Assessment of the Quality of Services Delivered by Government Hospitals under the Universal Health Insurance Policy: A Case Study of Nonthaburi Province

*Auemduen Kaewsawang**
*Sirirut Chunhaklai***

Towards the 30 Baht Treatment Coverage Project

During the past five years, there have been increasingly rapid changes in social and economic life, politics and technology both at national and global levels. As a result, the Thai health system has also changed considerably. At present, the Thai government is paying more attention to the health dimension of the quality of the life of the people. In the current national constitution, Section 52 of Chapter 3 states that an ***"Individual is entitled to all equal rights in receiving standard public health services. The poor are entitled to all rights to receive medical treatment from public health service facilities at no cost as stated by law".*** Section 82 of Chapter 5 stipulates that the ***"Government must provide and promote standard and efficient public health services for all people"*** (Kerdvichai,N. 1998 : 13, 19).

The concept of universal health insurance has long been introduced into Thai society. It was initially addressed by Professor Dr. Puay Ungpakorn in his article on ***"Perspective on Southeast Asia Development in 1980"***, **and in his well-known article "*From the womb to the crematory*".** He stated that ***"…I need good health, and the government has to provide free preventive services, good and inexpensive medical care, including easy access to the doctors and nurses when needed…"*** (Komol Keem Tong Foundation, 1999: 6). Based on several studies conducted by universities and the

* Institute for Population and Social Research, Mahidol University, Salaya, Phutthamonthon, Nakhon Pathom 73170, Thailand. E-mail: praks@mahidol.ac.th
** Department of Social Sciences, Faculty of Social Sciences and Humanities, Mahidol University, Salaya, Phutthamonthon, Nakhon Pathom 73170, Thailand. E-mail: shsch@mahidol.ac.th

Ministry of Public Health, the concept of universal health insurance has become a reality. Following the last national election, the Thai government, led by the Thai Rak Thai Party, proposed a universal health insurance policy through the ***"30-Baht Coverage Treatment".*** Under this project, the patient pays only 30 Baht for each hospital visit, while the government subsidizes 1,052 Baht per person (Office of Health Service System Reform Project, 2001: 5). The result of introductory phases was shown in the following table.

The Transition Phases of the 30 Baht Treatment Coverage Project

Day/Month/Year	Program Coverage
Phase 1: 1 April 2001	Six pilot provinces comprising Pathum Thani, Samut Sakhorn, Nakhorn Sawan, Phayao, Yasathorn, and Yala. (Royal Thai Government Gazette Publication, General Announcement 118 Special Section 31 d, 2 April 2001)
Phase 2: 1 June 2001	Enrollment of 15 provinces. (Royal Thai Government Gazette Publication, General Announcement 118 Special Section 57 d, 18 June 2001)
Phase 3: 1 October 2001	Enrollment of all provinces in every region, including 13 districts in Bangkok. (Buengkum, Minburi, Klongsan, Kanayaw, Nongjok, Saphansoong, Lat Krabang, Donmuang, Laksi, Bangkhen, Saimai, Thonburi, and Jomthong)
Phase 4: 1 January 2002	Surrounding provinces of Bangkok.
Phase 5: 1 April 2002	Every province and every university hospital.

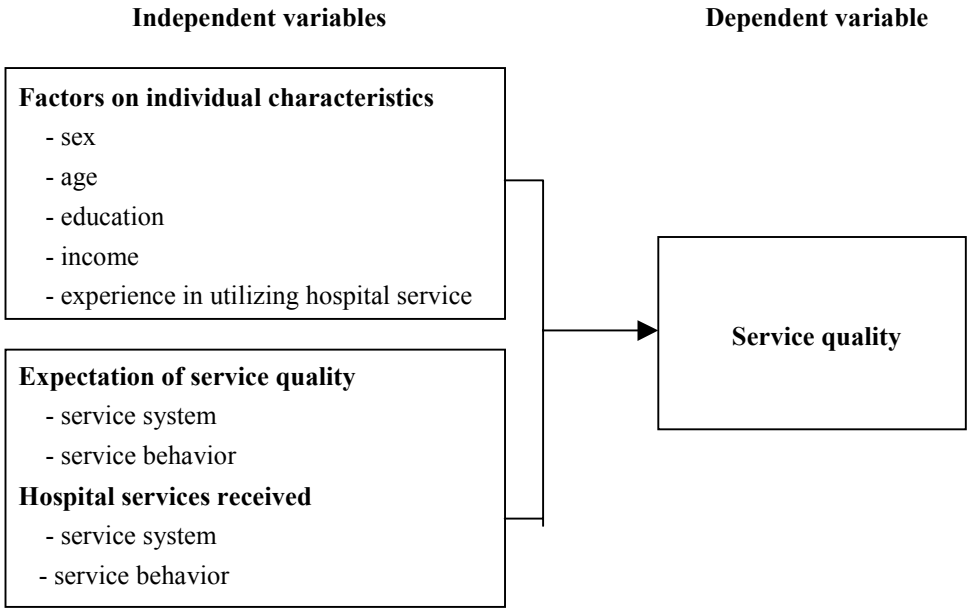
During the transitional phases, many people registered in the program. Nonthaburi province was selected as the case study as it is one of the pilot provinces enrolled in this project in phase 2. As of 31 May 2001, there were 302,031 people registered and had received 30-Baht-paid gold cards (http://nonthaburi.moph.go.th/NumberCardHospProvinceServlet). In the researcher's opinion, Nonthaburi province has a high level of potential and preparedness in terms of medical doctors and nurses as well as its service system to support the project implementation. In addition, a large

amount of the government budget was allocated to support the program. The cost–benefits of this project as measure in this study is the expectation of quality of service by the hospital clients towards the actual quality of service they received. This research aimed at indicating and reflecting such issues that will be useful for future implementation of the project.

Research objectives

1. To compare individual characteristics that effect the assessment of service quality of the hospitals.
2. To compare between expected and received services by patients under the universal health insurance policy.
3. To examine the relationship between expected and received services for assessment of service quality.

Conceptual framework



Primary data were used for quantitative analysis. The sample consists of out-patients aged over 15 years who received government hospital services under the universal health insurance project in Nonthaburi province during 1 - 31 October 2002. The researcher employed probability theory in designing and implementing systematic sampling among patients who had gold cards in seven hospitals, with the sample size from each hospital proportionate to the number of gold card holders in each hospital., to obtain a total sample size of 400.

Method of Data Analysis

The analysis was undertaken using the following statistical techniques: t-test, ANOVA and Pearson Product Moment Correlation Coefficient. Level of statistical significance was defined at 0.05.

Conclusions

During recent years, various organizations in Thailand have been increasingly encouraged to improve and maintain their service quality due to strong business competition. Lack of attention to service quality might result in a negative image for the organization and customers would thus have a bad impression and even not recommend others to try the service. The image of a hospital is important, with a good image including high standards and excellent services. Hospital services are thus guaranteed by the clients as important customers of the hospital. The result of analysis revealed the followings.

1. The sample respondents who received out-patient services at government hospitals under the universal coverage health insurance policy in Nonthaburi province were aged 38 years on average. The majority had completed a higher than compulsory level of education and earned 4,800 Baht per month on average. More than half had experienced using hospital services as stated in the gold cards.

2. Individual characteristics had an effect on their assessment of service quality. Assessment of service quality was significantly different ($p<0.05$) among patients with different sex, age, and level of education. Males gave a higher mean assessment score than did females, and the same was found among those aged over 60 years of age compared with younger respondents. Similarly, evaluation of service quality was higher among patients with primary or lower level of education compared to those with higher education.

3. Expected services were different from the actual services received under the universal health insurance project. It was found that the mean value of expected service was significantly different ($p<0.01$) from the mean value of services received, i.e. expected services were rated higher than actual services received.

4. Expected services had a weak positive relationship with the assessment of service quality. The actual received services had strong or very strong level of relationship with evaluation of service quality. According to Oberst's theory (1984; 2366-2367), expected and actual received services as perceived by patients are defined by the difference between expected services and actual received services. In this study, the difference between the expected and actual received services had a negative association with assessment of service quality. This finding agrees with Oberst's theory (1984: 2366-2367). If the expected service is rated higher than the actual received service, patients make a positive assessment of the services.

5. The assessment of service quality of government hospitals in Nonthaburi province participating in the universal health scheme suggested that the majority of clients rated the service quality at a moderate level. The highest level was for service behavior, especially service equality, while the lowest was given for service system in terms of inadequate numbers of health personnel. According to the patients' opinions, the first priorities among service problems related to waiting time and inadequate numbers of personnel, both of which need to be urgently improved. (See detailed statistics in Tables 1 to 9 in the Appendix).

Recommendations

The researcher has made recommendations for further utilization of the research results so as to facilitate the implementation of the universal health insurance project in ways that are relevant to the government health insurance policy, and to meet the expectations of the people. Moreover, necessary adjustment and revision of hospital service policies should be taken in order to create positive impression among patients.

1. Service Provision Perspectives

1.1 In some hospitals, the registration room, examination room, and dispensary room for the gold card patients are separated from those of general patients for increased convenience and fast management. However, this might create some negative effects, especially among general patients. They might feel they are being discriminated against or receiving poor or second-class services. It is therefore recommended that the hospital should utilize its population database in classifying patients into different categories instead of providing separate areas for services.

1.2 Information on patient opinions towards the universal health insurance services showed that waiting time ranks first among service problems (Appendix, Table 9). In this case, it is simply suggested that hospitals may provide some entertainment services/facilities such as television or video programs and health magazines, etc. while the patients are waiting for examination or treatment. Other useful activities may include public relations/information/answering questions on the universal health insurance project, the benefits and rights of the gold cards.

1.3 To avoid overcrowding of patients in hospital, mobile clinics should be operated to provide knowledge to the people in the community as follows:

- Providing health knowledge, e.g., seasonal diseases and basic skill in first aid, conducting campaigns to promote healthy behavior and to reduce health risk

behavior. These activities are conducive to the use of hospital services, and help reduce morbidity, while people are enabled to practice self health care.

- The hospitals should provide knowledge and understanding regarding patient rights and treatment benefits under the universal health insurance project. They should also emphasize on when and where to use the services.

1.4 Some hospitals in remote areas have a limited number of doctors or lack doctors, or have inadequate ratio of doctors to patients, and have to combat many diseases in their catchment areas. Hence, they have to spend less time to each patient or sometimes even paying little attention to patients. Actually, the doctors need to pay attention to the patients both physically and mentally since this also reflects service quality.

2. Policy Perspective

2.1 The government aims to create a universal health insurance system and to ensure equal access to health services, especially for the disadvantaged groups. However, it is important to also create awareness among people regarding their duties to take care of their own health. Hence the government should promote, support, and coordinate various health care activities to cover the following aspects:

- *Health promotion.* The government should pay attention to the health of people by creating awareness in promoting their own health, both physically and mentally, actively and continuously, including dietary behavior and environmental health, promotion of physical exercise, rest and relaxation, etc.

- *Disease prevention and control.* The government should increase public relations and information activities to cover every population group regarding knowledge about diseases and how to prevent them. They should focus on an expanded program of immunization among the high risk groups and those in remote areas, in order to prevent and eliminate various communicable diseases.

- *Rehabilitation.* People should have equal access to health services whenever needed, and with the same quality and standard. The government should emphasize self health care after recovery from the disease to prevent repeated illness.

In the long term, people will pay more attention to their health. Once they become ill, their knowledge and basic skills will help them in taking care of themselves, or they may consult the doctor about the side effects of the treatment. This will help strengthen people's participation in health care. More importantly, the government can save health expenses while spend more in developing and sustaining other necessary socio-economic activities.

2.2 The government should promote and include public representatives in hospital administrative committees so that:

- The people can be involved in hospital management that should be transparent and accountable, with efficient spending.
- Public representatives are able to conduct public relations activities on the rights and benefits under the 30 Baht treatment coverage project, and to reflect problems regarding an error on issuing repeated gold health cards. While the hospital can solve this problem.

2.3 The government should establish a management information system for the universal health insurance project including a population data base classifying patients into insurance and non-insurance categories, update information and prevent error and repeated card issuance It should also include a service system that allows people to reflect opinions. This information would help in monitoring the project.

2.4 The government should provide choices of hospitals in order to create service competition. Measurement and methods are defined to facilitate self- sufficiency among small hospitals. University hospitals should not be included in the 30 Baht coverage treatment project but should serve as referral points from the hospitals under the project.

2.5 An inspection unit should be established to maintain standard treatment services. Active and passive inspection criteria, including information disclosure, would build competitiveness among hospitals under the project.

Final Remarks on the Study of the 30 Baht Treatment Coverage Project

It cannot be denied that the policy of universal health insurance, or the 30 baht universal health scheme, is popular among the population, especially those who lack opportunities and are not covered by health insurance or any social security scheme. They expect to obtain hospital treatment without worrying about payment. This health insurance policy is excellent since it contributes towards solving the health problems of the people. However, there are major issues arising from the program, for instances, many questions are being raised about the quality of services provided under the scheme. Good health cannot be purchased from general convenience stores but it is an integrated concept that includes health promotion, health prevention, treatment, and rehabilitation. It links social dimensions with community, culture and individual beliefs including the health utilization behavior of the people within communities.

The government should promote relevant research to monitor and evaluate the implementation of the 30 Baht treatment project and investigate if people have better health conditions and receive equal and consistent access to health services, or if such services are appropriate. The government should be well aware of these issues so as to reflect the real success of the project, not because of its popularity among people or because it serves a vast number of people, but in order to determine to what extent the program can prevent illness, while promoting better health.

References

Kerdvichai,N. 1998. *Constitution of the Kingdom of Thailand B.E.2540*. Bangkok: Pitakaksorn Printing. (In Thai).

Komol Keamthong Foundation. 1999. *Puay Ungpakorn : From the womb to The Cremetory*. (3rd edition). Bangkok : Komol Keamthong Foundation Press. (In Thai).

Nonthaburi Provincial Health Office. 2001. Conclusion of the Implementing Result of Universal Health Insurance Project of Nonthaburi province. A Copied Paper. (In Thai).

Nonthaburi Provincial Health Office . Available: http://nonthaburi.moph.go.th/ NumberCard HospProvinceServle. (In Thai).

Oberst, M.T.1984. Patient's Perception of Care: Measurement of Quality and Satisfaction. *Cancer*. 53 (May, Suppl.), 2366-2375.

Office of Health Service System Reform. 2001. *A 30 Baht Treatment Coverage to Universal Health Insurance*. Bangkok : Commodities and Inventories Transportation Organization. (In Thai).

Office of Health Service System Reform. 2001. *Guidelines for Establishing Universal Health Insurance during the Transition Period*. Bangkok : Commodities and Inventories Transportation Organization. (In Thai).

Office of Health Service System Reform. 2001. *Universal Health Insurance : What People Gain, 30 Baht Treatment Coverage : The Answer is here*. Bangkok: Commodities and Inventories Transportation Organization. (In Thai).

Royal Thai Government Gazette Publication, General Announcement 118 Special Section d. 2 March 2001. A Copied Paper. (In Thai).

Royal Thai Government Gazette Publication, General Announcement 118 Special Section 31 d. 2 April 2001. A Copied Paper. (In Thai).

Royal Thai Government Gazette Publication, General Announcement 118 Special Section 57 d. 18 June 2001. a copied document. (In Thai).

Appendix

Table 1: Percentage distribution of individual characteristics of the sample

Individual characteristics	Number (persons)	Percentage
Sex		
Male	112	28.0
Female	288	72.0
Total	**400**	**100.0**
Age		
< 20 yrs	50	12.5
20-29 yrs	78	19.5
30-39 yrs	93	23.3
40-49 yrs	78	19.5
50-59 yrs	62	15.4
> 60 yrs	39	9.8
Total	**400**	**100.0**
mean = 38.03 yrs maximum = 82 yrs minimum = 15 yrs		
Education		
Primary level or lower	161	40.3
Secondary level	178	44.5
Bachelor degree	57	14.2
Higher than Bachelor degree	4	1.0
Total	**400**	**100.0**
Income		
< 3,000 Baht/month	189	47.3
3,001-6,000 Baht/month	99	24.6
6,001-9,000 Baht/month	50	12.5
9,001-12,000 Baht/month	22	5.5
12,001-15,000 Baht/month	19	4.8
> 15,001 Baht/month	21	5.3
Total	**400**	**100.0**
mean = 4,845.26 Baht per month		
Experience in using hospital service		
Never	128	32.0
Ever	272	68.0
Total	**400**	**100.0**

Table 2: Comparison between individual characteristics and evaluation of service quality

Individual characteristics	Level of quality evaluation			Statistic value	
	Number (person)	Mean	Standard deviation	T-Test	F-Test
Sex				**2.409***	
Male	112	92.36	16.64		
Female	288	87.75	17.36		
Age					**2.473***
< 20 yrs	50	90.54	16.77		
20-29 yrs	78	87.69	18.22		
30-39 yrs	93	85.10	17.00		
40-49 yrs	78	88.59	18.58		
50-59 yrs	62	92.79	14.33		
> 60 yrs	39	94.18	16.42		
Education					**5.711****
Primary level or lower	161	92.34	15.66		
Secondary level	178	88.27	16.65		
Bachelor degree	57	83.40	21.07		
Higher than bachelor Degree	4	71.25	16.48		
Income					**1.284**
< 3,000 Baht/month	189	90.01	16.94		
3,001 - 6,000 Baht/month	99	90.02	17.22		
6,001 - 9,000 Baht/month	50	83.72	14.84		
9,001 -12,000 Baht/month	22	88.36	18.50		
12,001 -15,000 Baht/month	19	91.47	17.93		
> 15,001 Baht/month	21	86.90	22.60		
Experience in using hospital service				**0.990**	
Never	128	87.80	18.48		
Ever	272	89.63	16.66		

* *significant at 0.05 level* ** *significant at 0.01 level*

Table 3: Comparison between expected service / actual received service and the services under the universal coverage health insurance policy

Variables	Number (person)	Mean	S.D.	t	P
Expected services	400	42.99	8.95	7.232**	0.000
Actual received services	400	39.68	8.24		

** *significant at 0.01 level*

Table 4: Relationship between expected service/actual received services and assessment of service quality

Variables	Evaluation of service quality	
	R	P- value
Expected services	0.362**	0.000
Actual received services	0.819**	0.000

** *significance level at 0.01*

Table 5: Relationship between differences of expected services and actual received services with assessment of service quality

Variables	Assessment of service quality	
	R	P- value
Difference between expected services and actual received services	-0.383**	0.000

** *significance level at 0.01*

Table 6: Percentage distribution of service quality

Level of assessment of service quality	Number (person)	Percentage
Low level (1 – 71)	68	17.0
Moderate level (72 – 106)	253	63.3
High level (107 – 120)	79	19.8
Total	**400**	**100.0**

Table 7: Means and standard deviations of service system factors and service behavior factors

Variables	Expectation		Actual received service		Assessment of service quality	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
1. Service system factors	**2.35**	**0.52**	**2.15**	**0.48**	**3.56**	**0.76**
- clear communication system	2.34	0.62	2.19	0.60	3.60	0.86
- adequate number of personnel	2.32	0.67	2.10	0.65	3.48	0.93
- medical equipment	2.42	0.64	2.25	0.63	3.69	0.93
- location	2.38	0.67	2.10	0.68	3.51	0.97
- waiting time	2.32	0.67	2.13	0.64	3.50	0.92
2. Factors on service behavior	**2.43**	**0.55**	**2.27**	**0.52**	**3.71**	**0.80**
- provision of information	2.41	0.64	2.24	0.65	3.66	0.90
- positioning	2.46	0.65	2.29	0.65	3.75	0.97
- equality	2.48	0.63	2.35	0.61	3.79	0.93
- ability to provide treatment	2.38	0.68	2.19	0.65	3.64	0.94

Table 8: Percentage Distribution of reported problems of receiving services

Problems of receiving services	Number	Percentage
No problem	256	64.0
Have Problem	144	36.0
Total	**400**	**100.0**

Table 9: Percentage Distribution of type of problem experienced in receiving services

Main problem experienced	Number	Percent
Waiting time	44	30.6
Insufficient staff	29	20.1
Quality of services of staff	25	17.4
Quality of medicine	24	16.7
Treatment Efficiency	10	6.9
Convenience provided by the hospital	6	4.2
Additional costs (travel + time off from work + other costs)	6	4.2
Total	**144**	**100.0**