

ECONOMIC ANALYSIS OF MALARIA CONTROL IN THE
BORDER AREA OF YUNNAN , CHINA



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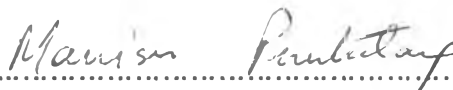
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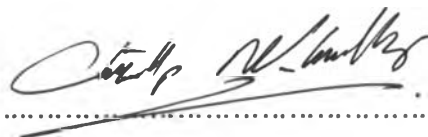
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This study is aimed to identify the role of population mobility on malaria transmission in the international border areas of Yunnan in order that the resource allocation can be analyzed by using spillover effect from population mobility. It mainly consists of two parts. The first part is model building, in which panel data of 48 counties in Yunnan and neighboring countries during 1994-1997 were employed. After weighting the effect from neighbors by length of boundary between two sides, the effect of crossing border movement was analyzed using regression technique. The result showed that mobile population is an important factor influencing malaria transmission in the border counties of Yunnan. Surveillance and vector control was not found to have statistically significant effect on malaria transmission in the border areas.

The second part is resource allocation analysis. Based on the coefficients of population mobility from different sides, spillover effect of mobile population was analyzed so that we can suggest a border resource allocation in malaria control under such a circumstance. The study showed us that the malaria transmission was effected by the combination of boundary line and malaria severity in neighboring country. Some border counties of Yunnan are facing higher risk from increased crossing border movement compared to others. It suggests that allocating more resource in a higher risk county will lead to more efficiency in resource allocation

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List of Abbreviation

ACD	Active Case Detection
A-E & P	Anti-epidemic and preventive station
CAPM	China Academy of Preventive Medicine
D _x	Diagnosis
INCF	Malaria incidence in foreign country weighted by boundary line
INCNEI	Malaria incidence in inland county weighted by boundary line
L _x	Length of boundary line with county X or country X
MDA	Mass Drug Administration
MPH	Ministry of public health
PCD	Passive Case Detection
P.f.	Plasmodium falciparum
PT _x	Presumptive treatment
P.v.	Plasmodium vivax
RT _x	Radical treatment
SUR	Surveillance
T _x	Treatment
VECT	percentage of population covered by DDT spraying in total population as proxy of vector control
YIMC	Yunnan Institute of Malaria Control