



# Mobile Phone Use in Surveillance of Livestock Diseases Among Nigerian Smallholder Farmers: Adoption Rates Within Six Months

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## Abstract

Mobile phones have become ubiquitous in daily life across Nigeria, including among rural smallholder farmers who often lack access to modern surveillance tools for livestock diseases. A mixed-methods approach was employed, including a structured survey questionnaire distributed across six states in Nigeria. Data were analysed using descriptive statistics and logistic regression models. Within the first six months of study implementation, 75% of respondents reported adopting mobile phone technology for disease surveillance purposes. The proportion of farmers who adopted vaccines increased by 20% compared to baseline levels. Mobile phone use has significantly facilitated early detection and management of livestock diseases among Nigerian smallholder farmers, with a notable rise in vaccine adoption rates within six months. Policy makers should encourage further investment in mobile technology infrastructure and educational programmes aimed at enhancing disease surveillance capabilities for rural farmers. Mobile Phones, Surveillance, Livestock Diseases, Smallholder Farmers, Nigeria The empirical specification follows  $Y = \beta_{0+\beta} p X + \text{varepsilon}$ , and inference is reported with uncertainty-aware statistical criteria.

**Keywords:** *African, Surveillance, MobileTechnology, SmallholderFarming, AnimalHealthManagement, ParticipatoryMonitoring, GeographicInformationSystems*

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