



# Telemedicine Platforms in Primary Healthcare: Development and Impact Analysis in Addis Ababa City, Ethiopia

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## Abstract

Telemedicine platforms offer a viable solution for extending healthcare access to underserved populations in primary care settings. A mixed-methods approach combining quantitative surveys with qualitative interviews was employed to evaluate platform usage, efficacy, and user satisfaction among primary care providers and patients. Telemedicine usage increased by 45% over the first six months of operation, with patient wait times reduced by an average of 20% in urban clinics. The telemedicine platforms significantly enhanced service delivery efficiency and accessibility, particularly for remote communities within Addis Ababa City. Further expansion should prioritise training programmes for providers to maximise the full potential of these technologies. Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** Ethiopia, Telehealth, Geographic Information Systems (GIS), Mobile Health (mHealth), eHealth, Primary Care, Mixed-Methods Analysis

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