

Core Slides: Risk Communication

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Risk

“A threat to that which we value.”

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Key Messages

- Risk communication is a science-based discipline
- High stress situations change the rules of communication
- The key to critical communication success is anticipation, preparation, and practice

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Risk Communication:

Key Messages

- Risk communication is a science-based discipline
- High stress situations change the rules of communication
- The key to communication success is anticipation, preparation, and practice

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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)

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Risk Communication Literature: Research Based Resources

Dr. R. Hyer and Dr. V. Covello
Effective Media Communication During Public Health Emergencies:
A World Health Organization Handbook
World Health Organization, United Nations: Geneva, March 2007
<http://www.who.int/bookorders>
Publication No. 11500684

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Risk Communication: Best Practice

- Stakeholder Predictability (APP Template)
- Caring/Empathy (CCO Template)
- Attention Span (27/9/3 Template)

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Stakeholder Predictability

“95 percent of concerns and questions for any crisis can be predicted in advance.”

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The APP Template

1. Anticipate
2. Prepare
3. Practice

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APP Template

1. Anticipate
2. Prepare
3. Practice

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Anticipate

1. Scenarios
2. Stakeholders/Partners
3. Questions and Concerns

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Anticipate

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Stakeholder Predictability: Examples

- “50 Most Frequently Asked Questions by Terminally Ill Patients”
- “77 Most Frequently Asked Questions by Journalists in a Disaster”
- “65 Most Frequently Asked Questions about Bird Flu” (pandemicflu.gov)

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“77 Most Frequently Asked Questions by Journalists in a Disaster”

Categories of Questions:

- Factual Questions
- Emotionally Charged Questions
- Challenge, Trap, and Pitfall Questions

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“77 Most Frequently Asked Questions by Journalists in a Disaster”

Examples:

- Who is in charge?
- What would you like to say to the victims and victims’ families?
- Could this disaster have been prevented?

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Key Behavioral Choices in Public Health Emergencies

Should I:

- Stay where I am?
- Stay indoors?
- Try to find my loved ones?
- Gather with my neighbors?
- Eat the food?
- Drink the water?
- Go to the hospital if I feel sick?

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Categories of Media Questions

- Factual Questions
- Emotionally Charged Questions
- **Challenge, Trap, and Pitfall Questions**

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Challenges/Traps/Pitfalls

- False Negative Questions
- Guarantee Questions
- What If (Worst Case Scenario) Questions

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Challenge Questions: Do's and Don'ts

- Don't** repeat a false negative
- Do** repeat the opposite of the false negative

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Do's and Don'ts

- No
- Not
- Never
- Nothing
- None

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General K. Kiley, MedCom Commander, Walter Reed, Congressional Testimony

- Q.: "Do you hold yourself accountable for the squalid conditions provided for wounded soldiers at Walter Reed?"
A.: "I'm trying **not** to say I'm not accountable."
Q.: "How could you not have known?"
A.: "I **don't** do barracks inspections at Walter Reed."
Q.: "Why did you do so little?"
A.: "Walter Reed is **not** my only command."

Source: March 6, 2007, Washington Post

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Stakeholder Predictability: Examples

....
....
....

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Message Mapping

1. Department of Health and Human Services/CDC: *Stakeholder Questions for Avian Flu/Pandemic Influenza* (pandemicflu.gov)
2. Environmental Protection Agency: *Stakeholder Questions for 6 Water/Groundwater Contamination Scenarios*
3. Department of Energy: *Stakeholder Questions for Radiation Scenarios*

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Risk Communication: Best Practice

- Caring/Empathy (CCO Template)
- Attention Span (27/9/3 Template)
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Risk Communication: Best Practice

- **Caring/Empathy (CCO Template)**
- Attention Span (27/9/3 Template)
- Stakeholder Predictability (APP Template)

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Caring/Empathy

“When people are stressed and upset, they want to know that you care before they care what you know.”

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Risk Communication Goals

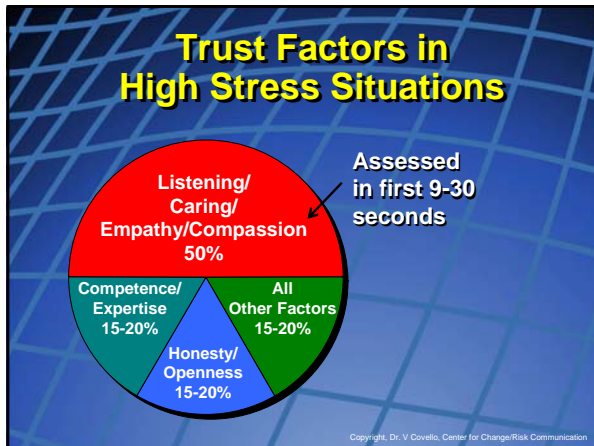
- enhance knowledge and understanding
- build trust and credibility
- encourage appropriate behaviors and levels of concern

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The CCO Template

- Compassion
- Conviction
- Optimism

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- ## The CCO Template
- Compassion
 - Conviction
 - Optimism
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Mayor Giuliani, 9/11

“The number of casualties is more than any of us can bear ultimately.”

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Risk Perceptions (Fear Factors)

<u>Lower Concern/Fear</u>	<u>Higher Concern/Fear</u>
1. Trustworthy sources	Untrustworthy sources
2. Large benefits	Few or unclear benefits
3. Under one's control	Controlled by others
4. Voluntary	Involuntary
5. Fair	Unfair
6. Natural origin	Human origin
7. Children not victims	Children as victims

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- ## Risk Communication: Best Practice
- Caring/Empathy (CCO Template)
 - **Attention Span (27/9/3 Template)**
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Attention Span

“When people are stressed and upset, they often have great difficulty hearing, understanding, and remembering information”

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The 27/9/3 Template

- 27 words
- 9 seconds
- 3 messages

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Risk Communication: Attention Span Research

“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

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Risk Communication: Attention Span Research

“The Magic Number Three, Plus or Minus Two: Some Limits on Our Capacity for Receiving, Processing, and Remembering Information in High Stress Situations”

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High Stress Situations: Rule of 3 Shift

- Low Stress Situations:
Brain can hold on average **7 messages**
- High Stress Situations:
Brain can hold on average **3 messages**

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The 27/9/3 Template

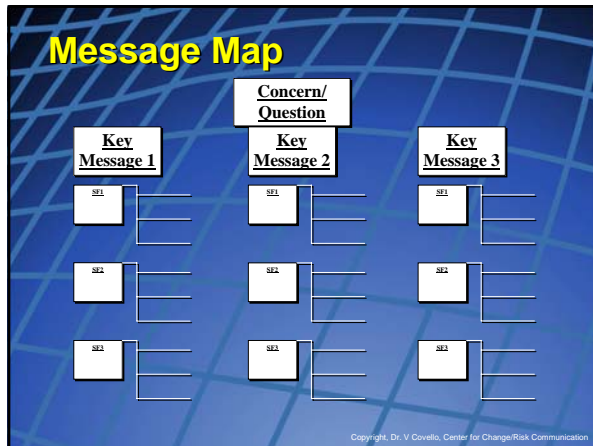
- 27 words
- 9 seconds
- 3 messages

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27/9/3 Template

- **27 words**
(total of 27 words for all three key messages, with each key message averaging 9 words in length)
- **9 seconds**
- **3 messages**

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Key Word Message Map

West Nile Virus Map

Key Message		Key Message		Key Message	
"Remove Standing Water"		"Wear Protective Clothing"		"Use Insect Repellent"	
<u>1.1</u>	Unattended swimming pools	<u>2.1</u>	Long Sleeves	<u>3.1</u>	DEET
<u>1.2</u>	Flower Pots/Bird Baths	<u>2.2</u>	Long Pants	<u>3.2</u>	23%
<u>1.3</u>	Cup of Water	<u>2.3</u>	Dusk and Dawn	<u>3.3</u>	Medical Research

- ## Message Mapping
1. Multi-State Partnership for Agricultural Security: *Message Maps for 30 Agricultural Scenarios*
 2. Department of Health and Human Services/CDC: *Pre-Event Maps for Avian Flu/Pandemic Influenza* (pandemicflu.gov)
 3. Environmental Protection Agency: *Message Maps for 6 Water/Groundwater Contamination Scenarios*
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www.epa.gov/nhsrc/pubs/reportCrisisCom040207.pdf

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Message Mapping

Message Maps

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Risk Communication Literature: Attention Span Templates

- 27/9/3 Template
=====
- Primacy/Recency Template
- AGL-4 Template
- 1N=3P Template

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Attention Span Templates:

- 27/9/3 Template
=====
- Primacy/Recency Template
- AGL-4 Template
- 1N=3P Template

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Primacy/Recency Template

- Low Stress Situations:
Brain processes information based on **linear order** (e.g., 1, 2, 3)
- High Stress Situations:
Brain processes information based on **primacy/recency** (e.g., 1, 3, 2)

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Attention Span Templates:

- 27/9/3 Template
=====
- Primacy/Recency Template
- AGL-4 Template
- 1N=3P Template

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The AGL-4 Template

Average Grade Level Minus 4

In high stress situations, the human brain typically processes information at average grade level minus 4.

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High Stress Situations: The AGL-4 Shift

- Low Stress Situations:
Brain processes information at **AGL** (average grade level)
- High Stress Situations:
Brain processes information at **AGL-4** (average grade level minus 4 grade levels)

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Attention Span Templates

- 27/9/3 Template
=====
- Primacy/Recency Template
- AGL-4 Template
- 1N=3P Template

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1N=3P Template

Negative Dominance

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Negative Dominance Shift

- Low Stress Situations:
1N = 1P
(one negative on average equals one positive)
- High Stress Situations:
1N=3P
(one negative on average equals three positives)
- Bad News Template:
It takes on average 3 positives to balance one negative.

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Templates

- APP
- CCO
- 27/9/3
- Primacy/Recency
- AGL-4
- 1N=3P

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Risk Communication: Best Practice

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- **Stakeholder Predictability**

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Risk Perceptions (Fear Factors)

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1. Trustworthy sources	Untrustworthy sources
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6. Natural origin	Human origin
7. Children not victims	Children as victims

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PERCEPTIONS OF RISK

“That which is perceived as real is real in its consequences...”

“Perceptions of risk (threats) often do not track with reality.”

“Facts about risks (threats) appear to play little or no role in determining perceptions of risks.”

===

“People respond less to the seriousness of a risk than to such factors as trust, control, fairness, and courtesy”

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Risk Perception/Fear Factors

Risks are perceived as greater if they are perceived as:

- unfair (versus fair)
- involuntary or imposed (versus voluntary or chosen)
- under the control of untrustworthy others (versus shared control)

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Risk Perception/Fear Factors

- Trust
 - Listening/Caring
 - Competence/Expertise
 - Honesty/Transparency
- Benefits/Fairness
 - Societal
 - Community
 - Personal
- Control
 - Choice
 - Voice
 - Knowledge (e.g. things for people to do)

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Risk Perceptions

The more you do to **increase perceived fairness, choice, and control,**
the less the **concern, fear, worry, anxiety, outrage, annoyance, helplessness, and confusion**

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Risk Perceptions and Risk Comparisons

If risk “a” is less than risk “b,”
and risk “a” is acceptable,
then risk “b” should also be acceptable

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<u>Cause of death</u>	<u>Annual risk</u>	<u>Lifetime risk</u>
Motor vehicle accident	1 in 6,700	1 in 88
Accidental electrocution	1 in 300,000	1 in 4,000
Lightning	1 in 3,000,000	1 in 39,000
Shark Attack	1 in 280,000,000	1 in 3,700,000

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Risk Perceptions -- Control

KDG Template (Know, Do, Go)

Key Message 1: What is most important for people to **know**

Key Message 2: What is most important for people to **do**

Key Message 3: Where can people **go** to get credible information

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Templates

- APP
- CCO
- 27/9/3
- Primacy/Recency
- AGL-4
- 1N=3P
- KDG

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Special Topics

- Credibility ladders
- Non-verbal communication
- Visuals

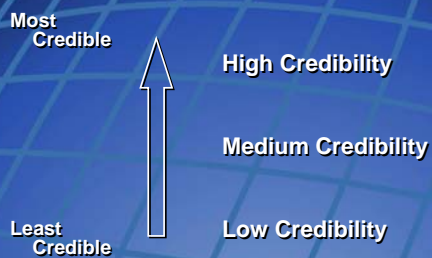
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Special Topics

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- Non-verbal communication
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Authority/Credibility Ladder



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Credibility Transference

“A lower credible source takes on the credibility of the highest credible source that agrees with its position on an issue.”

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Credibility Reversal

“When a lower source attacks the credibility of a higher source, the lower source loses further credibility.

The only information source that can effectively attack the credibility of another source is one of equal or higher credibility.”

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Special Topics

- Credibility Ladders
- **Non-verbal communication**
- Visuals

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Non-Verbal Signals

- Provide up to 75 percent of message
- Override verbal content
- Are intensely and quickly noticed
- Are interpreted negatively

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Resource Materials: Non-Verbal Communication

- P. Ekman, “Telling Lies: Clues to Deception”
- P. Ekman, “Emotions Revealed”
- D. Morris, “Body Talk: A Dictionary of Human Gestures”

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Special Topics

- Credibility Ladders
- Non-verbal communication
- **Visuals**

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Special Topics

Visuals

- Graphics
- Analogies
- Story Telling
- =====
- Non-Verbal Communication

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The Influenza Pandemic of 1918-1919

- 25-30% of world's population (~500 million people) fell ill
- > 40 million deaths worldwide; ~60 percent in people ages 20-45
- > 500,000 deaths in United States; 196,000 in October, 1918 alone

Source: WHO, 1/2005

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Resource Materials - Visuals

Prof. Edward Tufte (Yale University)

- "Visual Explanations"
- "The Visual Display of Quantitative Information."
- "Envisioning Information."

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