

Risk Communication During Hurricanes Fiona and Ian in Puerto Rico and Florida

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Project Overview

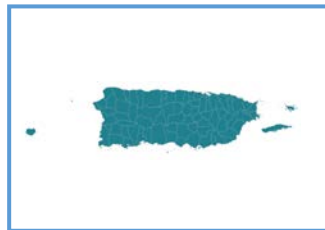
Purpose

This study explores risk and health communication by news media and government officials during Hurricanes Fiona and Ian, in Puerto Rico and Florida, respectively.

The purpose of this study is to examine communication resources used by these communicators, identify lessons learned and risk communication challenges experienced, in order to offer evidence-based recommendations to improve information exchange during disasters.

Research Site

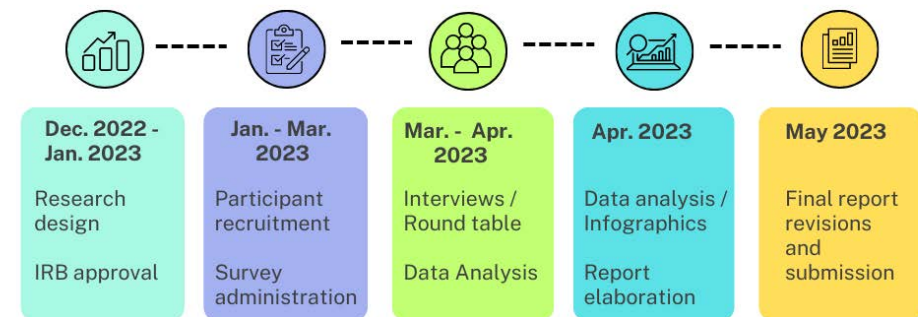
Puerto Rico



Florida



Research timeline



Research Questions

1

How did [news media decision-makers](#) (news editors, assignment editors, journalists assigned to health and risk news) gather, evaluate, and disseminate crucial health and risk information prior to, following and during the recovery efforts from Hurricanes Fiona in Puerto Rico and Ian in Florida?

2

How did [government information officials](#) (e.g., press officers, public relations staff, health/risk/emergency information staff) assess, gather, evaluate, and disseminate health and risk information prior to, following, and during the recovery efforts from Hurricane Fiona in Puerto Rico and Hurricane Ian in Florida?

3

What [similarities or differences](#) distinguish the studied operations, practices, and policies of news media and government information personnel in Puerto Rico vis-à-vis Florida?

4

What [recommendations](#) are needed to better meet the needs and challenges of the news media and government information personnel in Puerto Rico and Florida?

Methods

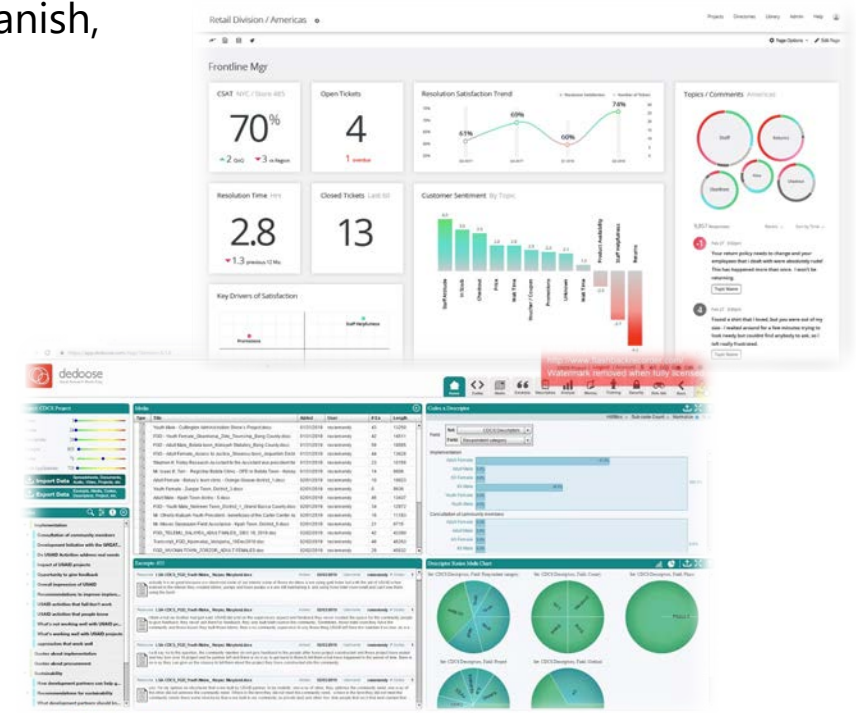
This mixed-method (qualitative-quantitative) study was conducted in English and Spanish, from January to May 2023 in Puerto Rico and Florida.

Sample: Government officials and news media directors from Puerto Rico and Florida

Instruments:

- Survey consisting of 15-item questionnaires
- Personal interviews with open-ended questions
- Round Table Discussion*

The surveys were administered and analyzed using the Qualtrics platform. Data from interviews and Round Table was analyzed using Dedoose qualitative analysis program.

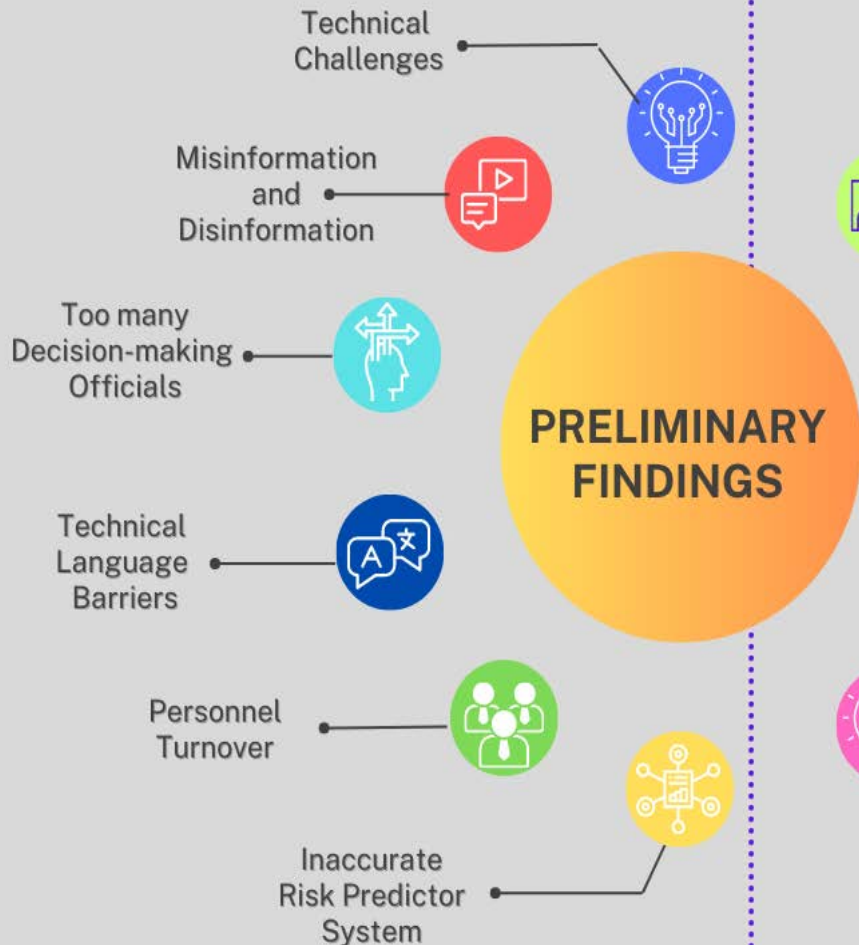


*Because of the limited universe—and thus, sample—of this study, a round table discussion was conducted with communication experts with risk communication experience during Hurricane María in Puerto Rico to validate and provide context to findings.

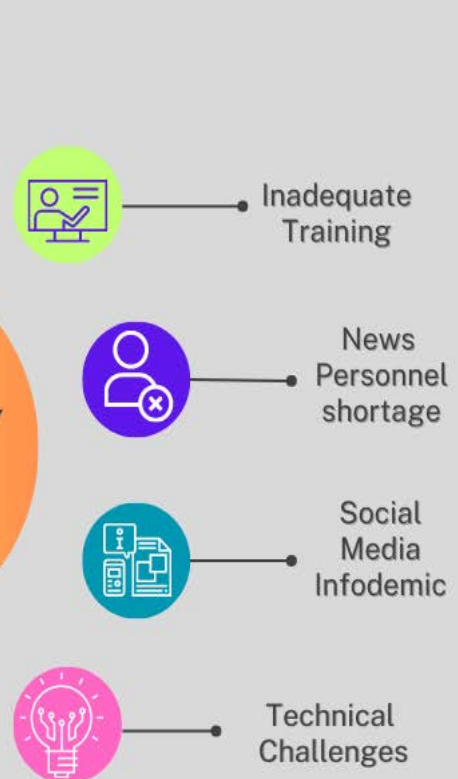
Preliminary Findings

Risk and Health Information Challenges: Government and Media

Government



Media



Similarities:

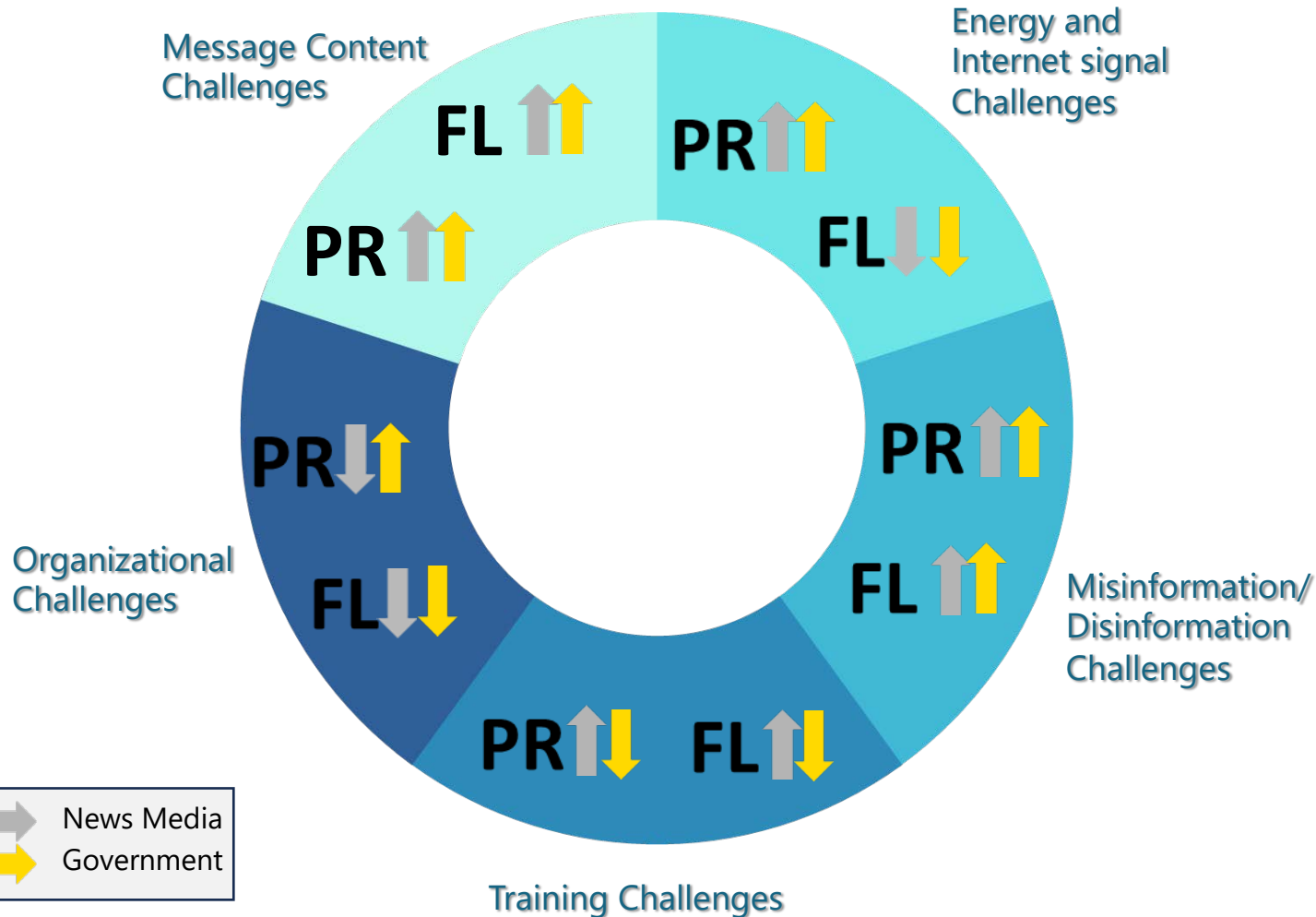
- In both, government and news media, risk communication challenges include technical challenges, such as power and Internet failures.
- Both also struggle with conveying technical language into useful information for the public.
- For both, unofficial information, misinformation and disinformation on social media present a big challenge.

Differences:

- Government has risk communication management infrastructure issues, as there are too many decision-making officials, and unstable political situation accounts for frequent and high personnel turnover.
- New media directors struggle with inadequate risk communication training and personnel shortage.

Preliminary Findings

Risk and Health Information Challenges: Florida vs. Puerto Rico



Similarities:

- In both, Florida and PR, risk communication challenges include technical challenges, such as power and Internet failures during the event.
- Both also struggle with conveying technical language into useful information for the public.
- For both, unofficial information, misinformation and disinformation on social media present a big challenge.

Differences:

- In Puerto Rico, organizational challenges, especially in the government, are greater than in Florida.
- Energy and Internet signal challenges are greater and last longer in Puerto Rico.
- In Florida, language barrier and culture differences pose an added challenge.



Public Health Implications



1

The destructiveness of these hurricanes has raised concerns regarding the efficiency and effectiveness of disaster risk and health communication policies and practices, increasing morbidity and mortality associated with chronic diseases.

2

Inefficient communication about flooding and destruction aftermath directly harms public health as illnesses like leptospirosis, and other infectious diseases spread.

3

Risk communication competency is a pressing issue with vital implications for news media and government officials. Lack of trust may lead to inadequate decisions regarding safety and health, as people turn to unofficial information.

Public Health Implication

1



Increase of morbidity and mortality associated with chronic diseases.

Ineffective risk and health communication during emergencies hampers chronic condition patients' ability to take precautionary measures, such as ensuring access to treatments and adequate medication storage and supply.

Public Health Implication

2



Inefficient communication about flooding and destruction aftermath directly harms public health as illnesses like leptospirosis, and other infectious diseases spread.

This is especially true in underserved populations where access to clean water and flooding prevention can be great challenges.

Public Health Implication

3



Risk communication competency is a pressing issue with vital implications for news media and government officials.

Key elements of risk communication involve trust. If people do not trust their officials, they will turn for information elsewhere, which could lead to inadequate decisions regarding their safety and health.

Recommendations

After carefully reviewing the findings on this study, researchers make the following recommendations to improve the effectiveness and efficacy of risk and health communication during weather events:

- Continuous Risk/Health Communication trainings for news media and all personnel involved in communication to the public during emergency situations.
- Involvement of community leaders and community organizations in risk/health communication during emergencies.
- A reengineering of risk communication management infrastructure in the government, focused on reducing decision-making officials and producing an integrated, coordinated, and more efficient communication structure.
- A dependable communication network and the creation of an active rumor monitoring / debunking system.
- The creation of an alternate weather event scale that can properly calculate the disaster potential by considering not only the strength of winds, but also the flood potential of the storm in each area.



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