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**The Study of Community and Household's Decision Making to
Allocate Resource for Child Health Status:
A Case Study in Sikhui District,
Nakhon Ratchasima Province**

by

Siriwan Grisurapong

**A dissertation submitted in partial
fulfillment of the requirements for the degree of
Doctor of Philosophy**

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ABSTRACT

The Study of Community and Household's Decision Making to Allocate Resource for Child Health Status:

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The aims of this study were to find indices which can best represent child health status, identify factors influencing child health and suggest the most effective resource allocation to improve child health. Data was assembled from Sikhiu, a district in Nakhon Ratchasima province in the northeastern part of Thailand. On a community level, readily available data was obtained from sources in province and district offices. The proportion of child non-malnutrition in each village was utilized as a dependent variable and activities on several intervention programs were regressed on it. The proportions of household covered by programs for providing latrines and improving household sanitation were related significantly to the proportions of child non-malnutrition. When the effective resource allocation alternative was examined, implementation of these two programs above was also proved to maximize the proportion of child non-malnutrition. If the objective is to arrive at 100% children's non-malnutrition with minimize cost, the emphasis should be placed

on programs to improve household sanitation and to provide immunization to pregnant women and infants.

On a household level, data from 258 children aged 0-4 years was collected. Anthropometric measurements: weight for height, height for age, and weight for age, and illness spells in the last 6 months were employed to represent the level of child health status. Both physical, household and community factors were included in the equation as predictor variables. The relationship between each dependent variable and the predictor variables was examined by discriminant analysis. To classify children into poor or good health groups, behavior reflecting the attention of the mother and variables of the accessibility of facilities demonstrate high predictivity. Among the three anthropometric measurements, height for age shows the highest percent of correct group-case classification. Using this index to represent child health status should be considered. To allocate resources to maximize child health status, it is suggested that money should be allocated for delivery practice and time to care for children.

Further improvement of child health status might result from easier accessibility to health facilities and educating mothers about health practices. The allocation of resources should also emphasize low-technology programs on the community level as well as spending time to care for children on the household level.

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