



# Karolinska Institutet

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## Quality and utilisation of antenatal care services in rural Lao PDR

### ACADEMIC DISSERTATION

For the degree of PhD at Karolinska Institutet.  
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## **ABSTRACT**

### **Background**

Antenatal care (ANC) plays an important role in reducing maternal mortality and morbidity by detecting early risk factors in order to have an effective intervention in time and by linking the pregnant women to a planned delivery with a skilled birth attendant. However, the utilisation of ANC services of pregnant women is problematic in many low-income countries, and in Laos only 39% used the services in 2005.

### **Aims**

To assess the quality and utilisation of ANC services in rural areas of the Lao PDR (Lao People's Democratic Republic), to explore the care providers' views on their antenatal services, to explore the women's experiences of pregnancy complications and their opinions regarding ANC services, and to measure the impact of a community-based intervention combined with strengthening of the ANC service.

### **Methods**

The studies were conducted in rural areas of Laos between 2008 and 2011. We interviewed recently or currently pregnant women about factors related to their ANC utilisation, using structured interviews (n= 460, Study I). Fifty-nine ANC provider-client sessions were observed and semi-structured interviews were carried out with 26 health care providers (Study II). Eight focus group discussions were performed among women who had been or were pregnant (Study III). A low-cost ANC up-grading community-based intervention was assessed using structured interviews [n= 460 before (Study I) and n= 317 after the intervention (Study IV)].

### **Results**

About 50% of the women had had at least one ANC visit; 63% of them had three or more. The factors associated with ANC use were women whose husbands were salaried employees (OR 2.66, CI: 1.45–4.88); women perceiving ANC as somewhat useful (OR 2.88, CI: 1.26–6.61); or very useful (OR 7.45, CI: 3.59–15.46) (Study I). Women younger than 18 years old when having their first pregnancy were less likely to use the services (OR 0.56, CI: 0.28–0.97). Some participants considered ANC a curative rather than a preventive service, seeking care only for pregnancy complications. Sparse or non-utilisation of services was also due to limited access to health facilities, negative attitudes towards health care providers, sub-quality of the services and lack of information about ANC (Study III). Traditional beliefs influenced the behaviour of pregnant rural Lao women. The prohibition of particular food items and restriction of certain behaviours were related to a fear of obstructed labour. Some of the practices indicated a lack of modern medical knowledge about what causes pregnancy-related problems. Perceived problems were dealt with by using modern health care or traditional medicine or a combination of both, but many of the problems were neglected (Study III). Overall, the quality and performance of ANC services in rural health facilities were poor due to lack of routines, scarce or insufficient equipment and limited skills among providers. The average consultation time for each woman was five minutes. The health care providers expressed having little competence and motivation to work with ANC. Compared to district hospitals, health centres had less equipment and supplies, and their care providers had less ANC training and a heavier work load (Study II). After the intervention, overall ANC use increased from 49% to 78% for the women in the intervention arm and from 54% to 64% in the control arm, displaying a significant intervention effect of 19 percentage units. Similarly, there were positive intervention effects of 26 and 24 percentage units, respectively, for making the recommended number of ANC visits and for making the visits at health centres (Study IV).

### **Conclusions**

Several factors related to ANC utilisation. Besides limited access to the services and lack of awareness among the women regarding ANC, sub-quality of the services also inhibited pregnant women from seeking care. The low-cost intervention proved to greatly increase the proportion of ANC utilisation in a short period of time. This type of intervention can be recommended for implementation at a larger scale with an assessment of the quality of services.

Key words: antenatal care, rural Laos, perception, health care providers, low-cost intervention.

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