

## Abstract of Master's Dissertation

No.1

Course	Master of Public Health	Name	Khamsamay XAYLOVONG
Thesis Title	Performance of quarantine system in screening Coronavirus Disease 2019 (COVID-19) in Lao PDR: A retrospective study at two ground crossings in Savannakhet Province.		
<p><b>Abstract of Master's Dissertation</b></p> <p>Background: COVID-19 pandemic has mainly spread across borders in each territory through travelers. In Lao PDR, positive cases of workers returning from abroad are crucial. Therefore, early detection of suspect cases by effective screening and quarantine measurement at the point of entry and implementing appropriate control measures are critical to reduce the pandemic in the communities and the country.</p> <p>Objectives: This study aims to assess the COVID-19 screening performance of quarantine system for point of entry at two ground crossings in Lao PDR.</p> <p>Methods: A mixed-method-parallel design for complementary purpose was applied. In the quantitative part, the study was conducted in 380 incoming travelers who registered for paper-based at two ground crossings in Savannakhet, Lao PDR. Completion of overall quarantine procedures (OQP) was assessed by quarantine procedures: (i) body temperature measurement; (ii) referral to the provincial hospital when body temperature is <math>\geq 37.5^{\circ}\text{C}</math>; (iii) PCR test for referral hospital cases; (iv) referral to the quarantine facilities when body temperature is <math>&lt; 37.5^{\circ}\text{C}</math>; and (v) complete 14-day quarantine. Mixed-effects logistic regression was applied according to the nature of the data. After descriptive statistics, all predictors were simultaneously put in the model, using STATA (16.0). In qualitative part, key informant interviews using semi-structured interview guide were conducted among nine health workers and ten incoming travelers. Thematic analysis was conducted to accomplish the qualitative information by using NVivo software.</p>			

\* The abstract, containing background, objectives, methods, results and conclusion should not exceed 300-500 words and printed double sided on A4 paper)

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No.2

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<p data-bbox="237 450 1366 1003"><b>Results:</b> In this study, 72.9% of all incoming travelers completed overall quarantine procedures. Occupation of incoming travelers was significantly associated with completion of the overall quarantine procedures (OQP). Students, tourists, and patients were more likely to complete the OQP (P=0.017). Higher number of health workers duty on the day were less likely to complete the OQP (P=0.003). Higher number of incoming travelers per health worker were less likely to complete the OQP (P=0.018). The health workers expressed their insights dealing with workload, training, skill, infrastructure, national guideline, and referral services. Their main concern was workload. Incoming travelers perceived that, hospitality of health worker and facilities at POE were the strength of services. For the weakness, incoming travelers prefer well organized label, signboards, and signs for social distancing to easily follow by visualization.</p> <p data-bbox="237 1061 1366 1570"><b>Conclusion:</b> To improve overall quarantine procedures (OQP) completion rate, putting label, signboards, and signs for social distancing are necessary. Getting information about the number of the incoming travelers according to the designated dates and places in advance will be critical for screening process and quarantine settings. When the estimate number of incoming travelers in known in advance, the assigning number of health workers at POE can be proportionated with the number of incoming travelers, which may help reduce the workload of the staffs. To the best of my knowledge, this study is probably the first one that assessed the performance of quarantine system not only in Lao PDR but also in the world. Therefore, further studies should be conducted at other points of entry in Lao PDR to be representative of national quarantine system for incoming travelers.</p> <p data-bbox="237 1628 1243 1664"><b>Key words:</b> COVID-19, point of entry, quarantine, screening, ground crossing</p>			