Title

: ALTERNATIVE RESOURCE ALLOCATION USING THE THAI MENTAL

HEALTH CASEMIX CLASSIFICATION

Author

: Mrs. Bupawan Phuaphanprasert

Major Adviser

: Prof. Dr. Supasit Pannarunothai

Adviser

: Prof. Dr. Virasakdi Chongsuwiwatwong

: Prof. Dr. Direk Patmasiriwat

Type of Degree: Doctor of Philosophy Degree in Health System and Policy

(Ph. D. in Health System and Policy (International Program)),

Naresuan University, 2007

## Abstract

Introduction: Thailand has employed Diagnosis Related Group (DRG) for allocating inpatient health budgets. However, DRG has limitations reflecting psychiatric inpatient cost. This dissertation proposed a new budget allocation approach based on the Thai Mental Health Casemix Classification (TMHCC) to better reflect the psychiatric inpatient costs in Thailand.

Method: This research collected and collated inpatients data from two psychiatric hospitals that met the inclusion criteria, Suan Prung and Nakhon Ratchasima Psychiatric Hospitals. This study started in November 2003 till October 2006. The study began with system analysis for activity-based costing method, followed by development of psychiatric measurement and, collection of data on inpatient psychiatric measurement and activity-based costing in order to develop the Thai mental health casemix classification model.

Results: From the total 1,950 patients studied, the average full cost was 9,742 Baht per case, the average material cost 3,289 Baht per case, and the average drug cost 355 Baht per case. The Thai Health of the Nation Outcome Scales (T-HoNOS) had been developed through standard procedure from translating, back translating, and recorrecting by experts and reached good measurement properties. Taking into account the record-ability, technique compatibility, and statistical compatibility, the final TMHCC model consisted of 4 Major Diagnostic Categories (MDCs) 52 Thai mental health casemix subclasses (TMHCSs). These results were in line with other mental health casemix studies e.g. the Mental Health Classification and Service Cost (MH-CASC) in Australia. The T-HoNOS provided significant discriminant results for the TMHCC. By the reduction in variance (RIV), the TMHCC achieved four folds better than the Thai DRG (%RIV for TMHCC was 21 and for Thai-DRG was 6). Moreover, the TMHCC was even better when considering the lower coefficient of variation (CV.) for each subgroup.

Conclusion: The TMHCC performed better than the Thai DRG for psychiatric inpatients. (This study explored standard service activities, cost measurement of the standard care that supported service quality development.) This new casemix system is an appropriate choice for budget allocation in terms of clinical and budgetary aspects and promotes equity as well as quality development according to the objectives of the national mental health policy.