# Narrative Framework Can Influence Public Behavior Before a Weather-related Crisis: Public Information and Strategic Storytelling

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**Abstract**

When listening to risk communication messages, does the public hear what they expect? Or do they listen to envision their future? The purpose of this applied research paper is to determine whether a public information officer (PIO) can influence public behavior by using a non-traditional narrative framework to orally tell a story that will persuade people to envision taking recommended action to protect themselves and others during a weather-related crisis. This paper explores how a PIO spokesperson can harness the power of a springboard-style storytelling framework for risk communication. The original springboard story method as described by author Stephen Denning makes a connection with listeners, so they can imagine the next story of their own future action. Results of this paper's primary research supported the hypothesis that use of a narrative framework of public information and strategic storytelling influences perceived behavior of taking action in a weather-related crisis. The study explored linkages between a storytelling approach with listeners' perceptions of their level of personal risk and decision to act. The written questionnaire (N = 304) embedded two video statements. Respondents first heard a PIO give a traditional statement followed by a narrative message relative to forecasted risks of floodwater and mudslide. The first statement was explicit, constructed in four sections. The second message was more implicit than explicit, constructed in a 12-segment strategic storytelling narrative framework. This paper shows how use of a narrative framework to orally communicate risk is a key behavioral variable, with the greatest influence on behavior among those whose primary motivation to act is to consider feelings and relationships and among people influenced by an emotional appeal. This paper also provides guidance for future research.

*Keywords:* Narrative framework, strategic storytelling, springboard-style storytelling, emotional appeal, influencing public behavior, risk communication, weather crisis

## Narrative Framework Can Influence Public Behavior Before a Weather-related Crisis: Public Information and Strategic Storytelling

When skies turn dark with precipitation and a weather-related event unfolds, the skills of a public information officer (PIO) could soon be on public display. When the PIO skillset includes strategic storytelling to orally communicate risk, public behavior can be influenced to take mitigating action. Risk communication presents information to ordinary people in extraordinary circumstances that helps them take action to avoid loss of life, property, and environment. Storytelling in risk communication can effectively augment analytical thinking, be non-threatening, and add meaning to an uncertain future. It can elicit an emotional response. Strategic storytelling can simplify complex, explicit information and offer a springboard to new implicit insight and a change in behavior. By coupling public information and strategic storytelling using a springboard-style narrative framework, the PIO spokesperson can influence the public's behavior to take essential action before impact of environmental forces such as a storm, floodwater, or mudslide.

Storytelling can be considered a matter of showing, not just telling as can be said for public information. "Heavy rain will cause a mudslide that will trap people" is public information. "The heavy rains will cause a mudslide that will trap people who do not evacuate" is a story, which is more compelling, personalized, and persuasive. The first message is sequential and the second is consequential. A springboard-style story can influence the listeners to move in the direction intended by the PIO storyteller, movement they can see in their mind's eye. "The heavy rain will cause a mudslide. You will be safe when you evacuate to the shelter." This encapsulated story springboards the listener to envision how to reconcile their struggle, creating a positive outcome in their mind.

## Storytelling and Narratives of Risk

According to communication researchers Seeger and Sellnow (2016) who center their writing around crises and the resulting narratives, "because humans frame meaning and understanding through stories, the narrative form is particularly powerful in shaping action" [during times of crises] (p. 163).

Seeger and Sellnow (2016) continue, "[Crisis] storytellers are strategic in their choices about how best to achieve their goals. Often some aspects of the story are emphasized over others" (p. 174). "The narrator may choose to allow the audience to draw their own conclusion from an incomplete narrative" (p. 175). Those in harm's way combine their own personal narratives of experience, values, and perspective when making meaning of risk and natural disaster. "They [crisis stories] help society assess what is risky and dangerous and what actions need to be taken to avoid harm" (p. 164).

Dennis Mileti (1999), considered to be one of the world's leading risk communication scholars, explains how individuals make decisions about hazard mitigation, "They lack insight and consistency regarding present and future preferences, planning only for the immediate future and forecasting that future mainly on the basis of the immediate past" (p. 137).

## A Springboard-Style Story in Risk Communication

Stephen Denning (2001), author and former director of knowledge management at World Bank, describes the concept of a springboard story as "a story that enables a leap in understanding by the audience, so as to grasp how an organization or community or complex system may change" (p. xviii). Key aspects to Denning's springboard stories include: the story is told orally; the story is concise with limited details; the story has comprehensibility, strangeness,

and connectedness. The major focus of the work by Denning (2001) is the use of storytelling within business, not by PIOs.

The springboard story's purpose is to spark "new stories in the minds of the listeners, which they would invent in the context of their own environments" (pp. xix-xx). Listeners "make the imaginative leap from the explicit story that I was telling, to the implicit story that I was trying to elicit in their minds" (p. xix-xx).

Seeger and Sellnow (2016) confirm the point that "all parties touched by the crisis have the opportunity to participate in the narrative" (p 18). "These are stories that need to be told, but they also need to be understood as stories with limitations, distortions, and inaccuracies" (p.162). Through strategic portrayal of events, the spokesperson can influence listeners by emphasizing certain elements of the story over others, making connections to other elements and events, and omitting some details (Seeger & Sellnow). "If the listeners are stimulated to think actively about the implications, they can understand what it will be like to be doing things in a different way" (Denning, 2001, p. xx). Thoughts change from whether to take action to how. Thoughts change from the explicit story to the implicit story by "imagining a parallel story in their own mind" (p. 159)

**Descriptions of the Non-narrative and Narrative Risk Communication Messages**

With the Denning (2001) and Seeger and Sellnow (2016) books as inspiration, two PIO risk communication messages were crafted to be tested for their level of influence on the listening audience to take mitigating action based on the following weather-related scenario: Consistently heavy rain has saturated the hillside with localized mudslides predicted that could block roads, cause flooding, and trap people. All aspects of the study scenario are fictitious.

The first public information statement tested was explicit, traditional, and constructed in four sections using a message map. The second statement tested was more implicit than explicit, constructed in 12 segments by integrating a storytelling narrative framework with persuasion techniques and rhetorical devices. The narrative framework was constructed to present listeners with solutions to spark their own insight, accelerate their decision-making process, and springboard them toward taking desired mitigating action. The first statement can be considered sequential, the second consequential.

### Public Information Officer Challenges

Challenging a familiar cadence of existing approaches to information dissemination on public flood warning can create a level of complexity. A PIO may be challenged to explain to emergency management, weather service, and other professionals how strategic storytelling during risk communication can be considered additive rather than competitive with past practices of timely presentations of logic and reason. In the court of public opinion, the use of a PIO springboard-style strategic storytelling about risk communication may be challenged before being accepted as reliable, credible, and not considered condescending. The terminology of "strategic storytelling" could be challenged, questioning whether the phrase "stories that tell" might have more appeal than "storytelling" relative to public information. Challenges are tests where the strongest ideas survive and thrive.

## Methodology

To craft a strategic storytelling narrative framework, this author used knowledge gained from Federal Emergency Management Agency (FEMA) PIO courses, the Center for Disease Control and Prevention (CDC) Crisis and Emergency Risk Communication (CERC) program, persuasion techniques, public speaking practices, and professional experience. These elements

were aggregated with a notion of how to modify a springboard story for use by a PIO to communicate about a weather-related crisis. The result was the creation of a 12-segment springboard-style strategic storytelling narrative framework with persuasion techniques and rhetorical devices (Appendix G), with each segment identified as relevant.

The central assumption within this paper's research is that within the Denning (2001) springboard story, oral communication is a key variable in influencing behavior. As such, the methodology for this paper's primary research was to conduct one qualitative study combining written and oral communication. To test the theory of how a springboard-style message could influence behavior, two PIO statements were written. The first statement was constructed following a message map framework (Appendix E). This statement is referenced in the questionnaire as messaging with emphasis on external factors/outside forces (Appendix A).

The first external factors statement was constructed in four sections: i) define the problem, ii) frame consequences of the problem, iii) involve the public in decision-making about the problem, and iv) identify success over the problem (Appendix E).

The second statement, in which the public call to action springboards into the public's own personal call to action, is referenced in the questionnaire as a narrative message with emphasis on internal factors/feelings and beliefs (Appendix A).

The second internal factors narrative message was constructed in 12 segments: i) call to action with timeframe, ii) get their attention, iii) acknowledge the backstory, iv) frame prior decision as correct at that time (persuasion technique), v) acknowledge uncertainty with empathy, vi) acknowledge fear using rhetorical questions, vii) concede past practice (springboard element and rhetorical device of metaphor), viii) envision the future (springboard element and rhetorical device of anaphora), ix) spark desire for a happy ending (springboard element), x)

invite them to be a hero (springboard element), xi) social labeling of the listening audience (persuasion technique), and xii) tie-back with "because" reasoning (persuasion technique) (Appendix G).

Three persuasion techniques were chosen to be included in the narrative framework from among the 50 techniques identified by authors Goldstein et al. (2008) who write about influence: i) "praising their previous decision as correct 'at the time that they made it'" (p. 82), ii) the "labeling technique" (p. 69), and iii), the "unique motivational influence of the word *because*" (p.151). Social labeling can persuade the listener to act consistently with the labeled behavior. Because-reasoning can persuade the listener to act by making a request, followed by the word "because", and then providing a reason for the request (Goldstein et al.).

The script for the first external factors statement has a Flesch-Kincaid Grade level of 7.8 (Appendix D). Flesch-Kincaid is a readability formula that relates to an approximate U.S. reading grade level of text. A common target is to write at an eighth grade reading level or lower for best comprehensibility. The 2 minute 18 second recording by the PIO actor can be accessed here: https://www.youtube.com/watch?v=Hsh9aXn132Q.

The script for the second internal factors narrative message has a Flesch-Kincaid Grade level of 5.4 (Appendix F). The 2 minute 17 second recording by the PIO actor can be accessed here: https://www.youtube.com/watch?v=RZwrfsqhce0

The two video statements were embedded into a written questionnaire and sequenced to have the traditional public information statement viewed first and the storytelling narrative message viewed second. At the beginning of the questionnaire, assumptions were presented to the survey respondents to state that public speaking techniques and other specific aspects of the videos would or would not be considered by respondents (Appendix A Housekeeping Details,

Assumptions for the Scenario). Respondents were asked to place themselves into the scenario as if they were in their home in the fictitious Hillside County watching local breaking news. They were then asked to interpret the effectiveness of the two statements and envision their perceived behavioral responses in the scenario.

The study was conducted July 12-26, 2023, via a Google Forms online questionnaire. To capture response data from states outside of Wisconsin, where this author lives, requests were made to targeted professional associations, organizations, agencies, networks, and groups within the fields of public information, emergency management, and public relations to promote participation (Appendix K). This method could be considered as oversampling individuals with greater awareness of public information and emergency management. An organic snowball sampling method, in which others recruited respondents, helped expand the reach. Study: N = 304. Sixty percent of all respondents live in the Midwest region of the U.S., 18% in the South region, 13% in the West region, and 9% in the Northeast region (Appendix C–1 Table 8).

The questionnaire included two 2-minute videos, nine multiple choice and three open-ended questions (Appendix A). Estimated average time to complete the questionnaire was 10-12 minutes. Responses were collected anonymously.

Though the 304 respondent-total is a non-scientific, non-statistically significant sample of United States residents, this author feels it is satisfactory to generalize the data to the general public due to the sample size and response reach from across the U.S. (Appendix C–1).

To create a cohort of public information officers (PIOs) and/or external affairs officers (EAOs) and to test whether PIOs/EAOs respond similarly or differently than the public, they were asked to self-identify. Eighty-four respondents are PIOs/EAOs from across the U.S. (Appendix C–1 Table 9, Table 27).

All respondents were asked to self-select one of three statements that best defined their primary motivation to act: 50% weigh pros and cons, 40% are decisive decision-makers, and 10% consider feelings and relationships (Appendix C–1 Table 3).

When considering how to influence behavior, communications coach and author Gallo (2014) advises use of Greek philosopher Aristotle's components of persuasion: "Ethos (credibility), Logos (evidence and data), and Pathos (emotional appeal)" (p. 48-49). To consider the perceived influence of the PIO statements, open-ended comments on the most persuasive message points in one or both videos were coded as either Ethos, Logos, or Pathos. Though the Logos messaging, defined as logic, reason, evidence, and data, appealed to approximately two-thirds of respondents, the Pathos messaging, defined as emotional impact through storytelling, emotional triggers, and vivid language, appealed to approximately one-third of respondents (Appendix C–1 Table 23).

Not tested specifically within the survey tool was the assumption that some respondents live in states where their vulnerability to and familiarity with natural disasters are assumed higher than residents in other areas of the country, which could have influenced their perspective on a severe weather event response. For example, nearly all respondents (93%) who live in the South region of the U.S. had personal experience with a weather crisis (Appendix C–1 Table 14C).

Additional cross-industry, scholarly, social and behavioral sciences articles on topics such as narrative persuasion, narrative transportation, and processing fluency by cognitive narratologists, academics, and other esteemed professionals were reviewed and discarded as considered outside the scope of this paper.

## Results and Findings

The vision for the study was to administer scenario-based research by using online video of a recorded PIO actor who would orally and sequentially present two public safety messages to residents in a fictitious county about a multi-hour, forecasted weather-related event using two different styles of risk communication, first a traditional public information statement followed by a springboard-style strategic storytelling narrative message (Appendix A).

### Summary of the Primary Research Results

A quantitative data analysis of descriptive statistics from the multiple-choice questions and inferential statistics from data cross-tabulation and factor analysis is found in Appendix C–1. A qualitative data analysis from comments to the open-ended questions is found in Appendix C–1. Narrated result summaries of Appendix C–1 tables with various N factors are found in Appendix C–2.

The primary research found that nearly two-thirds of respondents (59%) perceived they would take action to mitigate their risk based on listening to the traditional risk communication statement (Appendix C–1 Table 4). Yet a full one-third of respondents (34%) were persuaded to take action after listening to the storytelling narrative message (Appendix C–1 Table 6).

Respondents who identified their primary motivation to act as either decisive decision-maker or as weighing pros and cons were more likely to act after listening to the first external factors statement (Appendix C–1 Tables 16A, 16C) than those who identified their primary motivation to act as considering feelings and relationships (Appendix C–1 Table 16B). The second narrative message was perceived as significantly more actionable to those who consider feelings and relationships (Appendix C–1 Table 18B) than to those in the two other respondent groups.

Respondents who check with others important to them before choosing to act were somewhat more influenced by logic than emotion (Appendix C–1 Table 24B). Respondents who wait to see what develops before taking action were twice as likely to be influenced by logic than emotion (Appendix C–1 Table 24C).

Respondents who, after hearing the second narrative message, could imagine the future in the scenario were nearly three times more likely to act than the respondents who perceived they would take action based on facts (Appendix C–1 Table 22B). Thirty percent of all respondents considered the most persuasive message points of the statements to be those with an emotional impact (Appendix C–1 Table 23).

Though the vast majority of respondents (74%) had direct personal experience with a weather-related crisis (Appendix C–1 Table 1), the perceived levels of influence from the first external factors statement and the second narrative message were remarkably similar regardless of whether respondents did or did not have direct personal experience (Appendix C–1 Tables 11A, 11B, 13A, 13B).

## Lessons Learned

The research clearly confirmed that the public (100%) pays attention to traditional risk communication weather warning messaging (Appendix C–1 Table 2), regardless of whether they have or have not had direct personal experience with a weather-related crisis. The research also confirmed there is power in oral strategic storytelling to influence behavior during risk communication among persons who identify their primary motivation to act based on feelings and relationships, and among those who are influenced by an appeal to emotion.

Based on the research results, most PIOs are decisive decision-makers (Appendix C–1 Table 20A) and consider logic more influential than emotion (Appendix C–1 Table 26A).

Compare that to the public's dominant primary motivation to act as weighing pros and cons, along with approximately one-third of the public as being influenced by an appeal to emotion. The value statement to PIOs is: To best serve the community, a PIO spokesperson who presents two-sided risk communication messaging and includes an appeal to emotion through a strategic storytelling narrative can springboard the greatest number of people to envision taking the desired action to mitigate risk, protecting themselves, others, and the environment.

Though this N = 304 research cannot definitively indicate strategic storytelling can translate into life safety, this applied research paper is a solid foundation to propose consideration of whether it is time to shift the current traditional approach used to communicate risk during a weather-related crisis. Broad conversation along with further study leading to adoption of a narrative framework that links public information with oral strategic storytelling to mitigate risk are encouraged by this author.

Proposed ideas for further related research include, i) test whether, during times of risk communication, people listen for what they expect to hear or for what helps them envision their future, ii) study the 12 segments of the strategic storytelling narrative framework to identify the key variables that influence behavior to mitigate risk, iii) study how strategic storytelling influences behavior among those who feel they have warning fatigue, iv) identify if true fidelity to Stephen Denning's very short, oral springboard story with minimal details is more influential during risk communication than the 12-segment strategic storytelling narrative framework, and v) study how strategic storytelling can be effective beyond a forecasted weather-related crisis.

Additional ideas for further research were offered by eight survey respondents through the questionnaire's optional comment box (Appendix J Table 30). To call attention to one research suggestion, the respondent proposed study on the emotion associated with vest colors

worn by a PIO spokesperson. For purposes of this research project, the PIO wore orange and blue vests to help the survey respondents differentiate the two videos. The two colors were chosen for being color-blind friendly.

## Summary

To reach, inform, and influence the public who are confronting a weather crisis can be daunting for a PIO when lives are at stake. Research is beginning to show oral strategic storytelling that describes consequences and engages emotions can be effective in influencing the public to take mitigating action during a weather-related crisis.

The purpose of this paper was to identify a strategic narrative framework for use by the PIO to orally tell a story to influence the public's behavior to take the desired action prior to a forecasted weather-related crisis. This paper explored whether a concise storytelling method that sparks thoughts of action and leads people into the future as presented by Denning (2001) could be modified to create a strategic storytelling framework for risk communication to lead the public into the future where they envision themselves taking essential action to mitigate risk. Two public information statements on risk mitigation were written, sequenced, and tested to determine their level of influence on public behavior. Both statements were told orally. The first statement was non-narrative, sequential, and explicit. The second was narrative, consequential, and more implicit than explicit. The statements were not considered mutually exclusive, nor were they inconsistent. The applied research results corroborated the paper's hypothesis that use of a springboard-style strategic storytelling narrative framework has the power to influence future action of listeners to a measurable degree, especially among people whose primary motivation to act is to consider feelings and relationships and among those who are influenced by an appeal to emotion.

When PIOs consider how to write explicit, actionable risk communication messaging, there is need for consideration of what this study has found to be the most prominent communication preferences among the largest audience segments, which are to weigh pros and cons prior to taking action and to consider logic more influential than emotion. Yet, there also is need to attend to providing implicit communication for the approximate one-third of the public influenced by an appeal to emotion during risk communication, as well as people whose primary motivation to act is to consider feelings and relationships. PIOs are encouraged to diversify oral risk communication beyond traditional public information messaging by including strategic storytelling that springboards the listener to envision a better future outcome, accelerating their decision-making process to mitigate risk.

Risk communication helps people organize thinking outside of the internal noisy thoughts to fight, flee, or freeze. Narrative is more than simply moving people from point to point, connecting what-happens-next public information dots. Oral strategic storytelling narrative can provide context to understand the *why* that sparks people to action as they fill in the blanks on the *how,* seeing with their mind's eye their own future of protecting themselves, others, and the environment. It is the exceptional PIO who moves from storytelling as something we do to strategic storytellers as someone we are.

This paper is a springboard for you, the reader, to spark your future action relative to a strategic storytelling narrative in risk communication that can influence public behavior to take the desired mitigating action.

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**Index of Appendices**

## Appendix A

**Primary Research Questionnaire**

**QUESTIONNAIRE TITLE**
Effectiveness of Public Information Messaging during a Weather-related Crisis

**SURVEY METHOD**

- Two 2-minute videos embedded into written questionnaire with12 required questions
  - Nine multiple choice questions and three open-ended questions
  - One optional comment box
- All responses collected anonymously
- Created in Google Forms

**SURVEY WINDOW**

- July 12-26, 2023
- 10 – 12 minutes to complete questionnaire

**RESPONDENTS**
N = 304 completed questionnaires with respondents from throughout the United States

**APPENDIX REFERENCE**
Appendix B = Matrix of Questionnaire Questions and Associated Table Numbers

# Effectiveness of Public Information Messaging during a Weather-related Crisis

**PURPOSE AND SCOPE OF THE RESEARCH**

The purpose and scope of this questionnaire are to test the effectiveness and persuasiveness of two styles of public information messaging, and then to include the test results in the research paper I'm writing as a member of FEMA's Master Public Information Officer (PIO) program. I'm one of 19 PIOs from across the U.S. in this year's program. Following successful completion of the 10-month program, we will have earned the distinction of Master PIO. Our research papers will be published to contribute to the body of knowledge for emergency management-related public information. By participating in this questionnaire, you consent to the use of your anonymously-collected, disaggregated responses and comments in my research paper.

Please allocate approximately 12 minutes to complete the questionnaire.

* Indicates required question

## OVERVIEW OF THE QUESTIONNAIRE

You will be asked 12 questions, which will include open-ended and demographic questions. Included in the questionnaire are hyperlinks to two weather-related videos, sequenced as part of the scenario. Each video is approx. two minutes. Please place yourself into the scenario as if you are watching your local news station broadcasting breaking news.

Following each video, you will be asked to interpret the effectiveness of the risk communication and to envision your response in that scenario.

**HOUSEKEEPING DETAILS:**

- The names of the county, city, neighborhood, and schools are fictitious.
- Please adjust your volume to adequately hear the audio.
- You can watch a video more than once, if you choose.
- The Public Information Officer (PIO) wears two different vest colors simply to distinguish between the two videos.
- This survey is about the content. *What will NOT be evaluated: The public speaking skills and any non-verbal communication of the PIO actor, video quality, radar visual imagery.*

**ASSUMPTIONS FOR THE SCENARIO:**

- The PIO has a positive or neutral image in the community and will provide credible information.
- You have heard initial National Weather Service weather watches and have received at least one local public alert and warning system electronic message.
- You are currently in your home, which is either in Valley City or Highland Hills neighborhood, located in Hillside County.
- You are an English-speaker and can hear.
- You may add additional real-life filters as you envision yourself in the scenario.

**THANK YOU** in advance for taking the time to share your thoughts and reactions.

## SECTION 1

**Please select one response in each of the following three questions that best describes you.**

1. Q1) I have had direct personal experience with a weather-related crisis: *

   *Mark only one oval.*

   - ◯ Yes
   - ◯ No

2. Q2) My typical response to initial weather-related warnings is to: *

   *Mark only one oval.*

   - ◯ Pay attention
   - ◯ Somewhat pay attention
   - ◯ Ignore

3. Q3) Which statement best defines your primary motivation to act? *

   *Mark only one oval.*

   - ◯ I am a decisive decision-maker
   - ◯ I consider feelings and relationships
   - ◯ I weigh pros and cons

## SECTION 2

The scenario will begin when you watch the first video. The scenario will continue as you watch the second video.

The **first** video, given by a Public Information Officer (PIO) wearing an orange vest, presents public information with emphasis on external factors (outside forces).

The **second** video, given by a PIO wearing a blue vest, presents a narrative message with emphasis on internal factors (feelings and beliefs).

**Click the image to watch the first video.** In this video, the PIO is wearing an orange vest. Length: 2min 18sec. *To watch in full-screen mode, click bottom right corner icon. Or go to: https://www.youtube.com/watch?v=Hsh9aXn132Q*


http://youtube.com/watch?v=Hsh9aXn132Q

4. Q4) After hearing the message in the **first** video and imagining your level of personal risk, what is your decision? *

*Mark only one oval.*

- ◯ Prepare to evacuate and then do it
- ◯ Check with others important to me before deciding to either evacuate or stay at home
- ◯ Wait to see what actually develops before making a decision

5. Q5) To what degree did the **first** video message influence your decision to act? *

*Mark only one oval.*

- ◯ Not at all
- ◯ Very little influence
- ◯ Somewhat influential
- ◯ To a great extent

## SECTION 3

As you continue in the scenario, a period of time has passed since you heard the first breaking-news message from the PIO. **Click the image to watch the second video.** In this video, the PIO is wearing a blue vest. Length: 2min 17sec. *To watch in full-screen mode, click bottom right corner icon. Or go to: https://www.youtube.com/watch?v=RZwrfsqhce0*


http://youtube.com/watch?v=RZwrfsqhce0

6. Q6) After hearing the message in the **second** video, what was the result of your imagined level of personal risk and decision to act? *

*Mark only one oval.*

- ◯ Prepare to evacuate and then do it
- ◯ Check with others important to me before deciding to either evacuate or stay at home
- ◯ Wait to see what actually develops before making a decision
- ◯ It confirmed I made the right decision to evacuate after hearing the first statement

7. Q7) To what degree did the **second** video message influence your decision to act? *

*Mark only one oval.*

- ◯ Not at all
- ◯ Very little influence
- ◯ Somewhat influential
- ◯ To a great extent
- ◯ N/A - I had already decided to evacuate after hearing the first statement

**SECTION 4**

**Open-ended Questions**

8. Q8) What 1 or 2 words/phrases describe your reaction to the messaging in the **first** video? (The messaging emphasized external factors/outside forces) *PIO in orange vest.* *

_____

9. Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the **second** video? (The messaging emphasized internal factors/feelings and beliefs) *PIO in blue vest.* *

_____

10. Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements? *

_____

_____

_____

_____

_____

**SECTION 5**

**Demographics**

11. Q11) Select the region of the United States where you live: *

*Mark only one oval.*

- ◯ West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY
- ◯ Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI
- ◯ South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV
- ◯ Northeast: CT, MA, ME, NH, NJ, NY, PA, RI, VT
- ◯ Other: _____

12. Q12) Are you a Public Information Officer or External Affairs Officer? *(current, former, or retired)* *

*Mark only one oval.*

- ◯ Yes
- ◯ No

13. OPTIONAL: Share any final comment before submitting your responses.

_____

_____

_____

_____

_____

**CLOSING COMMENTS**

If you have interest in receiving the link to my final Master PIO paper, please send me an email:
Linda Wickstrom
WickstromPIO@gmail.com

To learn more about FEMA's Public Information Officer training and the Master PIO program:
https://training.fema.gov/programs/empp/pio/

You are free to forward the survey link to others who may be interested in participating:
https://forms.gle/EwHwZhbSTyUDWWVo7
**Survey window: July 12-26, 2023**

**THANK YOU** for sharing your valuable time and opinions to help advance the understanding of effective and persuasive PIO risk communication messaging and its sequencing.

Linda Wickstrom's LinkedIn profile: https://www.linkedin.com/in/wickstrl

## Appendix B

### Matrix of Questionnaire Questions and Associated Table Numbers

Questions 1 – 13 in Questionnaire and their References in Tables 1 – 31

**APPENDIX REFERENCES**

- Appendix A = Questionnaire research tool
- Appendix B = Matrix of Questionnaire Questions and Associated Table Numbers
- Appendix C–1 = Tables 1 – 27 | Quantitative Data Analysis and Qualitative Data Analysis
- Appendix H = Table 28 | Coded comments | Reaction to second video narrative message
- Appendix I = Table 29 | Coded comments | Most persuasive comments in one/both statements
- Appendix J = Tables 30 – 31 | Coded comments
    - Table 30 | Perceived value to a narrative message
    - Table 31 | Future research suggestions

**TOTAL NUMBER OF TABLES:** 53 (Tables 1 – 31)

**Questionnaire Question Numbers**

**Table Numbers**

| Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 21 | 22A | 23 | 8 | 9 | 30 |
| 10A | | 16A | 10A | 11A | 12A | 13A | | 22B | 24A | 14A | 15A | 31 |
| 10B | | 16B | 10B | 11B | 12B | 13B | | 25A | 24B | 14B | 15B | |
| 11A | | 16C | 16A | 17A | 18A | 19A | | 25B | 24C | 14C | 20A | |
| 11B | | 17A | 16B | 17B | 18B | 19B | | 26A | 25A | 14D | 20B | |
| 12A | | 17B | 16C | 17C | 18C | 19C | | 26B | 25B | 27 | 26A | |
| 12B | | 17C | 24A | | | | | 28 | 26A | | 26B | |
| 13A | | 18A | 24B | | | | | | 26B | | 27 | |
| 13B | | 18B | 24C | | | | | | 29 | | | |
| 14A | | 18C | | | | | | | | | | |
| 14B | | 19A | | | | | | | | | | |
| 14C | | 19B | | | | | | | | | | |
| 14D | | 19C | | | | | | | | | | |
| 15A | | 20A | | | | | | | | | | |
| 15B | | 20B | | | | | | | | | | |
| | | 27 | | | | | | | | | | |

**Matrix read top to bottom only**

**QUESTIONNAIRE QUESTIONS**

(Q1) I have had direct personal experience with a weather-related crisis:

(Q2) My typical response to initial weather-related warnings is to:

(Q3) Which statement best defines your primary motivation to act?

(Q4) After hearing the message in the first video and imagining your level of personal risk, what is your-decision? *PIO in orange vest.*

(Q5) To what degree did the first video message influence your decision to act? *PIO in orange vest.*

(Q6) After hearing the message in the second video, what was the result of your imagined level of personal risk and decision to act? *PIO in blue vest.*

(Q7) To what degree did the second video message influence your decision to act? *PIO in blue vest.*

(Q8) What 1 or 2 words/phrases describe your reaction to the messaging in the first video? (The messaging emphasized external factors/outside forces) *PIO in orange vest.*

(Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the second video? (The messaging emphasized internal factors/feelings and beliefs) *PIO in blue vest.*

(Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?

(Q11) Select the region of the United States where you live:

(Q12) Are you a Public Information Officer or External Affairs Officer? (current, former, or retired)

(Q13) OPTIONAL: Share any final comment before submitting your responses.

## Appendix C–1

**Quantitative Data Analysis and Qualitative Data Analysis | Tables 1 – 27**

**QUESTIONNAIRE TITLE**
Effectiveness of Public Information Messaging during a Weather-related Crisis

**DATA SOURCE**
- Two 2-minute videos embedded into written questionnaire with12 required questions
  - Nine multiple choice questions and three open-ended questions
  - One optional comment box
- N = 304 completed questionnaires with respondents from throughout the United States

**QUANTITATIVE DATA ANALYSIS**
- Tables 1 – 9 = Descriptive Statistics from 9 multiple-choice questions
- Tables 10 – 27 = Inferential Statistics from data cross-tabulation and factor analysis
- Tables 9, 15A, 20A, 26A, 26B, 27 = PIO/EAO cohort analysis

**QUALITATIVE DATA ANALYSIS**
- Tables 21 – 26B founded on comments from open-ended questions

**APPENDIX REFERENCES**
- Appendix A = Questionnaire research tool
- Appendix B = Matrix of Questionnaire Questions and Associated Table Numbers
- Appendix C–2 = Summaries of Tables | Quantitative Data Analysis and Qualitative Data Analysis
- Appendix H = Open-ended comments | Reaction to second video narrative message | Table 26
- Appendix I = Open-ended comments | Most persuasive comments in one/both statements | Table 28

**TABLE KEY**
- Table Heading in top row
- Questionnaire Question in second row
- Answer Choices listed in order presented in questionnaire

**TOTAL NUMBER OF TABLES IN APPENDIX C–1**
49 (Tables 1 – 27)

| **Table 1** Direct personal experience with a weather-related crisis | | |
|---|---|---|
| *(Q1) I have had direct personal experience with a weather-related crisis* | | |
| # of Responses | Percentage | Answer Choice |
| 224 | 74% | Yes |
| 80 | 26% | No |
| N = 304 | 100% | |

| **Table 2** Response to initial weather-related warnings | | |
|---|---|---|
| *(Q2) My typical response to initial weather-related warnings is to:* | | |
| # of Responses | Percentage | Answer Choice |
| 222 | 73% | Pay attention |
| 82 | 27% | Somewhat pay attention |
| 0 | 0% | Ignore |
| N = 304 | 100% | |

| **Table 3** Primary motivation to act | | |
|---|---|---|
| *(Q3) Which statement best defines your primary motivation to act?* | | |
| # of Responses | Percentage | Answer Choice |
| 120 | 40% | Decisive decision-maker |
| 32 | 10% | Consider feelings and relationships |
| 152 | 50% | Weigh pros and cons |
| N = 304 | 100% | |

| **Table 4** Decision after hearing First message (external factors statement) and imagining personal level of risk | | |
|---|---|---|
| *(Q4) After hearing the message in the first video and imagining your level of personal risk, what is your decision? PIO in orange vest.* | | |
| # of Responses | Percentage | Answer Choice |
| 179 | 59% | Prepare to evacuate and then do it |
| 77 | 25% | Check with others important to me before deciding to either evacuate or stay at home |
| 48 | 16% | Wait to see what actually develops before making a decision |
| N = 304 | 100% | |

| **Table 5** Degree of influence First message (external factors statement) had on decision to act | | |
|---|---|---|
| *(Q5) To what degree did the first video message influence your decision to act? PIO in orange vest.* | | |
| # of Responses | Percentage | Answer Choice |
| 3 | 1% | Not at all |
| 23 | 8% | Very little influence |
| 128 | 42% | Somewhat influential |
| 150 | 49% | To a great extent |
| N = 304 | 100% | |

| **Table 6** Decision after hearing Second message (internal factors narrative message) and imagining personal level of risk | | |
|---|---|---|
| *(Q6) After hearing the message in the second video, what was the result of your imagined level of personal risk and decision to act? PIO in blue vest.* | | |
| # of Responses | Percentage | Answer Choice |
| 103 | 34% | Prepare to evacuate and then do it |
| 37 | 12% | Check with others important to me before deciding to either evacuate or stay at home |
| 30 | 10% | Wait to see what actually develops before making a decision |
| 134 | 44% | It confirmed I made the right decision to evacuate after hearing the first statement |
| N = 304 | 100% | |

| **Table 7** Degree of influence Second message (internal factors narrative message) had on decision to act | | |
|---|---|---|
| *(Q7) To what degree did the second video message influence your decision to act? PIO in blue vest.* | | |
| # of Responses | Percentage | Answer Choice |
| 16 | 5% | Not at all |
| 37 | 12% | Very little influence |
| 61 | 20% | Somewhat influential |
| 52 | 17% | To a great extent |
| 138 | 46% | N/A - I had already decided to evacuate after hearing the first statement |
| N = 304 | 100% | |

| **Table 8** Geographic Demographic | | |
|---|---|---|
| *(Q11) Select the region of the United States where you live:* | | |
| # of Responses | Percentage | Answer Choice |
| 40 | 13% | West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY |
| 183 | 60% | Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI |
| 55 | 18% | South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV |
| 26 | 9% | Northeast: CT, MA, ME, NH, NJ, NY, PA, RI, VT |
| 0 | 0% | Other |
| N = 304 | 100% | |

| **Table 9** Demographic segmentation | | |
|---|---|---|
| *(Q12) Are you a Public Information Officer or External Affairs Officer? (current, former, or retired)* | | |
| # of Respondents self-identified as PIO/EAO | Percentage | Answer Choice |
| 84 | 28% | Yes |
| 220 | 72% | No |
| N = 304 | 100% | |

| **Table 10A** Metrics Analytics of (Q1) and (Q4) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q4) Decision after hearing First message (external factors statement) and imagining personal level of risk* | | |
| # of Respondents with direct personal experience | Percentage of N = 224 | Answer Choice<br>*Imagined level of personal risk and decision to act – external factors statement* |
| 129 | 57% | Prepare to evacuate and then do it |
| 53 | 24% | Check with others important to me before deciding to either evacuate or stay at home |
| 42 | 19% | Wait to see what actually develops before making a decision |
| N = 224 | 100% | |

| **Table 10B** Metrics Analytics of (Q1) and (Q4) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q4) Decision after hearing First message (external factors statement) and imagining personal level of risk* | | |
| # of Respondents without direct personal experience | Percentage of N = 80 | Answer Choice<br>*Imagined level of personal risk and decision to act – external factors statement* |
| 50 | 63% | Prepare to evacuate and then do it |
| 24 | 30% | Check with others important to me before deciding to either evacuate or stay at home |
| 6 | 7% | Wait to see what actually develops before making a decision |
| N = 80 | 100% | |

| **Table 11A** Metrics Analytics of (Q1) and (Q5) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q5) Degree of influence First message (external factors statement) had on decision to act* | | |
| # of Respondents with direct personal experience | Percentage of N = 224 | Answer Choice<br>*Influence of external factors statement on decision to act* |
| 3 | 1% | Not at all |
| 15 | 7% | Very little influence |
| 96 | 43% | Somewhat influential |
| 110 | 49% | To a great extent |
| N = 224 | 100% | |

| **Table 11B** Metrics Analytics of (Q1) and (Q5) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q5) Degree of influence First message (external factors statement) had on decision to act* | | |
| # of Respondents without direct personal experience | Percentage of N = 80 | Answer Choice<br>*Influence of external factors statement on decision to act* |
| 0 | 0% | Not at all |
| 8 | 10% | Very little influence |
| 32 | 40% | Somewhat influential |
| 40 | 50% | To a great extent |
| N = 80 | 100% | |

| **Table 12A** Metrics Analytics of (Q1) and (Q6) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q6) Decision after hearing Second message (internal factors narrative message) and imagining personal level of risk* | | |
| # of Respondents with direct personal experience | Percentage of N = 224 | Answer Choice<br>*Imagined level of personal risk and decision to act – internal factors narrative message* |
| 73 | 33% | Prepare to evacuate and then do it |
| 25 | 11% | Check with others important to me before deciding to either evacuate or stay at home |
| 24 | 10% | Wait to see what actually develops before making a decision |
| 102 | 46% | It confirmed I made the right decision to evacuate after hearing the first statement |
| N = 224 | 100% | |

| **Table 12B** Metrics Analytics of (Q1) and (Q6) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q6) Decision after hearing Second message (internal factors narrative message) and imagining personal level of risk* | | |
| # of Respondents without direct personal experience | Percentage of N = 80 | Answer Choice<br>*Imagined level of personal risk and decision to act – internal factors narrative message* |
| 30 | 38% | Prepare to evacuate and then do it |
| 12 | 15% | Check with others important to me before deciding to either evacuate or stay at home |
| 6 | 7% | Wait to see what actually develops before making a decision |
| 32 | 40% | It confirmed I made the right decision to evacuate after hearing the first statement |
| N = 80 | 100% | |

| **Table 13A** Metrics Analytics of (Q1) and (Q7) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q7) Degree of influence Second message (internal factors narrative message) had on decision to act* | | |
| # of Respondents with direct personal experience | Percentage of N = 224 | Answer Choice<br>*Degree of influence on decision to act – internal factors narrative message* |
| 13 | 6% | Not at all |
| 33 | 14% | Very little influence |
| 44 | 20% | Somewhat influential |
| 34 | 15% | To a great extent |
| 100 | 45% | N/A - I had already decided to evacuate after hearing the first statement |
| N = 224 | 100% | |

| **Table 13B** Metrics Analytics of (Q1) and (Q7) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q7) Degree of influence Second message (internal factors narrative message) had on decision to act* | | |
| # of Respondents without direct personal experience | Percentage of N = 80 | Answer Choice<br>*Degree of influence on decision to act – internal factors narrative message* |
| 3 | 4% | Not at all |
| 4 | 5% | Very little influence |
| 17 | 21% | Somewhat influential |
| 18 | 22% | To a great extent |
| 38 | 48% | N/A - I had already decided to evacuate after hearing the first statement |
| N = 80 | 100% | |

| **Table 14A** Metrics Analytics of (Q1) and (Q11) | | |
|---|---|---|
| *(Q1) Personal experience with a weather crisis*<br>*(Q11) Geographic demographic* | | |
| # of Respondents from West region | Percentage of N = 40 | Answer Choice<br>*Has experienced a weather-related crisis* |
| 32 | 80% | Yes |
| 8 | 20% | No |
| N = 40 | 100% | |

| **Table 14B** Metrics Analytics of (Q1) and (Q11) | | |
|---|---|---|
| *(Q1) Personal experience with a weather crisis*<br>*(Q11) Geographic demographic* | | |
| # Respondents from of Midwest region | Percentage of N = 183 | Answer Choice<br>*Has experienced a weather-related crisis* |
| 122 | 67% | Yes |
| 61 | 33% | No |
| N = 183 | 100% | |

| **Table 14C** Metrics Analytics of (Q1) and (Q11) | | |
|---|---|---|
| *(Q1) Personal experience with a weather crisis*<br>*(Q11) Geographic demographic* | | |
| # of Respondents from South region | Percentage of N = 55 | Answer Choice<br>*Has experienced a weather-related crisis* |
| 51 | 93% | Yes |
| 4 | 7% | No |
| N = 55 | 100% | |

| **Table 14D** Metrics Analytics of (Q1) and (Q11) | | |
|---|---|---|
| *(Q1) Personal experience with a weather crisis*<br>*(Q11) Geographic demographic* | | |
| # of Respondents<br>from Northeast region | Percentage of<br>N = 26 | Answer Choice<br>*Has experienced a weather-related crisis* |
| 19 | 73% | Yes |
| 7 | 27% | No |
| N = 26 | 100% | |

| **Table 15A** Metrics Analytics of (Q1) and (Q12) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q12) Public Information Officer / External Affairs Officer demographic* | | |
| # of Respondents<br>self-identified as PIO/EAO | Percentage of<br>N = 84 | Answer Choice<br>*Has experienced a weather-related crisis* |
| 71 | 85% | Yes |
| 13 | 15% | No |
| N = 84 | 100% | |

| **Table 15B** Metrics Analytics of (Q1) and (Q12) | | |
|---|---|---|
| *(Q1) Personal experience with weather crisis*<br>*(Q12) General public demographic (non-PIO/EAO)* | | |
| # of Respondents<br>coded as general public<br>(non-PIO/EAO) | Percentage of<br>N = 220 | Answer Choice<br>*Has experienced a weather-related crisis* |
| 153 | 70% | Yes |
| 67 | 30% | No |
| N = 220 | 100% | |

| **Table 16A** Metrics Analytics of (Q3) and (Q4) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q4) Decision after hearing First message (external factors statement) and imagining personal level of risk* | | |
| # of Respondents<br>as decisive decision-maker | Percentage of<br>N = 120 | Answer Choice<br>*Imagined level of personal risk and decision to act – external factors statement* |
| 73 | 61% | Prepare to evacuate and then do it |
| 27 | 22% | Check with others important to me before deciding to either evacuate or stay at home |
| 20 | 17% | Wait to see what actually develops before making a decision |
| N = 120 | 100% | |

| **Table 16B** Metrics Analytics of (Q3) and (Q4) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q4) Decision after hearing First message (external factors statement) and imagining personal level of risk* | | |
| # of Respondents<br>who consider feelings and relationships | Percentage of<br>N = 32 | Answer Choice<br>*Imagined level of personal risk and decision to act – external factors statement* |
| 17 | 53% | Prepare to evacuate and then do it |
| 13 | 41% | Check with others important to me before deciding to either evacuate or stay at home |
| 2 | 6% | Wait to see what actually develops before making a decision |
| N = 32 | 100% | |

| **Table 16C** Metrics Analytics of (Q3) and (Q4) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q4) Decision after hearing First message (external factors statement) and imagining personal level of risk* | | |
| # of Respondents<br>who weigh pros and cons | Percentage of<br>N = 152 | Answer Choice<br>*Imagined level of personal risk and decision to act – external factors statement* |
| 89 | 59% | Prepare to evacuate and then do it |
| 37 | 24% | Check with others important to me before deciding to either evacuate or stay at home |
| 26 | 17% | Wait to see what actually develops before making a decision |
| N = 152 | 100% | |

| **Table 17A** Metrics Analytics of (Q3) and (Q5) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q5) Degree of influence First message (external factors statement) had on decision to act* | | |
| # of Respondents<br>as decisive decision-maker | Percentage of<br>N = 120 | Answer Choice<br>*Influence of external factors statement on decision to act* |
| 0 | 0% | Not at all |
| 14 | 12% | Very little influence |
| 48 | 40% | Somewhat influential |
| 58 | 48% | To a great extent |
| N = 120 | 100% | |

| **Table 17B** Metrics Analytics of (Q3) and (Q5) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q5) Degree of influence First message (external factors statement) had on decision to act* | | |
| # of Respondents<br>who consider feelings and relationships | Percentage of<br>N = 32 | Answer Choice<br>*Influence of external factors statement on decision to act* |
| 2 | 6% | Not at all |
| 0 | 0% | Very little influence |
| 14 | 44% | Somewhat influential |
| 16 | 50% | To a great extent |
| N = 32 | 100% | |

| **Table 17C** Metrics Analytics of (Q3) and (Q5) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q5) Degree of influence First message (external factors statement) had on decision to act* | | |
| # of Respondents<br>who weigh pros and cons | Percentage of<br>N = 152 | Answer Choice<br>*Influence of external factors statement on decision to act* |
| 1 | 1% | Not at all |
| 10 | 7% | Very little influence |
| 66 | 43% | Somewhat influential |
| 75 | 49% | To a great extent |
| N = 152 | 100% | |

| **Table 18A** Metrics Analytics of (Q3) and (Q6) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q6) Decision after hearing Second message (internal factors narrative message) and imagining personal level of risk* | | |
| # of Respondents<br>as decisive decision-maker | Percentage of<br>N = 120 | Answer Choice<br>*Imagined level of personal risk and decision to act – internal factors narrative message* |
| 36 | 30% | Prepare to evacuate and then do it |
| 15 | 12% | Check with others important to me before deciding to either evacuate or stay at home |
| 12 | 10% | Wait to see what actually develops before making a decision |
| 57 | 48% | It confirmed I made the right decision to evacuate after hearing the first statement |
| N = 120 | 100% | |

| **Table 18B** Metrics Analytics of (Q3) and (Q6) | | |
|---|---|---|
| *(Q3) Primary motivation to ask*<br>*(Q6) Decision after hearing Second message (internal factors narrative message) and imagining personal level of risk* | | |
| # of Respondents who consider feelings and relationships | Percentage of N = 32 | Answer Choice<br>*Imagined level of personal risk and decision to act – internal factors narrative message* |
| 15 | 47% | Prepare to evacuate and then do it |
| 4 | 13% | Check with others important to me before deciding to either evacuate or stay at home |
| 2 | 6% | Wait to see what actually develops before making a decision |
| 11 | 34% | It confirmed I made the right decision to evacuate after hearing the first statement |
| N = 32 | 100% | |

| **Table 18C** Metrics Analytics of (Q3) and (Q6) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q6) Decision after hearing Second message (internal factors narrative message) and imagining personal level of risk* | | |
| # of Respondents who weigh pros and cons | Percentage of N = 152 | Answer Choice<br>*Imagined level of personal risk and decision to act – internal factors narrative message* |
| 52 | 34% | Prepare to evacuate and then do it |
| 18 | 12% | Check with others important to me before deciding to either evacuate or stay at home |
| 16 | 11% | Wait to see what actually develops before making a decision |
| 66 | 43% | It confirmed I made the right decision to evacuate after hearing the first statement |
| N = 152 | 100% | |

| **Table 19A** Metrics Analytics of (Q3) and (Q7) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q7) Degree of Influence Second message (internal factors narrative message) had on decision to act* | | |
| # of Respondents<br>as decisive decision-maker | Percentage of<br>N = 120 | Answer Choice<br>*Degree of influence on decision to act – internal factors narrative message* |
| 9 | 8% | Not at all |
| 16 | 13% | Very little influence |
| 20 | 17% | Somewhat influential |
| 23 | 19% | To a great extent |
| 52 | 43% | N/A - I had already decided to evacuate after hearing the first statement |
| N = 120 | 100% | |

| **Table 19B** Metrics Analytics of (Q3) and (Q7) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q7) Degree of Influence Second message (internal factors narrative message) had on decision to act* | | |
| # of Respondents<br>who consider feelings and relationships | Percentage of<br>N = 32 | Answer Choice<br>*Degree of influence on decision to act – internal factors narrative message* |
| 1 | 3% | Not at all |
| 2 | 6% | Very little influence |
| 7 | 22% | Somewhat influential |
| 7 | 22% | To a great extent |
| 15 | 47% | N/A - I had already decided to evacuate after hearing the first statement |
| N = 32 | 100% | |

| **Table 19C** Metrics Analytics of (Q3) and (Q7) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q7) Degree of Influence Second message (internal factors narrative message) had on decision to act* | | |
| # of Respondents<br>who weigh pros and cons | Percentage of<br>N = 152 | Answer Choice<br>*Degree of influence on decision to act – internal factors narrative message* |
| 6 | 4% | Not at all |
| 19 | 13% | Very little influence |
| 34 | 22% | Somewhat influential |
| 22 | 14% | To a great extent |
| 71 | 47% | N/A - I had already decided to evacuate after hearing the first statement |
| N = 152 | 100% | |

| **Table 20A** Metrics Analytics of (Q3) and (Q12) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q12) Public Information Officer/External Affairs Officer demographic* | | |
| # of Respondents<br>self-identified as PIO/EAO | Percentage of<br>N = 84 | Answer Choice<br>*Primary motivation to act* |
| 41 | 49% | Decisive decision-maker |
| 6 | 7% | Consider feelings and relationships |
| 37 | 44% | Weigh pros and cons |
| N = 84 | 100% | |

| **Table 20B** Metrics Analytics of (Q3) and (Q12) | | |
|---|---|---|
| *(Q3) Primary motivation to act*<br>*(Q12) General public demographic* | | |
| # of Respondents<br>coded as general public<br>(non-PIO/EAO) | Percentage of<br>N = 220 | Answer Choice<br>*Primary motivation to act* |
| 79 | 36% | Decisive decision-maker |
| 26 | 12% | Consider feelings and relationships |
| 115 | 52% | Weigh pros and cons |
| N = 220 | 100% | |

| **Table 21** Qualitative Analysis of coded comments from (Q8) | | |
|---|---|---|
| *(Q8) What 1 or 2 words/phrases describe your reaction to the messaging in the first video?*<br>*(The messaging emphasized external factors/outside forces) PIO in orange vest.* | | |
| # of Respondents | Percentage | Analysis of coded comments<br>*Coded reaction categories – external factors statement* |
| 90 | 30% | Perceived as typical from a PIO |
| 55 | 18% | Created a vision to take action in the scenario |
| 12 | 4% | Perceived as too much information |
| 77 | 25% | Perceived as factual |
| 70 | 23% | Created a reaction other than to take action in the scenario |
| N = 304 | 100% | |

| **Table 22A** Qualitative Analysis of coded comments from (Q9) | | |
|---|---|---|
| *(Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the second video? (The messaging emphasized internal factors/feelings and beliefs) PIO in blue vest.* | | |
| # of Respondents | Percentage | Analysis of coded comments<br>*Coded reaction categories – internal factors narrative message* |
| 32 | 11% | Positive reaction overall |
| 88 | 28% | Negative reaction overall |
| 35 | 12% | Take action based on facts in the scenario |
| 101 | 33% | Imagine the future in the scenario |
| 48 | 16% | General reaction to video itself |
| N = 304 | 100% | |

| **Table 22B** Qualitative Analysis of 2 specific coded comments from (Q9) | | |
|---|---|---|
| *(Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the second video? (The messaging emphasized internal factors/feelings and beliefs) PIO in blue vest.* | | |
| # of Respondents | Percentage of N = 136 | Analysis of coded comments<br>*Coded behavioral reaction categories – internal factors narrative message* |
| 35 | 26% | Take action based on facts in the scenario |
| 101 | 74% | Imagine the future in the scenario |
| N = 136 | 100% | |

| **Table 23** Qualitative Analysis of coded comments from (Q10) | | |
|---|---|---|
| *(Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?* | | |
| # of Respondents | Percentage | Analysis of coded comments<br>*Coded modes of persuasion categories* |
| 2 | 0.7% | Ethos (credibility and authority of the PIO) |
| 192 | 63.1% | Logos (logic, reason, evidence, data) |
| 92 | 30.3% | Pathos (emotional impact through storytelling, vivid language, and emotional triggers) |
| 18 | 5.9% | None |
| N = 304 | 100% | |

| **Table 24A** Metrics from (Q4) with qualitative analysis of coded comments from (Q10) | | |
|---|---|---|
| *(Q4) Decision after hearing First message (external factors statement) and imagining personal level of risk*<br>*(Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?* | | |
| # of Respondents who prepare to evacuate and then do it | Percentage of N = 179 | Analysis of coded comments<br>*Coded modes of persuasion categories* |
| 2 | 1% | Ethos (credibility and authority of the PIO) |
| 124 | 69% | Logos (logic, reason, evidence, data) |
| 47 | 27% | Pathos (emotional impact through storytelling, vivid language, and emotional triggers) |
| 6 | 3% | None |
| N = 179 | 100% | |

| **Table 24B** Metrics from (Q4) with qualitative analysis of coded comments from (Q10) | | |
|---|---|---|
| *(Q4) Decision after hearing First message (external factors statement) and imagining personal level of risk*<br>*(Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?* | | |
| # of Respondents who check with others important to me before deciding to either evacuate or stay at home | Percentage of N = 77 | Analysis of coded comments<br>*Coded modes of persuasion categories* |
| 0 | 0% | Ethos (credibility, authority of the PIO) |
| 40 | 52% | Logos (logic, reason, evidence, data) |
| 31 | 40% | Pathos (emotional impact through storytelling, vivid language, emotional triggers) |
| 6 | 8% | None |
| N = 77 | 100% | |

| **Table 24C** Metrics from (Q4) with qualitative analysis of coded comments from (Q10) | | |
|---|---|---|
| *(Q4) Decision after hearing First message (external factors statement) and imagining personal level of risk*<br>*(Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?* | | |
| # of Respondents who wait to see what actually develops before making a decision | Percentage of N = 48 | Analysis of coded comments<br>*Coded modes of persuasion categories* |
| 0 | 0% | Ethos (credibility and authority of the PIO) |
| 28 | 58% | Logos (logic, reason, evidence, data) |
| 14 | 29% | Pathos (emotional impact through storytelling, vivid language, and emotional triggers) |
| 6 | 13% | None |
| N = 48 | 100% | |

| **Table 25A** Qualitative analysis of coded comments from (Q9) with (Q10) | | |
|---|---|---|
| *(Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the second video? (The messaging emphasized internal factors/feelings and beliefs) PIO in blue vest.*<br>*(Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?* | | |
| # of Respondents whose coded behavioral reaction is to take action based on facts in the scenario – *internal factors narrative message* | Percentage of N = 35 | Analysis of coded comments<br>*Coded modes of persuasion categories* |
| 0 | 0% | Ethos (credibility and authority of the PIO) |
| 25 | 71% | Logos (logic, reason, evidence, data) |
| 7 | 20% | Pathos (emotional impact through storytelling, vivid language, and emotional triggers) |
| 3 | 9% | None |
| N = 35 | 100% | |

| **Table 25B** Qualitative analysis of coded comments from (Q9) with (Q10) | | |
|---|---|---|
| *(Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the second video? (The messaging emphasized internal factors/feelings and beliefs) PIO in blue vest.*<br>*(Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?* | | |
| # of Respondents whose coded behavioral reaction is to imagine the future in the scenario – *internal factors narrative message* | Percentage of N = 101 | Analysis of coded of comments<br>*Coded modes of persuasion categories* |
| 0 | 0% | Ethos (credibility and authority of the PIO) |
| 58 | 57% | Logos (logic, reason, evidence, data) |
| 42 | 42% | Pathos (emotional impact through storytelling, vivid language, and emotional triggers) |
| 1 | 1% | None |
| N = 101 | 100% | |

| **Table 26A** Qualitative analysis of coded comments from (Q9) with (Q10) and (Q12) | | |
|---|---|---|
| *(Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the second video? (The messaging emphasized internal factors/feelings and beliefs) PIO in blue vest.*<br>*(Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?*<br>*(Q12) Public Information Officer/External Affairs Officer demographic* | | |
| # of Respondents self-identified as PIO/EAO whose coded behavioral reaction is to take action based on facts in the scenario – *internal factors narrative message* | Percentage of N = 12 | Analysis of coded comments<br>*Coded modes of persuasion categories* |
| 0 | 0% | Ethos (credibility and authority of the PIO) |
| 10 | 83% | Logos (logic, reason, evidence, data) |
| 2 | 17% | Pathos (emotional impact through storytelling, vivid language, and emotional triggers) |
| N = 12 | 100% | |

| **Table 26B** Qualitative analysis of coded comments from (Q9) with (Q10) and ((Q12) | | |
|---|---|---|
| *(Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the second video? (The messaging emphasized internal factors/feelings and beliefs) PIO in blue vest.*<br>*(Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?*<br>*(Q12) Public Information Officer/External Affairs Officer demographic* | | |
| # of Respondents self-identified as PIO/EAO whose coded behavioral reaction is to imagine the future in the scenario – *internal factors narrative message* | Percentage of N = 25 | Analysis of coded of comments<br>*Coded modes of persuasion categories* |
| 0 | 0% | Ethos (credibility and authority of the PIO) |
| 16 | 64% | Logos (logic, reason, evidence, data) |
| 9 | 36% | Pathos (emotional impact through storytelling, vivid language, and emotional triggers) |
| N = 25 | 100% | |

| **Table 27** Metrics Analytics of (Q11) and (Q12) | | |
|---|---|---|
| *(Q11) Geographic demographic*<br>*(Q12) Public Information Officer/External Affairs Officer demographic* | | |
| # of Respondents self-identified as PIO/EAO | Percentage of N = 84 | Answer Choice<br>*Primary motivation to act* |
| 17 | 20% | West: AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY |
| 42 | 50% | Midwest: IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI |
| 17 | 20% | South: AL, AR, DC, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV |
| 8 | 10% | Northeast: CT, MA, ME, NH, NJ, NY, PA, RI, VT |
| N = 84 | 100% | |

## Appendix C–2

**Quantitative Data Analysis and Qualitative Data Analysis | Summaries of Tables 1 – 27 (Appendix C–1), Table 28 (Appendix I)**

**QUESTIONNAIRE TITLE**

Effectiveness of Public Information Messaging during a Weather-related Crisis

**DATA SOURCE**

- Two 2-minute videos embedded into written questionnaire with12 required questions
  - Nine multiple choice questions and three open-ended questions
  - One optional comment box
- N = 304 completed questionnaires with respondents from throughout the United States

**QUANTITATIVE DATA ANALYSIS**

- Tables 1 – 9 = Descriptive Statistics from 9 multiple-choice questions
- Tables 10 – 27 = Inferential Statistics from data cross-tabulation and factor analysis
- Tables 9, 15A, 20A, 26A, 26B, 27 = PIO/EAO cohort analysis

**QUALITATIVE DATA ANALYSIS**

- Tables 21 – 26B founded on comments from open-ended questions

**APPENDIX REFERENCES**

- Appendix A = Questionnaire research tool
- Appendix B = Matrix of Questionnaire Questions and Associated Table Numbers
- Appendix C–1 = Tables 1 – 27 | Quantitative Data Analysis and Qualitative Data Analysis
- Appendix H = Table 28 | Open-ended comments | Reaction to second video narrative message
- Appendix I = Table 29 | Open-ended comments | Most persuasive comments in one/both statements

**Narrated Result Summaries from Appendix C–1 Tables with various N factors**

Seventy-four percent of all respondents (224) have had direct personal experience with a weather-related crisis (Table 1). Initial weather-related warnings are paid attention to by 73% (222) with 27% (82) somewhat paying attention, and no respondents indicating they ignore initial warnings (Table 2).

Thirteen percent of all respondents (40) live in the West region of the United States, 60% (183) live in the Midwest region, 18% (55) live in the South region, and 9% (26) live in the Northeast region (Table 8).

Eighty percent of respondents (32) from the West region of the United States indicated personal experience with a weather crisis (Table 14A), 67% (122) from the Midwest region (Table 14B), 93% (51) from the South region (Table 14C), and 73% (19) from the Northeast region (Table 14D).

All respondents were asked to self-select one of three statements that best defined their primary motivation to act: 50% (152) weigh pros and cons, 40% (120) are decisive decision-makers, and 10% (32) consider feelings and relationships (Table 3).

These three variables, (a) direct experience with a weather-related crisis, (b) geographic demographic, and (c) primary motivation to act, are used as comparative variables throughout the tables (Appendix C–1).

To test whether public information officers (PIOs) and/or external affairs officers (EAOs) respond similarly or differently than the public, they were asked to self-identify. Eighty-four respondents are PIOs/EAOs (Table 9).

Eighty-five percent (71) of PIOs/EAOs have had direct personal experience with a weather-related crisis (Table 15A). Of all PIOs, 20% (17) live in the West region, 50% (42) in the Midwest region, 20% (17) in the South, and 10% (8) in the Northeast (Table 27). Decisive decision-making is the dominant primary motivation to act among PIOs, 49% (41) (Table 20A), compared to the dominant primary motivation to act among the public as weighing pros and cons, 52% (115) (Table 20B).

After hearing the PIO's message in the first external factors statement (Appendix D), respondents were asked to imagine their level of personal risk and choose among three choices of action (Table 4). Fifty-nine percent (179) chose to prepare to evacuate then do it, 25% (77)

chose to check with others important to them before deciding to either evacuate or stay at home, 16% (48) chose to wait to see what develops before making a decision.

After hearing the PIO's message in the second internal factors narrative message (Appendix F), respondents were asked to imagine their level of personal risk and choose among four options (Table 6). Forty-four percent (134) indicated the second message confirmed they made the right decision to evacuate, 34% (103) chose to prepare to evacuate then do it, 12% (37) chose to check with others important to them before deciding to either evacuate or stay at home, 10% (30) chose to wait to see what develops before making a decision.

Of the respondents who indicated they had not chosen to evacuate after hearing the first statement, 17% (52) indicated the second internal factors narrative message had a great deal of influence, and 20% (61) indicated it was somewhat influential (Table 7).

Tables 10A – 11B metrics analytics compare respondents' personal experience with a weather crisis to their imagined personal level of risk after listening to the first external factors statement. Fifty-seven percent of the 224 respondents (129) with personal experience chose to take action to evacuate (Table 10A), with 49% (110) indicating they felt the first statement was influential to a great extent (Table 11A). Sixty-three percent of the 80 respondents (50) without direct personal experience chose to take action to evacuate (Table 10B), with 50% (40) indicating the first statement was influential to a great extent (Table 11B).

Thirty-three percent (73) with direct weather crisis experience, who chose not to evacuate after hearing the first video (N = 224), chose to evacuate after listening to the second internal factors statement (Table 12A), with 20% (34) indicating the second statement was influential to a great extent (Table 13A). Thirty-eight percent (30) without direct weather crisis experience, who chose not to evacuate after hearing the first video (N = 80), chose to evacuate after listening to

the second internal factors statement (Table 12B), with 22% (18) indicating the second statement was influential to a great extent (Table 13B).

When considering primary motivation to act, those who are decisive decision-makers (N = 120), 61% (73) chose to act after hearing the first video (Table 16A), with 48% (58) indicating the first message was influential to a great extent (Table 17A). Those who consider feelings and relationships (N = 32), 53% (17) chose to act after hearing the first video (Table 16B), with 50% (16) indicating the first message was influential to a great extent (Table 17B). Those who weigh pros and cons (N = 152), 59% (89) chose to act after hearing the first video (Table 16C), with 49% (75) indicating the first message was influential to a great extent (Table 17C).

Among the decisive decision-makers (N = 120), 30% (36) chose to act after hearing the second internal factors video (Table 18A), with 19% (23) indicating the second message was influential to a great extent (Table 19A). Among those who consider feelings and relationships (N= 32), 47% (15) chose to act after hearing the second video (Table 18B), with 22% (7) indicating the second message was influential to a great extent (Table 19B). Among the 152 those who weigh pros and cons (N = 152), 34% (52) chose to act after hearing the first video (Table 19C), with 14% (22) indicating the second message was influential to a great extent (Table 19C).

In considering how the research results could relate to whole community risk communication, a qualitative analysis was conducted of respondents' comments.

For the open-ended question asking respondents for one or two words/phrases that described their reaction to messaging in the first external factors video, the 304 required responses were coded into five reaction categories (Table 21). Of the coded comments, 25% (77)

perceived the first video as factual, and 18% (55) were perceived to create a future vision to take action in the scenario.

For the open-ended question asking respondents for one or two words/phrases that described their reaction to messaging in the second internal factors video, the 304 required responses were coded into five reaction categories (Table 22A). Two of the five reaction categories were coded into behavioral reaction categories. With an N = 136, 26% (35) were coded as taking action based on facts in the scenario, and 74% (101) were coded as imagining the future in the scenario (Appendix C–1 Table 22B, Appendix H Table 27).

For the open-ended question asking respondents to identify message points considered most persuasive in one or both videos, the 304 required responses were coded into three modes of persuasion categories: Ethos, Logos, and Pathos (Table 23). Total responses were 0.7% (2) coded as Ethos, defined as credibility and authority of the PIO; 63.1% (192) coded as Logos, defined as logic, reason, evidence, and data; and 30.3% (92) coded as Pathos, defined as emotional impact through storytelling, vivid language, and emotional triggers (Appendix I Table 28). Eighteen responses could not be coded.

Cross-referencing the Ethos, Logos, and Pathos coded-comments with the 179 respondents who prepared to evacuate after hearing the first external factors video, 1% (2) was coded as influenced by Ethos, 69% (124) were coded as influenced by Logos, and 27% (47) were coded as influenced by Pathos (Table 24A). Six responses could not be coded.

Cross-referencing the Ethos, Logos, and Pathos coded-comments with the 77 respondents who check with others important to them before choosing to evacuate after hearing the first external factors video, no respondents were coded as influenced by Ethos, 52% (40) were coded

as influenced by Logos, and 40% (31) were coded as influenced by Pathos (Table 24B). Six responses could not be coded.

Cross-referencing the Ethos, Logos, and Pathos coded-comments with the 48 respondents who waited to see what actually develops after hearing the first external factors video, no respondents were coded as influenced by Ethos, 58% (28) were coded as influenced by Logos, and 29% (14) were coded as influenced by Pathos (Table 24C). Six responses could not be coded.

Cross-referencing the 35 behavioral reaction coded responses who chose to take action based on facts after hearing the second internal factors video, no respondents were coded as influenced by Ethos, 71% (25) were coded as influenced by Logos, and 20% (7) were coded as influenced by Pathos (Table 25A). Three responses could not be coded.

Cross-referencing the 101 behavioral reaction coded responses who imagined the future after hearing the second internal factors video, no respondents were coded as influenced by Ethos, 57% (58) were coded as influenced by Logos, and 42% (42) were coded as influenced by Pathos (Table 25B). One response could not be coded.

Cross-referencing the 12 PIOs whose behavioral reaction coded responses were to take action based on facts after hearing the second internal factors video, no respondents were coded as influenced by Ethos, 83% (10) were coded as influenced by Logos, and 17% (2) were coded as influenced by Pathos (Table 26A).

Cross-referencing the 25 PIOs whose behavioral reaction coded responses were to imagine the future after hearing the second internal factors video, no respondents were coded as influenced by Ethos, 64% (16) were coded as influenced by Logos, and 36% (9) were coded as influenced by Pathos (Table 26B).

## Appendix D

**Script of First video message (external factors statement) by PIO | Traditional public information statement**

Flesch-Kincaid Grade Level: 7.8

Word count: 331

Length: 2 minutes 18 seconds

YouTube URL: https://www.youtube.com/watch?v=Hsh9aXn132Q

Welcome everyone. I'd like to begin by thanking the media for being here today and your assistance in getting these very important safety messages out to the public.

I'm Grant Deal, public information officer for Hillside County. Our county is currently experiencing severe weather and a flash-flood warning has been issued.

The heavy rain continues, moving west to east, and there are reports of heavy ground saturation.

Flash flooding is predicted for Valley City. A mudslide is forecasted below the Highland Hills neighborhood.

These current weather conditions may bring serious consequences to life and property.

Power outages are predicted. Destroyed infrastructure in Hillside County will restrict rescue attempts by first responders and other emergency personnel.

Escape routes will be cutoff by the rising flood waters in Valley City, and by the anticipated mudslide along High Street. Roads will need to be closed.

People in Valley City are advised to evacuate by 6 o'clock tonight.

People above High Street, in the Highland Hills neighborhood, are also advised to evacuate by 6 o'clock tonight.

Pay attention to emergency warnings. Keep your radios and cell phones tuned to local news sources to follow emergency response directions and updates.

Keep yourself, your family, and your pets safe. Take your important medicines, wallet, and phone charger with you.

Two shelters are open. Bald Eagle High School, north of Valley City, and Rose High School, south of Valley City. Pets are permitted at both shelters.

Be alert when driving. Traffic flow will be affected. Avoid debris in the roadway and standing water. Watch for tilted trees and utility poles.

We ask you to respect the power of nature.

Individuals within Valley City and those above High Street, in the Highland Hills neighborhood, should evacuate by 6 o'clock tonight, to a safe location north or south of Valley City.

Now is the time to be your strongest ally, rather than your worst enemy.

Thank you and be safe. Hillside County will have another media update in one hour.

## Appendix E

**Message Map for First video message (external factors statement) by PIO | Traditional public information message mapping**

- 3 Key Messages, each with 3 supporting points
- 'What will success look like?' with 3 points

**KEY MESSAGE 1 | Define the Problem**

Hillside County is experiencing threatening weather hazards

Supporting Point 1.1

Heavy rain continues. Moving west to east. Ground is saturated.

Supporting Point 1.2

Flash flooding is predicted for Valley City

Supporting Point 1.3

High likelihood of a mudslide below Highland Hills neighborhood

**KEY MESSAGE 2 | Frame Consequences**

Weather conditions may bring serious consequences to life and property

Supporting Point 2.1

Power outages are predicted

Supporting Point 2.2

Destroyed infrastructure in Hillside County will restrict rescue attempts by first responders and other emergency personnel

Supporting Point 2.3

Rising flood waters in Valley City and a mudslide along High St. will cut off escape routes

**KEY MESSAGE 3 | Involve Public in Decision-making Process**

Evacuate by 6 p.m. and follow emergency response directions

Supporting Point 3.1

Be alert when driving. Avoid road debris and standing water. Watch for tilted trees and utility poles. Traffic flow may be slow.

Supporting Point 3.2

Keep yourself, your family, and your pets safe

Supporting Point 3.3

Take your pills, wallet, and phone charger with you

**WHAT WILL SUCCESS LOOK LIKE? | Identify Success**

Point 1

Respect the power of nature

Point 2

Heed the warnings. Evacuate to a safe location north or south of Valley City. Two shelters are open. Pets allowed.

Point 3

Be your strongest ally rather than your worst enemy

## Appendix F

**Script of Second recorded message (internal factors narrative message) by PIO | Springboard-style strategic storytelling narrative message**

Flesch-Kincaid Grade Level: 5.4

Word count: 381

Length: 2 minutes 17 seconds

YouTube URL: https://www.youtube.com/watch?v=RZwrfsqhce0

I'm Grant Deal, public information officer for Hillside County. There is an evacuation order in place.

People in Valley City are advised to evacuate by 6 o'clock tonight.

People above High Street, in the Highland Hills neighborhood, are also advised to evacuate by 6 o'clock tonight.

I'm talking to those of you who are still in your homes.

When you chose to stay home, your sense of safety was high, and your level of personal risk was low.

You may think you can wait out the storm.

Your decision to stay in your home was the right decision when you made it, given the information you had at that time.

Maybe now doubt creeps in, as hour by hour the reality of the consequences of the storm sink in.

It's human to feel fear during times like these.

Maybe now you wonder, is staying at home the reasonable choice for you and your family?

Do you wonder if you have the emotional strength to evacuate?

Do you wonder if you are physically capable to evacuate?

Instead of asking: ‘What if I evacuate?’ Flip the question and ask: ‘What if I don’t?’

We’ve all seen news reports of people in other cities who have been stranded or injured because of severe weather.

The images break my heart.

Just imagine if they would have evacuated.

There would have been no need for risky rooftop rescues.

There would have been no frightened pets alone and separated from their owners.

There would have been no loss of life.

If they would have evacuated to a shelter area, they would’ve had food, electricity, and internet access.

But I’m not just talking about what has happened in the past.

This is happening right now, in the shelters open in Bald Eagle High School to our north, and Rose High School to our south.

Right now, your friends and neighbors are safe. Some of your family members may be there too.

They may be anxious.

But they also have each other, and they're waiting for you.

What if you showed up?

Just imagine how thankful and relieved they will be when you get there!

Hillside County is a resilient community. We are critical thinkers.

Now is the time to evacuate because it will protect you and your family.

## Appendix G

**Narrative Framework for Second video message (internal factors narrative message) by PIO | Springboard-style strategic storytelling narrative framework**

- 12-segment Strategic Storytelling Springboard-style Narrative Framework with persuasion techniques and rhetorical devices

**(1) CALL TO ACTION WITH TIMEFRAME**

I'm Grant Deal, public information officer for Hillside County. There is an evacuation order in place.

People in Valley City are advised to evacuate by 6 o'clock tonight.

People above High Street, in the Highland Hills neighborhood, are also advised to evacuate by 6 o'clock tonight.

**(2) GET THEIR ATTENTION**

I'm talking to those of you who are still in your homes.

**(3) ACKNOWLEDGE THE BACKSTORY**

When you chose to stay home, your sense of safety was high, and your level of personal risk was low.

You may think you can wait out the storm.

**(4) FRAME PRIOR DECISION AS CORRECT AT THAT TIME | PERSUASION TECHNIQUE**

Your decision to stay in your home was the right decision when you made it, given the information you had at that time.

**(5) ACKNOWLEDGE UNCERTAINTY WITH EMPATHY**

Maybe now doubt creeps in, as hour by hour the reality of the consequences of the storm sink in.

It's human to feel fear during times like these.

Maybe now you wonder, is staying at home the reasonable choice for you and your family?

**(6) ACKNOWLEDGE FEAR USING RHETORICAL QUESTIONS**

Do you wonder if you have the emotional strength to evacuate?

Do you wonder if you are physically capable to evacuate?

Instead of asking: 'What if I evacuate?' Flip the question and ask: 'What if I don't?'

**(7) CONCEDE PAST PRACTICE | SPRINGBOARD ELEMENT AND RHETORICAL DEVICE OF METAPHOR**

We've all seen news reports of people in other cities who have been stranded or injured because of severe weather.

The images break my heart.

**(8) ENVISION THE FUTURE | SPRINGBOARD ELEMENT AND RHETORICAL DEVICE OF ANAPHORA**

Just imagine if they would have evacuated.

There would have been no need for risky rooftop rescues.

There would have been no frightened pets alone and separated from their owners.

There would have been no loss of life.

If they would have evacuated to a shelter area, they would've had food, electricity, and internet access.

**(9) SPARK DESIRE FOR A HAPPY ENDING | SPRINGBOARD ELEMENT**

But I'm not just talking about what has happened in the past.

This is happening right now, in the shelters open in Bald Eagle High School to our north, and Rose High School to our south.

Right now, your friends and neighbors are safe. Some of your family members may be there too.

They may be anxious.

But they also have each other, and they're waiting for you.

**(10) INVITE THEM TO BE A HERO | SPRINGBOARD ELEMENT**

What if you showed up?

Just imagine how thankful and relieved they will be when you get there!

**(11) SOCIAL LABELING OF THE LISTENING AUDIENCE | PERSUASION TECHNIQUE**

Hillside County is a resilient community. We are critical thinkers.

**(12) TIE-BACK WITH 'BECAUSE' REASONING | PERSUASION TECHNIQUE**

Now is the time to evacuate because it will protect you and your family.

## Appendix H

### Questionnaire Comments from Q9 | Table 28

Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the second video? (The messaging emphasized internal factors/feelings and beliefs) PIO in blue vest.

**APPENDIX REFERENCES**

- Appendix A = Questionnaire research tool
- Appendix B = Matrix of Questionnaire Questions and Associated Table Numbers
- Appendix C–1 = Quantitative Data Analysis and Qualitative Data

**Table 28** Coded comments as Imagined Future in the scenario from the narrative message
N = 101 respondents

*Q9) What 1 or 2 words/phrases describe your reaction to the messaging in the second video? (The messaging emphasized internal factors/feelings and beliefs)*

| Respondent # | Date/Time | Quote |
|---|---|---|
| 5 | 7/12/2023 17:14:35 | I felt gratified that I made the right decision to evacuate and relief for choosing to follow the PIOs direction |
| 9 | 7/13/2023 10:17:23 | Don’t wait till it is too late |
| 11 | 7/13/2023 13:27:01 | bravery, friends and family |
| 12 | 7/13/2023 13:46:34 | Alarmed - it made me feel motivated to evacuate. |
| 13 | 7/13/2023 15:26:11 | Unusual, raises questions |
| 15 | 7/13/2023 16:48:50 | Think about others (way to squishy and the message is muddled) |
| 16 | 7/13/2023 18:37:10 | evacuate now if you haven't yet |
| 23 | 7/14/2023 9:11:38 | evacuate now |
| 26 | 7/14/2023 12:47:50 | Continue to Take Action |
| 27 | 7/14/2023 13:15:22 | probably best to evacuate |
| 32 | 7/14/2023 22:57:06 | Realistic |
| 34 | 7/15/2023 16:14:06 | It motivated me but not as strongly. Him acknowledging it was ok to stay in beginning but now it's time to go was good |
| 39 | 7/16/2023 12:59:14 | Seemed real |
| 40 | 7/16/2023 16:35:33 | Reality |

| | | |
|---|---|---|
| 41 | 7/16/2023 18:03:32 | Worried about family members |
| 42 | 7/16/2023 19:21:29 | Question my decision.. |
| 44 | 7/17/2023 1:28:52 | Family waiting |
| 46 | 7/17/2023 5:46:05 | less doubt and fear if I dont act |
| 48 | 7/17/2023 8:43:49 | Nervous |
| 50 | 7/17/2023 9:51:34 | Sounds like it’s time to go |
| 56 | 7/17/2023 10:46:43 | "when you chose to stay," "the reality of consequenses," "what if I don't," and "now is the time to evacuate" |
| 57 | 7/17/2023 11:51:09 | get going |
| 70 | 7/17/2023 14:08:57 | The PIO was speaking more directly and giving those watching a picture of the consequences of not acting. |
| 72 | 7/17/2023 15:29:28 | Dude - you need to move now (if you hadn't already) |
| 73 | 7/17/2023 15:32:17 | Too wordy...liked the reference that things would be better if they evacuated vs not evacuated. |
| 74 | 7/17/2023 15:43:08 | risk, rescue, food, shelter, wifi |
| 81 | 7/18/2023 8:33:57 | Now is the time to evacuate |
| 84 | 7/18/2023 8:53:30 | Fear is normal, I shouldn't let it paralyze me. My family won't think I'm a coward, they'll be glad I am safe. |
| 90 | 7/18/2023 9:30:50 | This is real |
| 92 | 7/18/2023 9:35:44 | decision making |
| 95 | 7/18/2023 11:05:38 | Safety risk |
| 101 | 7/18/2023 12:19:14 | as the weather worsens, it would be time to get to safety for all concerned |
| 102 | 7/18/2023 13:14:53 | contemplative, self-doubt |
| 103 | 7/18/2023 13:31:21 | Need for immediate action |
| 104 | 7/18/2023 14:07:23 | It reached me more than the first video. |
| 108 | 7/18/2023 15:46:05 | your friends and neighbors who evacuated are safe and waiting for you |
| 109 | 7/18/2023 15:57:49 | Concerned |

| | | |
|---|---|---|
| 110 | 7/18/2023 16:33:27 | Appealing to my decision to remain in my home |
| 111 | 7/18/2023 19:10:35 | What if I don’t evacuate, am I physically able |
| 113 | 7/18/2023 20:30:07 | Made me think of the impact my decision made on others |
| 114 | 7/18/2023 20:50:10 | doubt creeping in - is it too late? |
| 117 | 7/19/2023 8:13:12 | time to react |
| 118 | 7/19/2023 8:23:12 | Family. Safe |
| 120 | 7/19/2023 8:57:35 | That video would have made the decision likely without discussion. |
| 122 | 7/19/2023 9:12:16 | The importance to evacuate felt necessary and I would have felt guilty if I didn't already |
| 123 | 7/19/2023 9:17:27 | personal message, helped me think through the decision |
| 125 | 7/19/2023 9:47:42 | "flip the question and ask What If I Don't (evacuate)?" |
| 127 | 7/19/2023 10:19:37 | Regretful |
| 128 | 7/19/2023 10:23:33 | Serious |
| 129 | 7/19/2023 10:37:23 | The 2nd video talked about safety and others being glad you decided to evacuate. Which from the message is what needed to happen. I think it was good to imply what happens if you don’t leave and impending situation |
| 132 | 7/19/2023 11:10:54 | I felt he was speaking to me. He also was not judgmental for those who stayed |
| 133 | 7/19/2023 11:29:39 | felt personal - talking to me - made me think differently |
| 135 | 7/19/2023 11:45:23 | action |
| 136 | 7/19/2023 12:43:23 | Asked questions that I'm already considering. |
| 141 | 7/19/2023 18:18:02 | Loss of life, emotional or physical strength to escape |
| 142 | 7/19/2023 19:18:45 | Non-evacuees cost lives |
| 162 | 7/20/2023 21:22:08 | This message was more convincing. It was right to the point at the beginning. He verbalized the exact doubt with reasoning I had in my mind - that holding off at first will have consequences if I stayed home instead of evacuating. |

| | | |
|---|---|---|
| 163 | 7/20/2023 21:46:14 | It is a different way of communicating the need to evacuate that is not commonly utilized by PIO. Had I not evacuated during the first informational message the second message would have made for a last ditch effort to get me to go. |
| 164 | 7/20/2023 22:39:47 | Action. Immediate. |
| 165 | 7/21/2023 7:02:54 | Reinforced message with emotions to urge action |
| 166 | 7/21/2023 7:14:43 | Imminent danger |
| 170 | 7/21/2023 9:33:20 | others relief |
| 173 | 7/21/2023 10:25:31 | What would |
| 177 | 7/21/2023 13:26:21 | Urgency |
| 178 | 7/21/2023 14:59:06 | Pack and go! |
| 187 | 7/22/2023 9:53:40 | Relief. Fear for those bot evacuating. |
| 188 | 7/22/2023 9:55:21 | regret, others feelings |
| 191 | 7/22/2023 11:17:18 | Anxiety inducing, sense of urgency |
| 194 | 7/22/2023 12:40:40 | "flip the coin" "your family" I believe pointing out what could happen if you stay and bringing family into the consideration is a powerful tool to convince Americans because the concept of "family values" is usually strong in many households. |
| 196 | 7/22/2023 14:26:05 | Fear, panic |
| 205 | 7/22/2023 19:16:33 | Believed only safe choice...get to the shelter |
| 206 | 7/22/2023 19:21:00 | If you haven’t evacuated, you should leave immediately or it is possibly too late. |
| 217 | 7/23/2023 16:55:52 | Would make preparations to evacuate and follow thru |
| 221 | 7/24/2023 8:59:10 | safe shelter |
| 224 | 7/24/2023 9:36:51 | Felt like the information was directed at me personally which made me feel a greater sense of urgency. |
| 225 | 7/24/2023 10:25:08 | Seemed more urgent and the message to evacuate was right at the top. |
| 228 | 7/24/2023 11:56:26 | Evaluate morals and duty to act responsibly |
| 231 | 7/24/2023 13:09:43 | anyone who decided to stay was putting theirs and others lives at risk |

| | | |
|---|---|---|
| 233 | 7/24/2023 14:22:00 | Loss of life |
| 234 | 7/24/2023 17:51:54 | care for others |
| 235 | 7/24/2023 19:59:26 | Wake up people! Pay attention! |
| 236 | 7/24/2023 20:47:34 | Urgency |
| 242 | 7/25/2023 9:32:42 | Fearful |
| 244 | 7/25/2023 9:48:28 | This seemed like a very serious situation |
| 246 | 7/25/2023 11:08:09 | consequences |
| 249 | 7/25/2023 11:24:53 | Serious. |
| 250 | 7/25/2023 11:56:12 | It's important to keep my family safe. |
| 252 | 7/25/2023 13:18:18 | If you had …… |
| 259 | 7/25/2023 17:36:03 | Must evacuate if you have too. |
| 263 | 7/26/2023 0:17:14 | check with others first |
| 269 | 7/26/2023 8:25:40 | Not safe |
| 272 | 7/26/2023 8:51:09 | It felt like it was risking the life of first responders and potentially endangering others. |
| 282 | 7/26/2023 12:16:18 | Paints a picture |
| 283 | 7/26/2023 12:32:18 | EVACUATE NOW |
| 284 | 7/26/2023 12:38:00 | Wise decisions keep us safe |
| 291 | 7/26/2023 14:42:15 | must personal danger high risk |
| 293 | 7/26/2023 15:33:46 | "You decided to stay here" |
| 294 | 7/26/2023 15:49:23 | Situation has developed. Clearer risk. Explained consequences. |
| 295 | 7/26/2023 16:28:25 | The second video used action words and scenarios that made it more imperative that life-safety issues were imminent. It immediately caught my attention when he started off about if you are still here, this message is for you. |
| 301 | 7/26/2023 19:53:58 | Take action |

| | | |
|---|---|---|
| 302 | 7/26/2023 23:00:43 | Imagine worried loved ones |
| N = 101 | | |

## Appendix I

### Questionnaire Comments from Q10 | Table 29

Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?

**APPENDIX REFERENCES**

- Appendix A = Questionnaire research tool
- Appendix B = Matrix of Questionnaire Questions and Associated Table Numbers
- Appendix C–1 = Quantitative Data Analysis and Qualitative Data

**Table 29** Coded comments as Pathos mode of persuasion
N = 92

*Q10) What message points by the PIO did you consider to be the most persuasive in one or both statements?*

| Respondent # | Date/Time | Quote |
|---|---|---|
| 2 | 7/12/2023 8:37:42 | Level of danger |
| 5 | 7/12/2023 17:14:35 | Reference to seeing people stranded and how they risk first responders' lives because they didn't listen to the evac order |
| 12 | 7/13/2023 13:46:34 | Video 2 |
| 14 | 7/13/2023 15:47:03 | The danger predicted |
| 20 | 7/14/2023 8:08:57 | Connection to emotion in the second - more specifics |
| 22 | 7/14/2023 8:18:39 | #1: Time, deadline, danger level, 2# what if you don't evacuate, abandoned pets. |
| 27 | 7/14/2023 13:15:22 | prediction of problems storm will bring |
| 28 | 7/14/2023 13:40:49 | imminent bad things |
| 33 | 7/15/2023 16:04:48 | The threat of being cut off from escape routes |
| 40 | 7/16/2023 16:35:33 | #2 video - 'you have seen results other storms - dead, abandoned pets!' Drew your attention to what will transpire if you wait too long to evacuate |
| 43 | 7/16/2023 20:16:43 | I did not feel the first video was a directive. I felt the second one was. |
| 44 | 7/17/2023 1:28:52 | Grave |
| 49 | 7/17/2023 8:54:25 | Both |

| | | |
|---|---|---|
| 50 | 7/17/2023 9:51:34 | I don’t want to be the one being rescued |
| 51 | 7/17/2023 9:52:02 | The dangerous ones. |
| 53 | 7/17/2023 10:37:55 | Valid information and emotional concerns of family members. |
| 56 | 7/17/2023 10:46:43 | The dire tone of the second message. The idea presented that if you don't evacuate now, it could be too late. |
| 57 | 7/17/2023 11:51:09 | separation from pet |
| 58 | 7/17/2023 12:04:08 | Comparing to photos of people in other communities who were ordered to evacuate and didn't |
| 60 | 7/17/2023 12:09:30 | how it can directly affect YOU |
| 63 | 7/17/2023 12:21:34 | Loss of life and property.  This will happen. |
| 65 | 7/17/2023 12:44:23 | Vid 1: Clearly indicating streets/neighborhoods should evacuate. Vid 2: Appeal to friends/family being relieved if you leave, thoughts about abandoned pets. |
| 66 | 7/17/2023 12:54:43 | Think about what will happen if you don't evacuate (don't take risky chances). Reminder of people needing to be rescued/need for food, water, shelter. |
| 67 | 7/17/2023 12:54:49 | He needed to directly relate it to me and the consequences of my failing to act |
| 70 | 7/17/2023 14:08:57 | Not really many in the first video; in the second, the concept of flipping the question and asking what if you didn't evacuate was powerful. |
| 74 | 7/17/2023 15:43:08 | mentioning family, safety |
| 80 | 7/18/2023 8:29:52 | second |
| 83 | 7/18/2023 8:41:37 | When the second video said ...i am talking to YOU |
| 84 | 7/18/2023 8:53:30 | In the first one, mentioning pets are welcome at the shelter was the biggest factor for me. In the second one, appealing to my emotions and acknowledging it's not a small ask to evacuate, especially for those with mobility issues made me take the evacuation more seriously. |
| 87 | 7/18/2023 9:12:37 | consider pets! |
| 90 | 7/18/2023 9:30:50 | The immediate need for evacuation upfront (mostly in the second video) and telling the audience they made their decision based on the info they had at the time. Talking about road closures and evacuation efforts will be difficult or impossible. |

| | | |
|---|---|---|
| 91 | 7/18/2023 9:35:38 | The statements in video 2 |
| 92 | 7/18/2023 9:35:44 | what would happen if you didn't evacuate |
| 93 | 7/18/2023 9:40:21 | painted a picture of the results wanted and the consequences of lack of action |
| 97 | 7/18/2023 11:14:52 | The impact of flooding, road closures and mudslides were likely to have. The fact that rescue attempts would not be made for those who decided not to evacuate. The sense of imminent danger. |
| 104 | 7/18/2023 14:07:23 | I appreciated when he said "we're critical thinkers", or assumed that we were possibly rethinking our decision to stay. |
| 105 | 7/18/2023 14:21:53 | Specific factual info on neighborhoods - flash floods, mud slides, etc. References to recent footage/stories of people - and their pets - who did not choose to evacuate and the consequences of non-action. |
| 108 | 7/18/2023 15:46:05 | don't wonder what will happen if you do evacuate, imagine what will happen if you don't |
| 109 | 7/18/2023 15:57:49 | That family members would be concerned about my safety. |
| 113 | 7/18/2023 20:30:07 | Concern for the feelings of others |
| 119 | 7/19/2023 8:50:37 | Gravity of severe weather. |
| 122 | 7/19/2023 9:12:16 | "I thought the second video was more persuasive and the first was more factual.<br><br>In the second video when the PIO stated ""I am talking to you"" ""think about the past incidents and lives that could be saved""<br><br>The first video, the facts about what was happening is helpful to make an informed decision but it is easier to think ""I'll be fine"". " |
| 123 | 7/19/2023 9:17:27 | 2nd message - don't put rescue teams at risk, pets are at risk, people are already safe in the shelter |
| 124 | 7/19/2023 9:32:54 | Without a doubt it will be bad |
| 128 | 7/19/2023 10:23:33 | I appreciated the sincerity of the second message urging those who had not yet evacuated to do so. |
| 132 | 7/19/2023 11:10:54 | They were fact based statements. In the 2nd when he specifically said he was speaking to it made a connection |
| 133 | 7/19/2023 11:29:39 | "we are critical thinkers" - there would have been no loss of life if...think how relieved people will be... |

| | | |
|---|---|---|
| 138 | 7/19/2023 15:55:59 | I really liked the he appealed to the audience and provided compassion while also encouraging us to evacuate and understood why it would be a tough decision to make. |
| 141 | 7/19/2023 18:18:02 | Famly |
| 146 | 7/20/2023 7:30:44 | 1) Explanation of conditions during weather event: roads closed, isolation, etc. 2) Inverse thinking. Why not protect yourself? Why not give family peace of mind? |
| 162 | 7/20/2023 21:22:08 | The persuasive statements to me were made in the second video when he was getting right to the point and expressing out loud the thoughts that were running through my head as far as staying back or waiting to see what happens but then also provided a specific location at the schools of where I could actually go to versus just get in your car and evacuate. |
| 163 | 7/20/2023 21:46:14 | The need to evacuate and that responders would be delayed due to deteriorating conditions. The second video made a strong appeal by asking us to consider what the consequences would be if we DIDN'T evacuate, including imaging what it would be like to be stranded and without power compared to being safe in a shelter. |
| 164 | 7/20/2023 22:39:47 | 2nd, detailed locations and reason to leave now |
| 165 | 7/21/2023 7:02:54 | Facts about the weather & timeframe, clear info on shelter locations & pets welcome, specific time of next update. In the 2nd message, the emotional message was touching & convincing. It reinforced the decision I had already made to act after the first video. |
| 166 | 7/21/2023 7:14:43 | To those who have not already evacuated… |
| 174 | 7/21/2023 11:52:56 | Inclusion of pets/animal safety, keeping a calm tone, inclusion of neighbors/community verbiage |
| 183 | 7/21/2023 18:51:50 | 2nd statement - empathetic non-blaming talking points. I.e. It may have the right decision at the time... |
| 187 | 7/22/2023 9:53:40 | Risks of not evacuating. |
| 188 | 7/22/2023 9:55:21 | High danger, time when it will be too late to leave, lack of help after that time |
| 191 | 7/22/2023 11:17:18 | "Video 1: Giving frame of references for emergency service response times and locations of shelters.<br><br>Video 2: Using ""You"" and ""I"" to deviate from traditional news style scripts that use ""citizens are strongly recommended."" It made an emotional appeal since the previously given analytics (in V1) might not have cut through enough to create a sense of urgency for some people. |

| | | |
|---|---|---|
| | | Overall: The switch from base-rate info and data (in V1) to instead using exemplar/emotional language (in V2) had a greater influence for myself, and so it potentially would also have a greater influence for those that might not have been previously emotionally influenced by data alone. " |
| 193 | 7/22/2023 12:22:41 | in danger, rescue may not be possible |
| 194 | 7/22/2023 12:40:40 | For the second video, the mentioning of family. |
| 195 | 7/22/2023 13:20:10 | Personal danger |
| 197 | 7/22/2023 15:42:16 | Suggesting that people think about the impact of their decision on their family and the community |
| 199 | 7/22/2023 16:30:42 | what happens if I don’t evacuate! Shelters are filled with family members |
| 201 | 7/22/2023 16:39:53 | All of it |
| 206 | 7/22/2023 19:21:00 | The decisions made earlier may have been bad laws on information available at the time. Those decisions to stay were optimistic and you need to leave now |
| 207 | 7/22/2023 19:44:03 | What if you chose to not evacuate messaging |
| 208 | 7/22/2023 19:56:44 | The second video was more persuasive, but almost too emotional |
| 216 | 7/23/2023 11:10:24 | I was reminded of past images of rooftop rescues and sad stranded animals. |
| 218 | 7/23/2023 18:10:03 | Can you afford not to evacuate |
| 231 | 7/24/2023 13:09:43 | without actually saying it...don't be stupid. failing to evacuate could potentially put you, your family and potential (probable) rescue personnel in danger. |
| 232 | 7/24/2023 13:23:51 | In the first video, providing clear expectations of the extreme weather event and severity of anticipated outcomes was persuasive. In the second video, validating prior decisions (e.g. you decided to stay based on the info you had several hours ago) and validating emotions (e.g. it's difficult and scary to evacuate your home) were very persuasive. |
| 242 | 7/25/2023 9:32:42 | Consider what would happen if you do not evacuate in second video. |
| 243 | 7/25/2023 9:37:36 | the second statements being more empathetic |
| 245 | 7/25/2023 10:33:18 | The emotional urgency of the second appeal combined with the prediction information in the first appeal |
| 253 | 7/25/2023 14:47:28 | His statements of understanding and when he said he's talking to u as someone who has chosen to not evacuate. |

| | | |
|---|---|---|
| 255 | 7/25/2023 15:45:41 | potential danger |
| 256 | 7/25/2023 15:54:13 | Facts from statement one and empathy from statement two. |
| 259 | 7/25/2023 17:36:03 | The danger of the storms. |
| 268 | 7/26/2023 8:08:20 | That the evacuation was in effect, evacuation deadline, shelter info, and what to do next. In the second video, stressing the dangers of not evacuating is important. |
| 269 | 7/26/2023 8:25:40 | Imminent danger of being stuck after roads are closed. |
| 270 | 7/26/2023 8:28:28 | Risk of death |
| 272 | 7/26/2023 8:51:09 | The PIO's most effective message points where when he painted pictures of animal rescues, first responders, downed tree lines, etc. |
| 274 | 7/26/2023 9:11:23 | The second one |
| 282 | 7/26/2023 12:16:18 | Drawing attention to specific conditions that will be dangerous, and describing how those conditions will impact people in tangible ways they can imagine |
| 287 | 7/26/2023 13:21:06 | Your friends / loved ones will be glad you left |
| 290 | 7/26/2023 14:26:10 | timeline, evacuation route and travel impacts, "Flip the question, what if I don't evacuate?", items to take, pet information |
| 291 | 7/26/2023 14:42:15 | 7/26/2023 14:42:15 |
| 294 | 7/26/2023 15:49:23 | Examples of past victims. Impact on your family. More urgency to act now. |
| 295 | 7/26/2023 16:28:25 | See above. |
| 304 | 7/27/2023 5:28:05 | Not waiting it out in the 2nd video |
| N = 92 | | |

## Appendix J

**Questionnaire comments from final, optional comment box | Tables 30 - 31**

Q13 OPTIONAL: Share any final comment before submitting your responses.

**QUALITATIVE DATA ANALYSIS**

- Table 30 = Coded comments as perceived value to a narrative message
- Table 31 = Coded comments as future research suggestions

**APPENDIX REFERENCES**

- Appendix A = Questionnaire research tool
- Appendix B = Matrix of Questionnaire Questions and Associated Table Numbers

**Table 30** Coded comments as perceived value to a narrative message
N = 10

*(Q13) OPTIONAL: Share any final comment before submitting your responses.*

| Respondent # | Date/Time | Quote |
|---|---|---|
| 13 | 7/13/2023 15:26:11 | The narrative of the second video is novel, creative, and could be very persuasive, but it is highly unorthodox. Due to its being unorthodox I believe it would require a very confident delivery from a trusted authority for it to be effective for the general public. |
| 56 | 7/17/2023 10:46:43 | I appreciated the two different types of messaging presented. The first video is what we are used to, and I would choose to heed the warning. But I know many do not. The second message was more urgent, evocative, and emotional. It was a sensible plea, combined with a warning that it could be too late if you don't act now. That type of messaging could prove effective. |
| 84 | 7/18/2023 8:53:30 | Using everyday language that means something, plus appealing to the emotions and acknowledging the hardships was more effective than a lot of technical jargon about precipitation. |
| 111 | 7/18/2023 19:10:35 | BOTH announcements needed. 1st encourages many but 2nd aired later can nudge the “stay-in-place” to act while still time. |
| 113 | 7/18/2023 20:30:07 | I think if more PSAs like these were made people would take them more seriously |
| 138 | 7/19/2023 15:55:59 | The second video was a lot more powerful and made me want to evacuate because of how he handled it with recognizing it's a tough decision but one that needs to be made. |
| 170 | 7/21/2023 9:33:20 | I think adding the second message after the first is a great way of capturing more people. It helps more emotional thinkers to get on board with the evacuation notice. |

| | | |
|---|---|---|
| 177 | 7/21/2023 13:26:21 | The tone of the PIO denotes the urgency - appreciated all of the emotion-related explanations in the second video. |
| 191 | 7/22/2023 11:17:18 | Video 2:<br>- The switching from "straight news" reporting to emotional appeal with the use of "you" and "I" drove home that the time for scripted and analytical language is no longer useful because an emotional appeal would be more effective at this point to drive home the sense of urgency<br>- Describing the video clips and photos from prior storm damage provided affective mental imagery to drive home the sense of urgency. This could potentially be more affective than showing actual clips or photos since the audience member's imagination could potentially show them something that they relate to more so when it's described to them instead of having the level of relation showed to them via screen. |
| 224 | 7/24/2023 9:36:51 | Great subject choice. Message 2 definitely conveyed the urgency of the matter more and made it personal |
| N = 10 | | |

**Table 31** Coded comments as future research suggestions
N = 8

*(Q13) OPTIONAL: Share any final comment before submitting your responses.*

| Respondent # | Date/Time | Quote |
|---|---|---|
| 28 | 7/14/2023 13:40:49 | People will be people and likely not be persuaded by a PIO. They also wont be watching TV Social media friendly releases are a must with easily understandable messages. |
| 138 | 7/20/2023 9:09:40 | The videos pointed out that we need a combination of the two approaches. Provide the facts but also throw in some of how this will directly impact individuals. |
| 168 | 7/21/2023 7:14:43 | From the videos provided, I would be curious about the potential differences in public reaction when official information is delivered directly (as seen in the videos) by a qualified but relatively unknown government PIO versus a more recognizable and trusted broadcast news personality. |
| 191 | 7/22/2023 11:17:18 | - Future Research idea for visual stimuli: I know that the main focus was to listen to the language content, but potentially using video clips from past storms of similarly expected threat level that could be used as visual aid to align with the verbiage. It probably would have gotten the message across more as to how severe the damage and threat could be. |

| | | |
|---|---|---|
| 216 | 7/23/2023 11:10:24 | "I think the other interesting thing is the difference between the color of the vests, I think I trusted blue more. Perhaps I got a sense that the hi-vis orange was a hunter.<br><br>Blue traditionally is more uniform and authoritarian. As an APIO, this is a fascinating project and look forward to the results. " |
| 271 | 7/26/2023 8:46:54 | I was surprised by my own negative reaction to the second video. Had that message been delivered by a thought leader (mayor, etc) I think I'd have been open to it. I might also have been open to a message from a first responder group describing the impact my decision to stay home is putting on overtaxed resources and the consequences to me. From the PIO, I wanted the facts to paint a picture of the urgency and I got that from the first video. In the second video I had a "who are you, my mother?" reaction that sent up my hackles - I have no idea why! PS, for the record and posterity, do really like my mom :) |
| 277 | 7/26/2023 9:35:28 | What about a different approach to delivering the emotional message, such as a video of past events and people suffering? The spokesperson's second video was simply another canned statement. |
| 278 | 7/26/2023 10:35:58 | Increasingly we find that emergency information is shared on social media. I would love to see a similar study evaluating effectiveness of different styles of social media information sharing and comparing to a conventional media alert like this. |
| N = 8 | | |

## Appendix K

**Professional Associations, Organizations, Agencies, Networks, and Groups invited to participate in research study questionnaire**

- All Hazards Incident Management Teams Association
  - Southeast Wisconsin Incident Management Team
- California Association of Public Information Officials
- Central Ohio Public Information Network
- City-County Communications & Marketing Association
- Florida Association of Public Information Officers
- Government Social Media Facebook Community
- Healthcare Coalition of Maine
- Healthcare Emergency Readiness Coalition Region 7
- International Association of Emergency Managers Region 5
- Kentucky Association of Government Communicators
- Master Public Information Officers 2023 FEMA program candidates
- Mesa County Communications Officers' Association
- National Association of County Information Officers
- National Association of Government Communicators
- National Institutes of Health PIO Network
- National Wildfire Coordinating Group
- National Information Officers Association
  - NIOA Region 5
- North Carolina Association of Government Information Officers
- North Texas PIO Group
- Public Relations Society of America (PRSA)
  - PRSA Southeast Wisconsin Chapter
  - PRSA Public Affairs and Government Section
- Utah PIO Association

- Washington Public Information Network
- Wisconsin Public Health PIO Network
- Wisconsin Emergency Management

**Posts on this author's personal social media accounts to:**

- Facebook
- LinkedIn
- Threads
- Twitter/X