SATISFACTION TO HEALTH CARE SERVICES AND REAL REASON FOR HEALTH SEEKING BEHAVIOR AMONG THAI PEOPLE; A CASE OF KLONG YONG, NAKHON PATHOM PROVINCE

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ABSTRACT

A descriptive cross-sectional study was conducted on 250 households in Klong Yong sub district, Nakhon Pathom province, Thailand to examine the health care seeking behavior and satisfaction for health service utilization after implementation of 30 baht scheme and to identify their self-chosen factors and real demand for health service utilization. Then, we compare them between population characteristics.

Data were obtained from one of member of household who ever have gotten ill previous 3 months and collected by interview questionnaire. Descriptive analytical statistics were made and the relationship among factors by X^2test, Kruskal-wallis method and 1-sample Wilcoxon test was examined.

There were statistically significant associations between the health seeking behavior and the family income, health insurance coverage, availability of service and accessibility to services. The degree of each self- chosen factors except for the accessibility, were higher among those who chose the private facility compared with other people who chose others. The health care provider's skill is the one of the important factor for respondents in every groups compared with degree of other factors. Their degree of the satisfaction for health center, public facility and private facility were beyond their degree of the self-chosen factors statistically. It was remarkable finding that those who utilized health center and public facility were well satisfied with the cost of treatment. In this study, more than half respondents want to seek the public hospital after smoothing out the obstacles against the health seeking behavior.

It was suggested that the self-chosen factor and the demand among those who want to utilize private facility are more diversified than that of other groups. The accessibility to health facility seems to be easy compared with previous study. It might be due to the 30 baht scheme. However, the respondents still seem to have several obstacles such as more diversified demand, social barriers, the loss of daily wage or traveling cost. Because, in the chronic cases, majority of those who utilized the health center would not choose it any more in the future if the obstacles against the health seeking behavior would smoothed out, despite almost of them satisfied with the health center. However, the more depth study will be needed in the future.

KEY WORDS : HEALTH SEEKING BEHAVIOR SELF-CHOSEN FACTOR SATISFACTION REAL DEMAND UNIVERSAL COVERAGE

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LIST OF ABBREVIATIONS

AIDS : Acquired Immune deficiency Syndrome
HIV : Human Immune Virus
UC : Universal coverage
WHO : World Health Organization

CHAPTER 1
INTRODUCTION

1.1 Rationale and justification of the study

Health is the fundamental human right. These rights are universal, indivisible and interdependent. The International Conference on Primary Health Care at Alma-Ata in 1978 recommended that "government incorporate and strength primary health care within the national development plans with special emphasis on rural and urban developments". However, this strategy cannot be achieved in isolation from other development goals. Especially, many problems still exist among poverty in developing country (1-6).

In Thailand, the primary health care development project was started in the 4th Five Year National Health Development plan (1977-1981). The project was very effective. The result was that the project was included in all National Health Development plans and especially, it was determined as key strategy of health development. In the 8th plan (1997-2000), human-centered development, particularly quality of life had been emphasized. Health programs have also focused on management efficiency improvement, and health behavioral changes for health promotion including vaccine-preventable disease control, maternal & child health and HIV/AIDS prevention/control. Clearly emphasized here is the increase accessibility to health service among the underprivileged. However, according to the data published by Ministry of Public Health (5), inequities of medical and health services such as resource allocation, the accessibility to health care and health status including infant mortality rate are still exist between rural and urban area in Thailand. In addition, the gap of income between the rich and the poor is widening. Pannarunothai and Mills (1997) pointed out that health spending burden compared to income in poor people is quite higher than that in rich people in Thailand (7). In other words, there were still very high inequality and no likelihood to decline at that time. The end of the 8th health plan, in October 2001, "30 Baht for all disease scheme" plan that new government initiated as the universal health care coverage (UC) have improved the chance of taking medical treatment. From 2002 the 9th Health development plan has started. In this period, the emphasis is yet on people-centered development approach, but more adjusted into a concrete national health plan. The implementation of decentralization

and devolution in the health sector are still going further by Thai government. Therefore, in these days, increasing of health care utilization and more equitable health status is expected.

In this way, the economy is expanding and many kinds of health development plans have been executed successfully or are going on. There are a lot of studies about the comparison of the accessibility to health service between rural area and urban area or poor people and rich people. Those investigations mentioned that the accessibility related to income, residence, little education, transportation or some other reason (8-11). Those conditions are related to their health status. Furthermore, survey of consumer satisfaction about health service has been done by some researchers (12-15). However, there are a few analyses in depth the reason why people chose that health services and their real demand. Atkinson. at al. reported that the predicted influence on satisfaction in rural area is negative, whereas the rural populations show greater satisfaction. In addition, they also speculate that several of the methodological concerns about psycho-social biases tending to generate positive responses may come into play. In a context of limited providers and close social relations, ingratiating response to assure good care in future are likely regardless of their real needs (16). They speculated that rural areas are characterized by fewer providers of any kind and fewer tertiary level facilities than people in urban area. The problems in health system such as the lack of quality service, the change of population health care demands, insufficiency of system to diversified people needs, increasing people perception of health status and so on still remain. In this study, to focus on people-centered, we are determined to survey that what the health care seeking behavior and satisfaction for health service utilization after implementation of 30 baht scheme is. Furthermore, we will study their self-chosen factors and real demand for health service utilization. Then, we will compare them between population characteristics in Thailand.

1.2 Research questions

What is the health care seeking behavior after implementation of 30 baht scheme and what is the relationship between the health care seeking behavior and satisfaction for health service utilization among people in Klong Yong sub district, Nakhonpathom province, Thailand.

1.3 Research objectives

1.3.1 General objective

To identify the health care seeking behavior after implementation of 30 baht scheme among villagers in Klong Yong sub district, Nakhonpathom province, Thailand.

To examine the relationship between the health care seeking behavior and the satisfaction for health service utilization among villagers in Klong Yong sub district, Nakhonpathom province, Thailand.

1.3.2 Specific objectives

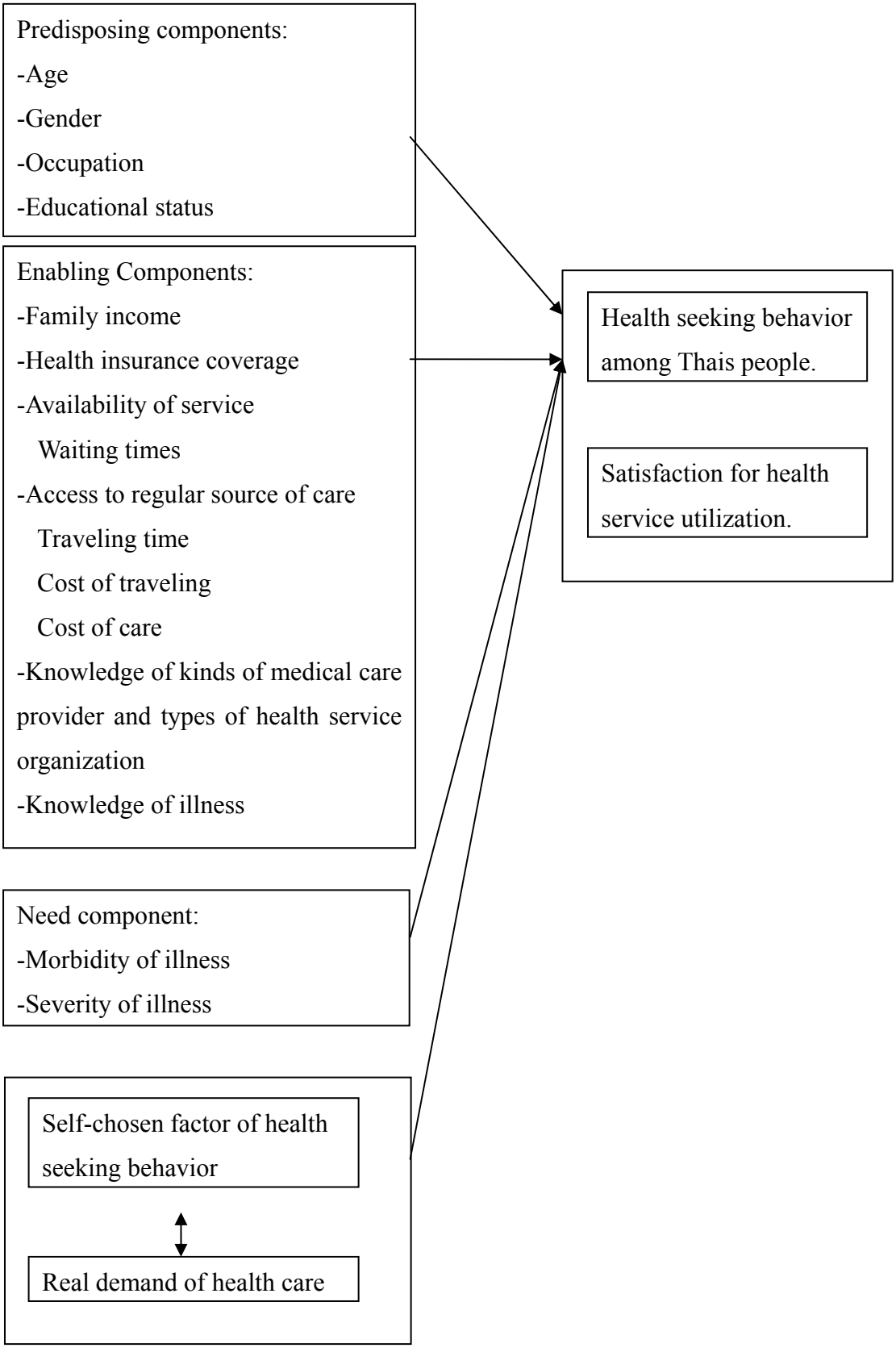
1. To discuss the health care seeking behavior among villagers in Klong Yong sub district, Nakhonpathom province, Thailand.
2. To identify the satisfaction for health service utilization among the studied villagers.
3. To reveal the self-chosen factors of health seeking behavior among the studied villagers.
4. To understand the real demands for health service utilization among the studied villagers.
5. To examine the relationship between health care seeking behavior and satisfaction for health service utilization among the studied villagers.
6. To study the relationships between population characteristics and health service seeking behavior.
7. To identify the obstacle to accomplish their real demands for health care seeking behavior.

1.4 Research hypothesis

1. There are differences in health care seeking behavior and satisfaction among villagers in Klong Yong sub district, Nakhonpathom province, Thailand.
2. There are differences in health care seeking behavior and the self-chosen factors among studied villagers.
3. There are differences in health seeking behavior and their real demand among studied villagers.

4. There is relationship between population characteristics and health care seeking behavior.

1.5 Conceptual framework



1.6 Operational definition of the variables

1.6.1 Health care seeking behavior

The actual and initial health care seeking behavior once they faced an illness includes;

-Do nothing
-Traditional care
-Self-medication and drug stores
-Health center
-Community hospital
-Regional hospital
-Private hospital
-Private clinic
-Others

1.6.2 Satisfaction for health service utilization

The degree of satisfaction for health service facilities where people used regarding;

-Traveling time
-Cost of traveling
-Waiting time
-Quality of reception
-Hour care of service
-Outcome of the treatment
-Health care provider's skill
-Feel comfortably with providers
-Cost of treatment

1.6.3 Self-chosen factors of health care seeking behavior

The initial reason people chose such a health service, when they faced an illness under limited conditions around them. The reason why they chose this facility initially. As those reasons are different from the morbidity of illness, they are surveyed by dividing into self-reported morbidity of illness, acute or chronic. Those items are consisted with items as followings;

-Short traveling time
-Cost of traveling

-Short waiting time
-Quality of reception
-Hour care of service
-Severity of illness
-Health care provider's skill
-Feel comfortably with providers
-Cost of treatment

1.6.4 A demand for health service utilization.

People's needs or determinant factors for health service utilization or health service behavior after smoothing out the obstacle or constrained environmental situation around them. Those items were consisted with items of people satisfaction for health service utilization as stated above.

1.6.5 Education

It refers to the level of educational attainment, including;

-No education
-Primary
-Secondary
-Vocational
-University
-Others

1.6.6 Family size

This refers to the number of family members in the household including the respondent. This was categorized into:

-Husband + wife
-Husband + wife + Child/children
-Husband + wife + parents
-Husband + wife + parents +child/children
-Others

1.6.7 Family income

It was defined as the monthly total income of all family members. To discuss the relationship between income and the health seeking behavior, the household income is categorized to three groups. The amount of income that is adopted as

dividing line is based on the distribution of it. 7000 baht is approximately trimmed mean (7100 baht) and 3000 baht is just half of median.

-Highly family income: 7000 Baht per month or more income
-Middle family income: More than 3000 Baht up to less than 7000 Baht
-Low family income: Less than 3000 Baht per month

1.6.8 Availability of services:

This factor refers to an amount of waiting time. And it refers to the elapsed time since arrival to the health facility up to the time service was rendered or was attended. Categorization was based on the time needed for the recording of the personal information from the patient upon arrival to a health facility. This was categorized as

Attended immediately – less than 30minutes
Short waiting time – 30 minutes and more than 30 minutes up to 60 minutes
Long waiting time – more than 60 minutes

1.6.9 Accessibility

This factor is defined as traveling time, cost of traveling and cost of care. Traveling time refers to the time spent by the patient in commuting from the place of origin or the household to the health facility. This was based on the distance of the furthest and nearest village from health center within one district. Categorized into:

-Near: less than 30 minutes travel time
-Far: 30 minutes and more than 30 minutes up to60 minutes
-Very far: more than 60 minutes

Cost of traveling refers to the cost of one way traveling from patient house to health service facility.

-More than 0 up to 50 baht
-More than 50 baht

Cost of care refers to the amount of money spent by the patient/relative on the health service that he/she acquired from the health service providers. It is answered as their feeling against the cost. Categorized into:

-Expensive
-Free ~ Not very expensive

1.6.10 Severity of illness

This is defined as the level of the patient's illness. Categorized into

Mild – illness that the patient supposed to be treated by themselves or health providers other than a doctor.

Moderate – illness that the patient supposed to be treated by a doctor or specialist.

Severe – illness that the patient supposed to be or has been treated by a doctor in a hospital with specialized care and equipment.

1.6.11 Morbidity of illness

The self reported morbidity within the previous 3 months and categorized into acute illness and chronic illness.

Acute illness – Disease that people don't take drugs within the previous 3month.

Chronic illness – Diseases that people take drugs as usual.

1.6.12 Knowledge of kinds of medical care provider and types of health services.

It refers to the knowledge of what types of doctors such as general physician, specialized physician and dentist exist at health center levels and knowledge of standard or modern equipment such as X ray, ECG, CT, fiber scope and US. Those were expressed total score (0 to 9).

1.6.13 Knowledge of illness

It refers to the level of the etiology of illness, the effects on health such as smoking, food, salt intake, suntan, beliefs about prevention. Those were expressed total score (0 to 10).

1.7 Limitation

1. This study is specific only for Klong Yong sub district in NakhonPathom province. So, those results are not generalized whole population in Thailand.

2. The interviews are conducted during daytime. The answer of the person who was not in house at that time was not included in this study.

3. Sometimes their information about morbidity of other family members might be imprecision (recall bias).

CHAPTER 2
LITERATURE REVIEW

2.1 Global situation about health seeking behavior

2.1.1 Inequities of medical and health services

Despite the WHO's strategy of Health For All, inequities of medical and health services among population has been still exist. Especially, this is in the low-middle income developing countries. Many authors have been stressed the importance of economic factors (price, costs and income) on decision of health service utilization. Also, even within the country, there are the inequities of health service utilization or health problems between in the rural area and urban area or poor and rich (1, 2, 6). When they focused on the subsidies from government health services, the top 20% of the population gained on average over 26% of total financial subsidies compared with less than 16% in the lowest 20% of the population.

2.1.2 Variables influencing health seeking behavior

There are a lot of studies about the comparison of the accessibility to health service between rural area and urban area or poor people and rich people. Those investigations mentioned that the accessibility related to income, residence, little education, transportation or some other reason. Those conditions are related to their health status. However, health seeking behavior or utilization is the outcome of quite complicated interactions among many those variables and factors, visible or invisible, which act at different stages. It is impossible to know whole process completely (11).

2.1.2.1 Age and Gender

There are some survey related to age and gender. However, the results depend on the context of countries or varying conditions and it is difficult to generalize. Regarding traditional care, which sometime plays important role because of familiarity or reasonable social cost in third world, there have been some suggestions that elderly people are more likely than younger age groups to use traditional practitioners, for example, in Zambia, Nigeria and Taiwan. However, in Kenya, the majority of traditional practitioner's client were adults, most were in the 20 to 40 age group; women accounted for 55 to 60 percent of consultations to healers investigated (11). Study in North India, rural Nigeria and rural Ethiopia have noted children as important clients of traditional practitioners (17). By contrast, a Luska

study found children to be most frequently taken to a biomedical facility (11).

Regarding to the gender, Fuller et al. found that females are significantly more likely than male to report that at some point in the past month, they have been too sick to work for two or more consecutive days (18.4 % vs. 12.7%) among Thais. And also, they reported that women are more likely to have seen a health care professional in the past 12 months (57.9% vs. 45.5%), and they also are more likely than males to have received treatment in the hospital in the past 12 months (20.3% vs. 7.8%) despite women had longer average life expectancy. Even the observed gender differences in health among Thais remain significant after eliminating pregnant women and new mothers, and controlling for several aspects of acquired risk. They suggested that those differences associated with the menstrual problems among Thai women, along with greater psychological distress (18). In India, sex disparities in health and education are higher in south Asia than anywhere else in the world. A girl in India is greater than 40 % more likely to die between her 1st and 5th birthdays than is a boy. As the reason, girls are often brought to health facilities in more advanced stages of illness than boys, and taken to less qualified doctors when ill (6, 19). In the study of the health service utilization for perceived post morbidity among poor women living in Karachi, Pakistan, women sought care initially from close relatives or traditional healers and if they continued to suffer from their morbidity they finally approached a trained health care provider. The delay in care-seeking might be compounded by male-dominated decision-making, especially in a patriarchal and patri-local family structure like that in Pakistan, and the doctrine of *purdah* further hinders mobility (10).

2.1.2.2 Education

This variable is sometimes related to the income, occupation or socioeconomic status and an important influence on the knowledge of both when to use health services and how to use them effectively. Education also influences which types of services are used; for example, in the developing countries participating in the World Fertility Survey, women with more years of schooling had a greater likelihood of using a modern Family plan method and were likely to have a smaller family size. Improved education of women in Cebu study (the Philippines) was also found to be associated with increased use of modern prenatal care (13). In Ivory Coast, having some education was associated with a higher use of hospitals as a source of primary care than was having no education (20). On the other hand, in Indonesia, less educated households were more likely to need more curative medical attention

because of the likelihood of greater incidence of infectious ailments. This was, however, strongly related to home environment, household income, family size and nutrition. Also, Marshall (1985) did not find much difference according to educational level in the timing during pregnancy of visits to antenatal clinics in Port Moresby, Papua New Guinea (although non-attendance who are not included in the survey might have had lower overall educational level) (21). It is difficult to generalize the association between the education level and health care seeking, however, it is strongly related to that higher education can mean higher and more effective utilization and poorer education, poorer nutrition and poorer sanitation levels can all place families and children in multiple dangers and often result in underutilization relative to need (11).

2.1.2.3 Income and Occupation

It is often said that those variables have long been identified as influencing utilization rates and types of services used. Also, this is related to other variables such as education or socioeconomic status. It is sometimes assumed that the poorest patient will seek 'free' public care but this is not always so. According Akin et al in 1985, in the Philippines, for example, noted that the poorest families in Bicol often paid substantial fees for the use of private clinic for outpatient care. Free government clinics to some extent were serving many higher income patients (especially for MCH services) as they presumably were better able than the poorest group to deal with the various features surrounding attendance (22). Chernichovski and Meesook (1986) analyzed household utilization date for Indonesia. They found that the low income to be strong barrier to the utilization of modern primary medical facilities even when publicly provided. The poorest segments of Indonesian population (the poor of Java) were mostly treated at home by family or at a traditional practitioner's house. The rich were much more likely to have been treated by a physician, possibly at their home (especially in urban areas of Java) than were lowest-income group (23). Pannarunothai and Mills reported that there was no evidence of gross lack of utilization of health care by people in lower-income households. The lowest income quintile was in fact more likely to seek treatment through from drug stores, private clinics and public services rather than from private hospitals (7). Bailey and Philips (1990) have noted some differences in Kingston Jamaica, between the spatial behavior of residents in juxtaposed pairs of survey sites, one of each pair being richer and one poorer. They found that some distinctive differences appeared between low and high status site respondents with regard to distances to facilities and travel times, which were almost always higher for the low status respondents. Most respondents

were not using their nearest facilities, for varying reason which include, for poorer respondents, need to attend frequently distant public facilities and, for wealthier respondents, loyalty to old family doctors and use of company-related doctors. The mobility of the higher status respondents afford them considerable choice of locations used for health care and their attendance was much more convenient than that of lower status respondents (9). Therefore, it is important to remember that the relative socioeconomic accessibility of services will make them more or less available to some types of residents. According to the study of the socioeconomic differences in the utilization of health services in Belgium in 2003, the lower socioeconomic groups made more often use of the general practitioner and nursing care at home and are more often admitted to hospital than persons with a high socioeconomic status. On the opposite, persons with a higher socioeconomic status report more often visit t specialist, a physiotherapist or dentist (24).

2.1.2.4 Insurance

Coverage of health insurance appeared to be associated with higher levels of utilization of certain sources of care, particularly inpatient care. The insured were more likely to use private hospitals (7).

2.1.2.5 Severity and Morbidity (Varying condition)

The severity of illness, which is the component of need variable, is strongly related to motivation to seek health care. Habib and Vaughan (1986) found that the determinants of health services utilization in southern Iraq. According this study, one of the most important factors affecting utilization was level of perceived sickness or need in the household (18). The choice of therapies was investigated with regard to eight different complains. If the simplest case of ‘fever and cough’ is considered, there were many ranges of therapy options. In both the suburban and rural setting, self-treatment played an important role (but it was of greater significance in the rural village). If self-treatment was not successful, as a second step, some 37 percent of rural respondents said they would go to an adura (devil dancer) and 56 percent would attend a cosmopolitan facility (about half of these would attend the free government hospital and the rest consult a private practitioner). When child was ill, or for other acute complains, people in this study were more preferred to use cosmopolitan medicine (public or private) in either setting. When chronic complaints were considered, they found that some patients would use cosmopolitan medicine; others, traditional remedies (11, 25). However the perception or knowledge of illness is not always directly related to the pattern of higher health service utilization. According to study from Fikree, despite the women living with poor in Karachi perceived the

serious post-partum morbidity or severity such as heavy vaginal bleeding or high fever, most of them seek the higher level of facility at final level, especially in case of the vaginal bleeding. They suggested that it might be influenced by their cultural back ground such as the patriarchal and patri-local family structure, which there is male dominated decision making, the reluctance of referral to health facility from traditional healer, lack of support from social networks to visit the alternative health care or the health related background of the interviewers (10).

2.1.2.6 Accessibility and Availability

Philip said that a more realistic assessment of the actual cost of other goods or services is given by 'opportunity cost' the cost of other goods or purchases that must be forgone in order to purchase them. For health services, the opportunity cost of utilization involves the cash paid out for charges, drugs and transport, and the value of time (which may be considerable, involving travel and waiting) expended on visit. Regarding the waiting time, he suggested that this element might be considerable in many cases-sometimes a visit to Third World outpatient clinic or an emergency room would involve several hours' wait. In addition, sick people in Third World countries in particular are often accompanied by another person, to help with travel or children (11). In Thailand, it is said that the waiting time at the public facility is weakness (5).

In relation to the traveling time, Habib and Vaughan (1986) in a household survey in rural Iraq found that the distance to the nearest health center was related to the health service utilization, which might be imply only the better off were able to travel to more distant facilities (8). Bailay and Philip also pointed out it as mentioned above (9).

Regarding the cost of traveling, in Uganda district hospital use study, 75 percent of total outpatient cash outlays were for transport. Although the mode cited is often walking, this involves a loss of time and thereby earnings. In poorer countries, it may be only the better off who will actually pay for transport, being able to afford not to walk (11). Traveling to health centers was the most economical way when compared across 30 baht scheme registered facilities. The traveling expense increased for visit at community hospital and general/provincial hospitals. Interestingly, traveling cost for traditional medicine, private clinic and private hospital were appeared to be at the highest average (26). The cost of any treatment prescribed may also be an important factor in deciding whether to use a service and which type of facility to attend.

2.1.2.7 Knowledge

The knowledge people have about the available health services may affect both initial contact with health services and compliance with any prescribed treatment. According to the survey about knowledge and perception of pneumonia in relation to use of health facilities and treatment, the choice of medical service was influenced by people's perception of etiology of illness and by local knowledge and experience, rather than influenced by economic factors, accessibility, and availability (27). Another survey was conducted in rural Bangladesh to examine mother's knowledge and perceptions of helminth infection in relation to use of health facilities and treatment, seeking behavior. Almost all respondents considered worms to be a cause of bad health and a high percentage of mothers had obtained deworming treatment for their children. However, marked differences were found in mothers' descriptions of the causes and prevention of helminth infection in two adjacent areas; Pullakandi and Shekpara. The discrepancies in biomedical knowledge corresponded with differences in treatment, seeking behavior in the two areas. All households in the area had access to free deworming treatment provided by a health clinic, but this facility was predominantly used by women living nearby in Pullakandi. Because of the cultural and social constraints on female activities, women living further from the clinic, in Shekpara, preferred to send their husbands to a pharmacy in the nearby town to buy deworming treatment. As a consequence, these households were at a relative disadvantage in respect of the low exposure of women to health education and the greater financial cost of deworming treatment (28).

2.1.3 Satisfaction and demand

Recently, in many investigations, not only equity of health service utilization, but also the importance of consumer's satisfaction on it has been discussed. However those kinds of investigations are rarely studied in low- middle income countries. Also, there are a few analyses in depth the reason why people chose that health services and their needs. Atkinson and Haran reported that the predicted influence on satisfaction in rural area is negative, whereas the rural populations show greater satisfaction. In addition, they also speculate that several of the methodological concerns about psycho-social biases tending to generate positive responses may come into play. In a context of limited providers and close social relations, ingratiating response to assure good care in future are likely regardless of their real needs (16). They speculated that rural areas are characterized by fewer providers of any kind and fewer tertiary level facilities than people in urban area. The problems in health system such as the lack of

quality service and, the change of population health care demands, insufficiency of system to diversified people needs, increasing people perception of health status and so on still remain. In addition, there is limitation of choice of health facility within inequity of health resources. The study about patient satisfaction conducted in Indonesia (1999), reported that the top ranked issues were associated with medical aspects of care (cure and medicine), followed loosely, by issues concerning personal dignity and completeness and intelligibility of counseling. Surprisingly, 'obvious' satisfaction issues such as cost, continuity, waiting time and amenities were relegated to the bottom of the list. However, they suggested that the low cost of service, built in continuity of provider in the smaller facilities and widespread availability of amenities might have diminished patient concern with these factors (15). In point of view of the relationship between the satisfaction and socio-demographic factor, Carlsen and Grytten found that older people, women, and less educated people were more satisfied than younger people, men and people with higher education. There was also some indication that married people and people with high income were relatively dissatisfied with primary physician services (14).

2.2 Health seeking behavior among people in Thailand

2.2.1 Inequities of medical and health services

In Thailand, inequalities of medical and health services still exist among people in rural and urban or poor and wealth. According to the data from Thailand health 2002, which are before implementation of 30 baht scheme, major problems are resource allocation such as physicians, nurses, dentists, pharmacists, equipment or budget, accessibility to health care, health status such as infant mortality rate and health expenditure burden. Those data are unfavorable environment for people in rural or poor.

In 1988 and 1999, MOPH surveyed that the people in the rural and urban areas have unequal opportunities in accessing health services. The number of people which go to health facilities with doctors in urban and rural were 81.0% and 47.3% in 1988 and 67.3% and 52.1% in 1999. The urban people have greater chances in gaining health services from health facilities due to more availability of physicians (5). In relation to health expenditure burden, Supasit and Mills conducted that gross lack of access to health care amongst lower socio-economic groups was not the main problem in their study, however, the underprivileged were more likely to pay out of their own

pocket for their health problems, and to pay out of proportion to their household income when compared with more privileged groups (7). In other study, after economic crisis in 1997, household health expenditure reduced by 24% among the poorer households, institutional care was replaced by self expenditure (29). In 1998, Pannarunothai conducted a study on the equity to access health services by using the diffusion index and the concept of service provision according to health needs. The finding revealed that the acute illnesses were higher found in the poor than the rich when applying the adjusted or non-adjusted standard value methods (by age and sex). In aspects of the overall service utilization (including self –prescribed medication and institutionalization), in high implied greater use of rich, as well. In other words, there was greater service utilization of wealthy from health facilities whereas less actual sickness. In 1991, accessibility to health services of poor, however, was inclined to improve (30).

2.2.2 Health care seeking among Thais

People's health care seeking behavior has been changing. Since 1970, the utilization of public health facilities is increasing from 11.1% up to more than 30% in 2001 respectively. Utilization of private hospitals or clinics are much higher in urban than in rural. Sermsri explained that government health care is only one of the resources available for treatment among the rural population (31).

Table 1 Percentage of health care utilization in Thailand, classified by urban and rural areas

	1970	1991		2001	
Source of health care	**Both**	**Urban**	**Rural**	**Urban**	**Rural**
Do nothing	2.7	17.9	15.6	4.4	5.8
Traditional care or others	7.7	4.7	5.8	2.1	2.6
Self-medication	51.4	36.9	38.6	29.4	22.1
Health centers	4.4	2.7	17.0	5.5	22.3
Public hospitals	11.1	13.1	12.8	33.9	35.2
Private clinics/hospitals	22.7	24.7	10.2	24.0	11.4

(Source: Thailand health profile 1999-2000)

Sermsri discussed about the stage of medical seeking behavior of Thais in a context of pluralistic health care system. Thais can switch health care seeking behavior until they are satisfied with the result of the treatment. As symptomatic condition is so concerned, the desire for quick symptomatic relief provides a motivation for seeking the best likely to cure the illness and also a cheap expense in terms of money and time spent. If those source where they chose does not give expected outcome within one or two days, it is usual for patients to seek health care from another. In choosing the best source of medical care, people will consider how much money and time free they have (32).

2.2.3 Self-chosen factors of health care seeking behavior

Table 2 demonstrates the percentage of persons reported ill or not feeling well during 2 weeks prior to the survey by type of treatment and reasons for choosing the treatment on the first day of illness. It is the comparison between urban and rural. At this point, the reasons given for using the government health care services are mainly related to living nearby and inexpensive treatment. Especially, for health centers, 85.5 % of respondents answered that “living near” was the initial self-chosen factor. On the other hand, only 1.9 percent cited that “having proficient physician” was the main self-chosen factor. And also, a lot of people chose health centers as initial health facilities in rural area compared with people in urban area (33).

Table 2 Percentage of persons reported ill or not feeling well during 2 weeks prior to the survey by type of treatment and reasons for choosing the treatment on the first day of illness, urban and rural Thailand, 1996

Reasons for choosing	urban					Rural				
	Self-treatment& drugstore	Traditional Healers& drug store	Health Center	Gov. Hospital	Private Hospital	Self-treatment& Drug store	Traditional Healers& drug store	Health Center	Gov. Hospital	Private Hospital
Poor	41.9	30	15.2	5.0	0.1	38.4	38.0	4.9	4.3	0.2
Living near	9.7	-	72.9	19.7	21.9	23.4	20.4	85.5	35.6	18.4
Quick services	17.5	30	3.8	1.0	50.4	23.5	8.9	2.0	1.7	52.5
Inexpensive	28.7	10	5.5	25.9	1.9	11.2	25.8	5.7	20.4	0.9
Having proficient physicians	2.1	30	2.6	48.4	25.7	3.5	6.9	1.9	38.0	27.8
Total%	100	100	100	100	100	100	100	100	100	100
Number	47.4	3	31	271.4	463.9	344	65.3	1374.2	1609.8	1136.5

(Source: National Statistical office.1996)

Note: Number refer to the population per thousand (000)

2.3 Satisfaction for health facilities among Thais

The levels of consumer satisfaction for health facilities are different between public facilities and private facilities. The problems in public facilities are related to waiting time for service and its convenience. On the other hand, in private facilities, service price seems to be weakness (Table3). However, more depth analysis for health outcomes or their diversified demands will be necessary in the future. At present、Thailand has put numerous efforts in this matter by establishing Hospital Accreditation Institute under the health system research Institute to set the quality assurance standard for both public and private quality development in National Health Act, as well as an issuance of Health Facilities Act and new ministerial regulations will drive for a sustainability of health facility quality assurance and hospital accreditation system.

Table 3 Opinions toward service quality of private health facilities compared with that of public health facilities by issues related to service quality, type of health facility and opinion level

Sector	**Opinion level**				
	Poor	Satisfied	Moderate	Good	Very good
Public health facilities					
Reception	16.3	35.3	38.5	7.5	0.5
Waiting for service	33.4	37.9	24.9	2.2	-
Convenience	17.4	39.3	36.1	5.0	0.5
Doctor's skill	1.6	8.2	15.0	35.3	38.1
Nurse's skill	12.8	35.9	40.4	8.4	0.9
Attention to patient	15.7	37.2	37.9	6.7	0.9
Treatment instrument	2.1	9.1	19.9	33.1	34.1
Quality of medical products	1.8	8.8	19.4	34.8	33.4
Service of price	1.0	6.2	18.0	27.0	45.0
Service place	4.0	17.2	34.8	29.9	12.2
	Opinion level				
Private facilities	Poor	Satisfied	Moderate	Good	Very good
Reception	0.1	2.1	32.4	54.5	8.6
Waiting for service	0.3	3.7	41.7	46.6	5.4
Convenience	0.4	4.0	40.0	45.6	7.6
Doctor's skill	0.3	1.9	20.7	48.1	26.6
Nurse's skill	0.4	2.8	37.7	49.9	6.9
Table 3 (cont.)	**Opinion level**				
Private facilities	Poor	Satisfied	Moderate	Good	Very good
Attention to patient	0.3	2.9	35.4	51.2	8.0
Treatment instrument	0.1	1.8	24.6	54.8	16.3
Quality of medical products	0.5	1.7	20.6	52.0	22.5
Service of price	11.0	26.1	37.7	20.6	3.6
Service place	0.3	2.7	33.8	49.6	10.9

(Thailand health profile 1999-2000)

2.4 Health care system in Thailand

In Thailand, the primary health care development project was started in the 4th Five Year National Health Development plan (1977-1981). In this period, the Free Medical Care Project was introduced part of the Government's proposal for helping the poorer sections of the population. The objectives of the project were to (a) create equity in receiving medical care among the people; (b) improve the health status of the poor especially in rural areas; (c) pave the way for National Health Insurance for the poor; (d) create positive attitudes in the poor regarding health service. The project was very effective (5). However, there seemed that different provinces applied very different criteria to determine who should get free treatment and there seemed to be no clear correlation between the extent of poverty in each Region and the proportion of inpatients treated free (34). Those results were the project included in all National Health Development plans and especially, it was determined as key strategy of health development. In the 8th plan (1997-2000), human-centered development, particularly quality of life had been emphasized. Health programs have also focused on management efficiency improvement, and health behavioral changes for health promotion including vaccine-preventable disease control, maternal & child health and HIV/AIDS prevention/control. Clearly emphasized here is the increase accessibility to health service among the underprivileged. However, according to the data published by Ministry of Public Health (5), inequities of medical and health services such as resource allocation, the accessibility to health care and health status including infant mortality rate still exist between rural and urban area in Thailand. In addition, the gap of income between the rich and the poor is widening. Pannarunothai and Mills (1997) pointed out that health spending burden compared to income in poor people is quite higher than that in rich people in Thailand (7). In other words, there were still very high inequality and no likelihood to decline at that time. The end of the 8th health plan, in October 2001, "30 Baht for all disease scheme" plan that new government initiated as the universal health care coverage (UC) have improved the chance of taking medical treatment. From 2002 the 9th Health development plan has started. In this period, the emphasis is yet on people-centered development approach, but more adjusted into a concrete national health plan. The implementation of decentralization and devolution in the health sector are still going further by Thai government. Therefore, in these days, increasing of health care utilization and more equitable health status is expected.

In this way, the economy is expanding and many kinds of health development plans have been executed successfully or are going on.

2.5 The approach to health seeking behavior

The independent and dependent variables of conceptual framework in this study based on Anderson's behavioral model of health services use phase 3 and others (11, 35, 36) and add some interests to this model. Their initial model consists of the predisposing, the enabling and the need component that describe a person's decision to use health services. The Predisposing components consist of socio-demographic variables and health related attitudinal characteristics. The Enabling components are those that may promote or higher the use of services such as family income, health insurance coverage, availability of services, and access to regular source of care. The predisposing and enabling component establish the condition within the person in or is not likely to seek health services when stimulated by need (health status, disability, or diagnosis). The Need factors refer to the basic stimulus to use the health care service based on the individuals perceived need for services. They hypothesized that predisposing, enabling and need factors would have differential ability to explain use, depending on what types of service was examined. The third phase of the model (1980s-1990s) evolved during the last decade, spurred on by explicit recognition that health services are supposed to have something to do with maintaining and improving the health status of the population, both as perceived by the population and as evaluated by professionals. While the model remains primarily one of use of health services, it also acknowledges the external environment (including physical, political and economic components) as an important input for understanding use of health services. It also recognizes personal health practice such as diet, exercise and self care as interacting with the use of formal health services to influence health outcomes.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Research Study design

This research was descriptive cross sectional study.

3.2 Study area

This study was carried out in the Klong Yong sub district, Nakhonpathom province, Thailand. This sub district is consisted of 8 villages. Also, there are two health centers in village and other sources of health care as mentioned in operational definition are available within 40 km from this village. Also, this area represents the urban and rural community.

3.3 Study population

Data were obtained from one of member of household who ever have gotten ill previous 3 months. Those people were over 13 years old.

3.4 Sample size

The sample size was 250 persons in the studied household. The interview started with a screening question whether there was any one who got illness in this family within previous 3 months. If yes, the interview was continued. But if no, the interviewer would go new household.

3.5 Sampling technique

Household in these area were sampled by the screening question as mentioned above. The choice of the household for screening question was done according to the guidance from head of village (so called pooyai-baan). The data were collected from every village.

3.6 Data collection instrument and reliability test

Data were collected by interview questionnaire. Before finalization of questionnaire, pre-test will be made to check the reliability with 25 household in Mahasawas sub district of Nakhonpathom province. The result of the reliability test were followings; Self- chosen factor (Q11-Q19): Cronbach's Alpha = 0.724408, Satisfaction (Q43-Q51): Cronbach's Alpha = 0.841205, Demand for the case of acute illness (Q54-Q62): Cronbach's Alpha = 0.713806, Demand for the case of chronic illness (Q63-Q71): Cronbach's Alpha = 0.777488, Knowledge score of medical care service (Q24-Q32): Cronbach's Alpha = 0.506372 (*Cronbach's Alpha with Q26 excluded = 0.673087), Knowledge score of illness (Q33-Q42): Cronbach's Alpha = 0.579151 (Cronbach's Alpha with Q46 and Q48 excluded= 0.622884). Regarding to the knowledge score, the researcher has applied every question despite α-coefficients was less than 0.7. Then, this fact was considered when it was analyzed. Because the researcher was interested in those question.

The questionnaire was consisted of three parts.

The first part: Socio-demographic characteristic of the respondent. This includes the age of illness person, the sex of illness person, the educational background of household head, the occupation of household head, the number of the members in the household, the income of the household, the coverage and type of health insurance and adequacy of the income on the health problems that are encountered by the household.

The second part contains actual morbidity and severity of illness among household members within previous 3 months. Also, health seeking behavior, self chosen factors, the accessibility and the availability to health care services are contained.

The third part was on the rating of the items as demands in the future and satisfaction for health services. Also contains knowledge of kinds of medical care provider and types of health service organization and knowledge of illness.

3.7 Data collection procedure

The researcher set up a team of interviewers that was made up of 5 to 10 members including undergraduate students at Mahidol University and some staffs at

AIHD for 4 days. Before going to the interview, those interviewers were oriented very well and consult with the researcher as much as possible during survey. Data were collected from 2 villages per day.

3.8 Statistical analysis

MINITAB soft ware version 13.1 was applied to this study. Non-parametric method, which was Kruskal-wallis method, is used for analysis of the total score of knowledge of kinds of medical care provider and types of health services, and knowledge of illness among people's health seeking behavior or characteristics. Also, this test was used for analysis of the degree of the self-chosen factor, the satisfaction and the demand to compare among people's health seeking behavior. One sample wilcoxon test was used to analysis of the differences between the degree of self-chosen factors and that of satisfaction among each behavior. $P<0.05$ is statistically significance. X^2 test was used for the analysis of association.

CHAPTER 4
RESULTS

This chapter shows the findings of this research according to conceptual frame work. It is consisted of five parts. The first part shows description of socio demographic characteristics of respondents and the second part shows distribution of morbidity and severity. The third part presents the relationship between independent variables regarding predisposing components, enabling components, need components, self-chosen factor and real demand of health care services and dependent variables regarding health seeking behavior. The fourth part demonstrates the satisfaction for health service utilization. Lastly, health seeking behavior after smoothing out the obstacles is shown.

4.1 General information of Klong Yong sub district

Klong Yong sub district belongs to Phutthamonthon district in Nakhonpathom province, Thailand. According to the report from Public health office in Phutthamonthon in 2003, there are 28,410 population in Phutthamonthon and 9,335 population (Male: 4,658 and Female: 4,678) in Klong Yong sub district. In this sub district, since there are 8 villages, the research team visited 2 villages a day for 4 days. Regarding health facilities, there were 2 the health centers in this sub district, 1 community hospital with 10 beds, 4 doctors, 2 dentists, 3 pharmacist, 31 nurses and 9 technical nurses, 1 specific hospital for boys (public) with 60 beds in Phutthamonthon district. Also, regional hospital is located at distance of about 40 km from this area. In relation to private facilities, there is 1 private hospital with 30 beds and there are a lot of private clinics in this area.

4.2 Socio-demographic characteristics of respondents

Table 4 shows the socio-demographic characteristics of respondents. The respondents of this study were composed of 250 villagers from 8 villages in Klong Yong sub district of Nakhonpathom province. The cases of pregnancy were excluded from these results. The distributions of the age and the gender are about illness person and other information present about head of household or respondents.

The age range of illness person was 0 to 86 years old. The mean ±SD was 42.59 ±24.12. The highest number of age group was almost equal in 15 to 44 years old group and 45 to 64 years old group at 30.0 percent and 29.6 percent respectively while there was 21.2 percent in the 65 years and above group. More than half of illness person was female at 58.4 percent with the male comprising at 41.6 percent. Regarding the occupation, 40.0 percent of respondent's household head was farm work followed by employee at 30.8 percent and self-employed for small business at 15.2 percent. Seven out of 250 household head (2.8 percent) had already retired. The household heads whose job was unknown was 2.8 percent. Regarding education, there were 64.2 percent of household head graduated from primary school and 9.2 percent of them did not attend any formal schooling. The average of family income was 8399 baht per month with median of 6000 baht per month and the trimmed mean was 7100 baht per month. The distribution between high-income group (more than 7000 baht per month) and middle-income family (more than 3000 and less than 7001 baht per month) was almost equal at 39.7 percent and 37.1 percent respectively. The rate of low- income group was 23.2 percent. Majority of family's insurance was 30 baht scheme card with 64.4 percent and respondents who have 30 baht scheme card with another cards is included in others group (19 out of 23). Still 3.2 percent of respondents were not covered with any insurance. There was 57.0 percent of households belonged to low family size (husband + wife, husband +wife + child/children and husband +wife + parents) and also eight of 38 in others group were 4 fatherless with child/children family, 1 motherless with child/children and 3 persons who is living alone.

Table 4 Socio-demographic characteristics of the respondents

Socio-demographic group	N	%
Age of illness person	250	100
0 - 6years old	20	8.0
7 - 14 years old	28	11.2
15 - 44 years old	75	30.0
45 - 64 years old	74	29.6
65years old ≤	53	21.2
Mean±SD=42.59±24.12		
Maximum:86		
Minimum: 0		
Gender of illness person	250	100
Male	104	41.6
Female	146	58.4
Occupation	250	100
Farm work(agricultural)	100	40.0
Employee	77	30.8
Self-employed for small business	38	15.2
Government official	8	3.2
Retired	7	2.8
Private business, running own large business/commercial	5	2.0
Management	2	0.8
Others	6	2.4
Unknown	7	2.8
Education	250	100
No education	23	9.2
Primary	160	64.0
Secondary	36	14.4
Vocational	19	7.6
University	12	4.8

Table 4 Socio-demographic characteristics of the respondents (cont.)

Socio-demographic group	N	%
Monthly family income (baht)	228	100
3000≥	53	23.2
3000 < <7000	90	39.5
7000≤	85	37.3
Mean=8399 baht		
Trimmed mean=7100 baht		
Median=6000baht		
Insurance	250	100
30 baht card	161	64.4
Social insurance	24	9.6
Civil government welfare	13	5.2
Welfare	15	6.0
Private	1	0.4
No insurance	8	3.2
Others*	23	9.2
Unknown	5	2.0
Family size		
Husband+wife	13	5.2
Husband+wife+child/children	123	49.2
Husband+wife+parents	7	2.8
Husband+wife+parents+child/children	69	27.6
Others	38	15.2

*30 baht card + Social insurance:10 30 baht card + Social insurance+private:1
30 baht card+Welfare:7 30 baht card+private:1 World War II insurance:2
Volunteer Health Worker:1 School card:1

Majority of respondents were the illness person them selves. In the case that illness person was child, almost of respondent were mothers (Table 5).

Table 5 Distribution of the respondents

	N	%
The illness person	161	64.4
Wife of household	46	18.4
Head of household	33	13.2
Others	10	4.0
total	250	100

4.3 Distribution of morbidity and severity

The rate of sick individuals who have acute illness was 58.0 percent and those who have chronic illness were 42.0 percent of respondents. Regarding severity of illness, majority of those who have acute illness and chronic illness was moderate at 78.6 and 63.8 respectively (Table 6).

Table 6 Distribution of morbidity & severity

	N	%
Acute	145	58.0
Mild	14	9.7
Moderate	114	78.6
Severe	17	11.7
Chronic	105	42.0
Mild	1	0.95
Moderate	67	63.8
Severe	37	35.2

4.4 Health seeking behavior across predisposing, enabling and needs component

This part shows association between independent variables and dependent variable according to the conceptual frame work. Firstly, it present as a whole study group followed by acute group and chronic study group. The age, the gender, the availability of service, the access to regular source of care, the severity of illness and the health seeking behavior show regarding person who got sick. On the other hand occupation, educational status, family income, health insurance coverage, knowledge

of kinds of medical service, knowledge of illness, self-chosen factor of health seeking behavior, real demand of health care service and satisfaction show opinions of household head or respondents. It would be assumed that their opinion might influence health seeking behavior of the member of household.

4.4.1 Age

Table 7 reveals the distribution of health seeking behavior by the age group as a whole study population. In the below 40 years old age group, the rate of those who went to health center, public facility and private facility were at 26.7 percent, 42.6 percent and 23.8 percent respectively. Also in the 40 and above 40 years old group, they went to health center at 30.2 percent, public facility at 47.7 percent and private facility at16.8 percent. There was no statistical significance between age group and health seeking behavior in whole population at p=0.506. This means that there is no association between age group and health seeking behavior in whole population.

Those data were divided to two categories as an acute illness group and a chronic illness group. Table 8 shows the distribution of health seeking behavior by age group among individuals who got acute illness. There was also no statistical significance in this category.

Table 9 shows the distribution of health seeking behavior by age groups among individuals who got chronic illness. In the both years group, people went to public facilities more than health center at 60.0 percent, 51.8 percent respectively. This rate is higher than that of an acute case. Chi-square test could not be applicable in this category.

Table 7 (Whole) Distribution of the age group and the health seeking behavior

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Age group					
Below 40	101	7 (6.9)	27 (26.7)	43 (42.6)	24 (23.8)
40 and above 40	149	8 (5.4)	45 (30.2)	71 (47.6)	25 (16.8)

P=0.506 X^2=2.334 DF=3

Table 8 (Acute) Distribution of the age group and the health seeking behavior

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Age group					
Below 40	81	5 (6.2)	25 (30.8)	31 (38.3)	20 (24.7)
40 and above 40	64	7 (10.9)	22 (34.4)	27 (42.2)	8 (12.5)

P=0.261 X^2=4.005 DF=3

Table 9 (Chronic) Distribution of the age group and the health seeking behavior

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Age group					
Below 40	20	2 (10.0)	2 (10.0)	12 (60.0)	4 (20.0)
40 and above 40	85	1 (1.2)	23 (27.0)	44 (51.8)	17 (20.0)

Note: Not applicable to use X^2 test

4.4.2 Gender

Table 10 reveals the distribution of health seeking behavior by gender as a whole study population. The rates of sick individuals who did nothing, traditional care or self-medication and drug store were 7.7 percent among male and 4.8 percent among female. Regarding those who went to health center, there were 25.0 percent among male and 31.5 percent among female while those who sought the consult at public facility, there were 51.0 percent of male and 41.8 percent of female. Regarding those who went to the private facility, 16.3 percent was among male and 21.9 percent was among female. There was no statistical significance between the gender and health seeking behavior at p=0.281. This means that there is no association between the gender and the health seeking behavior.

Table 10 (whole) Distribution of the gender and the health seeking behavior

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Gender					
Male	104	8 (7.7)	26 (25.0)	53 (51.0)	17 (16.3)
Female	146	7 (4.8)	46 (31.5)	61 (41.8)	32 (21.9)

p=0.281 X^2=3.827 DF=3

4.4.3 Occupation

As a whole study population, people who do farm work went to health center at 30.0 percent, public facility at 46.0 percent and the private facility at 19.0 percent. People who were employee went to went to health center at 31.2 percent, public facility at 40.3 percent and the private facility at 22.1 percent. Among acute illness people, people who do farm work went to health center at 35.9 percent, public facility at 43.8 percent and the private facility at 14.1 percent. People who were employee went to went to health center at 34.1 percent, public facility at 36.4 percent and the private facility at 22.7 percent. Among chronic illness people, people who do farm work went to health center at 28.0 percent, public facility at 34.0 percent and the private facility at 52.6 percent. People who were employee went to went to health center at 36.0 percent, public facility at 28.3 percent and the private facility at 36.8 percent (data not shown). Chi-square test could not be applicable to these categories.

4.4.4 Educational status

Table 11 shows the distribution of health seeking behavior by the education group as a whole study population. For those who had no education or primary level group, 31.7 percent and 45.4 percent of them went to health center and public facility respectively. The rates of those who did nothing, traditional care or self-medication and drug store and the private facility were at 4.9 percent and 18.0 percent, respectively. Those who had secondary, vocational or university level went to pubic facility at 46.2 percent and the private facility at 23.9 percent. There was no statistical significance between the educational level and health seeking behavior at p=0.242. This means that there is no association between educational level and health seeking behavior.

Table 11 (Whole) Distribution of the education group and the health seeking behavior

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Educational level of household					
No education/ primary	183	9 (4.9)	58 (31.7)	83 (45.4)	33 (18.0)
Secondary/ Vocational/ University	67	6 (9.0)	14 (20.9)	31 (46.2)	16 (23.9)

P=0.242 X^2=4.183 DF=3

4.4.5 Household income

Table 12 shows the distribution of health seeking behavior by household income group as a whole study population. The range of income was decided according as follows; 3000 baht was the middle of median and 7000 baht was almost trimmed mean. The households with low income utilized public facility at 50.9 percent and health center at 35.9 percent. Only 9.4 percent of them utilized the private facility while households with high income utilized it at 28.3 percent. The group of household with high income revealed the lowest utilization of health center at 14.1

percent. There was statistical significance between the household income and the health seeking behavior at p=0.002. This means that there is association between both of them.

Table 12 (Whole) Distribution of the income group and the health seeking behavior

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Household income					
3000≥	53	2 (3.8)	19 (35.9)	27 (50.9)	5 (9.4)
3000< <7000	90	8 (8.9)	33 (36.7)	35 (38.9)	14 (15.5)
7000≤	85	4 (4.7)	12 (14.1)	45 (53.0)	24 (28.2)

p=0.002 X^2=20.34 DF=6

*Unknown individuals were excluded.

4.4.6 Health insurance coverage

Table 13 reveals the distribution of health seeking behavior by insurance group as a whole study population. To focus on 30 baht scheme, it was divided into two groups as 30 baht card and as others. In the 30 baht card group, they utilized health center and public facility at 36.0 percent and at 44.1 percent, respectively, while people in the others group utilized them at 16.7 percent and at 47.6 percent respectively. Regarding the private facility, 14.9 percent of people having 30 baht group went there while 28.6 percent of people having others went there. There was statistical significance between the insurance group and the health seeking behavior at p=0.005. This means that there is association between them.

Table 14 demonstrates those as an acute illness group. In the 30 baht card group, they utilized health center and public facility at 38.8 percent and at 40.8 percent each while people in the others group utilized them at 20.0 percent and at 37.8 percent respectively. Regarding the private facility, 15.3 percent of people having 30 baht group went there while 28.9 percent of people having others went there. There was statistical significance between the insurance group and the health seeking behavior at p=0.029. This means there is also association between them in the acute

illness category.

Table 15 shows those as a chronic illness group. In the 30 baht card group, they utilized health center and public facility at 31.8 percent and at 49.2 percent each while people in the others group utilized them at 12.8 percent and at 59.0 percent respectively. Regarding the private facility, 14.3 percent of people having 30 baht group went there while 28.2 percent of people having others went there. There was statistical significance between the insurance group and the health seeking behavior at p=0.042. This means there is also association between them in the chronic illness category.

Table 13 (Whole) Distribution of the insurance group and the health seeking behavior

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Health insurance					
30 baht card	161	8 (5.0)	58 (36.0)	71 (44.1)	24 (14.9)
Others	84	6 (7.1)	14 (16.7)	40 (47.6)	24 (28.6)

P=0.005 X^2=12.907 DF = 3

*Unknown coverage individuals were excluded

Table 14 (Acute) Distribution of the insurance group and the health seeking behavior

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Health insurance					
30 baht card	98	5 (5.1)	38 (38.8)	40 (40.8)	15 (15.3)
Others	45	6 (13.3)	9 (20.0)	17 (37.8)	13 (28.9)

P=0.029 X^2=9.001 DF=3

*Unknown coverage individuals were excluded

Table 15 (Chronic) Distribution of the insurance group and the health seeking behavior

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Health insurance					
30 baht card	63	3 (4.8)	20 (31.8)	31 (49.2)	9 (14.3)
Others	39	0 (0.0)	5 (12.8)	23 (59.0)	11 (28.2)

P=0.042 X^2=8.192 DF=3

*Unknown coverage individuals were excluded

4.4.7 Availability of service

4.4.7.1 Waiting time

Table 16 shows the distribution of health seeking behavior by waiting time as a whole study population. More than half of population (139 individuals out of 250) waited for less than 30 minutes. The proportion of those who waited for less than 30 minutes was that 41.7 percent of them utilized health center, 33.1 percent of them utilized public facility and 19.4 percent utilized the private facility. While 15.3 percent of those who waited for 30 minutes up to 60 minutes utilized health center and 55.6 percent of them utilized public facility. The proportion of those who waited for more than 60 minutes was that 7.7 percent of them utilized health center and 57.1 percent of them utilized public facility. While 5.1 percent of them took more than 60 minutes to do nothing, traditional care or self-medication and drug store. There was a statistical significance between waiting time and health seeking behavior at $p<0.001$. This means that there is association between the waiting time and the health seeking behavior.

Table 17 shows those as an acute illness group. The proportion of those who waited for less than 30 minutes was that 46.0 percent of them utilized health center and 28.7 percent of them utilized public facility. While 14.3 percent of those who waited for 30 minutes up to 60 minutes utilized health center and 52.4 percent of them utilized public facility. Among those who waited for more than 60 minutes, 68.8 percent of them utilized public facility. There was a statistical significance between waiting time and health seeking behavior at $p=0.002$. This means that there is

association between the waiting time and the health seeking behavior.

Table 18 demonstrates those as a chronic illness group. The proportion of those who waited for less than 30 minutes was that there was utilization of health center at 34.6 percent and that of public facility at 40.4 percent. While 16.7 percent of those who waited for 30 minutes up to 60 minutes utilized health center and 60.0 percent of them utilized public facility. The proportion of those who waited for more than 60 minutes was that 8.7 percent of them utilized health center and 73.9 percent of them utilized public facility. Chi-square test could not be applicable to this category.

Table 16 (Whole) Distribution of the waiting time and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
≤29min.	139	8 (5.8)	58 (41.7)	46 (33.1)	27 (19.4)
30min.~ 60min.	72	5 (6.9)	11 (15.3)	40 (55.6)	16 (22.2)
≥61min.	39	2 (5.1)	3 (7.7)	28 (71.8)	6 (15.4)

$p<0.001$ $X^2=31.649$ DF = 6

Table 17 (Acute) Distribution of the waiting time and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
≤29min.	87	6 (6.9)	40 (46.0)	25 (28.7)	16 (18.4)
30min.~ 60min.	42	5 (11.9)	6 (14.3)	22 (52.4)	9 (21.4)
≥61min.	16	1 (6.2)	1 (6.2)	11 (68.8)	3 (18.8)

$P=0.002$ $X^2=21.34$ DF = 6

Table 18 (Chronic) Distribution of the waiting time and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
≤29min.	52	2 (3.8)	18 (34.6)	21 (40.4)	11 (21.2)
30min.~ 60min.	30	0 (0.0)	5 (16.7)	18 (60.0)	7 (23.3)
≥61min.	23	1 (4.4)	2 (8.7)	17 (73.9)	3 (13.0)

Note: Not applicable to use X^2 test

4.4.8 Access to regular source of care

4.4.8.1 Traveling time

Table 19 shows the distribution of health seeking behavior by traveling time as a whole study population. One hundred fifty-two individuals spent less than 30 minutes to travel to seeking behavior. Among those, 40.1 percent of them went to health center, 42.8 percent of them went to public facility and 13.2 percent of them went to the private facility. Among those who traveled for 30 minutes up to 60 minutes, there were 14.5 percent of individuals who utilized health center, 46.8 percent of those who utilized public facility and 32.3 percent of those who utilized the private facility. While 2.9 percent of individuals who took more than 60 minutes went to health facility, 57.1 percent of them went to public facility and 25.7 percent of them went to the private facility. There was a statistical significance between the traveling time and the health seeking behavior at $p<0.001$. This means that there is association between them.

Table 20 shows those as an acute illness group. Among those who took less than 30 minute to travel, 42.7 percent went to health center, 36.5 percent went to public facility and 15.6 percent went to the private facility. There were 15.6 percent of individuals who utilized health center, 40.6 percent of those who utilized public facility and 34.4 percent of those who utilized the private facility among those who traveled for 30 to 60 minutes. While 25 percent of individuals who took more than 60 minutes did nothing, traditional care or self-medication and drug store, 0.0 percent of them went to health center, 62.5 percent of them went to public facility and 12.5 percent of them went to the private facility. There was a statistical significance

between the raveling time and the health seeking behavior at $p<0.001$. This means that there is association between them.

Those as a chronic illness group are shown in table 21. In this category, more people among those who took less than 30 minutes utilized public facility at 53.6 percent than health center at 35.7 percent. Those who took 30 minutes up to 60 minutes to travel utilized health center, public facility and the private facility at 13.3 percent, 53.3 percent and 30.0 percent respectively. The rates of utilization of those facilities were 5.3 percent in health center, 52.6 percent in the private facility and 36.8 percent in the private facility among those who took more than 60 minutes to travel. Chi-square test could not be applicable to this category.

Table 19 (Whole) Distribution of the traveling time and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
≤29min.	152	6 (3.9)	61 (40.1)	65 (42.8)	20 (13.2)
30min.~ 60min.	62	4 (6.5)	9 (14.5)	29 (46.8)	20 (32.3)
≥61min.	35	5 (14.3)	1 (2.9)	20 (57.1)	9 (25.7)

$P<0.001$ $X^2=34.828$ DF = 6

*Unknown individual was excluded.

Table 20 (Acute) Distribution of the traveling time and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
≤29min.	96	5 (5.2)	41 (42.7)	35 (36.5)	15 (15.6)
30min.~ 60min.	32	3 (9.4)	5 (15.6)	13 (40.6)	11 (34.4)
≥61min.	16	4 (25.0)	0 (0.0)	10 (62.5)	2 (12.5)

$P<0.001$ $X^2=24.86$ DF = 6

Table 21 (Chronic) Distribution of the traveling time and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
≤29min.	56	1 (1.8)	20 (35.7)	30 (53.6)	5 (8.9)
30min.~ 60min.	30	1 (3.3)	4 (13.3)	16 (53.3)	9 (30.0)
≥61min.	19	1 (5.3)	1 (5.3)	10 (52.6)	7 (36.8)

Note: Not applicable to use X^2 test

4.4.8.2 Cost of traveling

Table 22 demonstrates the distribution of the health seeking behavior by the cost of traveling as a whole study group. Among those who could seek 0 to 50 baht as the traveling cost, 46.5 percent of them sought health center, 32.0 percent of them sought public facility and only 16.0 percent of them sought the private facility. While 4.7 percent of those who spent more than 50 baht as the traveling cost sought health center, 64.2 percent of them sought public facility and only 24.5 percent of them sought the private facility. There was statistical significance between the cost of traveling and the health seeking behavior at $p<0.001$. This means that there is association between them.

In the category of acute illness group revealed almost same pattern with

whole study population (Table 23). There was statistical significance between the cost of traveling and the health seeking behavior at P<0.001.

Table 24 shows those as chronic illness group. Among those who could seek 0 to 50 baht as the traveling cost, 43.4 percent of them sought health center, 39.6 percent of them sought public facility and only 15.1 percent of them sought the private facility. Among those who spent more than 0 baht as the cost of traveling, the rate of those who utilized health center and public facility were only 3.9 percent. There was statistical significance between the cost of traveling and the health seeking behavior at P<0.001.

Table 22 (Whole) Distribution of the cost of traveling and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
50baht and less	144	8 (5.5)	67 (46.5)	46 (32.0)	23 (16.0)
More than 50baht	106	7 (6.6)	5 (4.7)	68 (64.2)	26 (24.5)

P<0.001 X^2=53.341 DF = 3

Table 23 (Acute) Distribution the cost of traveling and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
50baht and less	91	7 (7.7)	44 (48.3)	25 (27.5)	15 (16.5)
More than 50baht	54	5 (9.2)	3 (5.6)	33 (61.1)	13 (24.1)

P<0.001 X^2=29.848 DF = 3

Table 24 (Chronic) Distribution the cost of traveling and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
50baht and less	53	1 (1.9)	23 (43.4)	21 (39.6)	8 (15.1)
More than 50baht	52	2 (3.9)	2 (3.9)	35 (67.4)	13 (25.0)

P<0.001 X^2=22.656 DF = 3

4.4.8.3 Cost of care

Table 25 shows the distribution of health seeking behavior and the cost of care as a whole study population. Majority of study population cost free or felt not very expensive (210 individuals). Majority of those who cost free or felt not very expensive utilized the health center or the public facility at 34.3 percent and 46.7 percent respectively. On the other hand, no one of those who felt expensive utilized health center and 55.0 percent of them utilized the private facility. There was statistical significance between the cost of care and the health seeking behavior at p<0.001.

Table 26 demonstrates those as an acute illness group. Almost of them cost free or felt not very expensive as well as whole study population. There were 37.3 percent of those who cost free or felt not very expensive utilized health center, 40.5 percent of them utilized public facility and 8.7 percent of them did nothing, traditional care or self-medication and drug store. There were also no one went to health center among those who felt expensive and they went to the private facility at 57.9 percent. There was a statistical significance between them at p<0.001.

Table 27 shows those as a chronic illness group. The distribution demonstrates similar pattern as well as that of whole study population. However Chi-square test could not be applicable to this category.

Table 28 shows the distribution of cost of care and the health insurance coverage. There was significant association between them at P<0.001.

Table 25 (Whole) Distribution of the cost of care and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Free or not very expensive	210	13 (6.2)	72 (34.3)	98 (46.6)	27 (12.9)
Expensive	40	2 (5.0)	0 (0.0)	16 (40.0)	22 (55.0)

P<0.001 X^2=44.567 DF = 3

Table 26 (Acute) Distribution of the cost of care and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Free or not very expensive	126	11 (8.7)	47 (37.3)	51 (40.5)	17 (13.5)
Expensive	19	1 (5.3)	0 (0.0)	7 (36.8)	11 (57.9)

P<0.001 X^2=24.239 DF = 3

Table 27 (Chronic) Distribution of the cost of care and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Free or not very expensive	84	2 (2.4)	25 (29.8)	47 (56.0)	10 (11.9)
Expensive	21	1 (4.8)	0 (0.0)	9 (42.9)	11 (52.4)

Note: Not applicable to use X^2 test

Table 28 (Whole) Distribution of the cost of care and the health insurance coverage

	People ill (N)	30 baht card	Others
Free	55	23 (41.8)	32 (58.2)
Not very expensive	152	113 (74.3)	39 (25.7)
Expensive	38	25 (65.8)	13 (34.2)

P<0.001 X^2=18.961 DF = 2

4.4.9 Knowledge of kinds of medical care provider and types of health service organization

Table 29, 30, 31 demonstrates the comparison of knowledge score of medical services between health seeking behaviors as a whole study population, an acute illness group and a chronic illness group respectively. There were 9 questions about them. Therefore, minimum and maximum score were 0 and 9 points. However there were no statistical significances between the knowledge of kinds of medical care provider and types of health service organization and the health seeking behavior at p=0.805, 0.954 and 0.866 in each category. This means there are no differences between them. Even if question 26 was excluded because of lowest reliability, there were no statistical significances between them in each category (data not shown).

Table 29 (Whole) Knowledge score of medical service and the health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
N	15	72	114	49
Mean ±SD	4.53±1.69	4.92±1.69	4.97±1.94	5.14±1.70

P=0.805

Table 30 (Acute) Knowledge score of medical service and the health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
N	12	47	58	28
Mean ±SD	4.58±1.78	4.92±1.63	4.91±1.80	5.07±1.65

P=0.954

Table 31 (Chronic) Knowledge score of medical service and the health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
N	3	25	56	21
Mean ±SD	4.33±1.53	4.92±1.82	5.04±2.09	5.24±1.79

P=0.866

4.4.10 Knowledge of illness

Table 32, 33, 34 show the comparison of knowledge score of illness and health seeking behavior as a whole study population, an acute illness group and a chronic group each. There were 10 questions about them. Therefore, minimum and maximum score were 0 and 10 points. There were also no statistical significances between the knowledge of illness and the health seeking behavior at p=0.181, 0.534 and 0.138 in each category. This means there are no differences between them. Even if question 39 and 41 was excluded because of lowest reliability, there were no statistical significances between them in each category (data not shown).

Table 32 (Whole) Knowledge score of illness and the health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
N	15	72	114	49
Mean ±SD	5.93±1.22	6.54±1.46	6.71±1.46	6.51±1.28

P=0.181

Table 33 (Acute) Knowledge score of illness and the health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
N	12	47	58	28
Mean ±SD	6.08±1.31	6.72±1.43	6.72±1.41	6.68±1.09

P=0.534

Table 34 (Chronic) Knowledge score of illness and the health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
N	3	25	56	21
Mean ±SD	5.33±0.58	6.20±1.50	6.70±1.53	6.29±1.49

P=0.138

4.4.11 Morbidity of illness

The distribution of health seeking behavior and the morbidity was shown in table35. Among the acute illness group, 8.3 percent of them did nothing, consulting traditional care or doing self-medication and going to drug store. The rate of those who went to health center, public facility and the private facility among them were

32.4 percent, 40.0 percent and 19.3 percent, respectively. Only 2.9 percent of those who had chronic illness did nothing, consulting traditional care or doing self-medication and going to drug store. The rate of those who went to health center, public facility and the private facility among chronic illness group were 23.8 percent, 53.3 percent and 20.0 percent respectively. There was no statistical significance between the morbidity and the seeking behavior at p=0.074. This means there is no association between them.

Table 35 Distribution of the morbidity and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Acute	145	12 (8.3)	47 (32.4)	58 (40.0)	28 (19.3)
Chronic	105	3 (2.9)	25 (23.8)	56 (53.3)	21 (20.0)
P=0.074	X^2=6.935	DF = 3			

4.4.12 Severity of illness

Table 36 reveals the distribution of health seeking behavior and the severity of illness as a whole study population. Majority of them had the mild to moderate illness (196 individuals out of 250). Among them, 7.7 percent of them did nothing, consulting traditional care or doing self-medication and going to drug store, 34.2 percent of them went to the health center, 37.8 percent of them went to public facility and 20.4 percent of them went to the private facility. Among those who had the severe illness, there were no individuals who did nothing, traditional care or self-medication and drug store and 9.3 percent of them went to the health center while 74.1 percent of them went to public facility and 16.7 percent of them went to the private facility firstly. There was statistical significance between the severity of illness and the health seeking behavior at p<0.001. This means that there is association between them.

Table 37 shows those as an acute illness group. It reveals similar tendency with a whole study population and also there was statistical significance between the severity and the health seeking behavior at p=0.002.

Table 38 shows those as a chronic illness group. Sixty-eight individuals of

105 had mild to moderate illness. Among them, 4.4 percent of them did nothing, traditional care or self-medication and drug store, 30.9 percent of them went to the health center, 44.1 percent of them went to public facility and 20.6 percent of them went to the private facility. Among those who had the severe illness, there were no individuals who did nothing, traditional care or self-medication and drug store and 10.8 percent of them went to the health center while 70.3 percent of them went to public facility and 18.9 percent of them went to the private facility firstly. There was statistical significance between the severity of illness and the health seeking behavior at p=0.032.

Table 36 (Whole) Distribution of the severity and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Mild ~ Moderate	196	15 (7.6)	67 (34.2)	74 (37.8)	40 (20.4)
Severe	54	0 (0.0)	5 (9.2)	40 (74.1)	9 (16.7)

P<0.001 X^2=25.814 DF = 3

Table 37 (Acute) Distribution of the severity and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Mild ~ Moderate	128	12 (9.4)	46 (35.9)	44 (34.4)	26 (20.3)
Severe	17	0 (0.0)	1 (5.9)	14 (82.3)	2 (11.8)

P=0.002 X^2=14.98 DF = 3

Table 38 (Chronic) Distribution of the severity and the health seeking behavior

	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Mild ~ Moderate	68	3 (4.4)	21 (30.9)	30 (44.1)	14 (20.6)
Severe	37	0 (0.0)	4 (10.8)	26 (70.3)	7 (18.9)

P=0.032 X^2=8.793 DF = 3

4.4.13 Self-chosen factor of health seeking behavior

Table 39 demonstrates the degree of self- chosen factor when respondents sought behavior as a whole study population. The degrees were that 1:never considered, 2:a bit considered, 3:moderate, 4:considered and 5:strongly considered. The number was revealed as mean ± SD and the greater score is better. Regarding the short waiting time, there was statistically significant difference between the public facility (2.90±1.06) and the private facility (3.45±1.31) at p=0.013. This means that those who chose the private facility considered the short waiting time more necessary compared with those who chose the public facility. In point of the quality of reception, there was statistically significant difference between the health center (3.26±1.22) and the private facility (4.16±0.94) and between the public facility (3.62±1.04) and the private facility at p<0.001. This means that those who chose the private facility considered the quality of reception more important compared with those who chose the health center or the public facility. Regarding the hour care of service, there was statistically significant difference between the health center (2.97±1.06) and the private facility (3.65±1.23) at p=0.005. This means that those who chose the private facility considered the hour care of service more important compared with those who chose the health center. In relation to the health provider's skill, there was statistically significant difference between the health center (3.50±1.20) and the private facility (4.22±0.96) at p=0.008. This means that those who chose the private facility considered the health provider's skill more important compared with those who the chose health center. Regarding the other factors, there were no statistical significances with the health seeking behavior.

Table 40 reveals those as an acute illness group. Regarding the short waiting

time, there was statistically significant difference between the public facility (2.91±1.00) and the private facility (3.57±1.29) at p=0.047. This means that those who chose the private facility considered the short waiting time more necessary compared with those who the chose public facility. In point of the quality of reception, there was statistically significant difference between the health center (3.26±1.29) and the private facility (4.07±0.90) at p0.045. This means that those who chose the private facility considered the quality of reception more important compared with those who chose the health center. On the other hand, there were no statistical significances between the other factors and the health seeking behavior.

Table 41 shows those as a chronic illness group. In point of the quality of reception, there was statistical significance between the health center (3.28±1.10) and the private facility (4.29±1.01) at p=0.011. This means that those who chose the private facility considered the quality of reception more important compared with those who chose the health center. Regarding the health care provider's skill, there was statistical significance between the health center (3.40±1.29) and the private facility (4.48±0.68) at p=0.033. This means that those who chose the private facility considered the health care provider's skill more important compared with those who chose the health center. Regarding the other factors, there were no statistical significances with the health seeking behavior.

Table 39 (Whole) Self chosen factor and health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility	P-value
N	15	72	114	49	
Short traveling time	3.00±1.36	3.31±1.37	3.05±1.25	2.94±1.41	0.466
Cost of traveling	3.00±1.31	2.99±1.32	2.89±1.23	2.78± 1.23	0.839
Short waiting time	3.47±1.19	2.97±1.11	2.90±1.06*	3.45±1.31*	0.013
Quality of reception	3.67±1.54	3.26±1.22*	3.62±1.04**	4.16±0.94*,**	<0.001
Hour care of service	3.53±1.30	2.97±1.06*	3.26±0.96	3.65±1.23*	0.005
Severity of your illness	3.60±1.40	3.38±1.17	3.58±1.23	3.86±1.12	0.204
Health care provider's skill	3.87±1.36	3.50±1.20*	3.83±1.10	4.22±0.96*	0.008
Feel comfortably with providers	3.40±1.40	3.65±1.13	3.31±1.28	3.86±1.06	0.081
Cost of treatment	3.20±1.21	3.03±1.42	3.04 ±1.35	3.02±1.28	0.968

~, **~**, ***~*** means that difference exist between the same mark

Table 40 (Acute) Self-chosen factor and health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility	P-value
N	12	47	58	28	
Short traveling time	3.08±1.38	3.34±1.40	3.02±1.19	3.25±1.43	0.603
Cost of raveling	2.92±1.44	3.09±1.30	2.88±1.23	2.93± 1.15	0.852
Short waiting time	3.42±1.31	3.04±1.20	2.91±1.00*	3.57±1.29*	0.047
Quality of reception	3.75±1.49	3.26±1.29*	3.55±1.05	4.07±0.90*	0.045
Hour care of service	3.50±1.45	2.96±1.12	3.35±0.93	3.64±1.10	0.068
Severity of your illness	3.58±1.24	3.49±1.20	3.55±1.17	3.75±1.08	0.853
Health care provider's skill	3.75±1.42	3.55±1.16	3.76±1.00	4.03±1.11	0.280
Feel comfortably with providers	3.25±1.49	3.57±1.19	3.29±1.27	3.82±0.91	0.407
Cost of treatment	3.25±1.29	2.85±1.44	3.05 ±1.32	3.25±1.11	0.606

∼ means that difference exist between the same mark

Table 41 (Chronic) Self-chosen factor and health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility	P-value
N	3	25	56	21	
Short traveling time	2.67±1.53	3.24±1.33	3.09±1.31	2.52±1.29	0.350
Cost of traveling	3.33±0.58	2.80±1.35	2.89±1.23	2.57±1.33	0.650
Short waiting time	3.67±0.58	2.84±0.94	2.88±1.13	3.29±1.35	0.308
Quality of reception	3.33±2.08	3.28±1.10*	3.70±1.04	4.29±1.01*	0.011
Hour care of service	3.67±0.58	3.00±0.96	3.18±0.99	3.67±1.43	0.099
Severity of your illness	3.67±2.31	3.16±1.11	3.61±1.29	4.00±1.18	0.103
Health care provider's skill	4.33±1.16	3.40±1.29*	3.91±1.21	4.48±0.68*	0.033
Feel comfortably with providers	4.00±1.00	3.80±1.00	3.32±1.30	3.91±1.26	0.199
Cost of treatment	3.00±1.00	3.38±1.35	3.02±1.40	2.71±1.45	0.513

~ means that difference exist between the same mark

4.4.14 Real demand of health care service

Table 42 shows the real demand for the health care services where respondents would like to go when they have acute illness next time after smoothing out obstacles as a whole study population. The degrees were described as well as that of self-chosen factor. Regarding the short waiting time, there was statistically significant difference between the public facility (3.09±1.02) and the private facility (3.75±1.08) and between the health center (3.15±1.11) and the private facility at p=0.007. This means that those who will choose the private facility considered the short waiting time more necessary compared with those who will choose the health center or the public facility. In point of the outcome of treatment, there was statistically significant difference between the health center (3.91±0.99) and the private facility (4.50±0.70) and between the public facility (3.91±0.94) and the private facility at p=0.008. This means that those who will choose the private facility considered the outcome of treatment more important compared with those who will

choose the health center or the public facility. Regarding the health care provider's skill, there was statistically significant difference between the health center (3.68±1.23) and the private facility (4.28±0.91) at p=0.048. This means that those who will choose the private facility considered the health care provider's skill more important compared with those who will choose the health center. Regarding the other factors, there were no statistical significances with the health seeking behavior.

Table 43 demonstrates the real demand for the health care services where respondents would like to go when they have chronic illness in the future as a whole study population. Regarding the quality of reception, there was statistically significant difference between the health center (3.50±1.41) and the private facility (4.35±0.79) and between the public facility (3.82±0.94) and the private facility at p=0.013. This means that those who will choose the private facility considered the quality of reception more necessary compared with those who will choose the health center or the public facility. In point of the outcome of treatment, there was statistically significant difference between the health center (3.67±1.05) and the private facility (4.46±0.87) and between the public facility (4.02±0.91) and the private facility at p=0.010. This means that those who will choose the private facility considered the outcome of treatment more important compared with those who will choose the health center or the public facility. Regarding the health care provider's skill, there was statistically significant difference between the health center (3.21±1.38) and the private facility (4.43±0.87), between the health center and the public facility (3.96±0.96) and between the public facility and the private facility at p=0.002. This means that those who will choose the private facility considered the health care provider's skill more important compared with those who will choose the health center or the public facility while those who will choose the public facility considered it more important compared with those who will choose the health center. Regarding the feel comfortably with providers, there was statistically significant difference between the health center (3.13±1.39) and the public facility (3.74±0.95) and between the health center and the private facility (4.08±1.04) at p=0.018. Regarding the other factors, there were no statistical significances with the health seeking behavior.

Table 42 (Whole) Demand and the health seeking behavior for acute illness in the future

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility	P-value
N	18	66	130	36	
Short traveling time	3.72±1.18	3.52±1.47	3.25±1.23	3.44±1.25	0.295
Cost of traveling	3.50±0.99	3.38±1.20	3.05±1.18	3.28±1.23	0.203
Short waiting time	3.44±0.98	3.15±1.11*	3.09±1.02**	3.75±1.08*,**	0.007
Quality of reception	3.56±1.10	3.62±1.09	3.64±0.98	4.11±0.67	0.100
Hour care of service	3.44±1.15	3.49±1.13	3.35±0.94	3.78±0.93	0.147
Outcome of treatment	4.06±0.87	3.91±0.99*	3.91±0.94**	4.50±0.70*,**	0.008
Health care provider's skill	3.72±1.02	3.68±1.23*	3.85±0.98	4.28±0.91*	0.048
Feel comfortably with providers	3.56±0.86	3.77±1.16	3.57±0.90	3.89±1.01	0.139
Cost of treatment	3.67±1.03	3.49±1.17	3.25±1.28	3.14±1.38	0.417

~, **~** means that difference exist between the same mark

Table 43 (Whole) Demand and the health seeking behavior for chronic illness in the future

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility	P-value
N	4	24	185	37	
Short traveling time	3.00±1.41	3.04±1.49	3.23±1.16	3.00±1.23	0.817
Cost of traveling	2.75±1.50	2.83±1.37	3.28±1.06	3.03±1.19	0.398
Short waiting time	2.50±1.00	2.88±1.42	3.16±0.95	3.46±1.17	0.235
Quality of reception	3.25±1.50	3.50±1.41*	3.82±0.94**	4.35±0.79*,**	0.013
Hour care of service	2.50±1.00	3.21±1.47*	3.50±0.93**	3.97±1.12*,**	0.007
Outcome of treatment	4.00±0.82	3.67±1.05*	4.02±0.91**	4.46±0.87*,**	0.010
Health care provider's skill	3.50±1.73	3.21±1.38*,**	3.96 ±0.96*,***	4.43 ±0.87**,***	0.002
Feel comfortably with providers	3.00±1.41	3.13±1.39*,**	3.74±0.95*	4.08±1.04**	0.018
Cost of treatment	3.50±1.73	3.00±1.47	3.47±1.12	3.16±1.17	0.200

∼, **∼**, ***∼*** means that difference exist between the same mark

4.5 Satisfaction and health seeking behavior

Table 44 shows the satisfaction for their health seeking behavior as a whole study group. The degree was described as 1:very poor, 2:poor, 3:moderate, 4:good

and 5:very good. Regarding the hour care of service, there was statistical significance between do nothing, traditional care or self-medication, drug store (3.60±0.74) and the private facility (4.20±0.89) and between the health center (3.79±0.75) and the private facility at p=0.01. This means that those who utilized the private facility received satisfaction more than those who utilized the health center or did nothing, got traditional care self medication and drug store. In relation to the health care provider's skill, there was statistical significance between do nothing, traditional care or self-medication and drug store (3.67±0.90) and the private facility (4.33±0.77) and between the health center (3.81±0.87) and the private facility at p=0.008. This means that those who went to the private facility got satisfaction more than those who went to the health center or did nothing, got traditional care self medication and drug store.

Table 44 (Whole) Satisfaction and the health seeking behavior

	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility	P-value
N	15	72	114	49	
Short traveling time	3.13±1.25	3.65±0.94	3.49±0.99	3.39±0.98	0.386
Cost of traveling	3.20±1.15	3.69±0.90	3.52±0.91	3.55±0.71	0.319
Short waiting time	3.33±1.05	3.54±0.80	3.27±0.84	3.67±1.05	0.053
Quality of reception	3.67±0.72	3.88±0.75	3.88±0.88	4.18±0.83	0.066
Hour care of service	3.60±0.74**	3.79±0.75*	3.91±0.76	4.20±0.89*,**	0.010
Outcome of treatment	3.87±0.83	3.99±0.70	4.02±0.85	4.25±0.78	0.193
Health care provider's skill	3.67±0.90*	3.81±0.87**	4.03±0.89	4.33±0.77*,**	0.008
Feel comfortably with providers	3.47±0.83	3.90±0.81	3.83±0.90	4.10±0.90	0.069
Cost of treatment	3.53±1.30	3.99±0.81	3.76±0.90	3.49±0.96	0.076

~, **~** means that difference exist between the same mark

Figure 1 and table 45 shows the comparison between the degree of self-chosen factor and the satisfaction among those who did nothing, traditional care or self medication and drug as a whole study population. There were no statistically significant differences between them. This means that the degree of those dimension among them are not different.

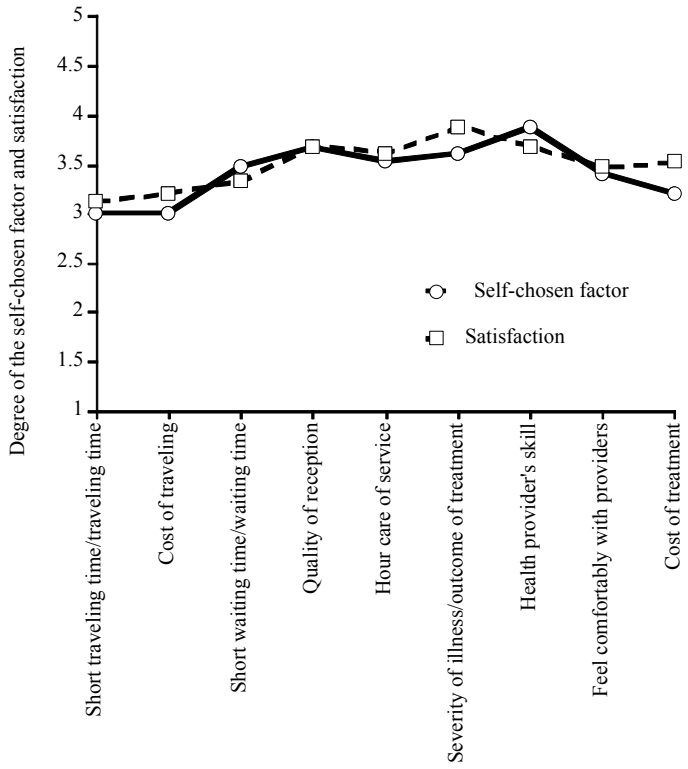


Figure 1 Comparison of the degree of the self-chosen factor and the satisfaction among those who did nothing, traditional care or self medication and drug

Table 45 Comparison of the degree of self-chosen factor and the satisfaction among those who did nothing, traditional care or self medication and drug

	Self-chosen factor	Satisfaction	p-value
Short traveling time/traveling time	3.00±1.36	3.12±1.25	0.855
Cost of traveling	3.00±1.31	3.20±1.15	0.689
Short waiting time/waiting time	3.47±1.19	3.33±1.05	0.760
Quality of reception	3.67±1.54	3.67±0.72	0.929
Hour care of service	3.53±1.30	3.60±0.74	0.838
Severity of illness/outcome of treatment	3.60±1.40	3.87±0.83	0.541
Health provider's skill	3.87±1.36	3.67±0.90	0.636
Feel comfortably with providers	3.40±1.40	3.47±0.83	0.859
Cost of treatment	3.20±1.21	3.53±1.30	0.328

Figure 2 shows the comparison between the degree of self-chosen factor and the satisfaction among those who sought the health center as a whole study population. Regarding every aspects except the feel comfortably with providers, there were statistical significances between the self chosen-factor and the satisfaction among them at $p<0.01$ as shown in table 46. This means that the degree of satisfaction for the health center is better than that of the self chosen factors regarding those items mentioned above.

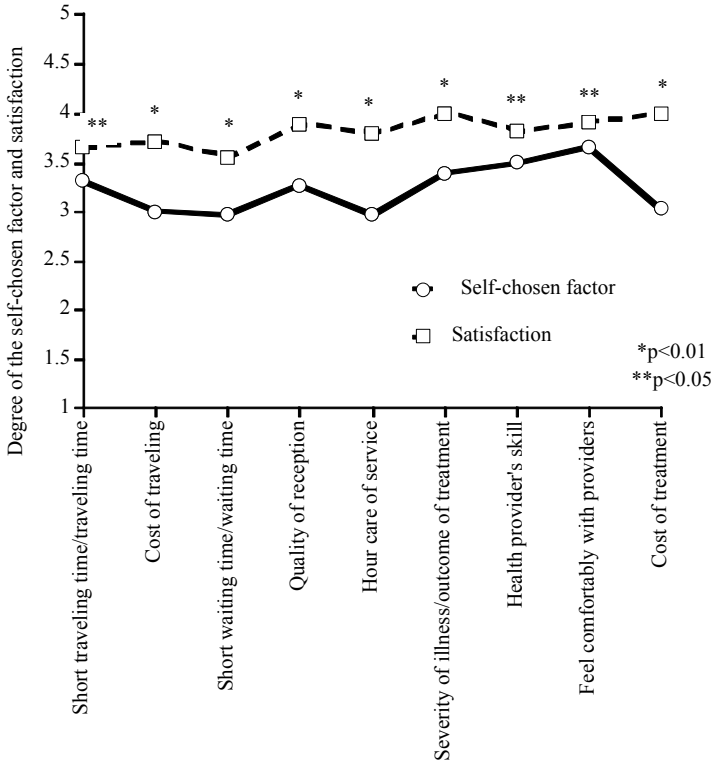


Figure 2 Comparison of the degree of self-chosen factor and the satisfaction among and those who sought the health center

Table 46 Comparison of the degree of the self-chosen factor and the satisfaction among those who sought the health center

	Self-chosen factor	Satisfaction	p-value
Short traveling time/traveling time	3.31±1.37	3.65±0.94	0.019
Cost of traveling	2.99±1.32	3.70±0.90	<0.001
Short waiting time/waiting time	2.97±1.11	3.54±0.80	0.001
Quality of reception	3.26±1.22	3.88±0.75	<0.001
Hour care of service	2.97±1.06	3.79±0.75	<0.001
Severity of illness/outcome of treatment	3.38±1.17	3.99±0.70	<0.001
Health provider’s skill	3.50±1.20	3.81±0.87	0.022
Feel comfortably with providers	3.65±1.13	3.90±0.81	0.066
Cost of treatment	3.03±1.42	3.99±0.81	<0.001

Figure 3 shows the comparison between the degree of self-chosen factor and the satisfaction among those who sought the public facility as a whole study population. Regarding the degree of the short traveling time/traveling time, the cost of traveling, the short waiting time/waiting time, the hour care of service, the severity of illness/outcome of treatment, feel comfortably with providers and the cost of treatment, there were statistical significances between the self chosen-factor and the satisfaction among them at $p<0.01$ as shown in table 47. In relation of the quality of reception, there was statistical significance between them at $p<0.05$. This means that the degree of satisfaction for the public facility is better than that of the self chosen factors regarding those items stated above.

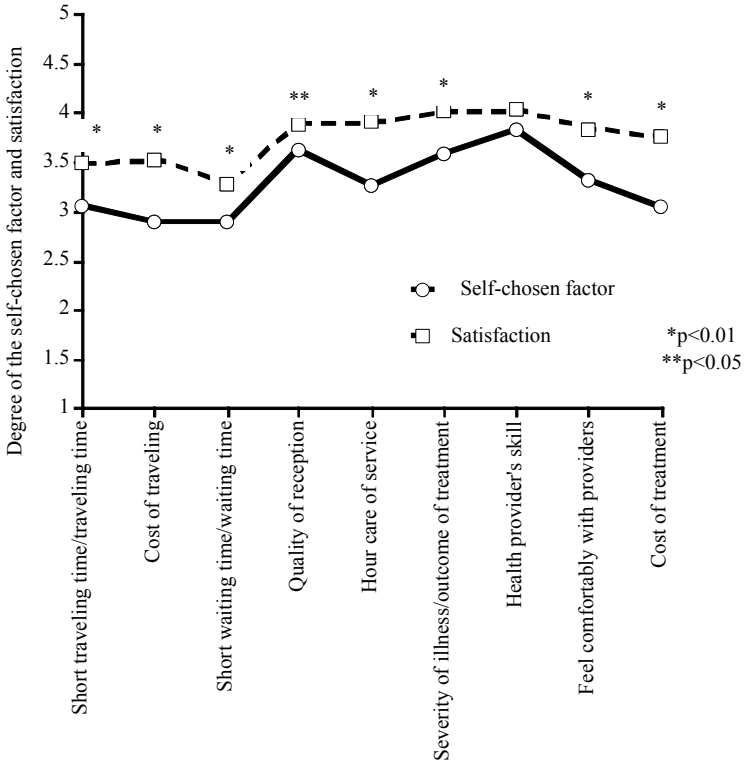


Figure 3 Comparison of the degree of the self-chosen factor and the satisfaction among those who sought the public facility

Table 47 Comparison of the degree of self-chosen factor and the satisfaction among those who sought the public facility

	Self-chosen factor	Satisfaction	p-value
Short traveling time/traveling time	3.05±1.25	3.49±0.99	0.003
Cost of traveling	2.89±1.22	3.52±0.91	<0.001
Short waiting time/waiting time	2.89±1.06	3.27±0.84	0.002
Quality of reception	3.62±1.04	3.88±0.88	0.040
Hour care of service	3.26±0.96	3.91±0.76	<0.001
Severity of illness/outcome of treatment	3.58±1.23	4.02±0.85	0.001
Health provider's skill	3.83±1.10	4.03±0.89	0.113
Feel comfortably with providers	3.31±1.28	3.83±0.90	<0.001
Cost of treatment	3.04±1.35	3.76±0.90	<0.001

Figure 4 shows the comparison between the degree of the self-chosen factor and the satisfaction among those who sought the private facility as a whole study population. Regarding the degree of the cost of traveling, there were statistical significances between the self chosen-factor and the satisfaction among them at $p<0.01$ as shown in table 48 In point of the hour care of service, the severity/ outcome of illness, the cost of treatment, there were statistical significance between them at $p<0.05$. This means that the degree of satisfaction for the private facility is better than that of the self chosen factors regarding those items discussed above.

Figure 4 Comparison of the degree of the self-chosen factor and the satisfaction among those who sought the private facility

Table 48 Comparison of the degree of the self-chosen factor and the satisfaction among those who sought the private facility

	Self-chosen factor	Satisfaction	p-value
Short traveling time/traveling time	2.94±1.41	3.39±0.98	0.133
Cost of traveling	2.78±1.22	3.55±0.71	0.001
Short waiting time/waiting time	3.45±1.31	3.67±1.05	0.422
Quality of reception	4.16±0.94	4.18±0.83	0.966
Hour care of service	3.65±1.23	4.20±0.89	0.010
Severity of illness/outcome of treatment	3.86±1.12	4.25±0.78	0.017
Health provider's skill	4.22±0.96	4.33±0.77	0.351
Feel comfortably with providers	3.86±1.06	4.10±0.90	0.183
Cost of treatment	3.02±1.28	3.49±0.96	0.041

4.6 Health seeking behavior after smoothing out obstacles

Researcher asked villagers what the health seeking behavior they would like to do next time after smoothing out obstacles. Table 49 and 50 shows the comparison of the behavior at present and in the future. Among those who did nothing in case of acute illness, traditional care and self-medication, 41.7 percent of them will seek same behavior again, 16.7 percent of the will seek health center, 25.0 percent of them will seek the public facility and a16.7 percent of them would like to seek the private facility. Regarding those who utilized the health center in case of acute illness, 61.7 percent of them would like to utilize the health center again and 29.8 percent of them would like to utilize the public facility. Majority of those who went the public facility would like to go to the public facility next time again (79.3 percent). Among those who utilized the private facility, 50.0 percent would like to utilize the private facility again, 32.1 percent of them would like to utilize the public facility and only 7.14 percent of them would like to utilize the health center (Table49).

Regarding the case of chronic illness (table50), more than half (60.0 percent) of those who utilized the heath center would like to move to the facility and 28.0 percent of them will go to the health center again. Majority of those who utilized the public facility (92.9 percent) will utilize there in the future again. Among those who utilized the private facility, 57.1 percent would like to utilize the private facility

again, 38.1 percent of them would like to utilize the public facility and only 4.76 percent of them would like to utilize the health center.

Table 49 (Acute) Health seeking behavior after smoothing out the obstacles

Future / Now	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Do nothing Traditional care Self-medication and drug store	12	5 (41.7)	2 (16.7)	3 (25.0)	2 (16.7)
Health center	47	3 (6.4)	29(61.7)	14 (29.8)	1 (2.1)
Public facility	58	2 (3.5)	8 (13.8)	46 (79.3)	2 (3.5)
Private facility	28	3 (10.7)	2 (7.14)	9 (32.1)	14 (50.0)

Table 50 (Chronic) Health seeking behavior after smoothing out the obstacles

Future / Now	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Do nothing Traditional care Self-medication and drug store	3	1 (33.3)	0 (0.0)	2 (66.7)	0 (0.0)
Health center	25	1 (4.0)	7(28.0)	15 (60.0)	2 (8.0)
Public facility	56	1 (1.8)	1 (1.8)	52 (92.9)	2 (3.6)
Private facility	21	0 (0.0)	1 (4.8)	8 (38.1)	12 (57.1)

To focus on the 30 baht card, Table 51 shows the distribution of the health seeking behavior and the insurance group after smoothing out the obstacles. The rate of those who would like to the public facility next time was increased among those who have 30 baht card (from 40.8 percent to 50.0 percent) and the others (from 37.8

percent to 51.1 percent) compared with table 20. The statistical significance was disappeared at p=0.38. This means that there is no association between the insurance groups and the health seeking behavior after the obstacle is smoothed out in the acute case. On the other hand, among those who had chronic illness, the rate of those who would like to go to the public facility after smoothing out the obstacle was increased obviously among those who have 30 baht card (from 49.2 percent to 81.0 percent) while that was increased among those who have the other kinds of cards (from 59.0 percent to 64.1 percent) compared with table 15. The statistical significance could not be detected at p=0.24. This also means that there is no association between the insurance groups and the health seeking behavior after the obstacle is smoothed out in chronic case (Table 52).

Table 51 (Acute) Distribution of the insurance group and the health seeking behavior after smoothing out the obstacles

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Health insurance					
30 baht card	98	7 (7.1)	31 (31.6)	49 (50.0)	11 (11.2)
Others	45	5 (11.1)	9 (20.0)	23 (51.1)	8 (17.8)

P=0.380 X^2=3.075 DF=3

*Unknown coverage individuals were excluded

Table 52 (Chronic) Distribution of the insurance group and the health seeking behavior after smoothing out the obstacles

Socio-economic Group	People ill (N)	Do nothing Traditional care Self-medication and drug store	Health Center	Public Facility	Private Facility
Health insurance					
30 baht card	63	2 (3.2)	4 (6.4)	51 (81.0)	6 (9.5)
Others	39	1 (2.7)	5 (12.8)	25 (64.1)	8 (20.5)

P=0.240 X^2=4.211 DF=3

*Unknown coverage individuals were excluded

CHAPTER 5
DISCUSSION

5.1 Methodological concerns

This study was based on household interview survey in Klong Yong sub district of Nakhonpathom province, Thailand. Such surveys are affected by time of day constraint because interview was conducted only day time and the respondent's error and recall biases are unavoidable completely. In addition, there were has high socio-economic status area and not high socio-economic status area within this sub district, even within a village. It was difficult to select the households from each area by random sampling. Regarding the distributions of the age, the gender and health seeking behavior are about illness person and the other information or the knowledge present about head of household or respondents. If the respondents were not the illness person, wife of household, head of household or relatives answered the interview. In this study, the opinion of head or wife of household for health seeking was thought to be present the health seeking behavior of the other member of household. Regarding head of household, it was depended on the definition of household. To reduce the respondents error, if respondent was the relative who was not living with illness person, this was excluded from the analysis. Also, the pregnant cases were also excluded from this analysis. The pre-test of the questionnaire was conducted at Mahasawas sub district of Nakhonpathom province.

The researcher set up a team of interviewers that was made up of 5 to 10 members including undergraduate students at Mahidol University and some staffs at AIHD for 4 days. However, since there were problems about limitation of time availability among the interviewers and date limitation of the researcher, almost interviewers were changed every day. For this reason, the reliability of this study might be reduced. However, to keep reliability, those interviewers were oriented very well and consult with the researcher as much as possible even during survey.

5.2 Background of Klong Yong sub district

Klong Yong sub district belongs to Phutthamonthon district in Nakhonpathom province, Thailand. According to the report from Public health office

in Phutthamonthon in 2003, there are 28,410 population in Phutthamonthon and 9,335 population (Male: 4,658 and Female: 4,678) in Klong Yong sub district. In this sub district, since there are 8 villages, the research team visited 2 villages a day for 4 days. Regarding health facilities, there were 2 the health centers in this sub district, 1 community hospital with 10 beds, 4 doctors, 2 dentists, 3 pharmacist, 31 nurses and 9 technical nurses, 1 specific hospital for boys (public) with 60 beds in Phutthamonthon district. Also, regional hospital is located at distance of about 40 km from this area. In relation to private facilities, there is 1 private hospital with 30 beds and there are a lot of private clinics in this area.

5.3 Socio-demographic characteristics of the respondents

Regarding age group, there was higher rate of acute illness among below 40 years old age group (80 percent of them) while only 43.0 percent of those who belong to 40 and above 40 years old got acute illness and the others got chronic illness (data shown in appendix1). This reveals that the older, the higher the morbidity of chronic illness such as cardiovascular disease, cerebrovascular disease, diabetes mellitus, musculoskeletal disease, etc., as usual aggregate age distribution of illness. The rate of illness female was higher than that of male. For this reason, since female tend to stay home during the day they were available to respond the interview even this number is not the number of respondents. Also, it was reported that the pre-school age group had the highest frequency in 1979, followed by the above 65 years old age group the age adjusted illness rate for female was slightly higher than for males except in the 1979 data on the basis of seriousness of illness (37).

Regarding occupation, 40 percent of respondents household was farm work and 30.8 percent of them were employee. According to Thailand health profile 1999-2000, the proportion of agricultural sector in 2000 was 10.3 percent and that of industry sector was 32.0 percent. The population of agriculture was higher in Klong Yong sub district than that of whole population in this report.

In relation to education, Thailand health profile 1999-2000 reported that 68 percent of labor force attended to primary and lower education level. In this study, the rate of the primary education or lower level among villagers was rather higher (73.2 percent) than this.

In 1996, household that monthly income was less than 2000 baht was 30 percent of study group and 53 percent of them belong to 2001-8000 baht income group (38). In this report, households that monthly income was less than 2000 baht was 9.7 percent of study group and 60.9 percent of them belong to 2001-8000 baht income group by regrouping. There was much more proportion of higher income group in this study than that in 1996.

In point of the insurance coverage, majority of household was covered by 30 baht card (64.4 percent) while only 3.2 percent of household was not covered any insurance. The average household income among those who are not insured was 6125 baht per month. In previous report in 1999, it was estimated that 30.1 percent are uncovered by any insurance scheme or health benefit, 7.8 percent are covered by the CSMBS (5.2 percent in this study) and 22 percent covered by medical welfare schemes (Health insurance systems in Thailand p31). On the other hand, according to the survey after implementation of 30 baht scheme conducted by Suraratdecha, 74 percent of the surveyed population was covered by this scheme and 9.0 percent of them were uninsured. They were likely to have lower average economic variables com paring with the whole sample and lower education, and be part of the young and working age population (26). In this way, the household that was not covered with any insurance was reduced obviously compared with the reports before the implementation of 30 baht scheme.

5.4 The distribution of health seeking behavior across predisposing , enable and need components

There were no significant association between predisposing component such as the age, the gender, the occupation and the educational status and their health seeking behavior in this study. However, those variables have been said as influential factors on health service utilization although it is difficult to generalize them since it is related to the other independent variables or their circumstances and very complicated in truth (10,11,13,17-21). In this study, one of the reasons why there were not significant associations is that the sample size was smaller than previous study.

Regarding enabling components, there were significant associations between the health seeking behavior and the family income, health insurance coverage, availability of service and the accessibility to services. On the other hand,

there were no associations between the health seeking behavior and the knowledge of kinds of medical care provider and types of health service organization or knowledge of illness and health seeking behavior.

In terms of family income, which is often related to the occupation, education level or other predisposing factor, as people become more wealthier, they appear to become more willing to do for higher quality services as it has been investigated many study. However, this result should be considered the distribution of the insurance coverage among income group because the facilities to which villagers have to go were offered on the health insurance card they have according to Thailand health system. In fact, majority of low income group (84.3 percent) had 30 baht card and while 58.3 percent of high income group had this card. Regarding middle income group, 65.2 percent of them had this card. There was significant association between income group and insurance group at $p=0.007$ $X^2=9.898$(data shown appendix 2). According to the survey by National Statistics Office in Thailand, the compliance of 30 Baht card among better off is lower than that among badly-off (39). It suggests that wealthy people prefer higher quality of health service even out of pocket money.

Regarding insurance coverage, majority of those who covered 30 baht card utilized the health center or the public facility while more people utilized the public facility or the private facility among those who covered other insurance even compared acute illness to chronic illness. However, 19 individuals among those who are categorized into others also had 30 baht card with another kinds of insurance. As mentioned above, kinds of health insurance might control their health seeking behavior. Suraratdecha et al (2004) conducted the health seeking behavior in early phase of universal coverage. They found that for ambulatory care, self-care by purchasing medicine at drug store, use of a local or traditional medicine or visit traditional healers was still the most common and the first care seeking method among respondents (368 of 875 or 42%) including those who were entitled to the free care, 30 baht card without co-payment. This survey also showed that about half of the 30 baht card with co-payment and uninsured were in favor of drug store and traditional medicine. The majority of them and 30 baht card without co-payment (431 of 673 individuals or 65%) who reported illness during the last 30 days did not seek treatment or chose to visit non 30 baht scheme facilities as the first potion during their recent illness. The most cited reasons for not visiting 30 baht scheme facilities were “think that the illness is not serious”, “purchasing drug is more convenient”, “do not

satisfy with health staff's attitude/behavior", "traveling to facility is inconvenient", "don't want to take a leave from work" and "poor quality medicine/treatment protocol at these facilities (26). The distribution of the behavior between kinds of the insurance coverage is quite different from our study. The reason for this is likely to be caused by that the study phase is different and their study was conducted in three low-income province of Thailand. As studied this report, more close-up research will be needed the future.

Regarding availability of services such as the waiting time, more than half of illness person waited for less than 30 minutes. That is favorable thing. However, as seen in table 3, it seems the waiting time for service at the public facility is still problem in this result as well. Especially, it was rather problem among those who had chronic illness.

The accessibility on traveling time was convenient since the majority of villagers could go to the health center or the public facility (86 percent of them was community hospital) within 30 minutes. It would appear because of two health centers are within this sub district and one community hospital is located not so far from this area. In the cases that it took more than 60 minutes, they went to the public facility, especially regional hospital rather than the community hospital, and the private facility, especially to hospital rather than clinic (data not shown in detail). In relation to the traveling cost, it would be associated with the traveling time. According to the finding from Suraratdechathe et al. 2004, the average cost of traveling was 28.6 baht. On the whole, the traveling to health center or community hospital seems to be economical opportunity cost. The other accessibility on the cost of care, majority of them felt it not very expensive or could take it free. Majority of those two groups had 30 baht card (64.8 percent of them). The 30 baht card is likely to be one of the explanations of this easy accessibility. On the other hand, 16 percent (40 individuals) of respondents felt it expensive despite 40.0 percent of them utilized public facility. Further more, 13 individuals who utilized private facility had 30 baht card (data shown in appendix 3). This fact depends on the compliance of 30 baht card, kinds of 30 baht card whether they are exempted from co-payment or not, the income distribution of customer within the proportion or contents of treatment. Further deep study will be needed with large study population in the future.

Regarding the knowledge of medical services and the illness, the score of

those who did not utilize institutional health facility seem to be lower than that of the other groups even there were no significant differences. According to the survey about knowledge and perception of pneumonia in relation to use of health facilities and treatment, the choice of medical service was influenced by people's perception of etiology of illness and by local knowledge and experience, rather than influenced by economic factors, accessibility, and availability (27). While those knowledge is sometimes related to their socio-economic factors such as education or income etc. In this study, there were significant differences of the knowledge score of illness between the low-income group and the high-income group ($p<0.001$) and the knowledge score of medical services between no education level group and vocational/university level group ($p=0.01$) (data shown in appendix 4, 5).

In point of the severity of illness, majority of respondents felt it mild to moderate. If they felt it severe, they sought much higher level of facility at first step and nobody sought traditional care or did self-medication.

5.5 The pattern of self-chosen factor and health seeking behavior

The self-chosen factor was analyzed. As a whole, the degree of each items except for the accessibility were higher among those who chose the private facility, in particular there were significant differences in the short waiting time, the quality of reception, the hour of care and the health care provider's skill. It might mean that the self-chosen factors among those who want to utilize private facility are more diversified than that of other groups. Regarding the short traveling time, the degree among those who chose health center is the highest in health seeking behavior group even there was no significant difference between them. In point of short waiting time and the feel comfortably with providers, people those who chose public facility seem not to expect about them. Generally speaking, the waiting time is the complaint of consumer in public facility (5). The health care provider's skill is the one of important factor for respondents in every groups compared with the degree of other perspectives. However, the degree of health center regarding this factor is the lowest in the groups of other health seeking behavior. In comparison between as an acute case and as a chronic case, the short waiting time is the significant factor between the patterns of health seeking behavior when they got an acute illness. It means that they need examination by health care providers as soon as possible. On the other hand, the health care provider's skill is the significant factor between the patterns of health

seeking behavior in chronic case. Since not only the life related disease such as hypertension and diabetes mellitus but also serious diseases such as bronchial asthma, renal disease, cancer etc. are included in chronic diseases, this factor would be important for them. Regarding accessibility such as the cost of traveling and the cost of treatment, the degree of them were relatively lower than that of other factors in every health seeking behavior. It might be concerned that the villagers who followed the offered facility by health cards no longer need to consider the cost or they thought their illness was prior rather than the cost while the villagers who chose not offered facility didn't have to consider the loss of daily wedge or economic problem. To identify this, qualitative study will be necessary in the future.

5.6 The self-chosen factor, the satisfaction and the real demand for health service

Respondent's satisfaction for each facilities were beyond the degree of their self-chosen factors except for those who chose the behavior without facility. Especially, regarding the cost of treatment at health center and public facility, their satisfaction was much better than the self-chosen degree. Since the cost of treatment is one of the biggest components of accessibility to health facility, this finding is favorable fact. It may be due to the effect of the reform of health system by Thai government. Interestingly, regarding respondents who want to choose the health center or public facility after smoothing out obstacles against seeking health, which are the majority of the answer, the degree of demand is between that of self-chosen factor and satisfaction. It is suggested that almost of them are satisfied with the health center and public facility. It is also evident from the findings that the predicted influences on satisfaction such as the associations between the health seeking behavior and the accessibility or the availability were not negative (Table 16-27). Add that, the majority of respondents want to choose public facility both in the acute and chronic case after smoothing out obstacles against seeking health, 130 out of 250 respondents and 185 out of 250 respondents respectively. However, it would be another story regarding the health center in case of chronic illness even the degree of satisfaction is better as a whole. Because only 28 percent of the respondents who got chronic illness answered that they will choose health center after smoothing out obstacles against seeking health again, while 60.0 percent of those who got chronic illness will choose public facility next time. According to the consumer satisfaction survey for health center service in Suphanburi province conducted by Upreti in 1994,

more than two-third of the respondents were satisfied with the health center service (40).

Regarding the real demand among respondents who want to choose the private facility, the degree of them were beyond that of satisfaction in relation to the traveling time, waiting time, the outcome of treatment especially in acute case. In addition, the degree of demand in each items were higher than that of other health seeking behavior as seen in the self-chosen factor. It is also suggested that the more diversified factors are demanded for private facilities. In point of the cost of treatment, which can be sometimes weakness of private facility, however, there was statistical significance between self-chosen factor and the satisfaction at p=0.041.

Regarding respondents who want to choose the behavior without facility in the acute case after smoothing out obstacle for seeking health (18 individuals), their real demands were beyond the satisfaction especially in relation to the accessibility and the outcome of treatment. It might be concerned that since they have to sacrifice their daily wage or spent more money to recover their health, they expect the minimum waste of time and cost or expected outcome of treatment as soon as possible. Even, if they would not have to pay the fee for treatment. However since those score are not from the same population, it can not be compared each other simply.

Roy demonstrated in 2002 that more than half of clients (53 percent) were satisfied towards the overall outpatient medical care service in community hospital in Sampran (41). It was found that more or less clients were equally cautious in each aspect of medical care service. It was also found that most of the clients were satisfied on service procedure (56.5 percent), medical equipment (53.5 percent, pharmacy sector (52.5 percent), but relatively less satisfied with doctor service (51.5 percent), physical facilities (51.5 percent), registration service (51 percent) and nursing service (50 percent). Naewchampa also conducted the satisfaction of clients at public hospital in 2002. The result demonstrated that the overall satisfaction of clients was at high level (62.7 percent). Those researchers also commonly demonstrated the significant relationship between the satisfaction and the socio-demographic factors such as age and educational level (42). In this study, there was statistically significant differences in the satisfaction score only among educational level (Primary and lower: N=183, 34.42±5.33, Secondary and above: N=67, 32.9±5.43, p=0.0456). However, since it includes several facilities, further depth study is needed regarding satisfaction.

5.7 The health seeking pattern after smoothing out obstacles against seeking health

Finally, the next health seeking behavior after smoothing out obstacles was analyzed. More people answered that they will choose the public facility rather than the behavior at present or before despite the degree of satisfaction towards health facilities were beyond that of self-chosen factor. Especially, the number of respondents who will choose health center was reduced to 9 individuals from 25 in chronic illness. Interestingly, if focused on the distribution of the insurance group and the health seeking behavior after smoothing out the obstacles, statistically significant association was disappeared. It is suggested that the respondents still have several obstacles such as the loss of daily wage, time consuming, traveling cost (so called kinds of the opportunity cost), social barriers or more diversified demand such as provider's skill, expected outcome. The 30 baht scheme could be an obstacle for patients who have mild to moderate chronic illness such as hypertension or diabetes mellitus, because they want to have an examination by real physician once in a while. Actually, they call the health personal officer "doctor" at health center but they realize more superior physicians are in the higher facility.

However, to identify these issues, the more depth survey such as who will change the behavior, the reason why they will change it and their perception of 30 baht scheme should be done in the future.

CHAPTER 6
CONCLUSION AND RECOMMENDATION

6.1 Conclusion

The framed research hypotheses were followings;

1. There are differences in health care seeking behavior and satisfaction among villagers in Nakhonpathom province.

2. There are differences in health care seeking behavior and the self-chosen factors among studied villagers.

3. There are differences in health seeking behavior and their real demand among studied villagers.

4. There is relationship between population characteristics and health care seeking behavior.

Regarding the hypothesis one, there were differences in the health seeking behavior and the satisfaction. Because their degrees of satisfaction for health center, public facility and private facility were beyond their degree of self-chosen factors while the satisfaction among those who did not utilize facility was almost as same as their self-chosen factors statistically. It was remarkable finding that those who utilized health center and public facility were well satisfied with the cost of treatment.

Regarding hypothesis two, there was relationship in health care seeking behavior and the self-chosen factor among studied villagers. Because the degree of each items except for the accessibility were higher among those who chose the private facility compared with other people who chose others, in particular there were significant differences in the short waiting time, the quality of reception, the hour of care and the health care provider's skill. It might mean that the self-chosen factors among those who want to utilize private facility are more diversified than that of other groups. Regarding the short traveling time, the degree among those who chose health center is the highest in health seeking behavior group even there was no significant difference between them. In point of short waiting time and the feel comfortably with providers, people those who chose public facility don't expect about them. The health care provider's skill is the one of important factor for respondents in every groups compared with the degree of other items. However, the degree of this factor among

those who chose health center is the lowest in the groups of other health seeking behavior.

In relation to the hypothesis three, there were differences in health care seeking behavior and their real demand. Because regarding the real demand among respondents who want to choose the private facility, the degree of demand in each perspective were higher than that of other health seeking behavior as seen in the self-chosen factor. It is suggested that the more diversified factors are demanded for private facilities.

Regarding hypothesis four, there was relationship between population characteristics and health care seeking behavior. Because there were statistically significant associations between the health seeking behavior and the family income, health insurance coverage, availability of service and the accessibility to services. However, there were no significant association between predisposing component such as the age, the gender, the occupation and the educational status and their health seeking behavior in this study. Add that there were also no significant differences between the health seeking behavior and the knowledge of kinds of medical care provider and types of health service organization or knowledge of illness and health seeking behavior.

6.2 Recommendation

After implementation of 30 baht scheme, the economical accessibility to the public health service seems to have been improved obviously from this study compared with previous report (5, 26,43). Since the facilities to which people have to go as a first step is offered according to the insurance, basically they follow this. In this context, the health center which exist with community reveals important role if the referral system functions very well, especially previous limited human resource. It would be related the solution of the long waiting time at public hospitals or unnecessary treatment (so called moral hazard). And also villagers feel more comfortably with health personnel at the health center (or with village health volunteers) rather than the physicians at the hospital. However, after smoothing out the obstacles, the number of respondents who will choose health center was reduced to 9 individuals from 25 in chronic illness. As one of the reasons, patients with the mild chronic disease for a long time want to have an examination by the doctor from

the higher level hospital sometimes. Therefore, the physicians should be dispatched to health center regularly and permanently at the least and it should be informed to health center consumer as well. In addition, the quality of health center and the consumer's satisfaction should be monitored and evaluated.

The people who are uninsured still exist even the number of them has been reduced. It might be due to the failure of registration process or their residence. The explanation of them could not identify in this study and further study is needed.

More people answered that they will choose the public facility rather than the behavior at present or before despite the degree of satisfaction towards health facilities were beyond that of self-chosen factor. It is suggested that the respondents still have several obstacles such as the loss of daily wage, time consuming, traveling cost (so called kinds of the opportunity cost) or the social barriers like the difficulties in the communication with physicians. Or else, it may be due to more diversified demands such as provider's skill or expected outcome. Add that the 30 baht scheme could be an obstacle for patients when they seek the health care. However, to identify these issues, the more depth survey such as who will change the behavior, the reason why they will change it and their perception of 30 baht scheme should be done in the future.

Meanwhile it is quite important that the accessibility to health care services become easy, the demands among people might be diversified since the more information come to houses the more people become knowledgeable in the future. Therefore, several kinds of choice should be offered to people in the future.

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APPENDIX

APPENDIX A
QUESTIONNAIRES

Screening question

Did you or any of your family members have any health problems for the last 3 months?

( )yes ( )no

Who is it?

(And interview will select only one illness, the most recent illness and from one person who is willing to provide the information.)

( )

Part1 Socio-demographic factors

1. What is age?
   ( )
2. What is gender?
   ( )Male ( )Female
3. Occupation of household head if the person who was ill and is giving the information is not household head.
   ( )Farm work(agricultural)
   ( )Private business, running his/her own large business/commercial
   ( )Government officials. Please specify. ( )
   ( )Self-employed for small business ( )Employees ( )Professional
   ( )Management ( )Retired ( )Others. Please specify. ( )
4. Family income (household)
   Approximately ( )Baht/Month
5. Insurance
   ( )30 Baht card ( )Social insurance ( )Civil government welfare
   ( )Welfare(ex. Health insurance card, elderly card)
   ( )Others. Please specify. ( )
6. Family size
   ( )Husband + wife ( ) Husband + wife +child/children
   ( )Husband + wife +parents ( )Husband + wife +parents + child/children
   ( )Others. Please specify. ( )
7. Education

( )No education ( )Primary ( )Secondary ( )Vocational ( )University

( )Others. Please specify. ( )

Part 2

Need component, health seeking behavior and self-chosen factors

8. With the "illness" from the first question, please answer.

Who is providing the information of the illness.

( )The illness person ( )Wife of household ( )Head of household

( )Others. Please specify. ( )

What was the symptoms or if chronic disease, identify diagnosis?
Acute illness ( )
1.( )headache 2.( )vertigo 3.( )toothache 4.( )eye pain 5.( )nasal hemorrhage 6.( )cough 7.( )sore throat 8.( )nasal discharge 9.( )fever up 10.( )nausea 11.( )vomitting 12.( )abdominal pain 13.( )lumbago 14.( )leg or hand pain 15.( )diarrhea 16.( )injury 17.( )muscle ache 18.( )arthralgia 19.( )eruption 20.( )dyspnea 21.( )edema 22.( )general fatigue 23.( )cold 24.( )appendicitis 26.( )hernia 27.others ( )
Chronic illness( )
1.( )hypertension 2.( )diabetes mellitus 3.( )peptic ulcer 4.( )bronchial asthma 5.( )chronic bronchitis 6.( )heart disease 7.( )renal disease 8.( )cancer 9.( )liver disease 10.( ) lung disease 11.( )allergic disease 12.( )thyroid disease 13.( )cataract 14.others( )

9. In your opinion, how serious was the illness at that time?

( ) Mild
( ) Moderate
( ) Severe

*Mild-illness that you supposed to be treated by yourself or health provider other than doctor.

Moderate-illness that you supposed to be treated by a doctor or a specialist.

Severe-illness that you supposed to be or has been treated by a doctor in a hospital with specialized care and equipment.

10. Where did you first seek help for the illness at that time?
(Interviewer may read the list of places for villager to choose the answer.)

( )Do nothing
( )Traditional care
( )Self-medication and drug-store
( )Health center
( )Community hospital
( )Regional hospital
( )Private hospital
( )Private clinic
( )Others

Why did you choose that facility or action?
Please rank the reason following degree.
1 never considered 2 a bit considered 3 moderate 4 considered 5 strongly considered

	1	2	3	4	5
11. Short traveling time					
12. Cost of traveling					
13. Short waiting time.					
14. Quality of reception.					
15. Hour care of service.					
16. Severity of your illness.					
17. Health care provider's skill.					
18. Feel comfortably with providers.					
19. Cost of treatment.					

20.How long did you wait for being attended by health care service after arrival to the heath facility?

( )29min.≥
( )30min.≤ , ≤ 60min
( )61min.≤

21.How long did it take from your house to health facility?

( )29min.≥
( )30min.≤,≤60min
( )61min.≤

22. How much was the cost of traveling?

( )Free
( )0<, ≤ 15baht
( )15 baht<,≤ 50baht
( )50baht<

23. How much was the cost of care?

( )Free
( )Not very expensive
( )Expensive

Part3

Knowledge of medical care services.

Please answer following question by checking.

(24) There are doctors at health center everyday.

( )yes ( )no

(25) There are dentists at health center everyday.

( )yes ( )no

(26) There are specialized doctors at health center.

( )yes ( )no

(27) If you go to the private clinic or private hospital, you will pay 30 baht.

( )yes ( )no

(28) Do you know the X ray?

( )yes ( )no

(29) Do you know the ECG?

( )yes ( )no

(30) Do you know the CT?

( )yes ( )no

(31) Do you know the fiber scope?

( )yes ( )no

(32) Do you know the US?

( )yes ( )no

Knowledge of illness

Please answer following question by checking.

33.What temperature is called fever up?

( )36□≤ ( )37□≤ ( )38□≤ ( )don't know

34.Do you think your diet can influence your health?

( )yes ( )no

35. Do you think high salt intake damage your health?

( )yes ( )no

36. Do you think smoking is good for your health?

( )yes ( )no

37. Do you think immunization to children has a lot of side effects more than efficacy?

( )yes ( )no

38. Do you think it is bad to drink beverage during diarrhea?

( )yes ( )no

39. Do you think exercise from youth will prevent bedridden?

( )yes ( )no

40. Do you think use of condom increase sexual transmitted infection?

( )yes ( )no

41. Do you think you can consult to doctors after you have some symptoms of diabetes mellitus?

( )yes ( )no

42. Do you think too much suntan cause skin cancer?

( )yes ( )no

Satisfaction for health services

Please identify your satisfaction for each facility or action by ranking following degree. 1:very poor 2:poor 3:moderate 4:good 5:very good

	1	2	3	4	5
43. Traveling time					
44. Cost of traveling					
45. Waiting time.					
46. Quality of reception.					
47. Hour care of service.					
48. Outcome of the treatment.					
49. Health care provider's skill.					
50. Feel comfortably with providers.					
51. Cost of treatment.					

What kinds of health service facilities do you want to go next time after smoothing out the obstacle or constrained setting around you?

52. In case of acute illness

( )Traditional care
( )Self-medication and drug store
( )Health center
( )Community hospital
( )Regional hospital
( )Private hospital
( )Private clinic
( ) Others Please identify( )

53. In case of chronic illness

( )Traditional care
( )Self-medication and drug store
( )Health center
( )Community hospital
( )Regional hospital
( )Private hospital
( )Private clinic
( ) Others Please identify( )

Why will you chose such a health service facility or action next time?

Please rank the reason following degree.

1 never considered 2 a bit considered 3 moderate 4 considered 5 strongly considered

In case of acute illness

	1	2	3	4	5
54. Traveling time					
55. Cost of traveling					
56. Waiting time.					
57. Quality of reception.					
58. Hour care of service.					
59. Outcome of treatment.					
60. Health care provider's skill.					
61. Feel comfortably with providers.					
62. Cost of treatment.					

In case of chronic illness

	1	2	3	4	5
63.Traveling time					
64.Cost of traveling					
65. Waiting time.					
66. Quality of reception.					
67. Hour care of service.					
68. Outcome of treatment.					
69. Health care provider's skill.					
70. Feel comfortably with providers.					
71. Cost of treatment.					

Reliability test

Self- chosen factor (Q11-Q19): Cronbach's Alpha = 0.724408

Satisfaction (Q43-Q51): Cronbach's Alpha = 0.841205

Demand for the case of acute illness (Q54-Q62): Cronbach's Alpha = 0.713806

Demand for the case of chronic illness (Q63-Q71): Cronbach's Alpha = 0.777488

Knowledge score of medical care service (Q24-Q32): Cronbach's Alpha = 0.506372

*Cronbach's Alpha with Q26 excluded = 0.673087

The researcher has applied every question because of interest.

Knowledge score of illness (Q33-Q42): Cronbach's Alpha = 0.579151

*Cronbach's Alpha with Q46 and Q48 excluded= 0.622884

The researcher has applied every question because of interest.

APPENDIX B
TABLES

Appendix 1 Distribution of the age group and the morbidity

	N	Acute	Chronic
Below 40	101	81 (80.2)	20 (19.8)
40 and above 40	149	64 (43.0)	85 (57.1)

P<0.001 X^2=34.279 DF=1

Appendix 2 Distribution of the income group and the kinds of insurance

	30 baht card	Others
3000>	43 (84.3)	8 (15.7)
3000≤,≤7000	58 (65.2)	31 (34.8)
7000<	49 (58.3)	35 (41.7)

P=0.007 X^2=9.898 DF=2

Appendix 3 Distribution of the kinds of insurance among those who feel expensive about the cost of care

	N	30 baht card	30 baht card +other	Others	Uninsured
Do nothing	2	2 (100)	0 (0.0)	0 (0.0)	0 (0.0)
Traditional care					
Self-medication and drug store					
Public facility	16	10 (62.5)	0 (0.0)	4 (25.0)	2 (12.5)
Private facility	22	13 (59.1)	1 (4.5)	6 (27.3)	2 (9.1)

Appendix 4 Comparison of knowledge score between the income groups

	Knowledge of medical services	Knowledge of illness
3000>	4.642±1.755	5.943±1.537*,**
3000≤,≤7000	4.856±1.802	6.778±1.288**
7000<	5.306±1.806	6.929±1.183*
	P=0.095	P<0.001

∼, **∼** means there is significant difference between marks.

Appendix 5 Comparison of knowledge score between the education groups

	Knowledge of medical services	Knowledge of illness
No education	4.000±1.784*	6.348±1.496
Primary	4.925±1.835	6.500±1.488
Secondary	5.083±1.500	6.861±1.222
Vocational/University	5.742±1.673*	6.806±1.167
	P= 0.010	P=0.442

∼ means there is significant difference between marks.

Appendix 6 Percentage of knowledge about the medical care services

	Percentage of knowledge
Q24 There are doctors at health center everyday	10.8
Q25 There are dentists at health center everyday	52.4
Q26 There are specialized doctors at health center	72.0
Q27 If you go to the private clinic or private hospital, you will pay 30 baht	69.6
Q28 Do you know the X ray?	88.4
Q29 Do you know the ECG?	53.2
Q30 Do you know the CT?	51.6
Q31 Do you know the fiber scope?	34.4
Q32 Do you know the US?	64.0

Appendix 7 Percentage of correct answer about knowledge of illness

	Percentage of correct answer
Q33 What temperature is called fever up?	7.6
Q34 Do you think your diet can influence your health?	90.8
Q35 Do you think high salt intake damage your health?	89.2
Q36 Do you think smoking is good for your health?	68.0
Q37 Do you think immunization to children has a lot of side effects more than efficacy?	74.0
Q38 Do you think it is bad to drink beverage during diarrhea?	48.4
Q39 Do you think exercise from youth will prevent bedridden?	97.6
Q40Do you think use of condom increase sexual transmitted infection?	84.0
Q41 Do you think you can consult to doctors after you have some symptoms of diabetes	25.2
Q42 Do you think too much suntan cause skin cancer?	72.8

Appendix 8 The frequency of self-chosen factor (Do nothing, traditional care, self-medication and drug store)

	1	2	3	4	5
11. Short traveling time	3 (20.0)	1 (6.7)	7 (46.7)	1 (6.7)	3 (20.0)
12. Cost of traveling	3 (20.0)	1 (6.7)	6 (40.0)	3 (20.0)	2 (13.3)
13. Short waiting time	2 (13.3)	0 (0.0)	4 (26.7)	7 (46.7)	2 (13.3)
14. Quality of reception	3 (20.0)	0 (0.0)	2 (13.3)	4 (26.7)	6 (40.0)
15. Hour care of service	2 (13.3)	0 (0.0)	5 (33.3)	4 (26.7)	4 (26.7)
16. Severity of your illness	2 (13.3)	1 (6.7)	3 (20.0)	4 (26.7)	5 (33.3)
17. Health care provider's skill	2 (13.3)	0 (0.0)	2 (13.3)	5 (33.3)	6 (40.0)
18. Feel comfortably with providers.	3 (20.0)	0 (0.0)	3 (20.0)	6 (40.0)	3 (20.0)
19. Cost of treatment	2 (13.3)	2 (13.3)	3 (20.0)	7 (46.7)	1 (6.7)

Appendix 9 The frequency of self-chosen factor (Health center)

	1	2	3	4	5
11. Short traveling time	10 (13.9)	10 (13.9)	19 (26.4)	14 (19.4)	19 (26.4)
12. Cost of traveling	13 (18.1)	12 (16.6)	21 (29.2)	15 (20.8)	11 (15.3)
13. Short waiting time	10 (13.9)	10 (13.9)	29 (40.3)	18 (25.0)	5 (6.9)
14. Quality of reception	9 (12.5)	9 (12.5)	18 (25.0)	26 (36.1)	10 (13.9)
15. Hour care of service	6 (8.3)	18 (25.0)	25 (34.7)	18 (25.0)	5 (7.0)
16. Severity of your illness	5 (6.9)	12 (16.7)	19 (26.4)	23 (31.9)	13 (18.1)
17. Health care provider's skill	7 (9.7)	4 (5.6)	24 (33.3)	20 (27.8)	17 (23.6)
18. Feel comfortably with providers	5 (6.9)	3 (4.2)	23 (31.9)	22 (30.6)	19 (26.4)
19. Cost of treatment	15 (21.1)	11 (15.5)	16 (22.5)	15 (21.1)	14 (19.8)

Appendix 10 The frequency of self-chosen factor (Public facility)

	1	2	3	4	5
11. Short traveling time	17 (14.9)	17 (14.9)	40 (35.1)	23 (20.2)	17 (14.9)
12. Cost of traveling	23 (20.2)	12 (10.5)	45 (39.5)	23 (20.2)	11 (9.6)
13. Short waiting time	14 (12.3)	21 (18.4)	49 (43.0)	23 (20.2)	7 (6.1)
14. Quality of reception	5 (4.4)	11 (9.6)	28 (24.6)	48 (42.1)	22 (19.3)
15. Hour care of service	8 (7.0)	11 (9.6)	44 (38.6)	45 (39.5)	6 (5.3)
16. Severity of your illness	9 (7.9)	11 (9.6)	32 (28.1)	29 (25.4)	33 (29.0)
17. Health care provider's skill	5 (4.4)	7 (6.1)	29 (25.4)	34 (29.8)	39 (34.2)
18. Feel comfortably with providers	16 (14.0)	12 (10.5)	27 (23.7)	39 (34.2)	20 (17.5)
19. Cost of treatment	22 (19.3)	15 (13.2)	34 (29.8)	23 (20.2)	20 (17.5)

Appendix 11 The frequency of self-chosen factor (Private facility)

	1	2	3	4	5
11. Short traveling time	11 (22.4)	7 (14.3)	14 (28.6)	8 (16.3)	9 (18.4)
12. Cost of traveling	10 (20.4)	9 (18.4)	16 (32.7)	10 (20.4)	4 (8.2)
13. Short waiting time	6 (12.2)	4 (8.2)	14 (28.6)	12 (24.5)	13 (26.5)
14. Quality of reception	1 (2.0)	2 (4.1)	6 (12.2)	19 (38.8)	21 (42.9)
15. Hour care of service	4 (8.2)	4 (8.2)	12 (24.5)	14 (28.6)	15 (30.6)
16. Severity of your illness	2 (4.1)	2 (4.1)	16 (32.6)	10 (20.4)	19 (38.8)
17. Health care provider's skill	1 (2.0)	2 (4.1)	6 (12.2)	16 (32.6)	24 (49.0)
18. Feel comfortably with providers.	2 (4.1)	3 (6.1)	10 (20.4)	19 (38.8)	15 (30.6)
19. Cost of treatment	9 (18.4)	7 (14.3)	12 (24.5)	16 (32.6)	5 (10.2)

Appendix 12 The frequency of satisfaction
(Do nothing, traditional care, self-medication and drug store)

	1	2	3	4	5
43. Traveling time	1 (6.7)	4 (26.7)	5 (33.3)	2 (13.3)	3 (20.0)
44. Cost of traveling	0 (0.0)	5 (33.3)	5 (33.3)	2 (13.3)	3 (20.1)
45. Waiting time	0 (0.0)	3 (20.0)	7 (46.7)	2 (13.3)	3 (20.0)
46. Quality of reception	0 (0.0)	0 (0.0)	7 (46.7)	6 (40.0)	2 (13.3)
47. Hour care of service	0 (0.0)	0 (0.0)	8 (53.3)	5 (33.3)	2 (13.4)
48. Severity of your illness	0 (0.0)	0 (0.0)	6 (40.0)	5 (33.3)	4 (26.7)
49. Health care provider's skill	0 (0.0)	0 (0.0)	9 (60.0)	2 (13.3)	4 (26.7)
50. Feel comfortably with providers	0 (0.0)	1 (6.7)	8 (53.3)	4 (26.7)	2 (13.3)
51. Cost of treatment	1 (6.7)	3 (20.1)	2 (13.3)	5 (33.3)	5 (33.3)

Appendix 13 The frequency of satisfaction (Health center)

	1	2	3	4	5
43. Traveling time	0 (0.0)	7 (9.7)	27 (37.5)	22 (30.6)	16 (22.2)
44. Cost of traveling	0 (0.0)	6 (8.3)	25 (34.7)	26 (36.1)	15 (20.8)
45. Waiting time	1 (1.4)	4 (5.6)	29 (40.3)	31 (43.1)	7 (9.7)
46. Quality of reception	0 (0.0)	3 (4.2)	16 (22.2)	40 (55.6)	13 (18.1)
47. Hour care of service	0 (0.0)	4 (5.6)	17 (23.6)	41 (56.9)	10 (13.9)
48. Severity of your illness	0 (0.0)	1 (1.4)	15 (20.8)	40 (55.6)	16 (22.2)
49. Health care provider's skill	0 (0.0)	4 (5.6)	23 (31.9)	28 (38.9)	17 (23.6)
50. Feel comfortably with providers	0 (0.0)	4 (5.6)	15 (20.8)	37 (51.4)	16 (22.2)
51. Cost of treatment	0 (0.0)	2 (2.8)	18 (25.0)	31 (43.1)	21 (29.2)

Appendix 14 The frequency of satisfaction (Public facility)

	1	2	3	4	5
43. Traveling time	3 (2.6)	16 (14.0)	33 (29.0)	46 (40.4)	16 (14.0)
44. Cost of traveling	4 (3.5)	7 (6.1)	43 (37.7)	46 (40.4)	14 (12.3)
45. Waiting time	2 (1.7)	18 (15.8)	46 (40.3)	43 (37.8)	5 (4.4)
46. Quality of reception	2 (1.7)	4 (3.5)	28 (24.6)	52 (45.6)	28 (24.6)
47. Hour care of service	0 (0.0)	5 (4.4)	23 (20.2)	63 (55.2)	23 (20.2)
48. Severity of your illness	0 (0.0)	6 (5.3)	22 (19.3)	50 (43.8)	36 (31.6)
49. Health care provider's skill	0 (0.0)	5 (4.3)	28 (24.6)	40 (35.1)	41 (36.0)
50. Feel comfortably with providers	1 (0.9)	8 (7.0)	27 (23.7)	51 (44.7)	27 (23.7)
51. Cost of treatment	2 (1.7)	5 (4.4)	35 (30.7)	48 (42.2)	24 (21.0)

Appendix 15 The frequency of satisfaction (Private facility)

	1	2	3	4	5
43. Traveling time	2 (4.1)	7 (14.3)	14 (28.6)	22 (44.8)	4 (8.2)
44. Cost of traveling	1 (2.1)	0 (0.0)	22 (44.9)	23 (46.9)	3 (6.1)
45. Waiting time	2 (4.1)	3 (6.2)	16 (32.6)	16 (32.6)	12 (24.5)
46. Quality of reception	0 (0.0)	2 (4.1)	7 (14.3)	20 (40.8)	20 (40.8)
47. Hour care of service	0 (0.0)	3 (6.2)	6 (12.2)	18 (36.7)	22 (44.9)
48. Severity of your illness	0 (0.0)	2 (4.1)	4 (8.2)	23 (46.9)	20 (40.8)
49. Health care provider's skill	0 (0.0)	1 (2.0)	6 (12.2)	18 (36.7)	24 (49.1)
50. Feel comfortably with providers	0 (0.0)	3 (6.2)	8 (16.2)	19 (38.8)	19 (38.8)
51. Cost of treatment	1 (2.1)	7 (14.3)	14 (28.6)	21 (42.8)	6 (12.2)

BIOGRAPHY

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