Risk Communication
An Effective Tool for Wellhead Protection Public Awareness & Outreach

Steven Wolf, MCP3
Risk communication: a science-based approach for communicating effectively in:

– High concern and low trust situations
– Sensitive or controversial situations
Risk communication, further defined

- Any purposeful exchange of information about risk or perceptions about risk
- Any public or private communication that informs individuals about the existence, nature, form, severity, or acceptability of risk
- The probability of losing something of value, such as health, safety, job security, self-esteem, wealth, natural resources or community
Risk Communication Principles

• Practical concepts of risk communication
  – Perception = Reality
  – Communication = Skill
  – Goal = Trust + Credibility
Risk Communication Principles

• Practical concepts of risk communication
  – Disciplined and sustained use of risk communication principles and skills
  – Consistent application among all stakeholders and in all formats
    General public   Elected officials   News media
    Presentations   Phone calls   Written correspondence
  – Incorporate situational and cultural awareness
Risk Communication Principles

- Risk communication goals
  - Create a communications environment based on trust and credibility
  - Produce an informed audience that is involved, interested, reasonable, thoughtful, solution-oriented, and collaborative
  - Build confidence in your organization’s professionalism, commitment and expertise
Risk Communication Principles

• The foundation of risk communication principles and techniques…
  – Risk (Threat) perception theory
  – Mental noise theory
  – Negative dominance theory
  – Trust determination theory

Source: Dr. Covello, Director Center for Risk Communication
Risk Communication Principles

- Risk Perception - Sources of Stress & Threats
  - Health
  - Economics
  - Aesthetics
  - Process
  - Safety

- Legal
- Fairness/ Equity
## Risk Communication Principles

- **Risk Perception - Sources of Stress & Threats**

<table>
<thead>
<tr>
<th>Lower Perceived Risk</th>
<th>Higher Perceived Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Trustworthy sources</td>
<td>Untrustworthy sources</td>
</tr>
<tr>
<td>2. Substantial benefits</td>
<td>Few benefits</td>
</tr>
<tr>
<td>3. Voluntary</td>
<td>Involuntary</td>
</tr>
<tr>
<td>4. Controllable</td>
<td>Not controllable</td>
</tr>
<tr>
<td>5. Fair/equitable</td>
<td>Unfair/inequitable</td>
</tr>
<tr>
<td>6. Natural origin</td>
<td>Human origin (man made)</td>
</tr>
<tr>
<td>7. Familiar</td>
<td>Unfamiliar/exotic</td>
</tr>
<tr>
<td>8. Not dreaded</td>
<td>Dreaded</td>
</tr>
<tr>
<td>9. Certain</td>
<td>Uncertain</td>
</tr>
<tr>
<td>10. Children not as victims</td>
<td>Children as victims</td>
</tr>
</tbody>
</table>

Source: Dr. Covello, Director Center for Risk Communication
## Risk Communication Principles

### Risk Perception - Sources of Stress & Threats

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<thead>
<tr>
<th>Lower Perceived Risk</th>
<th>Higher Perceived Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Not memorable</td>
<td>Memorable</td>
</tr>
<tr>
<td>12. Moral/ethical</td>
<td>Immoral/unethical</td>
</tr>
<tr>
<td>13. Clear non-verbal message</td>
<td>Mixed non-verbal message</td>
</tr>
<tr>
<td>14. Responsive</td>
<td>Unresponsive</td>
</tr>
<tr>
<td>15. Random/scattered</td>
<td>Catastrophic</td>
</tr>
<tr>
<td>16. Little media attention</td>
<td>Much media attention</td>
</tr>
<tr>
<td>17. Victims statistical</td>
<td>Victims identifiable</td>
</tr>
<tr>
<td>18. Immediate effects</td>
<td>Delayed effects</td>
</tr>
<tr>
<td>19. Effect reversible</td>
<td>Effect irreversible</td>
</tr>
<tr>
<td>20. Scientifically well understood</td>
<td>Non-scientifically well understood</td>
</tr>
</tbody>
</table>

Source: Dr. Covello, Director Center for Risk Communication
• Trust determination factors
  – Nonverbal communication
    • Provides up to 50-75 percent of message content
    • Noticed intensely by audience
    • Interpreted negatively
    • Overrides verbal communication
## Risk Communication Principles

### Risk Communication Summary

<table>
<thead>
<tr>
<th>Theory</th>
<th>Effect</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental noise</td>
<td>Blocks communication</td>
<td>Use clear, concise messages and active listening</td>
</tr>
<tr>
<td>Trust determination</td>
<td>Enhances or detracts from message</td>
<td>Show that you care</td>
</tr>
<tr>
<td>Risk (threat) perception</td>
<td>Frustration and outrage</td>
<td>Recognize and respond to RP factors</td>
</tr>
<tr>
<td>Negative dominance</td>
<td>Distorts communication</td>
<td>Develop positive messages</td>
</tr>
</tbody>
</table>

Source: Dr. Covello, Director Center for Risk Communication
Seven Cardinal Rules of Risk Communication

1. Accept and involve the public as a legitimate partner
2. Plan carefully and evaluate efforts
3. Listen to the public’s specific concerns
4. Be honest, frank, and open
5. Coordinate and collaborate with other credible sources
6. Meet the needs of the media
7. Speak clearly and with compassion
Communication Environment

- The imminent threat (hazard and outrage are perceived as low)
- Denial and the blame game
- Overwhelming task and limited resources
TOOLS FOR SUCCESS
Tools for Success

- Group discussion
  - Proactive
  - Team work
  - Preparation
Tools for Success

• You can only eat the elephant one bite at a time:
  – Gather the facts for your area
  – Develop strong visual information that tells the story
  – Build coalition of advocates
  – Pick the right messenger for the right audience
  – Leverage and pool resources
  – Create a plan
  – Find the sweet spots and speak with one voice
  – Patience and persistence
Tools for Success

- Trust and credibility on environmental issues:
  - Local citizens and/or citizen advisory panels who are perceived to be neutral, respected, and well-informed about the issue
  - Non-management employees
  - Nurses, physicians, and other health professionals
  - School principals
Tools for Success

Messengers

- Expertise does not equal communication skill
- Preparation is paramount
- Nonverbal communication also makes the messenger
- Be honest with yourselves and select your messenger wisely
Tools for Success

Visual Messages – Out of sight... Out of mind?
• Use visual information that demystifies
(Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2015)

Empty areas indicate no data reported, not the absence of nitrate in groundwater.
Community public water supply systems with requirements for nitrate.
(Source: DHHS, November 2015.)
Visual Messages

Nitrate concentration in shallow, recently recharged U.S. ground water, as predicted by the GWAVA-S model.

Source:
Tools for Success

Visual Messages

**Statewide Number & Median of Nitrate Analyses 1994 - 2014**

All 90,192 analyses and median nitrate-nitrogen levels for Nebraska, 1994-2014. (Source: Quality-Assessed Agrichemical Database for Nebraska Groundwater, 2015)
Tools for Success

Mediums

• Always use risk communication principles for all message delivery forums and vehicles
  – Fact sheets
  – Reports
  – News releases and media interviews
  – Public forums and meeting displays
    • Choose format and sites carefully

• Preparation is paramount

• You can control most communication environments
Community relations and public forums

- Continuous awareness and outreach
- Bring community leaders and opinion leaders “inside” routinely
- Bring displays and interactive materials to the public at schools and other forums
- Open house forums are the best way to facilitate risk communication principles and two-way communication
Public Outreach and Sweet Spots

• Inform your stakeholders in non-offensive ways
• Identify solutions and not just problems
• League of Municipalities, Nebraska Association of County Officials
• Resource and Industry groups
• State Senators and Legislative Committees
• Speak with one voice and show common picture to all