Engaging Communities to Identify and Address Environmental Health Literacy Gaps

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A Public Health Role for Participatory Risk Communication

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Roadmap

• Why Does Context Matter for EHL?

• How Can Participatory Risk Communication Privilege Context?

• How Can Participatory Strategies Elucidate Context to Identify EHL Gaps and Preferences?
Why does context matter for Environmental Health Literacy?

*Environmental health literacy* integrates concepts from both environmental literacy and health literacy to develop the wide range of *skills* and *competencies* that people need in order to *seek out, comprehend, evaluate, and use* environmental health *information* to make informed *choices, reduce health risks, improve quality of life and protect the environment.*

– Society for Public Health Education

[http://www.sophe.org/environmentalhealth/key_ehl.asp](http://www.sophe.org/environmentalhealth/key_ehl.asp)
Available Information, Choices, and Risks Are Often Place-Based

- Contaminants
- Exposure pathways
- Socioeconomic/demographic factors
Use of Skills and Competencies Requires Sensemaking Processes

- Retrospective
  - Capacity
  - Commitment
  - Expectations
- Collective
How Can Participatory Communication Strategies Elucidate Context to Identify EHL Gaps and Preferences?

Community-Based Participatory Communication (CBPC) is a form of praxis that engages stakeholders through interviews, focus groups, and projective techniques to support empowered decision-making. Specifically, CBPC assists with:

- Identifying Stakeholder Groups and Information Needs
- Recognizing Convergent and Divergent Values and Information Preferences
- Developing Targeted, Stakeholder-Appropriate Materials
In Context: CBPC at Superfund Sites

What We DID

• Semi-structured interviews
• Stakeholder identification and segmentation
• Empanelled community research process input group
• Developed future use visualizations
• Focus groups
• Community meetings
• Online information portal
In Context: CBPC at Superfund Sites

What We FOUND: Stakeholder Groups
• Residents Near the Site
• Regulatory Agencies
• Plant Employees
• EH Advocates
• Healthcare Providers
• Education (Postsecondary)
• Media
• Religious Community
• Wildlife/Recreation
• Tourism
• City Government
• Border County Leadership
• PRP and Subcontractors
• Educators
• Site Citizens Advisory Board
In Context: CBPC at Superfund Sites

What We FOUND: Information Needs

• What chemicals are “out there”?
• What do the chemicals do to health?
• How much groundwater contamination is there?
• How are “they” monitoring the waste?
• Could an earthquake disturb the waste?
• What keeps contamination from moving further south?
• Is a wind farm an option for the site after it’s cleaned up?
• How does the site affect my cancer risk?
In Context: CBPC in Post-Crisis Preparedness Planning

What We DID

- Proxy case studies of crisis communication best practices
- Technical expert interviews
- Empanelled advisory group
- Stakeholder segmentation
- Developed decision tree and radio “news” triggers
- Focus groups
In Context: CBPC in Post-Crisis Preparedness Planning

Baseline Situation:
Perpetrator Caught
NUO Lifted

Scenario 1. Includes community voices

Yes Vignette 1.1
No Vignette 1.2

1.1 Yes: Shows Compassion
No: Efficacy Message
No: Acknowledgment of Culture
No: Existing Network/Plan
No: Spokesperson Available

1.2 No: Compassion
Yes: Efficacy Message
Yes: Acknowledgment of Culture
Yes: Existing Network/Plan
Yes: Spokesperson Available

Scenario 2. Acknowledges Public Concern

Yes Vignette 2.1
No Vignette 2.2

2.1 Yes: Compassion
Yes: Efficacy Message
Yes: Acknowledgment of Culture
No: Existing Network/Plan
No: Spokesperson Available

2.2 No: Compassion
No: Efficacy Message
No: Acknowledgment of Culture
Yes: Existing Network/Plan
Yes: Spokesperson Available

Scenario 3. Acknowledges Uncertainty

Yes Vignette 3.1
No Vignette 3.2

3.1 Yes: Compassion
Yes: Efficacy Message
Yes: Acknowledgment of Culture
No: Existing Network/Plan
No: Spokesperson Available

3.2 No: Compassion
No: Efficacy Message
Yes: Acknowledgment of Culture
No: Existing Network/Plan
No: Spokesperson Available
In Context: CBPC in Post-Crisis Preparedness Planning

What We FOUND: Stakeholder Groups

- Promotoras/Community Health Workers
- African Americans
- Millennials (College Students)
- Educators
- Public Health Professionals
- Healthcare Providers
- Elderly men
- New Immigrants
In Context: CBPC in Post-Crisis Preparedness Planning

What We FOUND: Information Needs

• What are the “national drinking water standards”?
• How is the water tested, and by whom?
• If water isn’t safe for the pregnant, elderly, and children to drink, how can it be safe for me to drink?
• What symptoms should I look for?
• How do I clean my sink after I flush my pipes? My water heater?
• Why should I believe that clear-looking water is dirty?
In Conclusion

• EHL is context-based and relies upon sensemaking processes

• Varied stakeholder groups differ in information needs, relevant experiences to inform EHL sensemaking, and preferred information sources and channels

• CBPC strategies foreground context, helping scientists identify stakeholder-specific needs and preferences toward the development of appropriate, targeted EHL materials and programming
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