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Background:
The goal of the BBHP is to develop models for utilizing smart cell phone as health communication tool in remote areas:
(1) to improve maternal health focusing on antenatal care (ANC),
(2) to reduce child mortality focusing on the Expanded Programme on Immunization (EPI), and
(3) to prevent/monitor disease incidence and to ensure treatment outcomes focusing on malaria due to malaria endemic in the border areas.

The BBHP consists of 2 models:
(1) Mother and Child Care Model (MCCM)
(2) Disease and Treatment Monitoring Model (DTMM)

Setting:
The BBPH is implementing in the Thai-Myanmar border areas: the MCCM in Suan Phung District, Ratchaburi Province; the DTMM in SaiYok District, Kanchanaburi Province. The target population in these remote areas comprise of Thai and non-Thai villagers of all ages. Within the areas, under the Thailand Ministry of Public Health (MOPH) structure, there are Health Center (HC) and Malaria Clinic (MC) with primary healthcare personnel working in conjunction with village health volunteers (VHV) living in the villages. These MOPH staff serve as key human resource for Thailand health care system at the grass-root level; thus they are assigned to operate these two MCCM and DTMM models.

Project Progress:
MCCM - The model was developed and implemented at the trial location in December 2008. Standard MOPH data tables regarding ANC/EPI were extracted from the HC database to be used as baseline data of the system. MCCM is an added on function to the existing MOPH database. The system generates listing of mother and child with ANC/EPI visit due dates. This system allows the HC personnel in cross-checking and identifying the mother’s ANC and child’s EPI status either at HC as well as at the household location when performing home visit. This mobile technology-based features of the system in place of the standard manual paper-based method of case follow-up makes it more efficient for HC personnel in monitoring ANC/EPI coverage in their responsible villages.

DTMM - The model was developed and implemented at the trial site in late November 2008. Baseline data of malaria cases during 2007-2008 were entered into the system installed at MC. The application of DTMM allows remote data transfer technology in both textual and geographic format. On a weekly basis, system can generate SMS for the summary of Malaria cases, and automatically feed to the predefined MC/VHV personnel involved. List of registered patients in the system who visit MC can be examined in details. Based on the schedule generated, site staff is provided with mobile phone loaded with follow up application module. This module is capable of recording any clinical failure symptoms, and then synchronizing to the data center with GPRS network available in the area. The follow up module loaded within mobile phone is also capable of capturing the locations (coordinates) during site visit patients each time. Map per schedule visit is shown once users click on visit schedule table.

Both modules are in progress; system modification is planned. More data collection are needed to conclude the effectiveness of the system. The final results are anticipated in late 2009.