CHAPTER IV

RESULTS

1. Background

The field survey carried out at the OPD, Chulalongkorn hospital was completed at the end of February 2003 for a period of one month. The total number of subjects was only 213 out of estimated 223. The study subjects were all 30-baht patients that are registered at Chulalongkorn hospital and those who are registered elsewhere but come to receive services at this hospital. The actual survey was carried on the 13th floor clinic, which has the 30-baht counter (it was assigned by the hospital administration).

The result of the research contains the demographic characteristics of sample population, descriptive explanation of utilization status of the gold card, attitude towards the 30-baht scheme and satisfaction towards the hospital services under the new financing mechanism.

2. Demographic features

2.1. Age and Sex

Age ranged from 16 minimum to 79 maximum years and the mean age is 46 years. The standard deviation value is 16.32 years. More than 72% of the subjects are female. Therefore, the male may be represented less in the sample. There seemed to be uniformity in the distribution of sex among the various age groups. When age is stratified into groups, 26.76% of people are found above the age of 60 years, signifying a large number of old people in this group. Subjects in the 15-30 age group are relatively smaller number (refer table 5).

Table 5 Age-Sex distribution of the surveyed population

Number	Minimum	Maximum	Mean	Std dev.
213	16	79	46.42	16.32
	Gender			
Age Group	**Male**	**Female**	**Total**	**%**
15-30	11	37	48	22.54
31-45	13	44	57	26.76
46-60	16	35	51	23.94
>60	18	39	57	26.76
Total	58	155	213	100

2.2. Education

The study result showed that from 213 respondents, only 16 of them are uneducated and information for two found missing. Whoever had attended or completed anything between primary to tertiary levels is considered literate. But interestingly more than half (51.2%) of respondents are only primary graduates. Only 21% and 10% comprised of high school and university graduates respectively. This evidently exhibits that most of the 30-baht patients are from the lower level of education.

Table 6 Education level

Education level	Frequency	Percentage
Non	16	7.58
Primary school	108	51.18
High school	44	20.85
Vocational	18	8.53
University	22	10.43
Others	3	1.42
Total	213	100

2.3. Occupations

As it is evident from the table 5 that more respondents are unemployed (32%), while others who have no employment are housewives and dependents (13%). Commercial workers and traders comprise a chunk of respondents, together adding up to 38% of the total respondents. Government servants, students, farmers and self-employed are fairly

represented. Farmers are more in the 46-60 age group with slight variations in other age groups.

Table 7 Occupation

Occupation	Frequency	Percentage
Government	8	3.8
Commercial	47	22.1
Transportation	1	0.5
Farmers	10	4.7
Traders	34	16.0
Student	8	3.8
Self-employed	7	3.3
Unemployed	70	32.9
Others	28	13.1

When the occupation is stratified on age-groups, the unemployment is found high among the respondents above the age of 46 years. And most of the others-group are housewives and retirees. Farmers and traders are fairly represented in all the groups except in the 15-30 age group. However, students and government servants are represented mostly in the younger and middle-age groups.

Figure 8 Distribution of occupation among the Age groups
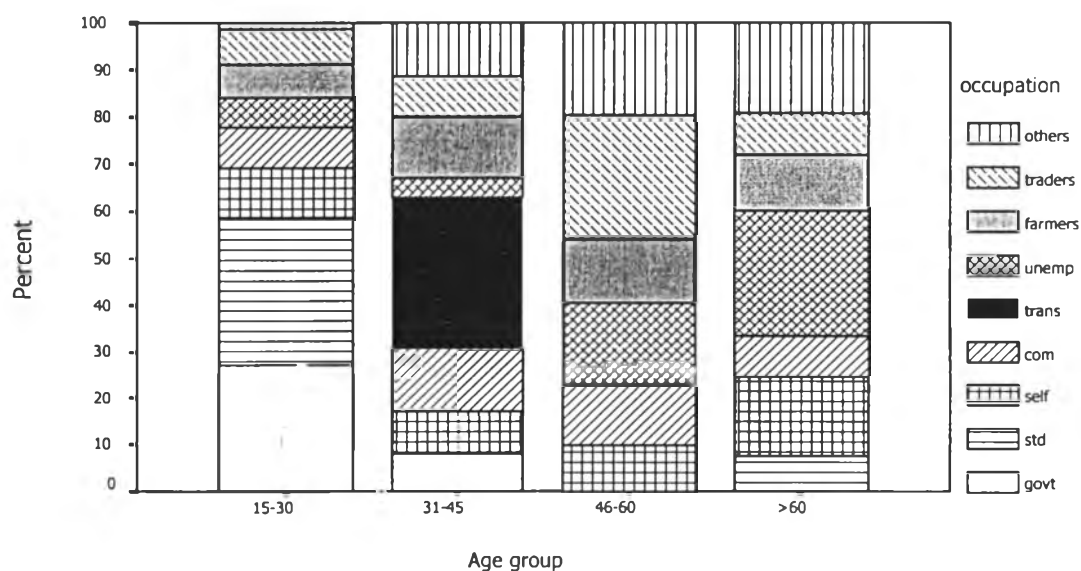
Through a cross-table, one could find that 91% of those unemployed have attended some form of education at schools/university. The lowest literacy rate is found among the self-employed group.

Table 8 Level of education in a registered group (301)

Occupation	Non	Pry. school	High school	Vocational	University	Others	Total	%
Government			1		2		3	4
Student			1	2	2		5	6.67
Self-employed	1	2	1				4	5.33
Commercial		8	3	1	1	1	14	18.67
Transportation		1					1	1.33
Unemployed	2	7	8	1	3	2	23	30.67
Traders		4	4	2	1		11	14.67
Others		7	5	1	1		14	18.67
Total	3	29	23	7	10	3	75	100

Table 9 level of education in a self-referred group

Occupation	Non	Pry.school	High school	Vocational	University	Others	Total	%
Government			1	1	3		5	3.68
Student			1	1	1		3	2.21
Self-employed		1		1	1		3	2.21
Commercial	2	21	2	2	5		32	23.53
Transportation							0	0.00
Unemployed	8	25	10	2	1		46	33.82
Farmers		10					10	7.35
Traders	2	11	5	5			23	16.91
Others	1	11	1		1		14	10.29
Total	13	79	20	12	12	0	136	100

From the above two tables 6 and 7, one could conclude that most of the respondents are without employment. In the registered (301) group, more than 30% are unemployed with mostly primary education (36%). There are more people involved in commercial and trading (37%), while only one person in transportation and 3 in Government service. At least 13% of respondents are with university education. But 4% are illiterate.

Similarly, even in the self-referred (302) group, the unemployed accounts for 33%, which is more than any other occupations. The commercial and trading groups take the leading occupations with 24% and 17% respectively. Only 2% is a student group. More than 58% are primary school graduates, 14% high school and 8.8% university pass-outs. Almost 10% are not at all educated.

2.4. Income

The study result indicated that due to high unemployment rate among respondents, 40.8% of them did not earn any income. Around 57% of respondents in the earning group lie within the income range of 2001-8000 Baht. There are very few respondents in the higher income class. Of the total of 126 earning people, only 2.38% are getting income above 17001 Baht.

Table 10 Income distribution

Income (Baht)	Frequency	Percent
Non	87	40.8
< 2000	20	9.4
2001 - 5000	38	17.8
5001 - 8000	35	16.4
8001 - 11,000	20	9.4
11,001 - 14,000	6	2.8
14,001-17,000	4	1.9
>17001	3	1.4
Total	213	100

When the respondents are segregated into registered (301) and self-referred (302) groups, there is a large number of respondents not earning in both the groups. The registered

group has 35.5% unemployed, and self-referred group has 44%. In reality, out of 76 respondents in registered group only 47 earn income and 77 out of 137 in the self-referred group. There is no marked difference in the income level of respondents in the two groups. Only three patients earned income above 17,001Baht.

Table 11 Income distribution among two groups

Income	301 Group	%	302 Group	%
Non	27	35.53	60	43.80
< 2000	8	10.53	12	8.76
2001 - 5000	13	17.11	25	18.25
5001 - 8000	11	14.47	24	17.52
8001 - 11,000	11	14.47	9	6.57
11,001 - 14,000	3	3.95	3	2.19
14,001-17,000	2	2.63	2	1.46
>17001	1	1.32	2	1.46
Total	76	100.00	137	100.00

3. Departments Visited by Patients

The medicine department is the most frequented sites by the respondents for receiving services at the hospital. Around 74% of respondents came for the medicine purpose, whereas other services in ortho, OB-GYN, ENT, dental areas etc are far less visited. However, lot of respondents did not answer this particular question since most of them went to the general doctors for consultation before going for specific departments. This could be a probable reason for the missing data.

Others (4.7%) consisted of pediatric clinic, dermatology, respiratory clinic and allergy clinic. Next to medical clinic, ortho accounted for 6% of the total hospital visits.

Figure 9 Departments visited by patients

Deartments
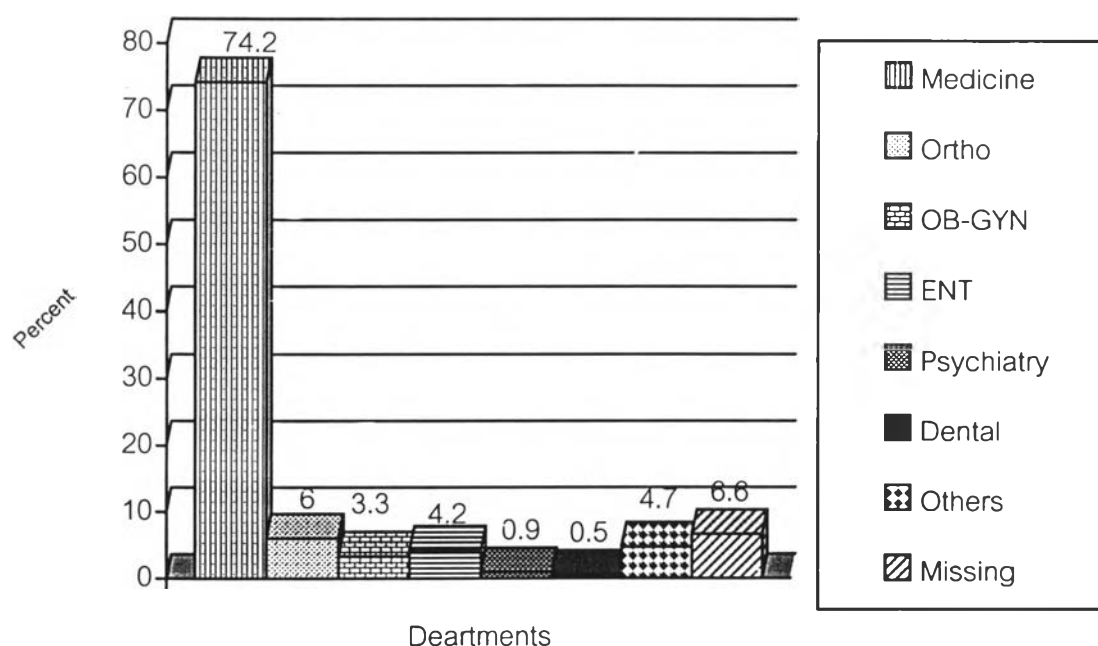
4. Registration at Chulalongkorn Hospital

Originally, Chulalongkorn hospital has 22,000 members registered under the 30-baht scheme. In the study sample, out of the total of 213 thirty baht respondents, only 76 of them formed the Chulalongkorn-registered patients.

Table 12 Registration at Chulalongkorn Hospital

Registered at Chula Hospital	Sex		Total
	Male	Female	
Yes	26	50	76
No	32	105	137
Total	58	155	213

The 30-baht respondents who registered elsewhere (302 group) formed 65% of the total sample. Thus, it could be possible that the 30-baht patients registered at Chulalongkorn are underrepresented. The female representation is twofold the males' in the registered

group, while in the non-registered group female's number is more than three times that of males'. In general, proportion of the female population is more in both the groups.

5. Why choose Chulalongkorn Hospital?

Table 13 Reasons for using Chulalongkorn Hospital

Reasons	Frequency
Trust in services /others	49
Skilled Doctor	44
Quality Care	30
Better Treatment	29
Standard Equipment	17

The question regarding the reasons of coming to Chulalongkorn hospital instead of going to their own hospitals of registration was asked to the self-referred group only. This was aimed to knowing what prompted them to refer to this hospital in spite of their having had to pay (out-of-pocket) for the services.

Five options were given – skilled doctors, standard equipment, quality care, better treatment, and others. 44 of respondents said it is because of skilled doctors, 30 due to quality care, 29 due to better treatment, 17 due to standard treatment and 49 others. In others, the main reasons were due to trust in the doctors and because of a notion that teaching hospital has a good service.

6. Why Not Choose their Own Hospital of Registration?

Generally, patients are supposed to be treated at hospitals that they are registered in. However, due to their own reasons and justifications, they self refer to other health facilities. The same is the case with the patients coming to Chulalongkorn hospital.

Table 14 Reasons for not using their registered hospitals

Reasons	Frequency
1 Low Quality Care/medicine	27
2 Long distance/inconvenience	42
3 Unsatisfied services	9
4 Working/living in BKK	10
5 Continuation of treatment	5
6 No specialization	4
7 Poor equipment	9
8 Chronic patients	1
9 Personal Choice	22
10 Studying in BKK	1
11 Referral	1
12 High cost	2
13 No trust in services	4

It is noticeable that many of the respondents stay in Bangkok, though they are registered in their provinces or at other hospitals. Because the 30% of respondents said that it was due to the inconvenience caused by long distance from the place of registered and the their present place of residence. Around 20% responded it was because of low quality of care. But 16% said it was their personal choice without any specifications. With minor variations, others had reasons like unsatisfied with services, working/studying in Bangkok, poorly equipped, no specialization, high cost and no trust in the care services. Few were treated before the 30-baht scheme and still continuing the treatment at Chulalongkorn hospital.

7. Willingness to register at Chulalongkorn Hospital

The question, posed for those 137 respondents registered at other hospitals, regarding the willingness to register at the Chulalongkorn hospital if given a chance, around 85% showed interest to get registered at this hospital. This may be the reason why they choose to come to this hospital even to the extend of changing their hospital. Only 15%, though less yet significant number, said they prefer sticking to their hospitals of registration.
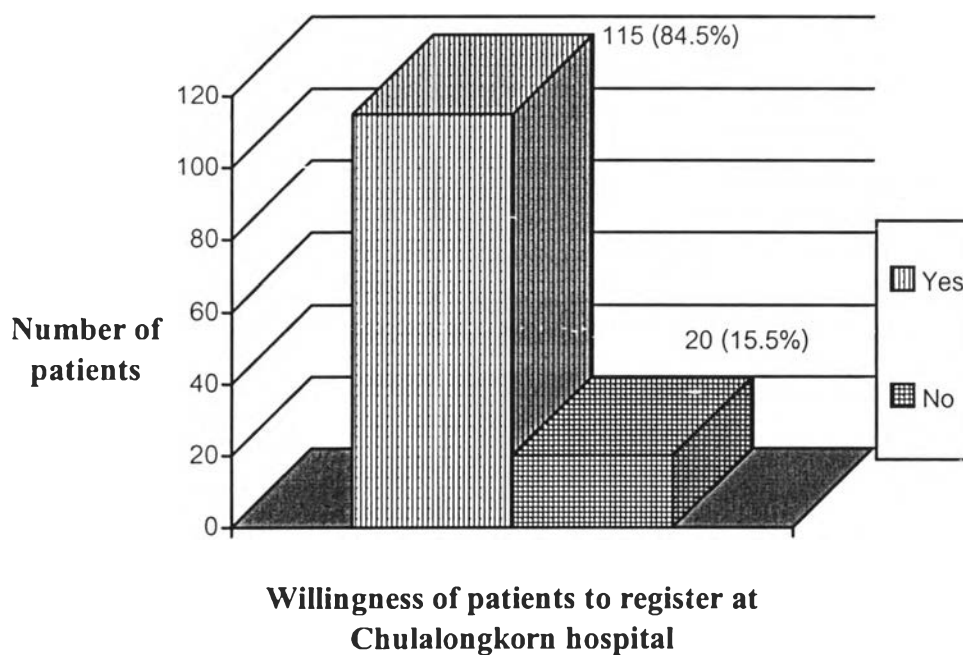
Figure 10 Willingness to register at Chulalongkorn

Willingness of patients to register at Chulalongkorn hospital

Table 15 Sources of Information on the 30-Baht Scheme

Source of information	Frequency
Government	97
Employers	1
Friends/peers	20
News papers/Radio/TV	127
Hospitals	21
Others	13

8. Sources of Information

Regarding the source of information about the 30-baht schemc, 45.5% of respondents knew through news paper/radio/TV and 35% from the Government campaigns. Other minor sources are hospitals, friends, parents, relatives, and employers.

9. When did you receive the Gold Card?

Table 16 Reception of Gold Card

Month/Year	Number	%
Feb-Dec 2001	50	24.15
Jan-Dec 2002	150	72.46
Jan 2003	7	3.38
Total	207	100

When asked about the time of reception of the gold card, 72.4% received in January-December 2002, 23.5% in February-December 2001 and only 3.3% in January 2003. But six respondents did not answer this question.

10. When did you Start Using it?

Table 17 Start using Gold Card

Time	Number	%
Never	52	26
Since 2001	19	9.5
In 2002	105	52.5
In 2003	24	12
Total	200	100

Half the respondents (52%) started using the gold card during 2002, while 26% never used. The rest used only in January 2003. Those respondents who said never used belonged to the self-referred group. Out of 137 people in the self-referred group, 52 respondents never used so far. Thirteen people did not comment.

11. How many times did you use the Gold Card since receiving it?

When asked how many times the respondents used the gold card, 30.5% used for 1-2 times, 19% used for 3-4 times and 15% used more than 6 times. In the registered group, more than 30% used the card six times and more, whereas 43% never used it in the self-referred group.

Table 18 How many times used Gold Card

	Registered Gr.		Self-referred Gr.	
Variable	Freq.	%	Freq.	%
Never	0	0	56	43
1-2 times	26	35	39	30
3-4 times	16	21	24	18
5-6 times	9	12	3	2
6 + times	24	32	8	6
Total	75	100	130	100

12. Chulalongkorn Hospital Services before and after the 30-Baht Scheme?

About 78% of respondents came to this hospital even before the introduction of the 30-baht scheme. And more than 52% of them said that there is no change in services

Table 19 Rating for Chulalongkorn Hospital

Rating	Frequency	%
Past was better	29	17.37
30 baht is better	51	30.54
No change	87	52.10
Total	210	100

before and after the introduction of the 30-baht scheme, while 30.5% found the 30-baht services are better than before. Around 17% described the service before the scheme was better.

13. Attitude

In order to facilitate measuring patient's satisfaction with hospital services and utilization of the Gold Card, it was felt imperative first to know the attitude of people towards the 30-Baht Scheme. All the respondents were the 30-Baht patients who received medical care under this scheme at the Chulalongkorn Hospital.

In total, there were 10 attitude statements, out of which five were positive and other five negative. The LIKERT scale was used for scoring the points/values and four attitude scales were applied viz. Strongly Agree = 4, Agree = 3, Disagree = 2 and Strongly Disagree = 1. The reverse numbers were assigned for the negative statements. - Strongly Disagree = 4, Disagree = 3, Agree = 2, Strongly Agree = 1. The scores were calculated to measure the individual and overall attitude towards the 30-Baht Scheme among the 213 respondents.

For the individual attitude, all the scores were summed up and divided by the number of total respondents. The denominator is then multiplied by total number of attitude statements to get the overall attitude of the sample population.

$$\text{Attitude} = \frac{\text{Sum of scores}}{\text{N x Number of statements}}$$

N = No. of subjects

The attitude is rated as follows: if the score value is >2, then attitude is considered positive and if <2, the attitude is negative. If the score is more towards or almost equal to 1 or 4, then the attitude is said to be strongly negative or positive. 2.5 is moderate.

Table 20 Frequency distribution of total attitude

Statements	Strongly agree (score 4)		Agree (score 3)		Disagree (score2)		Strongly disagree (score 1)		Mean	SD
	Freq	%	Freq	%	Freq	%	Freq	%		
Feeling privileged	51	24.17	125	59.24	32	15.17	3	1.42	3.06	.67
Accessing services	11	5.24	100	47.62	71	33.81	28	13.33	2.45	.79
Quality care services	22	10.58	122	58.65	58	27.88	6	2.88	2.77	.67
Basic health care	15	7.28	105	50.97	79	38.35	7	3.40	2.62	.67

Not good treatment	12	5.80	101	48.79	74	35.75	20	9.66	2.51	.75
All services available	21	10.29	117	57.35	60	29.41	6	2.94	2.75	.67
Better other schemes	5	2.54	'96	48.73	69	35.03	27	13.71	2.40	.75
Not accepted by some hospitals	9	4.29	74	35.24	102	48.57	25	11.90	2.32	.74
30 Baht should not be continued	33	15.87	143	68.75	25	12.02	7	3.37	2.97	.64
Recommend to use the Gold Card	45	21.95	141	68.78	16	7.80	3	1.46	3.11	.59
Total									3.69	.69

Table 21 Attitude of the registered group (%) towards the 30-baht scheme

	Percentage of registered patients									
Scale	a1	a2	a3	a4	a5	a6	a7	a8	a9	a10
Strongly disagree	0.00	6.58	1.35	1.37	8.22	0.00	3.08	13.16	20.27	0.00
Disagree	0.00	56.58	5.41	30.14	60.27	14.08	63.08	57.89	67.57	6.85
Agree	57.89	23.68	75.68	56.16	24.66	73.24	21.54	27.63	8.11	68.49
Strongly agree	42.11	13.16	17.57	12.33	6.85	12.68	12.31	1.32	4.05	24.66

There were 76 respondents in this group in total. All of the respondents felt privileged for having used the gold card. Above 60% did not agree with the statement of finding difficulty to access medical services with the gold card. The gold card can be used for getting quality care was agreed by more than 90%. Not many agreed with having access more than just basic services since 31.5% of respondents seemed to be disagreeing with this point. Doctors do not provide good treatment was not agreed by 68%, while 31% said disagree. All the services available for the 30-baht patients was found to be agreed by 75% (including 12% strongly agree). Respondents thinking other schemes receiving better services than 30-baht scheme are 33%, while 67% think not so. Almost 70% did not believe that the 30-baht patients are not accepted by some hospitals. There seemed to

be less agreement on the continuity of the 30-baht scheme and intention to recommend others to use the gold card (92%).

Table 22 Attitudes of Registered patients (301)

Variable	Scores	Scores/N	Rating
I feel Priviledged to use gold card	253	3.39	Positive
I found easy to access medical services with gold card	186	2.45	Moderate
Under the 30-baht scheme, I get quality care.	227	2.99	Moderate
I get more than just basic health care services under this scheme	202	2.66	Moderate
Doctors provide good good treatment to the 30-baht scheme	168	2.21	Moderate
All the eligible services are availabe for the 30-baht patients	212	2.79	Moderate
I think that other health insurance schemes and 30-baht scheme get the same care without any discrimination	158	2.08	Moderate
The 30-baht patients are accepted in all hospitals	215	2.83	Moderate
The 30-baht scheme should be continued	146	1.92	Negative
I recommend everyone to use gold card	232	3.05	Positive

The attitude towards feeling the privilege of using gold card is strongly positive with the value 3.39 (>2). Easier getting medical services has 2.45, while availability of quality care under the 30-baht scheme is more positive with 2.99. The attitudes towards good treatment by doctor (2.21) and a notion of having no distinction of service provision

(2.08) between the 30-baht scheme and other schemes are less positive. In sharp contrast to all other attitudes, the respondents have strongly negative attitude towards the continuity of the scheme. However, almost everyone seemed to have strongly positive attitude (3.05) toward recommending others to use the scheme.

Table 23 Attitude of the Self-referred group (%) towards the 30-baht scheme

Scale	Percentage of self-referred patients									
	a1	a2	a3	a4	a5	a6	a7	a8	a9	a10
Strongly disagree	2.22	4.48	3.73	4.51	4.48	4.51	2.27	5.97	13.43	2.27
Disagree	23.70	42.54	40.30	42.86	42.54	37.59	41.67	39.55	69.40	8.33
Agree	60.00	39.55	49.25	48.12	41.79	48.87	41.67	43.28	14.18	68.94
Strongly agree	14.07	13.43	6.72	4.51	11.19	9.02	14.39	11.19	2.99	20.45

The total of 137 respondent took part from the 302 group. These respondents did not feel as much privileged as the 301 group did since only 74% of them agreed with the statement. The respondents who found difficulty in accessing health care under the scheme formed 52.9% of the total. And around 44% of respondents did not agree with the point that they get quality care with the gold card. The statement of doctors not providing good treatment for the gold cardholders is agreed by 52.9%, while they also think that other health schemes get better services than the 30-baht scheme (56%). Further, 54.5% think that the 30-baht patients are not accepted by some hospitals. Yet they seemed to be favoring recommendation to others to use the gold card (89.3%). Very least respondents supported the continuity of the scheme (18%).

Table 24 Attitudes of Self-referred Patients

Variable	Scores	Scores/N	Rating
I feel Priviledged to use gold card	384	2.8	Moderate
I found easy to access medical services with gold card	350	2.55	Moderate
Under the 30-baht scheme, I get quality care.	349	2.55	Moderate
I get more than just basic health care services under this scheme	338	2.47	Moderate
Doctors provide good treatment to the 30-baht scheme	348	2.54	Moderate
All the eligible services are available for the 30-baht patients	349	2.55	Moderate
I think that other health insurance schemes and 30-baht scheme get the same care without any discrimination	354	2.58	Moderate
The 30-baht patients are accepted in all hospitals	348	2.54	Moderate
The 30-baht scheme should be continued	276	2.01	Negative
I recommend everyone to use gold card	406	2.96	Positive

The 137 respondents agreed positively with feeling privileged when using the gold card (2.80). All the statements regarding the quality of care (2.55), basic health care services (2.55), doctors treatment (2.54), 30-baht services as good as others (2.58) and acceptance of 30-baht patients in other hospitals are given less positive opinions by the respondents. They seemed to have low attitude for these components. In addition, they do not seem to support the continuity of the 30-baht scheme (2.01), although the attitude towards the act of recommending others to use the gold card is very much positive.

Table 25 Overall Attitude towards the 30-baht scheme

Variable	Scores	Scores/N	Rating
I feel Privileged to use gold card	642	3.01	Positive
I found easy to access medical services with gold card	536	2.52	Moderate
Under the 30-baht scheme, I get quality care.	576	2.7	Moderate
I get more than just basic health care services under this scheme	540	2.54	Moderate
Doctors provide good treatment to the 30-baht scheme	516	2.42	Moderate
All the eligible services are available for the 30-baht patients	561	2.63	Moderate
I think that other health insurance schemes and 30-baht scheme get the same care without any discrimination	512	2.4	Moderate
The 30-baht patients are accepted in all hospitals	563	2.64	Moderate
The 30-baht scheme should be continued	422	1.96	Negative
I recommend everyone to use gold card	638	3	Positive

The most positive or agreed upon statement by all the 213 respondents is the feeling of privileged when using the gold card (3.01). Other statements like quality care, doctors treatment, availability of services, acceptability of 30-baht patients etc have just average attitude which means not so positive since all the values are around 2.4 to 2.6. Interestingly, the respondents in average do not wish the 30-baht scheme to continue as it got a negative point (1.98%). But almost all still seemed to feel comfortable enough to recommend others to use the gold card as the attitude towards it is very positive (3.0). Nevertheless, the overall attitude is just moderate (2.6).

14. Satisfaction

In all, there were 23 satisfaction statements, measured with the LIKERT scale. Satisfaction questionnaire contains 23 statements regarding hospital care services dealing with elements such as appropriateness of location, quality care, time factor, care by doctors and staff, and coordination among the registration, diagnosis and pharmacy. The scales used were - very satisfied = 4, satisfied = 3, dissatisfied = 2, very dissatisfied = 1. While rating the scores, 2 and below would be considered Low satisfaction, while 3 and above high satisfaction. But scores between 2 and 3 would be considered moderate. The closer the score to 4, the higher the satisfaction level. In all, the lowest satisfaction will be 1 and the highest 4. In the table, the scores above 3.5 is marked with asterisk indicating closer to the highest score. It is not possible to get the absolute positive (complete score), thus 3.5 and above is considered "very satisfied". The two groups - registered (301) and self-referred (302), having 213 respondents participated in this satisfaction survey.

Table 26 Satisfaction of all respondents towards hospital services

	Percentage of all respondents																						
Scale	s11	s12	s13	s14	s15	s16	s17	s18	s19	s20	s21	s22	s23	s24	s25	s26	s27	s28	s29	s30	s31	s32	s33
Very dissatisfied	0.47	3.3	0.5	0	1.9	3.8	1	0.5	0	0	0	0	0	1.4	0	0.5	1	0	0.9	1	0	0.95	0.5
Dissatisfied	10.3	25	10	8	25	33	9.5	1.9	1.9	2.4	3.8	9.5	17	5.6	10	11	19	2.5	4.7	4.3	6.2	7.11	3.3
Satisfied	50.7	61	69	69	64	54	66	53	54	58	50	57	57	74	72	73	65	66	74	71	66	64	61
Very satisfied	38.5	11	20	23	9.9	8.5	23	44	44	40	46	34	26	19	18	16	15	32	21	23	28	28	36

It is very evident that majority of the respondents voted high satisfaction with the appropriateness of the location of Chulalongkorn hospital, since 38.5% said very satisfied and 50.7% satisfied, while only around 10% tend to defy. Regarding the promptness of the services at the OPD, 72% said satisfied and only 28.3% dissatisfied. Equally good number of respondents saying satisfied with the availability of information (89%). Around 92% of respondents are satisfied with the registration staff for their friendliness and readiness to help. At least 27% of them are not satisfied with the health center hours. It is found that respondents seemed not so happy with the waiting time at the health center as at least there are 36.8% saying dissatisfied with it.

Table 27 Registered patient's satisfaction with the hospital services

Variables	Scores	Scores/N	Rating
1. Appropriateness of hospital location	256	3.4	High
2. Promptness of services at OPD	222	2.9	Moderate
3. Information availability at hospital	229	3	High
4. Readiness of staff to help	236	3.1	High
5. Convenience of hospital hours	226	3	High
6. Reasonable waiting time	216	2.8	Moderate
7. Convenience of appointment time	232	3.1	High
8. Courtesy of a doctor	261	3.4	High
9. Easiness to talk to a doctor	253	3.3	High
10. Clearness of doctor's response to inquires	250	3.3	High
11. Confidence in care by a doctor	252	3.3	High
12. Completeness of health information	240	3.2	High
13. Overall understanding of health examination	236	3.1	High
14. Respect, consideration, and dignity from staff	232	3.1	High
15. Opportunities for asking questions to staff	248	3.3	High
16. Willingness of staff to listen	235	3.1	High
17. Understanding of information from pharmacy	250	3.3	High
18. Provision of privacy and confidentiality	271	3.6	High*
19. Attentiveness of nurses	238	3.1	High
20. Confidence in care by nurses	250	3.3	High
21. Coordination between different units	245	3.2	High
22. Fulfillment of expectation with hospital care	231	3	High
23. Overall assessment of hospital services	247	3.3	High
Total 301 patient satisfaction = sum scores/N*23	5556	3.1	High

* More positive (close to very satisfied = 4)

Table 28 Self-referred patient's satisfaction with the hospital services

Variables	Scores	Scores/N	Rating
1. Appropriateness of hospital location	441	3.2	High
2. Promptness of services at OPD	373	2.7	Moderate
3. Information availability regarding hospital services	428	3.1	High
4. Readiness of staff to help	434	3.2	High
5. Convenience of hospital hours	380	2.8	Moderate
6. Reasonable waiting time	360	2.6	Moderate
7. Convenience of appointment time	450	3.3	High
8. Courtesy of a doctor	500	3.6	High*
9. Easiness to talk to a doctor	499	3.6	High*
10. Clearness of doctor's response to inquires	486	3.5	High *
11. Confidence in care by a doctor	488	3.6	High *
12. Completeness of health information	468	3.4	High
13. Overall understanding of health examination	433	3.2	High
14. Respect, consideration and dignity from staff	429	3.1	High
15. Opportunities for asking questions to staff	425	3.1	High
16. Willingness of staff to listen	425	3.1	High
17. Understanding of information from pharmacy	424	3.1	High
18. Provision of privacy and confidentiality	482	3.5	High*
19. Attentiveness of nurses	437	3.2	High
20. Confidence in care by nurses	443	3.2	High
21. Coordination between different units	458	3.3	High
22. Fulfillment of expectation with hospital care	460	3.4	High
23. Overall assessment of hospital services	470	3.4	High
Total 302 patient satisfaction = sum scores/N*23	10,198	3.2	High

* More positive (close to very satisfied = 4)

The courtesy of doctors is satisfied by 89%, easiness to talk to doctor by 97%, clearness of doctors response by 98%, confidence in doctor's care by 98%, completeness of information by 96%, overall understanding of health information by 91%, respect from staff by 93%, opportunities for asking questions to staff by 90%, willingness of staff to listen by 89%, the understanding of information from pharmacy by 80%, privacy and confidentiality by 98%, attentiveness of nurses by 95%, confidence in nurse's care by 94%, coordination between hospital services units by 94%, expectation fulfillment by 92% and finally, overall assessment of hospital services by 97%. It is worthy to take a note here that 36% out of 97% who said satisfied voted for 'very satisfied' with the hospital services.

The appropriateness of the hospital location gets high scores (256) with 3.4 satisfaction. The promptness of services at OPD is moderately satisfied. As indicated in the table 27 that almost all the services has high satisfaction level. Patients are satisfied with friendliness of staff, doctors courtesy and treatment, confidence in care by doctor and nurses, respect and consideration from staff, willingness of staff to listen, coordination, fulfillment of expectation and overall services. However, hospital waiting time is moderately satisfied (2.8). In contrast, respondents are very satisfied with the hospital's provision of confidentiality and privacy (3.6). The overall satisfaction is high among the 301 respondents towards hospital services.

Promptness of services at OPD, reasonable waiting time and hospital hours are moderately satisfied, especially the waiting time has the lowest score (2.6). Everything to do with the doctor's services like courtesy, comfortability, confidence in care is cited as very satisfied with scores ranging between 3.5 and 3.6. Another service like provision of privacy and confidentiality to patients is also considered very satisfied. Meanwhile, the availability of information, readiness of staff to extend help, willingness to listen by staff, understanding of information from pharmacy, fulfillment of expectation and overall assessment of hospital services are commodities found highly satisfactory by all 302 respondents. The net score value is 3.2, denoting that the respondent's overall satisfaction with the hospital services is high.

Table 29 Overall patient satisfaction with the hospital services

Variables	Scores	Scores/N	Rating
1. Appropriateness of hospital location	697	3.3	High
2. Promptness of services at OPD	595	2.8	Moderate
3. Information availability at hospital	657	3.1	High
4. Readiness of staff to help	670	3.1	High
5. Convenience of hospital hours	606	2.8	Moderate
6. Reasonable waiting time	576	2.7	Moderate
7. Convenience of appointment time	682	3.2	High
8. Courtesy of a doctor	761	3.6	High*
9. Easiness to talk to a doctor	752	3.5	High*
10. Clearness of doctor's response to inquires	736	3.5	High *
11. Confidence in care by a doctor	740	3.5	High *
12. Completeness of health information	708	3.3	High
13. Overall understanding of health examination	669	3.1	High
14. Respect, consideration and dignity from staff	661	3.1	High
15. Opportunities for asking questions to staff	673	3.2	High
16. Willingness of staff to listen	660	3.1	High
17. Understanding of information from pharmacy	574	3.2	High
18. Provision of privacy and confidentiality	753	3.5	High*
19. Attentiveness of nurses	675	3.2	High
20. Confidence in care by nurses	693	3.3	High
21. Coordination between different units	703	3.3	High
22. Fulfillment of expectation with hospital care	691	3.2	High
23. Overall assessment of hospital services	717	3.4	High
Total 302 patient satisfaction = sum scores/N*23	15749	3.2	High

* More positive (close to very satisfied = 4)

The total satisfaction picture is pretty much the same as seen in the segregated two groups. Moderately satisfied services are promptness of services at OPD (2.8), hospital hours (2.8), and waiting time (2.7). It is a general observation that respondents are not so satisfied with the waiting time. In parallel with the former finding that doctor services are rated highest by the respondents, while followed hospital location, availability of information, willingness to listen, coordination, attentiveness of staff and very much comfortable with privacy and confidentiality. The overall assessment of the hospital services is also regarded as highly satisfied (3.4). And the total respondents satisfaction is 3.2 which is quite high, close to 3.5.

If the total satisfaction level is converted into percentage:

For registered group   = 3.18/4*100 = 79%

For self-referred group = 3.23/4*100 = 80.87%

For overall   = 3.21/4*100 = 80.37%

It is very confident to say that the satisfaction level is very high among all the 30-baht respondents as well as between the two groups without much variation.

15. Test of Relationship between Satisfaction and Variables of Interest

Table 30 shows the relationship between satisfaction and other variables among the registered group obtained by performing the correlation test. There was a weak positive relation between satisfaction and attitude ($r = .227$; $p = .042$), while relation between satisfaction and frequency of the gold card utilization was negative ($r = -.233$; $p = .066$). However, the frequency of gold card utilization and sex shared positive relation ($r = .290$; $p = .012$). Gold card utilization also had weak positive relation with education ($r = .038$; $p = .746$). Other variables were more towards the negative relation such as satisfaction and education ($r = -.139$; $p = .272$), gold card use and income ($r = -.066$, $p = .574$), attitude and frequency of gold card utilization ($r = -.033$, $p = .805$). But attitude had weak positive relation with age ($r = .157$, $p = .238$).

Table 30 Spearman's rho correlation test between satisfaction and other variables for the Registered Group.

		Satis	Age	Sex	Edu	Occ	Income	Gold card	Att
Satisfaction	Correlation Coefficient	1							
Age	Correlation Coefficient	.009	1						
Sex	Correlation Coefficient	.025	.257*	1					
Education	Correlation Coefficient	-.130	-.383	-.034	1				
Occupation	Correlation Coefficient	-.139	.106	-.287	-.125	1			
Income	Correlation Coefficient	.067	-.172	-.107	.183	-.212	1		
Gold card use	Correlation Coefficient	-.233	.149	.290*	.038	-.037	-.066	1	
Attitude	Correlation Coefficient	.227*	.157	.144	-.050	.070	-.249	-.033	1

*. Correlation is significant at the .05 level (2-tailed)
**. Correlation is significant at the .01 level (2-tailed)

Table 31 shows the correlation test performed on the Self-referred group. Satisfaction had negative relation (r = -.226; p = .014) with gold card utilization, but shared weak positive relation with attitude (r = .079; p = .400). Education had negative relation with satisfaction (r = -.204; p = .024) and occupation (r = -.213, p = .013). However, there were weak positive relations between age and satisfaction (r = .158; p = .058), gold card utilization and sex (r = 195; p = .025), attitude and satisfaction (r = .079, p = .400), and sex and income (r = .120; p = .164).

In general, the relationship among the variables for the Self referred Group was not strong, and most of them were negative, while few others had weakly positive. Satisfaction is, nonetheless, not related to income level or occupation.

Table 31 Spearman's rho test between satisfaction and other variables for the Self-referred Group.

		Satis	Age	Sex	Edu	Occ	Income	Gold card	Att
Satisfaction	Correlation Coefficient	1							
Age	Correlation Coefficient	.158	1						
Sex	Correlation Coefficient	-.092	-.021	1					
Education	Correlation Coefficient	-.204*	-.478*	-.027*	1				
Occupation	Correlation Coefficient	-.127	.344*	-.033	-.213*	1			
Income	Correlation Coefficient	-.125	-.338*	.120	.173*	-.114	1		
Gold card use	Correlation Coefficient	-.226*	-.053	.195*	.023	-.021	.170	1	
Attitude	Correlation Coefficient	.079	-.081	.153	-.092	.171	-.011	-.014	1

*. Correlation is significant at the .05 level (2-tailed)
**. Correlation is significant at the .01 level (2-tailed)

16. Utilization of Gold Card (hospital services)

One of the objectives of this study was to find out utilization rate of gold card. This was mainly to see what was the progress in making use of the gold card in accessing the health care among the 30-baht patients who are registered at and coming for medical services in Chulalongkorn hospital. Basically, this hospital has 22,000 people registered under the 30-baht scheme. Other than this group of registered people, there are many self-referred patients coming for services who are also gold cardholders but not registered at Chulalongkorn hospital.

Table 32 Visits to Chulalongkorn Hospital

30-Baht Patients visiting Chulalongkorn Hospital (2002)				
	Registered Patients (301)		Self-referred (302)	
Month	Patients	Cost (Baht)	Patients	Cost (Baht)
April	531	202,082	247	980,535
May	720	277,717	555	1,134,049
June	739	316,529	913	1,338,160
July	798	313,085	1257	1,807,887
August	753	339,394	1405	1,762,009
September	817	309,478	1566	1,809,104
October	880	389,656	1859	1,829,156
November	880	394,842	1969	2,200,729
December	811	380,371	2039	2,042,655
Total	6929	2923154	11810	14904284

The scheme was instituted in this Hospital in April 2002. Hospital has to follow all the guidelines from the Ministry of Public Health while rendering services to the patients under this scheme. The provider payment mechanism is through capitation.

Since its establishment in Chulalongkorn hospital, the 30-baht scheme registered patients visiting hospital is increasing every month. In an average, the OPD received around 750 patients a month in 2002. The trend of the visit is on the rise. The figures above in the table 32 shows the first month (April) itself had 531 patients, while in the later months shooting up to as large number as 811 per month. Within 9 month of time span, a total of

6929 patients visited the hospital. The cost incurred for the services is almost 3 million Baht.

Alongside the usual registered patients (301), there are lot of self-referred patients (302) who prefer using Chulalongkorn hospital to their own hospital of registration. In an average, there are 1300 patients at OPD in 2002, and the number is rising more than the actual registered patients. Last year alone, the number of patients was 11,810.

To calculate utilization of gold card among the actual 30-baht-Chulalongkorn-registered patients, three things were considered – total number of registered people, actual people visiting and in percentage. This is to access how much of chance has been taken to use the medical care through the 30-baht scheme. However, many factors may influence the use of gold card other than just having it with people will not necessarily tempt them to use it.

Table 33 Percentage of visits by registered group

Month (2002)	Patients (301)	%
April	531	2.41
May	720	3.27
June	739	3.36
July	798	3.63
August	753	3.42
September	817	3.71
October	880	4.00
November	880	4.00
December	811	3.69

As per the table 33, it can be easily concluded that only few out of 22000 registered people use the gold card and the services. In all the months in 2002, the percentage of patients visited hospital is less than 5%, indicating 95% of actually Chulalongkorn registered 30-baht patients did not use the gold card.

However, from the earlier explanation, around 72% received the gold card in 2002 and 30.5% of respondents had used gold card already 1-2 times, 19% 3-4 times and 15% used

more than 6 times. But when taken into account the whole registered people, the use of the card is quite low.

17. Test of Differences between Independent and Dependent Variables

Gold card utilization being the dependable variable, the Chi-square test was performed to examine its differences and associations with other demographic variables. The mean score for gold card utilization is 1.51 with the SD of $\pm$ 1.36. Basically, the table 34 shows that all the demographic characteristics have no significant differences with dependant variable. However, 75% of patients who used the gold card more than 5 times received the care services through the 30-baht scheme, compared to only 25% of patients who paid out of pocket to get the services. This difference is statistically significant (X^2 = 15.194; p < .001).

Table 34 Association between the frequency of Gold Card utilization and socio-demographic variables.

Variable	1-4 times		5 + times		X^2	p-value
	Freq.	%	Freq.	%		
Age						
16-30	25	23.8	10	22.7		
31-45	28	26.6	12	27.3		
46-60	26	24.8	7	15.9		
>60	26	24.8	15	34.1		
Total	**105**	**100**	**44**	**100**	**2.098**	**.552**
Education level						
Non	8	7.6	1	2.2		
Primary education	55	52.4	20	45.5		
Higher education	42	40	23	52.3		
Total	**105**	**100**	**44**	**100**	**2.833**	**.243**
Occupation						
Unemployed	27	25.7	14	31.8		
Employed	56	53.3	19	43.2		
Student	6	5.7	2	4.55		
Housewife	16	15.3	9	20.45		
Total	**105**	**100**	**44**	**100**	**1.636**	**.651**
Income Level						
Non	38	36.2	15	34.1		
2000-8000	47	44.8	22	50.0		
8001-17000	19	18.0	6	13.63		
>17000	1	1.0	1	2.27		
Total	**105**	**100**	**44**	**100**	**.992**	**.803**
Payment method						
Pay-out-of pocket	63	60	11	25		
30-Baht Scheme	42	40	33	75		
Total	**105**	**100**	**44**	**100**	**15.194**	**.000**

18. Test of Difference in Utilization of Gold Card among Two Groups.

Table 35 Independent t-test: Frequency of the gold card use between the registered and self-referred patients

Group	Mean	SD	Sig.(2-tailed)
Registered	2.41	1.26	
Self-referred	0.98	1.13	.000

The difference in utilization of gold card amongst the registered and self-referred patients was established through an independent t-test. In the description earlier (page 49) it was found that frequency of gold card utilization was more in registered group than in the self-referred group. And the difference is statistically significant at $p > .001$.

19. Difference in Attitude Towards the 30-Baht Scheme

Firstly, before taking up a statistical test, the normality of variables over a sample population was checked. Through histogram, the distribution was found not to be normal. In order to confirm this, non-parametric one-sample Kolmogorov-Smirnov Test was carried out. The p-value was less than .05, indicating its statistical significance. Hance, the non-parametric statistics (Mann-Whitney test) had to be used since the distribution of variables was not normal The test was to find out the significance difference in the attitudes of two groups of respondents (301 and 302) towards the 30-baht scheme. It was proposed to examine if attitude was the reason of variation in the use of or not using the gold card at all. The self-referred patients have to pay for the health care services, despite having a gold card.

The hypothesis would be that the attitudes regarding the 30-baht scheme among the two groups are the same or not.

Table 36 Mann-Whitney Test for attitude

Mean	SD	Sig.(2-tailed)
2.68	0.37	0.000

The Mann-Whitney test found out that the two groups of the 30-Baht patients did not share the same view on the scheme or their attitude towards the scheme is different. The significant difference is determined with p<.001.

20. Difference of Satisfaction Level Among the Two Groups (301 and 302).

The variables were not normally distributed over the sample, thus the non-parametric Mann-Whitney test was performed to find out the statistical difference in satisfaction levels among the registered and self-referred groups.

Table 37 Mann-Whitney Test for satisfaction

Mean	SD	Sig.(2-tailed)
3.01	0.32	0.487

It was determined that the Registered and Self referred groups did not have difference in satisfaction levels in spite of having different attitude towards the 30-Baht Scheme. The p> 0.05, hence it is statistically not significant.

It is interesting to dissect and explain the results of non-parametric tests on attitude and satisfaction bit further. These two variables were related differently in one area, yet having common ground in another. The tests showed that the two groups have difference in attitude towards the scheme but without any impact on the level of satisfaction with the hospital care. Therefore, it can be said that although both the groups of 30-baht patients have different attitudes towards the scheme, there is not significant difference in satisfaction level in these two groups. This must be one of the reasons for utilizing the Chulalongkorn Hospital services by the self-referred group since the satisfaction level still remained high regardless of insurance status.

21. Interview with Dr. Orasa Kovindha, Bureau of Policy and Strategic Planning Ministry of Public Health, Thailand

Dr. Orasa Kovindha, a Senior Health Officer at the Ministry of Health, briefed on the present situation, trend and problems with the 30-Baht scheme since its implementation in February 2002.

Brief situation - As the 30-baht scheme was implemented throughout the country one and half years ago, Dr. Kovindha cited out some success stories on such an innovative scheme. By October 2001, all the provinces joined the scheme and by April 2002 whole country was covered. And at present, there are 45 million people covered by this scheme, which means that the objective of the Universal Health Coverage Policy is fulfilled. Further, she added that the recent household surveys revealed the policy was highly supported by the rich and the poor. And she added that it adds equality as everyone pays the same amount irrespective of one's status and it promotes equity because all the services are available to everyone without any discrimination.

Satisfaction - She referred to the various satisfaction polls carried out nationwide between 2001 to 2002, whereby satisfaction with the scheme was 83.8% (National Statistic Office, 2002) and the confidence in quality was 73.3% (Dusit Poll, 2002). Judging by the present trend of people 's attitude towards and satisfaction with the scheme, this mission would prove to be highly successful and support the people in accessing the health care whenever needed. However, some problems were inevitable considering the vastness of the scheme and due to short period for preparation.

Utilization - The gold card was used less initially due to the notion that the 30-baht patients get low quality care. But now people have picked up momentum, convinced that quality is the same, utilization has gone up. Besides, it has found out that most of the gold cardholders are amongst the poor. Owing to this, more people have started using the services.

Problems - Given the government's high priority to and involvement in the 30-baht scheme, Dr. Kovindha said that expectations among the people are quite

high. They expect to have the best quality of care with the small capitation. Dissatisfaction would also arise through longer waiting time in public health facilities and restricted doses of medicine due to a small budget. And in terms of provider's side, there is a large gap in the human resource and insufficient health infrastructure especially in the district and sub-district levels. It is difficult to cope with less health personnel managing high demand for services from people. She reiterated that there should have been enough time to prepare for such a long-term policy.

Policy -   Even though the scheme achieved its objectives in terms of coverage within a short time span, there still is a feeling of insecurity as to how sustainable the scheme would be in the future. The cost may rise and capitation might have to increase to catch up with the increasing usage of services. However, the universal coverage would be maintained in any case, she added.

22. Interview with Ms. Surirat Yong, Program Assistant for the 30-Baht Scheme Project, Chulalongkorn Hospital.

Present trend - When asked the present situation of the 30-baht scheme at Chulalongkorn hospital, Ms. Yong said that more people are using this scheme now since its establishment in April 2002. The number of patients is increasing each month. There are 22,000 people registered at this hospital. And patients have an opinion that the medical school hospital has the best quality care and thus it influences their utilization behavior.

Patients   - Most of the patients that come through the 30-baht scheme are poor and with low education level or illiterate. Ms. Yong said that hospital draws some patients from the Khlontoy slum community which is located nearby the hospital. Although there are some well-to-do patients with the gold card, they normally did not use it since they would not like to waste their time waiting at OPD.

Problems - Since the hospital is run by the Red Cross Society, most of the 30-baht chronic patients come for free services. Although there are certain treatments not entitled under the 30-baht scheme, hospital has to provide them, as it is a Red Cross hospital. Usually, a high number of kidney problems are reported. And consequently dialysis (that is expensive) had to be performed. Therefore, the hard hit part is the financial feasibility. The total cost for the last 9 months were little more than 2 million baht. And there is a delay in transfer of money from the Ministry of Public Health. The hospital still has not received reimbursement for the last one year (2002).

Sustainability - Ms. Yong did not show much optimism in the sustainability of this scheme at hospital, unless the capitation is increased. She said that all the autonomous and private hospitals had to have financial viability so as to continue to produce the services. Or else, they could feel the bankrubcy overshadowing their organizations. At this moment, sustainability is highly doubtful.

23. Field Observation

When the survey was carried out at OPD, Chulalongkorn hospital, the investigator (author) kept a tack of observation on the sample population. The study was conducted at the 1st Floor and 13th Floor Oparor Building, which housed OPDs for the Registered and Self referred groups respectively.

Description of observation

Patients arrive as early as 5 am in the morning. The 13th Floor OPD caters to patients with social security, health card and gold card, while the 1st Floor accepts mainly patients who pay for services and other health schemes. This 13th Floor OPD is less crowded and the workload seemed less compare to 1st Floor OPD where the waiting room is packed with patients from morning till 3 pm.

Majority of the patients is found to be women in both registered and self-referred groups. Even among women, most of them were old, above 40 years or so. Male patients were lesser in number and some as old as 79 years. Many of them looked retired. And they all

were most cooperative, polite and willing to listen and answer the questionnaire. Not many chronic patients observed. Through close observation, 90% of them did not belong to high-class people because the way they roped and behaved were those of low or middle-income class. Many of them could not read or understand the questionnaire. Interestingly, most of their attitudes towards the 30-baht scheme were positive and satisfaction with services was high. Basically, no one complained either about the scheme or hospital services, except few in both the registered and self-referred groups regarding the treatment that the 30-baht patients were not treated as nicely as others were given.

While, the other group consisted of younger patients, who were better dressed than the older patients. However, they were bit restless, not-so-cooperative and seemed frustrated for having had to wait so long at OPD. Most of them did not have much to say about the 30-baht scheme (may be it was new to them), but definitely they showed negative feelings about the waiting time at OPD. Most of them seemed in hurry and responded the questionnaire quickly, showing not much interest to participate. But they expressed optimism and trust in the Chulalongkorn hospital services.