

Transformation Through Digital Innovation

Merck for Mothers is exploring the power of digital technologies — investing in innovative solutions — to improve maternity care and access to modern contraception in low- and middle-income countries

About Merck for Mothers

<u>Merck for Mothers</u> is Merck's global initiative to help create a world where no woman has to die while giving life. Applying Merck's business and scientific resources, we are working across sectors to improve the health and well-being of women during pregnancy, childbirth and the months after.

Why Digital Innovation?

Digital innovation has revolutionized every aspect of life, disrupting existing business models and reshaping the way information and services are accessed, delivered, and experienced. Societies across the globe are rapidly digitizing: today, more than half of the world's population is connected to mobile internet, with over three quarters of those connected living in low- and middle-income countries. There will be nearly half a billion new subscribers to mobile services by 2025, with Asia and Sub-Saharan Africa accounting for the majority of new subscribers.

The COVID-19 pandemic has further accelerated digital transformation across the globe, especially as it relates to health care services. Patients, providers, and health systems are increasingly demanding digital health solutions to help meet health care needs during the pandemic.³ Greater access to and demand for digital solutions across the globe, including in low- and middle-income countries, creates opportunities to transform health systems to meet Sustainable Development Goals.

Merck for Mothers understands the recipe for being successful in this dynamic space — appetite for risk, the value of "failing fast" to learn, an enabling environment for quick adoption, and the ability to recalibrate to ensure greater impact and achieve longer-term sustainability. That's why we've committed resources to inventing and enhancing existing digital health solutions that will tackle some of the most critical obstacles standing in the way of delivering quality maternity care and family planning services in low- and middle-income countries.



Our Approach

Merck for Mothers supports digital health solutions to improve the provision of quality care across the maternity health continuum, including family planning, antenatal care, labor and delivery, as well as postpartum care.

We work with collaborators who are:

Women-Centered | Develop and refine digital solutions that meet women's and health providers' unmet needs

Committed to Equity | Address barriers that hinder women's access to and use of digital health innovations

Data-Driven | Generate data insights to help women and health providers make more informed decisions about their care

Growth-minded | Establish clear path to reach more women in a sustainable way

With support from Merck for Mothers, our collaborators have developed a diverse range of digital capabilities, including but not limited to artificial intelligence-enabled chatbot, gamification, digitized workflows and reporting, human-centered design, real-time quality monitoring and behavioral science integration into digital tools. These digital capabilities continue to provide rich insights to support delivery of quality maternity care and family planning services in low- and middle-income countries.



Our Focus Areas

Merck for Mothers supports a variety of digital health solutions, including:

Supporting Women's Pregnancy Journey Through Improved Financing and High-Quality Care

We know that completing the full continuum of maternal health care helps assure a healthy pregnancy and safe delivery. Merck for Mothers is supporting the development and scale of MomCare in Kenya and Nigeria, a digital platform that helps a woman track and complete her maternal health journey, improving her ability to complete the full continuum of health care visits to help assure a healthy pregnancy and safe childbirth. Women provide feedback on the care they receive and pay for quality care offered by accredited providers through the platform. Providers also use the platform to track their patients' care, improve the quality of care they offer and increase the speed of receiving payments. To drive value-based care, payers use the platform to access real-time insights on the costs, utilization and outcomes of the maternal health journey.

Collaborator: PharmAccess Foundation

Broadening Access to Quality Family Planning Services

Women are more likely to use family planning if they have knowledge of and access to a full range of options. Yet, too often, women do not know what options are available or how to get the family planning services they need or prefer. Merck for Mothers is supporting the development and deployment of Nivi in Kenya,

India, and Nigeria - a simple mobile phone-based service that helps women and men learn about the full range of family planning options, identify the method(s) they want and find local providers who offer quality services and have their preferred options available. Nivi's smart chatbot provides women with tailored answers and can direct them to reproductive health services near them. The platform generates real-time, on demand insights including demographics, contraceptive use and preferences, as well as obstacles in obtaining contraceptives across its user base.





Despite an increase in the number of women giving birth in health facilities, maternal deaths are not declining as much as they should, largely due to insufficient quality of care. With support from Merck for Mothers, Avegen — a digital health company — launched <u>Together for Her (TFH)</u> in India. The web- and mobile- based platform educates women about quality maternity care, empowers women to demand the care they deserve, and allows women to rate the quality of the services they receive. This feedback allows health providers to be responsive to their patients' needs. TFH utilizes a human-centered design approach to help women receive the information they want and need. Providers leverage TFH's data driven insights to support risk assessment as well as patient feedback to improve the quality of care they deliver.

Collaborator: Avegen



Empowering Providers With Digital Tools To Deliver Safer Maternity Care

In many low-resource settings, health care workers lack the information they need to deliver high quality maternal health care services. Improving the capacity of health workers to deliver high quality services is essential for improved maternal and newborn health. In collaboration with the Maternity Foundation, Merck for Mothers is supporting the development and global scale up of the <u>Safe Delivery App</u>, a smartphone application that gives maternity care providers instant access to evidence-based and up-to-date clinical guidelines. The app – which is aligned with WHO internal clinical guidelines – provides resources for basic emergency obstetric and neonatal care, supports pre-service and in-service trainings, and can be used as an immediate life-saving reference during complicated deliveries.

Collaborators: Maternity Foundation, Bill & Melinda Gates Foundation, Jhpiego, University of Copenhagen, University of Southern Denmark

Equipping Providers with Real-Time Clinical Decision-Making Support

Globally, more women are giving birth in health facilities with skilled health care providers. However, in many settings, those providers face daily challenges in providing critical care to mothers and babies. These challenges include: high patient loads, limited decision making support and supervision in emergency situations as well as a lack of data to measure and guide quality improvements. Without user-centric tools that help providers manage these challenges, women may not receive the right care when they most need it. With support from Merck for Mothers, Vecna Cares and Johns Hopkins University are designing, developing, and implementing iDeliver in Kenya and Zanzibar, a digital tool that supports maternity providers in offering women better care. iDeliver is designed for real-time use by providers before, during, and immediately following birth. The tool provides immediate access to clinical guidance and standards, helping providers respond appropriately to potential life-threatening complications. The solution also captures routine data through antenatal care, admissions, and discharge, which health providers can use to inform quality improvement efforts.

Collaborators: Vecna Cares, John Hopkins University



 $^{1\} https://www.gsma.com/r/wp-content/uploads/2021/09/The-State-of-Mobile-Internet-Connectivity-Report-2021.pdf$

² https://data.gsmaintelligence.com/api-web/v2/research-file-download?id=60621126&file=250621-Mobile-Economy-2021.pdf

³ https://www.thelancet.com/journals/landig/article/PIIS2589-7500(20)30287-9/fulltext