would now like to discuss your hospital's participation in broader recovery planning efforts. Participation in recovery planning can include a wide variety of activities, including meeting, advising, providing guidance, and sharing data.

17. How has your hospital participated in the development of health sector Courses of Actions (COAs) developed by the 2018 Economic and Disaster Recovery Plan for Puerto Rico/COR3?

*[Interviewer Note: If respondent needs more information, probe by asking about specific examples of COAs, including...]*

- creating new and enhancing existing after-school and summer learning opportunities (EDU 1);
- improving longitudinal data system to support evidence-based policy (EDU 2);
- implementing a student-based budget system (EDU 5);
- augmenting tele-education/online education (EDU 7);
- developing and implementing a teacher pipeline program (EDU 9);
- rebuilding public and private pre-K--12 school infrastructure (EDUs 11 and 13)

17a. Was your school's participation and input sought in the development of the education sector COAs listed above?

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*[Interviewer Note: In questions 18-21, we want to understand how the respondent envisions the future of his/her hospital, including any recovery needs or changes within the hospital that up until this point have not yet been captured.]*

18. I would now like to pose a hypothetical question to gain a better understanding of how your hospital's recovery could be accelerated. If your hospital was given additional funds equivalent to 25% of its operating budget, what would you recommend funds be used for to accelerate recovery? If you consider your school recovered, how would you have spent funds received at an earlier stage to support a faster recovery?

19. Are there any major changes being planned for your hospital in the next 3 years?

19a. Were these changes being planned in response to Hurricane Maria, or were they planned independently of Hurricane Maria?

19b. To what extent can your hospital implement these changes on its own?

20. What would you recommend to other hospitals that are still struggling to recover?

21. Is there anything else that I did not ask about your hospital that you would like to share?

Thank you for your time and for assisting us with this important research.