Risk Communication and Social Vulnerability: Guidance for Practitioners

Carson MacPherson-Krutsky, Ph.D.

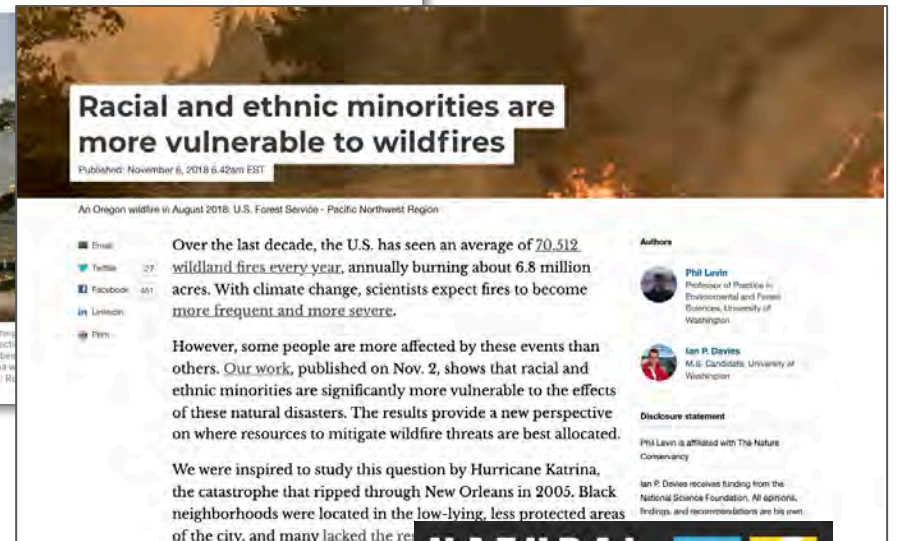Research Associate, Natural Hazards Center

University of Colorado Boulder
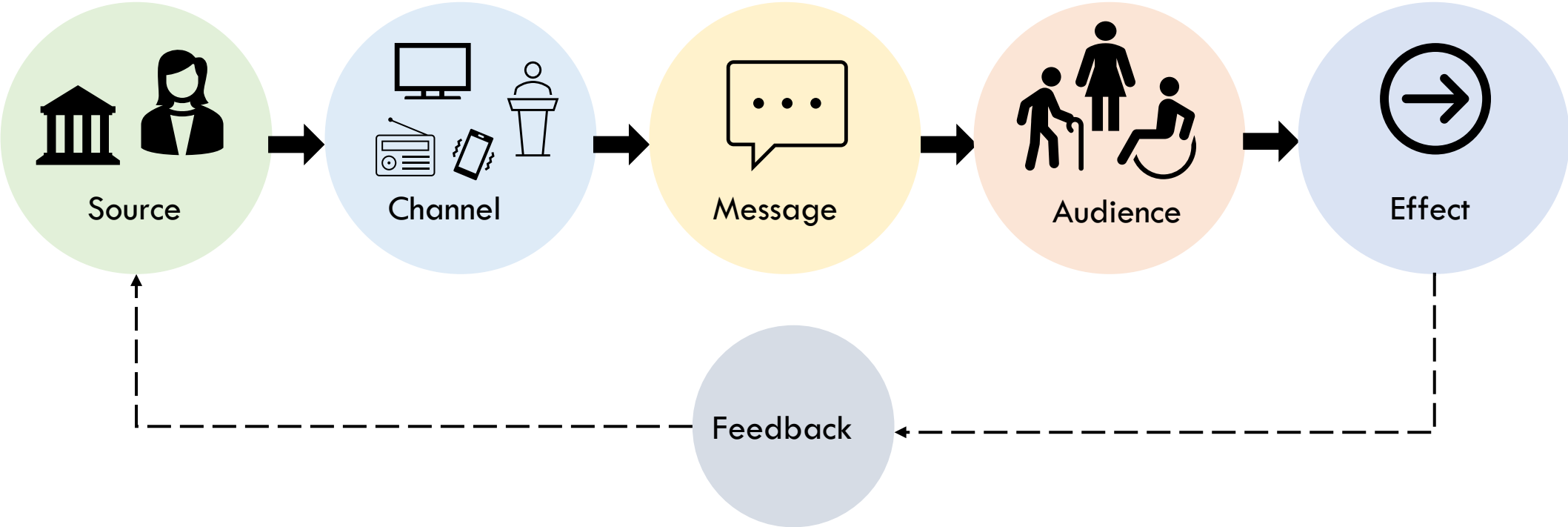
Defining Social Vulnerability

- Socially vulnerable populations face disproportionate disaster risk due to a variety of **social, economic, political, and historical** factors.

- All communities have socially vulnerable groups.

- Vulnerability is **not inherent** to a person or community, instead it is conditioned by historical and social factors.

PUBLIC HEALTH

How California's emergency plans fail disabled communities

Kelley Coleman's 9-year-old son had two days of his medication left. Then the evacuation order hit.

Flooding Disproportionately Harms Black Neighborhoods

The impacts of floods can exacerbate existing racial and social inequality

By Thomas Frank, E&E News on June 2, 2020

Coleman was vacationing in Santa [...] ornia, when the evacuation order ca [...]

Palazzolo Simmons, 49, looks out over his home nei [...] in the mostly poor and black Lower Ninth Ward secti [...] Orleanians in more upscale neighborhoods were be [...] the poorest areas hardest hit by Hurricane Katrina v [...] for the first time the remnants of their life. Credit: R [...]

Racial and ethnic minorities are more vulnerable to wildfires

Published: November 6, 2018 6:42am EST

An Oregon wildfire in August 2018. U.S. Forest Service - Pacific Northwest Region

Over the last decade, the U.S. has seen an average of 70,512 wildland fires every year, annually burning about 6.8 million acres. With climate change, scientists expect fires to become more frequent and more severe.

However, some people are more affected by these events than others. Our work, published on Nov. 2, shows that racial and ethnic minorities are significantly more vulnerable to the effects of these natural disasters. The results provide a new perspective on where resources to mitigate wildfire threats are best allocated.

We were inspired to study this question by Hurricane Katrina, the catastrophe that ripped through New Orleans in 2005. Black neighborhoods were located in the low-lying, less protected areas of the city, and many lacked the re [...]

Authors

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Disclosure statement

Phil Levin is affiliated with The Nature Conservancy.

Ian P. Davies receives funding from the National Science Foundation. All opinions, findings, and recommendations are his own.

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Classic models of communication have assumed that risk information will lead to action

Source → Channel → Message → Audience → Effect

Feedback

Risk Communication Resources

**Principle Investigator**: Dr. Lori Peek
Project Leads: Dr. Carson MacPherson-Krutsky, (Former: Dr. Nnenia Campbell)
Research Assistants: Luther Green and Dr. Mary Painter (Former: NHC Students)

Audience: Flood Hazard and Risk Practitioners (can be applied more broadly)

Goal: Provide evidence-based guidance on how to meaningfully involve socially vulnerable populations in the risk communication process.
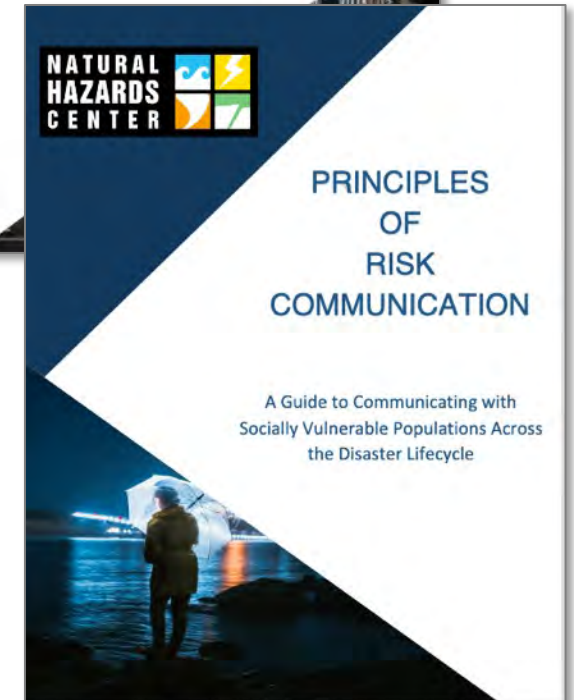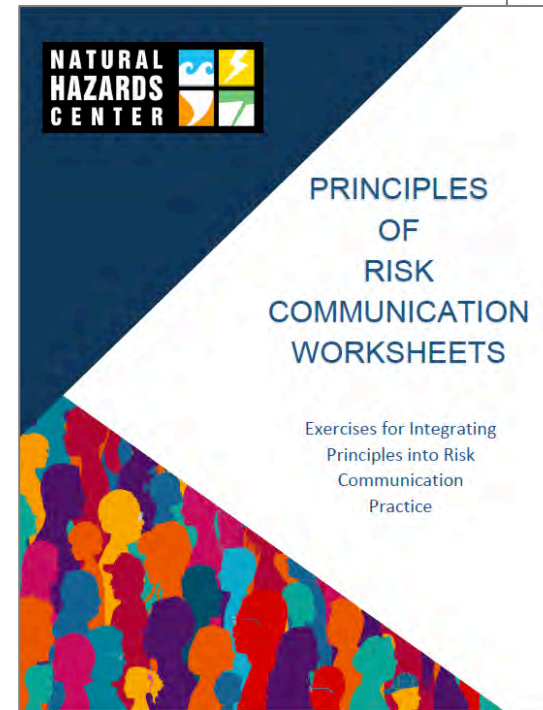
Annotated Bibliography

- Summarizes key publications on risk communication and social vulnerability (academic books and articles and agency reports)

- Organizes literature around themes and populations of interest to practitioners

RISK COMMUNICATION INVOLVING VULNERABLE POPULATIONS

AN ANNOTATED BIBLIOGRAPHY

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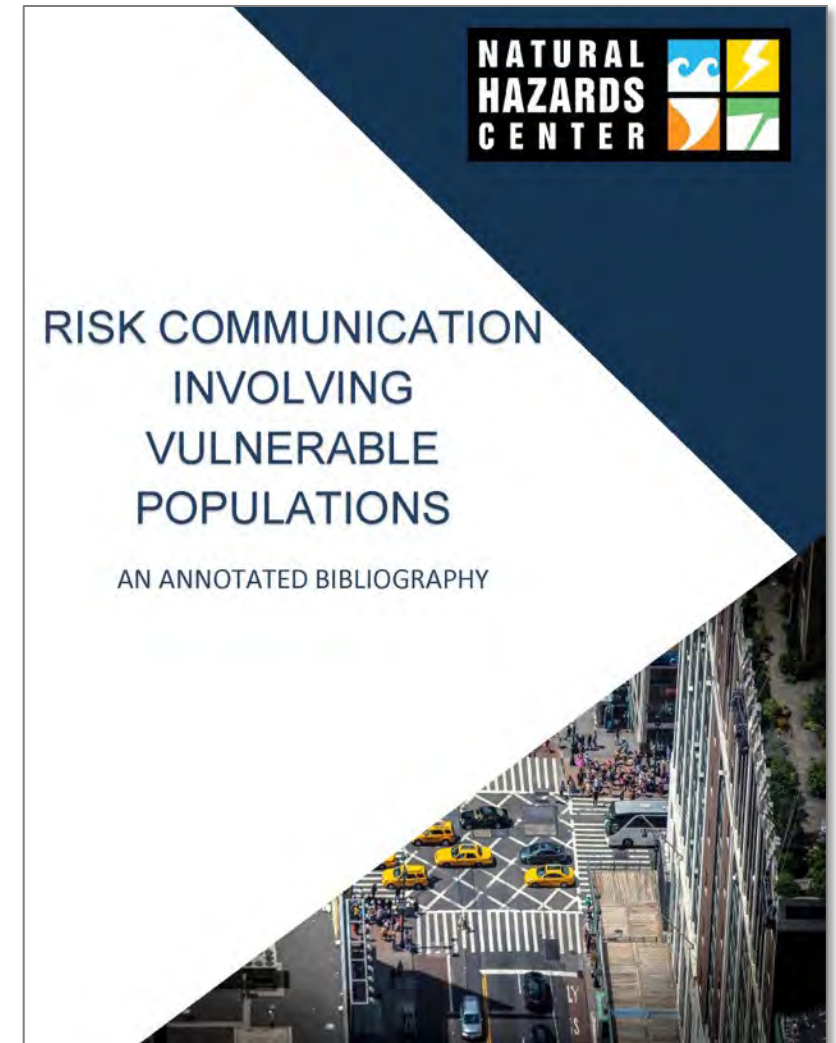
Annotated Bibliography

Academic and Agency Reports

Seeger, Matthew W. 2006. "Best Practices in Crisis Communication: An Expert Panel Process." *Journal of Applied Communication Research* 34(3):232–44.

Keywords
General Risk Communication

Key Findings
- The 10 best practices described in this article are:
  - Process approaches and policy development
  - Pre-event planning
  - Partnerships with the public
  - Listen to the public's concern and understand the audience
  - Honesty, candor, and openness
  - Collaborate and coordinate with credible sources
  - Meet the needs of the media and remain accessible
  - Communicate with concern, compassion, and empathy
  - Accept uncertainty and ambiguity
  - Messages of self-efficacy

Summary of Key Findings

Take-Home Message

This analysis describes 10 best practices for effective crisis communication decided on by a panel of expert emergency management practitioners.

Quick Take Home Message

**Abstract**

The description of "best practices" is widely used to improve organizational and professional practice. This analysis describes best practices in crisis communication as a form of grounded theoretical approach for improving the effectiveness of crisis communication specifically within the context of large publicly-managed crises. The results of a panel of crisis communication experts are reviewed. Ten best practices for effective crisis communication, which were synthesized from this process, are presented and described.
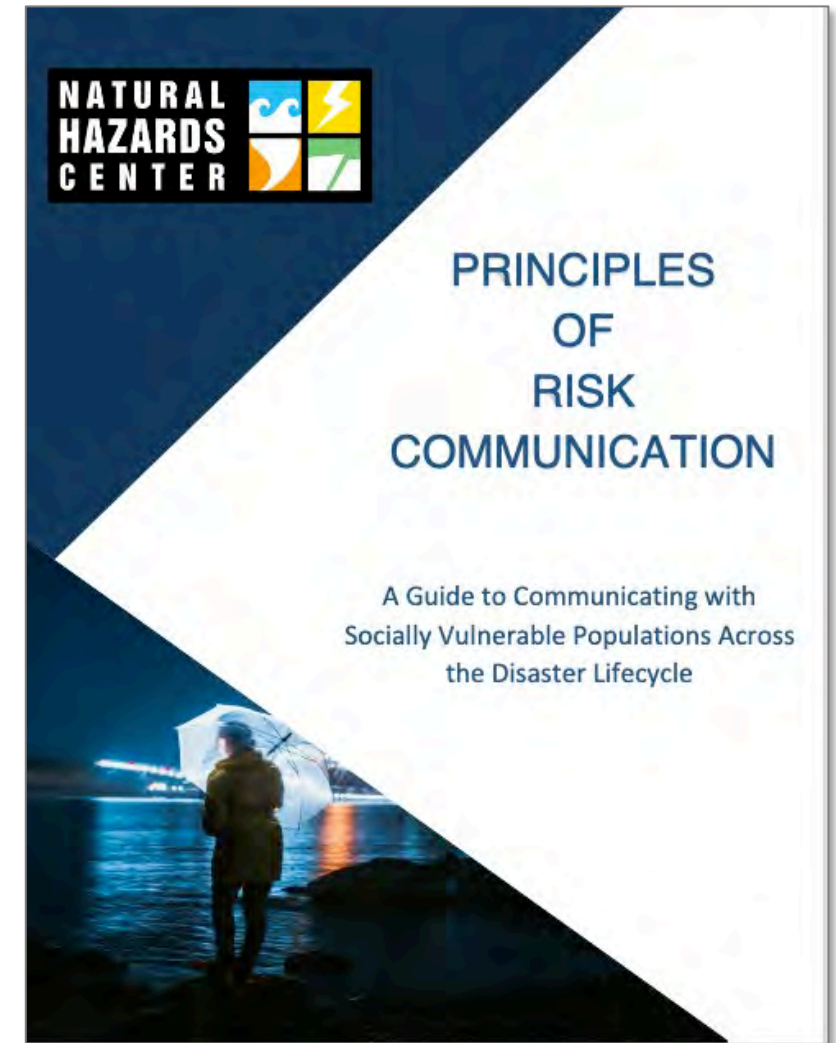
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Guidebook

- At-a-glance resource for practitioners

- Defines three key principles of risk communication that emerged from the literature review

- Provides examples of the three principles across the disaster lifecycle
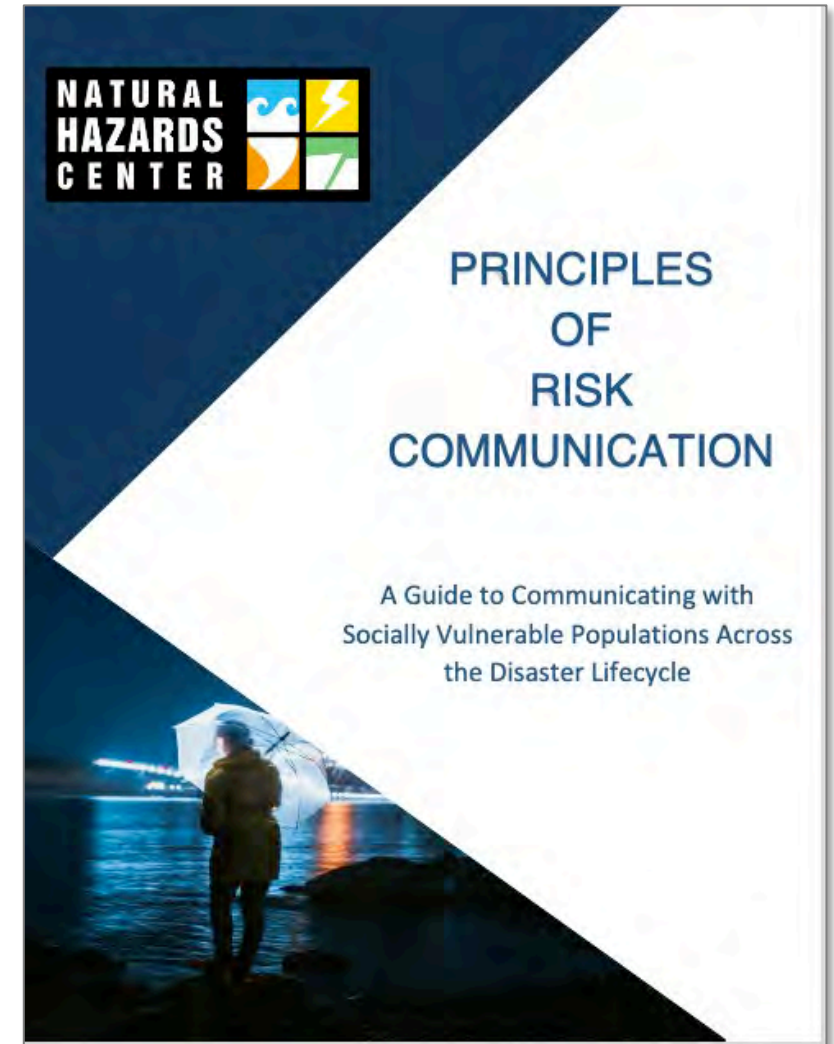
Key Principles

I. Communicate Through Familiar and Trusted Messengers

II. Provide Clear, Actionable Information

III. Tailor Messages and Information Pathways for Target Audiences

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PRINCIPLES OF RISK COMMUNICATION

A Guide to Communicating with Socially Vulnerable Populations Across the Disaster Lifecycle

Guidebook

Underlying Concepts and Implications

Tips for Applying Each Principle

Principle I. Communicate Through Familiar and Trusted Messengers

Underlying Concepts	Implications for Socially Vulnerable Populations
Credibility is essential If message recipients are to be receptive to risk communications, believe them, and take them seriously.	Careful **planning and relationship-building** are critical for risk communicators. Government actors and other officials may lack credibility with some communities due to pre-existing conflicts, historical injustices, or simple lack of familiarity. It is essential for risk communicators to understand how they are perceived and **empathize** with message recipients.
Risk communicators **must be viewed as legitimate and trustworthy** sources of information, or their messages may not reach or resonate with their intended recipients.	Working with credible, well-connected partners in target communities helps to ensure that messages are appropriately constructed and disseminated. These "gatekeepers" or "cultural brokers" hold valuable expertise about their communities and may be comparatively well-received by the target audience.
	Expertise and rank alone do not automatically provide credibility or authority in these circumstances. Rather, this kind of influence is developed by building trusting and mutually respectful relationships with credible partners. Such partners are particularly important in circumstances where **misinformation and distrust** may influence perceptions of unknown experts.

Tips for Communicating Through Familiar and Trusted Messengers

Getting to Know Your Audience
- Use publicly available data as a first step toward identifying vulnerable populations and learning about their needs. Remember that different social groups belong to different networks and may have varying degrees of trust in any given source of information. Understanding these dynamics is essential. The CDC Social Vulnerability Index is a key source of information that can help to develop a baseline understanding of the demographic diversity in a community.
- Effective partnerships and relationships are the foundation of building connections with partners and stakeholders by being them, learning about their concerns, and empathizing with the

Engaging Community Partners and Gatekeepers
- Although technical experts possess important knowledge, com (e.g., informal leaders, organizational representatives, other influential persons) hold vital expertise about their constituents. Approach these potential partners with humility and respect.

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Disaster Preparedness

Examples	Key Takeaways
Phillips (2015) argues that failu... perspectives of persons with d... emergency planning contribut... challenges these groups face w... response and recovery. Partne... efforts with organizations that... these populations can help em... personnel better reach these ... members in risk communicatio... disaster-related activities.	
The Indiana Silver Jackets tea... education efforts that reach ou... educate them about flooding a... and the measures they and the... take to ensure their personal s... relied on several member agen... distribute activity books and e... groups specifically working wit... throughout the state (U.S. Arm... Engineers [USACE] N.D.-A). Ag... had relationships with childre... partners who could leverage t... familiarity with the target aud... important guidance.	

Disaster Response

Examples	Key Takeaways
Communicating warning messages through service providers, media outlets t... linguistic minorities, and other en... established networks in hard-to-re... communities has been shown to r... message receipt and the taking of... recommended protective actions ... Morrow 2007.	Scholars have found that ...
The City of Fort Collins, Colorado ... heavily over the years in flood wa... mitigation measures, message tes... risk communication through publi... pre-disaster legwork helped build... in City's expertise and trust in its ... safety. When severe flooding stru... 2013, these investments paid off. ... launched a social media campaign... safety updates during this active ... situation, messages were effective... taken seriously because residents... information to be relevant and va... Associates Team 2016).	

Disaster Recovery

Examples	Key Takeaways
Military veterans who were experiencing homelessness in coasta... at the time of Hurrican... secondary difficulties w... such as food, shelter, a... of the storm. Research... Affairs (VA) health care... source of disaster-relat... population because tra... television and radio, w... them (Gin et al. 2019). ... partner by leveraging i... trusted actor to relay i... information.	Studies have found that ...
Shortly after the 2013 ... officials learned that m... busy disaster assistanc... overwhelming, renderi... the help they needed. ... the Boulder County lor... coordinated with senio... address elders' needs i... environments (Campbe... provided population-sp... recovery effort and ena... to a trusted source for ...	

Hazard Mitigation

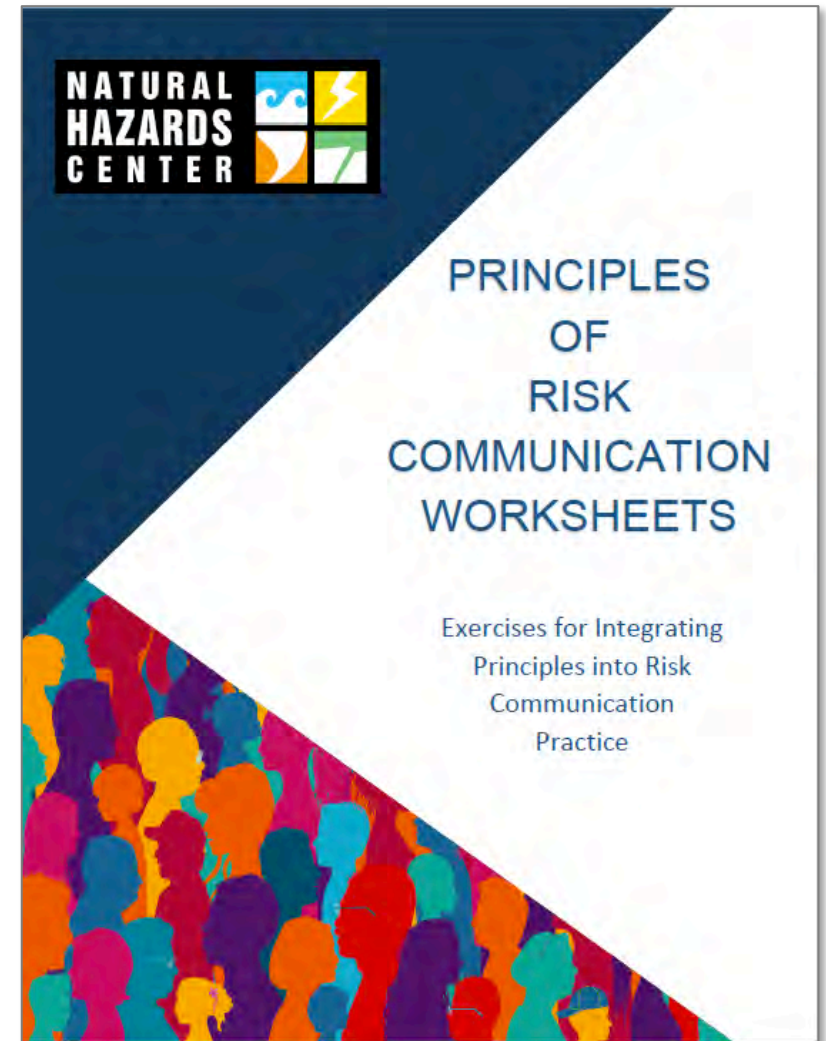| Examples	Key Takeaways
Research has found that simple facts and technical data about risks are insufficient to prompt action because this kind of information is filtered through the lens of personal experience—particularly for those who have experienced a disaster but avoided major losses. Efforts to encourage or generate public support for mitigation activities may therefore be more effective when technical details are paired with relevant, relatable stories that highlight the experiences of others, especially narratives that counteract near-miss experiences (Dillon, Tinsley, and Cronin 2011). Such stories may feel more relatable and credible to the audience, particularly when delivered by those with firsthand experience.	Pairing technical details with relevant and relatable content (e.g., storytelling) makes hazard mitigation material more likely to be acted-upon by the public and counteracts complacency.
In St. Bernard Parish, a team of Parish leaders, the levee district, and a consultant group collaborated on messaging and outreach activities as part of a campaign to increase flood risk awareness, educate the public about construction projects funded by FEMA's Hazard Mitigation Grant Program, and encourage them to take mitigation actions themselves. Brochures disseminated to residents were branded with a joint logo from the Parrish and the consulting team due to concerns that local	Disseminating hazard mitigation messages through trusted local sources (e.g., local government, media) increases the likelihood that the public will take an interest in and act upon the measures recommended by external agencies.

Link to PDFs: https://hazards.colorado.edu/news/research-projects/risk-communication-and-social-vulnerability

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Worksheets

- The Worksheets break down the core principles into simple steps and questions to guide users in applying the principles to their own work

- Provide additional resources and quick tips

  - **Worksheets 1-4:** Before initiating the risk communication process

  - **Worksheet 5:** After implementation of a risk communication project

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PRINCIPLES
OF
RISK
COMMUNICATION
WORKSHEETS

Exercises for Integrating
Principles into Risk
Communication
Practice

Example: Principle I Worksheet

I. Communicate Through Familiar and Trusted Messengers

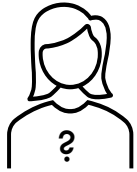**Principle I Worksheet:**
Communicate Through Familiar and Trusted Messengers

Project Title: _____

Project Lead: _____

Project Timeline: _____

Steps Included in this Worksheet:

1. Identify the organizations and gatekeepers that are largely trusted by your target audiences

2. Develop a plan to reach out and build relationships with potential risk communication partners that are trusted by your target audiences

3. Reach out to potential risk communication partners, discuss your risk communication priorities, and collaborate where appropriate

Example: Principle I Worksheet

Step 1: Identify the organizations and gatekeepers that are largely trusted by your target audiences

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Principle I Worksheet:
Communicate Through Familiar and Trusted Messengers

_____

Project Title: _____

Project Lead: _____

Project Timeline: _____

What trusted individuals, institutions, or outlets do members of your target population turn to for information and assistance during times of crisis?

Testimonials

Risk Communication and
Socially Vulnerable Populations

A Six-Session Training Course

Sponsors: U.S. Army Corps of Engineers (USACE) and the
Natural Hazards Center at the University of Colorado Boulder

Course Description:

"The Principles of Risk Communication worksheets are useful because **they prompt the user to ask important questions** that better address how to identify socially vulnerable groups, how to communicate effectively to those groups, and **how to drive action with your communication efforts**."
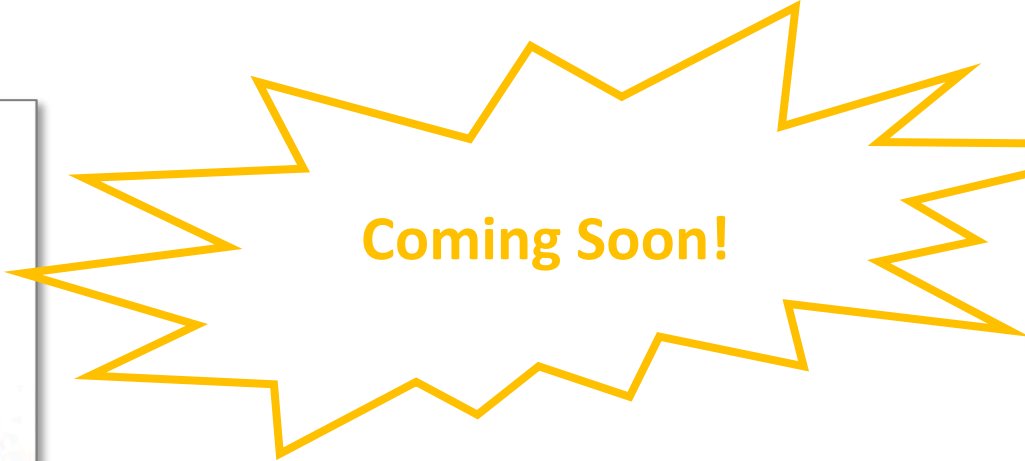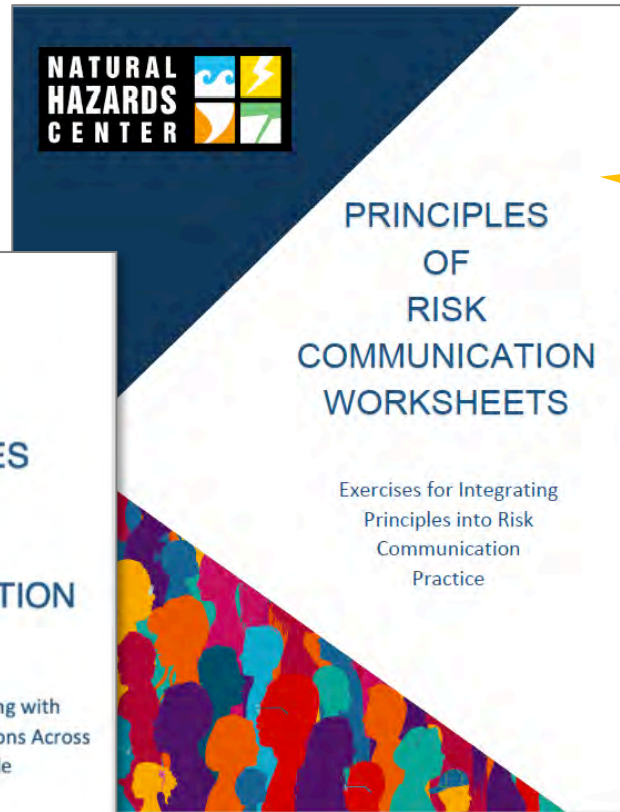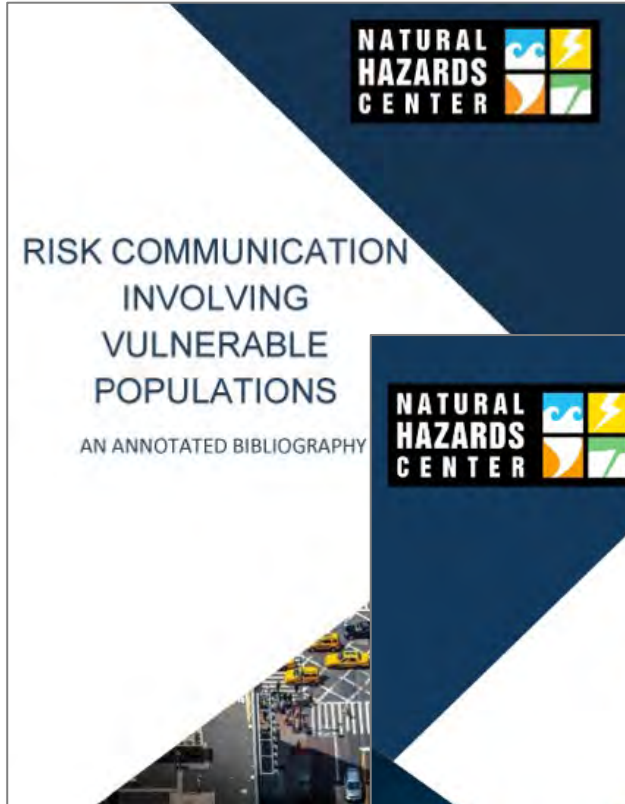
-Spring 2022 Course Participant

"**[These materials] made me consider why I thought what I thought and if I was doing what I assumed I was.** I think re-reading these prior to outreach and engagement and when starting a new project may be beneficial**.**"

-Spring 2022 Course Participant

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Download PDFs Here:

RISK COMMUNICATION INVOLVING VULNERABLE POPULATIONS

AN ANNOTATED BIBLIOGRAPHY

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PRINCIPLES OF RISK COMMUNICATION

A Guide to Communicating with Socially Vulnerable Populations Across the Disaster Lifecycle

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PRINCIPLES OF RISK COMMUNICATION WORKSHEETS

Exercises for Integrating Principles into Risk Communication Practice

Coming Soon!

- Glossary of Key Terms on Risk Communication and Social Vulnerability

- Social Vulnerability Indices Information Page

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