

INNOVATOR CASE STUDY



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Scaling AI-Enabled Maternal Health Through Public Systems in Ghana and Kenya

The Global Health Innovation Grants (GHIG) program focuses on fostering the growth and scale of health-focused innovations and social entrepreneurs in low- and middle-income countries (LMICs) through one-year grants. Since 2016, liH has worked with grantees to identify metrics that align with their project objectives and activities. Analyzing this data, liH provides an assessment of the portfolio in each cohort, as well as over time, to identify areas for improvement for the program. *This case study is one of six from the GHIG9 grantee cohort.*



1. Company and Innovation Overview

Jacaranda Health, a nonprofit focused on maternal and newborn health, partners with public health systems to improve access to and quality of maternal care. Its PROMPTS program delivers SMS-based guidance and support to mothers, while its MENTORS initiative enhances frontline providers' emergency skills. Data from both programs inform facility managers and government policymakers as they make decisions about service improvement. This case study highlights PROMPTS' **use of AI to expand support capacity and rapidly prioritize mothers with potential danger signs.**

PROMPTS demonstrates that AI-enabled maternal health support can reach millions of mothers, but national expansion depends on more than technology.



Industry/ Sector	Digital health; maternal and newborn health
Geographic Focus	Ghana and Kenya; pilots in Tanzania and Nigeria
Year Founded	2016

Business Type	Nonprofit
AI Innovation	AI-enabled, two-way SMS support for maternal health that prioritizes potential danger signs and connects higher-risk or complex cases to a human help desk
Headquarters	Nairobi, Kenya



*Musa Umu Hani, a PROMPTS mother visits the Manhean Polyclinic in the greater Accra Region, Ghana.
Photo credit: Nene Azu, Jacaranda.*

Success requires health workers to enroll mothers, clinics to act on risk alerts, mobile operators to support message volume, and clear decisions about funding responsibilities. The sustainability of this distributed contribution model is central to PROMPTS' future.

Six years after launching PROMPTS in Kenya in 2016, Jacaranda expanded PROMPTS to Ghana, with experience in building government partnerships from the outset. The two settings required different approaches: Kenya's devolved health system required sustained county-level engagement, while Ghana created an opportunity to formalize national-level responsibilities earlier through the Ghana Health Service.



2. Problem Definition and Context

Maternal and newborn mortality rates remain high in Kenya and across sub-Saharan Africa.¹ Many of these **deaths are preventable**, often depending on whether a mother recognizes danger signs and seeks care in time. Jacaranda Health addresses two of the main causes: **delays in care-seeking** due to a lack of timely, trusted information about danger signs, and **insufficient emergency skills** among frontline providers. PROMPTS addresses the information gap by providing mothers with timely guidance and support, while Jacaranda's in-person mentorship program strengthens emergency skills among nurses and frontline providers.



3. The Solution

PROMPTS is an SMS-based service that sends mothers stage-appropriate maternal-health information, answers their questions, and flags danger signs for priority nurse follow-up. PROMPTS reaches mothers where they are, over basic SMS rather than smartphones or apps, and through existing public facilities. As it has scaled, Jacaranda added AI to handle routine questions at higher volume and to triage danger-sign cases ahead of the queue, and **built its own local-language datasets** (in Swahili, Twi, and Sheng) and safety benchmarks so the model fits the communities it serves.

PROMPTS has now enrolled more than **4 million women** through over **1,500 health facilities** in Kenya. During the peer-reviewed evaluation period beginning in November 2021,¹ a cluster-randomized trial involving 6,139 women across 40 facilities in eight counties found modest but statistically significant improvements in five of six evaluated domains: knowledge, birth preparedness, routine care seeking, newborn care, and postpartum care content.¹ In addition, a separate randomized controlled trial found that **PROMPTS users were 3.51 times more likely to seek treatment** if they experienced postpartum danger signs.²



Mary Oduro, a PROMPTS mother based in Ashaiman, Accra, Ghana, visits the Tema Health Center for her ANC clinic. Photo credit: Nene Azu, Jacaranda.



4. Challenges Faced

Jacaranda is scaling technology within government health systems. Unlike consumer apps, PROMPTS **integrates directly into existing public systems**. Mothers enroll at public health facilities with help from frontline nurses. The platform strengthens, rather than replaces, existing care pathways, aligning with WHO guidance that digital health should support functioning health systems.³



5. Policy and Regulatory Environment

PROMPTS' reliance goes beyond care delivery. Its messaging must reflect each country's clinical guidelines, requiring Jacaranda to continually adapt content. Handling sensitive data means **strict compliance with national regulations**, including evolving consent requirements, such as Kenya's 2023 regulation, which briefly reduced reach. As national AI policies develop, PROMPTS must also remain aligned with evolving standards.

These requirements add complexity, but they also keep PROMPTS embedded in public systems instead of working around them. Jacaranda's county-level work in Kenya and its Ghana Health Service partnership are what let it **track policy shifts and respond as they happen**.

Kenya and Ghana show two ways this played out: Kenya's responsibilities evolved through years of county-level implementation, while Ghana's were defined through a national memorandum of understanding (MOU), though regional engagement continues there, too.

Kenya: Learning Through Long-term Implementation

Kenya's health system is devolved: responsibility for health services sits with county governments rather than a single national authority. For Jacaranda, which has operated in Kenya for roughly a decade, this meant **scale could not be negotiated once at a central table** and rolled out uniformly. The organization built a dedicated in-country government partnership team that spent years working county by county, learning each county health team's priorities, understanding the populations they serve, and co-designing what information PROMPTS gathers

Scale and Evidence at a Glance

4 million	Women enrolled
6,139	Participants in a cluster-randomized trial
1,500+	Kenyan health facilities enrolling women
5 of 6	Evaluated outcome domains with significant improvement

from mothers so that county officials could use it to improve their facilities. That **co-design was the mechanism through which PROMPTS became relevant** to the county officials who run Kenya's public health system on the ground.

When the partnership began, there was no established model for what a government should contribute to an AI-enabled maternal health platform operating at scale. Contributions therefore formed gradually through practice rather than upfront negotiation. For PROMPTS, government support was largely operational and in kind, particularly through frontline health workers helping mothers enroll at public facilities. Jacaranda, meanwhile, continued to raise funds, develop the product, run the platform, and sustain the relationships that kept the partnership moving.

Through years of county-by-county implementation, Jacaranda learned that **even when a service demonstrates its value** within a public health system, it **does not automatically clarify who will fund, staff, or take responsibility for scaling it**. Contributions that accumulate gradually, shaped by circumstance and relationships across county teams, leave the innovator responsible for coordinating the pieces. These lessons shaped how Jacaranda approached its next national partnership, where it sought to define public-sector responsibilities more explicitly from the outset.



Ghana: Formalizing Responsibilities from the Outset

Where Jacaranda works county by county in Kenya's devolved health system, in Ghana it works **directly with a national-level counterpart**: the Ghana Health Service. Ghana was also a newer partnership, with no division of responsibilities yet settled by years of practice. Structure and timing together gave Jacaranda an opening to **apply the lessons of Kenya** from the outset, defining responsibilities explicitly, on paper, before implementation began at scale. A pilot came first, and expectations were formalized only after Jacaranda had demonstrated that PROMPTS could meet the government's maternal health priorities, not on promises alone.

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Those expectations were written into an MOU at the outset. The government committed to a **50% platform cost share** and to placing Ghana Health Service clinical **nurses on the PROMPTS help desk**; those nurses have begun staffing it, an early sign of the operational **co-leadership** envisioned when the MOU was developed. The form and durability of the cost-share contribution as the program grows remain to be confirmed. The agreement also includes a government commitment to assist in **negotiations with mobile network operators over messaging costs**. Jacaranda has also received formal endorsement to expand PROMPTS nationally beyond the two regions where it launched.

*Musa Umu Hani, a PROMPTS mother visits the Manhean Polyclinic in the greater Accra Region, Ghana.
Photo credit: Nene Azu, Jacaranda.*



Elness Shukrani, a PROMPTS mother, and her son Abel visit Mtwapa Subcounty Hospital, Kilifi County, Kenya. Photo credit: Allan Gichigi, Jacaranda.

The distinction between Kenya and Ghana is one of sequencing, not superiority. Kenya allowed responsibilities to emerge through long-term implementation; Ghana placed staffing, cost sharing, and external-partner coordination into the formal design earlier. But a memorandum is a design, not a result, and whether these commitments will become durable remains uncertain. What the case shows is not that Ghana has solved sustainability, but that **Jacaranda has learned to surface the responsibilities required for scale sooner**. The clearest early test is whether that government role can create leverage with telecom operators.

Telecom: The Decisive Test of Government Leverage

AI in global health often focuses on models—their accuracy and sophistication—while **overlooking the infrastructure** needed for scale. For PROMPTS, this includes human support, facility-based enrollment, government integration, and SMS delivery. Bulk **SMS is a major cost driver** as the platform grows, making subsidized messaging from telecom partners a crucial contribution.

Jacaranda is exploring a mix of cost-share options to sustain PROMPTS at scale, including support from technology partners and subsidized

messaging from mobile network operators, which Jacaranda has discussed with operators in Kenya and Ghana. As enrollment expands, lower SMS rates would reduce one of the platform's main running costs.



6. Business Model and Sustainability

Philanthropy has funded most of PROMPTS' cash costs to date, with partners contributing mainly in kind. Governments provide operational support—such as enrollment and, in Ghana, help-desk staffing and cost-sharing. Tech companies offer cloud and storage credits, offsetting infrastructure expenses. Telecom support is still a goal. Jacaranda supplies the product, intellectual property, staff, coordination, and some funding.

Jacaranda is **testing a distributed contribution model**, with each partner supplying what it does best. Contributions vary in type, duration, and reliability. Government staffing is formalized in Ghana, but tech credits are typically time-limited, and Jacaranda is still exploring telecom support. Government involvement may add structure, but overall dependability is still unproven.

Assessing progress is challenging: as program costs rise, government contributions may look smaller proportionally while remaining significant. Contribution types can shift even if no partner gives less, making it hard to capture the full story with a single metric.

The **next test** is not simply whether PROMPTS can reach more mothers, but whether that leverage can **make the full mix of partner contributions dependable at national scale**.

 7. Conclusion

Government participation matters both in direct support and in influencing other contributors. For scaling, involving governments early—as operational partners and conveners—can help define roles and engage infrastructure partners.

Scaling PROMPTS across two health systems has meant knowing which level of government to engage, and when. Kenya’s devolved system put responsibility for health services with county governments, not a national authority, so Jacaranda spent time building trust county by county as it reached scale. Ghana still requires engaging regional government, but its MOU with the Ghana Health Service formalized staffing, cost-share, and telecom negotiation agreements

Where the Distributed Model Stands	
Partner/Entity	Contribution (either in place or formally committed)
Philanthropy	Majority of the funding for PROMPTS today
Government	Enrollment and staffing support
Technology Companies	Cloud, compute, and storage credits
Mobile Network Operators	None yet

at the national level first, giving that regional work a foundation to build from.

Both paths produced government commitment, on different timelines and through different channels. Kenya’s county-by-county model built the evidence base and institutional trust that gave Ghana’s national endorsement room to succeed. **Each approach fit the system for which it was built.**

Financing and telecom contributions remain open in both countries. Closing them will take the same skill that got PROMPTS this far: reading which level of government can move a given piece of the model, and building the relationship to reach it.★



Beatrice Owino, a PROMPTS mother, at her place in Bondo Subcounty, Siaya County, Kenya. Photo credit: Charles Kimani.

Sources

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AI Disclosure

During the preparation of this case study, the authors used Zoom's built-in AI transcription to transcribe interviews and Claude Opus 4.8 to improve the readability and flow of the manuscript. The editor used Canva AI tools to generate and edit maps. After using these tools, the authors and editor reviewed the content as needed to ensure accurate representation of the information.

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