



# Occupational Lung Disease and Silica Exposure Among Stone Quarry Workers in Ebonyi State, Nigeria: A Policy Analysis for the African Context, 2007

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## Abstract

Occupational lung diseases, particularly silicosis, represent a major public health concern in Africa, where informal sectors like stone quarrying often lack regulatory oversight. In Nigeria, workers in this industry are routinely exposed to hazardous levels of respirable crystalline silica dust. This analysis uses Ebonyi State as a critical case study. This policy analysis aims to examine the governance of occupational health and silica exposure among stone quarry workers in Ebonyi State, Nigeria. Its objectives are to assess the prevalence and determinants of related lung diseases, evaluate the adequacy and implementation of existing policies, and identify gaps in the regulatory framework. A desk-based policy review was conducted. This synthesised evidence from peer-reviewed literature, grey literature such as government reports, and an analysis of Nigerian occupational health and safety legislation. The review focused on policy content, implementation mechanisms, and enforcement challenges within the local context. The analysis indicates a high presumed prevalence of silicosis and respiratory conditions among quarry workers. A substantial policy-practice gap was revealed. Although Nigeria has foundational occupational safety legislation, its application in the informal quarrying sector is minimal. Critical gaps were identified in exposure monitoring, provision of personal protective equipment, worker education, and systematic health surveillance. A severe disconnect exists between formal occupational health policy and on-ground practice in Ebonyi State's stone quarrying industry. Systemic failures in regulation, enforcement, and resource allocation leave workers highly vulnerable to preventable silica-related diseases. Recommendations include developing and enforcing sector-specific silica exposure standards, establishing mandatory employer-funded health surveillance programmes, integrating informal quarrying into formal regulatory structures, and launching targeted worker and employer education campaigns. silicosis, occupational lung disease, policy analysis, quarry workers, Nigeria, silica dust, occupational health, informal sector This analysis provides a focused assessment of the policy failures enabling occupational lung disease in a high-risk African informal industry. It offers evidence-based recommendations for strengthening regulatory frameworks and protecting worker health in comparable settings across the region.

**Keywords:** *Occupational lung disease, Silicosis, Stone quarry workers, Sub-Saharan Africa, Policy analysis, Nigeria, Workplace exposure*



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