Maternal Health (Antenatal and Postnatal Care)

Brief Overview

In Tanzania, almost 80 percent of the population lives in rural areas, often far from well-equipped health facilities with trained personnel. This has contributed to one of the highest maternal mortality ratios in the world, with about 454 maternal deaths per 100,000 live births.

In order to improve the quality of care for pregnant women during the antenatal and postnatal period, D-tree International, with support from Jphiego's USAID-funded Mothers and Infants, Safe, Healthy, and Alive (MAISHA) project, has developed a mobile phone-based tool for service providers to use with pregnant clients. The application follows national and international guidelines of care, providing service providers with checklists and electronic data entry platforms. Improved adherence to national and international guidelines of care has been demonstrated to have a positive health impact on mothers and their children. Hence, this project aims to improve adherence, and consequently, health outcomes.

The project is currently being implemented by service providers in two health facilities in the Morogoro region of Tanzania. Implementation of using mobile phones for health began in 2011, with a pilot phase in some health centers of Morogoro . The second phase of the project will begin in November-December 2012 and will include a mobile phone application for community health workers to use.. The project is expected to continue under MAISHA.

- **Geographic Coverage:**
  Morogoro, Tanzania
- **Implementation Partners:**
  Jhpiego is a lead partner, collaborating with:
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About Maternal Health (Antenatal and Postnatal Care) Project

The application, used by service providers as they attend pregnant women, includes an electronic registration form and checklists to ensure that all services such as checking for blood pressure and screening for other danger signs are done according to standard. Screening protocols also include monitoring for fetal growth and maternal health. All of the care that is provided is based on the obstetric and medical history of the woman and the gestation age. After seeing the client through the antenatal period, the nurse records the delivery outcome, and the client is transferred to the postnatal care portion of the application. From there, all of her previous visits are still available for viewing, and she is then seen through postnatal visits, following the checks for danger signs, counseling, physical examinations and treatments recommended in the national guidelines. The application supports the providers in their daily attendance of clients, as well as referrals if needed. It facilitates the tracking of clients through indicators showing each client's expected clinic visit dates and identifies those who are overdue for their next appointment.

The application runs offline on phones and synchronizes with the server using general packet radio service (GPRS), a packet oriented mobile data service, for back up, reporting and analysis. From the server, supervisors can monitor the activity levels of individual health facilities and nurses, as well as identify trends in care such as referral rates, average number of antenatal care (ANC) and postnatal care (PNC) visits, etc. The data required to generate government reports for antenatal care are currently available and the postnatal reports will be available in the coming months.

The next phase of the project will include an application for community health workers (CHWs) to use. This application will guide CHWs through registration, checking for danger signs, educating, and making referrals for women during the pre and post-partum periods. This will complement the application run by service providers in health facilities by supporting high-quality care for women both in facilities and in the community.

Evaluation and Results

There has been a very positive response from health workers using the application. Service providers have reported that the application helps in calculation of expected date of delivery (EDD) based on last normal menstruation period (LNMP), age, gestation age, and directs them on what to do according to the age of pregnancy. This helps them to provide appropriate, quality care. One user said; *"The application is very good as it looks like a checklist, so instead of opening different books, we just use the phone for everything*". Nurses have quickly been able to integrate this tool into their daily work in in both medium and high volume sites, where they see nearly 400 clients on a monthly basis.

In an earlier implementation of this project in Tanzania, implementing partners observed a marked increase in the number of women in which anemia and high blood pressure was detected. This indicates that the tool helps users to not only perform the necessary checks at each visit, but also to interpret the results correctly.

Lessons Learned

- LNMP is not always known, and thus, it is important to allow any rules-based program such as this to be flexible in allowing service providers to use their judgment to assist in establishing the gestation age.
- In addition to use at the facility level, the service providers were enthusiastic about using the phones during their outreach visits, which has the potential to extend high quality maternal care from the facility to the community level
- Shortage of necessary commodities for treatment and lab tests impacts health worker compliance with guidelines, and we have updated the application to show "not available" to make it clear where the health workers know what needs to be done, but don't have the necessary commodities to do so. We are actively working with the facility in charges and the district to address these issues

Conclusion

The project has shown that the application can be effectively implemented in rural settings and that health workers in reproductive and child health clinics are pleased to be supported with such a tool.

Information was excerpted from:
http://www.jhpiego.org/files/Tanzania%20Country%20Profile.pdf
http://www.voanews.com/content/tanzania-seeks-help-with-high-maternal-mortality-rate/1519187.html