Risk Communication Planning

Madeleine Kangsen Scammell
Boston University School of Public Health

Boston University
Superfund Research Program

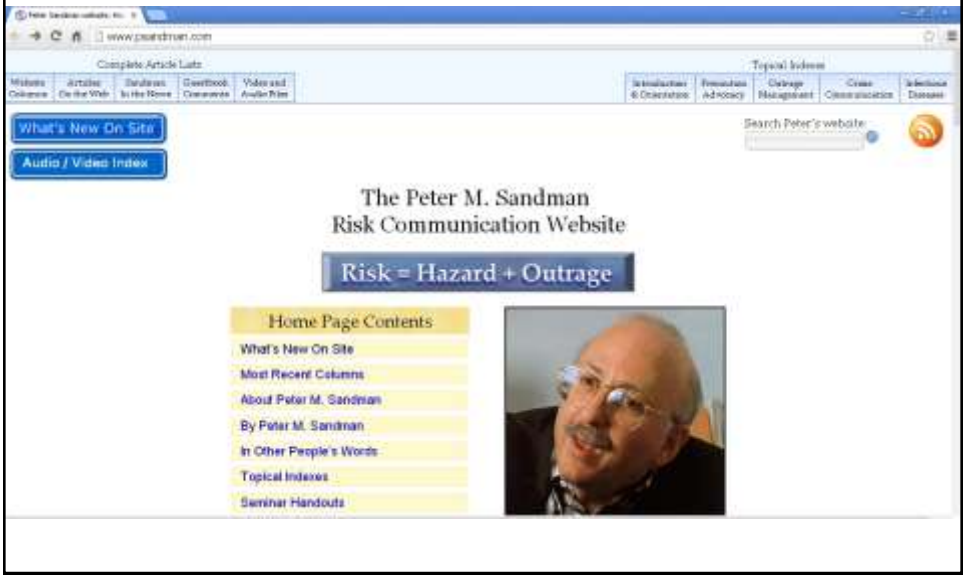
National Institute of Environmental Health Sciences (NIEHS/NIH)

The Process

- Identify goals
- Assess knowledge / "the situation"
- Message methods
- Plan implementation

Paul Slovic
www.decisionresearch.org

Peter Sandman
www.psandman.com



Risk Communication 101

Fact: There is a *very* low correlation between the ranking of a threat or hazard by the general public and the ranking of those same hazards by technical experts.

Common responses to this apparent irrationality:

1. People are ignorant or irrational so just ignore them.
2. The public needs to be better educated, lets "tell our story." (Better communication- be more *persuasive*).
3. The public is manipulated by activists and the media.
4. The public is right. Experts are wrong. Government should base public policy on public opinion - even if the experts disagree.

Risk Communication 101

People tend to be less accepting of Risk if …

- the source is Industrial / "unnatural"
- it is involuntary, imposed
- it is unfamiliar and new
- the perpetrators have a bad track record and are not trusted
- it is considered "morally wrong"
- we get no benefits in association with the risk, and if it is deemed to be unfair.
- the potential negative consequences are uncertain, catastrophic, irreversible, rare and memorable (as with Chernobyl, Bhopal, Love Canal).
- we have a personal stake in it, if it's dreaded and if there are implications to future generations, particularly children.
- there are powerful images associated with it, and if it gets media attention.

Risk Communication 101

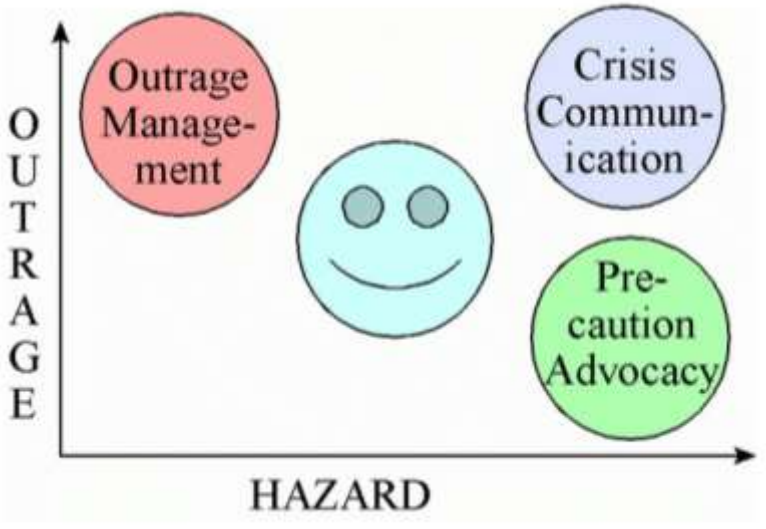
Outrage taints our perception of hazards

When people are concerned or upset, they have difficulty hearing, understanding and remembering. This can reduce people's ability to process information by up to 80%.

When people are concerned, they often distrust people - even those who are listening, caring, honest, open-minded and knowledgeable.

When people are concerned, negative information outweighs positive information and negative perception becomes reality.

Where are you on this map? What is your goal?



"Risk-related decisions are grounded in value judgments about how conservative to be. These are not technical issues. These are values issues and the opinions of non-experts are as legitimate as those of experts."

"Anecdotal data provided by emotional or hostile people is still data; when scientists treat this data with contempt, they are being emotional, hostile and unscientific.

"…people who are concerned or outraged are important sources of data - not just their outrage itself, but the experiences that aroused it. Ignoring what they can tell you is bad outrage management, bad public policy and bad science."

- Dr. Peter Sandman

Source: "Because People Are Concerned: How Should Public "Outrage" Affect Application of the Precautionary Principle?" pg. 40. Please note: This paper was written in relation to the application of the precautionary principle and Outrage in general, and mobile telecommunications in particular. See www.psandman.com.

"Is it safe?"

- The best you can do is help people understand the scientific risk.
- The acceptability of that risk is up to them. It is a personal decision.
- Acknowledge that there are other aspects of decision-making around "risk" and "safe" than the numbers.

Case Study: North of Boston

Examine perception of environmental health, and studies conducted to address environmental health

Multiple focus groups

- Environmental Justice areas
  lower-income, higher-minority
- Non-Environmental Justice areas
  higher-income, lower-minority

Scammell M, Senier L, Darrah-Okike J, Brown P, Santos S. 2009. Tangible Evidence, Trust and Power: Public Perception of Community Environmental Health. *Social Science & Medicine.* January 2009. 68(1): 143-153.

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Case Study: North of Boston

TOXICS ACTION CENTER

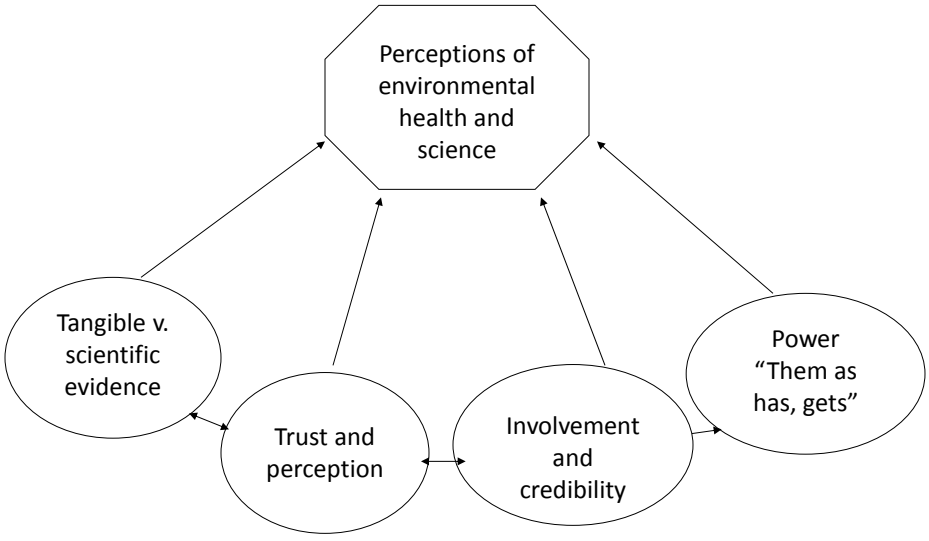
HealthLink

Background

Salem Harbor Power Station

Case Study: North of Boston

Results



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Case Study: North of Boston

Results

Tangible evidence *v*. scientific evidence

It's floating in the air, you are breathing it, you are wiping it off your white furniture, your ceiling.

-Katy, Salem group

The electric company and the soot that comes out from it, and a higher rate of bronchitis in Salem because of it.

-Caroline, Salem group

No, it is not true! Because myself, I lived… where they were working for the copper [smelter]. There were big big *chimneys and many times the kids living there around the chimneys didn't get sick, but the people around… 100 miles, get sick!*

-James, Salem group

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Case Study: North of Boston

Results

Trust and perception

If you don't like the methodology, then you can't trust the results.
-Aaron, Marblehead group

To say BU, MIT or Harvard should come in and do the study, these are not trustworthy people!
-James, Salem group

I think who is supporting [a study] is important. Like, you read a story that chocolate is good for your teeth and then you hear it is put out by the Candy Manufacturers of America.
-Stephanie, Salem group

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Case Study: North of Boston

Results

"Them as has, gets": Power and health studies

I guess the way systems work, it is money and power driven. And usually the people with the money and power have control over the information.
-Deirdre, Informed group

Wealth helps.
-Caroline, Salem group

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Case Study: North of Boston

Results

Involvement and credibility

If you ask bad questions, you will get bad data…. Ultimately it comes down to designing a good study, and I think the community should have the opportunity to contribute what they know.

-Jonathan, Marblehead group

[Researchers] need to have the involvement of diversity. They have to do some research with people first…. there also needs to be qualitative data. I think they need to… talk with people of the community, and I don't think that is happening.

-Janet, Salem group

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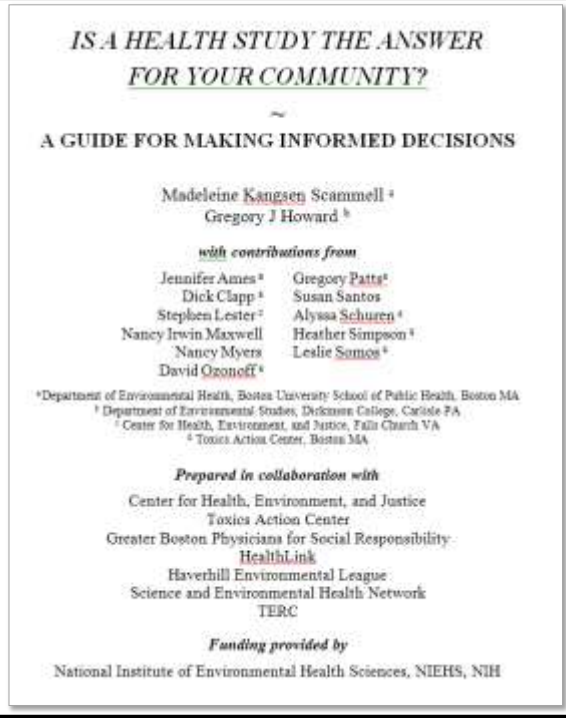
busrp.org/hsg



IS A HEALTH STUDY THE ANSWER FOR YOUR COMMUNITY?

~

A GUIDE FOR MAKING INFORMED DECISIONS

Madeleine Kangsen Scammell [a]
Gregory J Howard [b]

with contributions from

Jennifer Ames [a]
Dick Clapp [a]
Stephen Lester [c]
Nancy Irwin Maxwell
Nancy Myers
David Ozonoff [a]
Gregory Patts [a]
Susan Santos
Alyssa Schuren [a]
Heather Simpson [a]
Leslie Somos [a]

[a]Department of Environmental Health, Boston University School of Public Health, Boston MA
[b] Department of Environmental Studies, Dickinson College, Carlisle PA
[c] Center for Health, Environment, and Justice, Falls Church VA
[d] Toxics Action Center, Boston MA

Prepared in collaboration with

Center for Health, Environment, and Justice
Toxics Action Center
Greater Boston Physicians for Social Responsibility
HealthLink
Haverhill Environmental League
Science and Environmental Health Network
TERC

Funding provided by

National Institute of Environmental Health Sciences, NIEHS, NIH

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Why a health study?

…To answer a question.

Are people in my community sicker than people who live somewhere else?

Why am I sick?

Why *us*?

Will the proposed *trash incinerator* that may be located in our community be safe for our health and the environment?

Are other people in my community sick?

Am I exposed to *chemical X*?

How did we get sick?

What are the major sources of pollution in my community?

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Chapter 3: A Menu of Health Studies

STUDIES OF EXPOSURE (p.46)

Are there toxic substances in the environment?

Environmental monitoring looks for and measures concentrations of chemicals or other toxicants in the environment. Depending on the availability of equipment and laboratories, samples of air, water, soil, or food can all be examined for evidence of contamination. For example:

- *Is there lead in my garden soil? How much?*
- *Is there mold in the air I am breathing? How much?*
- *Are there hazardous chemicals in my drinking water? Which ones and how much?*

Have we been exposed to pollutants? Are there toxic chemicals in my body?

A **body burden study** measures chemicals that are in a person's body. By taking samples of body tissue (blood, urine, saliva, hair, nails, or breast milk) some specific contaminants can be measured. These studies answer questions such as:

- *Is there lead in my blood? How much?*
- *Is there mercury in my hair? How much?*
- *Have I been exposed to PCBs? Is there evidence of them in my body?*

What will be the impacts of this land use?

An **environmental impact statement** is intended to describe the environmental impacts of a new development, such as a highway or building, or a modification of an old one, such as capping a landfill. Although this type of study is not strictly speaking an exposure study, it gives information that may be useful in thinking about exposure, by answering questions like these:

- *How will construction of this highway affect water runoff?*
- *How will building a power plant here affect the air quality in this area?*
- *How much will building a parking lot here increase traffic in locations where children are known to walk on their way to school?*

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What are your goals?

Table 1.2 Your Motives for a Health Study

A. *What* do you want to know? That is, what is your *question or concern*?	**B. *Why* do you want to know?** That is, what is your *goal*?
Sample responses: – How much soot from the power plant are we breathing? – Is there too much illness in our community? – Why are people sick? – Is the mold in the school making our kids sick?	Sample responses: – Stop the development – Prove we were right – Clean up the site – Get compensation

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Positive things	Negative things
Document disease and/or exposure	Document no significant relationship between a disease and exposure
Demonstrate relationship between disease and exposure	Give permission to polluters to continue polluting
Educate residents about environmental health concerns	Lead to legal issues over confidentiality or lawsuits by polluters
Generate media coverage and motivate the community	Be used *against* your campaign or group
Be useful for political leverage in a campaign	Overwhelm your organizing efforts and sap members' energy
Create an opportunity for members of your community to get involved	Generate statistics which may undermine your efforts
Be useful in community efforts to protect the health of future generations	Delay action while waiting for results

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"I think it is really important when these studies are created to say . . . 'How will [the results] be used?' To consider what the public perception is going to be, to look at the big picture . . . to think about, if it came out the way it did, it would be used against us. If I had had a chance to do that with the study… I would have said, 'Don't do it!'"

— Erin, Resident of Salem, Massachusetts

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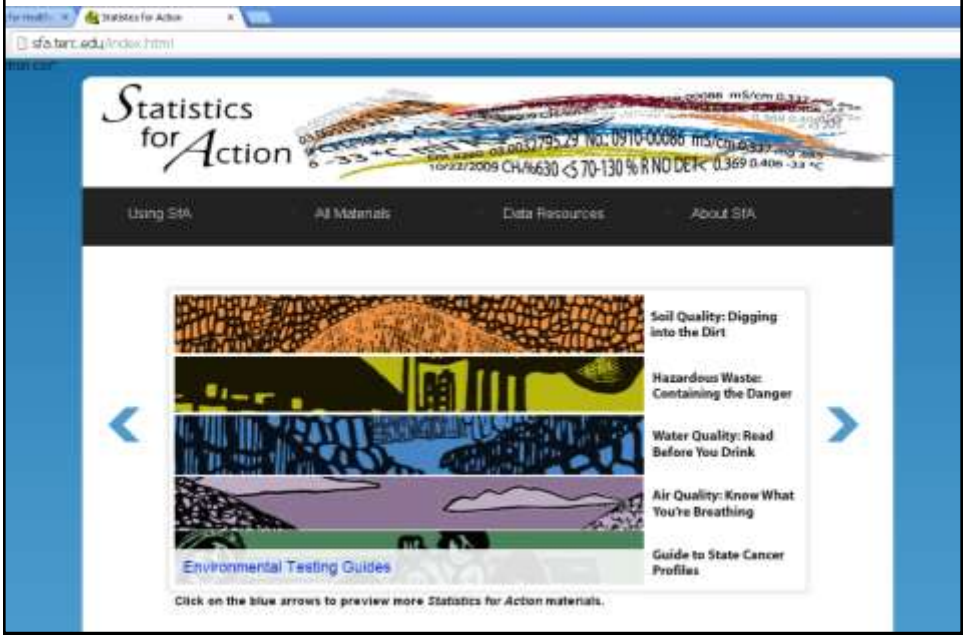
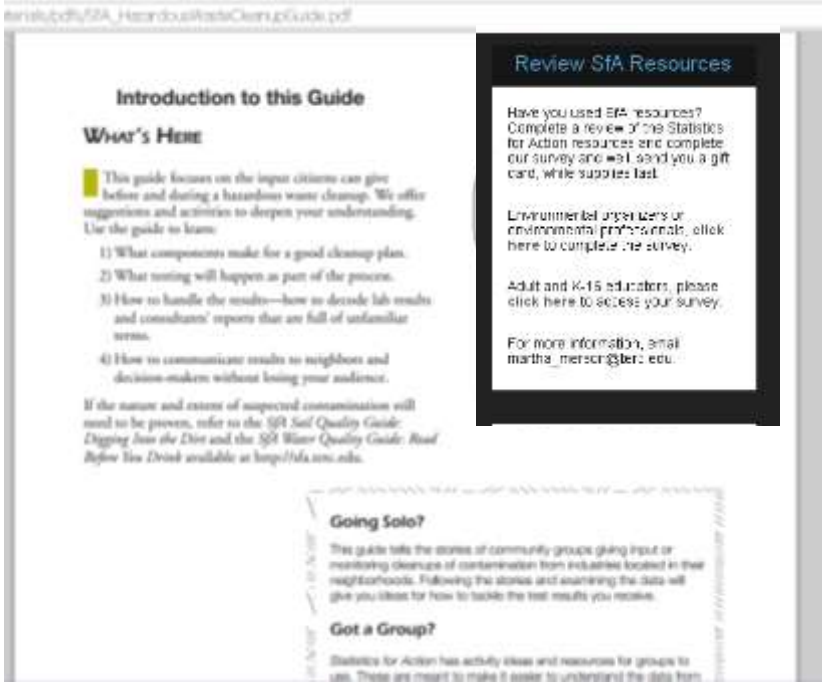
Sfa.terc.edu



Contributors include:
Andrew Friedmann, Jim Luker,
Martha Merson, Ethan Contini-Field



A checklist

Important Points to Keep in Mind for Emergency Risk Communication

- ❑ Identify yourself and your credentials, as well as anyone else who speaks to the media or to the public at large.
- ❑ Tell people what they can do to protect themselves or improve the situation.
- ❑ Repeat your key messages.
- ❑ Be consistent in the messages you convey.
- ❑ Frame your actions in the positive.
- ❑ Ensure timely release of information.
- ❑ Treat the public (and the media) as intelligent adults. Do not "talk down."
- ❑ Dispel rumors as quickly as possible with facts and statistics.
- ❑ Do not speculate – if you do not know the answer, say so, but indicate you will find out and do report back.
- ❑ Acknowledge uncertainty. Do not be afraid to say you do not know.

http://h1n1vax.aed.org/docs/Risk%20Communication%20Planning%20and%20Action%20Guide.pdf

Message Mapping

A process to predict questions likely to be asked and prepare clear and concise answers to those questions, tailored to the stakeholders' underlying concerns.

Benefits:

- Consistent messages across multiple spokespeople
- Think through tough questions before the stress of the event
- Think hard about actual stakeholders and their unique perspectives and concerns

Goals:

- Inform the public
- Build trust and credibility
- Create and informed dialog

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Message Mapping

Structure of a "Message Map"

Template with 3 tiers of information:

1. Identify the audience for the map.
2. Key messages (3) pertaining to the situation
3. Supporting information for each of the key messages

Risk Communication in Action: the tools of message mapping
Ivy Lin, M.S., ASPH/EPA Fellow and Dan D. Petersen, Ph.D., DABT, USEPA
August 2007
http://nepis.epa.gov/Adobe/PDF/60000IOS.pdf

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Message Mapping, example

Question or concern:
What does cancer risk of one in a million mean?

1. Stakeholder: The public
2. Key Message #1: Cancer risks are reported as a statistical probability
3. Supporting information 1-1: Statistical probabilities are calculated using site specific data

   Supporting information 1-2: These probabilities of cancer are calculated over a lifetime, 70 years, of exposure

   Supporting information 1-3: The probability of cancer is often calculated with a cautious estimate, or overestimate, of actual exposure.

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"Good risk communication can not always be expected to improve a situation but poor risk communication will nearly always make it worse."

- The National Resource Council. 1989.