HEALTH SEEKING BEHAVIOR AMONG INSURED PERSONS UNDER THE SOCIAL SECURITY ACT, 1990

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Abstract. Since having health insurance cannot guarantee access to care among the insured persons, their actual health seeking behavior should be evidence reflecting true access. Therefore, the study aimed to present the patterns of health seeking behavior among the insured persons who actually were able to get free services from their registered hospitals under the Social Security Scheme. Purposive sampling was done of 1,003 insured persons who were willing to participate in the study from small, medium and large establishments in the Huai Khwang district in Bangkok. A health diary was employed as one of the data collecting tools with a follow-up period of six months. The average illness rate found was 6.44 episodes/person/year. The characteristics of illnesses reported were described in terms of symptom groups, perceived severity, duration, work or non-work related cause. No treatment or self care, seeking help from non-registered health facilities and seeking help from registered hospitals and clinics were the patterns of health seeking behaviors found in the study. The patterns of health seeking behaviors among the participants varied depending on the stage of treatment, perceived severity of illness and types of additional health benefits. Seeking care from registered hospitals and clinics was found among the illnesses with a higher level of perceived severity, among the participants with chronic diseases, and among the illnesses that were treated with higher stages. Therefore, health insurance might not be able to guarantee true access to needed care for people unless the comprehensive health care provider networks are designed to cover more types of services, be more convenient and have more accessible health care providers.

INTRODUCTION

Insured persons under the Social Security Scheme (SSS) are the formal sector private employees who regularly pay contributions in order to receive various benefits including health benefits for non-work related sickness (Social Security Office, 1998). They are able to get free care, both in outpatient and inpatient, from their choice of registered hospitals or network clinics, if available. In general, they can also change the hospital on a yearly basis, or more often if they have valid reasons. The Social Security Office (SSO) is the administrative body who pays money to the selected hospital on a capitation basis. The review of the scheme management by the SSO was intensively criticized elsewhere (Tangchareonsathien *et al*, 1999). The results revealed that the SSO had tried very hard to improve the quality of services through financial incentives and changing from employer to employee choice in selecting registered hospitals. Therefore, its efforts have resulted in the gradually increasing rate of service utilization at registered hospitals both for outpatient and inpatient services.

Lack of heath insurance has been identified as one of the major access barriers to health care (Flores *et al*, 1998). Perceived cost has been a greater barrier to medical care for uninsured persons than insured ones (Nelson *et al*, 1999). However, it is obvious that with insurance aside, a substantial number of people continue to experience one or more serious difficulties when attempting to obtain needed medical services. These include financial, temporal, geographic and attitudinal difficulties. (Bashshur *et al*, 1994, Hayward *et al*, 1988). Unfortunately, the end results

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caused by the above barriers led to not only an inability to access care but also an increase in mortality and other adverse health consequences (Brown *et al*, 1998).

Patterns of seeking care from various health care providers among insured persons and uninsured Thai people were not much different, though the first group was able to access free care under the SSS (National Statistical Office, 2001). In 2001, 29% of the illnesses that insured persons faced resulted in seeking care at a drugstore, but was 23% for the uninsured group. It can be implied from the above figures that although people had health insurance, they still relied on self care or sought professional care that they had to pay for themselves. This was not different from the uninsured group.

This study aimed to display the patterns of health seeking behavior among the insured persons under the SSS, which was one of the pioneer health insurance schemes in Thailand. The government policy, 30 Baht Scheme (US$ 1=Baht 42), in expanding coverage to all Thai people by employing the same payment mechanism as the SSS should benefit from the lessons drawn from the SSS.

MATERIALS AND METHODS

Study site

Since 35% of insured persons work in Bangkok and a more diverse selection of health care providers are available in Bangkok, it should lead to more diverse patterns of health seeking behavior. Bangkok was therefore chosen as the study site. The study was purposely conducted in the Huai Khwang district in Bangkok.

Subjects

A cohort of 1,003 insured persons under the SSS was recruited from 66 companies. Quota sampling was taken from a random list of companies to get 300-400 participants for small (10-49 workers), medium (50-199 workers) and large (200 workers or more) sized companies. Only insured workers who were willing to participate joined in the study.

Collection of data

Participants were asked to collect illness and health action data in their health diaries. A health diary is an established tool in improving the quality of data, reducing recall errors and receiving actual rates of utilization and health actions (Freer, 1980; Verbrugge, 1980; Rakowski *et al*, 1988; Stoller *et al*, 1993). The follow-up period was six months. Baseline demographic and economic data were derived from self-administered questionnaires. There was limited direct contact with insured persons, so workers were assigned in each company to act as company coordinators. They were involved in both participant recruitment and the data collection processes. The diaries were distributed and collected monthly in order to keep close contact between the coordinators and the participants in order to increase the participation rate.

RESULTS

Characteristics of the participants

Socio-demographic data of the participants (Table 1). The participants were mostly female (70%), single (58%), with an average age of 32 years old, and an educational level of a bachelor degree or higher (53%). Their average income (presented in terms of a median due to high variation) was approximately 10,000 Baht per month. Seventy percent of them reported no savings (comparing the money earned with the money spent). Their average work experience in their current companies was 5 years. The characteristics did not vary significantly between the different sizes of companies.

Prior use of registered hospitals (Table 2)

Most of participants (75%) chose private hospital as their registered hospitals. Only 50% of them had ever sought care from their registered hospitals. Nearly sixty percent of them had changed their registered hospitals. Among those who had ever visited their own registered hospitals, most of them reported that they faced very little to some trouble. Travel time was less than one hour and waiting time was 1.5 hours. Participants with chronic diseases usually sought care from various health care providers. Forty percent of them sought care from registered hospitals and clinics, while the rest sought care from other health facilities, even though they had to pay for it themselves.

Table 1
Sociodemographic and economical characteristics of the study population (N=1,003).

Characteristics	Total
Gender (%)	
Female	69.6
Male	30.4
Marital status (%)	
Single	58.0
Married	39.1
Divorced/widowed	2.9
Highest education level (%)	
Primary school (Grade 1-6)	9.3
Matayom 3 (Grade 9)	9.4
Matayom 6 (Grade 12)	10.8
Diploma	17.1
Bachelor or higher	52.9
Others	0.5
Average age (yr) (SD)	31.9 (7.0)
Median income per month in Baht (SD)	9,500
(Min, Max)	(1,500, 78,000)
N	782
Average family income per month (Bt)(SD)	20,000
(Min, Max)	(4,000, 300,000)
N	678
Have savings (%)	
No	71.5
Yes	28.5
Work experience in current company in years (SD)	4.8 (4.2)

Table 2
Respondents' registered hospitals and related information.

Characteristics	Total
Type of main contractor (N = 970)	
Do not know	8.6
Public hospital	16.3
Private hospital	75.2
Experience with their registered hospital last year(N=943)	
No	49.7
Yes at	50.3
Main contractor	90.5
Subcontractor	7.2
Both	2.3
Experience in changing registered hospital (N=973)	
No	40.0
Yes	57.9
Do not know	2.1
Regular source of care for participants with chronic disease	
Do nothing	10.0
Drugstore	27.3
Private clinics	
registered clinics	1.9
non-registered clinics	8.6
Hospitals	
registered hospitals	38.2
non-registered hospitals Others	19.2
Others	16.7
N	209

Additional health benefits (Table 3)

Workplace health services were provided at most of the companies and gradually increased in the number and quality of types of health care providers in the larger sized companies. The results show that 35-55% of participants had additional health benefits according to the sizes of the companies.

Characteristics of illnesses found

Table 4 presents the illness rate and percentage of participants who reported illnesses during the follow-up period. A decreasing illness rate showed a drop from 11 episodes/person/ year in the first month to 4 episodes/person/ year in the last month. The decreasing pattern was also found among the percentages of participants who reported illnesses.

The top three perceived illness symptoms found were respiratory tract problems (34%) including sorethroat, cough, fever, etc; headache (28%) including headache, dizziness, migraine, etc; and gastrointestinal problems (14%) including abdominal pains, nausea, vomiting, diarrhea, rectal bleeding, etc. The perceived severity of illnesses found were mild, moderate and severe at 56%, 32% and 8% respectively, while the participants were unable to judge the severity of the remainder of the illnesses.

The duration of an illness episode varied from mild to severe illnesses. The length of ill-

Table 3
Health insurance benefit of the study population.

Characteristics	Size of company			Total
	Small	Medium	Large	
Having health service provided in workplace (%)				
No	44.6	37.0	12.8	30.8
Yes	55.4	63.0	87.2	69.2
N	303	330	344	977
Office medical service personnel				
Health personnel (Total)				
Physician (Avg = 3 days/wk)	0	1.4	10.4	5.1
Nurse (Avg = 5.7 days/wk)	0.6	3.4	15.5	8.1
Physician and nurse (Avg = 5 days/wk)	0.6	17.4	14.5	12.0
Office worker/ self service	98.8	75.8	54.9	72.1
Both health personnel and office worker	0	1.9	4.7	2.7
N	162	207	297	666
Having additional health insurance				
No	64.4	63.2	44.7	56.9
Yes	35.6	36.8	55.3	43.1
N	295	326	347	968

Table 4
Illness rate found and percentages of participants who reported illnesses during the follow-up period.

	Month						Total
	1	2	3	4	5	6	
Number of illnesses found	921	509	347	340	312	214	2,643
Number of participants	1,003	931	890	830	777	678	1,003
Illness rate							
Episodes/person/month	0.92	0.55	0.39	0.41	0.40	0.32	0.52
Episodes/person/year	11.0	6.6	4.7	4.9	4.8	3.84	6.44
Number of ill reporting-persons	521	345	250	256	232	153	746
Percentage of ill persons	54.3	37.7	29.0	31.6	29.7	21.7	74.4

ness were 1.14, 1.58 and 3.71 for mild, moderate and severe illness respectively. The study also found that twenty percent of illnesses were caused by work-related factors, especially symptoms that were due to psychological problems such as stress, bone and muscle problems, eye and ear problems and skin problems.

Patterns of health seeking behavior

The participants were asked to record their health actions from their first to their last stage. Most of the illnesses (78.8%) were treated in only one stage. Table 5 and Fig 1 disclose the number and percentages of illnesses treated in various patterns and in stage one to stage two (the rest stages were ignored due to less illness episodes found). To understand more about the financial burden, new groups of health seeking patterns were classified. The first group was no treatment and selfcare including doing nothing, rest, adjusting food and water intake, and using reserved medications at home (household remedies). The second group was seeking care from non-registered health facilities, which included workplace

Table 5
Actual health seeking behavior performed by the respondents from the first to fifth stage of the treatments.

Stage	Types of health seeking behavior												Total episode
	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	9 %	10 %	11 %	12 %	
Stage 1	18.1	26.8	8.8	27.7	8.9	11.2	11.6	2.0	4.6	2.7	0.4	0.4	2,513
Stage 2	2.3	7.4	3.1	9.2	16	31.8	15.9	2.9	7.0	5.6	2.3	1.5	610
Stage 3	2.2	18.7	3.7	9.0	4.5	13.4	35.8	4.5	8.2	3.7	3.0	1.5	134
Stage 4	0	13.0	8.7	0	4.3	0	34.8	8.7	17.4	8.7	8.7	0	23
Stage 5	0	0	0	0	0	50	50	0	0	0	0	0	2

Type of health seeking behavior; 1= no treatment, 2= rest, 3= adjusting food or water intake, 4= using reserved medications at home, 5= seeking care at workplace clinics, 6= seeking care at drugstore, 7= seeking care at registered hospitals, 8= seeking care at registered clinics, 9= seeking care at non-registered hospitals, 10= seeking care at non-registered clinics, 11= seeking care from alternative care providers, 12= seeking care from other providers.

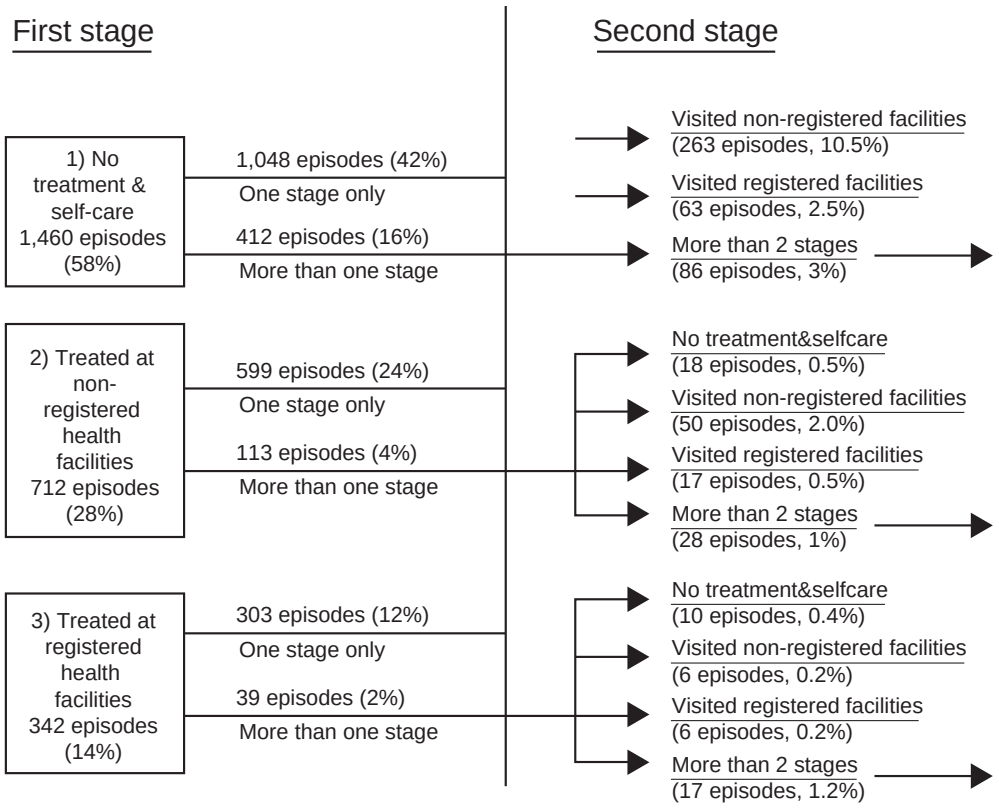

Fig 1–Patterns of health seeking behavior and health service utilization.

Table 6
Effects of the level of perceived severity of illness on health seeking behavior.

Level of perceived severity	No treatment and self-care		Visiting non-registered health facilities		Visiting registered health facilities		Visiting both non-registered and registered health facilities		Total
	No.	%	No.	%	No.	%	No.	%	
Mild	644	47.7	537	39.7	155	11.5	15	1.1	1,351
Moderate	281	35.6	312	39.5	164	20.8	32	4.1	789
Severe	41	19.9	79	38.3	65	31.6	21	10.2	206
Unable to judge	47	59.5	22	27.8	9	11.4	1	1.3	79
Total	1,013	41.8	950	39.2	393	16.2	69	2.8	2,425

clinics, drugstores, non-registered hospitals and clinics, and alternative care. In visiting these facilities, participants had to pay for the service cost by themselves or by their employers or insurance companies. The last group was visiting registered hospitals and clinics where participants could get free care.

In the first stage, no treatment and self care were the majority of health actions performed and the percentage decreased with the higher stages of treatment. A higher percentage was found among the illnesses that were treated at non-registered health facilities compared with registered hospitals and clinics. The overall rates of service utilization at non-registered health facilities and registered health facilities were 2.42 and 1.00 visits/person/ year, respectively. The higher stages of treatment resulted in being more likely to seek care at registered facilities, so did the higher perceived severity of illnesses (Table 6). The percentages of participants who sought care from non-registered and registered facilities were 44.4 and 23.6, respectively.

The reasons behind the decision as to what kinds of health actions to be performed

The participants reported several different reasons for the different health actions taken. Among the illnesses that were treated by the participants themselves by either no treatment or selfcare, the major reasons were mild severity of illness, self-reliant concept, and no need to be absent from work. Free service, having a physician as a provider, and convenience were the reasons for seeking care at registered hospitals and clinics. Less expense, less waiting time, and convenience were the reasons for the utilization of a drugstore. Less waiting time and confidence in the quality of services were noted as the reasons for those who visited non-registered hospitals.

DISCUSSION

The first thing that should be stated here is that since the data collection relied mostly on a health diary, the diary task itself limited the characteristics of the persons who were willing to participate. The characteristics of participants tended to be different from generally insured persons in several factors such as proportion of each gender, average income, highest education level, etc. This should be an important point to remember when using these data for generally insured persons.

A health diary has several benefits. A higher rate of illness as well as rate of health service utilization was found in the study as compared to the self-reported questionnaire used mostly to capture illness and service utilization rates. The illness rate among the insured persons under the SSS reported from the National Statistical Office of Thailand (NSO) in 2001 was 2.44 episodes/ person/year, while the rate found in the study was 6.44 episodes/person/year (National Statistical Office of Thailand, 2001). Moreover, NSO reported that the health service utilization rate at

any health facilities, in 97% of the illnesses, was 2.36 visits/person/year, while the rate in the study was 3.43 visits/person/year. The outpatient utilization rate at registered health facilities found in the study was much less than those found in generally insured persons reported by the SSO, 1.00 and 2.51 visits/person/year respectively. The bias characteristics of insured persons who joined the study could account for such a difference. Since the study recruited only the persons who were willing to participate and one of the reasons they joined the study was to improve the quality of service they were not satisfied with, it is possible that the participants tended to dislike the service provided by their registered hospitals. This situation might cause them seeking care from their registered hospitals less than the insured persons in general.

The completion rate, the percentage of participants who stayed in the study in each month, was consistent with previous studies (Verbrugge, 1980). The three-month completion rate in the study was 89% compared with 88% found in the previous study, while a longer follow-up period than three months caused a lower completion rate. It is possible for the health diary to be an effective tool to collect health related data among Thai people.

No treatment and self-care (personal or on my own actions) still occurred although health insurance provided cover for illnesses faced. There was a larger percentage of actions (58%) taken when the illnesses were not serious. Therefore, the myth that health insurance would reduce self-reliance when facing illnesses should be reconsidered.

Several socio-demographic and economic data influenced the decision as to what kinds of health actions to be performed. No savings, having chronic diseases, or no additional health insurance might force the participants to seek care from registered hospitals due to less financial burden. Longer work experience in their current companies, making them more aware of how to access the health benefits they have, and private registered hospitals, having more service hours and easier access were other factors that should promote users to seek care from registered hospitals. The results show that the utilization rate at non-registered facilities as well as the percentage of participants who visited non-registered facilities was much higher than those of registered facilities. Therefore, other factors should be taken into consideration especially the payers for service cost, attitude toward registered hospitals, and the quality of service of other available health facilities.

The illness rate that gradually decreased during the 6-months of the follow-up period might be caused by less awareness of illnesses with less perceived severity, boredom due to the long follow-up period or seasonal change, from rainy to winter season.

Higher percentages of illness treated at registered hospitals imply the improvement of the quality of services provided by registered hospitals. The proportions of illnesses that were brought to registered hospitals and their networks found in the study were much higher than in previous studies. Fourteen to fifty percent of all illness episodes were brought to a registered hospital or their network, according to the stage of treatment compared to 2-5% of the prior studies in 1993-1994. (Chotikirativet, 1993; Panichprathompong, 1994).

The cause of reported illnesses might imply that cross subsidization between the Social Security Fund and the Workmen's Compensation Fund (responsible only for work-related sickness). Since 20% of illnesses were caused by work related factors and the symptoms were quite difficult to prove what was the cause of illnesses, it is possible that these illnesses might be a cause in seeking care from registered hospitals where financial burdens are under the Social Security Fund.

In conclusion, a health diary is an effective tool for collecting health information among Thai people. The patterns of health seeking behaviors among the participants confirms the reality that although they have health insurance, they may seek care from other health facilities where they have to be financial responsible for cost. Free care under the SSS is still necessary for insured persons with higher perceived severe illness or for insured persons with chronic diseases. This confirms the importance of health insurance espe-

cially for catastrophic illness or an illness that might result in a high service cost.

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REFERENCES

Bashshur RL, Homan RK, Smith DG. Beyond the uninsured: problems in access to care. *Med Care* 1994; 32: 409-19.

Brown DL, Schneider DL, Colbert R, Guss D. Influencing of insurance coverage on delay in seeking emergency care in patients with acute chest pain. *Am J Cardiol* 1998; 82: 395-8.

Chotikirativet S. Health seeking behavior of the insured workers of Social Security Act in Samut Prakarn Province. Bangkok: Chulalongkorn University, 1993: 185 pp. Master thesis.

Flores G, Abreu M, Olivar MA, Kastner B. Access barriers to health care for Latino children. *Arc Pediatr Adolesc Med* 1998; 152: 1119-25.

Freer CB. Self-care: A health diary study. *Med Care* 1980; 18: 853-61.

Hayward RA, Shapiro MF, Freeman HE, Corey CR. Inequities in health services among insured Americans: do working age adults have less access to medical care than the elderly? *N Engl J Med* 1998; 318: 1507-12.

Nelson DE, Thompson BL, Bland SD, *et al*. Trends in perceived cost as a barrier to medical care, 1991-1996. *Am J Public Health* 1999; 89: 1410-13.

National Statistical Office of Thailand. National health and social welfare survey, 2001. Bangkok: Statistical Data Bank and Information Dissemination Division. 2001.

Panichprathompong U. Health seeking behavior of the insured bank employees under the Social Security Scheme in inner Bangkok. Bangkok: Chulalongkorn University. 1993: 144 pp. Master thesis.

Rakowski WR, Jurius M, Hickey T, Verbrugge ML, Halter JB. Daily symptoms and behavioral responses results of a health diary with older adults. *Med Care* 1988; 26: 278-97.

Social Security Office. Annual report of Social Security Office 1998. Bangkok: Social Security Office, Ministry of Labor and Social Welfare. 1998.

Social Security Office. Social Security Statistics 2001. Bangkok: Statistical and Reporting Section, Technical Studies and Planning Division, Social Security Office, Ministry of Labor and Social Welfare. 2001.

Stoller EP, Forster LE, Portugal S. Self-care responses to symptoms by older people. *Med Care* 1993; 31: 24-42.

Tangchareonsathien V, Supachutikul A, Lertiendumrong J. The Social Security Scheme in Thailand: what lessons can be drawn? *Soc Sci Med* 1999; 48: 913-23.

Verbrugge LM. Health diaries. *Med Care* 1980; 18: 73-95.