Solar-Powered Clinics in Rural Zambia: One-Year Health Access and Coverage Assessment Study

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Abstract

Solar-powered clinics have become an innovative solution to improve access to healthcare in rural areas of Zambia where traditional infrastructure is limited. A mixed-methods design was employed, combining quantitative data from clinic attendance records with qualitative insights gathered through interviews and focus group discussions among local residents and healthcare providers. One-year post-establishment data showed that solar-powered clinics recorded an increase in patient visits by 25% compared to pre-existing facilities, highlighting their effectiveness in improving health access in remote areas. The mixed-methods approach successfully bridged the gap between quantitative and qualitative data, providing a comprehensive understanding of how solar-powered clinics impact healthcare accessibility and service provision in rural Zambian communities. Future research should explore the long-term sustainability and scalability of solar-powered health clinics to ensure continuous access to healthcare services for underserved populations. Solar-Powered Clinics, Rural Healthcare Access, Mixed Methods Study, Community Health Coverage

Keywords: *African geography, community health, mixed methods, rural development, solar energy, evaluation studies, participatory approaches*