UNDERSTANDING AND COMMUNICATING RISK

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Lipids and Risk Communication: Overview and Presentation Goals

• Introduction
• Key concepts
  – Risk and risk communication
  – Risk communication in stressful situations
  – Tools
• Best practices
• Case studies
• Wrap-up
INTRODUCTION

• Background and Expertise in Health, Safety and Environmental Risk

• Center for Risk Communication
KEY CONCEPT - RISK

Risk: “a threat of loss, real or perceived, to that which we value.”

Risk Communication: “the exchange of information about risks.”
KEY CONCEPT - RISK

- Risks = “threats to that which we value”
- Threats produce stress
- Stress produces emotion
- Stress and emotion produce mental noise

Mental noise radically affects the way people process information
RISK COMMUNICATION

Three Key Messages

• Risk communication is a science-based discipline

• High concern situations change the rules of communication

• The key to risk communication success is anticipation, preparation, and practice
RISK COMMUNICATION LITERATURE

- 8000 articles in peer reviewed scientific journals
- 2000 books
- Reviews of the literature by major scientific organizations (e.g., National Academy of Sciences)
- www.riskcomm.org/new
RISK COMMUNICATION

Three Key Messages

• Risk communication is a science-based discipline

• High concern situations change the rules of communication

• The key to risk communication success is anticipation, preparation, and practice
Stressful situations change the rules of communication.

Stress and mental noise can reduce the ability to process information on average by 80%.
When people are stressed or anxious, they typically:

- ...have difficulty hearing, understanding, and remembering information
- ...want to know that you care before they care what you know
- ...focus most on what they hear first and last
When people are stressed or concerned:

• …they focus much more on negative information than positive information.

• …they process information at well below their education level.

• …they actively seek out multiple sources of credible information.
• Threatening situations activate the visual part of the brain.

• Most primitive part of the brain.

Visual is a very effective risk communication tool
RISK COMMUNICATION

Three Key Messages

• Risk communication is a science-based discipline

• High concern situations change the rules of communication

• The key to risk communication success is anticipation, preparation, and practice
“The Magic Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information”

George A. Miller (Department of Psychology, Princeton University)

The Psychological Review, 1956, vol. 63, pp. 81-97
RISK COMMUNICATION LITERATURE

• J. Lehrer, “How We Decide: Unexpected Discoveries of Neuroscience”

• M. Gladwell, “Blink”

• P. Ekman, “Emotions Revealed” (see also P. Ekman, “Telling Lies: Clues to Deception”)

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HIGH CONCERN SITUATIONS CHANGE RULES OF COMMUNICATION

Tools and Templates - Message Content

1. Rule of 3 (Everything in threes)
2. 27/9/3 (Sound bites: no more than 27 words)
3. Primacy / Recency (First and last)
4. 1N=3P (1 Negative equals three positives)
5. CCO (Compassion, Conviction, Optimism)
   APP (Anticipation, Preparation, Practice)
BEST PRACTICES
Theories of Behavior Change

• Key Components- general
  – Knowledge
  – Attitudes
  – Beliefs
  – Behavior

• Key Components- specific
  – Perceived susceptibility
  – Perceived severity
  – Perceived threat
  – Perceived benefits
  – Perceived barriers
  – Self efficacy
  – Expectations
  – Cues to action
  – Demographic and socio-economic variables

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BEST PRACTICES
TRANSALLATING MESSAGES TO COMMUNICATE EFFECTIVELY

• Risk communication is receiver centric

• Know your target population
  – Barriers
  – Values
  – Culture
  – Preferences
  – Threats
  – Information needs

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• **Messenger: trust is critical**
  - High stress situations, people judge the messenger before the message
  - Build trust and credibility
  - Verbal-ordering of information
  - Non-verbal communication
  - Manage perceptions-what is perceived as real is real in its consequences
MESSENGER CHARACTERISTICS
[LOW STRESS]

Competence/Expertise
80-85%

All Others
15-20%

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MESSENGER CHARACTERISTICS

[HIGH STRESS]

Assessed in first 30 seconds

- Listening/Caring/Empathy: 50%
- Competence/Expertise: 15-20%
- Dedication/Commitment: 15-20%
- Honesty/Openness: 15-20%
MESSENGER CHARACTERISTICS
Non-verbal Signals

• Low stress – 25 percent of message

• High stress - 75 percent of message
  – Are intensely and quickly noticed
  – Can override verbal message
  – Are interpreted negatively
• Case Study 1
  Primary Prevention, low stress situation

• Case Study 2
  Secondary Prevention, high stress situation
Case Study 1: Prepregnancy counseling visit for a woman with hypertension, metabolic syndrome, and dyslipidemia

<table>
<thead>
<tr>
<th>Key Message</th>
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<th>Key Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Address risk factors as they affect ability to conceive”</td>
<td>“If risk factors not addressed, risk to the mother”</td>
<td>“If risk factors not addressed, risk to the fetus/baby”</td>
</tr>
<tr>
<td><strong>1.1</strong></td>
<td><strong>2.1</strong></td>
<td><strong>3.1</strong></td>
</tr>
<tr>
<td>HTN: diet, exercise, Rx</td>
<td>Gestational diabetes/Diabetes</td>
<td>Diabetes</td>
</tr>
<tr>
<td><strong>1.2</strong></td>
<td><strong>2.2</strong></td>
<td><strong>3.2</strong></td>
</tr>
<tr>
<td>Metabolic Syndrome: Diet (DASH), exercise</td>
<td>Pre-eclampsia/Hypertension</td>
<td>Obesity</td>
</tr>
<tr>
<td><strong>1.3</strong></td>
<td><strong>2.3</strong></td>
<td><strong>3.3</strong></td>
</tr>
<tr>
<td>Dyslipidemia: Diet, exercise, meds</td>
<td>Toxemia/CHD/Stroke</td>
<td>Hyperactivity/Learning disorders</td>
</tr>
</tbody>
</table>
Case Study 2: 35-year-old male who just got out of the hospital after an MI. He is a smoker, one screening showed high cholesterol, and HBP upon physical exam.

<table>
<thead>
<tr>
<th>Key Message</th>
<th>1.1 Reduce fats</th>
<th>2.1 Designate time for exercise at least 4 times per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Need to change diet”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2 Increase fiber</td>
<td>2.2 Pick exercise that can be maintained long term</td>
<td></td>
</tr>
<tr>
<td>1.3 Exercise portion control</td>
<td>2.3 Develop supportive team</td>
<td></td>
</tr>
</tbody>
</table>

- **3.1 Quit cold turkey**
- **3.2 Use smoking cessation tools**
- **3.3 Develop supportive team**

Key Message

“Need to exercise”

“Need to stop smoking”
SUMMARY AND CONCLUSIONS

Effective Risk Communication:
1. Message content
2. Messenger characteristics
3. Receiver characteristics
4. Perception management
ANTICIPATE, PREPARE, AND PRACTICE

“No, HDL and LDL were not the robots in Star Wars.”
“LDL stands for Lousy Darn Lipos and HDL stands for Hunky Dory Lipos.”
ANTICIPATE, PREPARE, AND PRACTICE

"It's easy to tell the difference between good cholesterol and bad cholesterol. Bad cholesterol has an evil laugh."