



Methodological Assessment of Water Treatment Facilities in Kenya: A Randomized Field Trial on Cost-Effectiveness

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Abstract

Water treatment facilities in Kenya face challenges related to cost-effectiveness and sustainability. A randomized controlled trial was conducted across five districts in Kenya. Participants were randomly assigned to either receive standard or alternative water treatment facilities for a period of six months. The analysis revealed that the alternative water treatment systems reduced waterborne diseases by 30% compared to the standard systems, with an estimated cost-effectiveness ratio of 5 per disease prevented. The study provides evidence on the cost – benefit of different water treatment technologies, with robustness checked using heteroskedasticity-consistent errors.

Keywords: African geography, cost-effectiveness, randomized control trial, sustainability, water treatment systems, intervention studies, analytical methods

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