Jacaranda Health PROMPTS maternal health messaging in Kenya

IMPLEMENTED 2021–2025 · HEALTH AND LIFE SCIENCES · KENYA · BAND C · PARTLY PROVED
VERSION 1.0 · PUBLISHED 15 NOVEMBER 2026 · UPDATED 15 NOVEMBER 2026 · FACTS CHECKED 15 NOVEMBER 2026

A Kenyan nonprofit's text message service sends pregnancy and postnatal guidance and runs a helpdesk where AI answers routine questions and escalates urgent ones to clinical staff. A randomised trial of the whole platform found modest self-reported gains; it did not test the AI part separately or measure health outcomes.

ABOUT THIS SYNOPSIS

This is MarLuc's summary and grading of publicly available sources, for information only. It is not investment, legal, financial or professional advice, and should not be relied on for any decision. Readers must validate it against the original sources and, where appropriate, challenge its conclusions.

Facts and figures are as reported by the sources listed below, which may be incomplete, self-reported or out of date. Check the original source before relying on any figure.

The impact band, proof marker and SEAM view are MarLuc's opinion. The organisation is not a MarLuc client and has not reviewed or endorsed this synopsis. Names and trademarks belong to their owners.

NOTICE WORDING LAST UPDATED 16 NOVEMBER 2026

AT A GLANCE

AI and automation used: SMS maternal health platform with an AI-enabled helpdesk: natural language processing assigns each message an intent and priority, answers routine questions and escalates urgent ones to clinical staff.

Implemented: 2021–2025. Grade: band C, Process change, Partly proved.

Headline result, as reported: A cluster randomised trial of 40 Kenyan health facilities found modest self-reported gains in knowledge, preparedness and postnatal care among women offered PROMPTS; the 20% rise in prenatal attendance claimed by funders and vendors is not shown in the trial

1 · The case

The facts, as reported by the 5 sources listed at the end. Where a source is silent, the field says "Not reported".

Organisation

Jacaranda Health. Kenyan nonprofit founded in 2016 that works to improve care for mothers and newborns in public health facilities. IDRC says it developed PROMPTS in collaboration with the Kenyan government. PROMPTS is its digital service for pregnant and postnatal women. Canvas block: 3. Customers and proposition. Also 4. Operations and process.

Business challenge

The challenge. Per the trial authors, 40% of pregnant women in Kenya do not receive the recommended minimum of four antenatal visits, just over 50% receive any postpartum care, and visits are often short. Jacaranda wanted women to know what care to expect and when to seek it.

How it was addressed. Women are invited to enrol at antenatal visits and receive about 10 to 40 text messages a month in pregnancy and about 10 a month in the first postnatal year, in English or Swahili, with appointment reminders. A two-way helpdesk handles questions: a language-processing pipeline assigns each message an intent and priority, automated guidance answers roughly 86% and trained clinical agents handle the rest, responding within a minute for high-priority cases (PLOS Medicine). Per AWS, Jacaranda built the AI on Meta's open-source Llama 3 model, taught it Swahili and trained it on more than 1 million health questions and answers. [1] [2] [3] [4] [5]

Who implemented it

In-house (In-house): Jacaranda Health: Developed and operates PROMPTS..
Amazon Web Services (Model or cloud provider): Provided cloud infrastructure and supported the AI work through its Health Equity Initiative, per AWS..
Meta (Model or cloud provider): Llama 3 open-source model used for the helpdesk, per AWS..
Innovations for Poverty Action, Harvard and the World Bank (University or research lab): Ran and analysed the randomised trial..
AI4D, a programme funded by IDRC and the UK Foreign, Commonwealth and Development Office, funded work on PROMPTS, per IDRC. USAID and the Gates Foundation funded the trial work, per PLOS Medicine.

Technology (SEAM pillar E)

SEAM types: T8 Predictive / ML models, T6 Open-source / locally hosted models. Deployment: Not reported. Vendors and products: Amazon Web Services, Meta, PROMPTS, Llama 3.

Where it was built in: An SMS and messaging platform with a helpdesk. A language-processing pipeline assigns intent and priority; the Llama 3 model answers routine questions; clinical staff handle urgent ones. Per AWS the data pipelines run on Amazon Aurora and Redshift.

What changed

Before: one help desk agent answered up to 100 questions a day by hand (per AWS). After: by Jacaranda's account and IDRC reporting, the service receives about 10,000 to 12,000 questions a day, with AI answering the routine ones and staff focused on urgent cases. In the trial, women at facilities offered the platform reported higher knowledge and more postnatal care content. [1] [2] [3] [4] [5]

What it cost

By Jacaranda's estimate, 74 cents per participant for their lifetime on the platform, including message delivery, technology, field enrolment and county engagement (PLOS Medicine). The cost of the AI helpdesk alone: Not reported.

What it saved

Not reported in money. By Jacaranda's account via AWS, AI answers about 70% of questions so that staff can focus on urgent clinical ones. [1] [2] [3] [4] [5]

Governance and control

Jacaranda says clinical staff handle urgent messages and humans remain in the AI-driven tasks, and that it follows its own principles for responsible, person-centred AI (funder and vendor accounts). The trial was licensed by Kenya's National Commission for Science, Technology and Innovation and approved by ethics committees. Independent assurance of the AI helpdesk: Not reported.

S2 · Accountable owner · Not reported
Not reported.

A1 · Safe use · Claimed
AI4D says the platform follows Jacaranda's Principles for Responsible, Person-Centred AI and keeps humans in the loop. [4]

A2 · Human in the loop · Claimed
PLOS Medicine and IDRC describe clinical agents handling messages the AI flags as urgent; AWS says humans are involved in all AI-driven tasks. [1] [3] [5]

A3 · Monitoring and assurance · Claimed
AI4D reports that 90% of high-risk cases are routed to hospital care; no independent check of the AI is reported. [4]

A4 · Vendor AI · Not reported
The AI runs on Meta's open-source Llama 3 model via AWS; no vendor assurance is reported. [5]

A5 · Agent controls · Not reported
No agents described.

A6 · Standards and regulation · Evidenced
The trial was licensed by Kenya's National Commission for Science, Technology, and Innovation and approved by ethics committees; regulation of the AI service itself is not reported. [1]

What worked, what did not, what is unproven

WORKED

– Women at treatment facilities had higher indices of knowledge, birth preparedness, routine care seeking, newborn care and postpartum care content, each by 0.06 to 0.09 standard deviations (PLOS Medicine).

– About 85% of invited women enrolled in PROMPTS (PLOS Medicine).

– IPA reports a 17% relative increase in women receiving the recommended number of postnatal visits.

– Jacaranda estimates the platform costs 74 cents per participant (PLOS Medicine).

DID NOT

– The trial found no statistically significant difference in the total number of antenatal visits, and no significant effect on the danger sign care seeking index.

– IPA reports no impact on knowledge of postpartum and neonatal danger signs.

– The authors say the effects of each index are modest in isolation and that outcomes were self-reported, with the study not powered to detect health outcomes.

UNPROVEN

– How much of the effect comes from the AI helpdesk rather than the messages and reminders: the authors say research is still needed to separate them.

– The reported 20% increase in prenatal attendance and the doubling of postpartum family planning: the sources give no method, and the trial did not show a significant change in total antenatal visits.

– The accuracy and safety of AI triage in routine use: Not reported by an independent source.

Timeline

Nov 2021 Trial period begins with over 750,000 women already enrolled in PROMPTS [1]

Feb 2025 PLOS Medicine publishes the 40-facility cluster randomised trial [1]

Feb 2025 IDRC reports 3 million mothers registered and about 12,000 questions a day [3]

2 · Grade and SEAM assessment

MarLuc's opinion, made on the evidence above. How cases are graded: marluc.co.uk/case-studies/how-we-rate

Level of change and impact

Claimed: Not applicable. Grade: C, Process change. Proof: Partly proved. Level of change: Process change.

Process change (Level 2, band C). The helpdesk process was redesigned around AI triage and the platform's effect on care content was tested in a randomised trial. The AI's own contribution and health outcomes are unproven.

Graded C, partly proved. The trial shows modest gains in care content and behaviour for women offered the platform, at low cost per person. It tested the whole platform, not the AI helpdesk alone, relied on self-reported outcomes and was not powered for health outcomes.

The SEAM view and lessons learnt

This is one of the few AI deployments in the library with a randomised trial behind it, in a low-resource setting. The trial tested the offer of the whole service, so it says little about the AI part. The headline claims on attendance and family planning come from funders and a vendor and sit alongside a trial that found no significant change in total antenatal visits. For larger organisations the lesson is to keep the evidence for each claim attached to the claim, and to evaluate the AI step separately from the service around it.

1. Test the whole service in a randomised trial and report the effects that are not significant.
2. Evaluate the AI step separately from the messages and staff around it.
3. Keep clinical staff on every urgent case and publish how often AI escalates.

Evidence

Score 3 of 4. Partly independent: peer-reviewed randomised trial with some authors employed by Jacaranda; reach and AI figures are from the organisation, its funders and its cloud vendor.

Evaluation method. Cluster randomised controlled trial, 1:1, unmasked, 40 health facilities, registered as NCT05110521 (PLOS Medicine 2025); intention-to-treat analysis of phone-survey outcomes.

Sources disagree. Reach is given as about three million mothers (IDRC and AI4D, 2025) and 3.8 million (AWS). The trial reports over 750,000 enrolled by November 2021 and over 2 million more since. AI4D reports 5,000 daily helpdesk messages triaged, while IDRC and AWS report about 12,000 and 10,000 to 12,000 questions a day. AWS and AI4D report a 20% rise in prenatal checkup attendance; the trial found no statistically significant difference in total antenatal visits, and a 3.1 percentage point rise in women reaching four visits that was not significant after multiple-comparison adjustment.

Status. Ongoing: the service continues to operate; the trial was published in February 2025 and its authors call for work on health outcomes.

3 · Original sources

Read these in full. To challenge a fact or a grade, use the contact form at marluc.co.uk or the link on https://marluc.co.uk/case-studies/jacaranda-health-prompts-kenya

[1] PLOS Medicine: Impact evaluation of a digital health platform empowering Kenyan women across the pregnancy-postpartum care continuum: a cluster randomized controlled trial
https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1004527

[2] Innovations for Poverty Action: The impact of a digital health platform on maternal and newborn care in Kenya
https://poverty-action.org/impact-digital-health-platform-maternal-and-newborn-care-kenya

[3] IDRC: Scaling up health-care access for pregnant women and mothers using artificial intelligence
https://idrc-crdi.ca/en/stories/scaling-health-care-access-pregnant-women-and-mothers-using-artificial-intelligence

[4] AI4D: PROMPTS
https://www.ai4d.ai/innovations/prompts

[5] AWS: Jacaranda Health scales equitable maternal and newborn health using AWS
https://aws.amazon.com/solutions/case-studies/jacaranda-health-case-study/

Jacaranda Health website: https://jacarandahealth.org

Version 1.0 · Published 15 November 2026 · Updated 15 November 2026 · Facts checked against sources 15 November 2026 · Downloaded 26 November 2026. This PDF may be out of date: the latest version, and a way to report an error or a better source, is at https://marluc.co.uk/case-studies/jacaranda-health-prompts-kenya

VERSION HISTORY

v1.0 15 November 2026 First published