



Connecting Women and Infants to Care

The Problem: Most of the poorest women on the planet give birth at home, often without experienced support. As a result, many women and babies die unnecessarily every year.

Early intervention works. Antenatal care and treatment in the first days and weeks post-partum can prevent at least two-thirds of newborn deaths. Eighty percent of maternal deaths are preventable with a set of proven interventions delivered by a skilled attendant.

For many women, however, a mobile signal is more likely to reach their home than a skilled attendant or community health worker.



In the near term, barriers to mobile phone access will continue to fall faster than barriers to training and retaining human resources. The **Population Council** is capitalizing on the proliferation of mobile services to save lives by bringing low-cost clinical assessment directly to mothers and their infants who are unlikely to access preventative and early treatment services. Development and testing of a new service called *Baby Monitor* is underway in Kenya through the generous support of the **Saving Lives at Birth** partners.

***Baby Monitor* takes clinical screening directly to women in the critical period before and after birth.** This mobile phone application, developed with partners at **InSTEDD**, uses interactive voice response technology to detect complications and take action. Women listen to screening questions in their local language and respond by pressing a key. *Baby Monitor* assesses responses and, if necessary, sends information, makes referrals, and dispatches community health workers.

***Baby Monitor* is innovative because it targets hard-to-reach patients as end-users of a mobile screening and triage service.** To date, mobile applications largely have been used to send patient reminders and health information or to collect patient information through intermediaries such as community health workers. Patients in developing countries have not been end-users of mobile screening tools and medical record systems. If successful, this innovation could save lives, improve health outcomes, and optimize the use of extension workers in rural and remote regions where access to health systems is limited and clinical assessment often occurs too late or not at all.

We have two years of seed funding from USAID and the *Saving Lives at Birth Grand Challenge* partners to develop and test the *Baby Monitor* platform in Kenya. In the formative phase of our research, we are partnering with **Jacaranda Health** in Nairobi to recruit 80 women in their second trimester to participate in a study that will help to refine the mobile screening protocols and further develop the *Baby Monitor* system.

Participants will receive mobile screenings at several antenatal and postnatal time points and will complete in-person assessments with our clinical partner following each mobile screening. The timeline of screening calls was developed based on WHO recommendations for focused antenatal care and the postnatal immunization schedule recommended by the Kenyan Ministry of Health. We will assess feasibility and acceptability of the system and the reliability and validity (sensitivity and specificity) of the screening tool. In the second year, we will adapt the screening tool and system as necessary and enroll 300-400 pregnant women in a controlled pilot trial in western Kenya.

To learn more about this work, our ideas for expansion, and the need for additional testing, visit [facebook.com/babymonitorapp](https://www.facebook.com/babymonitorapp) or contact egreen@popcouncil.org.

Population Council

The Population Council confronts critical health and development issues—from stopping the spread of HIV to improving reproductive health and ensuring that young people lead full and productive lives. Through biomedical, social science, and public health research in 50 countries, we work with our partners to deliver solutions that lead to more effective policies, programs, and technologies that improve lives around the world. Established in 1952 and headquartered in New York, the Council is a nongovernmental, nonprofit organization governed by an international board of trustees.

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