Communicating Health Risks Identified Through Preliminary Analysis

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Katherine A. McComas, Ph.D.

Dept. of Communication, Cornell University

Risk Communication: The Challenge

- "No matter how accurate it is, risk information may be misperceived or rejected if those who give information are unaware of the complex, interactive nature of risk communication and the various factors affecting the reception of the risk message."
  - (Fessenden-Raden et al., 1987, p. 100)

Defining Risk Communication

- Risk communication is an iterative process among scientists and non-scientists about risk assessment, risk characterization, risk management and risk policy.

Risk Communication…

- Includes purposeful and unintentional messages about risk,
- Is multi-directional,
- Encompasses verbal and nonverbal cues, and
- Occurs at personal, group, organizational, community, and societal levels.

"[Risk communication] enters our lives in a multitude of forms, sometimes part of the imagery of advertising, sometimes a local corporation's formal statement, or its failure to say anything, sometimes a multi-volumed and impenetrable technical risk assessment"

(Kasperson & Palmlund, 1987, as cited in Plough & Krimsky, 1987)

Effective Risk Communication Considers…

- Audience characteristics
- Messenger/Format/Channel characteristics
- Message characteristics

Audience Characteristics

- Past experiences with the topic and information sources
- Prior knowledge of the topic
- Health of the individual and family members
- Attitudes toward the organization viewed responsible for the risk
- Culture
- Risk perceptions
  - (Fessenden-Raden et al., 1987; Slovic, 1987)

For example…

- Woo et al. (2004) found that, when making the link between vaccines and autism, people who had reported adverse reactions reported relying on the following sources…
  - Magazine/newspaper 24.2%
  - Doctor/nurse 21%
  - Family/friends 14.5%
  - Medical/scientific journals 11.3%
  - Consumer group/other parents 11.3%
  - Previous experience 3.2%

Factors Influencing Risk Perceptions…

- Can I see it?
- Will I know if I'm exposed?
- Are the effects immediate?
- Do scientists know and understand the risks?
- Can I control my exposure?
- Can I easily reduce my exposure
- Is my exposure voluntary?
- Is it a "dreaded" risk?
- Are the risks borne equally or fairly?
- Does it pose a risk to future generations?
- Are the risks decreasing or increasing?

(Slovic, 1987)

Outrage Factors

- Sandman (1987) calls these "outrage" factors and argues that, in the public's mind…

Risk = Hazard + Outrage

Trust and Source Credibility

- To what extent do individuals perceive the source as trustworthy and/or credible?
  - When individuals distrust the source, they distrust the information.
  - They also often perceive the risks as more severe.

For example…

- In the same study, Woo et al. (2004) found that people reporting adverse incidents with vaccines related to autism also considered
  - The National Vaccine Information Center (a consumer advocacy group) a more trustworthy source of information than the CDC and AAP.
- This was not true among the general population.

Factors Influencing Perceived Credibility and Trustworthiness

- Accuracy
- Expertise
- Openness
- Bias
- Concern for public welfare
- Fairness
- Timeliness
  - (for reviews, see Kasperson et al., 1992; Meyer, 1988; Renn & Levine, 1991; McComas & Trumbo, 2001)

Audience Interest

- Not everyone will pay attention.
- People are more likely to listen and seek information when they…
  - Recognize that there is a problem
  - Feel some connection to the problem
  - Believe they can do something to solve the problem
    - (Grunig & Hunt, 1984)

Where Should Risk Communication Occur?

Format	Channel	Advantages	Disadvantages
One-on-one	**"House calls," healthcare appointments, internal meetings**	**Direct interaction, Greater control over message and outcomes**	**Limited audience reach**
Public Forums	**Seminars, conferences, industry and public meetings, workshops**	**Direct interaction, Greater control over message**	**Limited audience reach, Less control over outcomes**
Mass Mediated (Non-specialized media)	**Paid ads, press releases, media interviews**	**Wide audience reach**	**Less control over message (except paid ads), Difficulty assessing effectiveness**
Electronic	**Web sites, 1-800 hotlines, listservs, broadcast emails**	**Wide audience reach**	**Difficultly assessing effectiveness**

When Should Risk Communication Occur?

- Timing is everything.
  - "Should we wait until we're certain?"
  - Proactive vs. reactive risk communication (see, e.g., Scherer, 1991)

Proactive Risk Communication

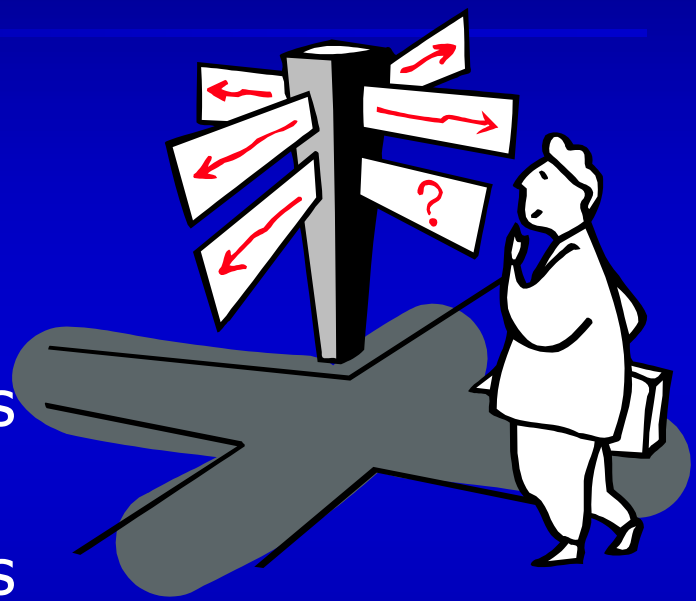
- Calls attention to a risk issue, both potential and existing, suggests the agenda for discussion, and provides mechanisms for information exchange
  - Advantages:
    - May alert people to something of which they are not aware
    - May allow for a much more meaningful discussion of risk
    - May generate more balanced discussion
  - Disadvantages:
    - May alert people to something of which they are not aware when risks are considered small
    - People may not pay attention

Reactive Risk Communication

- Does not call attention to a particular risk but waits until there is already considerable public and media attention about a risk issue
  - Advantage
    - You will likely have the public's attention
  - Disadvantages:
    - You are competing with many others for public's attention
    - Science may be less relevant when issues become highly emotionally charged
    - Places communicator in defensive position
    - People may not believe information that is delayed
    - People may not have information they need to protect their or their family's health and safety

Message Characteristics

- Factors to consider:
  - How complex is the information?
  - Do some of your messages conflict with others?
  - Do some of your messages conflict with what other sources are saying?
  - Are unintentional risk messages also being sent?



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