Chapter 5

Conclusions

5.1 The Conclusion of This Study

First, This study presented a model by using cross section data of 48 counties in Yunnan during 1994-1997, which is aimed to identify the role of mobile population in international border by showing the relationship of malaria incidence among Yunnan, China, and Myanmar, Lao PDR, Vietnam .The regression analysis showed that the model can be accepted. It imply that there are positive relationship between foreign nations and the malaria incidence in the border counties of Yunnan, China. Lagged incidence has also positive effect on malaria incidence in the border counties of Yunnan, China. Surveillance hasn't relationship with independent variable of malaria morbidity in this area due to over activity probably. Vector control has not been showing the evidence of relationship with independent variable of malaria morbidity too. Maybe the reason is due to some error of data.

By integrating the regression analysis, it seems that the more mobile population and longer boundary line, the higher risk the border county faces. Although the mobile population brings malaria, it attributes economic development at same time. It shows that malaria go along with economic activities in the border counties of Yunnan, China.

Based on the coefficients of foreign nation 's morbidity rate and morbidity rate in the neighbor of inland Yunnan , spillover effect was calculated and the

analysis of resource allocate was done at this circumstance. We got some implement that some border counties is facing higher risky from the mobile population crossing international boundary line than mobile population in inland. It suggests resource allocation can be direct by spillover effect of each county. It seems to be better if resource of control allocate in higher spillover effect group and reduce the amount of resource in lower spillover effect group.

5.2 Recommendation

As a communicable disease, malaria is not easy to control, especially in this complicated situation in Yunnan. Border crossing movement is a factor influencing malaria transmission in Yunnan. More resources need allocated in some border counties according to the effect of spillover. It will be better to come out effective strategy concerning of mobile population in international boundary line in term of diagnosis, treatment, and prevention. That can reduce the malaria morbidity effectively. Therefore, It is a necessary to report foreign malaria cased diagnosed and treated in Yunnan, China since it can provide accurate information for policy maker.

Economic analysis is a way to direct efficient resource allocation, like marginal production, marginal utility, and spillover effect. The authorities of malarial control in Yunnan should not only pay attention to epidemiological situation, but also have eye on efficiency and equity of resource allocation. This either helps to achieve the target and partly solve the problem of budget shortage as much as possible. More cost effectiveness of present control measures in Yunnan need to be studied in order to maximizing the malaria control program, such as DDT residual spraying, surveillance, chemoprophylaxis and so on.

The more problem is being confronted in malaria control. Especially, the situation is that the number of mobile population crossing border is keeping go up. Any control implemented along by one country of this region is not enough. Some coincide with control measures or specific cooperation in term of mobile population crossing the international boundary line is necessary to try together in order deal with the malaria in this region, especially for international mobile population. Moreover, share of malaria data in this region will benefit all members of the region.

5.3 The Limitation of the Study

The time is too short to collect enough data. Only 26 border counties and 22 second line counties which connect the border counties were coded with in this study. A bigger sample cannot be available during this short period. It will be better if the model is built up whole province year by year. The yearly coefficient of variables may a little bit different. It can show us more appropriate than this one result from 48 counties.

Since some data are not available, this study used the national morbidity of malaria in three foreign nations. If the exact malaria incidence rate of the border area in the three foreign neighbors could be used, the result would have been closed to the reality more.