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CAIS Paper: Communicating information about environmental health risk: Perspectives from environmental civil society organizations

Abstract: We examine the role of Canadian non-profit and non-governmental environmental groups in public discourse about environmental health risk. Organization representatives were interviewed; implications for risk communication are considered. Findings suggest: organizations contribute to the information worlds of citizens; benefit may be realized from fostering dialogue and partnership with these organizations.

1. Introduction

The United Nations (UN) has identified civil society organizations (CSOs) as critical contributors to the advancement of universal values related the environment (2010). Despite this endorsement, there has been very limited examination in the Library and Information Science (LIS) literature of environmental CSOs. Stephens and Eden (1995), for example, investigated how ‘voluntary’ environmental organizations meet public demand for environmental information; Illingworth et al. (2002) explored the benefits of internet communication for nonprofit environmental groups; and, most recently, Savolainen (2007) investigated the information seeking of environmental activists. To our knowledge, there has been no investigation of the information role of CSOs in the area of environmental health (EH). The objective of this paper is to begin addressing this gap by examining the role of Canadian environmental CSOs in public discourse in the area of EH risk.

2. Background

Whereas risk communication was previously viewed as information delivery from government or health officials to the unknowledgeable public (a deficit model) and was viewed as the last stage of risk management (Skarlatidou et al. 2012), risk communication has more recently been described as an information exchange, with the primary purpose of empowering responsible risk decisions (Jardine and Driedger In press). This perspective is consistent with the view that effective risk communication must be rooted in the rights of people and communities to participate in discussions of the risks that affect their lives (Infanti et al. 2013). Moreover, rapid communication via the internet, social media, and popular press has transformed traditional health communication, thus elevating the profile of CSOs in discussions about environmental health, and powerfully influencing public attitudes (Bubela et al. 2009) and perceptions of personal health risk (Gana et al. 2010).

In response to increasing public knowledge of and concern for potential risks to human health from environmental factors and conditions (WHO 2013; Lemyre et al. 2006), demand for information about EH risk is growing. Concerns range from specific consumer products to climate change; and they encompass existing, emerging and

speculative environmental health hazards. CSOs – non-governmental and non-profit entities seeking positive social and environmental change, typically not including private sector, academia, labour or municipalities (UN n.d.) – have been identified as having an increasing role as information providers in the area of EH (Cordner et al. 2013).

3. Theoretical framework

This investigation is informed by a *modified mental models approach* (Chowdhury et al. 2011), which is premised on the following: (1) ‘risk’ is an inherently subjective concept framed by personal knowledge, beliefs and experiences; and, (2) responsible risk communication should be grounded not by the implicitly “rational, objective, and superior” (150) ‘expert’ position of government or health officials, but by an understanding of the contexts that frame the layperson’s understanding of a specific risk. In addition, analysis is informed and guided by *social positioning theory* (Davies & Harré 1990), which recognizes the subjectivity and positionality of perspectives.

4. Research methods

To identify Canadian CSOs we conducted an extensive web-based search using keywords and online directories. Organizations were required to have a web presence that explicitly indicated concern for the relationship between environmental factors and human health. To ensure data completeness and saturation, we purposely recruited national and regional organizations with a range of foci. CSOs were invited by email to select a key informant from their organization for participation in a semi-structured, telephone interview. We enriched our sample by directly recruiting eight key informants who were involved in unrepresented or unique aspects of communicating EH risk information (for example, EH education in Indigenous communities). Domains of inquiry included purpose and focus of activities; primary concerns and priorities for participants and their constituents; notions of responsibility and trust; CSOs as information providers and communicators; and, public communication needs related to environmental factors and human health. Data were inductively analyzed using directed content analysis and grounded theory’s constant comparative approach. Findings were returned to participants for feedback. NVivo 10TM software facilitated data organization and analysis.

5. Results

We interviewed 30 key informants; interviews lasted 40 to 82 minutes (mean, 63 minutes). We found that the majority of participants were involved in public education and building awareness related to EH issues. Activities include synthesizing and communicating information from a wide range of traditionally ‘authoritative’ sources (e.g. government grey literature, peer reviewed literature) and more ‘informal’ sources (e.g. other CSOs, individual citizen scientists, blogs). In addition, all participants noted the importance of and participated in networking and/or collaboration with health agencies, government bodies, communities, other environmental CSOs and others. When asked about the most pressing issues facing Canadians, interviewees discussed a wide range of specific issues (e.g. air quality, consumer products, pesticides, climate change); however, the majority emphasized underlying socio-political concerns such as responsibility for EH in Canada, tensions between economic development and environmental concerns, transparency and information access, and trust in political

processes. Participants positioned the current Canadian context in comparison to Canada of the past and to other jurisdictions.

Participants drew information about EH issues from a very wide range of sources including peer reviewed journals, government publications, research reports, other environmental CSOs, health experts, conferences, books and media. Information was then frequently synthesized and provided to the public and/or to the organizations' constituents through a range of mediums including reports, mailing lists, websites, presentations, advocacy materials, and the media. Participants positioned CSOs as important information providers who fill an information void for citizens and who facilitate knowledge translation. Primary themes with respect to improving EH risk communication in Canada, include: the need for more effective communication practices; the central role of dialogue and community involvement; and the need for regulations and policies that prioritize human health and precautionary approaches.

6. Implications and significance

In light of emerging themes, we reviewed risk communication models, focusing on the *Dual-mode model of trust and confidence for risk communication* (Siegrist et al. 2003). Findings suggest that in the context EH, where there is frequently scientific uncertainty and controversy, and where information is widely communicated by CSOs, the goal of risk communication should not be limited to public compliance (as is suggested by this model), but should seek to promote information sharing and exchange, collaboration, and empowerment.

Findings indicate that Canadian CSOs play a role as information synthesizers and providers in the area of EH risk. Moreover they collaborate extensively across sectors with governmental organizations, other CSOs, and communities as they develop and communicate messages about the relationship between environmental factors and human health. Findings suggest that governments and public health agencies may benefit from recognizing the role of these organizations in the information worlds of the public and from fostering productive dialogue and partnerships.

7. Relationship to conference themes

This paper contributes directly to conference themes. In this current era communication of health risk is no longer the exclusive domain of academics, clinicians, or 'officials,' to be shared at the 'right' or 'best' time. Instead, information is widely available and public perspectives are incubated and framed by CSOs and others in the public sphere. Issues of exclusion versus participation are juxtapositioned with tensions between economic and environmental priorities. And individuals, seeking to make sense in the midst of uncertain and changing information about environmental impact on human health, must navigate issues of credibility, trustworthiness and authority. Because CSOs connect people to ideas and information, ignite and invigorate discussion, and bring change to society, examination of their contribution to the information worlds of citizens will extend LIS knowledge and illuminate real-world information challenges.

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