**National Institute of Standards and Technology**

**Hurricane Maria Investigation**

**Emergency Communications Pilot Household Survey**

**VERBAL INTERVIEW SCRIPT**

**Agency Information:** NIST Generic Clearance for Community Resilience Data Collections; OMB Control #0693-007; Expiration Date: 07/31/2022. Agency contact information will be provided at the end of this questionnaire.

**Part 1: Introduction**

Instruction: *“Hello, we are part of an investigation of impacts from Hurricane Maria by the National Institute of Standards and Technology. We are interested in hearing about your experiences leading up to Hurricane Maria’s landfall on Puerto Rico on September 20, 2017, particularly the kinds of emergency information you received or needed, and your evacuation decisions. We realize that the hurricane was a few years ago, and so we will ask questions related to the event to aid your memory.*

*The survey is expected to take 25 minutes, with 20 minutes allotted for discussion and feedback afterwards. You will not receive compensation for participating in this survey, and your participation is completely voluntary. However, your feedback will help us to better understand impacts from Hurricane Maria and will lead to recommendations to improve messages, policies, and procedures for emergency communications. In our reported findings, your responses will be kept anonymous and will not be associated with your name or other personally identifiable information.”*

**Part 2: Screening Question**

**Q1.** For this survey, we’re interested in speaking with someone who lived in Puerto Rico during Hurricane Maria, was involved in or responsible for making evacuation decisions, and is at least 18 years old. Would that description fit you or someone else in your household?

[If Yes] *“Thank you! “To begin, we will ask some questions to be sure you are eligible to take the survey.*”

[If someone else in household: repeat Q1 for that individual].

[If No] *“Thank you for your time, and have a nice day.”* [END CONVERSATION]

**Part 3: Background & Previous Experience Questions**

Instruction: *“Before we talk about your experiences with Hurricane Maria, we would first like to know more about your experiences with hurricanes and other natural hazards before Hurricane Irma and Maria in 2017.”*

**Q2.** About how many hurricanes, prior to Irma/Maria, have you experienced? *(Select only one)*

1. None (Maria and Irma were the first hurricanes I experienced)
2. 1-2
3. 3-4
4. 5-6
5. 7+

**Q3.** About how many times have you evacuated to go to a safer location for a hurricane prior to Irma and Maria? *(Select only one)*

1. None; I had never evacuated before
2. 1-2
3. 3-4
4. 5-6
5. 7+

**Q4**. Prior to Hurricanes Irma and Maria, have you ever had damage from a hurricane to a property or home you were living in?

0 = No

1 = Yes

**Q5**. Prior to Hurricanes Irma and Maria, have you ever lost access to utilities such as power or water for an extended time due to a hurricane? (for example for more than 2 days)?

0 = No

1 = Yes

**Q6.** Prior to Hurricanes Irma and Maria, have you or any of your friends or relatives been seriously injured or lost their lives in a hurricane?

0 = No

1 = Yes

**Part 4: Home & Threat Questions**

Instruction: *“We would now like to ask you some questions about your home directly before Hurricanes Irma and Maria. Please respond regarding the home that you lived in immediately before/during these Hurricanes.”*

**Q7.** How long have you and your family lived at this residence? *(Select only one)*

1. Less than 1 year
2. 1-3 years
3. More than 3, but less than 5 years
4. 5+ years
5. I don’t know / don’t remember

**Q8.** As of September 2017, did you own or rent this residence? *(Select only one)*

1. Rent
2. Own (including with a mortgage)
3. Other (Specify: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
4. I don’t know / don’t remember

**Q9.** Prior to Hurricanes Irma and Maria, had you ever experienced flooding due to natural hazards (rain, etc.) at this residence? *(Select only one)*

0 = No, we have not had previous flooding.

1 = Yes, our residence had experienced flooding previously.

**Q10.** Prior to Hurricanes Irma and Maria, had you ever experienced one or more landslides at this residence? *(Select only one)*

0 = No, we have not had previous landslides.

1 = Yes, we have experienced at least one landslide previously at our residence.

**Q11.** On a scale from 1 to 5, where 1 signifies “not at all likely” and 5 signifies “extremely likely”; in the year leading up to Hurricanes Irma and Maria, how would you have described the likelihood that your home would be hit by a major hurricane that year?  *(Select only one)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1- not at all likely | 2- somewhat likely | 3- moderately likely | 4-very likely | 5- extremely likely |

**Q12.** In the year prior to Hurricane Irma and Maria, did you do any of the following to prepare for a hurricane? *(Select all that apply)* [For coding: 0 = not selected, 1 = selected]

1. Registered to receive alerts or warnings
2. Made a plan for evacuation; including identification of evacuation location(s)
3. Set aside food, water, or other supplies for emergency situations
4. Took steps to protect your home from hurricane winds, rain, or debris
5. Attended training on hurricane preparedness
6. Talked with others about hurricane preparedness
7. Had insurance coverage for a natural hazard (any)
8. Other \_\_\_\_\_\_\_\_

**Q13.** Prior to Hurricanes Irma and Maria, did you know if your residence was or was not located in a known flood zone? *(Select only one)*

1. Yes, I knew that our residence was located in a flood zone.
2. Yes, I knew our residence was not located in a flood zone.
3. No, I didn’t know if our home was located in a flood risk zone or not.

**Q14.** Prior to Hurricanes Irma and Maria, did you know if your residence was or was not located in a landslide risk zone? *(Select only one)*

1. Yes, I knew our residence was in a known landslide risk zone.
2. Yes, I knew our residence was not in a known landslide risk zone.
3. No, I didn’t know if our home was located in a landslide risk zone or not

**Q15.** On a scale from 1 to 5, where 1 signifies “strongly disagree” and 5 signifies “strongly agree”; Please rate the extent to which you agree with the statement: “I felt that my home would be a safe place to stay during Hurricane Maria”? *(Select only one)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1- strongly disagree | 2- disagree | 3- neither agree or disagree | 4- agree | 5- strongly agree |

**Part 5: Emergency Communication/ Message Questions**

Instruction: *“We would now like to focus on the warnings and communication you received in the days leading up to Hurricane Maria’s landfall. This includes evacuation messages encouraging people to leave their areas or homes to go to a safer place, including a public shelter. We are interested in how you got these messages, and also who they may have been provided by, such as the government, media, or friends, relatives or coworkers.”*

#### **Q16.** We are interested in how you got information prior to Hurricane Maria. Which of the following information channels were you able to access? *(Select one:* Yes(1), No (0), Don’t know/Don’t remember (99))

1. Cell phone (calls or text messages)
2. Landline phone (calls or automated messages)
3. Visiting government, agency, organization, or news websites
4. Social media (e.g. Facebook, Twitter, etc. accounts)
5. Television
6. Newspaper
7. Radio
8. Public address system/ loudspeaker
9. Face-to-face (in person)
10. Other\_\_\_\_\_

#### 

#### **Q17.** Prior to Hurricane Maria’s landfall, do you remember receiving evacuation-related and emergency information through the following information channels ? *(Select one:* Yes(1), No (0), Don’t know/Don’t remember (99))

1. Cell phone (calls or text messages)
2. Landline phone (calls or automated messages)
3. Visiting government, agency, organization, or news websites
4. Social media (e.g. Facebook, Twitter, etc. accounts)
5. Television
6. Newspaper
7. Radio
8. Public address system/ loudspeaker
9. Face-to-face (in person)
10. Other\_\_\_\_\_

#### **Q18.** On a scale of 1-5; where 1 is “Not at all” and 5 is “A very great deal”: Prior to Hurricane Maria, how much did you rely on each of the following information channels for evacuation-related and emergency information?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1- Not at all | 2 - A little | 3- Somewhat | 4- A great deal | 5- A very great deal |

1. Cell phone (calls or text messages)
2. Landline phone (calls or automated messages)
3. Visiting government, agency, organization, or news websites
4. Social media (e.g. Facebook, Twitter, etc. accounts)
5. Television
6. Newspaper
7. Radio
8. Public address system/ loudspeaker
9. Face-to-face (in person)
10. Other\_\_\_\_\_\_\_\_

#### **Q19.** And using the same scale, how much do you rely on the following information channels today to get evacuation-related and emergency information about hurricanes? *(Select only one answer for each item. If you don’t have access to this channel or don’t receive emergency information from this channel, answer “N/A”)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1- Not at all | 2 - A little | 3- Somewhat | 4- A great deal | 5- A very great deal | (99) N/A; no access or don’t receive |

1. Cell phone (calls or text messages)
2. Landline phone (calls or automated messages)
3. Internet (visiting social media, government or other websites)
4. Television
5. Newspaper
6. Radio
7. Public address system/ loudspeaker
8. Face-to-face (in person)
9. Other\_\_\_\_\_

#### **Q20.** The following list contains possible sources for information. From which of these sources did you receive Hurricane Maria evacuation-related and emergency messages? *(Select one:* Yes(1), No (0), Don’t know/Don’t remember (99))

1. National Hurricane Center or National Weather Service
2. National TV, radio, or internet broadcaster (for example, David Begnaud)
3. Governor
4. Fire department or police
5. Puerto Rico Emergency Management Agency or local emergency manager
6. Mayor (of your municipality)
7. Local/regional TV, radio, or internet broadcaster (for example, Ada Monzon, Deborah Martorell, John Toohey-Morales)
8. Family member, neighbor, co-worker, or friend
9. Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q21.** On a scale from 1 to 5, where 1 signifies “not at all trustworthy” and 5 signifies “extremely trustworthy”; Prior to Hurricane Maria, how trustworthy did you consider each of the following information resources for providing evacuation-related and emergency information?” (*Select only one answer for each item*).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1- Not at all trustworthy | 2 - Somewhat trustworthy | 3- Moderately trustworthy | 4- Very trustworthy | 5- Extremely trustworthy | (99) N/A (don’t have an opinion) |

1. National Hurricane Center or National Weather Service
2. National TV, radio, or internet broadcaster (for example, David Begnaud)
3. Governor
4. Fire department or police
5. Puerto Rico Emergency Management Agency or local emergency manager
6. Mayor (of your municipality)
7. Local/regional TV, radio, or internet broadcaster (for example, Ada Monzon, Deborah Martorell, John Toohey-Morales)
8. Family member, neighbor, co-worker, or friend
9. Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q22.** Using the same scale, how trustworthy do you consider each of the following information resources for providing evacuation-related and emergency information today?” (*Select only one answer for each item*).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1- Not at all trustworthy | 2 – Somewhat trustworthy | 3- Moderately trustworthy | 4- Very trustworthy | 5- Extremely trustworthy | (99) N/A (don’t have an opinion) |

1. National Hurricane Center or National Weather Service
2. National TV, radio, or internet broadcaster (for example, David Begnaud)
3. Governor
4. Fire department or police
5. Puerto Rico Emergency Management Agency or local emergency manager
6. Mayor (of your municipality)
7. Local/regional TV, radio, or internet broadcaster (for example, Ada Monzon, Deborah Martorell, John Toohey-Morales)
8. Family member, neighbor, co-worker, or friend
9. Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q23.** On a scale of 1 to 5, where 1 signifies “I needed a lot more information”, 3 signifies “I had all the information I needed” and 5 signifies “I had too much information”; In the few days leading up to Hurricane Maria, how much information do you recall needing about the following items? *(Select only one answer for each item)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1- I needed a lot more information | 2 - I needed more information | 3- I had all the information I needed | 4- I had more information than I needed | 5- I had too much information | (99) N/A- not applicable |

1. Storm characteristics (for example, location, trajectory, strength, windspeed, rain forecasts)
2. The storm’s potential to affect my home
3. The storm’s potential to affect utilities (power, water, etc.)
4. Whether my location was at risk for flooding or landslides
5. Where to get supplies (for example, food, gas, plywood) to prepare for the storm
6. Workplace emergency plans
7. Emergency plans for schools/childcare
8. Emergency plans for medical care, medication, and/or hospitals
9. Location of open nearby shelters
10. Location of open nearby shelters that would accept my pets
11. Transportation options for evacuation
12. Actions to keep safe during the storm
13. Other \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 6: Risk Perception and Evacuation Decisions Questions**

Instruction: “*Thank you. We will now be asking you about your decisions regarding evacuation or staying in place during Hurricane Maria*”.

**Q24.** On a scale of 1 to 5 where 1 signifies “Not at all” and 5 signifies “a very great deal”; How much did the following concerns or issues influence your decision whether or not to evacuate? *(Select only one answer for each item)*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1- Not at all | 2 - Slightly | 3- Moderately | 4- A great deal | 5- A very great deal | (99) N/A - not applicable |

1. Announcement of hurricane “watch” or “warning”
2. Recommendations to evacuate
3. Mandatory orders to evacuate
4. Observing others preparing to evacuate
5. Observing others preparing to stay
6. Previous experience with hurricanes or strong storms
7. Having unnecessarily evacuated previously
8. Concern for personal and/or family safety
9. Concern that your home would be severely damaged or destroyed by the hurricane
10. The anticipated/projected intensity of the storm
11. Protecting your home from looters
12. Protecting your home from storm damage
13. Evacuation expenses (for example, for gas, food, or lodging)
14. Lost income from your job or losing your job
15. Physical or medical impediments for yourself or others you care for
16. Traffic accidents or traffic jams during evacuation
17. Lack of physical resources to evacuate (for example, not having a car)
18. Your home/neighborhood being isolated by road damage from floods or landslides
19. Other \_\_\_\_\_\_\_\_\_

**Q25.** On a scale of 1 to 5 where 1 signifies “not at all likely” and 5 signifies “extremely likely”; At the moment you decided whether or not to evacuate, how likely was each of the following, did you think?: *(Select only one answer for each item).*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 1- Not at all likely | 2 - Somewhat likely | 3- Moderately likely | 4- Very likely | 5- Extremely likely | (99) N/A - not applicable |

1. The storm would be a major (for example, Category 3, 4 or 5) hurricane when it made landfall?
2. The eye of the storm would pass through the island?
3. Your home would be flooded by saltwater or freshwater?
4. Your home would be severely damaged or destroyed by landslides?
5. Your home would be severely damaged or destroyed by storm wind?
6. You and or household members would be injured or killed?
7. Your pets or farm animals would be injured or killed?
8. There would be disruption to electrical, telephone, and other basic services?
9. Job disruptions would prevent you or household members from working?

**Q26.** Did you or anyone else in your household evacuate in anticipation of Hurricane Maria? Reminder: *Evacuation is defined as leaving your location to go somewhere perceived to be safer (for example, a public shelter)*. *(Select only one)*

1. Yes, the entire household evacuated.
2. Yes, I evacuated, but some in my household did not.
3. Yes, others from my household evacuated, but I did not.
4. No, no one evacuated.

**Q27.** If anyone did evacuate, was it because of a mandatory or forced evacuation?

1. Yes, there was a mandatory evacuation order with which we complied. (i.e. we followed instructions)
2. Yes, we were forced to evacuate. (i.e. we were physically escorted from the premises)
3. No, we decided on our own to evacuate without being aware of any orders.
4. N/A (no one evacuated)
5. Other \_\_\_\_\_\_\_ *(for pilot)*

**Q28.** For you personally, do you feel your evacuation decision was the correct choice? (*Select all that apply)*

1. Yes, evacuating was the correct thing to do.
2. Yes, not evacuating was the correct thing to do.
3. No, I wish I had evacuated.
4. No, I wish I had not evacuated.
5. *(for pilot) Briefly explain why or why not:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*Instruction for Interviewer:* If Q26=4 & Q27=4; then skip to Q35

**Q29.**  How long do you estimate it took between the time you or the members of your household decided to evacuate and when you actually evacuated?

Enter time estimate in hours; or days plus hours (if greater than 24 hrs.) \_\_\_\_\_\_\_\_\_

**Q30.** If any, what actions did you or the members of your household take after you decided to evacuate, but before you actually evacuated? (*Select all that apply*) [For coding: 0 = not selected, 1 = selected]

a. Travel home from somewhere (for example, work)

b. Pack items to take / load vehicle

c. Attend to pets or farm animals

d. Protect my home/property from the storm (for example, board up windows, prepared house by shutting off utilities, shutting windows/garage door, bringing in lawn furniture)

e. Gather all of the persons who would evacuate with you

f. Communicate plans to loved ones/others

g. Travel elsewhere from home (for example, to get gas, medicines, money, food/water, or property protection materials, etc.) before leaving

h. Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

i. I/they did not do anything after deciding to respond; left immediately

j. I don’t know / don’t recall

**Q31.** My household actually evacuated (left/traveled away from your home to a safer location) on the following date. *(select only one)*

1. Saturday Sept 16, 4 days before landfall
2. Sunday Sept 17, 3 days before landfall
3. Monday Sept 18, 2 days before landfall
4. Tuesday Sept 19, 1 day before landfall
5. Wednesday Sept 20, day of landfall
6. September 21st, day after landfall
7. Other date (please specify): \_\_\_\_\_\_\_\_\_\_

99. Don’t recall

**Q32.** Where did you evacuate to, and stay, during Hurricane Maria? *(Select only one)*

1. Home of friend or relative
2. Hotel, motel, or rental property
3. Public or private emergency shelter
4. Other (please specify): \_\_\_\_\_\_\_\_\_\_\_\_

**Q33.** On a scale of 1-5 where 1 signifies “Not at all safe” and 5 signifies “Extremely safe”; Thinking back on your experience, how safe was the place you evacuated to and stayed? *(Select only one)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1- Not at all safe | 2 - Somewhat safe | 3- Moderately safe | 4- Very safe | 5- Extremely safe |

**Q34.** On a scale of 1-5 where 1 signifies “Much less safe”, 3 signifies “The same” and 5 signifies “Much more safe”; Thinking back on your experience, do you think the place you evacuated to and stayed during Hurricane Maria was safer than your residence? *(Select only one)*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1- Much less safe | 2 - Somewhat less safe | 3- The same safety | 4- Somewhat safer | 5- Much more safe |

**Part 7: Impacts & Health Related Questions**

Instructions: *“The following questions are related to impacts, including deaths and injuries, from the storm. This can be very difficult to talk about, so please let me know if you would prefer not to answer any of these questions.”*

**Q35.** Did you or anyone in your household need medical assistance in order to evacuate from Hurricane Maria (such as physical assistance or special equipment)? *(Select only one)*

1 = Yes

0 = No

99 = Prefer not to answer

**Q36.** Were you or anyone else in your household injured because of the hurricane, from things like: wind, rain, floodwater, landslides, debris, or building damage or failures? *(Select only one)*

1 = Yes [If Yes] continue to **Q37**

0 = No [If No] skip to **Q38**

99 = Prefer not to answer [If Prefer not to answer] skip to **Q38**

**Q37.** Please indicate the number of people injured in the following categories:

1. By exposure to wind-borne debris, floodwater, or landslides? \_\_\_\_\_\_
2. By damage to or failure of buildings (for example, broken windows or roof collapse)? \_\_\_\_\_\_
   1. If yes, what kind of building? (for example, house or storm shelter): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. By other items not included in the previous two categories? (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q38.** Were you or anyone else in your household injured from after-effects of the hurricane such as loss of utilities, loss of medical care, or cleanup and recovery activities? *(Select only one)*

1 = Yes [If Yes] continue to **Q39**

0 = No [If No] skip to **Q40**

99 = Prefer not to answer [If Prefer not to answer] skip to **Q40**

**Q39.** Please indicate the number of people injured in the following categories:

1. Due to the loss of power, water, transportation or other utilities? \_\_\_\_\_\_
2. Due to lack of medical care or necessary medication? \_\_\_\_\_\_
3. Because of clean-up or other hurricane recovery activities? \_\_\_\_\_\_
4. Other cause (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q40.** Did anyone from your household die because of the hurricane, from things like: wind, rain, floodwater, landslides, debris, or building damage or failures? *(Select only one)*

1 = Yes [If Yes] continue to **Q41**

0 = No [If No] skip to **Q42**

99 = Prefer not to answer [If Prefer not to answer] skip to **Q42**

**Q41.** Please indicate the number of people who perished in the following categories:

1. By exposure to wind-borne debris, floodwater, or landslides? \_\_\_\_\_\_
2. By damage to or failure of buildings (for example, broken windows or roof collapse)? \_\_\_\_\_\_
   1. If yes, what kind of building? (for example, house or storm shelter): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. By other items not included in the previous two categories? (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q42.** Did anyone from your household die because of after-effects from the hurricane such as loss of utilities, loss of medical care, or cleanup and recovery activities? *(Select only one)*

1 = Yes [If Yes] continue to **Q43**

0 = No [If No] skip to **Q44**

99 = Prefer not to answer [If Prefer not to answer] skip to **Q44**

**Q43.** Please indicate the number of people who perished in the following categories:

1. Due to the loss of power, water, transportation or other utilities? \_\_\_\_\_\_
2. Due to lack of medical care or necessary medication? \_\_\_\_\_\_
3. Because of clean-up or other hurricane recovery activities? \_\_\_\_\_\_
4. Other cause (please specify): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q44.** How was your house affected by Hurricane Maria? Please tell us which of the following conditions apply. *(Select all that apply)* [For coding: 0 = not selected, 1 = selected]

1. House uninhabitable after the storm
   1. If yes, for how long (in days)? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Rain entered house
3. Flood waters entered house
4. Landslide on property or that impacted house
5. Loss of power
6. Loss of water
7. Loss of telecommunications
8. Damage to windows/ doors/ walls
9. Minimal to moderate damage to roof; less than 50% impacted
10. Considerable damage to roof; more than 50% destroyed
11. Collapse of house, or completely destroyed

**Q45.** Which of the following supplies and services did you and/or your family need within 72 hours of Hurricane Maria, but did not have? *(Select all that apply)* [For coding: 0 = not selected, 1 = selected]

1. Safe drinking water and/or food
2. Utilities such as water, power, gas or electric
3. Phone or Internet connection; ability to contact friends and family
4. Medication; medical supplies or equipment (oxygen, wheelchair, hearing devices, etc.)
5. Cash; means to purchase needed items
6. Critical documents for identity, banking, insurance, etc.
7. Emergency power (generator)
8. Gasoline for vehicles or generator
9. Other (please describe):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Q46.** Within the first two weeks after Hurricane Maria, did anyone in your household have difficulty getting healthcare for any of the following reasons? *(Select all that apply)* [For coding: 0 = not selected, 1 = selected]

1. Transportation: roads closed, lack of public transportation; no ambulances
2. Communication: 911 not working; cell or landline service unavailable
3. Hospital closed
4. Hospital not accepting patients or key services not available (x-rays, etc.)
5. Clinic or doctor’s office closed
6. Dialysis center closed
7. Pharmacy closed/out of medicines
8. Lack of ability to pay for the services (for example, no cash, credit didn’t work, etc.)
9. Other (please describe): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. No one in my household needed healthcare

**Part 8: Socio-Demographic Questions**

Instruction: *“The last set of questions will provide us with some additional information regarding you and your household and will help us to better understand how different types of people respond to hurricanes. If you are uncomfortable responding to any of these questions you may skip the question.”*

**Q47**. How old are you? *(Select only one)*

1. 18-24 years old
2. 25-34 years old
3. 35-44 years old
4. 45-54 years old
5. 55-64 years old
6. 65-74 years old
7. 75 years or older

**Q48.** Which category best describes your sex? *(Select only one)*

0 = Male

1= Female

**Q49.** Which of the following categories best describes your ethnicity? *(Select only one)*

0 = Hispanic or Latino

1 = Not Hispanic or Latino

**Q50.** Which of the following categories best describes your race? *(Select one or more)* [For coding: 0 = not selected, 1 = selected]

1. Black or African American
2. White
3. American Indian or Alaska Native
4. Asian
5. Native Hawaiian or other Pacific Islander

**Q51.** What was your highest level of education completed in 2017? (Just before Hurricane Maria)? *(Select only one)*

1. Less than high school diploma
2. High school diploma or equivalent
3. Some college
4. Associate degree
5. Bachelor degree
6. Graduate degree (MS, MA, PhD, or professional degree beyond Bachelor’s)

**Q52.** Which of the following categories best describes your employment status in 2017 (just before Hurricane Maria)? *(Select only one)*

1. Employed full-time [including self-employed], working 37.5 or more hours per week
2. Employed part-time [including self-employed], working fewer than 37.5 hours per week
3. Not employed
4. Retired
5. Disabled, not able to work
6. Stay at home parent

**Q53.** Please tell us how many individuals in the following categories, including yourself, lived in your household in the days just before Hurricane Maria made landfall? *(Please insert numbers in each category, even if “0”.)*

1. Infants and children 0- 12 years old \_\_\_\_\_\_\_\_\_\_\_\_
2. Children and teens 13 - 17 years old \_\_\_\_\_\_\_\_\_\_\_
3. Adults 18 - 64 years old \_\_\_\_\_\_\_\_\_\_\_\_
4. Adults 65 and older \_\_\_\_\_\_\_\_\_\_\_\_
5. Pets \_\_\_\_\_\_\_\_\_\_\_
6. Livestock/other farm animals (estimate) \_\_\_\_\_\_\_\_\_\_\_

**Q54.** Please estimate your annual household income for 2017 just prior to Hurricane Maria, (from all sources, including yourself). *(Select only one)*

1. Less than $5,000
2. $5,000 to $9,999
3. $10,000 to $14,999
4. $15,000 to $19,999
5. $20,000 to $24,999
6. $25,000 to $34,999
7. $35,000 to $44,999
8. $45,000 to $54,999
9. $55,000 to $64,999
10. $65,000 or more

**Part 9: Closing Questions**

Instruction: *“Thank you so much for taking the time to complete this survey with us.”*

**Q55.**Our team may be interested in conducting longer interviews with people regarding their evacuation decisions. Would you be interested in participating in a longer interview?

0 = No

1 = Yes

**Q56.** *Do you have any comments or questions about what we have discussed in this survey?”*

[open text box]

**Part 10: Required Language**

*“A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid OMB Control Number. The approved OMB Control Number for this information collection is 00693-0078. Without this approval, we could not conduct this survey. Public reporting for this information collection is estimated to be approximately 45 minutes in total, per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the National Institute of Standards and Technology at: 100 Bureau Drive, Gaithersburg, Maryland 20899, Attn: Katherine Johnson, Social Scientist and National Construction Safety Team Member, NIST Engineering Laboratory; or contact at katherine.johnson@nist.gov.*