

CHAPTER I

INTRODUCTION

1.1 Problem and Significance

The universal coverage scheme is the main sources of health care financing to national health systems. Since the universal coverage scheme has launched for all provinces but Bangkok from April in 2002 after the pilot phase started from October in 2001, there has been increasing demand of the health care services due to free of charge. Besides, quality improvement policy for health care facilities from Ministry of Public health in order to guarantee the quality of care for managed care have affected to higher health care demand more and more. But due to inadequate budget (capitation fee), there has been financial deficit problems in many public hospitals especially the community hospital. The public hospitals needed to contain costs with several measures. Some hospitals might have lower incentive to provide health care services for the patients of universal coverage scheme than civil servant patients that contribute more hospital income. Cost containment measures could contribute the pressure to the medical staffs. Consequently, many medical staffs in government hospitals decided to move to private hospitals to avoid pressure from cost containment measures and workload burden because the shrinking workforce causes even more pressure to the existing staffs and more patient congestion in government hospitals but they could not refuse patient care. These problems of the supply side could be seen from a long queue and waiting time. Due to workload burden and high expectation of patient for quality of health services, the doctors tended to transfer the patients to higher level hospitals even though it would be reimbursed later, for example, some doctors in the community hospitals no longer make operation for appendicitis. Nevertheless, many doctors also do improper (unnecessary) investigation and/or treatment in order to avoid to be accused from possible clinical mistake. This practice could contribute to be technical or cost inefficiency. In addition to inadequate budget, the health care expenditure has been increasing continuously.

It has brought up the need for the control of health costs and quality and efficiency improvement in health care organizations. Performance assessment has been installed in a hierarchical manner such that performance is assessed at the levels of the nation, geographical area and the hospital. For a country setting such as that of

Thailand, the case of health care management is of particular importance since the national health care system still lack of any institutional system control concerning cost containment and human resource management. Due to limited resources especially financial and human resources under universal coverage scheme and increasing demand of health care services, hospital efficiency measurement and monitoring system about production and cost efficiency of hospital operations should be established.

1.2 Research question

The questions that want to know at present among several problems mentioned are as follows:

- 1) How differently do government hospitals use the level and cost of resources to produce the health services before and after universal coverage scheme?
- 2) Do they operate at an efficient scale in producing their services?
- 3) If they are less efficient, what could be the causes of such inefficiency?

The answer to the first question determines production and cost efficiency of hospitals in terms of technical and allocative efficiency before and after universal coverage scheme. The answer to the second question determines scale efficiency of hospitals. And the answer to the third question determines the factors correlating the inefficiency of those hospitals. If a hospital uses either the wrong level of inputs, or operates at the wrong scale, it is inefficient. If technical and allocative inefficiency could be eliminated, a hospital could increase an output and reduce its total costs without sacrificing any output. On the other hand, removing scale inefficiency would require the down-sizing of some rural hospitals, but the up-sizing of the majority of them.

This study uses a two-stage procedure to examine efficiency. First, quantitative answers to first two questions posed above are derived. Then attention is turned toward explaining the measures of performance by regressing them against a variety of factors that might be expected to affect hospital efficiency performance. This two-stage analysis of quantifying efficiency and identifying its correlates can be very helpful in assisting hospital administrators and in directing public policy decisions.

1.3 Research objectives

General objectives:

To measure the hospital efficiency performance of public hospitals before and after universal coverage scheme

Specific objectives:

- 1) To measure the hospital efficiency of each type of public hospitals in Thailand in terms of technical, scale, cost and allocative efficiency scores
- 2) To comparatively measure productivity and efficiency changes before and after universal coverage policy.
- 3) To identify the factors affecting on the efficiency of hospitals (determinants of hospital efficiency)

1.4 Scope of the study

This is an empirical study using the secondary source of cross-sectional data of year 2001 and 2006. The study will cover the entire population of 824 public hospitals under the office of permanent secretary, Ministry of Public Health (MoPH) in Thailand. In 2006, they were composed of 25 regional hospitals, 70 general one and 729 community ones.

1.5 Health Care System in Thailand

The health care systems in Thailand has evolved from self-reliance, in the past, using local wisdom for health promotion and curative care, to the current systems which depend on modern medical and health technology. While the public sector is the main service providers, the private for profit and not for profit sector participated actively in the pluralistic health service systems. Meanwhile, many people still depend on the traditional healing methods. With the expansion of modern health care delivery systems both in the public and the private sector, Thais are moving toward using more health facility based services.

For health personnel manned facilities, the public outnumber the private facilities, particularly in the rural areas as table 1.1.

Table 1.1 Health facilities in Thailand, 2005

Facilities	Bangkok	Provinces	Districts	Tambons	Villages
Medical schools	7	5			
Specialized hospitals	19	40			
Regional hospitals		25			
General hospitals			724		
Public	29	70			
Private	101	244			
Community hospitals	5		724		
Private clinics	3,603	12,944			
Health centers	82		214	9,720	
PHC centers		3,108			66,223
1st class drug stores	3,672	5,186			
2 nd class drug stores	479	4,031			
Groceries					400,000

Source: Ministry of Public Health

Most of the rural public facilities are under the central Ministry of Public Health (MoPH). In regard to facilities for primary care, the 9,704 rural health centers cover all sub-districts, and the 724 community hospitals (10-120 beds) cover all the rural districts. In the municipal areas, there are more than 12,000 private clinics, 132 municipal health centers, and out patient departments of public and private hospitals. All hospitals in Thailand provide primary care services. There were extensive expansion and development of the rural health facilities in the past two decades.

In 1997, there were 943 public hospitals with 102,460 beds, and 358 private hospitals with 29,945 beds. Although the proportion of the number of private hospitals dropped from 39.2 percent in 1973 to 27.8 percent in 1999, the proportion of its beds increased from 7.4 percent to 23.1 percent, respectively. It is clear that during the economic boom (1990-1996), increasing private demand and the investment incentive from the government resulted in the rapid increase of large private hospitals, particularly in the capital and the major cities. After the 1997 economic crisis, the Thais moved toward using more public facilities. The number of outpatient visits of private hospitals and clinics dropped by 20-70 percent. Many private hospitals closed down some wards, a few have completely closed down. Some big private chains have been bought by foreign investors. Until year 2004 there are 354 private hospitals with 20754 beds. (Wibulpolprasert, 2000)

The public hospitals under the office of permanent secretary, Ministry of Public Health (MoPH) in Thailand are classified along a hierarchical three-tier referral system reflecting the level of complexity of services. These hospitals are

divided into 3 levels, namely community hospitals (first-level), general hospitals (second-level) and regional hospitals (third-level). The community hospitals provide primary and secondary health care services. The general hospitals provide specialized secondary health care services and receive the referral case from community hospitals. And the regional hospitals serve as referral and excellent centers and provide most highly specialized health care services as tertiary care. They also provide teaching for last-year medical student and medical resident trained in specialized care.

1.6 Health care financing

The national health care financing system in Thailand now consists of five major components:

- the universal coverage scheme (UCS) with a registered total membership of 46.5 million people. UC beneficiaries can be classified into two groups: 24.3 million beneficiaries who are exempted from a co-payment of 30 baht (0.7 USD) per episode (or UCE) and 22.2 million beneficiaries who must make a co-payment of 30 baht at point of service (or UCP). At present both such groups are free of charge.

- the Social Security scheme covering presently about 7.4 million card holders who are eligible for health care benefits;

- the non-contributory Civil Servants Medical Benefit Scheme (CSMBS) covering roughly 7 million eligible people (including about 3 million civil servants themselves as well as about 4 million eligible dependents, i.e. children, spouses and parents);

- a self-payer/non-covered group (i.e. people in remote areas) of about 3 million people;

- voluntary private insurance which covers about 5 million²; this insurance cover normally provides second-tier coverage for persons already covered by other schemes.

1.7 Benefit of this study

This study allow us know the hospital efficiency performance of each level of public hospitals in Thailand. It reveals the efficiency profile of individual hospitals, the rate of improvement assigned to individual inputs and the estimates of performance targets of production (target setting profile focusing on the inputs of the efficient production). We would know which hospital is the best practice hospital (most efficient) or the less efficient one.

The result of this study is useful for

1) policy makers in decision making of health resource allocation or reallocation especially health personnel using the technical and allocative efficiency scores, the target of input reduction and input slacks of individual hospitals. In addition, the policy makers also use that information in policy formulation in health care facilities organization that which hospital should be downsized or upsized if it is scale inefficient.

2) hospital administrators in improving the quality of internal management in the organization especially improvement of labor productivity and cost management process by using the technical, cost and allocative efficiency scores, the target of input reduction and input slacks of own hospital if those hospitals are inefficient. They are able to use the practice of the most efficient hospital (best practice) as the guideline for improvement.