THE IMPORTANCE OF HUMAN HEALTH RISK ASSESSMENT STUDIES IN THE CONTEXT OF MAJOR MINING DISASTERS - THE BRUMADINHO/MG CASE

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INTRODUCTION: Mining activities result in contact with substances that are potentially toxic to the environment and human health. Consequently, contemporary society is increasingly concerned about the risks that these activities bring to the health of the population and the environment. The collapse of the Córrego do Feijão Mine dam (Brumadinho-MG, 2019) resulted in the dissemination of ore waste with devastating social, cultural, environmental, and economic consequences. In Brazil, Human Health Risk Assessment Studies (HHAES) related to potentially toxic waste are still recent. In 2010, the Ministry of Health (MS) developed Guidelines for conducting these studies, based on the experience acquired from other studies already carried out in our country, based on the application of the methodology of the American Agency for Toxic Substances Registry and Disease Control (ATSDR), with the necessary adaptations in line with our reality. **OBJECTIVE:** To assess the importance of the ongoing EARSH carried out in the Paraopeba River Basin (BHRP), considering the risk to Public Health and populations exposed to potentially toxic substances related to mining waste. **MATERIAL AND METHODS:** This is a descriptive analysis that discusses the 11th version of the EARSH Detailed Project and its main methodological references: Ministry of Health Guidelines and ASTDR Public Health Assessment Guidance Manuals, addressing the stages of carrying out these studies and probable implications for Public Health. **RESULTS AND CONCLUSION:** The EARSH highlighted above is ongoing and will provide, based on information and collections of environmental and food matrices, an overview of the environmental impacts generated throughout BHRP, with emphasis on the assessment of the presence of heavy metals in the environment and its compartments. The assessment of health risks to populations exposed to environmental contaminants represents a relevant instrument for decision-making and implementation of multisectoral actions aimed at mitigating the damage potentially caused to the population and the environment and for the elaboration of recommendations aimed at promoting and protecting health.

KEYWORDS: Risk Assessment; Brumadinho; Environmental Impact; Contamination; Mining.