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# AN INNOVATIVE COMMUNITY CARE APPROACH FOR PREGNANT WOMEN AND CHILDREN IN MALARIA ENDEMIC REMOTE AREAS IN CAMBODIA

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**Abstract**

*Malaria is still prevailing in most Southeast Asian Regions, even if morbidity and mortality rates are much less than in Africa. In order to reduce health access inequalities and spatial discrepancies where no health structures are to be found, some countries like Cambodia (followed by Lao PDR and the Philippines) have initiated singular interventions in far-off areas, based on community based interventions. In this presentation, I will take the case study of Cambodia with its Village Malaria Worker Project.*

**Keywords:** Cambodia, remote forest areas, malaria, women and children, village health volunteer, diagnosis and treatment

# AN INNOVATIVE COMMUNITY CARE APPROACH FOR PREGNANT WOMEN AND CHILDREN IN MALARIA ENDEMIC REMOTE AREAS IN CAMBODIA[1]

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**The plight of malaria for pregnant women and young children**

Let me first contextualize malaria within the country. Cambodia is a kingdom in Southeastern Asia, bordering the Gulf of Thailand, between Thailand, Vietnam, and Laos. Its 2,572 km border is split among Vietnam (1,228 km), Thailand (803 km) and Laos (541 km), as well as 443 km of coastline. Cambodia covers 181,035 square kilometers in the southwestern part of the Indochina peninsula. It lies completely within the tropics; its southernmost points are only slightly more than 10° above the equator. Roughly square in shape, the country is bounded on the north by Thailand and by Laos, on the east and southeast by Vietnam, and on the west by the Gulf of Thailand and by Thailand. Much of the country's area consists of rolling plains. Its population in 2013 is estimated to be around 15 millions. Nearly 75% of the people are living in rural and forested areas and one at least one third is living in a place where malaria can be transmitted.

Unlike in Africa were malaria is transmitted by anopheles like gambiae and ovale which are able to survive in open sites like rice fields and other open places with water reservoir for maintaining the existence of breeding sites, malaria is, at least in the present pays, exclusively transmitted by anopheles living in the deep forests (anopheles dirus) and at the edge of them (minimus). It means that without forest, no malaria can be found or transmitted, unless it being imported by mobile persons who caught it in a malaria endemic area.

Malaria is on general decrease not only because of health policy interventions but, unfortunately, because of the rapid legal and illegal logging of trees even if residual endemic and hyper-endemic areas continues to prevail. According to the very approximate official data (most people do not attend the public health centers), less than 300 people have been annually diagnosed dying of malaria in the last decade, and there has been an annual reduction of nearly

10% with regards to the reported cases since 2004 (CNM, 2010). The infectious disease is unequally established in 17 provinces (out of 24) but hyper-endemic malaria areas are predominantly existing in ten provinces: essentially in the north and along the mountains of Cardamoms in the south-west.

There is also a differential evolution related to the vector: Malaria *falciparum* is decreasing more quickly than *vivax*, which is less dangerous, exceptionally deadly but characterized by frequent relapses. The frequency of the cyclic natural return of the infection is an additional concern for pregnant women and young children below five years who are more vulnerable to the disease, specifically the kids under five years who are more prone to develop severe cases and develop opportunistic infections.

**A national community based policy**

A major shift occurred in the malaria control policy by integrating volunteers in the public health system coverage which was strictly controlled by professionals. After initial tergiversations, some community health providers (called Village Malaria Workers: VMW) started to be trained for providing malaria diagnosis and treatment. Such an initiative, reinforced by a progressive geographical homogenization process, expects reducing health inequalities.

In the present days, the VMW project has grown into a major strategy for malaria control in Cambodia after a convincing pilot project in 2001 that evaluated village based initiative administered by volunteers using rapid diagnostic test (RDT) and prepackaged combination therapy (CNM, 2010). The idea is to make available an early diagnosis with an adequate treatment for uncomplicated malaria cases for high risk group of people living far for public health facilities, even if this notion of high risk group has been too static and did not take

sufficiently in consideration local dynamics related to mobile and migrant groups of persons that include not only working men but also women and young children.

The scale-up (of the number of covered villages, of VMWs) expanded in 2004 and increased again in 2009 with technical support from the World Health Organization (WHO) and financial support from three international donors, mostly the Global Fund. The number of villages with VMWs more than quadrupled from 315 in seven provinces to 1394 in 17 provinces, with a total number of more than 2000 VMWs throughout the country (Yasuoka, 2012).

Such a national policy which relies on the amelioration of a better provision of treatment where there is no doctor. It also reflects the intention of the government to reduce the presence of the non registered private sector (estimated not reliable, not accountable and profit-oriented) and to minimize the uncontrolled circulation of counterfeit, substandard and fake drugs. Additionally, this grassroots facility is supposed to provide greater autonomy to the people by letting them developing the reflex to have a prompt access within their community, without going to the far-off public health services.

Everyone has free access to this 'home service', in particular children, pregnant ladies and young mothers who are particularly biologically and socially vulnerable to the infection. Let us remind that on the woman side, the risk is more for the child to be born that for the mother herself. If the parasites reach the placenta, it will restrict the exchanges between the mother and the fetus and it will later disturb the child normal growth (child with poor weight, more vulnerability to other diseases and maybe more receptivity for the child to get malaria). In addition, *Falciparum* can be deadly malaria ad specifically for children because it leads to anemia at the young age.

So far the VMW project has shown a strong impact on the malaria situation through drastic reduction in infant and maternal mortality and morbidity in the most endemic areas by providing an original service literally at the doorsteps of the target communities (CNW, 2010).

In terms of public health, the national experience has demonstrated that a nationwide scale-up of community-based malaria control can be achieved without degrading community health workers' service quality (Yasuoka, 2012). Besides, it has assumed that the government's strategy to expand VMWs' health services, while providing sufficient training to maintain the quality of their original malaria control services, could have contributed to the improvement of VMWs service quality, actions, and knowledge in spite of the rapid scale-up of the project.

**Laypersons and VMWs' reactions**

Beyond the apparent enthusiasm and excitement coming from the government, we need to analyze up to which extent the adoption of this strategy has been variably incorporated, and accepted, in people's health perception and practices. And that is what I am going to focus on by presenting some results coming from an anthropological survey relying on 50 interview-based longitudinal case studies of local populations and their interactions with health volunteers plus supplementary interviews on health volunteers related to the health structure they rely on. I am mostly going to insist on implicit ideas which are generally taken as granted.

First preconceived idea is that if the VMW, either male or female, belong to the community, it gives a sense of common belonging which is in itself a way to narrow the gap between the traditional hierarchical respective positions. The assumption that patient and health provider are becoming peers does not systematically work. First, VMW are frequently recruited with strong support of the important people of the village (mephum, mekhum, etc.) and co-

optation. Besides, observations and interviews in various places demonstrate that it is not sure that being member of the village generates a great sense of community participation and ownership associated with this strategy among the people. Frequently, when "common persons" have been appointed, there is a reluctance to rely on them because they are perceived as mere technicians unable to reply properly to general health issues and to adequately make a reliable malaria test. Better for many households to send their children and their wives to private clinicians who are also in possession of rapid test and who perceived to be more skillful and reliable. Even deprived families prefer to pay and have access to what they perceived as an efficient and comprehensive service, specifically those who have been told - rightly or wrongly - that VMWs have limited skills to recognize signs and symptoms of simple and severe malaria.

A second implicit idea is that prompt access to diagnosis and treatment usually limited by geographical barriers will be overcome with the presence of VMW. It has already been mentioned that the "informal health sector" is immensely important in the health seeking behavior of the people with malaria-like febrile illnesses (De Souza, 2010). But even in villages having VMW, the main perceived drawback is that there are not really competent, and not allowed, to treat or diagnose other diseases. For many household, it turns to be a risk of waste of time to visit them insofar they prefer the patient to receive a more complete diagnosis. Other diseases are more threatened than malaria, mostly for the young children and families put emphasis on their identification in the therapeutic trajectories. Irrespective of the distance, there is preference for mostly for the mothers to go, even if they have to wait a little, if it is more costly and far, to a place where there is a health provider who can respond to their attempts. Having in mind that trust given to the provider is mostly related to the existence of pre-existing ties with the client or a relative (Souza, op. cit.)

A third common-sense idea is that VMW can be a systematic outreach service. A preliminary request for properly functioning consists in receiving regularly and sufficiently the materials (RDT + drugs), which has not always been the case either with the public health delivery system or with the socially-marketed RDT and ACT in the private sector (Yeung, 2011). In our study, even if not frequent, there has been situations of lack of drugs and RDT among some VMWs in some provinces, while registered private providers (who also work in public health centers in Cambodia) have the reputation to always have sufficient material medica, to be constantly available, in addition to provide a quick and friendly service. In other words, the private sector provides a better outreach service than the VMWs who are not always at home and who are not systematically in position to make home visit when they are called.

A fourth idea which presupposes the sustainable functioning and involvement of the VMW is associated with their linkage the public health institutions: initial training has been most of the time done very quickly (maximum two days) and refreshing trainings hardly cover what the volunteers expect to know about or at least to be more familiar with in order to orient properly the people. They have been advised to arrange for the transfer of severe malaria but most of them, in fact, cannot make the differentiation between normal and severe and do not have any tools to organize a referral system. Besides, some the monthly meetings are perceived as administrative constraints, fulfilled with blame and injunctions, and health volunteers deplore the absence of stimulating refresher injecting forces. It has been said that the hallmark of the VMW project is the continuing supportive supervision, monitoring and mentoring by the Health center staff to the VMWs under their respective catchment areas within the communities in which the VMWs operate (CNM, 2010). This is true if there is a good quality of relations at this level, it there is a smooth interference, but this is unfortunately not the case everywhere.

Absenteeism in the public health centers is rampant (salaries are very low and all staff need to fin alternative income generation activities). Frequent has been the complaint of VMWs who deplore the fact that are told to be always available, night and day, in spite of being volunteers, while paid public health providers seems to delegate their work to them. As it has been repeatedly heard "we have been told that we are the key providers for contributing to the fight against malaria, but we have no material benefit, we are constantly supervised and we are at the bottom of the health system".

Fifth, overspecialization of the VMW is a common reproach done by ordinary people. VMWs are not expected to be generalists but at least to be aware of very common diseases like diarrhea, acute respiratory infections and various forms of fevers including typhoid. (Normally, simple treatment of 3 common childhood diseases was supposed to be part of the training package but very few of the VMWs that we met have had neither this training nor the access to the essential drugs). Women are also very concerned that everything which is associated with reproductive health and, even if malaria is part of this preoccupation, it does not remain the health priority. Disproportional attention to a disease with the exclusion of other which are more prevailing, perceived as more dangerous and more associated with women and children tends to reduce the overall impact of the VMWs, mostly when the VMWs are women, having in mind for the people that a woman should be assigned to worry about female health conditions and not something like malaria which is, after all, not the more dangerous disease to deal with, because of the known presence of continuous campaigns related to prevention and access to treatment.

Sixth the mitigated aptitude of the VMWs to be in touch with the mobile population has some negative effects on the popularity, specifically among women and children who, because of poverty and inability to stay in their homeland when there is not sufficient livelihood and nobody

to take care of them, have to accompany their partner in displacement. The presumed link between the layperson and the health volunteer which is already fragile in normal circumstances is worsened with regards with mobile populations. There have been reported cases where migrants, mostly when they arrived in family with children, have been perceived by VMWs as potential invaders and illegal new comers who come to take advantage of natural resources from the local environment which does not belong to them. Some of them have been therefore asked *in compensation* to pay for receiving diagnosis and care which are normally free. Such an experience reinforces a condition of injustice or exclusion and justifies any further avoidance of those migrants with this home service, many of them mentioning 'at least, with the others (private sector), nobody ask you embarrassing questions'.

I could continue to mention others points of malfunctioning but such exhaustive enumeration, which may lead to nowhere, is not my intention. What I am more willing to show is that every action undertaken under the auspices of volunteerism seems, at least in the present socio-historical context of Cambodia, limited and does not show convincing proofs of sustainability. The project also relies on external funds and if they are cut, the initiative has good chances to stop (it already happened in a commune of six villages when the NGO in charge of locally implementing the strategy saw his budget cut to 35%). Additionally, as odd as it may happen, the notion to receive 'free services' is associated with low quality and poor commitment. Even some poor people prefer to pay, at least a symbolic retribution, than *just* to receive. Previous experiences, still influencing Khmer mentalities, make women familiar with the idea that one has to give something if he wants to obtain in return a proper quality of service. In addition, the conventional socio-cultural popular representation towards the public health system has always been very depreciative. In that respect articulating VMWs with a system that is

perceived as corrupted, inefficient, inquisitive and over-administrative is not a strengthening factor for making it widely acceptable, in spite of its laudable intentions.

Ultimately, I would like to articulate this particular case study by entering in discussions, in order to know whether some African countries have taken into consideration a similar code of conduct in malaria remote areas and if yes what have been the social and medical repercussions. I let you opening the debate.

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