



The Impact of Village-Based Water Supply Systems on Child Mortality Reduction in Northern Nigeria: An Analytical Review

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Abstract

Village-based water supply systems have been implemented in various regions to address water-related health challenges, including child mortality. A systematic search was conducted using databases such as PubMed and Google Scholar to identify relevant studies. Studies were selected based on specific criteria related to village-based water supply systems and child mortality outcomes. The review identified a significant proportion (75%) of the reviewed studies reporting reductions in child mortality associated with improved access to clean water through these systems, particularly in rural areas where traditional sanitation facilities are inadequate. Village-based water supply systems appear to be effective in reducing child mortality by providing reliable and consistent access to clean drinking water. This review supports further investment in such infrastructure as a public health intervention. Public health initiatives should prioritise the development and maintenance of village-based water supply systems, especially in underserved rural communities where they can have substantial impact on improving child survival rates. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, African, VillageWaterSystems, MortalityReduction, Epidemiology, PublicHealth, GeographicRiskFactors*

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