



An Introduction to Risk Communication

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Health Risk Assessment Branch

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Outline



-
- Introduction
 - Basics of Risk Communication
 - Profiling your audience
 - Answering tough questions
 - Case study—contaminated drinking water

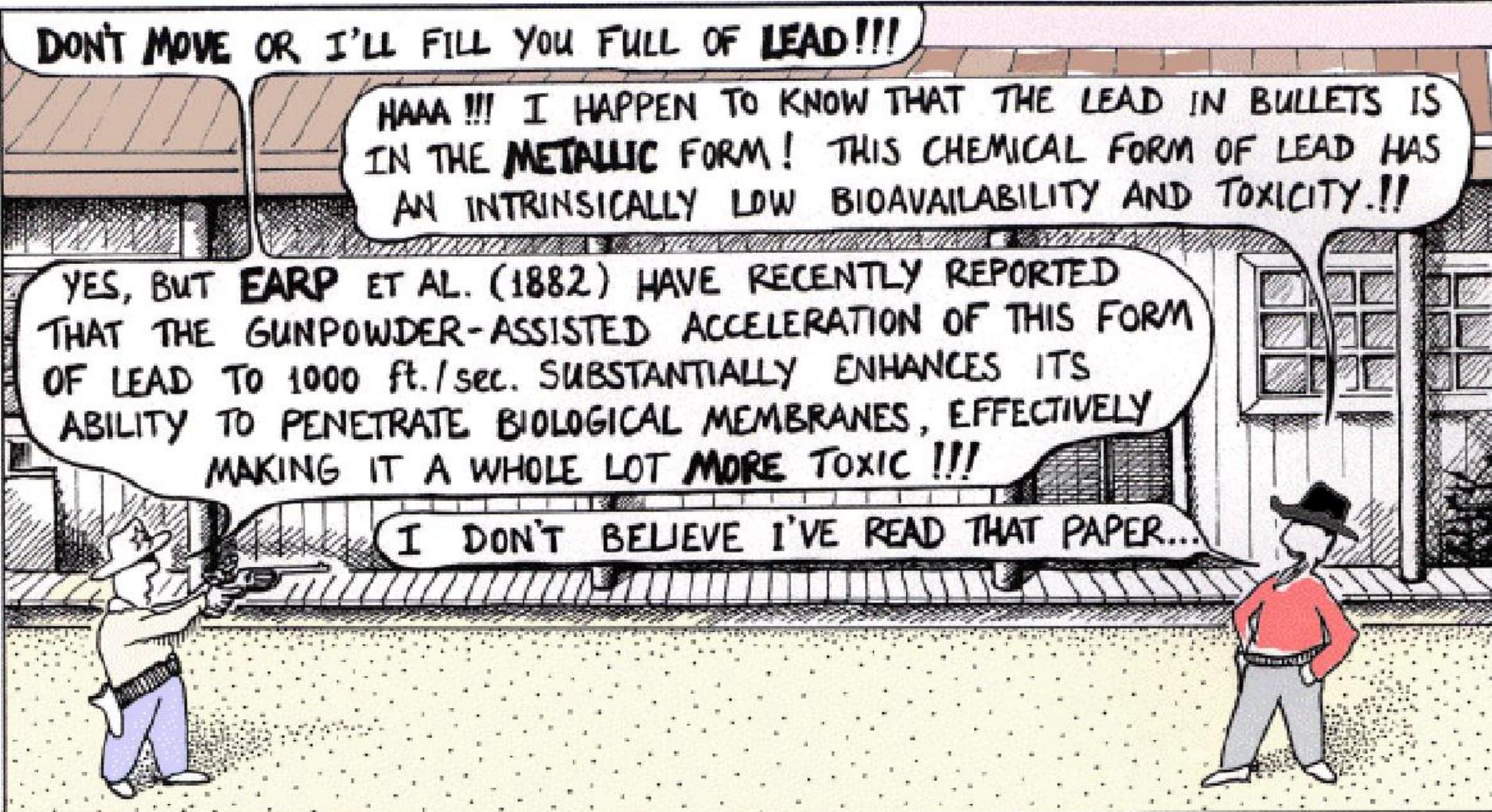


Risk Communication

The short definition



“Any purposeful
exchange of
information about risks.”



DON'T MOVE OR I'LL FILL YOU FULL OF LEAD!!!

HAAA !!! I HAPPEN TO KNOW THAT THE LEAD IN BULLETS IS IN THE **METALLIC** FORM! THIS CHEMICAL FORM OF LEAD HAS AN INTRINSICALLY LOW BIOAVAILABILITY AND TOXICITY.!!

YES, BUT **EARP** ET AL. (1882) HAVE RECENTLY REPORTED THAT THE GUNPOWDER-ASSISTED ACCELERATION OF THIS FORM OF LEAD TO 1000 ft./sec. SUBSTANTIALLY ENHANCES ITS ABILITY TO PENETRATE BIOLOGICAL MEMBRANES, EFFECTIVELY MAKING IT A WHOLE LOT **MORE TOXIC !!!**

I DON'T BELIEVE I'VE READ THAT PAPER...

ENVIRONMENTAL SCIENTISTS IN THE WILD WEST

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<http://strangematter.sci.waikato.ac.nz/>



Risk Communication

More definitions



1. Alerting people to a certain hazard; scaring them into action.
“Look here, this is dangerous, this could kill you. Do something!”
2. Reassuring them that risks are really not as bad as they seem. Anxiety about the risk is a greater threat to health than the risk itself.
3. “Low trust-high concern” communication



Why should you care?



● **AFI 48-119--MEDICAL SERVICE ENVIRONMENTAL QUALITY PROGRAMS**

8.1. BES:

8.1.1. Provides health risk assessment technical review and input to Preliminary Assessment/Site Investigation, Remedial Investigation/Feasibility Study, and Remedial Design/Remedial Action documents.

8.1.4. Participates as a permanent member of the base Technical Review Committee (TRC), health risk assessment technical advisor to the Restoration Advisory Board (RAB), and consultant to the Remedial Program Manager.

8.1.6. Advises on health effects, environmental standards, and assists in negotiating and establishing cleanup and exposure control standards.

8.1.8. Provides assistance in communicating health and environmental risk.



How do you do risk communication?



- Develop a strategy using needs assessment process
 - ✦ Audience—Message—Messenger—Channel
- When do you do risk communication?
 - ✦ Before the event—being prepared
 - ✦ During the event—being responsive
 - ✦ After the event—being diligent, following up

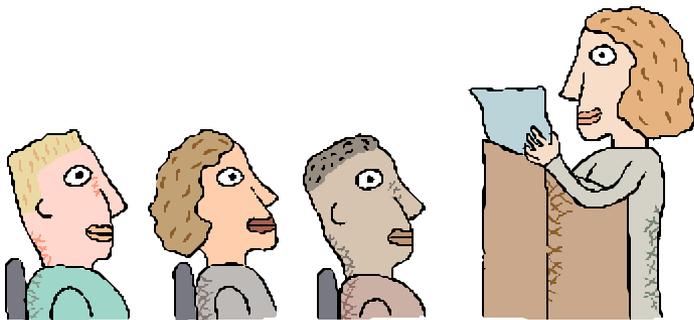
Risk Communication Basics



Risk Communication Primary Goals



- Increase knowledge and understanding
- Enhance trust and credibility
- Develop “relationships” with stakeholders
- Resolve conflict





Risk Communication Challenges



- **Knowledge challenge**—the stakeholder needs to be able to understand the technical information (risk assessment)
- **Process challenge**—the stakeholder needs to feel involved
- **Communications skills challenge**—the stakeholder and those who are communicating the risk need to be able to communicate effectively



Risk Communication Barriers



- Lack of skills/training on “how to communicate risk”
- Company/agency tradition of NOT communicating
- Fear of loss of control
- Objections from legal office
- Lack of time and resources
- Arrogance/negative attitudes
- Lack of management support
- Public’s inability to understand technical issues
- Inability of staff to articulate technical information
- More?



Tools, Techniques, & Skill Set



-
- Assessing and evaluating
 - Effective strategy
 - Trust and credibility
 - Active listening
 - Respect (gain/maintain)
 - Relationships
 - Partnerships
 - Negotiation/conflict management
 - Dealing with props
 - Answering tough questions
 - Technical knowledge
 - Measuring and evaluating



Risk Communication Basics



- Tools and Techniques Vary
 - ✦ High Trust/Low Concern
 - ✦ Low Trust/High Concern
 - ◆ Open discussion, exhibits, less presentation
 - ◆ Non-verbal overrides verbal
 - ◆ Mistakes emphasized/retained
 - ◆ Third party endorsement essential
 - ◆ Communication skill essential



Trusted and Credible Sources on Environmental Issues



● Top Third

- ★ local citizens who are perceived to be neutral, respected and well-informed
- ★ non-management employees
- ★ nurses, physicians, other health professionals
- ★ safety, emergency response professionals
- ★ professors/educators



Trusted and Credible Sources



- Middle Third
 - ✦ media
 - ✦ environmental groups
- Bottom Third
 - ✦ industry officials
 - ✦ federal government officials
 - ✦ environmental consultants

Decreasing trust

**Align with
more credible
source**



Traps



-
- Humor
 - Negatives
 - Hedges and apologies
 - Guarantees
 - Jargon
 - Hesitation
 - Personal beliefs
 - Risk comparisons
 - Worst-case scenarios
 - Attacks
 - Money
 - Organizational details
 - Don't know
 - Politics/Religion/etc



Non-Verbal Communication



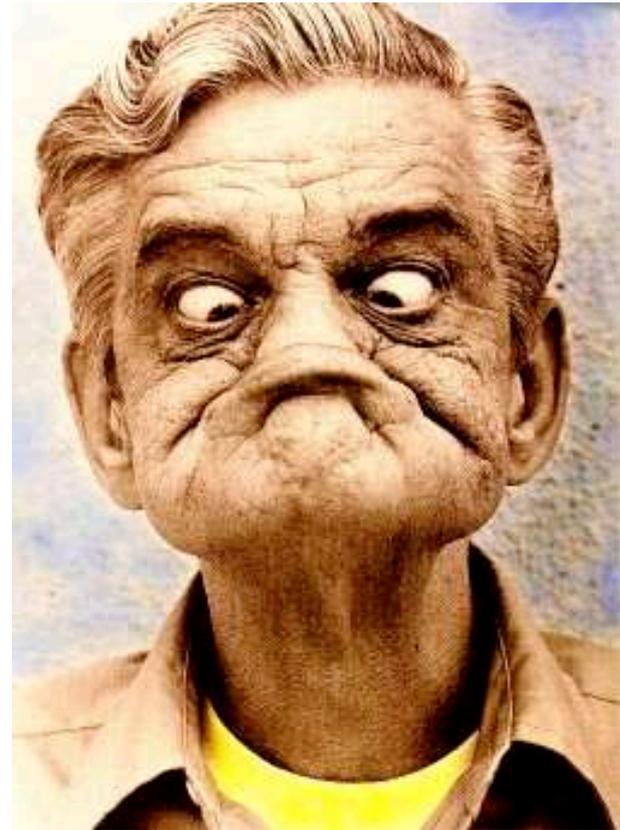
- When trust is low and concern is high,
- Non-verbal communication--
 - ✦ Provides up to 50-75% of message content;
 - ✦ Is intensely noticed;
 - ✦ Overrides verbal communication.



Non-Verbal Communications



- Facial
- Posture
- Gestures/Actions
- Space
- Dress
- Physical Barriers
- Location



Identifying the public



Profiling the Community



- Nature of audience—who are they?
- Whom do they trust?
- What are their beliefs, attitudes, etc?
- What are their concerns or worries?





Characterizing Target Audiences



- Demographics: occupation, income, education, place of residence, gender, age, etc.
- Psychographics: Attitudes, opinions, beliefs, values, etc.
- Primary vs secondary audiences



Proverbs and Communication



- Strike while the ...
- A miss is as good as a ...
- Better late than ...





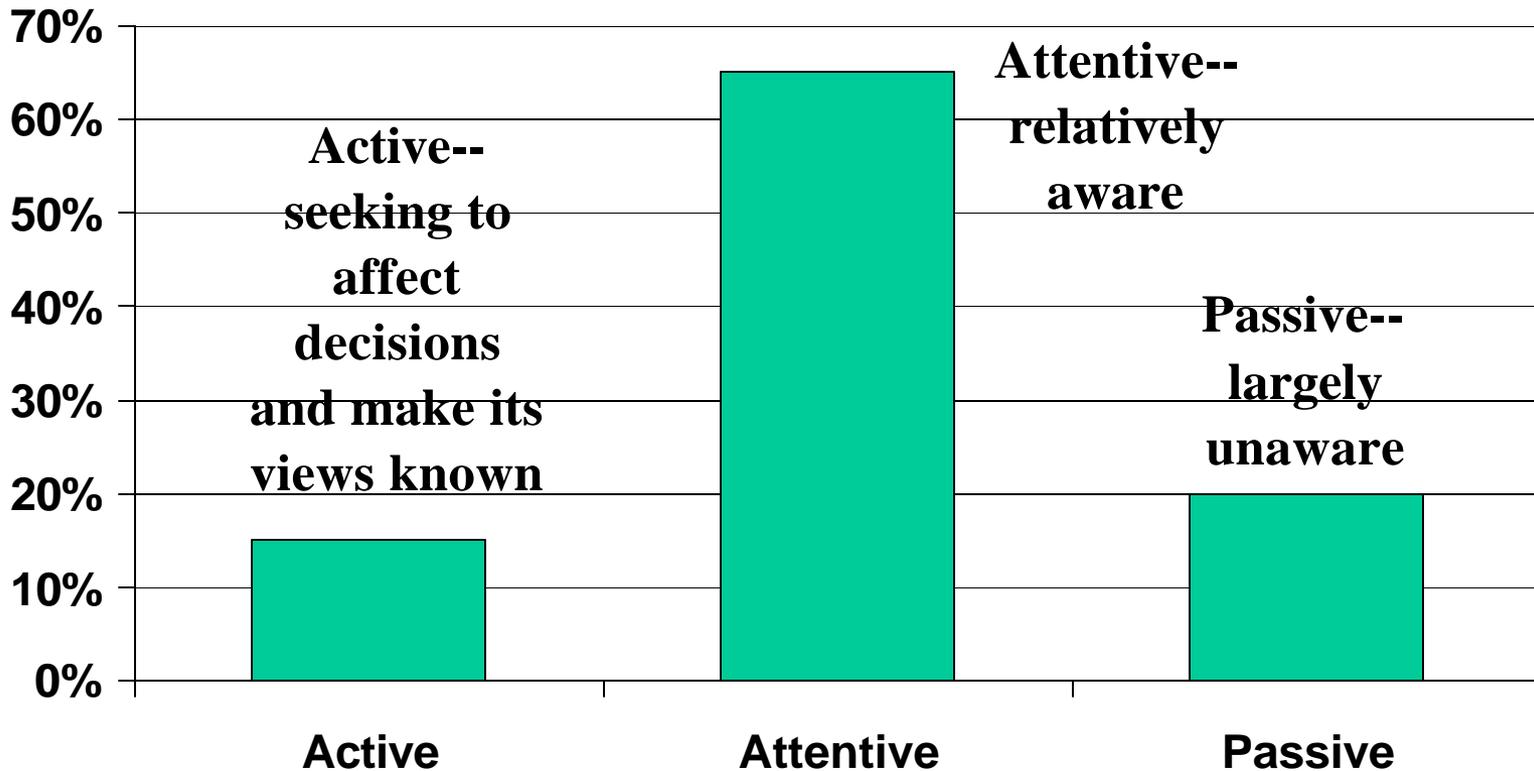
Who is the public/stakeholder?



- Individuals/Groups likely to be affected
- Individuals/Groups likely to perceive themselves as affected
- Those likely to be angry if not asked/involved
- Those previously involved/interested in the issue
- Those you'd **LEAST** like to communicate with



Who is the “public”?





Audience Identification



Institutions	Organizations	Community/Other Groups
Government Agencies Local boards (e.g., health, zoning) and Commissions (e.g., planning) Labor Unions, Professional and Educational Assoc., including schools and universities Local and mass media	Environmental groups (local, regional, national) Public Interest, Civil Rights, Grassroots political, Anti-poverty and economical development groups Environmental justice groups Affinity groups (e.g., religious, senior citizen, sport and recreation) Community Health organizations	Community leaders (elected officials, chambers of commerce, neighborhood associations, etc.) Community members (local businesses, property owners, etc.) Employees Contract employees Banks/realtors

Simple Frameworks for Answering Difficult Questions

Level 3 and Level 6 Answers



Preparing to Answer Difficult Questions--“Level 3” Answer



- Empathize--share concerns
- Present Facts
- Discuss Future Actions



The “Level 6” Answer



- Listen carefully and allow them to vent their frustration
- Express empathy or concern
 - ✦ Relate a personal story
- State your conclusion
- Provide two facts
 - ✦ Use third party credibility
- Repeat your conclusion
- Describe future action
 - ✦ Identify additional sources of information



Framework Pros & Cons



- Advantages

- ✦ Provides structure in a pressure situation
- ✦ Conveys a clear message of action

- Disadvantages

- ✦ Doesn't allow flexibility to answer questions directly related to those you've prepared for
- ✦ Can sound rehearsed (activists often work from scripts and are familiar with this one!)



Case Study: Answering Difficult Questions



- Benzene has been found in a base production well, at 2 ppb, which is less than the EPA's MCL of 5 ppb.
- You have a Town Meeting to describe the situation to base residents
- The first question from the audience is "Is the water safe to drink?"
- What is your level 6 answer?



Possible Level 6 Response



1. Let audience vent.
2. This is an important issue to me as well. My family and I live on this base and rely on the base water supply along with the rest of you. I have small children and want to raise them in a safe environment.
3. Let me tell you that the water supply on this installation is safe to drink.
4. I say this for a couple of reasons. First, we have consulted with our AF scientists as well as state and local health officials and have been advised that the amount of benzene we've detected is below the allowable level set by the USEPA, meaning the levels we've found are not expected to cause any health effects. Additionally, the water we obtain from this well is mixed with water from our 5 other wells. As a result, we have not been able to detect benzene in water collected from faucets in a number of homes across the base.
5. So let me repeat, the water supply on this installation is safe to drink.
6. Our current plan calls for sampling the base wells once a year. However, we will increase our sample collection at this well to once a month as well as collect tap samples from random homes throughout the base. We will be consulting with a number of you to ask for voluntary participation in this program. We have provided a number of fact sheets on the base drinking water supply as well as our proposed plans for future monitoring. Please contact any of the individuals listed on the fact sheets if you have questions or comments. A number of us will be available after the meeting if you would prefer to speak with us one-on-one.

Case Study: Randolph AFB water crisis



Case Study: On-base Population



- **Crisis:** Thursday night, a petroleum-like substance was found in the base distribution system (enlisted housing 😞)
- **Concern:** Safe water for drinking/other use
- **Challenge:** Getting the right information to the right audience





Base Response



- Security forces used megaphones to alert on-base residents
- Notices posted on base marquee and local TV channel
- News releases
- Workforce limited to mission essential
- Reliance on media
- Drinking water, portable toilets, off-base showers



Town Hall Meeting



- Experts on hand to answer questions—health, legal, logistics
- Personal letter delivered to housing residents
- **BUT!!** Base workers returned next day, union got involved, conflicting lab results





Results



- By day 12, the “all clear” was given
- Residents urged to purge lines

However:

- Two labs identified petroleum as possible coming from a base activity, one lab as weathered crude (AF sided with the one!)
- Residents still distrustful of solution
- On-base workers seemingly neglected



Conclusions



- Identify your primary audience (on-base) 😊
- Use the media and word of mouth to leverage your resources 😊
- Don't ignore your secondary audience 😞
- Strive for scientific consensus 😞



Risk Communication Resources



● Courses

- ✦ Navy Civil Engineer Corps Officers School, www.cecos.navy.mil
- ✦ USA Center for Health Promotion and Preventive Medicine (CHPPM), chppm-www.apgea.army.mil

● Fact sheets, public health statements, risk communication primer

- ✦ Agency for Toxic Substances and Disease Registry (ATSDR), www.atsdr.cdc.gov

● AF Resource

- ✦ AF Institute for Environment, Safety and Occupational Health Risk Analysis



Comments and Questions



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