

Risk Communication in the Human Health Risk Assessment Process

Navy Environmental Health Center
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Background

Remedial Project Managers, and others in the Installation Restoration Program, face many challenges when communicating health and environmental risk information to stakeholders. These challenges range from a general distrust of the government to lack of scientific understanding of risk assessment and other engineering and scientific concepts. Credible risk assessment and risk management decisions may never be implemented unless they are effectively communicated to all interested stakeholders. Because of this as well as the various laws, policies and intense public interest in the environment, risk communication is vital to the risk assessment and management process, and to the success of environmental restoration and compliance. The Navy Environmental Health Center (NEHC) promotes incorporating good risk communication as an integral part of every Navy environmental, health and safety program.

Discussion

In recent years, public fear and concern about exposures to environmental, safety and health hazards has increased along with a corresponding demand for risk information. As a result, the Navy is routinely called upon to explain various environmental, health or safety risks regarding cleanup and compliance to non-technical audiences. This is not an easy task but one that is vital to successful programs. The misperceptions, misinformation and lack of scientific understanding often create an atmosphere of "high concern/low trust." In order to successfully communicate risk, complex and uncertain information must be explained in a manner the audience will accept and understand. Effectively communicating such information in a high concern/low trust atmosphere such that it is not only received but also understood requires messages that are succinct yet complete, delivered by messengers that are trusted and credible, via a media that is conducive to all the involved parties.

Risk communication is an interactive process or exchange of information and opinions among interested parties or stakeholders concerning risk, potential risk or perceived risk. The primary goals of risk communication are:

- Increase knowledge and understanding
- Enhance trust and credibility
- Resolve conflict

In order to achieve the goals listed above, it is useful to think about the "Three M's" that form successful risk communication:

- Message (what to say)
- Messenger (who to say it)
- Media (How it should be presented)

Message

Developing messages that are informative without providing too much technical detail and data is a challenging task. Engineers and scientists often want to provide too much technical information in their

messages to the public. Conversely, sometimes messages are simplified so much that important information is excluded.

The primary goal when developing messages is to maximize the amount of information the audience hears, understands and remembers. To facilitate message retention, risk communication practice recommends that no more than three key messages be conveyed. These messages must all be short, 7 to 12 words at the most, and the messages must be clear. Clear messages are at a 4th to 6th grade reading level and avoid technical jargon. Effective messages avoid using negative terms such as “contamination” or “toxic.” Repeating the key message at least twice is another factor important to maximize effectiveness. An effective message also contains an ethical and truthful statement of empathy and caring. Finally, it is important to provide a structured and organized message format. These guidelines for message development apply to both written and oral communications.

Messenger

Choosing the correct messenger is vital in achieving the primary goals of risk communication. Risk communication literature has identified four factors that determine if a messenger will be perceived as trusted and credible.

These factors are:

- Empathy and Caring
- Dedication and Commitment
- Honesty and Openness
- Competence and Expertise

Demonstrating *empathy and caring* is by far the most important factor in enhancing trust and credibility. Empathy and caring can be demonstrated in a number of ways. Some of the more common ones are to choose a messenger who has a connection with the issue and can demonstrate active listening. Active listening can be demonstrated by paraphrasing a question or comment, providing feedback and using appropriate non-verbal cues.

Honesty and Openness is greatly determined by being honest and open. Withholding or hiding information, as well as distorting information always runs the risk of getting caught.

Dedication and Commitment is not judged by past professional achievement but rather by faithfully keeping current promises. It is also demonstrated by being easily accessible and coming early and staying late at meetings.

Risk communication research indicates that appearance and personality greatly influence whether a person is perceived as *competent* regardless of their actual knowledge and ability. The perception of competence is enhanced by limiting the use of notes, being highly organized, dressing professionally – yet not too formal, using a lower tone of voice and being assertive.

Media

There is a wide range of channels available to present information ranging from fact sheets, site tours, public availability sessions to meetings. The method or methods used will vary depending on the site-specific situation.

A common misperception is that town hall meetings are required to meet legal requirements to present or solicit information. There are formats other than the town hall meeting that meet the legal requirements and are much more effective in communicating with the public. Years of research have shown that public availability sessions (also known as Open Houses or Poster Sessions) are the most effective format for informing the public on environmental, health or safety issues.

The Navy Environmental Health Center strongly recommends using another format in place of, or at least in addition to a Town Hall meeting. There are many drawbacks to Town Hall meetings. Some of these include:

- Limits participation
- Forces people to speak in public
- Encourages unproductive group dynamics
- Limits expression of diverse viewpoints
- Fails to meet individual needs

Public availability sessions are essentially a series of poster exhibits. Typically four to six poster displays are arranged around a meeting area. Each of the poster displays highlights a key message or topic area and is staffed by a subject matter expert (preferably with risk communication training.) People attending the public availability sessions choose to visit all the poster stations or just certain ones, depending on their information needs. This format eliminates the need for public speaking and negative group dynamics. Each person has an opportunity to raise issues or ask questions to the subject matter experts.

The news media is also a way people get information about our sites. Preparation is key to successfully deal with the media. Messages must be short with key messages that are repeated often. Keep in mind that there is no such thing as “off the record.”

Conclusion and Recommendations

Risk communication is an integral part of risk management and installation restoration. Successful risk communication does not guarantee good risk management decisions but it does ensure the stakeholders fully understand the issues and options involved in risk management decisions. There are frequent opportunities to provide information and engage in discussions about environmental, health and safety risks with interested stakeholders. Risk communication is a complex art and skill that requires knowledge, training and practice. There is not a single “cookie cutter” approach.

The discussion portion of this paper presents a brief and very broad overview of some of the important risk communication tools and techniques applicable to the risk assessment process. NEHC has developed a *Risk Communication Primer* which can be linked to the website. The Primer is not intended to be a complete summary of risk communication, but intended to be used as a quick reference. We strongly recommend attending the CECOS three-day Health and Environmental Risk Communication workshop class in which the above research, and skills are taught and practiced. (Visit the web site: www.cecos.navy.mil for course information.)