

## **PARTICIPATIVE RISK COMMUNICATION AS AN IMPORTANT TOOL IN MEDICAL GEOLOGY STUDIES**

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Risk situations related to brownfield sites, contaminated lands and exposed groups to toxic substances are common in South America. In some of these situations there is a lack of institutional response to the risks and consequences coupled with a failure to communicate the risks to those affected. Drawing on empirical research in 4 Latin American communities exposed to lead contamination, we investigated what strategies of Risk Communication (RC) have been used by researchers to communicate the risks of contamination, and possible impacts of these strategies. Considering that risk situations of contaminated lands are characterized by uncertainty/controversy, and their residents are in a collective stress situation because of the physical conditions in their neighborhood and possible impacts on their health, in our study we argue for the need of participative RC in Medical Geology studies. Participative RC is based on cultural/social elements, trust, open dialogue and collective learning process to implement policies for mitigating risks and for a sustainable future. However, the analysis of these cases suggests that the efforts of RC have focused only on information transmission and public persuasion. In 2 Brazilian cases (Adrianópolis-Southeastern, and Santo Amaro-Northeastern), researchers who are involved in Medical Geology studies on contamination were concerned about communicating with people; however they did not have a systematic and grounded RC plan. In Bauru (Southeastern, BR) and La Teja (Montevideo, UR) multidisciplinary teams were created to handle contamination, and communicate the risks. RC plans included meetings with locals and communication with the media. Nonetheless, we observed that scientific uncertainties/controversies and a lack of information frustrated the plans. In all cases we noted that RC did not promote an open dialogue, and a discussion about life styles of locals. As a consequence, affected public have the perception that research results have not been properly released, and there is a prevalent understanding (by assorted actors) that environmental/health research is not being undertaken for the public good. These experiences endorsed a need for a debate about participative RC between Medical Geology researchers. The challenges of risk assessment/management highlight the call for improving communication in order to favor dialogue/partnership between those who assess the risks and those who live with the risks.

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