

Understanding Risk Behavior:

The Fundamental Challenges

Human exposure to risk from coastal hazards is increasing because vulnerable coastal areas are becoming more densely populated. Coastal hazards such as hurricanes and floods are predicted to become more intense as a result of climate change. Better risk communication can save lives, protect property, lessen damage to coastal economies, and create more resilient coastal communities that recover more quickly after a disaster.

What Is Risk?

Risk is often defined as a combination of the danger posed by an event (hazard), the vulnerability of people to an event (exposure), and the likelihood of the event occurring (probability). But why do two people exposed to the same level of risk behave differently? Why does one family evacuate for an oncoming storm while other neighbors stay? Because peoples' behavior is also determined by their own *perceptions* and their own *decision-making processes*.

Risk perception

There are many models and frameworks that attempt to explain how people perceive and interpret risk. A common idea in the models is that people perceive risk from two dimensions: what they know about the risk, and how they feel about the risk. Feelings about risk are shaped by peoples' past experiences, the opinions of their social networks, their level of control over the risk, and many other factors. Risk managers tend to pay too little attention to how people feel about the risk, focusing instead on increasing their knowledge. Conversely, the public tends to put a lot of emphasis on how they feel about the risk, sometimes ignoring important messages or information.

Making decisions in the face of risk

Perception can be seen as the first step in making a decision, followed by considering options, calculating which option is in your best interest, and then taking action. As with risk perception, psychological and social factors such as the decisions of friends and family, as well as physical circumstances such as mobility and access to transportation, impact how a person weighs the costs and benefits of different options. Many people use intuition or "rules of thumb" to make decisions, which can be helpful or harmful. Decision-making is rarely limited to two mutually exclusive options; there are often many alternate paths.

Risk Communication

Risk communication is a critical component of risk management. The ultimate goal of risk communication is generally to change peoples' behavior in a given situation. And because research has repeatedly shown that behavior change is rarely achieved without highly tailored and carefully crafted messages, a keen understanding of audiences and their situations is essential to success. Best practices in development and delivery of risk communication strategies follow on the next page.

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Risk Behavior and Communication: Best Practices

In 2009, the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center sponsored a study on the communication of natural hazard risks in coastal areas. This study identified suggestions or best practices to aid in the challenging tasks of communicating risks and changing public behavior.

Best Practices

- **Start small**—consider beginning a risk behavior change and messaging campaign by initially targeting a very specific behavior displayed by a very specific audience. Small-scale, localized efforts may be more likely to succeed and can be helpful in setting the stage for more comprehensive and far-reaching campaigns.
- **Use social norms to your advantage**—people are profoundly influenced by the behavior of those around them. Begin your campaign by targeting an audience whose behavior may be relatively easy to change, and allow that group's behavior to diffuse throughout the broader community.
- **Know your audience**—do what's necessary to understand your audience's perceptions, decision-making processes, and social and cultural norms. Specifically, uncover what prevents and promotes the behavior that you're trying to cultivate. Knowing your audience will help you design an effective message and identify a trusted messenger to deliver that message.
- **Present easy-to-understand and repetitive information**—craft your message to be as brief and as vivid as possible. As the saying goes, a picture is worth a thousand words. And recognize that the message will need to be delivered repeatedly, through a variety of media and communication channels, in order to change behavior.
- **Use a positive approach**—provide your audience with a specific action to take, and design a message that taps into existing skills, roles, or desires. Messages suggesting a familiar or easy-to-do action can be more effective at grabbing an audience's attention and promoting action.
- **Evaluate your success**—evaluate your campaign mid-course and make any needed improvements. Also evaluate your campaign when it's over to understand whether you met your goals. This information can help to craft more effective campaigns next time.

The Social Marketing Approach

Many effective behavior change campaigns use the social marketing approach. Social marketing uses social science methods to uncover the barriers that prevent an audience from doing something, as well as the benefits that an audience would expect from that behavior. Communication and other tools such as prompts, incentives, social norms, and commitment are then used to encourage the new behavior by decreasing barriers and increasing benefits. Multiple resources on social marketing, and the report on which this document is based, are available under Communicate at www.csc.noaa.gov/digitalcoast/inundation/resources.html.



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