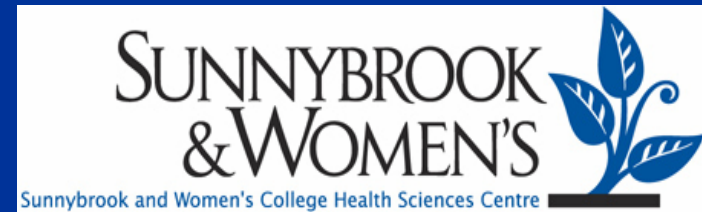


# Communicating Environmental Risk in the Developing World:

## *The Case of the Aral Sea Disaster*

Shawn Tracy



Primary Care Research Unit, Sunnybrook and Women's College Health Sciences Centre, Toronto, Ontario, Canada.

# *On behalf of the Health and Environment Consortium (HEC)...*

- Ross Upshur, Sunnybrook Hospital
- Ian Small, Oxfam
- Eric Crighton, University of Ottawa
- John Eyles, McMaster University
- Susan Elliott, McMaster University
- Donald Cole, University of Toronto
- David Zakus, University of Toronto
- Luz Helena Salin, University of Mexico

# Outline of Presentation

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- Background/historical context
- Models of risk communication
- Consultancy in Karakalpakstan
- Key findings
- Concluding comments

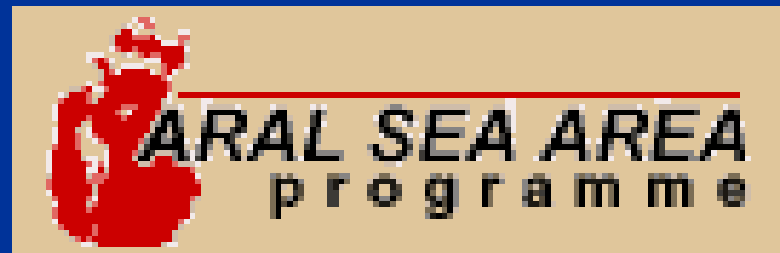
# Background

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- concept of risk communication is relatively new
- originated in the “right to know” and environmental movements
- MSF is committed to working with and engaging communities
- includes informing communities of risks (potential risks) to health

# *MSF Operational Research...*

- exposure pathway study
- dust deposition & air quality studies
- psychosocial impact study
- migration study



## *Exposure Pathway Study...*

- tested contamination of 12 common foods (6 animal origin/6 plant origin)
- 3 different sites = 36 total samples (from each site 1 sample of 12 foods)
- elevated levels of contamination, including most toxic form of dioxin
- dietary dioxin exposure estimated to be 3 times level WHO considers safe

*(Environmental Health Perspectives, 2003)*

# Risk Communication

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- Definitions
- Theoretical models
- Challenges



# *What is Risk Communication?*

A two-way exchange of information and opinion regarding a risk to an individual, group, or community.



# *What are the Goals of Risk Communication?*

3 primary goals:

1. enhance public trust and credibility
2. improve awareness and create education strategies
3. reduce conflict and motivate action

# *Specific Purposes*

1. to educate and inform public about risks
2. to encourage protective action and behaviour change
3. to provide guidance and behavioural suggestions to minimize risk
4. to problem solve by involving public in decision-making processes

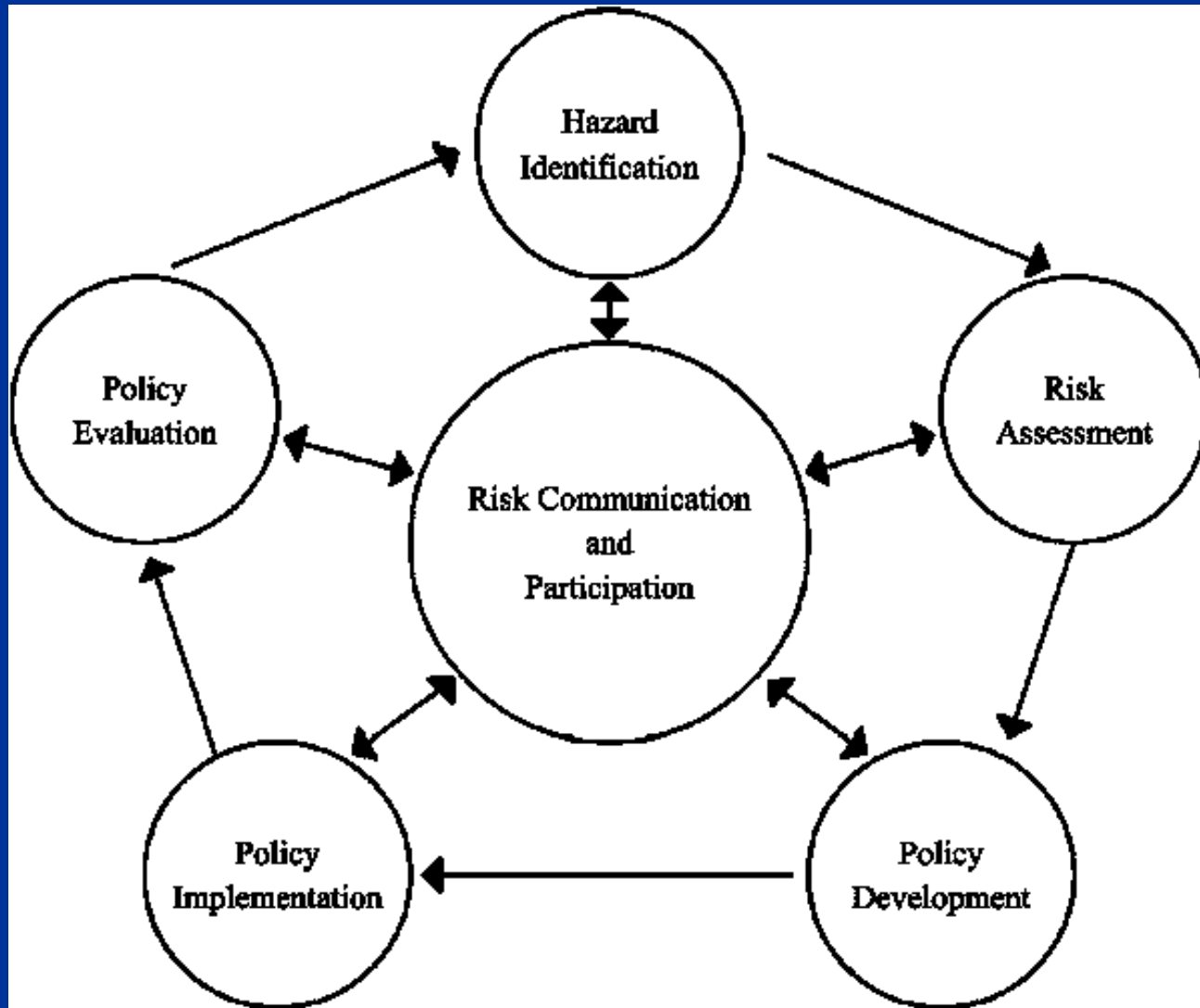
# *Consensus Model*



# *Public Engagement Model*



# *Risk Management Model*



# *What are the Challenges in Risk Communication?*

- distrust of government & institutions
- information not accessible to public
- lack of scientific evidence
- misinformation/misperceptions
- increasing public concern and fear regarding environmental health risks

# Consultancy

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- objective: to inform development of a risk communication strategy
- Oct/2003 -- Nukus, Karakalpakstan
- facilitated by MSF Operational Research



# *Participants...*

- 12 key informant interviews:
  - government officials
  - directors of local NGOs
  - local academics
- 10 focus group meetings:
  - local farmers
  - doctors and nurses
  - university students
  - school teachers

# *Data Collection and Analysis...*

- participants provided background information before interview
- common interview guide was used (semi-structured design)
- simultaneous translation
- daily team discussion of emerging themes and main issues

# Key Findings

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- Knowledge and awareness
- Evidence and information
- Basic human needs
- Lack of trust
- Modes & mechanisms
- Focus on children



# *Knowledge and Awareness...*

- low level of awareness of relationship between the environment & health:

*“There is little understanding here of food contamination. There is need for education.”*

- must tailor message to the audience:

*“Farmers are informed very little about contamination. They would be using pesticides if they could afford to. They want to increase their yield and are simply unaware of the dangers of these chemicals.”*

# *Evidence and Information...*

- demand for more reliable evidence:

*"If I were convinced that certain food was contaminated, then I wouldn't eat it. But there is a need for more evidence first to convince me of it. Your study here is a first step in that direction."*

- need to provide practical suggestions:

*"You must be ready to provide alternatives and explain how to minimize the risks."*

# *Basic Human Needs...*

- other social issues more urgent than food contamination:

*"Poverty and unemployment is a terrible problem here, which leads to disease."*

- important to address the concerns and issues raised by those at risk:

*"Some are concerned about the quality of food, but lack of food is a bigger concern."*

# *Lack of Trust...*

- participants expressed great concern regarding issue of trust:

*"There is less trust in government and doctors than in the person living next door who is looking out for me."*

- working with community builds trust:

*"Word of mouth is trusted more than the official message. Being perceived as an 'official' may work against you here."*

# *Additional Barriers & Challenges...*

- influence of cultural traditions on food-related behaviour is significant:

*“This is an ethnic group that follows long-standing habits. The breaking of these traditional habits is a challenge.”*

- crisis fatigue is also a growing factor:

*“Farmers who are aware of the dangers [of POPs] don’t want to think about it because they have enough problems already.”*

# *Modes and Mechanisms...*

- emphasize direct contact with people over mass media approach:

*“Word of mouth is important for getting information here. If you want the latest news, go to the bazaar.”*

- use creative, participatory methods:

*“Make it a community effort. Learning together encourages interest. If you can involve people in ways that are meaningful to them, they will learn better.”*

# *Focus on Children...*

- focus initial efforts on school children:

*"It would be a good idea to focus on children's environmental health. Very little is being done on this right now in Uzbekistan and it should be a priority."*

- capitalize on the strong role of family:

*"Culture here is very family-oriented and children are very important in the life of the family. Linking issues to the well-being of children will get people's attention."*

# *Concluding Thoughts*

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- important first steps have been taken in consulting and engaging the public and in developing an effective strategy
- precautionary principle cautions against waiting for absolute certainty
- initial efforts should be directed towards children and other high-risk populations

# Acknowledgements

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Health Sciences Centre

“Injustice anywhere is a threat to justice everywhere.... Whatever affects one directly, affects all indirectly.”

(Martin Luther King, 1963)

