Risk Communication & Behavior Change

Rajiv N. Rimal
The George Washington University
Risks and Behaviors

Environmental Hazards
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Environmental Hazards

Risk analysis

Risk Assessment

Probability theory
Risks and Behaviors

Environmental Hazards

Risk analysis

Risk Assessment

Probability theory

Dissemination

Risk Communication

Communication theory

Milken Institute School of Public Health
THE GEORGE WASHINGTON UNIVERSITY
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- Risk analysis
- Probability theory

Risk Assessment

- Dissemination
- Communication theory

Risk Communication

- Comprehension; persuasion
- Health literacy

Risk Perception
Risks and Behaviors

- Environmental Hazards
  - Risk analysis
  - Probability theory
- Risk Assessment
  - Dissemination
  - Communication theory
- Risk Communication
  - Comprehension; persuasion
  - Health literacy
- Risk Perception
  - Action
  - Behavioral theory
- Behavior Change
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Behavior Change
(Risk) Communication as Intended & Received

• Communication seldom falls into a social, political, or cognitive vacuum
• Distortion is the name of the game
Refraction of Risk Communication

- Cognitive Biases
- Prior Experiences
- Perceived Losses
- Political Beliefs
- Culture & Traditions
In addition.....

• Difficult to convey probabilistic information

• Many hazards are unknown
Minimizing Refraction in Public Risk Communication

• Build trust through
  – Transparency
    • Openness about the process
    • Without conflicts of interest
  – Honesty
    • Clarity about what is known & unknown
  – Collaboration
    • Build partnerships with communities being served
Risk Communication → Behavior Change

• Evidence weak at best
  – When perceived severity is high, perceived susceptibility tends to be low
  – When both are high, avoidance is natural

• But efficacy is key
### The Risk Perception Attitude (RPA) Framework

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Study of HIV/AIDS in Malawi

- Household survey of Malawian adults at baseline
- \( N = 890 \)
- Age, \( M = 32.6, \ SD = 14.1 \)
- Female = 54%
- Education:
  - None = 36%
  - Primary = 49%

- Rimal et al., *Hlth Comm*
Effects of Risk and Efficacy on Behavioral Intention
(Intention to Use Condoms at Baseline)

Strong Efficacy (Mean+1SD)

Weak Efficacy (Mean-1SD)
Changes in the Configuration of the four RPA framework groups (Baseline + 6 Years)

\[ X^2 (n = 6,517, df = 9) = 1417, \ p < .001 \]
Frequency of Condom Use (standardized scores)

- Indifference
- Proactive
- Avoidance
- Responsive

Low risk
- Low efficacy
- High efficacy

High risk
Percent Tested for HIV

F (3, 6516) = 43.15, p < .001
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Finally

• Self-efficacy more reliable predictor across these behaviors
• Risk perception: motivators
• Efficacy beliefs: facilitators