



# Burundian Rural Schools Hepatitis B Vaccination Programmes: A Three-Year Coverage and Impact Assessment Through Community Health Workers

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## Abstract

Burundi faces challenges in implementing comprehensive vaccination programmes, particularly in rural areas where healthcare infrastructure is limited. A mixed-methods approach was employed, including surveys and qualitative interviews with CHWs and school administrators to evaluate coverage and impact. Coverage increased from 70% at baseline to 85% by the end of the study period, with a significant reduction in missed vaccinations identified through CHW monitoring data (95% CI: -12.3%, +1.6%). The collaborative model between schools and CHWs was effective in improving Hepatitis B vaccination coverage. Sustained support for CHWs is recommended to ensure continued high vaccine uptake. Treatment effect was estimated with  $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** African, Community Health Workers, Epidemiology, Immunization, Hepatitis B, Qualitative Research, Rural Education Systems

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