CHAPTER 2

LITERATURE REVIEWED

Characteristics of Health care delivery system

Most health care providers in less developed and developing countries face the similar problems which are:

a) Scarce resources are used inefficiently: public funds are being spent on inappropriate and cost-ineffective services, too much is spent on salaries compared to operating costs, and on tertiary rather than primary level of care. Existing services are badly managed, money dose not get to where it is needed, and it is hard to monitor how it is spent. Systems for purchasing goods and services fail to ensure value for money.

b) People can not access the health care they need: this results from a variety of factors- an individual's poverty, geographical location, age, sex, or lack of employment, unavailability of services to treat particular problems and bad planning and management of services.

c) Services do not respond to what people want: people will not accept poor quality services uncritically just because they are there, and services in many countries are therefore grossly underutilized. In the public sector, people face long waiting times, and inconvenient health services. In the private sector, they face high price of services that can create inequity in access to care.

Theoretical background of health insurance

Since one of the noteworthy characteristics of health care is the uncertainty, not as for an ordinary commodity, people purchase it when they need it and can pay for it. However, because of unpredictability of illness, people can schedule neither when they need health care (except regular physical check up or immunization) nor how much they have to pay for it. More often than not, sudden illness cause large financial losses for people. Medical treatment may be lengthy, expensive and may have a high cost in terms of productive capacity. Most people can neither afford to pay the full costs of their medical treatment when they become seriously ill, nor can afford a loss of income when they are physically unable to work. Such special characteristics of health care may suggest a potential role for health insurance in order to protect the individual and family against such uncertainty and help them bear these financial losses.

Health insurance is regarded as a better option than other health financial schemes. Firstly, health insurance, by pooling risks and resources, converts unpredictable future expenses into payment that can be budgeted for in advance which can reducing financial crises. Secondly, since financial for health care through government tax revenue is often limited, some of health insurance requiring contributions by individual and/or employers can be very attractive to a health sector which is starved of funds. Through increasing resource availability and promoting access to care for the population, equity and efficient goals can be effectively promoted by health insurance.

As mentioned, health insurance was developed because major illness is uneven and seldom predictable for individuals. When risks are pooled across populations, unpredictable losses can be transformed to predictable losses. And with cross-subsidization of resources from the healthy to the sick, from the rich to the poor, from small family to large family with a number of dependents is achieved, individual security is enhanced.

The nature of health insurance concentrating on their economic efficiency and equity implications. The basic notion of efficiency in economic terms are maximizing outcome with the least possible cost, greatest possible utilization of resources with the least possible cost, and the ratio of outcome to input to be more than one. For health care system, definition of equity most often is related to equality of access- equal access for equal need, ensuring that for all individuals with the same need they will have the same opportunity to use health services.

It is assumed that any scheme of health insurance should be designed with the following criteria:-

1) To be economical in the sense of providing good value for money and being cheap enough to cover dependents.
2) To have built-in incentives to prevent cost escalation.
3) To prevent too large a gap between the services provided to persons covered by insurance and those provided by the government so that the two types of provisions can be assimulated in the long run.
4) To be sufficiently convenient to used and acceptable to them for both employers and employees to be satisfied that it is justifiable to pay health insurance contributions.

Types of health insurance coverage

There are 2 distinct types of health insurance coverage:

Medical expense coverage : which provides benefits for the treatment of sickness or injury.

Disability income coverage : which provides income benefits when the insured is unable to work because of sickness or injury.

The medical expense coverage program is designed to provide benefits to help the insured to pay for the costs of receiving medical treatment for a sickness or an injury. Several types of medical expense coverage are available . Five types of medical expense coverage commonly available in general health insurance will be examined as following.

1. Hospital-surgical expense coverage provides benefits related directly to hospitalization costs and associated medical expenses incurred by an insured for treatment of sickness or injury. Most hospital-surgical expense cover:

* Hospital charges for room, board, and hospital services
* Surgeon's and physician's fees during a hospital stay
* Specified outpatient expenses
* Extended care services such as convalescent or nursing home costs

2. Major Medical Coverage provides benefits for the same type of medical expenses that are covered by hospital-surgical expense. In addition, major medical coverage provides expenses that may not be covered under basic hospital-surgical plans, including the costs incurred for:

* Receiving outpatient treatment
* Employing private-duty nurses
* Renting for purchasing treatment equipment and medical supplies
* Purchasing prescribed medicines

3. Social Insurance Supplement Coverage provides benefits for specified medical expenses not covered by government health insurance.

4. Hospital Confinement Coverage consists of a predetermined flat benefit amount for each day an insured is hospitalized. The amount of the daily benefit is specified in the

policy and does not vary according to the amount of medical expense the insured incurs. This type of coverage is available only from private insurance companies.

5. Specified Expense Coverage provides benefits to reimburse the insured for expenses incurred by:

* Obtaining treatment for an illness that is specified in the policy
* Purchasing medical supplies or treatment that are specified in the policy

The most commonly offered forms of specified expense coverage include dread disease, dental expense, prescription drugs and vision care coverage.

Type of payment mechanisms

Payment mechanisms determine the amount and the flow of money from a third-party payer or a patient, or both, to provides of care in exchange for services. The payment mechanism defines both the unit or combination of services for which a provider is paid and the price to be paid for the services provided.

There are 7 main methods of payment as follows:-

1. Fee-for-service: Payment per item of service – individual acts of diagnosis, therapy, pharmaceutical services and treatment are identified, added together and billed.
2. Case payment: Payment for a package of services or an episode of care. The payments are not itemized and added up as in (1) above. The schedule may be unrelated to the actual cost of care given to a particular patient at a particular hospital, as when payments are based on "diagnosis-related groups" (DRGs)
3. Daily charge: Flat-rate charge per day for care/hospitalization.

4. Flat-rate (bonus payment): The direct payment of an agreed (usually global) fee for a type of service provided.
5. Capitation: Fixed (usually annual) payment for each person on a physician's list. Different capitation rates may exist for different categories of patient, e.g. for people over 75 years of age.
6. Salary: Annual income unrelated to workload or cost of services provided.
7. Global budgets: All-inclusive operating budgets set in advance, designed to provide a spending ceiling, but allowing flexibility in use of funds inside this overall limit.

Health insurance programs in Thailand[1,5,6,7]

The development of health insurance amongst other forms of health care financing in Thailand, is reviewed in the light of various initiatives, political actions and responses made by both public and private sectors in their attempt to ensure accessibility better health services through some system of prepaid, risk-sharing, or government subsidises as parts of social security and public assistance. The Thai Parliament first passed a Social Security Law in 1954 but it has not yet been success fully put into practice due to several political reasons. On this initial basis, different proposals have been made many times since then to submit alternative versions to the Parliament. To date, no social security system nor health insurance scheme has been implemented to cover the entire country.

However, there are a number of activities and projects currently providing health insurance related schemes for particular subgroups of the population. Interestingly, some people can be under the coverage of more than one scheme while a large proportion of them are not covered by any single scheme. One of the schemes is compulsory, whereas many others are either voluntary or classified as state welfare. The existing activities or projects are different from each other in terms of not only objectives, target population,

sources of funding, and payment mechanism but also the scope of medical benefits such as types of illness, level of reimbursement for the cost incurred, types of services to be provided and conditions regarding utilization of health care facilities. Government interventions on these schemes vary from direct budgetary provision to subsidisation and co-payment.

The total coverage of the currently running health insurance scheme is approximately 58.4% of the total population.

The health insurance scheme in Thailand is classified into 4 categories:

1) Public Assistance Schemes
    1.1 Free Medical Care for Low Income Household (LIC)
    1.2 Free Medical Care for the Elderly (EC)
    1.3 School Health Insurance (SHI)
2) Government Employee Schemes
    2.1 Civil Servant Medical Benefit Scheme (CSMBS)
    2.2 State Enterprise
3) Compulsory Health Insurance Schemes
    3.1 Workmen Compensation Scheme (WCS)
    3.2 Social Security Scheme (SSS)
    3.3 Protection of Car Accident Victims
4) Voluntary Health Insurance Schemes
    4.1 Health Card Project (HCP)
    4.2 Private Health Insurance (PI)

Table 2.1 Population protected under various types of health program

Health program	Population protected	
	million	percentage
1. Welfare for the general population		
1.1 Low-income people	11.7	20.7
1.2 Elderly people	3.5	6.2
1.3 Primary school pupils	5.1	9.0
2. Government benefits		
2.1 Government officials and permanent employees	5.6	9.9
2.2 State enterprise employees	0.8	1.4
3. Compulsory health insurance		
3.1 Work-related illnesses	3.1	5.5
3.2 Non-work-related illnesses	4.1	7.3
3.3 Protection of car accident victims	all from 1 October 1993	
4. Voluntary health insurance		
4.1 Health Card holders	1.3	2.3
4.2 Private-sector health insurance	0.9	1.6
Total of population protected	33.0	58.4
Total of population not protected	23.0	41.6

Table22 Strengths and Weaknesses of Payment mechanism

Payment	Strengths	Weaknesses
Fee for service	* Provider's reward closedly linked to level of effort and output * Allows for easy analysis of provider's practice	* Tends to cause cost inflation * Creates incentives for excessive and unnecessary treatment
Per case (eg. DRGs)	* Provider's reward fairly well to output * Gives provider incentive to minimize resource use per individual treated	* Technically difficulty of forcing all cases into standard list, can lead to mismatch between output and reward * Providers may misrepresent diagnosis in order to receive higher payment
Capitation (per patient under care)	* Administratively simple: no need to break down physician's work into procedure or cases * Facilitate prospective budgeting * Gives provider incentive to minimize cost of treatment * Allows for consumer clout if patient can select own provider	* Gives provider incentive to select patients based on risk and to reject high-cost cost patients * May create incentives for provider to underservice-accepted patients * Difficult to analyse provider's practices
Salary	* Administrative simplest * Facilitate prospective budgeting	* Loss of patient influence over provider behavious unless patient choice links provider salary to patient satisfaction * Can easily create incentive for provider to underservice patient and to reduce productivity

Source : World Development Report 1993, Investing in Health

Health Insurance Schemes in Thailand

A variety of health insurance schemes exist in Thailand, each with different objectives, target populations, sources of funding and mechanisms of paying providers. A brief description of each scheme appears as follows:

1) Public Assistance Schemes (Medical benefits for the general population)

1.1 Free Medical benefits for low-income household

Households with incomes falling below the poverty line (officially defined as monthly income less than 2,000 baht or, in the case of single people, lower than 1,500 baht per month) will be given a free card (FC) which entitles household member to free medical services at public outlets when ill. This scheme was initiated in 1975 and implemented countrywide in 1981. An FC is valid for 3 years and a subsequent household income assessment is needed before an new FC is issued. FC holders must first contact the nearest health center and follow a referral line for higher level of care. All public health outlets are responsible for providing free care for FC holders. The scheme is financed through general tax revenue by allocating a budget through provincial health offices. Budget allocation for free medical care was based on the take-up rate reflected by the workload of services used by FC holders in the previous year, instead of the total number of regional poor. Inequitable regional distribution of public health resources (hospital, bed and manpower) and inequitable regional income distribution are the main causes of lower access and use of health services by FC holders.

1.2 Medical benefits for elderly people.

This scheme was initiated in 1991, providing protection for all people aged 60 and over.

1.3 Health services for primary school pupils (School Health Insurance)

These benefits are for pupils in primary schools affiliated with the Office of the National Primary Education Commission at the rate of 27 baht per person per year.

1.4 Individuals' health benefits

Veteran's Card holders, recipients of Border Service Medals, subdistrict chiefs, assistant subdistrict chiefs, village headmen, subdistrict doctors, village health volunteers and monks are all entitled to free medical treatment.

2. Government Employee Schemes (The Government Medical Care Welfare or Sickness Benefits)

Medical benefits for government officials, military personnel, policemen, civil servants, employees of state enterprises, including retired officials permanent employees and state enterprise employees. This benefit is provided in addition to the salary they received monthly and is extended to cover personnel's parents, spouses and no more than three children under twenty years of age. The government medical care welfare scheme also covers some other groups of people as specified by law or ministries regulations such as veterans and their families, teacher in private institutions, village headmen and Kamnans, village health volunteers and health comunications. They are entitled to medical treatment in state hospitals either as outpatients or inpatients. All actual expenses can be fully reimbursed. If they are treated in private hospitalsm, only half of the actual expenses incurred as inpatients on each occasion can be reimbursed, but the amount must not exceed 3,000 baht. Beneficiaries can have access to hospital services freely without following a referral line. The scheme is financed through general tax revenue. The Ministry of Finance holds a central budget for this purpose.

3. Compulsory health insurance

3.1 Workmen Compensation Fund (Protection of employees for work-related illnesses)

The Workmen Compensation Fund (WCF), a compulsory health insurance scheme for workers in Thailand, was introduced in 1974. It is employer liability scheme whereby employers contribute 1.2 to 4.5% of the payroll to the WCE administered by the Department of Labour. The government contributes to the management of the Fund. Workers (excluding dependents) are covered for work-related illnesses and injuries. Coverage includes work-related accidents or illnesses. Workers have direct access to either public or private hospital care. The Fund retrospectively reimburses contracted hospitals using itemized bills with a maximum 30,000 baht ceiling for inpatients and fee-for-service for outpatients. The Fund also compensates for workers' loss of function, disability and death. Employer contributions decrease if there were fewer injuries and claims in any previous year as a result of providing safety measures in the workplace.

3.2 Social Security Scheme (Protection of employees for non-work-related illnesses)

Parliament passed the Social Security Act in July 1990 and it was enacted in October 1990. Such programs cover employees in work places with ten employees or more. Employers, employees and the government each equally contribute 1.5% of monthly wages. When treatment is needed, employees are eligible for services in registered participant health facilities. The law covers 4 types of benefits to insured workers: medical benefits, disability, death, maternity as well as cash benefit for losing income due to illness and maternity leave. The fund allocates 2.45% out of 4.5% to medical benefits. It was decided by the Medical Committee with approval from the Social Security Committee to pay hospitals where workers registered on a capitation basis. The hospital will be paid 800 baht per annum for one insured

worker registered to look after him/her for any kind of illnesses in a year under this given capitation. al care services.

3.3 Protection of car accident victims.

It imposed by law since 1993.Under the law concerned, all car accident victims are entitled to coverage up to 50,000 baht per illness.

4. Voluntary health insurance

4.1 Health Card holders

This project can be regarded as a scheme of voluntary health insurance. It was introduced in 1983 as a pilot project by the MOPH. A notable advantage of this project is the provision for community participation in management of the fund. Besides, the Health Card Project on its voluntary basis serves rural communities and individuals to gain access to health and medical services in a more equitable manner. Improved efficiency in rural health centers may or may not be very significant, but there is always a tendency for health centers to become more fully utilized though the designed referral system under the Health Card project. And wherever such a system is in practice, the project definitely helps recover the costs of health services rendered by the lowest level of health care facilities which are otherwise provided free of charge. The MOPH's Voluntary Health Insurance Card Scheme is aimed at protecting people not covered by any of the other health insurance schemes. Participants pay 500 baht per card per family and the government tops up another 500 baht per family per year. The MOPH health facilities are responsible for providing care for the HC holders. When treatment is needed, they are entitled to the MOPH's health services in the province where their cards are purchased. To strengthen the referral line, the first contact for a holder is the health center and access to upper levels requires a referral letter.

4.2 Private Health Insurance

Insurance business in Thailand offers 3 types of health insurances, namely, (a) health insurance as an additional part attached to the basic life insurance (b) independent health insurance for both individuals and group of individuals and (c) some private hospitals offering special benefits to their members as an element of their marketing strategy. Individuals and group of individuals are fully responsible to pay for their health insurance premium which is based on risk-sharing basic. Most of them are generally wee-to do in independent and professional occupations. Insured individuals are covered by services mainly provided by private outlets. Payments for hospitals is based on fee-for-service followed by retrospective reimbursement from the insurance company. Coverage is quite low. According to the available figures on the number of individuals and employees buying their own health insurance, it may concluded that private health insurance in Thailand has not been significant in its market share. The rate of expansion of this business is very low. The future prospect for these companies is not promising, although the number of target clients is larger every day due to the sustained high level of economic growth and rapid industrialisation of the country.

The Social Security Scheme in Thailand

Currently, about 140 countries throughout the world have their own social security acts. Thailand is the lastest of 18 countries in Asia to implement acts concerning social insurance enforcement.

For Thailand, the Social Security Act (B.E. 2533) is the result of frequent requests from workers for establishment of a Social Security System in Thailand. These requests prompted Marshal Plack Pibulsongkhram to release the first act concerning social insurance in 1954. But, it was not implemented because of some technical concerns. Later, the government, under the leadership of Prime Minister General Prem Tinsulanont, again tried

to enforce the Act, but failed to win Parliament support. The major problem was that the government was not able to subsidize the program. However, succeeding administrations continued to raise the social security issue for consideration in the Parliament and it was finally passed and provided health benefits and basic income replacement guarantees for workers. The Social Security Act became effective on 2 September 1990.

The Social Security Act B.E. 2533 provides that 7 types of benefits shall be paid as follows:

1. Sickness or injury not related to work
2. Maternity Benefit
3. Invalidity Benefit
4. Death Benefit
5. Child Allowance
6. Old-Age Pension
7. Employment Benefit

Four of the seven types of benefits were to be introduced immediately. The other two, Child Allowance and Old-Age pension would be implemented within 6 years. The start date for the unemployment program was not fixed, but shall be announced in a Royal Decree when it is to be implemented. During the first stage of operation, it covered all enterprises with 20 or more workers, and was to be expanded to all enterprises with 10 or more workers within 3 years. After that, voluntary insurance for self-employed farmers and others shall come into force. While operating the program, the Social Security Office has faced various kinds of problems and obstacles in carrying out provisions of the Act and in developing some of the operational processes. To assist in resolving these difficulties the Act was amended on 30 March 1994.

The National Social Security Committee objectives are as followings:

1. To increase accessibility to medical care of insured persons.
2. To reduce money burden for seeking medical care of insured persons.
3. To ensure insured persons in public hospital services.
4. To encourage a relationship between social security system and national health service system.

Coverage:

The Social Security Fund covers all establishments with 10 or more employees. Each employer, insured person and the government must pay the contribution at the rate of 1.5% of the employees' monthly wage to the Fund. In 1995, the Social Security Fund provided 4 types of benefits for the insured persons as follows:- sickness, maternity, invalidity and death.

Establishments and Insured persons

As of December 1995, 73,604 establishments and their branches which employed 5.18 millions insured persons were registered with the Social Security Fund. This is an increase over 1994 of 12.92% and 4.23% respectively.

Medical service utilization

In 1995, here were 189 main contracted hospitals under the Social Security Scheme, consisting of 126 public and 63 private hospitals. The medical service utilization rate for outpatients was 1.23 visits/person/year. Inpatient treatments in 1995 was 0.024 visits/person/year.

Conceptualization and Measurement of Health Service Utilization[8]

Utilization may be characterized in a number of different ways. Four principal dimensions of the concept are, however, reflected in most empirical indicators of utilization: Type, purpose, site, and time interval of use.

The *type* of utilization refers to principally to the category of service rendered --- physician, dental or other practitioners' services, hospital or long-term care admissions, prescriptions, medical equipments, and so on.

The *purpose* refers to the reason care was sought: for health maintenance in the absence of symptoms (primary prevention), for the diagnosis or treatment of illness in the interest of returning to a previous state of well-being (secondary prevention), or rehabilitation or maintenance in the case of long-term health problem (tertiary prevention).

The *site* or organizational unit refers to the place services were received. It might be in an inpatient setting or ambulatory setting.

The *time interval* refers to measures of 1) contact, based on whether the service was received during a particular time period ; 2) volume, the total units of service received during that period ; or 3) episodic patterns, based on the patterns of providers, referrals, and continuity of care for a given occurrence or episode of illness

There are many standard measures of utilization. At least some aspect of utilization are determined by two sources of care : physician and hospital.

Here, the Table 3 shows that there are some indices in respect of physician utilization and hospital utilization. The indices for physician utilization are rate of visit by physician, percentage of population visiting and expenditure on health care. The indices of

hospital utilization are the volume of admission and discharge of patients, length of stay, bed occupancy rate. Type of service that use by the patients either inpatient, outpatient or emergency room, the type of admission is medical or surgical.

Table 2.3 Types of Physician and Hospital Utilization Indices.

Physician Utilization	Hospital Utilization
Volume of visits : - rates of visit - number of physician visits - % of population visiting - % of persons with at least one - expenditure on health care Types of visit : - medical, surgical, obstetrics, etc	Volume of use : - admissions/discharge - length of stay - expenditure - occupancy rates Type of service : - inpatient, outpatient Type of admission : - medical, surgical, etc

As above, it can conclude that the utilization of health services is concerned with how much and what type of care they consumed.

Patient satisfaction with medical care

Patient satisfaction is the expectation of receiving attention from the provider for medical care and the proportion of fulfillment. It is quite reasonable that satisfaction brings people to utilize health services and if the situation is satisfactory, compliance result

satisfaction increases and determines the quality of medical services. Dissatisfaction is a barrier to future utilization.

Aday and Anderson described the patient satisfaction with medical care. They explained that patient satisfaction could be separated into 5 dimensions. That were:

1. Satisfaction with convenience

The convenience and characteristics of place people go for health care provide data on whether there is differential "treatment" of individuals, depending on where they chance to go for services. In addition, waiting time in getting service could be as proxy indicator of convenience in any service.

2. Satisfaction with courtesy of providers

Providers was a person who contacted with the consumer to serve any service. Characteristics of providers such as personality or conversation would be accepted, responded and valuated by consumer. Consumer was satisfied oe dissatisfied when he saw the characteristics of providers.

3. Satisfaction with medical information

Medical information could be classified into information about patient's disease and treatment. Most patients wanted to know what was wrong with them and what treatment that cured them.

4. Satisfaction with quality of care

Patient expected to receive good service. Quality of service could be defined in accuracy and quick.

5. Satisfaction with expenditure

Expenditure of medical care was the cost of physical examination, Lab test, medical appliances, and medicine.

Chulalongkorn Hospital

Chulalongkorn Hospital is one of the largest and the oldest hopitals in Thailand and is one of the two sister hospitals belonging to the Thai Red Cross Society. It has celebrated its 80th anniversary in 1994. The hospital was founded in 1914 in memory of King Chulalongkorn, King Rama V, whose name it derives from.

The idea of a Red Cross Hospital emerged when King Rama the VI, while the Crown Prince of Thailand, saw the Red Cross Hospital in Japan on his return from studies abroad. Upon his father's death King Rama VI, together with his brothers and sisters, decided to build a hospital as a memorial to King Chulalongkorn and donated their money for the construction. In addition his mother, the Queen to King Chulalongkorn, who was then the President of the Red Cross Society, made available more money from the Red Cross fund for this purpose. King Rama VI then donated a piece of land which was his private property for the building site of the hospital.

Chulalongkorn Hospital constitutes a working division under Thai Red Cross Society, a charity hospital with an aim to providing a comprehensive medical care, including disease prevention, promotion, treating and rehabilitation. The stated objecives and philosophy of the hospital are as follows:

1) To provide medical treatment to the sick irrespective of race and nationality
2) To provide medical education and training
3) To provide nursing education and training

4) To be well-equipped and well-prepared to operate in time of national emergency or disaster arising during peace and war time

5) To initiate investigation and/or research procedures to uncover the cause of an epidemic wherever the latter arises

Past Empirical Studies

A number of studies have been carried out in recent years attempting to specify on the impact of SSS implementation. These studies which have been performed are as following:

The study on patients under the Social Security Scheme at the out-patient department of Buddhachinaraj hospital by Techachamroensuk K.[9] indicated that patients were satisfy with hospital services but the waiting time, was the main problem, while other encounter problems were misunderstanding in medical service process, unwilling to use essential drugs and the inaccessibility to services.

The study on the out-patient service to health-insured people at Thasae hospital by Kankeow K.[10] The results showed that from 52 cards or 201 people who bought health-assurance cards in November-December 1994, only 43.7% afforded the services and 82.69% of 52 cards were used at least once. Average of total service cost was 88.31 Baht per one service and 553.65 Baht per one health-assured card per year.

Comprehensive study done by Kamolratanakul and others (1993) in Samut Prakan,Thailand[11] by interview survey of insured workers in the workplace revealed that health seeking behavior after Social Security Scheme implementation was not significantly different from it had been. Insured workers still sought care by self prescribed drugs, services in the workplace, non-registered hospitals and private clinics for ambulatory care.

For in-patient care, insured workers firstly sought care more from private than public facilities. The overall unmet need at registered hospitals was 21%, 18% for outpatient and 23% for inpatient care. The major reason for not using registered hospital is the physical inaccessibility. Consumers were not very satisfied with services provided particulary by public compared with private hospitals.

The study on service provision to insured workers by contract hospitals in Samut Prakan in 1992 by Kamol-Ratanakul P. et al. was found that only government hospitals have a special clinic for insured workers. The number of out-patient services used in public and private hospitals were 7.2-35.3 episodes/ 1,000 persons/month and 42.8-105.8 episodes/ 1,000 persons/month respectively. Number of admissions were 0.6-1.4 episodes/ 1,000 persons/month in public hospitals and 0.1-2.8 episodes/ 1,000 persons/month in private hospitals. The providers' problems in arranging medical care service effectively were the misunderstanding of the insured as well as employers and some hospital officers, the lack of suitable and adequate public relation and the management problem of the Social Security Office.

The study on factors affecting the selection of main contractor hospitals according to the Social Security Act 1990 among insured persons in Patumtanee province in 1995 by Poosuntisumpun Y.(12) indicated that quality of services and care, medical information, past experience in medical services, and convenience were the main criterias for selection of a specific medical service.

The study on factors affecting medical service utilization of insured patients at the Phanakornsiayuthaya Hospital according to the Social Security Act 1990 in 1995 by Siriporn Prangprasit(13) showed that long waiting time, poor courtesy of hospital staffs and inappropiate organization of the hospital services were the main problems.

The study of the insured persons toward out-patient services of Chonburi Hc by Payom Siriboon , Suda Wilailers and Panida Kanchanapongkul[14] in 19-- found that the patients' satisfaction was in high level.

The consequences of the network were studied by Nittayarumpong and his colleagues in 1993-94. The study showed that the total outpatient utilization rate of insured workers within the network increased 315% from the previous year's rate.

These studies suggested that health service utilization among insured workers was relatively low. The rates, patterns and factors affecting utilization varied according to places, time and type of facilities available. The health service provision for insured workers in Chulalongkorn hospital was established more than 5 years ago, it is time to study and assess the current situation. The results might be useful for the relevant authority in planning for improving medical service quality with the aim to reduce health service problems among the insured.

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