

People's Responses to Warnings

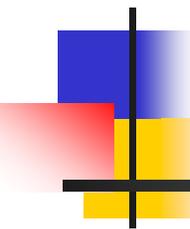
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National Research Council defines “Risk Communication”:

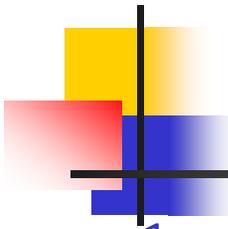
“ an interactive **process** of **exchange** of information and opinion among individuals, groups and institutions” including “**discussion** about risk types and levels and about methods for managing risks” .

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

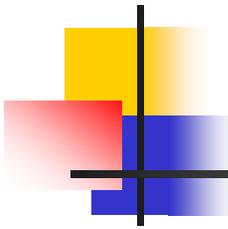
1. Hearing the Warning





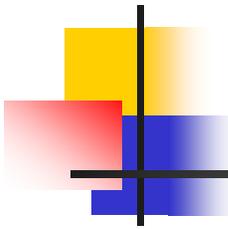
Oak Grove, AL F4 Tornado (Legates & Biddle 1999)

- 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



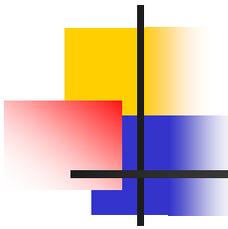
Being deaf during Katrina

- 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.

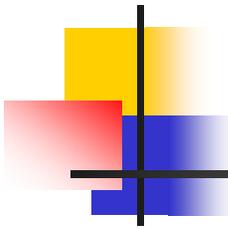


3. Does a threat exist?

- People will confirm the threat through social networks.

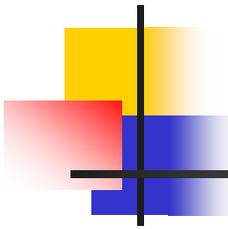
Anticipate confirmation behavior.

- *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.

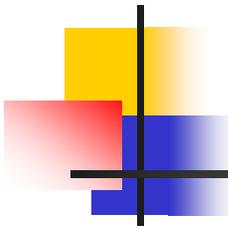
5. Do I need to act?



Elderly in the Lower 9th Ward

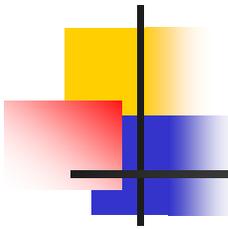
- Long-time homeowners.
- Previous experience with Camille, Betsy.
- Uniting the Family:
 - “We finally left Sunday morning.”





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.



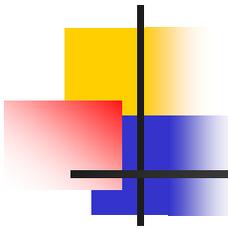
6. What can I do about it?

- 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?

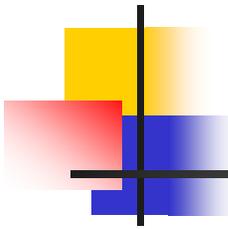


- People, especially the elderly, will refuse to evacuate without pets.
- People will return home to get pets.
- They *are* family.
- So....include information on how to evacuate with your pets!
- ("Layla" Photo courtesy of Cassie Miller, Oklahoma State University)



7. Action

- Seven steps = gridlock.
- We must motivate more rapid behavioral response to warnings.

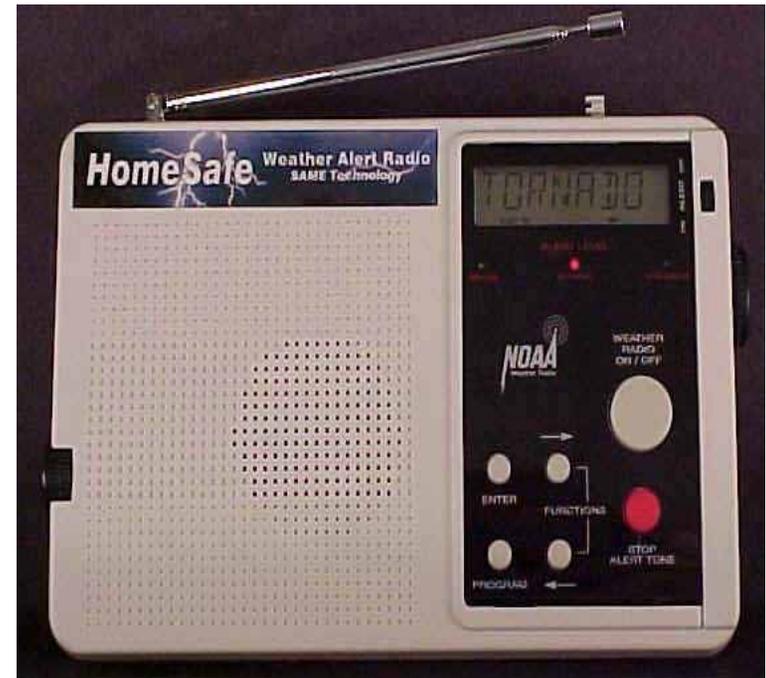


Your Seven Steps

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.

