

## **Occupational Health Programs for Artisanal and Small-Scale Gold Mining: A Systematic Review for the WHO Global Plan of Action for Workers' Health**

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**Abstract :** Background: Workers in the informal economy often incur exposure to well-documented occupational health hazards. Insufficient attention has been afforded to rigorously evaluating intervention programs to reduce the risks, especially in artisanal and small-scale gold mining (ASGM). Objectives: This systematic review, conducted as part of the World Health Organization's Global Plan of Action for Workers' Health, sought to assess the state of knowledge on occupational health programs and interventions for the informal artisanal and small-scale gold mining (ASGM) sector, an occupation which directly employs at least 50 million people. Methods: We used a comprehensive search strategy for four well-known databases relevant to health outcomes: PubMed, Engineering Village, OVID Medline, and Web of Science, and employed the PRISMA framework for our analysis. Findings: Ten studies met the inclusion criteria of a primary study focused on assessing the impact of interventions addressing occupational health concerns in ASGM. There were no studies evaluating or even identifying comprehensive occupational health and safety programs for this sector, although target interventions addressing specific hazards exist. Major areas of intervention -education and introduction of mercury-reducing/eliminating technology were identified, and the challenges and limitations of each intervention taken into the assessment. Even for these, however, there was a lack of standardization for measuring outcome or impact, let alone long-term health outcomes for miners and mining communities. Conclusion: There is an urgent need for research on comprehensive occupational health programs addressing the array of hazards faced by artisanal and small-scale miners.

**Keywords :** informal economy, artisanal and small-scale gold mining, occupational health, health and safety, workplace safety

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