

Field survey report for the Global South eHealth  
Observatory of the



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FONDATION PIERRE FABRE

**Meeting with PHAD, for the mMom Thai Nguyen project**



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## (Mobile intervention for Mother)

*“When the success of an eHealth initiative goes beyond the research project”*

### 1. Origins

The mMOM project (mobile intervention for mother) is an initiative of the Institute of Population, Health and Development (PHAD), a Vietnamese non-governmental organisation that develops various e-projects in the field of health in Vietnam.



Created in 2009, PHAD is currently conducting seven research projects. Twenty people work for this structure (doctors and pharmacists specialising in public health, epidemiology, bio statistics as well as engineers). mMOM Thai Nguyen is a three-year research project that ended in December 2016. The first publications should appear in June/July 2017.



*PHAD office in Hanoi (Vietnam)*

### 2. Main objective

The mMOM project's main objective is to improve maternal health and perinatal care among ethnic minorities in Thai Nguyen Province, Vietnam (north of Hanoi) through the use of mobile phones (text messages).

The messages are adapted to the mother's situation (period of pregnancy, associated illness). The principle is to give the right information, that is useful and simple, at the right time.

### 3. Implementation

#### Findings:

Healthcare workers lack the time to explain to their pregnant patients all the necessary information related to their pregnancy.

If too much information is transmitted at once, patients will not remember it. If the transmitted information does not correspond to patients' current state, they will not remember it.

Written information (text messages) can be read and reread (unlike an oral explanation).

Many women from ethnic minorities:

- Are afraid to go to health centres,
- Think that everything is fine,
- Are too busy to travel to a health centre that is far from home,
- Are not in the habit of being in contact with a health centre and prefer to stay at home.

In Vietnam, everyone has a phone (at least 1 for every family or community). *For this study, only 80 phones had to be distributed during the three-year project.*

#### Choosing the study area:

Thai Nguyen Province (northern Vietnam) was chosen for several reasons:

- Existence of already computerised health centres in the area (*funded by IDRC: International Development Research Center – Canada a few years ago*).
- Presence of six ethnic minorities (73% of the area's population).
- High illiteracy.
- Long-standing collaboration between Thai Nguyen Province and PHAD.

#### Operation:

The mMOM project is based on the Vietnamese telephone network (text messages). Only the database is linked to the internet. As part of the research project, **820 pregnant women** were monitored. They each received 75 text messages during their pregnancy (and up to one year after the birth). When a pregnant woman would come to the health centre for the first time, a healthcare worker would register her (if she agreed) to the programme. At this point she would give her phone number. The healthcare worker would then select the type of text messages that the patient would receive during her pregnancy via the mMOM computer programme (*1st trimester text messages, HIV patient text messages, etc.*). During the pregnancy, the healthcare worker could readjust the type of text messages sent (if diabetes occurs, for example).

The programme was designed to allow “text message packages” specific to a patient’s state of pregnancy to be offered. The text messages would then be sent autonomously and in a timely manner to the patient (via the computer system which transmits the information to the telecom services).

Women were required to respond to the messages. In case of no response (after two text messages), the patient’s health centre, notified via internet by the mMOM computer programme, would contact the patient that day to find what was happening.

Data patients were protected by the Thai Nguyen Province Health Department.



*Mr Vu Cong NGUYEN, PHAD CEO*

### **Economic model**

The project was funded primarily by IDRC (*International Development Research Center - Canada*) following a call for projects.

Once the health centre had been computerised (the most significant cost) and the project had been implemented (computer architecture), the cost of operation (sending text messages/maintenance) was 400 USD/month.

Internet access (provider) was supported by Thai Nguyen Province.

## FUTURE

### □ *mMOM Project:*

This was a pilot study (three-year research project) that was completed at the end of 2016. Thai Nguyen Province has now fully embraced the mMOM programme (technically and financially). The initiative is still in place and even expanding.

A comparative study (monitoring of pregnant women without sending text messages) was conducted in the same province in four community health centres, versus eight health centres for the mMOM programme.

Many indicators, such as the number of vaccinations or pre- and post-natal consultations, can be compared. The first publications of this study should be released in June/July 2017.

PHAD is in contact with Vietnam's social security and mutual insurance system to see how this prevention programme could be supported by insurance systems (to fully financially empower mMOM).

PHAD also plans to involve “future dads” (information via text message also sent to the father, not only the pregnant woman).

### □ *PHAD:*

The institute is working on other e-health research projects such as **ISS** (Infection Service System) which maps the evolution of two infectious diseases (influenza and diarrhoea) in two provinces in Vietnam, via a system of sending text messages from the community health centre to the province's Health Department.

## CONCLUSION

mMOM project and PHAD key strengths:

- Project aimed at ethnic minorities.
- Project adopted by Thai Nguyen Province local authorities. Excellent collaboration between PHAD and public structures.
- Project acclaimed by pregnant women (who are willing to pay \$0.5 – 1 per month for this programme).
- Research project (with future publications).
- PHAD team is a Vietnamese team composed of scientists (doctors, epidemiologists, statisticians, public health doctors) and also engineers.

Weaknesses and needs in order to extend the mMOM project:

- Requires pre-computerisation of health centres.



*Ms Trinh Thi HUE (Researcher), Florence DELCHER (FPF), and Mr Vu Cong NGUYEN (PHAD CEO)*