Risk Communication and Community Engagement in Climate-Health Crises

Digital Health for Climate Resilience

Lecture 7

Lecture Outline

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- **Why RCCE Matters in Climate-Health Crises**
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Defining Risk Communication and Community Engagement

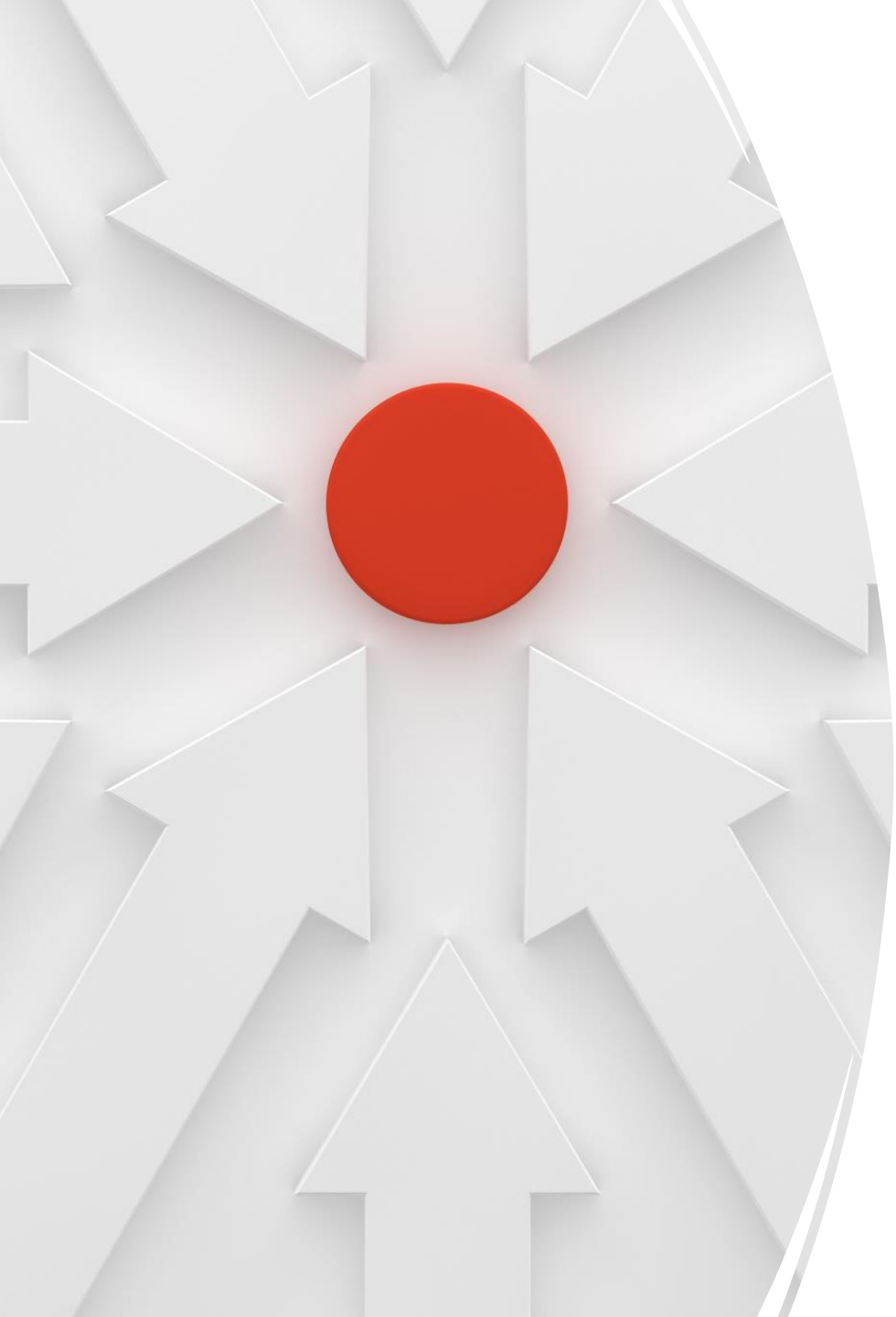
- **Risk Communication:** The real-time exchange of information, advice, and opinions between experts, officials, and people who face a threat to their wellbeing, to enable informed decision-making and to adopt protective behaviors
- **Community Engagement:** A process of developing relationships and structures that enable communities to participate actively in the decisions and actions that affect their lives, particularly during emergencies and in building long-term resilience
- **Integration for Climate-Health Crises:** A strategic, iterative process of exchanging information, building trust, and fostering collaborative partnerships between authorities, experts, and affected communities to enable informed decision-making, protective behaviors, and co-designed adaptation strategies before, during, and after climate-related health emergencies

Why RCCE Matters in Climate-Health Crises

- **Climate change creates unique communication challenges:**
  - Threats are often invisible, slow-moving, or abstract
  - Scientific uncertainty can be weaponized to create doubt
  - Impacts are unevenly distributed, raising justice concerns
  - "Eco-anxiety" and fatalism can paralyze action
- **Consequences of Poor RCCE:**
  - Warnings ignored, protective behaviors not adopted
  - Mistrust in authorities and institutions
  - Misinformation and rumor spread
  - Vulnerable populations left behind
- **Benefits of Effective RCCE:**
  - Informed decision-making and protective action
  - Trust and social cohesion
  - Resilient communities capable of coping and adapting
  - Equitable outcomes

Theoretical Foundations: Models of Risk Perception

- **Risk perception is not purely rational;** it is shaped by psychological, social, and cultural factors
- **Key Theories:**
  - **Psychometric Paradigm:** People judge risks based on qualitative characteristics like dread (catastrophic potential) and unknown (novelty, invisibility)
  - **Cultural Cognition Theory:** People's perceptions of risk are shaped by their cultural values and group identities. We tend to conform our beliefs about risk to those of people who share our worldview
  - **Mental Models Approach:** People have existing mental models of how things work; effective communication must build on or correct these models
- **Implication:** One-size-fits-all communication fails. We must understand how our audience thinks about risk

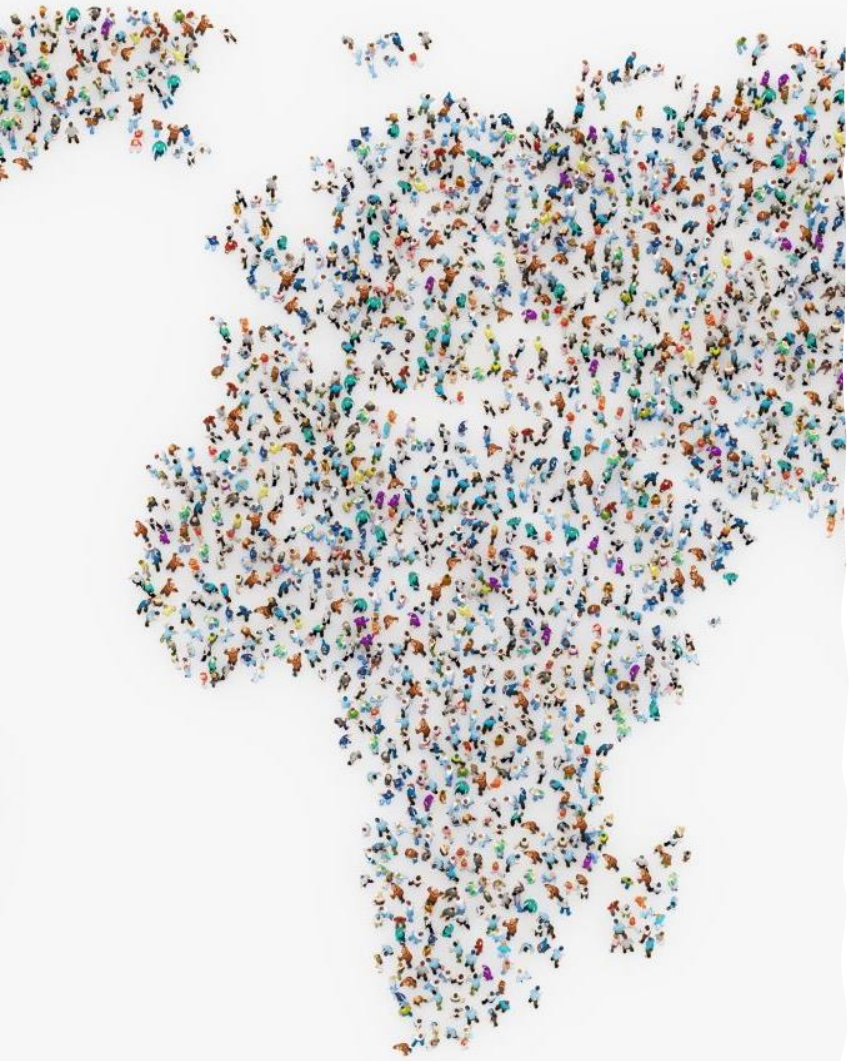


The Extended Parallel Process Model (EPPM)

- **The EPPM is a dominant framework for fear appeals** in health and risk communication
- **Core Premise:** Fear appeals work through two parallel processes:
  - **Threat Appraisal:** Is the threat serious? Am I susceptible?
  - **Efficacy Appraisal:** Can I do something about it (self-efficacy)? Will that action work (response efficacy)?
- **Four Outcomes:**
  - **Low Threat:** No response (ignored)
  - **High Threat + Low Efficacy:** Fear control (denial, avoidance, fatalism)
  - **High Threat + High Efficacy:** Danger control (protective action)
- **Application to Climate-Health:**
  - Doom-and-gloom messaging without solutions can backfire, leading to paralysis
  - Messages emphasizing **low threat with positive efficacy** can increase behavioral intentions
  - Communication must balance threat with genuine, achievable efficacy

Audience Segmentation and Cultural Cognition

- **Not all audiences are the same.** Effective communication requires segmenting audiences and tailoring messages
- **Segmentation Dimensions:**
  - **Demographic:** Age, location, language, health status (e.g., elderly for heat warnings)
  - **Psychographic:** Values, beliefs, worldviews
  - **Behavioral:** Current practices, readiness to change
  - **Cultural:** Individualist vs. communitarian orientations
- **Cultural Cognition in Practice (Zika Example):**
  - When Zika risk was linked to climate change, **hierarchist-individualists** downplayed the danger
  - **Egalitarian-communitarians** showed concern but underestimated threat when Zika was linked to immigration
  - How risks are connected shapes perception across cultural groups
- **Implication:** Tailor framing to resonate with different cultural worldviews while maintaining scientific accuracy



Core Principles of Effective Climate-Health Communication

- **Start with what people know and care about.** Connect climate to existing local concerns (e.g., health, economy, family)
- **Focus on human health impacts.** Framing climate as a health issue engages broader audiences and highlights co-benefits of action
- **Localize the message.** Use local data, local examples, and local voices. Show how climate affects *this* community
- **Avoid fear messaging alone.** Balance threat with efficacy. Provide clear, practical, achievable actions
- **Use positive framing.** Emphasize resilience, preparedness, and collective capacity. Help people see themselves as agents of change
- **Make messages accessible.** Avoid jargon. Use clear language, visuals, and multiple formats
- **Build trust through credible messengers.** Health professionals, community leaders, and trusted local voices are most effective
- **Be transparent about uncertainty.** Acknowledge what we know, what we don't, and what we're doing to learn more

Community Engagement: From Consultation to Co-Creation

- **The Spectrum of Engagement:**
  - **Inform:** One-way communication to provide information
  - **Consult:** Seek feedback on plans or options
  - **Involve:** Work directly with communities throughout the process
  - **Collaborate:** Partner in each aspect of decision-making
  - **Empower:** Place final decision-making in community hands
- **Why Move Up the Spectrum?**
  - Communities have local knowledge essential for effective adaptation
  - Engagement builds trust and ownership, increasing likelihood of sustained action
  - It is a matter of respect and equity—those affected by decisions should have a voice
- **Methods:** Participatory workshops, citizen science, community advisory boards, co-design sessions, living labs

Digital Tools for RCCE: Opportunities and Risks

- **Opportunities:**
  - **Reach:** Social media, mobile apps, and websites can reach large audiences quickly
  - **Targeting:** Digital platforms enable tailored messaging to specific groups
  - **Interactivity:** Two-way communication enables dialogue and feedback
  - **Engagement:** Multimedia content (videos, infographics, animations) can enhance understanding and motivation
  - **Real-Time Updates:** Information can be updated instantly as situations evolve
- **Risks and Challenges:**
  - **Misinformation:** False information spreads rapidly online
  - **Digital Divide:** Those most vulnerable may lack internet access or digital literacy
  - **Echo Chambers:** People may only encounter information that reinforces existing beliefs
  - **Surveillance Concerns:** Data collection raises privacy issues
  - **Information Overload:** People may tune out if overwhelmed
- **Imperative:** Use digital tools thoughtfully, as part of a mixed-methods strategy, not a replacement for face-to-face engagement

Case Study 1: MOUNTADAPT Campaign Toolkit

- **Source:** Health Care Without Harm Europe, MOUNTADAPT project (Horizon Europe). https://europe.noharm.org/resources/promoting-health-changing-climate-toolkit-creating-climate-risk-preparedness-campaigns
- **Purpose:** A practical resource for developing awareness-raising campaigns on the health risks and impacts caused by climate change
- **Target Users:** Healthcare professionals, public health authorities, community organizations, citizen groups, NGOs, researchers
- **Key Features:**
  - Designed to be **adaptable across contexts and resources**—includes specific strategies for low, moderate, and high budgets
  - Grounded in the principle that climate risk preparedness is a public health priority
  - Emphasizes translating science into **tangible, empowering messages**
  - Each section offers **guiding questions, real-world examples, and budget-conscious options**
- **Impact:** Democratizes access to evidence-based communication strategies, enabling community-level action regardless of resources

Case Study 2: TRIGGER Project's Audiovisual Materials

- **Source:** TRIGGER project, European Climate-Health Cluster
- **Challenge:** Communicating resilience effectively in a context where climate change may generate eco-anxiety, media saturation, and hopelessness
- **Solution:** Co-created educational materials focused on four major climate hazards: heatwaves, floods, air pollution, and wildfires
- **Process:**
  - Materials **co-created** by researchers alongside communication experts, illustrators, videographers, actors, and scriptwriters
  - Ensures both **scientific rigor and high production quality**
- **Key Insights:**
  - Audiovisual content is a strategic choice—94.6% of internet users watch online videos monthly, and videos enhance non-specialist understanding of scientific knowledge
  - **Positive framing**—centered on practical, local, everyday actions—helps people see themselves as active participants rather than paralyzed victims
  - Professional production techniques combined with compelling narrative strategies make science videos more impactful

Case Study 3: The SAFE Living Lab Approach

- **Source:** SAFE—Fit for the Future project, Austria
- **Concept:** A **transdisciplinary Living Lab** addressing global challenges like climate change and soil degradation through collaborative, participatory approaches
- **Core Principles:**
  - Fostering **co-operation, co-design, and co-production** processes among researchers, industry, decision-makers, and society
  - Integrating **participatory education** and structurally reflected communication strategies
  - Empowering individuals with **knowledge, tools, and action-oriented competences** to drive sustainable change
  - Providing **interactive and practical learning environments** that bridge research and real-world application
- **Key Term:** "Structurally reflected communication strategies" — communication that is thoughtfully designed and integrated into all aspects of the project
- **Impact:** Serves as a hub for raising awareness through knowledge exchange and promoting community and environmental resilience

The Role of Health Professionals as Trusted Communicators

- **Health professionals are among the most trusted sources of health information**
- **Their unique position enables them to:**
  - Translate complex climate science into locally relevant health advice
  - Address patient concerns directly in clinical encounters
  - Advocate for policy changes within institutions and communities
  - Model climate-smart behaviors
- **WHO Toolkit for Health Professionals:** Provides evidence-based communication strategies and resources to effectively communicate the health risks of climate change and engage diverse audiences
- **The Need:** Many health workers feel ill-equipped to discuss climate change; training and support are essential

Addressing Eco-Anxiety and Fear-Based Messaging

- **Eco-anxiety:** Chronic fear of environmental doom, increasingly recognized as a mental health burden, particularly among young people
- **The Problem with Fear-Only Messages:**
  - Can generate anxiety, hopelessness, and paralysis rather than action
  - May lead to denial or avoidance (fear control in EPPM terms)
  - Can be ethically problematic if not paired with solutions
- **Evidence-Based Approaches:**
  - **Balance threat with efficacy.** Always provide clear, achievable actions
  - **Use positive framing.** Emphasize resilience, collective capacity, and solutions
  - **Focus on practical, local actions.** Help people see their role
  - **Acknowledge emotions.** Validate feelings of concern while offering hope
  - **Build community.** Collective action can combat isolation and despair

Evaluating RCCE Interventions

- **Why Evaluate?**
  - To learn what works and what doesn't
  - To justify investment and resources
  - To improve future interventions
  - To ensure accountability to communities
- **What to Measure?**
  - **Outputs:** Materials produced, people reached, events held
  - **Outcomes:** Changes in awareness, knowledge, attitudes, intentions
  - **Impacts:** Behavior change, health outcomes, community resilience
- **Methods:**
  - Pre/post surveys, focus groups, interviews
  - Social media analytics, website traffic
  - Observation, community feedback mechanisms
  - Participatory evaluation with community members
- **Challenges:**
  - Attribution—linking communication to behavior change is difficult
  - Long timeframes—resilience builds slowly
  - Complexity—many factors influence outcomes

Conclusion and Key Takeaways

- **Risk communication and community engagement are essential components** of any effective response to climate-health crises, not optional add-ons
- **Effective communication is grounded in theory**—understanding how people perceive risk (psychometric paradigm, cultural cognition) and what motivates action (EPPM) is foundational
- **One-size-fits-all communication fails.** Audience segmentation and tailored messaging are essential
- **Balance threat with efficacy.** Fear-based messaging without solutions can paralyze; always provide clear, achievable actions
- **Move up the engagement spectrum**—from informing to consulting to co-creating with communities. Genuine partnership builds trust, ownership, and resilience
- **Health professionals are trusted voices** who must be equipped and supported as climate communicators
- **Digital tools offer powerful opportunities but also risks**; they must be used thoughtfully and equitably
- **Evaluation is essential** for learning, improvement, and accountability
- **Ultimately, RCCE is about respect**—respect for the autonomy, knowledge, and dignity of the people we serve. Our goal is not to control behavior but to enable informed choice and collective action

Q&A / Discussion

Thank you.

Questions for Discussion:

- In your context, what are the biggest barriers to effective climate-health communication?
- How can we ensure that community engagement is genuine and not tokenistic?
- What role should social media platforms play in climate-health risk communication, and how do we address misinformation?
- How do you balance the need for simple messages with the complexity of climate science?
- What would a truly co-created climate-health campaign look like in your community?

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