Over the last decade, robust infant immunization campaigns implemented by Eswatini’s Ministry of Health (MoH) and Expanded Program on Immunization (EPI) have achieved high immunization coverage.

Yet, recently, the country has seen increasing rates of immunization defaulting - or missed vaccinations by schedule - amongst mothers, particularly younger mothers. Some of these mothers lack available or accessible information about the infant immunization schedule. Others may feel hesitant following adverse effects to immunization. During COVID-19 and its disruption to supply chains, many mothers that went to the clinic found a scant supply of vaccines or providers to administer them, resulting in a significant decrease in the number of fully immunized children across the country.

Increasing access to immunization directly correlates to declining rates of under-5 mortality. Yet in the path to 100% coverage, a major data challenge emerges - namely, how to identify and reach under-immunized babies and infants when coverage is already high.

**USING DIGITAL HEALTH TOOLS AS A LOW-COST, SCALABLE APPROACH TO CLOSING THE IMMUNIZATION GAP.**

The Clinton Health Access Initiative (CHAI) Eswatini country team, the Expanded Programme on Immunization (EPI) in Eswatini, and Jacaranda Health have announced a new partnership centered around leveraging PROMPTS - Jacaranda’s AI-enabled digital health platform - to improve immunization tracking at the level of mum and baby, and identify geographic hotspots of weak immunization.

PROMPTS technology and messaging will be adapted for the Eswatini immunization context and piloted with 500 mothers across all four regions of the country for a 6-month period, with the goal of scaling the platform nationally.
HOW IT WORKS

PROMPTS is an existing platform that relies on SMS technology to empower mothers across Kenya with information to safely navigate their pregnancies and seek care for themselves and their babies at the right time and place. Mothers ask questions at any time and receive tailored responses from an AI-powered helpdesk service.

22,000 mothers across Kenya have reported their baby’s immunization status on PROMPTS

96% of Eswatini’s population are able to access SMS

The platform’s two-way messaging capabilities and sophisticated data infrastructure makes it well-positioned to support Eswatini’s MoH address an immunization gap, generating real-time data on where under-immunized infants are, why mothers who go for immunization may still not receive it, and prompting mothers to take their babies for vaccination (tracked from their delivery date.)

Send reminders and information on immunization to mothers

Track side-effects/adverse events to immunization as soon as they occur

Monitor immunization uptake in a rapid, resource-efficient manner

Identify ‘hotspots’ of under-immunized infants through data and dashboards
In Kenya, we have already seen strong evidence that PROMPTS improves health seeking behaviors and supports governments to move the needle on key health indicators like infant immunization. But in order to replicate this impact in Eswatini, the solution needs to be both context-appropriate and relevant to both mothers and health system managers.

In early 2022, Jacaranda Health and CHAI Eswatini staff engaged in a participatory process with facility staff to understand supply-side challenges impacting immunization (such as stock-outs) and their input on the tool. The team also conducted a series of Focus Group Discussions (FDGs) with mothers to better understand barriers leading to defaulting or hesitancy (such as a lack of information around the immunization schedule), and their preferences for message frequency, timing, and content.

Jacaranda Health and the CHAI Country Team in Eswatini conducted a series of Focus Group Discussions (FGDs) with mothers in March 2022 to ensure a context-specific adaptation of PROMPTS.

The FGDs resulted in considerations around:

**Tailored and Timely Content to Address Knowledge Gaps**

PROMPTS messaging will include an emphasis on information about the immunization schedule for infants, with reminders shared a week and two days in advance, to meet mothers’ preferences on message frequency and timing.

**Translation to Meet Linguistic Preferences**

Jacaranda is working with local translators in Eswatini to translate messaging into Siswati to ensure the majority of mothers receive and can act on messages in their preferred language. We are also working to adapt the AI-based system that underpins PROMPTS to read and respond to mothers’ questions in these languages.

**Data Collection to Inform Personalization**

Understanding fathers to share responsibilities for taking newborns for immunization, Jacaranda will be adjusting the enrollment process for PROMPTS by collecting gender-specific data and tailoring messages accordingly towards mother or father.
WHAT’S NEXT?

The combination of mHealth and sourcing information from end beneficiaries (mothers) offers a unique approach to identifying and reaching under-immunized children within areas of high immunization coverage, ensuring all infants in the country receive their full dose of vaccines as a basic human right.

Pending the pilot’s successful completion, Eswatini’s MoH/EPI, CHAI and Jacaranda will co-develop an implementation plan for scale, including logistics and costs of launching the program nationally, and engaging key stakeholders for sustainability.

PARTNERS

Expanding Jacaranda’s Digital Health Tool PROMPTS to Reach the Last Mile of Underimmunized Infants in Eswatini