People’s Responses to Warnings

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National Research Council defines “Risk Communication”:

“an interactive process of exchange of information and opinion among individuals, groups and institutions” including “discussion about risk types and levels and about methods for managing risks”.

Translation: people interact in response to warnings.
Who might be vulnerable?

- Low-Income
- Race, ethnicity
- Gender
- Dis/ability; temporary or episodic
- Type of housing/homelessness
- Social/Geographic Isolation
- Children in self-care
- Language
- Tourists and Transients
- New immigrants
- Non-ambulatory
- Nursing homes
- Single parents
- Age: elderly, young
Seven Steps (Mileti 1999)

1. Hearing the warning
2. Believe that it is credible
3. Confirm that a threat exists
4. Does the warning pertain to *me*?
5. Determine if protective action needed
6. Is protective action feasible?
7. Determine what action to take
1. Hearing the Warning
Oak Grove, AL F4 Tornado (Legates & Biddle 1999)

- Where did you hear the warning?
  - 80% of whites from TV
  - 67% of African Americans from TV
  - 54% of men from TV
  - 46% of women from TV
    - Women more likely to use telephones
Being deaf during Katrina

- Issues
  - English is a second language.
  - Levels of communication vary.
  - Deaf/blind; low functioning.
  - Cost of technologies.
  - Meteorologist turns away from the camera or blocks radar, messages.

- Technologies that were used:
  - Sidekicker pagers.
  - Text messaging worked with cells one week after.
  - Email, web sites, newspapers:
    - “we had to invent a whole new vocabulary.”
    - Turn on your CC button tonight!
2. Is it credible?

- **How credible are you?**
  - “Caring...concern...trustworthy...honest, altruistic, objective.”

- **The filtering process:**
  - “Mexican Americans reported obtaining proportionately more information through social networks than either African Americans or whites.”

- Tierney, Lindell and Perry, *Facing the Unexpected*, p. 31.
3. Does a threat exist?

- People will confirm the threat through social networks.

*Anticipate* confirmation behavior.

*Translation:* to speed up the response, encourage people to call family members.
Reducing confirmation time.

- Gender matters. Research shows that:
  - Women are more likely to believe warnings.
  - Women are more likely to warn others.
  - Women are more likely to want to evacuate.
  - Women appear more likely to gather the family.

- Translation: women are an early warning system.
4. Does it pertain to me?

To decide, I’ll ask:

- What are others doing? How does this compare to my previous experiences? Are others *like me* heeding the warning?
  - Social Comparison Theory
  - Old Timers in Plaquemines Parish.

*Translation*: it’s not just the physical cues of the storm….it’s the social cues too.
5. Do I need to act?
Elderly in the Lower 9th Ward

- Long-time homeowners.

- Previous experience with Camille, Betsy.

- Uniting the Family:
  - “We finally left Sunday morning.”
The Elderly

- When warned, studies find the elderly can evacuate at rates similar to others.
- Motivating compliance:
  - Call Grandma.
  - Put the elderly on TV.
  - Compare to previous events.
6. What can I do about it?

- Transportation resources.
  - Solution: support cross-departmental efforts to plan evacuations, procure resources, develop buddy systems, establish special needs registries.

- “Katrina hit at the end of the month”
  (Cutter, understandingkatrina.ssrc.org).

- Problems: gasoline prices, paying for food.
  - Rita: roaming gasoline trucks.
What about my pet?

- People, especially the elderly, will refuse to evacuate without pets.
- People will return home to get pets.
- They *are* family.
- So...include information on how to evacuate with your pets!

(“Layla” Photo courtesy of Cassie Miller, Oklahoma State University)
7. Action

- Seven steps = gridlock.

- We must motivate more rapid behavioral response to warnings.
Your Seven Steps

1. Read research on populations at risk
2. Design warnings to reach those pops
3. Diversify strategies
   1. “One-size-fits-all” does not actually fit.
4. Partner with linking organizations
5. Engage the populations at risk
6. Become a credible source
7. Work with social scientists 😊
Building source credibility in Pittsylvania County, Virginia

“I wanted to provide public education and increase awareness so the hearing impaired could take an active role in enhancing their own level of safety.”

Jim Davis, EM Coordinator
Involve the Community, Empower those at Risk
Your efforts and research saved lives.