

NIST HURRICANE MARIA STUDY,
HURRICANE MARIA RECOVERY OF CRITICAL SOCIAL FUNCTIONS PROJECT:
HOSPITAL RECOVERY FOLLOWING HURRICANE MARIA
HOSPITAL RECOVERY SURVEY WAVE 2

OMB Control #0693-0078
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Part 1: Screening Questions (Review with HW)

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Part 2: Questionnaire

Section A: Information from Respondents

The first set of questions asks about your position and experience, as well as some basic information about your hospital.

1. What best describes your current position in this hospital? [please list your job title or a brief description of your job] _____
2. How long have you worked for or with this hospital? (years) _____
3. How long have you worked in this position for any hospital? (years) [includes current hospital and any past experience in the same position] _____

4. What is your hospital's ownership structure? (*Interviewer: read list of responses*)
 - a. Public
 - b. Public/Private
 - c. Private – Single owner
 - d. Private - Partnership (multiple owners)
 - e. Private – Corporation or Franchise
 - f. Private – Non profit
 - g. Other (please specify): _____

5. Which of the following has most negatively impacted your hospital's ability to provide services? (*Interviewer: read list, select one response*)
 - a. Economic recession or Economic downturn of 2008
 - b. Hurricane Irma
 - c. Hurricane Maria
 - d. Earthquakes in 2019/2020
 - e. COVID-19
 - f. Supply Chain Disruptions
 - g. Inflation
 - h. Hurricane Fiona

6. How would you characterize your hospital's recovery from Hurricane Maria on a scale from 0 to 5, where 0=not at all recovered and 5=fully recovered? _____ [Radio buttons 0 to 5 with labels for 0 and 5 only]

Section B: Changes in Resources and Service

The last time we met with a representative of your hospital, we asked about resources and services of your hospital during two time periods, after and immediately before Hurricane Maria. Now, we are interested in the general situation of your hospital to the best of your recollection:

- *Approximately 3 years after Hurricane Maria.*
- *Approximately 5 years after Hurricane Maria.*

The next set of questions is about your hospital's resources. Please provide your best estimate and answer to the best of your knowledge.

1. What was your hospital's annual operating budget? *Interviewer: read each statement and then record the response in the units specified. (Report to the nearest thousand USD\$)*
 - a. In 2021: _____
 - b. In 2023: _____

2. How many staffed beds did your hospital have? (Report to the nearest whole number#) *Interviewer: read each statement and then record the response in the units specified.*
 - a. In 2021: _____
 - b. In 2023: _____

3. What was your hospital's average occupancy rate? *Interviewer: read each statement and then record the response in the units specified. (Report to the nearest percent%)*
 - a. In 2021: ____
 - b. In 2023: ____

4. How many hospital-wide staff meetings were held each month, on average (Answer options: <1, 1-3, 4-6, 7 or more)? *Interviewer: read each statement and then record response in the units specified (Answer options: <1, 1-3, 4-6, 7 or more, Don't know)*
 - a. In 2021: ____
 - b. In 2023: ____

5. What percent of your hospital's purchased supplies in the following categories came from outside of the Commonwealth in 2021? (*Interviewer: then ask*) How about in 2023? (*Interviewer: Repeat for each Supply Type*) (Please provide your best estimate and answer to the best of your knowledge)

Supply Type	2021	2023
Food	%	%
Computers/Tablets	%	%
Cleaning products	%	%
Pharmaceuticals/Medicines	%	%
Treatment supplies (e.g., dressings, splints, IV bag)	%	%

[PROGRAMMING: For Q6-9, the interviewer will need access to the Services grid, to prompt / remind the respondent of the service types that each question refers to in case the respondent needs clarification. For example: "Clinical Services refers to: Emergency Services, Out-Patient Clinic Services, Surgical Services, Obstetrics/Delivery Services, Physical Therapy/Rehabilitation Services, Non-ICU Floor Services, ICU Services, Cardiac monitored/Non-ICU Services, and Intensive Care Unit Beds."]

6. About what percentage of clinical services was restored: (*Interviewer: record from zero to 100%*) *Interviewer: read each statement and then record response*
 - a. In 2021?
 - b. In 2023?
 - i. [if 6b < 100%] To what extent do you perceive Hurricane Fiona caused a delay in the restoration of clinical services in 2023?
 1. The delay was unrelated to Hurricane Fiona.
 2. Hurricane Fiona caused a Minor delay in service restoration.
 3. Hurricane Fiona caused a Moderate delay in service restoration.
 4. Hurricane Fiona caused a Major delay in service restoration.
 5. Don't know

7. About what percentage of transportation services was restored: (Interviewer: record from zero to 100%) *Interviewer: read each statement and then record response*
- a. In 2021?
 - b. In 2023?
 - i. [if 7b < 100%] To what extent do you perceive Hurricane Fiona caused a delay in the restoration of transportation services in 2023?
 1. The delay was unrelated to Hurricane Fiona.
 2. Hurricane Fiona caused a Minor delay in service restoration.
 3. Hurricane Fiona caused a Moderate delay in service restoration.
 4. Hurricane Fiona caused a Major delay in service restoration.
 5. Don't know
8. About what percentage of support services was restored: (Interviewer: record from zero to 100%) *Interviewer: read each statement and then record response*
- a. In 2021?
 - b. In 2023?
 - i. [if 8b < 100%] To what extent do you perceive Hurricane Fiona caused a delay in the restoration of support services in 2023?
 1. The delay was unrelated to Hurricane Fiona.
 2. Hurricane Fiona caused a Minor delay in service restoration.
 3. Hurricane Fiona caused a Moderate delay in service restoration.
 4. Hurricane Fiona caused a Major delay in service restoration.
 5. Don't know
9. About what percentage of community services was restored: (Interviewer: record from zero to 100%) *Interviewer: read each statement and then record response*
- a. In 2021?
 - b. In 2023?
 - i. [if 9b < 100%] To what extent do you perceive Hurricane Fiona caused a delay in the restoration of community services in 2023?
 1. The delay was unrelated to Hurricane Fiona.
 2. Hurricane Fiona caused a Minor delay in service restoration.
 3. Hurricane Fiona caused a Moderate delay in service restoration.
 4. Hurricane Fiona caused a Major delay in service restoration.
 5. Don't know

Section C: Physical Impacts & Repair

The next set of questions focus on physical damage and repairs associated with your hospital campus. These questions address physical damage and repairs from both Hurricane Maria and Hurricane Fiona. If you are unsure of any responses, please just answer to the best of your ability.

1. Did your *hospital* campus suffer any physical damage due to Hurricane Fiona?
Yes / No / DK

[PROGRAMMING: If “No” or “DK” to Q1, skip to Q3]

2. How would you characterize the: **[Programming: Matrix Q2 - 2a, 2b, 2c]**
 - 2.a. ... Building damage from Hurricane Fiona? Interviewer: Read List of Responses
 1. None
 2. Minor
 3. Moderate
 4. Severe
 5. Complete Loss
 - 2.b. ... Contents/inventory damage from Hurricane Fiona? Interviewer: Repeat List of Responses as needed
 6. None
 7. Minor
 8. Moderate
 9. Severe
 10. Complete Loss
 - 2.c. ... Machinery/equipment damage from Hurricane Fiona? Interviewer: Repeat List of Responses as needed
 1. None
 2. Minor
 3. Moderate
 4. Severe
 5. Complete Loss
3. Did your hospital campus suffer any physical damage due to Hurricane Maria?
Yes / No / DK

[PROGRAMMING: If “No” or “DK” to Q3, skip to Q6]

4. What percentage of Hurricane Maria-related repairs to your hospital campus had been completed prior to Hurricane Fiona? ____%
 - 4a. [If Q4 < 100%] Did the lack of completed repairs to your hospital campus result in any additional damage from Hurricane Fiona?
Y / N / DK
 - 4b. [If Q4 < 100%] Apart from physical damage, has the lack of completed repairs to your hospital campus resulted in any other negative impacts from Hurricane Fiona?
Y / N / DK
5. What percentage of Hurricane Maria-related repairs to your hospital campus have been completed as of 2023? ____%

The next set of questions asks about the relationship between utilities and services provided by your hospital following Hurricane Maria.

6. Did utility issues following Hurricane Maria directly inhibit your hospital's ability to provide any services...
 1. In 2021? Yes / No / DK
 2. In 2023? Yes / No / DK

7. Did ground transportation issues (i.e. road/bridge closures) following Hurricane Maria directly inhibit your hospital's ability to provide any services...
 1. In 2021? Yes / No / DK
 2. In 2023? Yes / No / DK

8. Did air transportation issues (i.e. air traffic control, damage to landing pads) following Hurricane Maria directly inhibit your hospital's ability to provide any services...
 1. In 2021? Yes / No / DK
 2. In 2023? Yes / No / DK

9. What temporary measures, if any, does your hospital continue to rely on to remain in a functional state? (Interviewer, READ LIST, select all that apply)
 1. Tents, trailers, or other temporary structures
 2. Prepackaged food (MREs)
 3. Delivery of water
 4. Generators
 5. Other (please describe)

The next set of questions asks about the availability of utilities and back up or emergency reserves following Hurricane Maria. Please answer to the best of your knowledge. If your hospital does not use a particular utility, please indicate "Not Applicable".

(Interviewer: Ask question series 10-13 for each service, and then move on to the next service.)

Utilities	Electric power	Water/ Sewer	Land-line telephone	Internet/IT	Oxygen
10. Does your hospital currently have backup systems or emergency reserves for <u>Service</u> ?	Y / N / DK / NA	Y / N / DK / NA	Y / N / DK / NA	Y / N / DK / NA	Y / N / DK / NA

<p>11. Over the past 12 months, how often has there been testing and/or maintenance of backup systems or emergency reserves?</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>
<p>12. Over the past 12 months, how many times has <u>Service</u> been unavailable for a 12-hour period or longer?</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>	<p>0 times 1-3 times 4-6 times 7-8 times 9-11 times 12 or more times DK NA</p>
<p>12a. [If Q12 does not = 0/DK/NA] Over the past 12 months, what is the longest your hospital went without <u>Service</u>? _____</p>	<p>_____Hour s</p>	<p>_____Hour s</p>	<p>_____Hour s</p>	<p>_____Hour s</p>	<p>_____Hour s</p>
<p>13. Did your hospital's backup systems or emergency reserves meet operational needs during <u>Service</u> disruptions in the past 12 months?</p>	<p>Y / N / DK / NA</p>				

Section D: Non-physical Impacts

The following set of questions focuses on non-physical impacts resulting from Hurricane Fiona which made landfall in September 2022. If you are unsure of any responses, please just answer to the best of your ability.

1. To what extent were the following a problem after HURRICANE FIONA?
 - 1a. Employees had trouble reporting to work due to transportation problems? (Interviewer: Read List, Ask) Would you say this was...?
 1. Not a problem
 2. Minor problem
 3. Moderate problem
 4. Major problem
 5. Don't know
 - 1b. Employees had trouble reporting to work because their children were not yet back to school? (Interviewer: Read List, Ask) Would you say this was...?
 1. Not a problem
 2. Minor problem
 3. Moderate problem
 4. Major problem
 5. Don't know
 - 1c. Employees had trouble reporting to work because their children were not yet back to daycare/childcare? (Interviewer: Read List, Ask) Would you say this was...?
 1. Not a problem
 2. Minor problem
 3. Moderate problem
 4. Major problem
 5. Don't know
 - 1d. Employees had trouble reporting to work because of physical health issues? (Interviewer: Read List, Ask) Would you say this was...?
 1. Not a problem
 2. Minor problem
 3. Moderate problem
 4. Major problem
 5. Don't know
 - 1e. Employees had trouble reporting to work because of mental health issues? (Interviewer: Read List, Ask) Would you say this was...?
 1. Not a problem
 2. Minor problem
 3. Moderate problem
 4. Major problem

2. Following **HURRICANE FIONA**...(Interviewer: Repeat lead-in for 2b through 2d if needed)

2a. Did your hospital transfer any patients **to** other hospitals as a result of the hurricane?
____Yes ____No ____DK

2b. Did the utility loss result in the need to transfer patients to other hospitals?
____Yes ____No ____DK

2c. Did your hospital accept any patient transfers **from other hospitals** as a result of the hurricane?

_____Yes _____No _____DK

2d. Did your hospital accept any patients transferred **from** other facilities such as nursing homes as a result of the hurricane?

_____Yes _____No _____DK

Section E: Decisions and Planning

The following set of questions focuses on decisions, planning and communication. If you are unsure of any responses, please just answer to the best of your ability.

1. How would you characterize the culture of your hospital in relation to natural hazard risks during 2023? *Interviewer: read list of responses, select one*
 1. Regularly planned for potential natural hazards and set aside funds to minimize risks.
 2. Occasionally planned for potential natural hazards and set aside funds to minimize risks
 3. Acknowledged natural hazard risks, but did not have financial or other means to help minimize risks
 4. Did not discuss or plan for natural hazard risks
 5. Deliberately avoided the topic of natural hazard risks

2. How about in 2021? How would you characterize the culture of your hospital in relation to natural hazard risks during 2021? *Interviewer: read list of responses, select one.*
 1. Regularly planned for potential natural hazards and set aside funds to minimize risks.
 2. Occasionally planned for potential natural hazards and set aside funds to minimize risks
 3. Acknowledged natural hazard risks, but did not have financial or other means to help minimize risks
 4. Did not discuss or plan for natural hazard risks
 5. Deliberately avoided the topic of natural hazard risks

3. Please indicate to what extent you agree with the following statement: My hospital is adequately prepared for potential hurricane impacts. *Interviewer: read list of responses*
 1. Agree
 2. Somewhat agree
 3. Neither agree, nor disagree
 4. Somewhat disagree
 5. Disagree

4. Does your hospital have an emergency plan for natural hazard events such as hurricanes in place?
Yes / No / DK

[PROGRAMMING: IF RESPONDENT ANSWERS NO TO Q4, skip to Q5]

4a. [PROGRAMMING: If YES] What percentage of hospital administration and/or staff is familiar with the plan and its contents? ____% (Record 0 - 100)

4b. How would you characterize the implementation of the emergency plan during Hurricane Fiona? *Interviewer: read list of responses, select one*

1. Very Good
 2. Good
 3. Acceptable
 4. Poor
 5. Very Poor
5. How would you rate your hospital's connection to other local organizations (e.g., businesses, schools, churches) during 2023? (Interviewer: For example, did you co-sponsor events, offer space, or help promote activities of these organizations?) Would you say: *Interviewer: read list of responses, select one*
1. Very connected
 2. Somewhat connected
 3. Average
 4. Somewhat disconnected
 5. Very disconnected
6. How about in 2021? How would you rate your hospital's connection to other local organizations (e.g., businesses, schools, churches) during 2021? (Interviewer: For example, did you co-sponsor events, offer space, or help promote activities of these organizations?) Would you say: *Interviewer: read list of responses, select one*
1. Very connected
 2. Somewhat connected
 3. Average
 4. Somewhat disconnected
 5. Very disconnected

Section F: Recovery

This set of questions addresses the recovery of your hospital and surrounding areas, as well as the application for and receipt of recovery funding. These questions may appear familiar since we asked them previously. We are asking again due to the long timeline associated with receiving recovery funding. If you are unsure of any dates, please just answer to the best of your ability.

1. Regarding the recovery of the entire Commonwealth of Puerto Rico, since Hurricane Maria, would you say it is: *Interviewer: read list of responses, select one*
 1. Fully recovered
 2. Partially recovered
 3. Still in survival/response mode
 4. Will never recover (please explain)

2. Regarding the recovery of the municipios your hospital serves, since Hurricane Maria would you say the municipios are: *Interviewer: read list of responses, select one*
 1. Fully recovered
 2. Partially recovered
 3. Still in survival/response mode
 4. Will never recover (please explain)

3. Regarding the recovery of your hospital since Hurricane Maria, would you say it is: *Interviewer: read list of responses, select one*
 1. Fully recovered
 2. Partially recovered
 3. Still in survival/response mode
 4. Will never recover (please explain)

4. (INTERVIEWER: Ask for each insurance type) Did your hospital file claims for insurance on the following insurance types? When did you receive money from the following insurance policy claims? Please provide your best recollection of the timing of funds received.

Insurance Type	Filed Claim (1)? [if 1 or 5 ask (2)]	Received When (2) (months after Hurricane Read responses if needed)
1.The Buildings	1= Yes 2= No 3= DK 4= Did not have this insurance 5= Filed claim for disaster other than Hurricane Maria	1. Less than 6 mos 2. 6 – 12 mos 3. 12 – 18 mos 4. 18 – 24 mos 5. 24 – 36 mos 6. 36 – 48 mos 7. 48 - 60 mos 8. 60+ mos 9. NEVER 10. DK
2. The Contents (for example, furniture, books, computers)	1= Yes 2= No 3= DK 4= Did not have this insurance 5= Filed claim for disaster other than Hurricane Maria	1. Less than 6 mos 2. 6 – 12 mos 3. 12 – 18 mos 4. 18 – 24 mos 5. 24 – 36 mos 6. 36 – 48 mos 7. 48 - 60 mos 8. 60+ mos 9. NEVER 10. DK
3.Business interruption	1= Yes 2= No 3= DK 4= Did not have this insurance	1. Less than 6 mos 2. 6 – 12 mos 3. 12 – 18 mos 4. 18 – 24 mos

	5= Filed claim for disaster other than Hurricane Maria	5. 24 - 36 mos 6. 36 - 48 mos 7. 48 - 60 mos 8. 60+ mos 9. NEVER 10. DK
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5. Did your hospital apply for any of the following assistance types? When did you receive funding from the following assistance types? Please provide your best recollection of the timing of funds received.

Assistance Type	Applied? [if Yes ask (2)]	Received When (2)? (months after Hurricane Maria) <i>Read responses if needed</i>
1. Federal financial assistance [FEMA, SBA, HHS, Medicare/Medicaid, Other]	1= Yes 2= No 3= DK	1. Less than 6 mos 2. 6 - 12 mos 3. 12 - 18 mos 4. 18 - 24 mos 5. 24 - 36 mos 6. 36 - 48 mos 7. 48 - 60 mos 8. 60+ mos 9. NEVER 10. DK
2. Commonwealth/Puerto Rico financial assistance	1= Yes 2= No 3= DK	1. Less than 6 mos 2. 6 - 12 mos 3. 12 - 18 mos 4. 18 - 24 mos 5. 24 - 36 mos 6. 36 - 48 mos 7. 48 - 60 mos 8. 60+ mos 9. NEVER 10. DK
3. Municipal government financial assistance	1= Yes 2= No 3= DK	1. Less than 6 mos 2. 6 - 12 mos 3. 12 - 18 mos 4. 18 - 24 mos 5. 24 - 36 mos 6. 36 - 48 mos 7. 48 - 60 mos 8. 60+ mos 9. NEVER

		10. DK
4. Private/bank loans	1= Yes 2= No 3= DK	1. Less than 6 mos 2. 6 - 12 mos 3. 12 - 18 mos 4. 18 - 24 mos 5. 24 - 36 mos 6. 36 - 48 mos 7. 48 - 60 mos 8. 60+ mos 9. NEVER 10. DK

6. To what extent did the following factors make important contributions to your hospital's recovery in 2023 (approximately 5 years after Hurricane Maria)? (Interviewer read: "Major contribution, minor contribution, no contribution or not applicable" for the following):

1. Effective leadership and sound decision making
2. A clearly understood process for making and approving decisions
3. The provision of adequate and timely financial resources (including disaster assistance)
4. Having materials easily accessible (e.g., building materials)
5. Having needed equipment accessible (e.g., construction equipment, generators)
6. Being able to hire contractors for building repairs
7. Employees
8. Patients
9. Recovered utility services
10. Personal networks/knowing the right people
11. Sharing resources with other organizations in the community

6a. [PROGRAMMING: Only the answers selected as "major contributions" appear in this list.] Of these factors, please rank the 3 most important to your hospital's recovery where 1 is the most important factor: (Interviewer: Read list)

1. Effective leadership and sound decision making
2. A clearly understood process for making and approving decisions
3. The provision of adequate and timely financial resources (including disaster assistance)
4. Having materials easily accessible (e.g., building materials)
5. Having needed equipment accessible (e.g., construction equipment, generators)
6. Being able to hire contractors for building repairs
7. Employees
8. Patients
9. Recovered utility services
10. Personal networks/knowing the right people
11. Sharing resources with other organizations in the community

Thank you for your time and participation. Your response will contribute to recommended improvements in building codes, standards, and practices to make communities in Puerto Rico and across the United States more resilient to hurricanes and other disasters.