

ChildCount: Empowering Communities to Improve Child Health



Background

In children with nutritional deficiencies early in life (from pregnancy to two years of age), child survival and growth are impaired. Chronic undernourishment also contributes significantly to diminished cognitive capacity and physical development. Under-nutrition factors in as an underlying cause to an estimated 53% of all child deaths.

The health of mothers to their newborn babies is intricately linked – and providing a continuum, integrated program of healthcare for mothers and their newborns is critical in reducing morbidity and mortality of both women and children. Undernutrition in much of the world marked by societal and gender inequity. Women tend to “eat least and last” which in turn leads to low birth weight and reduced nutrition for breastfed-children. Community-based nutrition screening programs could play an important role in identifying key social sectors that would shoulder the higher burden of malnutrition and improve access to women in need of such services. At the same time, community-based programs could play an important role in raising awareness of good nutrition to combat detrimental practices that would have a significant impact on behavior change leading to improved maternal and child nutrition.

To make progress towards achieving the MDGS that relate to hunger, child and maternal survival (1,4 and 5), there is a critical need to strengthen nutrition programs that target young children and pregnant mothers. This includes Community Health Care Workers (CHW) based

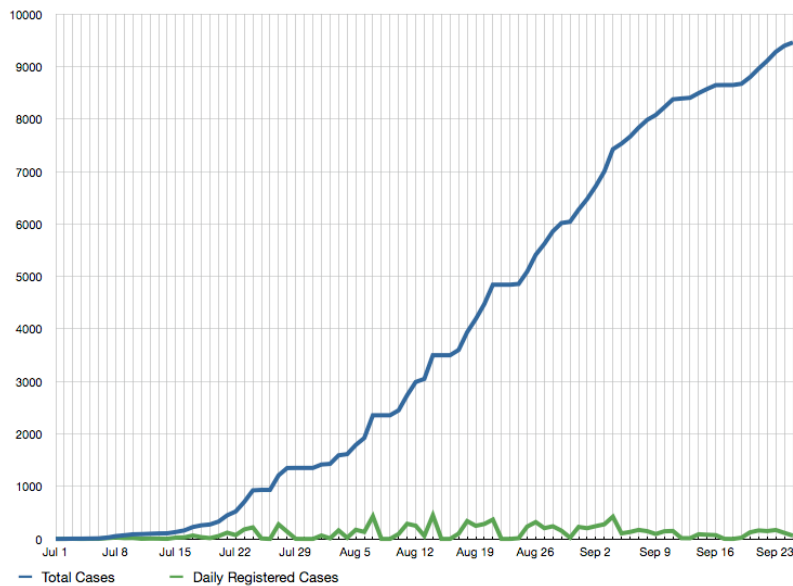
programs for monitoring and managing acute malnutrition and public health education campaigns to promote better nutritional practices. One of the challenges of community-based health practices is the limited availability of accurate and timely health information that helps to not only track the progress of the interventions and identify coverage gaps. By leveraging advances in mobile phone data collection, CHWs equipped with mobile phones will have the potential to greatly improve the collection of community based and household level information. This includes a host of program-relevant information including the registration of community health events such as: recent births and deaths; the burden of illness such as acute malnutrition or malaria; levels and coverage of essential interventions such as immunizations, antenatal care and skilled delivery. At the same time, a mobile phone based informatics system provides powerful new tools for case management decision making as well as performance monitoring for health workers.

ChildCount

"To make people count, we first need to be able to count people." -- Dr LEE Jong-wook, Former Director-General WHO (2004-2006)

ChildCount is an mHealth platform developed by the Earth Institute aimed at improving child survival health. ChildCount uses SMS text messages to facilitate and coordinate the activities of community based health care providers, usually community health care workers (CHWs). Using any standard phone, CHWs are able to use text messages to register patients and report their health status to a central web dashboard that provides a real-time view of the health of a community. Powerful messaging features help facilitate communication between the members of the health system and an automated alert system helps reduce gaps in treatment.

Figure 1. ChildCount Kenya: New Child Registrations



For the past six months, ChildCount has been piloted in Sauri, Kenya a community of approximately 65,000 people with very positive initial results. In its first three months, ChildCount was used by 100 CHWs to register over 9,500 of the 10,000 estimated children under

five living in the community. This forms the basis of a “living” registry that helps the CHW to closely and monitor and tracks the health status of each of their children. ChildCount provides support for community-based nutrition screening programs that use mid-upper arm circumference measurements (MUACs) and oedema checks to diagnose children with severe acute malnutrition. The system then helps the CHW systematically track to make sure each receives a screening again in 90 days helping to ensure equal coverage across the community. ChildCount is also being used to monitor for incidences of malaria and diarrhea in children and to support improved coverage in child immunization programs. Using ChildCount, CHWs were able to identify the 8000 children eligible for a measles vaccine and in a span of a week record 94% of children receiving their shot. Lastly, the system is being used as a vital events registry to record all childbirths and deaths, which are critical for identifying where the health system is failing.

Figure 2. ChildCount Supported Measles Campaign Summary

Facility	Vaccinated	Eligible	%
Ramula Clinic	1525	1653	92%
Lihanda Clinic	708	738	96%
Gongo Clinic	499	544	92%
Marenyo Clinic	1000	1027	97%
Yala Sub-District Hospital	1473	1547	95%
Nyawara Clinic	871	930	94%
Masogo Clinic	342	371	92%
Sauri Clinic	540	627	86%
Mindhine Dispensary Clinic	617	646	96%
Total:	7575	8083	94%

Scaling Up

ChildCount is now in active use in the Millennium Villages site in Kenya and is in the process of being rolled out across the remaining 14 MVP representing approximately 500,000 people 100,000 of which are children under five. ChildCount is also being expanded to provide support for maternal health by registering all pregnant mothers and providing support for important antenatal care. UNICEF is in the process of rolling out a variation of ChildCount in Senegal and is considering it for its activities in other countries.