



# Telemedicine Adoption Rates Among Private Healthcare Providers in South Africa's Eastern Cape: Cost-Effectiveness Analysis

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## Abstract

Telemedicine has emerged as a critical tool in healthcare delivery, particularly amidst challenges such as geographical barriers and resource constraints. In South Africa's Eastern Cape, private healthcare providers face unique operational environments that influence their adoption of telemedicine solutions. A mixed-methods approach was employed, combining quantitative surveys to gauge adoption rates and qualitative interviews to explore provider perspectives on implementation challenges and success factors. Telemedicine adoption among private healthcare providers in the Eastern Cape varied significantly, ranging from 25% of practices adopting video consultations to 10% for remote diagnostics. Costs associated with telemedicine deployment included hardware and software investments as well as training expenses. While initial uptake was moderate, the analysis revealed that cost-effectiveness improved over time, particularly when considering reduced travel and waiting times for patients. Provider insights suggest that bundled payment models could enhance adoption rates. Healthcare policymakers should consider subsidizing telemedicine hardware to reduce costs and encourage broader implementation. Providers are advised to integrate telemedicine into training curricula to leverage its full potential.

**Keywords:** *Telemedicine, Eastern Cape, South Africa, Geographic Information Systems (GIS), Cost-Benefit Analysis, Evidence-Based Medicine, Health Economics*

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