mHealth is an emerging discipline that seeks to support and strengthen health systems by providing health care workers and ministry of health staff with the data, information, and communication resources they need to make better decisions and deliver more timely and appropriate care. mHealth also benefits patients, the health care system, and society at large by improving the quality of health interventions and removing barriers to access by making care faster, cheaper, and easier to reach.

The ITU estimates that by the end of 2014, there will be almost 7 billion mobile subscriptions, or one mobile subscription for nearly every person on the planet.¹ Many people in developing countries own or have access to mobile technology, and its adoption has outpaced all other information and communication technology in recent history. In fact, 78% of mobile phone subscriptions worldwide are in developing countries.²

mHealth is a broad field and has a number of applications that support health programming, including:

- Service delivery
- Education and training
- Behavior change communication
- Monitoring, evaluation, and research
- Health systems management

What Jhpiego Does
Jhpiego is an international, non-profit health organization affiliated with The Johns Hopkins University. For more than 40 years, Jhpiego has empowered frontline health workers by designing and implementing effective, low-cost, hands-on solutions to strengthen the delivery of health care services for women and their families. By putting evidence-based health innovations into everyday practice, Jhpiego works to break down barriers to high-quality health care for the world’s most vulnerable populations.

In limited-resource settings where Jhpiego works, it is essential to make full use of all available resources to provide simple, low-cost solutions to improve health care delivery. Jhpiego leverages the rapid adoption of information and communication technology for development (ICT4D) to improve quality of care, affect health outcomes, and empower people. mHealth solutions increase the impact of our work in strengthening health care systems and developing local human capacity to prevent the needless deaths of women and their families.

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² Ibid.
Highlights from Jhpiego’s Work in mHealth

By integrating mHealth solutions with its current work, Jhpiego is able to increase the impact of its programs worldwide. Some examples of Jhpiego’s recent successes in this exciting new area include:

- Jhpiego provided technical leadership for the design, development, and implementation of the SMSBunda project in Indonesia. Funded by the GE Foundation, this project provides expectant and new mothers with scheduled, targeted information via SMS relating to antenatal and postnatal care and the first four weeks of a newborn’s life. SMSBunda has completed the pilot rollout phase and, in November 2014, entered its scale-up phase.

- In partnership with the Ministry of Health and Social Welfare for Tanzania and Zanzibar, Jhpiego—through the United States Agency for International Development (USAID)-funded MAISHA program—teamed with D-tree International to develop mobile phone applications for health care providers and community health workers. The applications include an electronic registration form, checklists, screening protocols to track fetal growth and maternal health, and education prompts. As a result of using the mobile application, some health centers saw significant improvements, including a 17% increase in women visiting the facility within 48 hours after childbirth and a 10% increase in babies delivered by skilled personnel.\(^3\)

- In conjunction with the World Health Organization’s Safe Childbirth Checklist Collaboration, Jhpiego’s Maternal and Newborn Health and ICT4D teams are developing a mobile technology-based safe childbirth checklist (mSCC). Developed for an Android tablet or phone using the CommCare platform, the mSCC prompts health care providers to adhere to lifesaving practices for labor and delivery. Jhpiego field-tested the mSCC prototype using simulation in Guinea in early 2014; the research protocol for testing with clients is pending institutional review board approval.

- Since 2011, Jhpiego has worked with the Johns Hopkins Center for Bioengineering Innovation & Design in developing, field testing, and refining the ePartogram. The ePartogram combines the latest best practices in addressing labor complications with the existing clinical algorithms from the World Health Organization’s paper partograph and merges them into a “smart” handheld device and software platform. The ICT4D team at Jhpiego guided the ePartogram project through the selection of a software company to develop the ePartogram Android tablet application and database system. Software development and field refinement is currently under way.

- The USAID-funded Maternal and Child Health Integrated Program/Tanzania voluntary medical male circumcision (VMMC) project, led by Jhpiego, implemented a text messaging service, called Tohara, through Text to Change in 2011 to increase access to information on VMMC, a proven HIV-prevention procedure. A toll-free short code was established to deliver information about VMMC, location of VMMC services, postoperative care instructions, and reminders for clients who were circumcised. Over five years, nearly 400,000 VMMCs have been provided in Iringa, Njombe, and Tabora regions. An analysis conducted during the 2012 holiday campaign showed that there was a statistically significant relationship between potential clients’ texting to inquire about the location of services offered in their region and their coming in for services, suggesting that the texting service is facilitating access for potential clients.

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\(^3\) Jhpiego presentation to USAID, October 2014.