CHAPTER III

RESEARCH METHODS

STUDY DESINGN

This research was cross-sectional descriptive study, to study about the utilization of health care services under 30 Baht Scheme in Phatthlung province. To self- administered a questionnaire to target population and by conducting in-depth interview providers and consumers.

METHOD

Population and Sample

The registered Universal Health Coverage in 10 districts and 1 sub-district , Phatthalung Province, utilized health care services between 1 October 2002 to 31 December 2002.

Random Sampling plan simple random sampling

Since two weeks data collection will be based in Phatthalung Province ,stratified random sampling proportion of registered Universal health Coverage 30-Baht health care Scheme, at 10 districts and 1 small -district in Phatthalung Province utilized between 1 October – 31 December 2002 in Bureau hospitals (1 General Hospital and 9 Districts Hospitals.) of Phatthalung province . The data of registered Universal Coverage 30- Baht Scheme (Co-payment) at Phatthalung Province total 170,755 cases and they were utilization 36,327 cases in 3 months (between 1 October – 31 December 2002). As shown in table 1.

Table 1 :   Population registered Under The 30-Baht Scheme (Co-payment) Phatthalung Province, 2003.

No	Districts	UCS*	WEL**
1	Muang	44,635	49,151
2	Khongdra	7,999	9,649
3	Khowchaison	15,754	16,030
4	Tamod	8,143	12,815
5	Khonkanoon	30,061	33,530
6	Pakpayun	17,218	19,861
7	Sribanpot	6,498	6,821
8	Pabon	16,717	16,375
9	Bangkaew	7,674	9,981
10	Papayom	11,270	13,931
11	Srinakarin	4,786	5,462
	Total	170,755	193,606

Source: Phatthalung Health Insurance Sector, 2002.

Remark: * UCS   = Universal Coverage Scheme (Co-payment)

　　　　** WEL   = Welfare (Non payment)

Sample size calculations

$$n = \frac{Z^2 pq}{d^2}$$ (Lemeshow, 1990)

n = desired sample size

d = relative error of estimation   = 0.05

Z = 1.96 at 95 % CI

p = proportions of patients satisfied with health care   = 71 %   = 0.71

q = patients dissatisfied (1-p)   = 0.29

Thus, n = $\dfrac{1.96^2 \times 0.71 \times 0.29}{0.05^2}$ = 326 (Sample)

But, researcher use 415 sample enrolled in this study .As shown table 2.

Table 2:   Sampling for Data Collection of 10 hospitals; in Phatthalung Province (15 -28 February 2003)

No	Hospital	UCS : utilization Cases	Sample
1	Phatthalung	11,364	120
2	Khongdra	3,972	45
3	Khowchaison	3,875	40
4	Tamod	2,308	25
5	Khonkanoon	3,700	40
6	Pakpayoon	2,800	35
7	Sribanpot	2,214	30
8	Pabon	2,078	30
9	Bangkaew	993	20
10	Papayom	3,063	30
Total 415			

MEASUREMENT METHODS

In quantitative Data

Build the questionnaire for data collection from the target population with 5 parts.

Part 1 Personal characteristic

- Age

- Gender

- Education

- Income

- Occupation

- Religion

Measurement: closed-ended questions

Part 2 Perception

- Perception of symptoms, the level of illness

- Experience of the 30 Baht Scheme (knowledge of list of important benefit package). I used true-false item; 10 heading. There was criterion reference test. Total score were 10 scores; 3 interval of score such as high (8-10), middle (5-7) and low (<4).

Measurement: closed-end questions

Part 3 Utilization and accessibility of the sample

Utilization

- Main hospital.

- Outside main hospital.

Measurement: closed-end questions

Access to health care

- of costs of traveling to the health care center

- Distance

- Convenience

- The time in travel

Measurement: closed-ended questions.

Part 4 Satisfaction (Patients' feeling about the service)

Group 1 Hospitality

Group 2 Preparation of facilities

Group 3 Personality /Manner/Courtesy

Group 4 Assurance of service's quality

Measurement: closed-ended questions.

The researcher used summated ratings of R.A. Likert by 5 level such as;

Value to answer	Positive statement	Negative statement
very good	5	1
good	4	2
fair	3	3
bad	2	4
very bad	1	5

Part 5 Recommendation of registry – open- ended questions

Opened-end questions for describe and discussion.

In Qualitative Data

To conduct in-depth interviews of the sample group.

DATA COLLECTION

Prepare for survey:

1. To ask permission from head of health information sector of Phattalung Provincial health office for data of number of households registered under the 30 Baht Scheme (co-payment) who live in the province.

2. Training 15 interviewers to explain
    2.1 The objectives of this study.
    2.2 The contents of the questionnaire and testing the interviewing session until they demonstrated valid understanding.
    2.3 Characteristics of population.
    2.4 The characteristics of the co-researcher conduct to interviews sessions in an appreciate non- biased and pleasant manner.

3. To ask permission from the chief of Phattalung Provincial health office for in-depth interview data.

In Data Preparation:

1. Selected the number of households by list interval and bring it to the co-researchers to use for interviewing by the questionnaire.

2. To conduct in-depth interviews on the sample group by the researcher.

3. To recheck the data for completeness before analyze.

DATA ANALYSIS

After finish data collections:

1. Check for validity of content and completeness of data (preliminary editing)

2. Coding and key code the data. (coding & code instruction)

3. Entering data

4. To analyze by SPSS for window program (Statistical Package for the Social Sciences)

Descriptive Statistics: To describe the personal characteristic; mean, percentages, median and standard deviation.

Analytic statistic: Pearson Correlation coefficient method to use for finding correlation between Independence and dependence.

Synthesis: In qualitative analysis of the data and conclusion the results.

Table 3:   Statistic for analysis

Type of statistic	Variable	Type of data	Method of analysis
Descriptive	Personal characteristics	Qualitative	Frequency, percentage
	Age, income, cost traveling, Knowledge, time spent traveling, additional payments for treatment	Quantitative	Frequency ,percentage, mean, standard deviation
	Opinion Recommendation	Qualitative	Synthesis and discussion
Inferential	Satisfaction cross of variable , utilization group cross of variable, factors	Quantitative	Chi-squares Pearson Correlation coefficient

ACTIVITY PLAN

Table 4: **Activity Implementation Plan**

Activity plan with time table																												
Month/Week ⟍ Activity	October 2002				November 2002				December 2002				January 2003				February 2003				March 2003				April 2003			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
1. Study problem at the work place	◄			►																								
2. Select research tittle					◄		►																					
3. Research design/literature review									◄		►																	
4. Proposal Examination													◄		►													
5. Training co-researchers																◄►												
6. Data collection																	◄►											
7. Data analysis																		◄		►								
8. Recheck/conclusions																					◄►							
9. Thesis Report writing																						◄►						
10. Thesis Examination																							◄►					
11. Thesis Revision																								◄►				
12. Completion of Thesis																									◄			►

THE BUDGET FOR THIS STUDY

Table 5:   Research Budget requirement

No.	Items/Activities	Number/Amount	Unit Cost (Baht)	Total Budget (Baht)
1	Data collection	-316 questionnaires	10	3,160
		-* 99 questionnaires	-	-
2	Data collector training			
	- Refreshment	15 persons	30	450
	- Local transportation	15 persons	100	1,500
3	Stationery			
	- Paper	2 bundles (A4)	100	200
	- Notepad	15	40	600
	- Pen	15	40	600
4	Operational cost			
	- Photocopy	-	5000	5,000
	- Binding	-	500	500
5	Allowance			
	- interviewer	15	500	4,500
	Grand Total			**16,510**

Remark: * 99 questionnaires were not to pay because it's been interviewers testing
collection the data.

INSTRUMENTS

This study used a self - administered the questionnaire; building by the researcher and pass content validity, checking up by 3 specialists before testing on 30 individuals in Nakhon Si Tham-marat province. In testing the questionnaire reliability 0.78 of part 2: list of important core package benefit and 0.95 of part 4 Satisfaction before using it.

The questionnaire has 5 parts; personal characteristics, perception in level of illness and list important core benefit package (30 Baht Scheme), utilization behavior, satisfaction and the open-ended question concerning the recommendation from the utilizers.

For qualitative analysis in-depth interviews were conducted to analyze the utilization rate, satisfaction, and factors related to utilization and satisfaction. Scope of question covered; question for in-depth interview health personnel about their opinion of 30 Bath Policy, health management under 30 Bath Policy, questions for in- depth interview of 3 patients; assurance service quality, equity, coverage, accessibility and selecting main hospital need.