

**SATISFACTION OF UNIVERSAL HEALTH CARE COVERAGE
SCHEME CUSTOMER AND GENERAL CUSTOMER TOWARDS
OPD SERVICES IN UNIVERSITY HOSPITAL**

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**SATISFACTION OF UNIVERSAL HEALTH CARE COVERAGE SCHEME
CUSTOMER AND GENERAL CUSTOMER TOWARDS OPD SERVICES IN
UNIVERSITY HOSPITAL**

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(BIOSTATISTICS)**ABSTRACT**

This descriptive study compares satisfaction of Universal Health Care Coverage Scheme customers with general customers regarding OPD services in two university hospitals, namely Ramathibodi Hospital and King Chulalongkorn Memorial Hospital. The data was collected through questionnaire which asked respondents to rate their satisfaction regarding perception of availability, accessibility, accommodation, affordability and acceptability of received services. The sample group in each hospital consisted of 250 UC customers and 250 general customers. T-test was used to compare service satisfaction between two groups in each hospital.

The research showed that in Ramathibodi Hospital, UC customers had the highest level of satisfaction on availability and the lowest on accessibility while general customers expressed the highest level of satisfaction on acceptability and the lowest on accessibility. Comparing between five aspects of health care rights, it was found that there was no difference at a 95% confidence level (P-value = 0.260, 0.413, 0.565, 0.573 and 0.960). In King Chulalongkorn Memorial Hospital, UC customers had the highest satisfaction level on availability and the lowest on accessibility while general customers expressed the highest satisfaction on acceptability and the lowest on accessibility. When comparing five aspects of health care rights, it was found that there were different level of satisfaction between two groups on four aspects: accessibility, accommodation, affordability and acceptability, with statistical significant level of 95% confidence (P-value <0.05). The study found that personal characteristics at King Chulalongkorn Memorial Hospital affecting both groups of customers were: female; age between 21-50 years old; educational level of primary and diploma; unemployed or working as companies' employees; monthly income less than 10,000 baht; 6 visits or more a year; and less than 30 minutes or more than one hour travel time to the hospital.

The study found that both groups expressed the lowest satisfaction on accessibility regarding waiting time from submitting their cards, calculation of medicine cost and payment. In order to decrease waiting time, the appointment time should be overlapped. The last open ended question recommended improvement on service manner, number of medical personnel including physicians, nurses and others during rush hour of each department, more provided waiting areas, toilets and parking lots and less procedures or the creation of One Stop Service.

**KEY WORDS: SATISFACTION / UNIVERSITY HOSPITAL /
UNIVERSAL HEALTH CARE COVERAGE SCHEME CUSTOMER /
GENERAL CUSTOMER**

ความพึงพอใจของผู้ใช้บริการประกันสุขภาพถ้วนหน้าและผู้ให้บริการทั่วไปต่อแผนกผู้ป่วยนอกในโรงพยาบาลสังกัดมหาวิทยาลัย (SATISFACTION OF UNIVERSAL HEALTH CARE COVERAGE SCHEME CUSTOMER AND GENERAL CUSTOMER TOWARDS OPD SERVICES IN UNIVERSITY HOSPITAL)

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บทคัดย่อ

การวิจัยครั้งนี้เป็นการวิจัยเชิงพรรณนา มีวัตถุประสงค์เพื่อเปรียบเทียบความพึงพอใจของผู้ใช้บริการสิทธิประกันสุขภาพถ้วนหน้าและผู้ให้บริการทั่วไปในแผนกผู้ป่วยนอกที่โรงพยาบาลสังกัดมหาวิทยาลัยสองแห่ง คือ รพ.รามาริบัติและรพ.จุฬาลงกรณ์ รวบรวมข้อมูลโดยใช้แบบสอบถามในการประเมินความพึงพอใจโดยการให้คะแนนตามการรับรู้ในบริการที่ได้รับ ปัจจัยที่ศึกษามี 5 ด้าน คือ ความพร้อมในบริการ การเข้าถึงบริการ ความสะดวกสบาย ความสามารถในการจ่ายค่ารักษาพยาบาล และการยอมรับในบริการ โดยแบ่งเป็นผู้ใช้บริการประกันสุขภาพถ้วนหน้าและผู้ให้บริการทั่วไป กลุ่มละ 250 คน ของแต่ละโรงพยาบาล เปรียบเทียบความพึงพอใจระหว่างสองกลุ่ม ใช้การทดสอบด้วย t-test

ผลการวิจัยพบว่า ในรพ.รามาริบัติ ผู้ใช้บริการประกันสุขภาพถ้วนหน้า มีความพึงพอใจมากที่สุดในด้านความพร้อมในบริการ น้อยที่สุดในด้านการเข้าถึงบริการ ส่วนผู้ให้บริการทั่วไปมีความพึงพอใจมากที่สุดในการยอมรับในบริการ น้อยที่สุดในด้าน การเข้าถึงบริการ และเมื่อเปรียบเทียบระหว่างสิทธิที่ต่างกันในปัจจุบัน 5 ด้าน พบว่าความพึงพอใจของผู้ใช้บริการสองกลุ่ม ไม่มีความแตกต่างกัน ที่ระดับความเชื่อมั่น 95% (P-value = 0.260, 0.413, 0.565, 0.573 และ 0.960) ในรพ.จุฬาฯ ผู้ใช้บริการประกันสุขภาพถ้วนหน้ามีความพึงพอใจมากที่สุดในด้านความพร้อมในบริการ น้อยที่สุดในด้านการเข้าถึงบริการ ส่วนผู้ให้บริการทั่วไปมีความพึงพอใจมากที่สุดในการยอมรับในบริการ น้อยที่สุดในด้านการเข้าถึงบริการ และเมื่อเปรียบเทียบระหว่างสิทธิที่ต่างกันในปัจจุบัน 5 ด้าน พบว่าความพึงพอใจของผู้ใช้บริการสองกลุ่มแตกต่างกัน 4 ด้าน คือ การเข้าถึงบริการ ความสะดวกสบาย ความสามารถในการจ่ายค่ารักษาพยาบาล และการยอมรับในบริการ อย่างมีนัยสำคัญทางสถิติ ที่ระดับความเชื่อมั่น 95% (P-value<0.05) เมื่อศึกษาถึงปัจจัยส่วนบุคคล พบว่าปัจจัยที่ทำให้ระดับความพึงพอใจของผู้ใช้บริการสองกลุ่มแตกต่างกัน คือ เพศหญิง, อายุ 21-50 ปี, ระดับการศึกษาชั้นประถมศึกษาและระดับปริญญาตรี ผู้ที่ไม่ได้ทำงาน อาชีพรับจ้างและผู้ทำงานบริษัท เงินเดือนน้อยกว่า 5,000บาท ถึง 10,000 บาท, จำนวนครั้งที่มาใช้บริการตั้งแต่ 6 ครั้งขึ้นไปต่อปีและผู้ที่ใช้เวลาเดินทางจากที่พักน้อยกว่า 30 นาทีและมากกว่า 1 ชั่วโมง

ผลการวิจัย พบว่า ผู้ใช้บริการทั้งสองกลุ่มมีความพึงพอใจน้อยที่สุดในด้าน การเข้าถึงบริการเกี่ยวกับระยะเวลารอคอยตั้งแต่ขึ้นบัตร พบแพทย์ รอคิดราคา ยา จ่ายค่ารักษา และค่ายา ควรมีการจัดระบบนัดให้เหลือเวลา เพื่อลดระยะเวลาการรอคอย ส่วนข้อเสนอแนะจากคำถามปลายเปิดท้ายแบบสอบถาม ควรปรับปรุงและพัฒนาการให้บริการด้านพฤติกรรมบริการ ควรจัดสรรจำนวนเจ้าหน้าที่ แพทย์ พยาบาล และอื่น ๆ มากขึ้นในช่วงเวลาเร่งด่วนตามแต่ละแผนก ควรจัดสถานที่จอดรถ ห้องน้ำ ที่จอดรถให้เพียงพอ และลดขั้นตอนบริการให้มีระบบ one stop service

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CHAPTER 1

INTRODUCTION

Background and Significance of Problem

The current health care reform in Thailand is very intensive during this decade and conforms to the situation around the world. The main reason is an uncontrolled increasing costs of healthcare of two to three hundred thousand baht representing an increasing rate of over ten percent per year. The majority of healthcare management has been directed toward rather than health promotion and protection treatment. Even though healthcare system for government and private systems have made some progress in quantity while many problems such as equity of access to healthcare, difference in service standard and ineffective use of resource remain unsolved. About two thousand people lack health insurance to access treatments at the time of need (2003).

In 1997, Thailand had a new constitution that gave extended services to its people in public healthcare service. The section 52 states that:

“People have equal right to standard healthcare service and poor people do not have to spend their money to receive healthcare service provided by the government.

The Government must provide healthcare of good standard and effectiveness everywhere.

Quality healthcare system under the health insurance era should meet professional standard as well as people’s expectation of equal treatment. There have been many complaints of healthcare service received by Ramathibodi hospital since 2002. As reported by Nation Health Security Office and Risk Management Unit of Ramathibodi hospital summarized as follows:

In service system, for example source of the personnel were impolite and waiting time was too long. An average of 5 persons every 3 months have been recorded as dissatisfied (30 baht unit of Ramathibodi Hospital record).

Treatment service was reported as unsuitable. For example adjustment of medicinal dosage often made the patients get worse. Average 1-2 persons per 3 months complained about drug (local made) to the newspaper in 2003.

Imposition of extra charge was another problem for example change type of medication on the main medicine list, some medical supplies. Average is 7 lists per 3 months (30 baht unit of Ramathibodi Hospital record).

Availability of bed in emergency in case of referral from private hospital was usually a problem. Average request was 2 persons per month in 2003 (30 baht unit of Ramathibodi Hospital record).

On the basis of Thai government's universal Health Care Coverage Scheme people have expectation for high standard of service from hospitals run by medical universities. These hospitals are expected to be well-equipped in all aspects and should exercise equity in providing free treatments to all according to Article 52 of the government's Universal Health Care Coverage Scheme policy. Along with this support from local administrative bodies and private sections should also be sought. Therefore it is necessary for research to be carried out the level of satisfaction between those who are under Universal Health Care Coverage Scheme and general customers to assess results through outpatient departments in university hospitals.

Both Ramathibodi hospital and King Chulalongkorn Memorial hospital had joined Thai government's Universal Health Care Coverage Scheme since 2002. In the early stage service system had to be adjusted because the rules were partly inappropriate and had to be oriented according to customers' need. People also have had to adapt themselves. Thus the evaluation of on the patients' access to hospital service has been an important. Parts for the researcher to use the results improve the service system.

Health system and the medical care systems are one element, or subsystem, within society's member. The goal of society is carried by this subsystem interacting with other subsystem. The interactions both within the system (medical care) and with other systems (lifestyle, environment, biology) The health care system is "a societal

mechanism which transforms generalized resources or inputs include intangibles like political mandate and tangible assets like professional manpower and physical into specialized outputs in the form of health services aimed at the health problems of the society.” (Analyzing health systems, 1992: 7)

In 2001, Section 52 states that Thailand has new constitution to indicate extendible right to Thai people, a person should have an equal right to receive standard health care delivery and the indigent shall have the right to free medical treatment from public health centers of the State, as provided by law. The two sections support a person’s rights to receive health care delivery and support the right of the indigent to receive free medical treatment, which reflects the concept and philosophy of equity in medical and health care service accessibility. This is the first time that Thai society declares the support of people’s rights and gives priority to justice in thorough availability, accessibility, accommodation affordability and acceptability health service (Sanguan Nittayarumpong et al, B.E. 2544: 5).

Inequity

Inequities in taking the burden of health expenditure: The poor have had a greater burden of health expenditure in proportion to income than the rich.

Problem of efficiency of the health services system

Problems of health services efficiency: Curative care is much less efficient with regard to its capacity in making people healthy, compared to promotive and preventive care. Besides. For the curative service system itself, inefficiency is found in terms of, for example, drug over utilization, irrational technological use, and wasteful spending.

Problems of the quality of service systems and service standards

In the public and private sectors, the problems are different in terms of the quality and standards of services that do not meet consumers’ expectations. This is due to a lack of systems for quality assurance and service accreditation. The provisions of the Medical Facilities Act are outdated. The holistic care system for emergencies is inefficient. The issues most complained about are personnel’s manner

and rapidity in service delivery. The problems are slightly more serious in the public sector than in the private sector. The specific problems to the public sector include customer's inequity, while those in the private sector are related to prices, skills and morality.

Health insurance policy, which Ramathibodi hospital and King Chulalongkorn Memorial hospital has continued today. The increasing service expectation in medical training hospital was occurred in variety and equal service. The Health insurance act in 2002 (section 52) indicated the equity in service and acceptable standard hospital services are importance. The poor customers could access every service and get equal cost with another person. The effective insurance service is accessed to every person in everywhere by supportive local health management and private participating. Then this research compares satisfaction perceived by universal health care coverage scheme customers and general customers. The result is useful to improve or continue the best management in every aspect in service of outpatient department unit in Ramathibodi hospital and King Chulalongkorn Memorial hospital.

Customers' satisfaction is generally the net outcome of health care delivery in service in the view of customers or a health care receiver. It is the first impression to qualities of the service in a health system. A quality in service needs to serve the values and expectations of the customers who use health service including health insurance customers and general customers. Customer or customer's opinion is an important indicator of the quality of the health care delivery.

From the survey of customer perception every month we found that 1-2 persons per week (30 baht unit of Ramathibodi Hospital record) were not satisfied in the way of personnel's impolite approach for example impolite in verbal communication, manner and facial expression as well. Some customers felt some medical personnel did not have a good service mind.

In the aspect of treatment information service they did not get enough in information giving such as all condition or criteria of service. For example if customer need to check up in more advanced laboratories investigation there are not include in the basic criteria of reimbursement. So this point of view the customers feel unsatisfied. Because it did not meet his or her expectation.

Health care providers in university hospital, the number of which is quite limited, are frequently complained and blamed, because they pay more attention to “service activity” and completely ignore “service behavior” As a matter of fact, both service activity and service behavior can satisfy customer in the same extent. But the sensitivity of the customer’s feelings to a service. Although service activities performed benefit customer, most customers often do not understand deeply, simply because each profession has different technical details. Service behavior, despite being an invincible sense, is valuable and very important to sensitivity of customer’s feelings in all steps of the service. One example that can reflect the effect of ignorance of the service behavior came from the study conducted by Yothin Swangdee et al (2000). They studied problems and complaints of people using the service from a health care unit. It was found that the customers had difficulties from the service system where physicians determined time, while customers had no chance to negotiate. Conflict among health care providers, impolite manners of the providers often showed to customers with poor economic and social status cause the customers to be taken advantage from receiving excellent service. This is often caused by social division and happens in university hospitals where service monopoly with poor people is noted.

Thus, it is important to solve this problem to build up faith and satisfaction of a service customer. According to the principle of modern public health unit administration, a customer is regarded as an important part of a health service unit. A customer’s opinion seems to be the mirror that reflects the quality of service and identifies the real problem of the service system (Wirot Tungchareonsatein et al, 1993:158), especially in Out Patient Department (OPD), that is the first frontier of a hospital that accept many patients. The OPD service is the front line service of the hospital that should implement effective and efficient service system to facilitate convenience to the customers. (Samrit Pora and Wisit Pichsisnmit, 1992: 105).

Therefore, the researcher working at health insurance and society security unit should be interested in the evaluation of customer satisfaction after the development of the health care delivery under the “Universal Health Care Coverage Scheme”. The research was conducted in Ramathibodi Hospital and King Chulalongkorn Memorial hospital which are both important university hospitals

because both hospitals provide health care services without separation between UC customers and general customers. The researcher compared satisfaction level of both groups in the hospitals only. There was no comparison between these two hospitals because the research results would be considered for further service improvement in each hospital. The university hospital service gives standard of services for universal health care coverage scheme customers and general customers. The concept of building satisfaction of Penchansky & Thomas and Schulz & Johnson was applied as a frame of primary indicator on this research to measure accessibility customer satisfaction of 5 aspects, Availability, Accessibility, Accommodation, Affordability and Acceptability. The result from this research will be an indicator that reflects the total performance of health care service. It can be used as a guideline for the improvement of the better service and can efficiently serve a customer's needs.

Objective of the Research

General objective:

To measure satisfaction of universal health care coverage scheme customers and general customers towards OPD. services in Ramathibodi Hospital and King Chulalongkorn Memorial Hospital.

Specific objectives:

1. To explain characteristics of universal health care coverage scheme customers (UC customer) and general customers utilized OPD service at Ramathibodi hospital and King Chulalongkorn Memorial Hospital.
2. To measure satisfaction level of customers utilized OPD services at Ramathibodi hospital and King Chulalongkorn Memorial Hospital.
3. To compare characteristics and level of satisfaction between UC and general customers utilized OPD services at university hospital.

Research Hypothesis

There are differences in characteristics and satisfaction levels of UC and general customers utilized OPD services at university OPD service.

Scope of the Research

This research studied satisfaction in outpatient unit of Ramathibodi Hospital and King Chulalongkorn Memorial hospital.

1. Data collection from patients who came at least 2 times at outpatient unit and they are over 15 years old.
2. Data are collected only universal health care coverage scheme customers and general customers.

Research Variables

Independent variables:

General characteristics

- Gender
- Age
- Educational level
- Occupation
- Monthly income
- Number of visit
- Travel time to hospital
- Right

Dependent variables:

Customer satisfaction

- Availability
- Accessibility
- Accommodation

- Affordability
- Acceptability

Operational Definition

Gender: male and female UC customers and general customers in Ramathibodi Hospital and King Chulalongkorn Memorial hospital

Age: UC customers and general customers whose age are between 15-60 years old

Educational level: the highest educational level divided to no education, primary, junior secondary, senior secondary, diploma or equivalence and higher than bachelor degree

Occupation: customers' occupation classified as housework, employee, merchant, student, private business, civil servant and other occupation.

Monthly income: monthly income includes all other additional earnings.

Number of visit: number of visit attending OPD in Ramathibodi Hospital and King Chulalongkorn Memorial hospital more than twice

Travel time to hospital: time spent to travel from home to the hospitals

Rights: The customers have individual rights such as universal health care coverage scheme (UC), government service, social insurance, state enterprise health care scheme, insurance, auto insurance health insurance plan, company's fringe benefits and general customers. The rights that can be used in the university hospitals include UC customers, general customers or customers with other right but do not use that right and entitle to reimburse health care expenses. They are health care plan under coverage of civil servant, social insurance, state enterprise, insurance company,

auto insurance health insurance plan and company's fringe benefits. This research studied only on UC customers and those general customers who want to pay by themselves although they have rights to reimburse such cost.

Universal health care coverage scheme customer (UC customer):

service user or care receiver who has health insurance right of Ramathibodi Hospital and King Chulalongkorn Memorial hospital main contractor or referral customer from another place and coming to receive service at the outpatient department (OPD) of Ramathibodi Hospital and King Chulalongkorn Memorial hospital who are 15 years old or older. They have been registered and have received a universal health assurance card (rights to have either of the two types of "Gold" cards i.e., free gold card and gold card with 30 baht co-payment). They had received at least 2 times of service during 2004-2005.

General customer: service user or care receiver who does not has any right or would not like to use any right for receiving service at the outpatient department (OPD) of Ramathibodi Hospital and King Chulalongkorn Memorial hospital who are 15 years old or older. They had received at least 2 times of service during 2004-2005.

Satisfaction on Availability: the customer's satisfaction on availability in ability to find a good doctor to treat the whole family, ability to get medical care in an emergency, number of health manpower such as physician, nurse and other medical provider to take care all customers in time. Available physical resource such as place or environment for service and available technological equipment for high quality treatment. The items measure by number scale from 0 to 10, which indicate highly dissatisfied to highly satisfied.

Satisfaction on Accessibility: the customer's satisfaction on the condition where a customer receives convenience from the service, which includes a short waiting time for a service and coming to hospital. Readiness of service place is another importance accessibility to service. Attraction rate or number of contacts with physician in year is indicated good accessibility. The last customer's satisfaction on

accessibility is continuity of care. The items measure by number scale from 0 to 10, which indicate highly dissatisfied to highly satisfied.

Satisfaction on Accommodation: the relationship between the manner in which the supply resources are organized to accept customers (including appointment systems, hours of operation, walk-in facilities, telephone services) and the customers' ability to accommodate to these factors and the clients, perception of their appropriateness. The items measure by number scale from 0 to 10, which indicate highly dissatisfied to highly satisfied.

Satisfaction on Affordability: the customer will satisfy with appropriate cost of received service that good feeling from service even though sometimes high cost but the customer can afford it. There are many extra cost in over standard services such as medical equipment and nonessential drug etc. The items measure by number scale from 0 to 10, which indicate highly dissatisfied to highly satisfied.

Satisfaction on Acceptability: the acceptable service is related to outcome from receiving service for example improving disease, quality of drug and good service which is measured by temperament and attention of service providers, service coordination, equity in service and acknowledgement or achievement of health provider. That is both the caregiver's viewpoint and customer's viewpoint. Besides process of health care at beginning contact to receive drug then discharge, referral process and giving information. The items measure by number scale from 0 to 10, which indicate highly dissatisfied to highly satisfied.

University hospital: both university hospitals are Ramathibodi Hospital and King Chulalongkorn Memorial hospital.

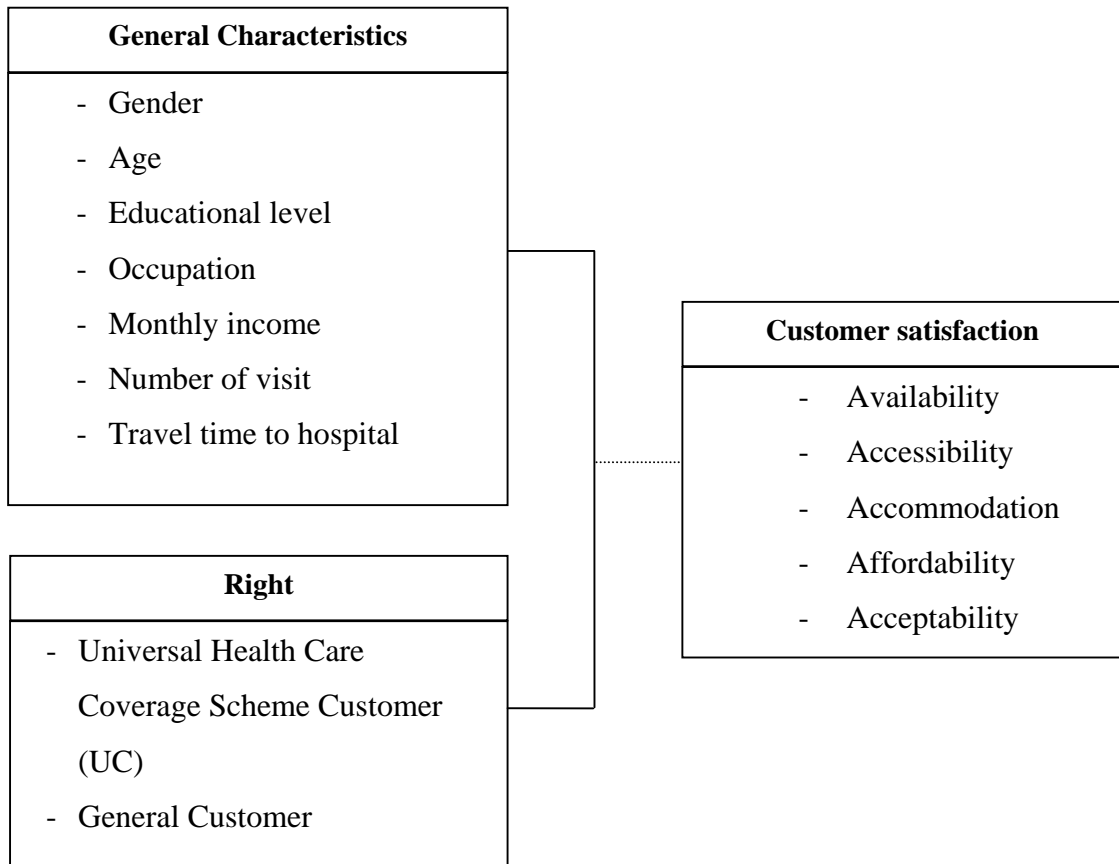


Figure 1 Conceptual Framework

CHAPTER 2

LITERATURE REVIEW

To study and compare satisfaction levels of universal health care coverage scheme customers and general customers utility services in university hospitals related documents, concepts, theories and studies were reviewed as follows:

1. Health and medical system in Thailand
2. Health care provided by government
3. Universal health care coverage scheme
4. Medical care in university hospital
 - 4.1 Concepts of health care service and outpatient care service
 - 4.2 Primary health care in university hospital
5. Satisfaction of health care delivery
6. Related research on satisfaction

1. Health and Medical System in Thailand

Medical care service is the main role for government administration, especially to the work that is directly related to people or customers. Organizations and officers have duties to deliver service receiver. Many scholars have given the concept of service as follows.

Thepsak Boonyarattanapan (1992: 13) defined service as an individual, a group, or an organization that is related to service provider (either public or private) or has duties to offer service to people consisting of 6 factors as follows.

1. Location and people who offer service
2. Inputs or resources
3. Processes and activities
4. Outputs or services
5. Service channel

6. Influence to service receiver

Health insurance schemes

Health insurance provides two basic functions: access to effective health care services when needed, and effective protection of family income and assets from the financial costs of expensive medical care. Tax-based welfare schemes are also considered health insurance. Anuwat Supachutikkul classified various health insurance schemes in Thailand into four categories according to their nature and objectives.

1. Medical Welfare Scheme (MWS)

This scheme provides free medical care for the indigent for example the poor, the elderly and children up to secondary school and the disabled. It also extends to monks, community leaders, health volunteers and their families.

2. Civil Servant Medical Benefit Scheme (CSMBS)

This is a fringe benefit to government employees and dependents to compensate for low public salary.

3. Compulsory Social Insurance

3.1 Social Security Scheme (SSS) – a tripartite contribution scheme by the employer, the employee and the government ensures health security for formal sector employees.

3.2 Workmen Compensation Scheme (WCS) – an employer liability scheme to protect the employee from work-related injuries, illnesses and funeral grants.

3.3 Traffic Accident Insurance – ensures access to care by traffic accident victims through compulsory premium paid by all car owners to private insurance firms.

4. Voluntary Schemes

4.1 Private Health Insurance – a voluntary risk related premium contribution covering mainly the better off.

4.2 Government Health Care Scheme (HCS) – a voluntary alternative for the uninsured, e.g. rural informal sector workers who are not eligible

for low income scheme, The self-employed and employee in small firms of less than 10 employees who are not eligible for the social insurance scheme.

Several small-scale community financing, savings schemes provide limited health benefits to its members. Payments are made retrospectively to members at the end of the year according to the funds available. Self-help funeral grants are more common than health benefits.

2. Health Care Provided by Government

Hospital is the center of health care system, the source of knowledge for sickness and the reliable location for health care. Therefore Hospital is the main institute for health care system.

Health Ministry is the largest organization in government that posses the largest number of hospital and 2 of 3 hospital beds of the country. In 1997, the ministry possessed 64.9 percent of hospitals and 60.4 hospital beds (Suwit Wibulpolpraserd and group, 1999). Health Ministry has categorized hospitals under control into 3 types.

1. Regional Hospital and Medical Center – The largest size of hospital holds more than 500 beds and it is the center of service in each section area. It has capability to accept patients with specialties in all areas. It is classified in “Tertiary Care”

2. General Hospital – The hospital holds less than 500 beds and has a lower capability to accept patients compared to regional hospital. It has responsibility to provide service for people in urban area and near suburban area. It is classified in “Secondary Care” till “Early Tertiary Care”.

3. Community Hospital – The hospital holds number of beds between 10 to120 beds. It locates in every Amphur as the smallest sector that has doctors working. It aims to provide service (mixed service) to people. It is categorized in “Late Primary Care” till “Secondary Care”.

3. Universal Health Care Coverage Scheme

(Working Group for Development of the Universal Coverage, 2001: 11-26)

3.1 Target of the universal coverage of health care

The target of the universal coverage of health care is to establish the health insurance to enable people to have access to health care service as needed. It is regarded as the fundamental right of people not covered by government welfare or support. It is to comply with the Constitution of the Kingdom of Thailand (1997), Section 52 that “individuals have the same right to health care service of a good standard and the poor have the right for health care services from public health care institutions without paying...”

However, health insurance alone cannot make people healthy or attain good health status which is its optimum goal. In order to stay healthy, people need to be more self-reliant upon the principles of health, participate in management of the health insurance system by taking into account ‘health for all and all for health’. This will direct the systems to focus on build up rather than repair the health.

Thus, the health insurance system needs to support the mentioned conditions in order to promote good health among people.

3.2 Development principles for the universal coverage of health care

3.2.1 People should be encouraged to participate in the universal coverage at all levels and take part in owning the systems, the government and people are cooperatively responsible for the system to achieve its goal, i.e. good health status under the sufficient health principle.

3.2.2 The right for good quality health care service needs to be protected, then people should have the right to choose primary health care institutions to register with service from.

3.2.3 Both public and private health care institutions should have quality accreditation as the essential condition to assure that people will receive good-quality health care.

3.2.4 The national health insurance system will priorities the primary care which provides integrated health service (including treatment, health promotion, disease prevention and rehabilitation) and in case the care is beyond the ability of the primary care institution, it will refer to others.

3.2.5 Promoting provider network among primary care institutions and other health care institutions, between public institutions or public and private institutions.

3.2.6 The financial system for universal coverage needs to be the cost-containment system and should prevent the excessive dependence on health care service, the payment system should be close-end and performance-related payment.

3.2.7 Core package or payment mechanism should be the same standard regardless of many health insurance funds.

3.2.8 The future health insurance or national health insurance should comprise only one health insurance fund, however there can be 2 funds with uniqueness of administration during the transitional period with the same core package (there can be sub-fund for management of care with high expense in order to control the expense and know the service details)

3.3 Core package of the national health insurance system

3.3.1 Core package of the national health insurance system consists of basic service based on the benefit of the social security, the personal and family preventive and promotive services in addition, as well as accredited alternative medicine. Any health care service beyond this core package is responsible by people and employees of any enterprise.

3.3.2 Personal and family preventive and promotive services will cover service provided by health care institutions and other community services such as home visit, home care, etc.

3.3.3 Health promotion and disease prevention for community and specific target groups such as drug addicts, etc., the working case of disease epidemic, treatment and rehabilitation for drug addicts, HIV/AIDS prevention campaign, etc. It will not be included in the core package but a specific budget is allocated. The

responsible agencies need to request for the budget until the authorization is decentralized to the local administration (or local health committee) to make the request for the budget as provided in the Plan and Decentralization Procedure Act.

3.3.4 The core package is the basic framework and there will be continual mechanism to develop the core package to meet the need in health and the change of medical and public health technology.

3.4 Health care system under the universal coverage

3.4.1 Primary care institution or network of the primary care can register people only if they have integrated treatment, health promotion, disease control and rehabilitation both inside and outside the institution, with at least one doctor and other staff. At present, the people can choose to register at community hospitals or municipal health center or community medical center (with doctor) or private hospitals/clinics (with full-time doctors).

3.4.2 Hospitals can be a primary care provider and register people, however, it needs to develop the integrated service.

3.4.3 It should assume that all public hospitals meet the required standards in order to provide universal coverage health insurance within the time provide. However, for private health care institutions, they need to pass the standard evaluation before participating in the scheme.

3.4.4 For private primary care institution such as clinic should possess the required qualification and can only register people in the district where the clinic is located and other nearby districts. For private hospital, to provide primary care, they need to get sufficient fund for serving service.

3.4.5 The Hospital Accreditation Institute later named the Health Care Accreditation Institute is the main organization for health care accreditation of all health care providers including primary care institutions at the transitional period. For the provinces that started to implement the universal coverage scheme in June 2001, the institute has set up the guideline for standard evaluation. The Medical Registration Division and provincial mechanism set up by the Local Health Committee as the primary evaluation mechanism. The team from Health Care Accreditation Institute will later reevaluate to assure that the standard is met.

3.5 Information and registration system

3.5.1 It is an urgent need to invest for the fundamental structure of the information system for health insurance management. At this stage, the management of the information system should be implemented as a project under the Health Systems Research Institute until the National Health Insurance Office is established, the work will be then under this office.

3.5.2 Registration of the people who have right for the health insurance will be based on the surveyed data and information from the Registration Bureau, Department of Local Administration. The registered people will receive the “gold card” Once, after the central information system is ready, the registration system will be modified based on the data from the new system.

3.5.3 Registration with the primary care institution will be completed, at the first period, classified by the administrative areas, geography, and distribution of the health care institutions (both public and private). The Local Health Committee will primarily make the decision until people are allowed to choose the primary health care institutions that they want to register.

3.6 The National Health Insurance Administrative Organization and the Universal Coverage Preparedness of Health Care Organization

3.6.1 “National Health Insurance Policy steering committee” and “National Health Insurance Office” will be primarily established to be responsible for preparing universal coverage of health care. The prime minister will act as the head of the committee. This office will be found under the control of the Prime Minister House. The mission will be completely finished when the universal coverage of health care law is declared and the national health insurance office is permanently established (under national health insurance law) to administrate national health insurance system.

3.6.2 For the organization structure before the establishment of National Health Insurance Policy steering committee, the operation is controlled by the Ministry of Public Health, whose responsibilities include managing and

supporting operations of universal coverage of health care in various areas throughout the country. And Health Care System Revolution Project Office is the coordinating office for academic to establish universal coverage of health care. The main duty is to coordinate between ten preparing steering committees and external sector to develop policy for universal coverage of health care.

3.7 30-Baht Fee (co-payment)

30-Baht fee will not be collected each time of service for health-supportive and disease-preventive control to motivate people toward taking more service.

4. Medical Care in University Hospital

4.1 Concepts of health care service and outpatient care service

Definition of service

Service is the process to take care customers who receive the services in hospital that providers give to the customers. The received services will acquire the satisfaction, convenience, safety and quality. (Ratchaya Kulvanichanan, 1989 and Sujira Chamnavigkorn, 1992)

Yongyut Pongsuphab (1998: 53) studied that a good service did not require only the knowledge and ability of person who offered the service, but also the management system that influenced this factor as well. Good service characteristics can be explained as follows:

1. Overall care – A person who receives the services is not considered as just a patient or a person who uses the services. It is also needed to consider belief, fear, worries and wonders whose possesses. (Psychological Approach). Recognition of person in term of society, culture and economic is also required. These acknowledgements can assist in establishing good relationships between one who offers services and one who receives services, in term of mutual agreement, common decision, decision implementing and self-reliance of patience or person who receives services.

2. Continuous care – Services are offered to people who are under facilities' responsibility. A service should be offered, starting from the time health problems occur until they completely disappear. In the ideal sense, services are offered from birth till death. System is compulsory to make continuous surveillance both at individual and family level. Continuity will be resulted from overall surveillance. Starting from recognizing the mind's condition (Empathic Approach) will induce people who receive services to follow-up. Yet some services cannot completely fulfill the patient's demand or the person who obtains service (Initial Patient Demand). Continuous interaction will establish interrelationship (Emphatic Relationship) and will allow people offering the service to present overall services. Overall care and continuous are complement to each other.

3. Mixed care that consists of curative, preventive, promotive and rehabilitation. In practice, educated person received promotive and preventive care are under responsibility of hospitals that can be performed curatively. If health centers can effectively provide healthcare, they can significantly elevate trust and believe level, resulting in promotive activities, preventive activities and educating activities. However, mixed care is still significantly related to overall care and continuous care. Then care will clarify between people who offer service and people who receive service on what current appropriate care is, in term of curative, preventive, promotive care and rehabilitation of individual or society.

Outpatient care service

Hospital service is normally divided into Out-patient and In-patient section. This research was studied about health care's satisfaction at university hospital. The scope of research was targeted at out-patient department.

Service of out-patient is the first gate of hospital; it has to accommodate a lot of patients. Service of out-patient department is considered as one of the priorities of quality that good system management is required to provide convenience to service receiver. The service includes curative, promotive, preventive and rehabilitation. Moreover, in order to make healthcare service available to everyone, hospital still has the duty to support fundamental health care, according to government policy. (Samreut Pora, Wisit Pichaisanit, 1992: 105)

Standard of out-patient service

Standard of out-patient service is an important component to define rules for providing service to cover clarified work direction, appropriate work resource, appropriate work system. Quality evaluation surveillance system, which will result in the outcome and lead to continuous quality improvement. There are 9 elements for standard of out-patient service.

1. Mission, Target and Objective

Clearly identify and write mission, philosophy, scope, target and objective of out-patient service

1.1 Mission, philosophy and scope of providing service to out-patient complements hospital's mission.

1.2 Possible target and objective that are measurable

1.3 Communicate mission, philosophy, target and objective of out-patient service related to officers and organization

1.4 Officers have knowledges and understand target of out-patient service and understand their responsibility

2. Organization management

Clearly identify and write mission, philosophy, scope, target and objective of out-patient service

2.1 Clear and appropriate organization chart of out-patient service

2.2 Supervisors are saw as persons with appropriate characteristics, assigned to appropriate tasks and have management skills to accomplish the mission.

2.3 Job description is clearly identified and written

2.4 Effective system defines work approach, communication and problem solving is available.

2.5 System to allow cross-functional sections to participate in planning, decision-making and defining policy at hospital level.

3. Human Resource Management

To posses effective human resource management for out-patient service according to the planned mission

3.1 Manpower management

3.1.1 To have sufficient and appropriate officers for mission: both quantity and quality

3.1.2 To have surveillance system and evaluation system for sufficient number of officers compared to work load

3.1.3 Periodically evaluate officers' performance. Emphasize on positive operation to elevate pride and encourage continuous improvement.

3.1.4 Officers who are unqualified according to job description or intern will work under supervision.

4. Human Resource Development

Preparation for the gaining of knowledge and skills of officers so that they can work effectively

4.1 Evaluate needs and define details of resource development

4.2 Human resource development plan for service sector is available

4.3 New officers are trained before starting the job

4.4 Available activities to periodically increase knowledge and skill of permanent officers

4.5 Evaluate human development plan in term of changing behavior and effect to patient's service

5. Policy and procedure

Possess written policy and procedure that demonstrate sophisticated knowledge of discipline, which is related to "out-patient" type of work and related regulations. Officers will follow it strictly.

5.1 Possess good process to define policy and procedure. Moreover, system for certification, announcement and review is available

5.2 Policy / procedure of organization complies with hospital's policy and provide necessary approach for officers, patient and their family in the following issue.

5.2.1 Administration

5.2.2 Activities for clinic and management

5.2.3 Ethics, law and society

5.2.4 Note and documentation

5.2.5 Safety

5.2.6 Human resource development

5.3 Officers understand and behave according to policy / procedure

5.4 Periodic evaluation of policy and procedure so that they completely comply with work condition

6. Environment and building

Environment and building facilitates out-patient service in terms of convenience, safety, quality and efficiency

6.1 Location of out-patient service is appropriate and convenient for providing service and accesses to associated organizations.

6.2 Sufficient utilizing area and appropriate interior design for providing service, operation and storing equipments

6.3 General condition in organization possesses safety, good ventilation, appropriate lighting and temperature, no noise disturbance, cleanliness and discipline

6.4 Location of inspection, curative and consultation is properly arranged inside closed room so that the 3rd party cannot see or hear

6.5 Facilities for officers are available

7. Equipments and facilities

Possesses standard equipments and facilities for offering service to outpatient with confidence in safety, quality and efficiency

7.1 Possesses rules and systematic approach in selecting and evaluating equipments necessary to service

7.2 Sufficient equipments for operations are available

7.3 Specialists are properly trained and acquainted with equipments

7.4 Necessary backup equipments and medical material are available and ready for service at all times

7.5 Effective preventive maintenance system of equipment is available

7.6 Condition inspecting system for equipment is available so that they can be utilized anytime

8. Work system and service process

Possesses work system and service process for out-patient that are effective according to discipline and satisfies patient's demand

8.1 Cross-functional team from multi-disciplines is available

8.2 Patient and family are well-prepared before treatment

8.3 There is information exchange between patient, family and service provider's team

8.4 Each patient receives periodic evaluation and treatment planning for a good response for patient's condition

8.5 Process of treatment and care of patient follows the standard of discipline, which is all agreed that it is the best solution under that specific circumstance.

8.6 Record of patient's data, patient's problem, treatment plan, progress and result so that good communication occur within service provider's team and continuity of treatment is available.

8.7 Possesses process that can help patient recover to normal status as quickly as possible.

9. Activities for improving quality

Teamwork activities for surveillance and quality improvement of outpatient service are available and continuously improved

9.1 Activities for improving outpatient service is available with cooperation with operators from every level, every factor of discipline, within organization and inter-organization

9.2 Quality improvement activities consist of

9.2.1 Evaluation of needs and expectation of patient or organization that receives service and related organization.

9.2.2 Follow-up study of data and statistics which indicate important results

9.2.3 Choose activities or processes of important preventive service for evaluation and improvement

9.2.4 Problem solving or quality improvement by using scientific approaches emphasizing on analyzing and improving processes of care and service. Investigate root causes on data and fact basis. Use creativity for new approach

9.2.5 Evaluate results of problem-solving and quality improvement and announce evaluation results to all related persons

9.2.6 Perform surveillance in order to keep the standard and continuous improvement in long term

9.3 Implement standard of discipline and evidence-based quality activities

9.3.1 Possesses process that implement evidence-based as the fundamental to define clinical practice guideline of hospital

9.3.2 Possesses periodically patient's review activities to find weakness for improvement

Outpatient Service

Definition and types of out patient (McGibony, 1969: 546-547)

Outpatient refers to a person who gets examination, diagnosis, treatment, disease prevention from health officers as well as services from a hospital's facilities or health program at a time but does not registers in IPD of the hospital. The outpatients can be divided into the following 3 types.

1. General outpatient is a person who gets normal examination, diagnosis and treatment from a hospital and does not require emergency service.
2. Referral outpatient is a person who gets referral from other health care by medical reason for continuous examination and treatment.
3. Emergency outpatient is a person who needs emergency care or gets an accident that needs immediate treatment from physicians to relieve pain.

Outpatient Department (Grant, 1973: 104) should be a place providing following services.

1. Examination and treatment for community as well as knowledge education for physicians and other health officers
2. Special examination and treatment in order to provide convenience for patients such as small operation and required service
3. Continuous treatment from other medical institute
4. Follow up treatment outcome after the patients going home
5. Physicians examine and provide diagnosis as well as treatment based on medical skills.
6. Family medicine
7. Community health care coordination

To provide OPD health care, efficient management system is required. Then, the healthcare can be provided in good quality, promptly and safety. Patients can go home and perform self-care correctly. They should not often get sick by the same disease. In addition, they should know how to prevent themselves from other diseases.

Health care management for OPD

OPD health care management needs following elements. (Phanee Sitakalin, 1990: 326-326)

1. Place arrangement should be convenient for care and patients. Three issues that should be considered for place arrangement are:
 - 1.1 Type of provided service;
 - 1.2 Service process that support self-service, timeliness and convenience from A-Z; and
 - 1.3 Cleanness maintaining by responsible officers.
2. Preparation of required medical equipment and tools
Medical equipment and tools need to be available for use in appropriate and adequacy.
3. Preparation adequate officers with appropriate skills

There are many positions of officers working in OPD. A health care should recruit its personnel as needed both for quantity and quality.

4. Job description

Officers should be given appropriate responsibilities for OPD work from examination to health support. Job description should be adopted in order to let everyone know their duties and responsibilities. Periodic performance assessment should be done. If an inappropriate issue is found, it should be always improved.

5. Job assignment

Job assignment must upon job nature, quantity, difficulty, volume and quality of personnel.

6. Appropriate coordination system

Coordination system arrangement consists of cooperation between individual, services and divisions. Regarding to coordination among hospital staff and patients, they should understand each other through public relations, suggestion and consultation at the time.

7. Supervision and control system

Management of service system for OPD needs work control system in order to provide appropriate, care for each patient, according to degree of illness and symptom.

8. Performance assessment system

Many hospitals are criticized about slow service, cold welcoming, unclear information about illness and treatment. This reflects needs and people's expectation. Their feedback should be used as guideline in order to improve competence of officers and service system in OPD.

4.2 Primary health care in university hospital

WHO declares by Alma Alta in 1978 that the definition of primary health care is the first accessibility of service, giving family health care not individual care, Health for all is supported in preventive and promotive health care.

Primary health care service should be closed to all people to access and should not expensive cost. The main of primary health care service is not high technological treatment but emphasize in total of human being by including physical, mental, social and spiritual. There are relations of them in person.

Principles of primary health care service

1. First Contact

Health care service should be located near the community it serves. The public can easily access. Personnel of the service unit closely worked with the community and get along with their life style. Therefore, people trust the health personnel. This causes the motto: “Health care service – near home, near heart”.

2. Comprehensive Care

It means that the health care includes all aspects (disease/illness/sadness) regarding to living factor in all dimensions (physical-mind-society-environment). The service is provided with understanding of the needs of people and also integrating required treatment, health promotion, disease prevention and rehabilitation.

3. Continuous Care

Health care service is continuous before sick, during being sick and rehabilitation as well as from birth till death.

4. Catchment’s Population

Each health care unit is assigned specific and appropriate number of its customers.

5. Coordinated Care

Health care service coordinates with special medical service by refer system. It also serves the community as needed. Their data is linked with several health care units for optimum benefits of the public.

6. Community Involvement

Health care service let people participating in health care system. This corresponds with concept of decentralization. As a result, the care service can better respond the needs of community. It also becomes a way to

strengthen the community organization. This is because the community has opportunity to learn and experience health problem.

Primary care service play are important role in health care system with many reasons. Some are followings.

- It is the closest care unit. People in its community can easily access. It can support the community's strength.
- It possesses efficient chances to get informations about social-psychology.
- Operation cost is lower than that of a hospital.
- It can well provide integrated service. Thus, its service is to overall continuous care that can create and promote disease promotion and prevention.

Background and responsible area of Universal Coverage (UC) of university hospitals

All autonomous government hospitals, Ministry of Public Health, Commission on Higher Education, Ministry Of Defense, Ministry of Interior and private hospitals provide good participation in the scheme. Ramathibodi Hospital and King Chulalongkorn Memorial Hospital are university hospitals that prepare themselves to participate in this scheme since September in 2001. Ramathibodi Hospital appointed the sub-committee to operate health insurance and another sub-committee to operate health promotion and disease prevention. The sub-committees, under the direct supervision of the Dean Deputy – Health and Social Insurance, arranged meetings in order to prepare readiness for the scheme. On the 1st of April 2002, Ramathibodi Hospital launched its first Primary Care Unit under the Health and Social Insurance unit. The unit has provided care service until now. For Universal Coverage of King Chulalongkorn Memorial Hospital is under supervision of the Hospital Deputy Director – Strategy and Information Technology Department.

Bangkok Metropolitan is a special province with 14 districts or 14 zones. Each zone possesses one central hospital. Other hospitals in the same areas are network one or net-zone of such central one. BKK Public Health Center is also established to provide health promotion and disease prevention as well as medical

treatment of primary care. Ramathibodi Hospital is the central hospital for Phayathai zone covering Rajthevi District and the west of Phahonyothin Road, Jatujak District. Its network hospitals include Kasemraj Hospital, Prachachuen. The health promotion and disease prevention of Ramathibodi Hospital is assigned to the second Public Health Center. Population under the Universal Coverage Scheme of Ramathibodi Hospital from initial stage is around 47,000 people. Ramathibodi Hospital has 2 Public Health Centers: Health Center No. 17 and No. 24. In addition, Kluaynamthai Clinic, Tungsonghong branch and Ratchada 36 branch select Ramathibodi Hospital as its Secondary Care Unit. King Chulalongkorn Memorial Hospital has Public Health Center No. 16 to provide primary care to responsible local population.

Population management in responsible area

At present, Ramathibodi Hospital has to take care people in Phayathai area, Rajthevi District and the west of Phahonyothin, Jatujak District and referral patients only from Health Center No. 17, No. 24, Kluaynamthai Clinic, Tungsonghong branch and Ratchada 36 branch under the Universal Coverage. However, patents from Phayathai Babies' Home can directly register at Ramathibodi Hospital. Likewise, King Chulalongkorn Memorial Hospital is responsible for people in its areas and referral patients from Health Center No. 16.

Hospital service system for patients with health insurance

Registration and card issue

Ramathibodi Hospital registers patients from Phayathai Babies' Home who do not have other government rights such as care fringe benefits of civil servant, state enterprise or social insurance. Those patients need to actually live in responsible area of the hospital. Evidences required for registration are identity card and house registration with copies. Care application form has to be submitted along with the evidences at the customer service. Officers at the customer service will check the evidence. If the documents pass the screen, the patients will be registered and then get UC card. During the initial phase, both hospitals register and issue UC cards for every people in their responsible areas. Until 2003, the hospitals do not register new

patients. A health center that accepts patients under the scheme has to issue a card for its responsible population.

Right inspection and right verification

Ramathibodi Hospital provides patients' right inspection before getting service in order to screen patients with UC card from those with other rights. The right inspection will separate patients into 2 categories: gold card in Ramathibodi responsible area and gold card outside Ramathibodi. When a patient comes for service, he or she will have to be inspected for treatment right at the customer service unit in front of the Emergency Medicine. The inspection is screened by identity card and gold card. For referral patients from Health Centers of Kluaynamthai Clinic, both branches have to provide referral letter. The patients then get right verification before seeing physicians. In case patients live outside Ramathibodi Hospital area, the hospital's customer service unit will check referral letter, identity card and gold card. For emergency patients or accident, the right is granted without referral letter. The right to receive health care outside the patients' area is limited twice a year. King Chulalongkorn Memorial Hospital assign its nurses to screen every new patient and recommend the patients to grant their right by have right inspection at the first floor of PhoBoRor building. Same documents are required.

Health examination and treatment of Department of Family Medicine

Ramathibodi Hospital provides primary care unit under OPD of Family Medicine. Every patient with UC scheme who gets healthcare at Ramathibodi Hospital, after passes right inspection and gets right verification, he or she has to get health examination and treatment at Family Medicine OPD as to screen primary IPD by physicians from Department of Family Medicine. For patients who get continuous examination appointment, they can get the service from each department directly. The patients who get examination by physicians from Department of Family Medicine will be register in family folder and get recommendation about health concern by integrated health team (room No. 30) If officers find out that which patients should be followed up at home, the integrated team will later visit them at

home. For King Chulalongkorn Memorial Hospital, customers can receive healthcare service from every department and floor according to recommendation of nurses and health insurance officer.

Referral system and transfer

Ramathibodi Hospital divides referral into 2 systems: internal network of Ramathibodi Hospital; and referral outside the network or zone of Ramathibodi Hospital. The referral inside the network is referral from Health Center No. 17, and two branches of Kluaynamthai Clinic to Ramathibodi Hospital. This internal referral includes referral from Department of Family Medicine to other OPD and referral back to Department of Family Medicine when the treatment is completed and finally to local health center according to near home-near heart system.

The referral outside the network is referral patients from other hospitals outside responsible area of Ramathibodi Hospital to Ramathibodi Hospital. Such referral requires referral letter with specified treatment period and correct treatment cost verification both for OPD and IPD. The referral letter has to specify continuous treatment of existing disease. On the other hand, in the event that a patient with UC card of Ramathibodi Hospital get emergency or continuous treatment from other outside hospital based on the patient's condition, Ramathibodi does not need to referral back that patient. The patient then can be cured in that hospital with reference of emergency and IPD standard practice. King Chulalongkorn Memorial Hospital has internal and external referral network systems like Ramathibodi Hospital.

Finance system

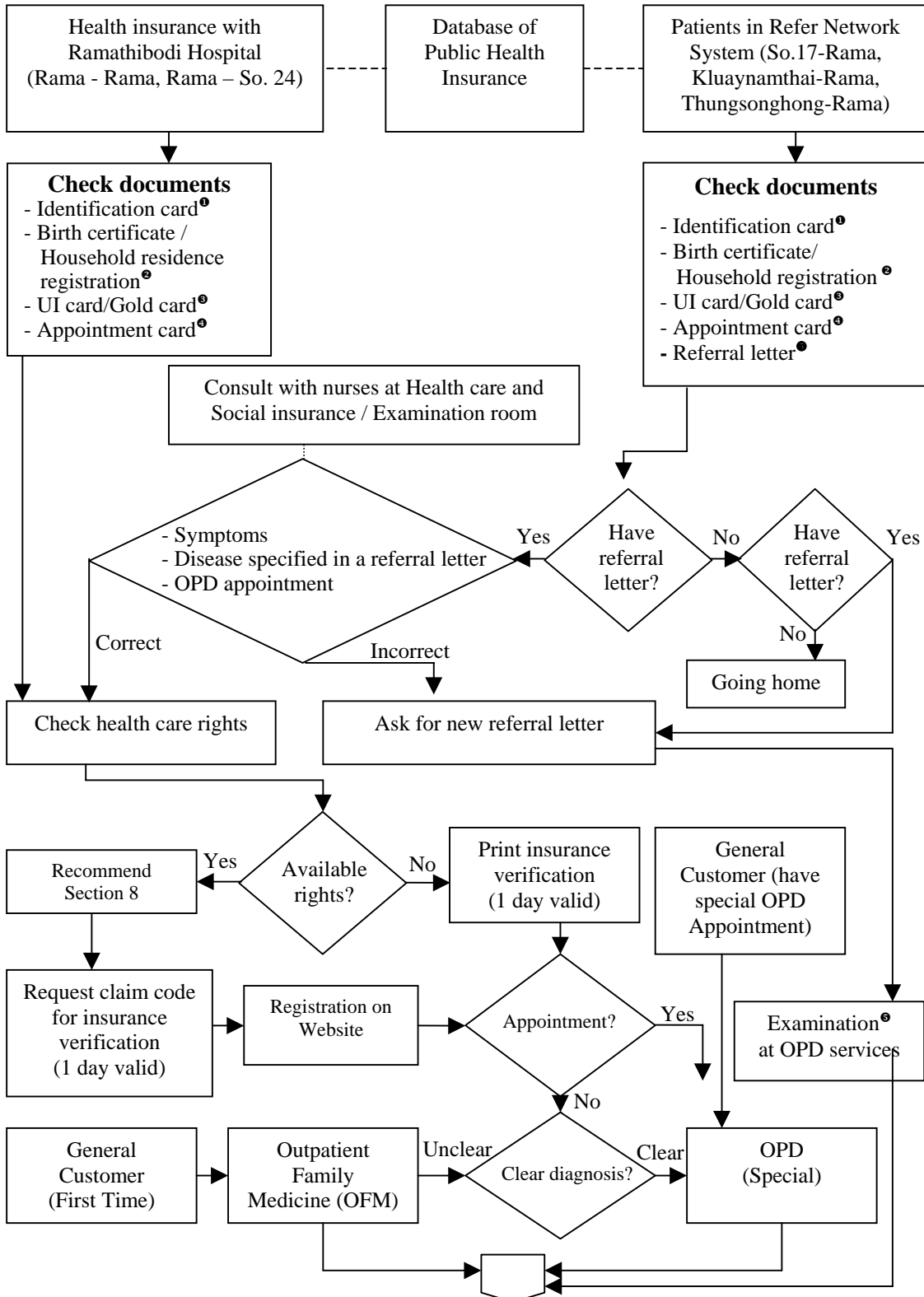
National Health Security Office considered income per head of population in responsible area and allocated budget. In 2003 and 2004, income per head is 1,202.40, 1,308.50 and 1,396.30 baht. The compensation is high for diseases specified by National Health Security Office. In addition, cost of required medical equipment can partly be reimbursed. Emergency patients will receive budget allocation from National Health Security Office according to conditions and specified rate.

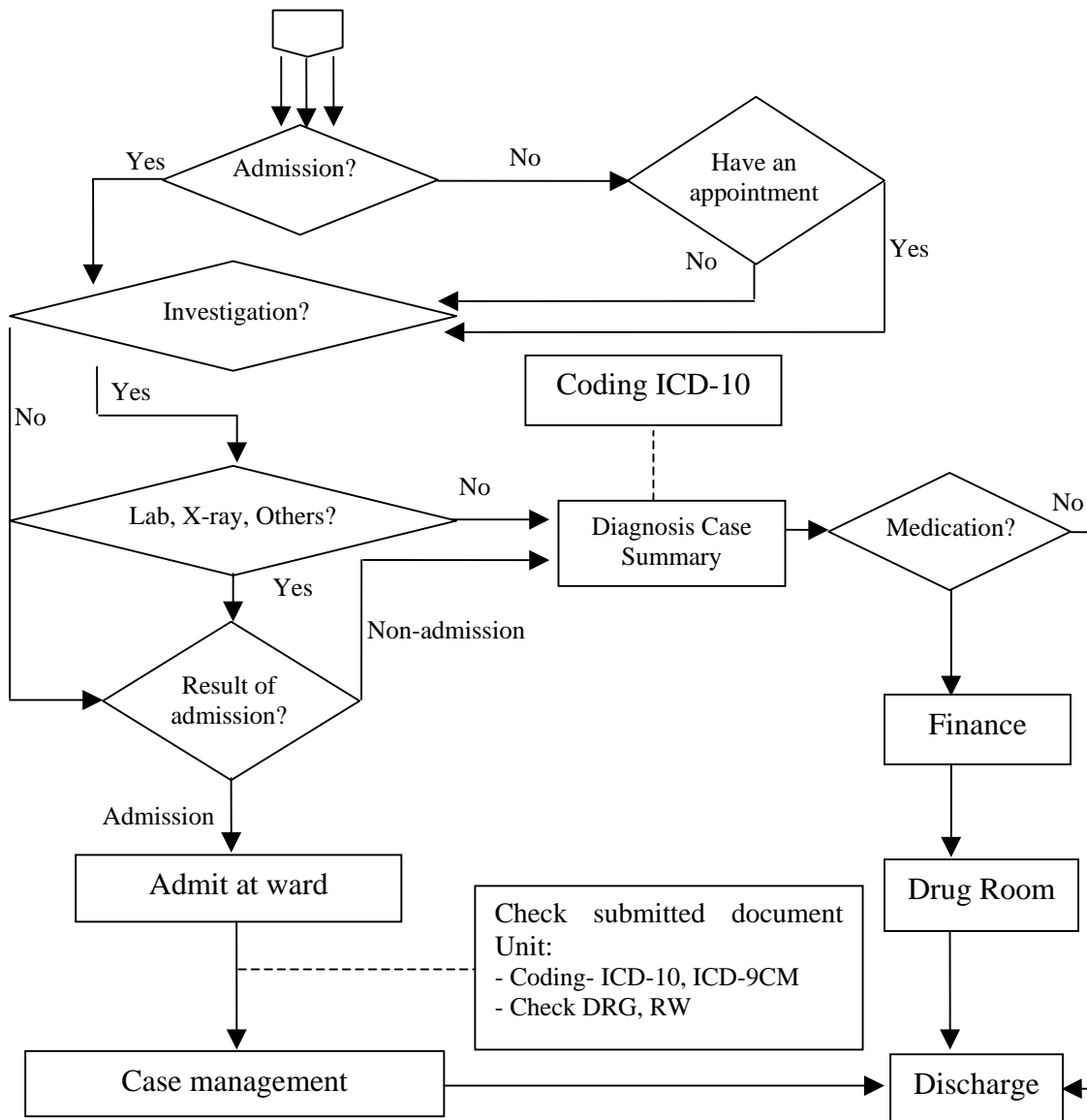
In Bangkok Metropolitan, where Ramathibodi Hospital and King Chulalongkorn Memorial Hospital locate, the allocated budget is exclusive. It means that the budget for OPD service and disease prevention budget is separated from IPD budget. OPD treatment cost in the area of Ramathibodi Hospital comes from per head budget allocation. Referral patients, both from two branches of Kluaynamthai Clinic and OPD in responsible area to Ramathibodi Hospital, are considered by case. In the event that the patients are referred to OPD, the refer unit will be responsible for all cost. On the other hand, in the event that patients are referred to IPD, the healthcare unit that gets the referral will spend the provided allocation budget. In case of outside referral, the responsible unit will be responsible for treatment cost according to DRG except in case of emergency or when after verification, it finds that Relative Weight (RW) is more than 3, National Health Security Office will be responsible for that case according to its regulations. This per head budget allocation is differential capitation. Its variable is age structure. Additional budget is provided for faraway area in order to let healthcare unit be able to provide appropriate and cover health service to the public. People under 60 years old have to pay timely access fee (30 baht).

Expenses under Universal Coverage Scheme of university hospitals

Ramathibodi Hospital and King Chulalongkorn Memorial Hospital have major expenses in examination for treatment, laboratory, x-ray, medicines in the national medicine list, Ramathibodi medicine list, medicine outside the national medicine list as needed, equipment and operation cost. The expenses are deducted from budget allocated by the National Health Security Office according to specified benefit by the Committee of National Health Security Office. Cost of health promotion and disease prevention is allocated under the scheme to responsible health center.

Process of health care service provided to patients under the Universal Coverage and general patients in Ramathibodi Hospital.



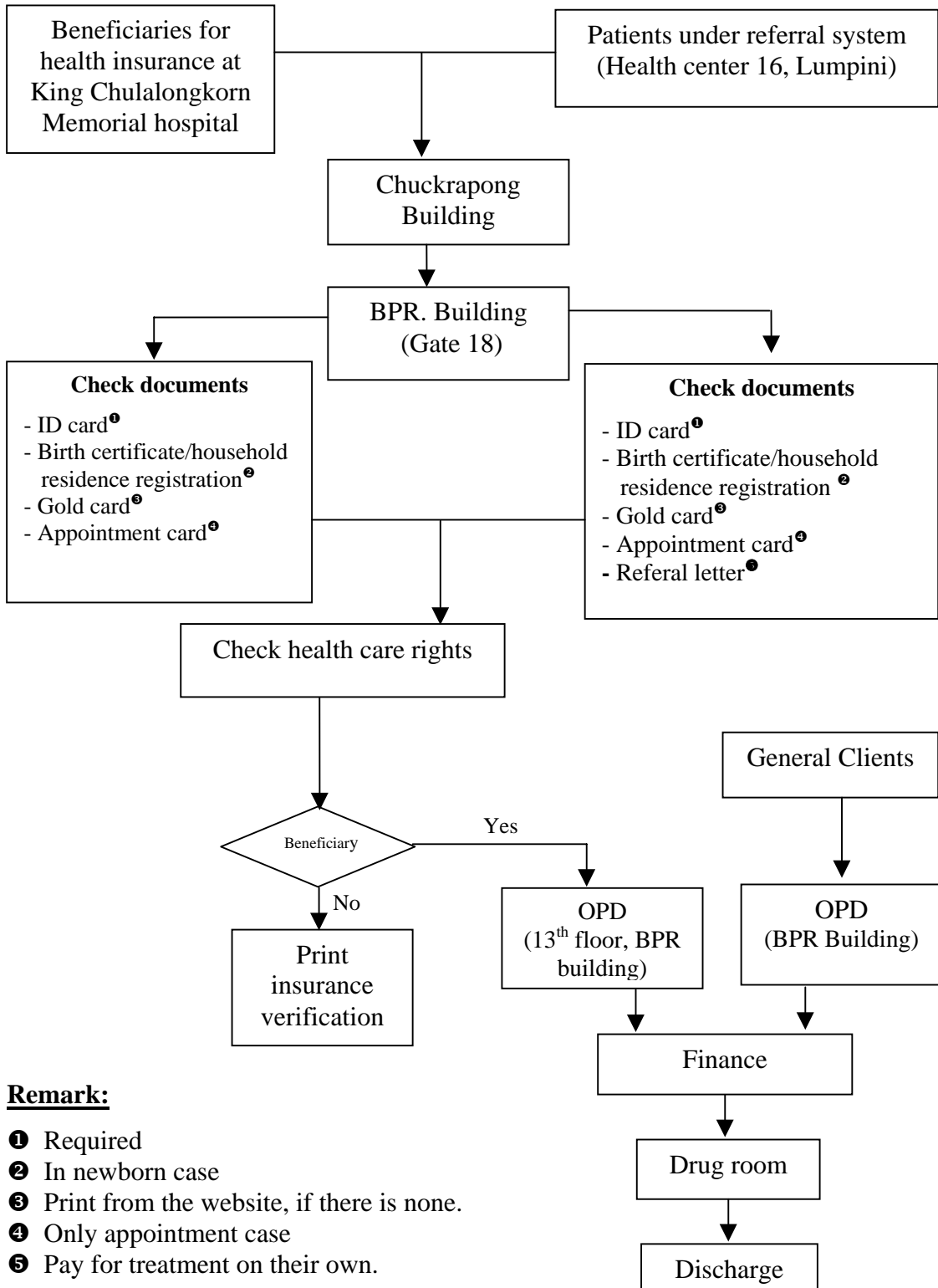


Remark:

- ❶ Required
- ❷ In newborn case
- ❸ Print from the website, if there is none.
- ❹ Only appointment case
- ❺ No referral paper, pay for his/her own treatment

From: Health and Social Unit at Ramathibodi Hospital

Process of health care service provided to patients under the Universal Coverage and general patients in King Chulalongkorn Memorial Hospital.



Remark:

- ① Required
- ② In newborn case
- ③ Print from the website, if there is none.
- ④ Only appointment case
- ⑤ Pay for treatment on their own.

From: Chuckrapong Building service at King Chulalongkorn Memorial Hospital

5. Satisfaction of Health Care Delivery

Definition of service access for satisfaction

Fox (1975: 272) mentioned that service access means adequacy of health care that patients can get benefits from a provider.

Parasuman (1985: 41-50) explained service access as convenience provided to patients and relatives when they come for health care. Health service should be accessed at the time, at convenience and timeliness. Customers should be provided information from nurses. Relatives get food. Patient rooms should be clean and comfort both for patients themselves and their relatives. There is care tracking service at home as necessary. In conclusion, service access is the customer's ability to receive health care from care provider conveniently and sufficiently.

Assessment of service access

Penchansky and Thomas (1981: 127-140) defined access as a concept reflecting the degree of "fit" between the clients and the system. They provided concept of medical access and factors relating to satisfaction divided into 5 aspects.

1. Availability: the relationship of the volume and type of existing services (and resources) to the clients' volume and types of needs. It refers to the adequacy of the supply of physicians, dentists and other providers; of facilities such as clinics and hospitals; and of specialized programs and services such as mental health and emergency care.

2. Accessibility: the relationship between the location of supply and the location of clients, taking account of client transportation resources and travel time, distance and cost.

3. Accommodation: the relationship between the manner in which the supply resources are organized to accept clients (including appointment systems, hours of operation, walk-in facilities, telephone services) and the clients' ability to accommodate to these factors and the clients' perception of their appropriateness.

4. Affordability: the relationship of prices of services and providers' insurance or deposit requirements to the clients' income ability to pay, and

existing health insurance. Client perception of worth relative to total cost is a concern here, as is clients' knowledge of prices, total cost and possible credit arrangements.

5. Acceptability: the relationship of clients' attitudes about personal and practice characteristics of providers to the actual characteristics of existing providers, as well as to provider attitudes about acceptable personal characteristics of clients.

Brown and Lewis (1976: 276) concluded that access consists of:

1. Availability
2. Efficient personnel
3. Appropriate modern health system reform
4. Overall treatment

Schulz and Johnson (1990: 22) proposed five A's for access.

1. Availability means adequacy of the supply of service personnel and facilities.
2. Accessibility means convenient location of supply.
3. Accommodation means fast service and easy appointment.
4. Affordability means affordable cost.
5. Acceptability refers to acceptance of practice characteristics of providers and treatment ability.

Cunningham, et al. (1995: 739-754) proposed access concept by measurement from following issues.

1. Affordability refers to all charges that IPD patients have to pay and lack of treatment because of no payment.
2. Availability means availability of emergency department, hospital's service system and emergency treatment.
3. Convenience means service hours, location and service mind.
4. Access to specialists means travel time, appointment time and waiting time.

Aday & Andersen (1987: 28) studied satisfaction of people toward health care delivery in the United States during 1970-1975 and pointed out 6 fundamentals related to customer's satisfaction as follow:

1. Satisfaction to convenience can be divided as follow:
 - 1.1 Office waiting time
 - 1.2 Availability of care when need
 - 1.3 Base of getting to care
2. Satisfaction to coordination can be divided as follow:
 - 2.1 Getting all need at one place or one-stop service
 - 2.2 Concern of doctor for overall health
 - 2.3 Follow-up care
3. Satisfaction to courtesy, which are friendliness of provider and care toward patient
4. Satisfaction to medical information can be divided as follow:
 - 4.1 Information about what was wrong
 - 4.2 Information about treatment
5. Satisfaction to quality of care, which is quality of care in patient's opinion.
6. Satisfaction to out of pocket cost, which is appropriate cost for curative

AVI YACAR ELLENCWEIG in 1992 studied the satisfaction of health care delivery in many aspects as follow:

Availability: The levels of the availability of physicians or of hospital beds were necessary for customer's satisfaction of receiving health care. These variations could not be attributed either to resources-availability or to differences in the quality of care.

The indicators described availability of input of service, expectation of satisfaction and outcome of service as follows:

- Health manpower, quantitative, for which the indicator was a physician per appropriate population in each location of giving service, such as urban or rural society.

- Indirect socio-economic effects, for which the indicator was family income.
- Physical resources, quantitative, for which the indicator was room for giving treatment and technological equipment.
- Health outcomes, measured as improving disease due to long life expectancy.

The availability resources are fundamental for customer's receiving in service and due to good perception and highly satisfaction.

Accessibility: The customers will satisfy in service when they can access to service easy.

The indicators to access service are convenience of traveling time to hospital and waiting time of service, readiness of service place: treatment room water television or toilet, attractive rate or number of contacts with physicians in year and continuity of care.

Acceptability: Satisfaction related to outcome from receiving service such as improving disease, high quality of drug and good service and process of health care for example the referral process patient to another nearly primary health care center and giving information.

Affordability: The inexpensive cost or appropriate cost is influenced to customer's satisfaction.

Quality of care: Satisfied customer would like to have many indications as follow:

- Temperament and attention of service providers
- Service coordination
- Equity in service
- Acknowledgement or achievement of health provider:

Quality of care can give quality of life – good result occurs and satisfies health in overall view, Not only disease disappear, but also quality of life becomes better, It is the target of health service management. Targeting the best is to make continuous improvement with no ending.

Definition of perception of service quality for satisfaction

1. Definition of perception

1.1 Webster's Dictionary (1985: 1002) defines that perception of something is the way that someone think about it or the impression someone have of it.

1.2 Organ and Bateman (1986: 167) explained that perception is process that an individual select, collect, keep and translate meaning of something stimulating close relationship with surroundings. Prathueng Sungsuwan (1991: 24) mentioned that perception is expression of felling and thoughts of a person. It comes from individual interpretation or sensation of body against a stimulator.

In short conclusion, perception means internal process of a person. Organs are tools of touch for sensations. Each stimulator is interpreted by learning and existing experience.

Perception of service quality

Zeithaml, et al., (1988) mentioned that perception of service quality comes from the difference between expectation and perception of service. Perception of customers towards each service is a result of the 1st through 4th gaps in customers' mind. The gaps include:

1st gap: between expectation of customers and perception of the management;

2nd gap: between perception of the management and expectation of customers;

3rd gap: between set conditions of service quality and provided quality;

4th gap: between actual service and communication

In order to let customers perceived service quality, decrease of gap or existing problems are required.

Teas (1993: 18) has said that customer perception of service quality is service assessment, which is gap between customers' expectation and perception of quality.

Service quality

Anuwut Sukphachutikun (1993) explained that quality is more considered and it becomes important objective of health service not less than equity and efficiency. Meaning of quality changes by compatible required standards of each product or service. It corresponds with needs and expectation of customers. Quality consists of 4 elements: accessibility; physical satisfaction; relationship, service techniques, efficiency and effectiveness; and continuousness and safety.

Division of Nursing (Ministry of Public Health, 1994: 2-3) indicates that medical quality should be considered for the whole system. It is based on the concept of medical service quality that depends on two major factors.

1. Quality service required by public can respond problems and needs of local people. A health care provider can meet requirement of its customers including fast and safe service. The customers then satisfy received service.

2. Service providing of an organization consists of 5 main elements.

- 2.1 Quality personnel

- 2.2 Service is planned to respond health problems and needs of customers

- 2.3 Management team has to set up structural standard for planning policy, workforce, job assignment, supervision and performance assessment including material management, budgeting, building and facilities that support quality service.

- 2.4 Personnel have to be professionals and process quality and professional qualifications. They have to dynamically work as a team. Work process can always be changed for betterment.

- 2.5 Quality to protect customer is available. All personnel are supervised to provide quality service.

Shank and Kenedy (1970) point out that a person with sickness needs more care than basic requirement for living. Additional need is caused by physical condition or psychology sickness. Such as need requires treatment process. They also mention expectation of patients as followings.

1. Need for care in order to obtain good health
2. Nursing personnel possess knowledge, experience and good personality.
3. Nursing personnel can well observe feeling and expression of customers and then can respond their needs.
4. Patients and their families are recommended about existing disease in order to let them help themselves and encourage the families to understand and support the patients.
5. Nurse, patient and family should together plan for continuous and full treatment by using appropriate human resource and community resource.
6. Nursing personnel have to collect and keep medical records of patients for benefits of treatment. They also keep the data confidential. Environment should be arranged in good condition and appropriate for patients in order to support rehabilitation and good health.

Determinant of service quality

Study of service quality is to find out what are factors to determine service quality in customers' view. Parasuraman et. al., (1985: 41-45) studied development of determinant of service quality in 1985. The results are below.

1. Reliability
 - 1.1 Consistency
 - 1.2 Accountability
2. Responsiveness
 - 2.1 Willingness
 - 2.2 Prompt service
 - 2.3 Good care
 - 2.4 Continuous tracking
3. Competence
 - 3.1 Required skills
 - 3.2 Communication ability
 - 3.3 Knowledge to perform the service
4. Accessibility

- 4.1 Ease of contact
- 4.2 Less time
- 4.3 Convenient service hours
- 5. Courtesy
 - 5.1 Politeness
 - 5.2 Appropriate welcoming
 - 5.3 Good personality
- 6. Appropriate Communication
 - 6.1 Communication to explain scope and service condition
 - 6.2 Explanation of service process
- 7. Credibility: accuracy and trust
- 8. Security: physical safety such as tools and equipment
- 9. Understand/Knowing customer
 - 9.1 Knowing customers
 - 9.2 Suggesting and caring
- 10. Tangibles
 - 10.1 Prepared materials for prompt service
 - 10.2 Available equipment
 - 10.3 Clean and cool facilities

Zeithaml, et al. (1988: 35-48) developed assessment process of expected service quality and satisfaction. The assessment tool to measure service quality has 5 indicators called “SERVQUAL” or “RATER” that is easy to understand. It can explain as following.

1. Reliability means that the service is accurate, precise and appropriate since the first time and every time. It has to be consistent and get same good result. Then customers feel of reliable service.

2. Assurance is to make customer trust in service. In order to get trust from customers, a service provider requires competence and good human relations. Customers will trust in quality service, politeness, friendliness, cleanness and neat appearance. Also, they prefer honesty, accountability, safety both for physical and properties, reputation and so on.

3. Tangibles involve assessment of comparison of actual provided service that provides physical facilities that customers can sense. It includes care information, smiling and courtesy.

4. Empathy means that a service provider responds to customers' needs, know and recognize its customers. For example, a nurse can recognize customers in her division. She treat customer with care. Customers can access the service easily. The health care locates in convenient location. There is efficient communication and timeliness service.

5. Responsiveness refers to ability to respond needs of customers. A service provider has to be ready and provides service at its will. It can promptly meet emergency requirement. Good communication is always available. Also, customers should be given explanation for each health care.

In conclusion, service quality means competence to meet customers' needs or expectation in compliance with specified service standards.

Therefore, service access is ability to utilize benefits from health care system. Such provided service is appropriate with needs of patients and health care system. As a result, when a patient can access health care unit easily, he or she will satisfy. The researcher then adopts concept of service access of Penchansky & Thomas and Schulz & Johnson including five aspects: Availability, Accessibility, Accommodation, Affordability and Acceptability. The concept is adapted as a sample to study customer satisfaction.

6. Related researches on satisfaction

From literature review, it was found that many factors related to satisfaction then researcher reviewed the most interesting factors, which were useful for this study in grouping as follows:

Satisfaction of health care delivery in quality of care

Soungtip Wongpan (1998) studied quality of care in expected customers at outpatient government hospital Supanburi province. The questionnaire

was done, it was found that the customers' satisfaction in quality of care of outpatient service at highly and moderate level mean 5.88 and 4.80. It was significant at P-value <0.001 in 5 aspects, that was the tangible of service, reliability in service, good response to customers, giving confident in service and having relationship. The different of sex, age, status in married, occupation, income per month and the reason service receiving were not related to expectation of service or satisfaction. But the different of education and attraction rate were related to expectation in quality of care.

Pannika wanakamon (2002) studied service quality of Fort Thanarat Hospital as perceived by clients. The research is descriptive comparative one by using questionnaire among 5 groups of patients: soldiers; soldiers' family; patients with social insurance card; patients with UC card and general patients. The samples are those received service from OPD or IPD. In overall, service quality perceived by clients is good. Good satisfaction is found in four aspects: care cost; personnel; physical facilities; and service process. Average satisfaction of service quality includes care products, service channel and marketing promotion. Comparative study among 5 groups of patients indicates that in Fort Thanarat Hospital, service quality as perceived by clients does not much different among those 5 groups. It finds out that soldiers and general patients have average satisfaction level at 3.51 and 3.50 respectively. Meanwhile, soldier's family, patients with social insurance card and those with UC card have average point as 3.62, 3.71 and 3.63 respectively. Hence, they are little difference of statistic significance at 0.05.

Satisfaction of health care delivery in accessibility aspect about convenience, readiness of service place, attraction rate and continuity of care

Zana Rae Higgs, Tina Bayne and Denice Murphy (2001) studied the accessibility to service in customer perception at state of Washington. The questionnaire and focus group was done, it was found that income, number persons in family, nationality and education were related to accessibility, quality of care, relationship of provider for giving health care information and appropriate cost. There was more importance than facilities in parking or good waiting place. The great problems of this study were the cost in service, waiting time for the next appointment and wasting time of work.

Satisfaction of health care delivery in accessibility and quality of care by using health insurance card: In convenience, relationship of provider or attention in service, quality of care and readiness or appropriate place.

Peingpen Kongmanee (1999) studied the satisfaction in service of customer who used health insurance card at primary health care, Amphur Panusnikom, Chonburi province in convenience, relationship of provider or attention in service, quality of care and readiness or appropriate place. The questionnaire was done; it was found that the aspects in level of satisfaction from maximum to minimum were the readiness or appropriate place, quality of care, relationship or attention of provider and the least satisfaction was convenience in service. This study was related to Jamsri Chairat's study (1999), which was studied in Amphur Toongsong, Nakornsrihumarat province. The result of level satisfaction was the same.

Satisfaction of health care delivery in affordability and Acceptability (card cost, treatment cost, care information and travel)

Nikorn thongdara (2000) studied the satisfaction of patients with UC card by clients of Health Center of Srasileum district, Phanutnikom, Chonburi province. The study was conducted by using a questionnaire as the research tool to assess satisfaction on card cost and treatment cost; travel, facilities and environment; provided information and recommendation for health promotion from health officers. It was found that the clients were very satisfied. They were mostly satisfied by card cost and care treatment. The second satisfied aspect is travel, facilities and environment of the Health Center. The least satisfied one is provided information and recommendation for health promotion from health officers. The results of this research agree with the study of Somsak Pimaob (2000), research of Maepoon District Health Center, Luplae, Uttaradit, and that of Jintana pubprasirt (2000), research of Klongpoon District Health Center, Kichakood Sub-district, Juntaburi.

Sutheera pongjit et al. (1997) studied the satisfaction of patients receiving service from OPD, Department of Medicine, Faculty of Medicine, Ramathibodi Hospital. The researchers used a questionnaire to assess customer satisfaction towards personnel, service and facilities. The results showed that patients mostly satisfy personnel (physicians) and then efficiency of treatment or \bar{X}

= 3.24 ± 0.52 and $\bar{X} = 3.22 \pm 0.54$ respectively. The least satisfaction was adequate number of physicians compared to that of IPD or $\bar{X} = 2.15 \pm 1.02$. Regarding personnel (nurses), the patients mostly satisfy enthusiasm of nurses. The second rank was recommendation or explanation about patients' health problem provided by nurses. The average points are $\bar{X} = 2.68 \pm 0.8$ and $\bar{X} = 2.67 \pm 0.88$ respectively. The least satisfied aspect is help in services by nurses. It equals to $\bar{X} = 2.66 \pm 0.87$. For personnel (officers), the patients mostly satisfy verbal and physical manner of those officers in examination room while the least satisfied item is emotional expression with patients, $\bar{X} = 2.71 \pm 0.87$ and $\bar{X} = 2.42 \pm 0.90$ respectively. Regarding general service, the patients mostly satisfy modern and efficiency of medical equipment while the least satisfied aspect is timeliness search of health history record, $\bar{X} = 3.13 \pm 0.64$ and $\bar{X} = 2.43 \pm 0.97$ respectively. Regarding physical facilities, the patients mostly satisfy cleanness while the least satisfied item is waiting seats in front of examination room, $\bar{X} = 2.60 \pm 0.86$ and $\bar{X} = 1.58 \pm 0.83$ respectively. In overall, satisfaction towards personnel is higher than that towards provided service and that towards facilities.

Orapin Chaipayoum (1999) studied the satisfaction of patients towards OPD in King Chulalongkorn Memorial Hospital. It is found that most of samples or 41.2 percent have low satisfaction. Aspects that get high satisfaction are respect (68.8 percent) and treatment cost (53.3 percent). Regarding low satisfaction, service quality is in the first rank (72.2 percent), followed by provided information (67.6 percent) and service coordination (59.1 percent). Convenience receives average satisfaction (69.9 percent). Patients can access the service at average (56.7 percent). Service quality as perceived by patients is good at 37.9 percent. Acceptation of personnel (92.8 percent) and outcome of service (90.9 percent) are rated as good satisfaction. Comparing satisfaction of patients in terms of affordability, it is found that those patients who can afford treatment cost get more satisfaction than those who cannot pay ($P < 0.001$). It is found that relationship between access and perceived service quality and satisfaction is positive both in terms of good service and quality.

Thunyatorn Thammarat (1999) studied the satisfaction of patients with social insurance towards OPC in Pranongklao Hospital. The results show that most of

insurants or 69.5 percent of the samples get overall satisfaction at average level. The aspect that gets the highest point is service coordination (56.8 percent) while aspect that gets the lowest point is provided information (20.7 percent). The insurants can highly access the service at 76.7 percent. Service quality as perceived by the insurants is at average level (75.6 percent).

Poungthong Thungthitikul (1999) conducted a research on satisfaction of volunteer patients with health insurance towards service of health center in Uthaithani province. It is found that satisfaction of the samples in overall is high. Regarding each aspect, the patients have high satisfaction including courtesy and care, provided information, service quality, coordination, convenience and cost. The aspect that gets the highest satisfaction is courtesy and care of service provider. When comparing relationship of the patients and factors of satisfaction, it finds that age, education, income, and experience (number of received treatment, time used in care and travel to health center) have insignificant positive relationship with satisfaction ($P>0.05$).

Suwanporn Nachumpa (2002) studied the satisfaction in health care delivery at Sappasitthiprasong Hospital under the Universal Coverage Scheme. The researcher interviewed 330 samples who got service from OPD and registered with UC scheme. It is found 62.7 percent of those patients have high satisfaction in overall. When comparing by aspects, it finds that convenience, courtesy, provided information and service quality have high satisfaction at 53.6, 75.5, 73.0 and 82.7 percent respectively. Service coordination gets average satisfaction of 54.8 percent. Age, education, career, income, number of taking service, comment on access such as convenience, waiting time, getting medicine process and behavior of providers have statistic significant relationship with customer satisfaction ($P<0.05$).

Anong Anarwatthana (1999) studied the satisfaction of patients in OPD, Amnajchareon Hospital. The research is conducted by interviewing 270 patients. Most of the samples get high satisfaction on access (60.7%). When comparing by aspects, it is found that treatment cost (78.9%) and waiting time (41.5%) is at average level. Provided information has high satisfaction (82.2%). Most of the patients have overall satisfaction towards service system at average level (90%). When comparing by aspects, it is found medical service gets good point

(88.5%). Physical facilities, medical equipment/tools, service by nurses and service by other officers have average level at 64.1%, 68.9%, 90.0% and 99.6% respectively. The patients have overall average satisfaction for 6 aspects: convenience; service coordination; courtesy; provided information; service quality; and cost of service. The aspect that gets average level of satisfaction is demographic characteristics. Those demographic data includes gender and marriage status. The patients with different demographic factors do not have different satisfaction level except in terms of education (between those with primary and those with associate degree or higher) and career (between those who are civil servants and those who are farmer). The samples with different education and career have different level of satisfaction. For relationship between age, income, number of returning, comment on access and that on service system and satisfaction, it is found that age, comment on access and that on service system have statistic significant relationship ($r=-0.200$, $P<0.001$). On the other hand, income has statistic significant negative relationship ($P<0.001$). Number of returning does not have relationship with satisfaction ($r=0.033$).

Yothin Sawqangdee (2000) studied the problems of people from using service at health care center. It was found that customers suffered from service system, which doctors fixed schedule for patient and patient cannot bargain. Other problems found were disagreement between customers and unpleasant behavior of providers to poor customers. Discrimination due to social ranks occurred and frequently was found in public hospital where service providing was monopoly to poor people. Moreover, the study of patient using cares showed that they were anxious that service quality would not be decent by considering from medicine that might be cheap and could not cure disease.

From the literature reviews, there are many researchers interested in the variables that this study refer, the results of them are almost similar for example there are exactly satisfaction related to convenience of service, accessibility, acceptable in service, high quality of care and appropriate cost which customers have affordability more over describing the demographic characteristic of one sample is not useless data for improving health care delivery because demographic characteristic customers cannot change. Then this study would like to present the different results in comparative study between two sample groups (universal health care coverage

scheme customers and general customers). The study compares demographic characteristic from two samples of Ramathibodi Hospital and Chulalongkorn Hospital. The interesting variables in concept of health care delivery of Penchansky, R. & Thomas, J.W. (1981) and Schulz & Johnson (1990) are availability, accessibility, accommodation, affordability and acceptability. The different method of other studies will present the interesting results of customer's satisfaction between two customer groups and two university hospitals.

Factors influenced customer satisfaction

From reviewing of literatures, documents and related researches, it was found that factors influenced to customer's satisfaction were gender, age, educational level, occupation, monthly income, number of visit and travel time to hospital. The descriptions were as following:

Gender

One heredity factors, which can express an individual's value, power and talent, is gender. Gender affects any decision making, attitude, emotion, feeling of each person as well as influences his/her manifested behavior. In Thai society, female were raised up to be followers rather than leaders. Most female must be patient, discipline and responsible for all house-keeping tasks and taking care of people in a family. On the other hand, male were raised up to be the leaders. As a result, different gender may influence various feelings towards care services. Some studies showed that gender was related to level of satisfaction towards service of a hospital—female had higher satisfaction more than male as shown in the study of Hullka et. al (1975) (cited in Piyawan Prakunkongchai, 1990:15). Day, F.A and Leoprapai, B. (1977) found that female patients in rural area of Thailand were satisfied with medical services more than male because they got more familiar with hospital regulations. However the study of Anong Auawattana (1999: 95-97) and Aunad Chareonporn (1997: 43) showed that no different satisfaction of male and female regarding hospital services.

From the study above, they presented different results of satisfaction of male and female, therefore, the researcher was interested in studying how gender would influence the satisfaction on medical service of a hospital.

Age

Age is one of a demographic characteristic that influences various qualifications in relation to thought, behavior and emotion. People at each age will hold different feelings, opinions and attitudes, then they showed different responses. For example, the study of patients' satisfaction in IPD revealed that age had significant positive satisfaction towards medical care (P-value < 0.05). It was conformable to the study of Anong Auawattana (1999: 95-97), Kausadee Pochanapunth (1999: 56-58). The more patients were getting older, the more they showed reasonably feeling. Some study such as Piyawan Prakunkongchai (1990) indicated that age was negatively related to satisfaction because the younger could understand service system, and got easily coordination more than the elder. However, the study of Pungtong Tungthitikul showed no different satisfactions on medical service at all age groups (1997: 55).

From the study above showed that the relationship between age and patients' satisfaction were varied—both positive and negative. Some were not related. Therefore, the researcher would like to study how age affect level of satisfaction among patients.

Educational level

Education is also a factor that may affect the need of health service among the patients. Having knowledge, the patients expect for stand and quality of care. Such expectation will enhance their need for information that relate to their symptoms and medical treatment plan and advice from medical personnel. In addition, education will grade level of personal prestige. Thus, when they get sick and must be hospitalized, they expect for treatment and care that fit their prides. The different of educational level will affect different expectations about healthcare service. The study conducted among the low-income patients in America by Hulka et.al (1971) (cited in Piyawan Prakunkongchai, 1990: 16) showed that patients with higher educational level had higher satisfaction on health service than those who had lower did. As the patients with high education could understand benefits of healthcare, appropriate method and correct steps of services. In contrast, some studies show the different results. For example in the study of Kausade Pochanapunth showed

that patients with low education paid less attention on details of service because they expected more about what they had received (1999: 56-58). The study of Anong Auwattana (1999: 95-97) and Pungtong Tungthitikul (1999: 55) showed that there was no difference of satisfaction among patients with diverse educational level.

The studies above showed that educational level and patients' satisfaction had both positive and negative relationships as well as no relationship. The researcher was then interested in studying whether educational level affect patients' satisfaction on healthcare service.

Occupation

Occupation is a social factor that may influence the difference on the selection of patients on healthcare service. As occupation will limit their welfare and benefits to receive different health services such as benefits in the healthcare coverage scheme, social security or some patients need to pay for their own medical treatment. Others such as government officials may get reimbursement for payment. The study of Piyawan Prakunkongchai (1990) showed that the patients who were farmers, housewife, and unemployed had higher satisfaction on healthcare service more than those who were the officials because the first group did not think that they waste their time during waiting for treatment. The study of Anong Auwattana (1999: 95-97) revealed that the patients with different occupations had different satisfaction on healthcare service. It was in contrast to the study of Preya Kramakum (1995: 108) which showed that different occupations did not affect the satisfaction on healthcare service among patients.

The study above showed different results about the relationships between patients' satisfaction and occupation. In order to know whether occupation was related to satisfaction among patients or not, this issue was then included in this study.

Monthly income

Income can indicate economical status of an individual such as opportunity in seeking for health service. The study showed that the low-income people had higher satisfaction on health service more than those who had high

income. The first group chose to receive health service in government hospitals because of the low cost of treatment whereas the second group expected for better health service that fit what they had paid. It was showed in the studies of Anong Auwattana (1999: 95-97) and Piyawan Prakunkongchai (1990). On the other hand, the studies of Kusade Pothipunth (1999: 56-58), Dussade Yairangsri (1998: 82) and Pungtong Tungthitikul (1999:55) showed that the average monthly income was not related to patients' satisfaction on the received health services.

Such studies showed many results and then the researcher would like to investigate how income affects the patients' satisfaction.

Number of visit

Number of visit was a factor that influenced satisfaction of health care service. From the study of Panabadee Aekachapaka and Sughisarn Wattamano (2000), it was found that number of visit had significant association with satisfaction of health care service. It was different from the study of Boonchu Chaochiangkwan (1998: 103) and Anong Auawattana (1999: 95-97) and Pungtong Tungthitikul (1999: 55). It was found that number of visit was no associated with satisfaction of health care service.

Therefore, the researcher interested to study about whether there was a relationship between number of visit and patients' satisfaction?

Travel time to hospital

The distance from the patients' houses to a hospital is also an important factor that affects patients' satisfaction. As it is convenient and wastes less time, it was found that those who spend less time on traveling to the hospital felt more satisfied with hospital services, It was conformable to the study of Viroth Tungchareonsatien, et.al (1996: 165), Urai Chumnanka, et.al (1996: 292) and Magnussen, Ndyomugenyi, R. & Neema, S. (1998). The study of Anong Auawattana (1999: 95-97) and Pungtong Tungthitikul (1999: 55) showed that the distance from their house to the hospital was not related to patients' satisfaction on the care service.

Thus, the researcher also would like to study the relationship between travel time to hospital and the patients' satisfaction.

CHAPTER 3

MATERIALS AND METHODS

1. Research Design

This cross-sectional exploratory research was designed to study and compare characteristics and satisfactions of UC and general customers utility OPD services at Ramathibodi Hospital and King Chulalongkorn Memorial Hospital by using a questionnaire to interview selected customers. Three trained interviewers used to collect the data. Frequency, percentage, mean, standard deviation and t-test used to analyze and interpret the collected data.

2. Population and Sample

There were two groups of population in this study including universal health care coverage scheme customers and general customers utility OPD services at Ramathibodi hospital and King Chulalongkorn Memorial hospital. There were selected for and interview based on the following criteria.

1. Received health care service at least two times in the past year.
2. Aged at least 15 years.
3. Registered and given right for health care under the universal coverage and responsible payment customers.

After the OPD customers submit their hospital or appointment cards in both hospitals, they were chosen randomly with cooperation and supports from the nurses working at the calling point. This technique is equal opportunity for customer. They were asked for permission to answer the questionnaire with their own voluntariness at their convenience.

3. Sample Size

The sample size was estimated by using the equation as follows:

$$n = \frac{Z_{\alpha/2}^2 \sigma^2}{d^2}$$

- n = Sample size
- z = The standard value under the normal curve which is related to the significance at 1.96
- σ = Standard deviation of service satisfaction. UC customers and general customers were 30 cases (pilot study) in outpatient Family Medicine department (OFM) at Ramathibodihospital during 1-3 March 2005.
- d = Acceptable error, highest at 0.2

It can be calculated for sample size as

$$\begin{aligned} n &= \frac{(1.96)^2 (1.6)^2}{(0.2)^2} \\ &= 245.86 \end{aligned}$$

The samples consisted of 1,000 UC customers and general customers. Half of them were 500 customers in Ramathibodi hospital and another half were in King Chulalongkorn Memorial Hospital. In each group divided by hospitals were 250 UC customers and 250 general customers. The researcher used a questionnaire as research instrument to collect data at voluntarily. The questionnaire was approved its content validity by five advisory committees. The reliability is equal to 0.9694. The revised questionnaire was tried out with 30 UC customers and general customers in Ramathibodi hospital. After that the instrument was used to gather information from the samples in both university hospitals by trained interviewers during 15 March 2005 to 31 May 2005.

4. Research Instruments

The instrument used for data collection in this research was an interview questionnaire to determine the satisfaction of health care delivery received by universal health care coverage scheme customers and general customers in Ramathibodi and King Chulalongkorn Memorial hospital. The questionnaire has 3 parts as follows:

Part 1 Characteristics of customers: gender, age, education level, occupation, monthly income, number of visit, travel time to hospital and personal right.

Part 2 Satisfaction levels: rating scales of 0-10 representing the least and the most satisfaction levels in terms of the following criteria.

1. Availability
2. Accessibility
3. Accommodation
4. Affordability
5. Acceptability

The meaning of scoring was shown as follow:

Highly dissatisfied					Score:	Highly satisfied				
0	1	2	3	4	5	6	7	8	9	10

Each of five criteria was represented with closed-ended questions with 0-10 scoring as follow:

- | | |
|------------------|------------------|
| 1. Availability | Question (1-11) |
| 2. Accessibility | Question (12-20) |
| 3. Accommodation | Question (21-28) |
| 4. Affordability | Question (29-33) |
| 5. Acceptability | Question (34-47) |

The scoring criteria of Best (1977: 174) was used to determine the customers' satisfaction levels as follows:

$$\begin{aligned} \text{Range of measurement} &= \frac{\text{Maximum score} - \text{Minimum score}}{\text{Number of level}} \\ &= \frac{10 - 0}{3} = 3.33 \end{aligned}$$

The average scores were indicated as follows:

High satisfaction = 6.68 – 10.00 points

Moderate satisfaction = 3.34 - 6.67 points

Low satisfaction = 0 – 3.33 points

Part 3 Other suggestions

Three open-ended questionnaires including improvement suggestions, most common problems and most impression services were asked.

5. Instrument Testing

The following steps were done to test an instrument.

1. Studied concepts and theories from related textbooks and researches.
2. Determined the scope and contents to cover all variables included in the study and used them to develop the questionnaire according to objectives of the research.
3. Checked the content validity by experts and edited before try-out the questionnaire. (Suchart Prasitrattasin, 2001: 243)
4. Tried out the questionnaire by interviewing 30 universal health care coverage scheme customers and general customers receiving service at the outpatient department of Ramathibodi Hospital at medicine outpatient department.

The coefficient of internal consistency was tested by the Cronbach's alpha coefficient method. The reliability of the questionnaire for satisfaction was 0.9694.

6. Data Collection

The following steps were performed to collect the data.

1. Coordinating with hospital to seek permission for data collection.
2. Organized training for 3 research assistants who were secondary level students in summer time on the questionnaire technique and used the questionnaire form. The research assistants were trained to approach voluntary customers at first about 2 hours. They had to concern about not to disturb time during waiting time for health inspection and getting medicines. The assistants began from breaking the ice and develop friendly atmosphere by asking about illness condition. After that they asked for volunteer to give information for data collection and analysis of overall health care services. The objectives of data collection were explained. The customers also were confirmed that the given data would not affect on any treatment from physicians and services from the hospital's personnel. In addition, the selected research assistants were secondary level students who worked part time job during vacation. They did not dress like any officers. Because of taking on medical subject would make customers avoid providing true comments.
3. The data were collected by questioning the sample group of customers in each outpatient department and in outpatient department of Ramathibodi Hospital and King Chulalongkorn Memorial hospital as the same time while waiting physicians or drugs, as samples had experienced in service.

7. Data Analysis

For data analysis, the statistical significance at 5% ($\alpha = 0.05$) was considered for accepting or objecting the hypothesis. The statistics used for data analysis were as follows:

1. Descriptive statistics such as frequency, percentage (%), mean, standard deviation (S.D), minimum and maximum values were used for describing and comparing demographic characteristics, satisfaction of health care delivery in 5 sections: Availability, Accessibility, Accommodation, Affordability and Acceptability

between universal health care coverage scheme customers and general customers in Ramathibodi Hospital and King Chulalongkorn Memorial hospital.

2. Comparative statistics each item in 5 sections of satisfaction of health care delivery between universal health care coverage scheme customers and general customers were calculated by using t-test.

3. The analysis was performed using 'adjust by items' concept. Result (Mean) of each aspect was calculated using the summary total score and was divided it by item numbers before put in to the analysis.

8. Ethical Issues

1. Questionnaire was approved by the Committee on Human Rights Related to Human Experimentation at Mahidol University. (Appendix B)

2. Followed the rules of risk protection strictly.

3. Explained the surrender to give information to know the methods and answered the questions to the benefits such as quality of service

4. Received permission from every research participants

5. Research participant has the right to give up the participation at anytime for any reason.

Some questions were omitted after they gathered information because some respondents who were inspected with special instruments could not answer such questions and a choice of "no comment" was not provided. The cut questions were:

No 6. How is your level of satisfaction on special examination? This question was in category of availability.

No 32. How is your level of satisfaction on service charge of special examination? This question was in category of affordability.

CHAPTER 4

RESULTS

This research was the comparative study of outpatient satisfaction in university hospital, Ramatibodi hospital and King Chulalongkorn Memorial hospital. The data was collected by interviewing two sample groups for hospital. The number of universal health care coverage scheme customers (UC customer) and general customers were 250 cases per group. Then the total number was 500 customers for each hospital. It was done during 1 March 2005 to 31 May 2005 until completed. The results can be presented in 5 parts as follows:

Part 1 Demographic characteristics, number of visit and travel time to hospital of UC customers and general customers obtained university OPD services at Ramathibodi Hospital and King Chulalongkorn Memorial hospital

Part 2 Analytical results of UC customers and general customers satisfaction in university OPD services at Ramathibodi hospital

Part 3 Analytical results of UC customers and general customer satisfaction in university OPD service at King Chulalongkorn Memorial hospital

Part 4 Comparison characteristics of UC customers and general customers with satisfaction obtained at Ramathibodi Hospital

Part 5 Comparison characteristics of UC customers and general customers with satisfaction obtained at King Chulalongkorn Memorial hospital

Part 1 Demographic characteristics, number of visit and travel time to hospital of UC customers and general customers obtained university OPD services at Ramathibodi Hospital and King Chulalongkorn Memorial hospital

Table 1 Characteristics of UC customers and general customers obtained university OPD service at Ramathibodi Hospital and King Chulalongkorn Memorial hospital

Characteristics	Ramathibodi Hospital				King Chulalongkorn Memorial Hospital			
	UC customer		General customer		UC customer		General customer	
Total number	250	100.0	250	100.0	250	100.0	250	100.0
Gender								
Male	107	42.8	74	29.6	103	41.2	111	44.4
Female	143	57.2	176	70.4	147	58.8	139	55.6
Age (years)								
≤ 20	29	11.6	18	7.2	18	7.2	27	10.8
21-30	45	18.0	57	22.8	39	15.6	64	25.6
31-40	47	18.8	57	22.8	58	23.3	32	12.8
41-50	39	15.6	37	14.8	47	18.8	43	17.2
51-60	32	12.8	36	14.4	34	13.6	42	16.8
≥ 60	58	23.2	45	18.0	54	21.6	42	16.8
$\bar{X} \pm S.D.$	44.18 ± 18.65		42.39 ± 16.94		45.93 ± 18.22		42.96 ± 17.80	
Min-Max	15-84 years		15-81 years		15-91 years		16-90 years	
Educational Level								
No study (in school)	42	16.8	22	8.8	19	7.6	31	12.4
Primary Junior	96	38.4	85	34.0	81	32.4	65	26.0
Secondary Senior	62	24.8	47	18.8	87	34.8	58	23.2
Secondary	14	5.6	22	8.8	27	10.8	47	18.8
Diploma	34	13.6	64	25.6	35	14.0	48	19.2

Table 1 Describe characteristics of UC customers and general customers obtained university OPD service at Ramathibodi Hospital and King Chulalongkorn Memorial hospital (Cont.).

Characteristics	Ramathibodi Hospital				King Chulalongkorn Memorial Hospital			
	UC customer		General customer		UC customer		General customer	
Bachelor or higher	2	0.8	10	4.0	1	0.4	1	0.4
Occupation								
Housework	78	31.2	63	25.2	46	18.4	27	10.8
Employee	51	20.4	54	21.6	37	14.8	47	18.8
Merchant	51	20.4	52	20.8	69	27.6	74	29.6
Student	34	13.6	26	10.4	27	10.8	37	14.8
Business	25	10.0	41	16.4	37	14.8	54	21.6
Government service	4	1.6	6	2.4	2	0.8	1	0.4
Others	7	2.8	8	3.2	32	12.8	10	4.0
Monthly income (Baht)								
< 5,000	105	42.0	70	28.0	73	29.2	49	19.6
5,000-10,000	88	35.2	91	36.4	143	57.2	101	40.4
10,001-15,000	36	14.4	39	15.6	9	3.6	11	4.4
15,001-20,000	9	3.6	16	6.4	10	4.0	26	10.4
> 20,000	12	4.8	34	13.6	15	6.0	63	25.2
Number of visit								
2 – 5	144	57.6	14	58.4	187	74.8	232	92.8
6 – 10	39	15.6	38	15.2	20	8.0	10	4.0
> 10	67	26.8	66	26.4	43	17.2	8	3.2
Travel time to hospital								
< 30 min	47	18.8	36	14.4	44	17.6	39	15.6
1 hour	127	50.8	144	57.6	174	69.6	201	80.4
> 1 hour	76	30.4	70	28.0	32	12.8	10	4.0

From Table 1, it was found that 57.2 percent of UC customers and 70.4 percent of general customers obtained OPD service at Ramathibodi hospital was female, 23.2 percent aged more than 60 years of UC customers and 22.8 percent aged 21-30 and 31-40 years of general customers while the mean age of UC customers was 44.18 years, S.D. was 18.65 years and the minimum and maximum ages were 15 and 84 years and general customers was 42.39 years, S.D. was 16.94 years and the minimum and maximum ages were 15 and 81 years, respectively. About 38.4 and 34.0 percent of UC and general customers were educated at primary level, 31.2 and 25.2 percent of UC and general customers were housework. For monthly income, 42.0 percent of UC customers earned less than 5,000 baht per month and 36.4 percent of general customers earned 5,000-10,000 baht per month. Number of visit about 2-5 times for UC and general customers were 57.6 and 58.4 percent while travel time to hospital was 1 hour of two groups were 50.8 and 57.6 percent.

Another university hospital, King Chulalongkorn Memorial hospital, it was found that 58.8, 55.6 percent of UC and general customers obtained OPD service was female. 23.3 percent aged 31-40 years of UC customers and 25.6 percent of general customers while the mean age of UC customers was 45.93 ± 18.22 years, the minimum and maximum ages were 15 and 91 years. The mean age of general customers were 42.96 ± 17.80 years, the minimum and maximum ages were 16 and 90 years, respectively. About educational level, UC customer was 34.8 percent in junior secondary level but general customer was 26.0 percent in primary level. 27.6 and 29.6 percent of UC and general customer were merchant. For monthly income, 57.2 and 40.4 percent of UC and general customers were earned 5,000-10,000 baht per month. Moreover number of visit to King Chulalongkorn Memorial hospital about 2-5 times for two groups (74.8 and 92.8 percent of UC and general customer group). While travel time to hospital of two groups was 1 hour, 69.6 of UC customer and 80.4 of general customer.

Part 2 Analytical results of UC customers and general customers satisfaction in university OPD service at Ramathibodi Hospital

Table 2 Comparison of satisfaction level between UC customers and general customers at Ramathibodi hospital between, by each and overall aspects

Satisfaction	Type of Customer						P-value
	UC (250 cases)			General (250 cases)			
	$\bar{X} \pm \text{S.D.}$	Min	Max	$\bar{X} \pm \text{S.D.}$	Min	Max	
Availability	7.74 ± 1.54	2.40	10.00	7.59 ± 1.52	2.80	10.00	0.260
Accessibility	6.90 ± 1.62	2.44	10.00	6.78 ± 1.60	2.33	10.00	0.413
Accommodation	7.30 ± 1.54	2.38	10.00	7.22 ± 1.52	2.50	10.00	0.565
Affordability	7.34 ± 1.61	2.75	10.00	7.26 ± 1.56	2.25	10.00	0.573
Acceptability	7.67 ± 1.49	2.79	10.00	7.68 ± 1.41	2.71	10.00	0.960
Total	7.44 ± 1.38	2.69	10.00	7.36 ± 1.35	2.69	10.00	0.529

Table 2 shows the assessment result of the satisfaction between UC customers and general customers in Ramathibodi OPD service. The most satisfaction level of UC customers in Ramathibodi hospital had satisfaction in 5 aspects as follow, The highest score, Availability was 7.74 ± 1.54 scores but the lowest score, Accessibility was 6.90 ± 1.62 scores, Accommodation was 7.30 ± 1.54 scores, Affordability was 7.34 ± 1.61 scores and Acceptability was 7.67 ± 1.49 scores. Total satisfaction of UC customers was 7.44 ± 1.38 scores. Besides general customers had 5 aspects of satisfaction as follows, the highest score of Availability was 7.59 ± 1.52 scores, the lowest score of Accessibility was 6.78 ± 1.60 scores, Accommodation was 7.22 ± 1.52 scores, Affordability was 7.26 ± 1.56 scores and Acceptability of general customers was the highest score (7.68 ± 1.41). Total satisfaction was 7.36 ± 1.35 scores.

UC customers and general customers at Ramathibodi Hospital are satisfied with OPD service differently at a 95% confidence level (P-value = 0.529).

Part 3 Analytical results of UC customers and general customer satisfaction in university OPD service at King Chulalongkorn Memorial hospital

Table 3 Comparison of satisfaction level between UC customers and general customers at King Chulalongkorn Memorial hospital between, by each and overall aspects.

Satisfaction	Type of Customer						P-value
	UC (250 cases)			General (250 cases)			
	$\bar{X} \pm \text{S.D.}$	Min	Max	$\bar{X} \pm \text{S.D.}$	Min	Max	
Availability	8.59 ± 1.64	3.10	10.00	8.81 ± 1.07	5.80	10.00	0.076
Accessibility	7.55 ± 1.31	2.67	10.00	8.09 ± 0.64	6.00	10.00	<0.05
Accommodation	7.66 ± 1.18	3.38	10.00	8.25 ± 0.62	5.88	10.00	<0.05
Affordability	7.83 ± 1.32	2.60	10.00	8.50 ± 0.72	6.60	10.00	<0.05
Acceptability	8.51 ± 1.66	3.64	10.00	8.90 ± 0.79	6.79	10.00	0.001
Total	8.13 ± 1.35	4.23	10.00	8.57 ± 0.65	6.42	10.00	<0.05

From table 3, shows the assessment result of the satisfaction between UC customer and general customer in King Chulalongkorn Memorial hospital OPD service. UC customer had satisfaction in 5 aspects as follows, the highest level of satisfaction in Availability was 8.59 ± 1.64 scores, Accessibility was 7.55 ± 1.31 scores, Accommodation was 7.66 ± 1.18 scores, but the lowest score of Affordability was 7.83 ± 1.32 scores and Acceptability was 8.51 ± 1.66 scores. Total satisfaction level of UC customer was 8.12 ± 1.35 scores. Besides general customer had 5 aspects of satisfaction too, Availability was 8.81 ± 1.07 scores, the lowest satisfaction level of Accessibility was 8.09 ± 0.64 scores, Accommodation was 8.25 ± 0.62 scores, Affordability was 8.50 ± 0.72 scores and the highest score of Acceptability was 8.90 ± 0.79 scores. Total satisfaction of general customers was 8.57 ± 0.65 scores.

OPD Service satisfaction of UC customers and general customers at King Chulalongkorn Memorial Hospital shows significant statistic level at a 95% confidence level (P-value <0.05).

Part 4 Comparison characteristics of UC customers and general customers with satisfaction at Ramathibodi Hospital

Table 4 Comparison characteristics of UC customers and general customers with satisfaction obtained at Ramathibodi Hospital

Characteristics of customers	Satisfaction		P-value
	UC customer (250 cases)	General customer (250 cases)	
	$\bar{X} \pm \text{S.D.}$	$\bar{X} \pm \text{S.D.}$	
Gender			
Male	7.56 ± 1.33	7.24 ± 1.30	0.110
Female	7.34 ± 1.42	7.41 ± 1.37	0.668
Age (years)			
≤ 20	7.20 ± 1.29	7.71 ± 1.46	0.214
21-30	6.97 ± 1.55	7.34 ± 1.35	0.211
31-40	7.11 ± 1.54	6.99 ± 1.39	0.665
41-50	7.69 ± 1.31	7.24 ± 1.50	0.169
51-60	7.43 ± 1.39	7.41 ± 1.53	0.954
≥ 60	8.00 ± 0.97	7.76 ± 0.72	0.173
Educational Level			
No study (in school)	7.68 ± 1.06	7.94 ± 0.97	0.342
Primary Junior	7.54 ± 1.38	7.44 ± 1.37	0.631
Secondary Senior	7.40 ± 1.55	7.62 ± 1.23	0.410
Secondary	6.89 ± 1.48	7.35 ± 1.48	0.368
Diploma	7.18 ± 1.36	6.96 ± 1.41	0.464
Bachelor or higher	6.86 ± 1.46	6.71 ± 0.98	0.862

Table 4 Comparison characteristics of UC customers and general customers with satisfaction obtained at Ramathibodi Hospital (Cont.).

Characteristics of customers	Satisfaction		P-value
	UC customer (250 cases)	General customer (250 cases)	
	$\bar{X} \pm \text{S.D.}$	$\bar{X} \pm \text{S.D.}$	
Occupation			
Housework	7.53 ± 1.27	7.42 ± 1.15	0.601
Employee	7.242 ± 1.45	7.27 ± 1.35	0.871
Merchant	7.91 ± 1.39	7.56 ± 1.42	0.215
Student	7.11 ± 1.37	6.88 ± 1.49	0.530
Business	6.99 ± 1.51	7.38 ± 1.48	0.311
Government service	6.88 ± 1.10	7.02 ± 0.93	0.834
Others	8.01 ± 0.82	7.90 ± 1.21	0.843
Monthly income (Baht)			
< 5,000	7.16 ± 1.39	7.17 ± 1.47	0.949
5,000-10,000	7.60 ± 1.49	7.43 ± 1.38	0.407
10,001-15,000	7.60 ± 1.05	7.49 ± 0.94	0.651
15,001-20,000	7.49 ± 1.42	7.73 ± 1.28	0.664
> 20,000	8.10 ± 1.01	7.23 ± 1.43	0.060
Number of visit			
2 – 5	7.60 ± 1.34	7.51 ± 1.31	0.590
6 – 10	7.53 ± 1.35	7.14 ± 1.38	0.213
> 10	7.03 ± 1.44	7.14 ± 1.38	0.655
Travel time to hospital			
< 30 min	7.64 ± 1.38	7.68 ± 1.26	0.909
1 hour	7.67 ± 1.30	7.48 ± 1.19	0.201
> 1 hour	6.91 ± 1.41	6.95 ± 1.60	0.884

Table 4 provides comparison of service satisfaction between UC customers and general customers with OPD service at Ramathibodi Hospital. The comparison is based on demographic data including gender, age, education, occupation, monthly

income, number of visit and travel time to hospital. It is found that both groups have similar satisfaction levels according to characteristics of customers.

Part 5 Comparison characteristics of UC customers and general customers with satisfaction at King Chulalongkorn Memorial hospital

Table 5 Comparison characteristics of UC customers and general customers with satisfaction obtained at King Chulalongkorn Memorial hospital

Characteristics of customers	Satisfaction		P-value
	UC customer (250 cases)	General customer (250 cases)	
	$\bar{X} \pm S.D.$	$\bar{X} \pm S.D.$	
Gender			
Male	8.47 ± 1.00	8.60 ± 0.62	0.259
Female	7.87 ± 1.51	8.54 ± 0.67	<0.05
Age (years)			
≤ 20	8.05 ± 1.50	8.45 ± 0.77	0.255
21-30	7.81 ± 1.50	8.41 ± 0.69	0.006
31-40	7.68 ± 1.60	8.87 ± 0.51	<0.05
41-50	8.15 ± 1.27	8.72 ± 0.58	0.008
51-60	8.27 ± 1.22	8.48 ± 0.69	0.333
≥ 60	8.72 ± 0.78	8.57 ± 0.55	0.301
Educational Level			
No study (in school)	8.57 ± 0.98	8.40 ± 0.51	0.403
Primary Junior	7.94 ± 1.44	8.67 ± 0.61	<0.05
Secondary Senior	8.36 ± 1.16	8.68 ± 0.59	0.051
Secondary	8.71 ± 0.61	8.66 ± 0.72	0.736
Diploma	7.21 ± 1.67	8.31 ± 0.72	<0.05
Bachelor or higher	9.09 ± 0.00	8.38 ± 0.00	-

Table 5 Comparison characteristics of UC customers and general customers with satisfaction obtained at King Chulalongkorn Memorial hospital (Cont.).

Characteristics of customers	Satisfaction		P-value
	UC customer (250 cases)	General customer (250 cases)	
	$\bar{X} \pm \text{S.D.}$	$\bar{X} \pm \text{S.D.}$	
Occupation			
Housework	7.91 ± 1.34	8.60 ± 0.54	0.013
Employee	7.32 ± 1.54	8.61 ± 0.70	<0.05
Merchant	8.32 ± 1.17	8.47 ± 0.67	0.338
Student	7.89 ± 1.61	8.44 ± 0.76	0.074
Business	8.25 ± 1.33	8.61 ± 0.55	0.079
Government service	7.38 ± 2.42	9.13 ± 0.00	0.660
Others	9.01 ± 1.25	9.19 ± 0.21	0.043
Monthly income (Baht)			
< 5,000	7.68 ± 1.46	8.50 ± 0.71	<0.05
5,000-10,000	8.31 ± 1.29	8.92 ± 0.38	<0.05
10,001-15,000	8.00 ± 1.47	8.10 ± 0.92	0.850
15,001-20,000	8.32 ± 1.08	8.52 ± 0.61	0.487
> 20,000	8.41 ± 1.05	8.15 ± 0.60	0.204
Number of visit			
2 – 5	8.54 ± 0.99	8.56 ± 0.66	0.842
6 – 10	6.63 ± 1.52	8.55 ± 0.75	0.001
> 10	6.98 ± 1.52	8.85 ± 0.30	0.001
Travel time to hospital			
< 30 min	7.86 ± 1.56	8.59 ± 0.61	0.008
1 hour	8.50 ± 1.01	8.58 ± 0.64	0.316
> 1 hour	6.43 ± 1.31	8.13 ± 1.02	0.001

Table 5 compares service satisfaction between UC customers and general customers by demographic data including gender, age, education, occupation, monthly salary, number of visit and travel time to hospital. It points out that female

UC customers and general customers whose ages are 21-30, 31-40 and 41-50, are satisfied differently at a 95% confidence level (P-value <0.05, 0.006, <0.05 and 0.008 respectively).

Those holding educational level of primary and diploma or equivalence are also satisfied differently at a 95% confidence level (P-value <0.05).

Those UC customers and general customers, who are unemployed or housework, employees and other occupations such as private companies, have different level of service satisfaction at a 95% confidence level (P-value = 0.013, <0.05 and 0.043 respectively).

Those UC customers and general customers receiving monthly income less than 5,000 baht and those receiving 5,000-10,000 baht show outstanding different service satisfaction at a 95% confidence level (P-value <0.05 for both groups).

Those UC customers and general customers whose number of visits are 6-10 times and more than 10 times indicates significant statistic level of service satisfaction at a 95% confidence level (P-value = 0.001 for both groups).

Lastly, those UC customers and general customers who spend travel time to hospitals less than 30 minutes for and more than 1 hour are satisfied differently at a 95% confidence level (P-value = 0.008 and 0.001).

CHAPTER 5

DISCUSSION

This research was to compare outpatient satisfaction in university hospitals. The purpose was to describe demographic characteristics between universal health care coverage scheme customers (UC customers) and general customers and to compare service satisfaction level in terms of availability, accessibility, accommodation, affordability and acceptability between UC customers and general customers at university hospitals, namely Ramathibodi Hospital and King Chulalongkorn Memorial Hospital. The study was not to compare by hospital but type of customers.

The study collected data from 250 customers of each sample groups who were patients of both hospitals. The total number was 1,000 samples. The analysis was performed by descriptive statistics and comparative statistics (t-test).

The research results could be described in three following issues:

1. General characteristics of UC customers and general customers in Ramathibodi Hospital and King Chulalongkorn Memorial Hospital;
2. Satisfaction of UC customers and general customers in Ramathibodi Hospital; and
3. Satisfaction of UC customers and general customers in King Chulalongkorn Memorial Hospital.

Regarding general characteristics of outpatients in Ramathibodi Hospital and King Chulalongkorn Memorial Hospital, about 50% were female. The UC customers in Ramathibodi Hospital were elders, whose ages were over 60 years old. That was because the Universal Health Care Coverage Scheme was offered to elders (Dale J. Block, 2006: 212) as free medical care. Furthermore, some elders either did not have regular income or get income only for covering monthly expenses. Then they need provided public health care. When getting older, elders' physical condition

becomes weaker easily. Some have chronic diseases requiring regular treatment. Therefore some governments provide free health care and services to 60 years old and up elders. Such as, Thai elders were offered UC while the United State government introduced Medicare & Medicaid to elderly persons (Dale J. Block, 2006: 43).

Most customers of both sample groups held educational level of primary junior and senior secondary. Then medical personnel should concern about basic need of this groups.

Most of UC customers and general customers in Ramathibodi Hospital were housework while those in King Chulalongkorn Memorial Hospital were merchants.

Major of UC customers and general customers in Ramathibodi Hospital and King Chulalongkorn Memorial Hospital had monthly income of 5,000 – 10,000 baht.

It was found that most of UC customers and general customers of both hospital have number of visits of 2-5 times in the previous year.

Most of both sample groups spent an hour for travel time to hospitals. Major of customers lived around the hospital, if there are many PCU near hospital they would not come to hospitals. That is easier accessibility in service.

Satisfaction of UC customers and general customers in Ramathibodi Hospital

The study shows that UC customers and general customers in Ramathibodi Hospital had high satisfaction level. From Table 2, (Mean: 7.44 ± 1.38 , 7.36 ± 1.35) showing comparison of UC customers and general customers in Ramathibodi Hospital based on 5 factors of satisfaction theory (Penchansky, R. & Thomas, J.W., 1981 and Schulz & Johnson, 1990), it was found that the UC customers in this hospital indicate the highest level of service satisfaction (with reference to satisfaction degree stated in Chapter 3) for availability. This result agreed with the previous study on Ramathibodi Hospital (Sutheera Pongjit et al, 1997). The customers were satisfied with cleanness of medical instruments, modern medical equipment and computerized service coordination among units (Dale J. Block, 2006: 198). The high satisfaction level was also supported by mean value shown in particular scores of UC customers and general customers in university hospitals.

Since Ramathibodi Hospital was one of university hospitals, the hospital had to provide sufficient medical equipment to be ready for use of medical students, nurses and medical personnel. The instrument availability responded to the vision of being excellence both in academic and service aspects. As a result, the hospital was accredited by the Hospital Accreditation Thailand (HA).

Regarding accessibility, customers showed the lowest satisfaction on waiting time for medicine calculation and payment procedure of medicine and service charges (Anong Anarwatthana, 1999). The long waiting time was caused by a lot number of customers preferring to visit university hospitals because of trustable fame and cheaper expense when compared with private hospitals or clinics. Therefore many customers from up country and far area visited the hospitals a day. That undoubtedly increased longer waiting time for each service procedure. A suggestion answering an open question points out that One Stop Service should be set up to solve this problem because it can save time spending to contact many service points.

On the other hand, those general customers in Ramathibodi Hospital expressed the highest satisfaction level with acceptability regarding service manner of physicians, their attention to listen about sickness and their competence to cure diseases (Nick Black & Reinhold Gruen, 2005:63-65). The reason is that most of customers in this group have income and expect worth service from payment. They always believe, trust and respect in physicians. They prefer to receive services in university hospitals because of trust. Also they know that all physicians are working in the public hospitals and serving the duty there as part time personnel. In addition, they can claim the patients' right to receive good quality service and worth of payment as they are the center of services.

The lowest satisfaction of this group was on accessibility. This result was similar to that of UC customers in Ramathibodi Hospital that they did not satisfied with waiting time from submitting OPD card, seeing physicians, paying expenses to getting medicine. Much time was spent in the whole procedure from attending the hospital until going home. Since the customers obtained high expectation for provided services (Dale J. Block, 2006: 17) and the university hospital have patients with complicated diseases requiring specialists to take care of them, the number of customers are higher than other care levels.

Comparing satisfaction between the right of UC customers and that of general customers in Ramathibodi Hospital, it was found that the right on terms of availability, accessibility, accommodation, affordability and acceptability did not affect on service satisfaction. The satisfaction from two groups of OPD customers in Ramathibodi Hospital was the same at a 95% of confidence level (P-value=0.260, 0.413, 0.565, 0.573 and 0.960 respectively). This agreed with the study of Pannika Wanakamon (2002) that compared satisfaction among five groups: soldiers; soldier's family; patients with social insurance card; patients with UC card; and general patients. Her research found no difference among satisfaction of each group. In addition, Ramathibodi Hospital provides service units, physicians, nurses and other medical personnel to serve all customers without setting up for any specific group (Process of health care service provided to patients under the Universal Coverage and general patients in Ramathibodi Hospital and King Chulalongkorn Memorial Hospital: 34-36). Therefore, a customer will be welcomed and receive same quality service regardless his or her health care card. (Avi yacar ellencweig, 1992: 78)

Satisfaction of UC customers and general customers in King Chulalongkorn Memorial Hospital

The research found that UC customers and general customers in King Chulalongkorn Memorial Hospital had high degree of satisfaction on OPC services (8.13 ± 1.35 , 8.57 ± 0.65). When comparing satisfaction of those groups by five factors of satisfaction theory (Penchansdy, R. & Thomas, J.W., 1981 and Schulz & Johnson, 1990), it showed that the UC customers in King Chulalongkorn Memorial Hospital expressed the highest satisfaction (with reference to satisfaction degree stated in Chapter 3) on received service in terms of modern medical equipment, cleanness of medical instruments (Parasuraman et.al., 1985: 41-45) and computerized service coordination among units as responses to the questionnaire, question number 8, 7 and 9 respectively. The result was similar to that of Ramathibodi Hospital because they were both university hospitals. They had to be equipped with modern medical instruments for medical students, nurse and all other medical personnel. This was to provide learning opportunity and further develop existing knowledge.

The customers had the lowest satisfaction on accessibility because of waiting time for calculating medicine cost, paying expenses and getting medicine. This result agreed with the previous study (Anong Anarwatthana, 1999) and opinions of those UC customers in Ramathibodi Hospital. In addition, the respondents suggested a solution to solve this problem through an open question provided at the end of the questionnaire. They pointed out that the hospital should make a visit appointment at overlapped time. When the customers come at their own specific time, they do not need to show up early in the morning in order to reserve a queue. That would make the customers spend less time to get medicine and process in other procedures (Nick Black & Reinhold Gruen, 2005: 107).

For the general customer in King Chulalongkorn Memorial Hospital, they showed the highest satisfaction on acceptability regarding provided information, suggestion on treatment plan and medicine, manner of nurses, manner of physicians and take caring of patients' rights (Jay kandampully, 2002:214) such as personal data. That is because physicians, nurses and medical personnel play different important roles. The physicians specialize in providing treatment recommendation while the nurses give information about practice after receiving treatment and how to be able to take care oneself with illness daily (Nick Black & Reinhold Gruen, 2005: 55-57). The personal data had to be treated confidentially by those medical personnel. It could be revealed only with the owner's permission as stated in the announcement of patients' rights posted in every care unit.

The general customers expressed the lowest satisfaction with accessibility regarding waiting time for calculating of medicine cost, paying medical expenses and medicine and getting medicines. This agrees with the result found in Ramathibodi Hospital that both UC customers and general customers had the lowest satisfaction with this aspect. Furthermore, the UC customers in King Chulalongkorn Memorial Hospital also expressed low degree of satisfaction for this issue. Then it could be concluded that major service problem found in both hospital mostly concern with medicines.

Comparing satisfaction level of UC customers and general customers in King Chulalongkorn Memorial Hospital with availability, accessibility, accommodation, affordability and acceptability, it was found that four factors receive

significant statistic level of satisfaction at a 95% confidence level (P-value <0.05). They were accessibility, accommodation, affordability and acceptability.

There were differences found when comparing both sample groups based on same demographic data. It was found that some personal characteristics affect on satisfaction level between both groups as shown in Table 5, Chapter 4 as followings:

Female UC customers and general customers indicated different significant statistic level of satisfaction at a 95% confidence level (P-value <0.05).

Comparing between UC customers and general customers with age of 20-30, 31-40 and 41-50, it was found that there was different significant statistic level of satisfaction at a 95% confidence level (P-value <0.05).

Comparing between UC customers and general customers with educational level of primary and diploma, it was found that there was different significant statistic level of satisfaction at a 95% confidence level (P-value <0.05).

UC customers and general customers who held occupation as housework, employee and others such as a company's staff, have different significant statistic level of satisfaction at a 95% confidence level (P-value <0.05).

UC customers and general customers whose income was less than 5,000-10,000 baht, had different significant statistic level of satisfaction at a 95% confidence level (P-value <0.05).

UC customers and general customers with number of visits more than 6 times in King Chulalongkorn Memorial Hospital had different significant statistic level of satisfaction at a 95% confidence level (P-value <0.001).

UC customers and general customers in King Chulalongkorn Memorial Hospital who spent less than 30 minutes and more than 1 hour to travel to the hospital expressed different significant statistic level of satisfaction at a 95% confidence level (P-value <0.05).

It could be concluded that the different health care right between UC customers and general customers of OPD services in King Chulalongkorn Memorial Hospital affected on level of satisfaction. Among those customers with same demographic data had different significant statistic level of satisfaction at a 95% confidence level (P-value <0.001). The compared personal characteristics were

female; age of 21-50 years old; educational level of primary and diploma; housework, employees and other occupations relating a company's staff; monthly income less than 5,000-10,000 baht; number of visits more than 6 times; and travel time to hospital less than 30 minutes or more than 1 hour.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

The study of satisfaction of Universal Health Care Coverage Scheme customers and general customers towards OPD services in two university hospitals, namely Ramathibodi hospital and King Chulalongkorn Memorial Hospital, is comparative research to compare service satisfaction between UC customers and general customers

The collected data was analyzed by descriptive statistics and analytic statistics to calculate statistic values, frequencies, percentage, means, standard deviation as to measure mean of service satisfaction of UC customers and general customers in Ramathibodi hospital and King Chulalongkorn Memorial Hospital. Both hospitals did not provide OPD services without discrimination neither UC customers nor general customers. Hence, the hospitals represent the country's university hospitals because they receive transferred patients from other provinces and beyond service are. The t-test was used to analyze the results. The findings can be summarized as following.

Conclusion

Comparison of Satisfaction between UC Customers and General Customers Based on same Demographic Characteristics, Number of Visit and Travel Time to Hospital

Comparing between UC customers and general customers, it was found that UC customers in Ramathibodi Hospital did not obtain different satisfaction level compared to those general customers. That is because the hospital provides equivalent service units, medical personnel and others to all customers without

discrimination or any special facility. Both UC customers and general customers have to follow service procedure as stated in flow chart shown in Chapter 2 (Process of health care service provided to patients under the Universal Coverage and general patient in Ramathibodi hospital: 34-35). Therefore, regardless of health care scheme, the hospital's customers are welcomed and given same good quality services.

For those UC customers and general customers in King Chulalongkorn Memorial Hospital, there was different significant statistic level of satisfaction at a 95% confidence level (P-value <0.05). From Table 3 in Chapter 4, the study found that Female UC customers and general customers with age of 21-50, educational level of primary and diploma, occupation as housework, employee and others such as a company's staff, income less than 10,000 baht, number of visits more than 6 times and travel time to the hospital less than 30 minutes or more than 1 hour, have different significant statistic level of satisfaction at a 95% confidence level (P-value <0.05).

This finding should be studied more for reason of different service satisfaction on OPD services in King Chulalongkorn Memorial Hospital although those customers obtain same demographic data and provided services are not divided for any group.

The study found that personal characteristics do not affect on both customer groups are: male with age of 20 and 60 years old; educational level of junior secondary, senior secondary and bachelor or higher; occupation as merchant, student, business and government service; monthly salary more than 10,000 baht; 2-5 visits a year; and 1 hour travel time to the hospital.

Recommendations from the Research

High service satisfaction scores in overall indicate that most of customers in both university hospitals are satisfied. However, from the open question at the end of the questionnaire, the respondents suggested some points for further improvement as following.

1. Personnel in the university hospitals should pay more attention to their customers. They should not show verbal manner of dissatisfaction against their customers (from assessment tool no.35, 37 and 38). Although mean of both groups in

Ramathibodi Hospital (No. 35: 8.00, 8.24, No. 37: 7.62, 7.57, No 38: 7.66, 7.66) and King Chulalongkorn Memorial Hospital (No. 35: 8.74, 9.10, No. 37: 8.32, 8.81, No 38: 8.69, 8.76) is at high level, the suggestion found 2 percent of all returned questionnaires should be considered.

2. More personnel including physicians, nurse and others should be supported in rush hours of each department because there are a lot of customers.

3. More waiting area, toilets, parking lot should be provided sufficiently with cleanness and comfort.

4. Contact procedure should be decreased by document usage in each department or development of One Stop Service. This suggestion agrees with satisfaction theory (Aday & Anderson, 1987: 28) that points out that satisfaction to coordination can be divided as getting all need at one place or one-stop service.

5. The study had been performed in too big university hospitals be careful when compare the results from this study to other studies.

Recommendations for Future Research

1. From self-assessment the research has strength and weakness points.

The strength points:

- The first study to compare two rights (UC customers and general customer)
- Setting no different in the feeling between customers in two groups.
- No different in service among two groups of the personnel.

The weakness points:

- This study did not compare the results from two hospitals so we cannot tell the different between two hospitals in these aspects.
- The results from university hospitals or tertiary care should refer to the same level of service.

2. The research results in Table 5 are useful. It was recommended to consider customers with same general characteristics but different health care scheme.

They were female aged between 21-50 years old or in working age. They held educational level of primary and diploma. They were unemployed or work as companies' employees. Their monthly salary was less than 10,000 baht. They had visited King Chulalongkorn Memorial Hospital 6 times or more a year. Finally they spent travel time to the hospital less than 30 minutes while far customers spent more than one hour. These demographic data affected on service satisfaction with the OPD services in the hospital although it provide equivalent quality service in all service points without any discrimination regarding health care scheme.

3. More researches should be studied like this one. They should be comparisons among service satisfaction of all groups of customers with privilege health care including UC, civil servant - state enterprise medical benefit scheme, social civil-state employees, social security scheme, private insurance and etc, in order to illustrate overall view of every service system.

4. More researches should be carried out to study service satisfaction of UC customers of other service level in many provinces, for example, PCU clinics, district hospitals, provincial hospitals. This can further explain the overall health care of each province.

5. When a study on the same topic is performed, the analysis method should be changed to qualitative research in order to study genuine requirement of people regarding health care service system. Then a service pattern can be further designed according to customers' need and working policy of the management of each hospital.

6. From the questionnaire, there were some UC customers transferred from primary care units to the university hospitals. Both hospitals are tertiary care that can provide treatment for complicated diseases. Therefore, more specific study should be carried out on transfer system from nearby a PCU to a district hospital, a provincial hospital, a hospital under Jurisdiction of the Ministry of Public Health and finally to a university hospital. This will draw out a progressive quality pattern of patient transfer and support further service improvement.

7. Regarding factors of relations and service manner of medical personnel shown in Table 2 and 3, Chapter 4. It is found that acceptability concerning physicians, nurses and medical personnel is in good scores (Appendix D). However,

five percent of respondents suggested through an open ending question that the medical personnel should be careful about verbal communication. Therefore, further researches should be studied on satisfaction of customers with verbal communication of medical personnel. For example, whether job satisfaction, problem at work or the national policy can affect on good service behavior and how? The research result can be used to develop appropriate service system for each care unit.

8. Studies on service pattern or procedures should be done to compare the pattern or procedure in private hospitals as to find out difference if any, how it become different and whether it affect on service satisfaction.

The study is very useful for both hospitals under Jurisdiction of the Ministry of Public Health. They can utilize data from research conclusion and recommendations from UC customers and general customers to support OPD customizing to respond to customers' needs as stated they are the heart of treatment.

BIBLIOGRAPHY

ENGLISH

- Aday, L.A. & Anderson, R. (1975). Development of Induce of Access to Medical Care Michigan: Ann Arbor Health Administration Press.
- _____. (1978). Theoretical and Methodology Issue in Sociology Study of Satisfaction with Medical Care. Social Science and Medicine. (12), 28.
- Avi yacar ellencweig. (1992). Analyzing Health System Modula Approach. Best, J.W. (1977). Research in Education. (3rd). London: N. J. Prentice-Hall.
- Brown, M. & Lewis, H.L. (1976). Hospital management system: multi-unit organization and delivery of health care. Maryland: Aspen Systems Corporation.
- Cunningham, W.E., Hays,R.D., Willians, K.W., Beck, K.C., Dixon, W.J., & Shapiro, M.F. (1995). Access to medical care and health-relate quality of life for low-income persons with symptomatic Humn Immuno-Deficiency Virus. Medical Care, 33(7), 739-754.
- Christian Gronnroos. (1947). Service management and marketing: a customer Relationship management approach. England: John Wiley & sons, Ltd.
- Dale J. Block, MD, CPE. (2006). Healthcare outcomes manage: Strategies for planning and evaluation. Sudbury. Massachusetts.
- Day, F.A. and Leoprapai, B. (1977). Pattern of health utilization in upcountry. Thailand: Institute for Population and Social Research. Mahidol University.
- Fox, P.D. (1972). Access to medical care for the poor: the federal perspective. Medical Care, 10, 272.
- Grant, C. (1973). Hospital management. New York: Churchill Living stone Inc.
- Jay Dandampully. Service manage: the new paradigm in hospitality. Pearsrn Education Australia: Hospitality Press.
- Loudon, D. L., & Bitta, A.J. (1993). Consumer behavior. Fourth Edition. McGraw, Inc.

- McGibony, J.T. (1969). Principal of hospital administration. 2nd ed. New York: G.P.Putnom's sons.
- Mullins, L. J. (1985). Management and organizational behavior. London: Pitman Publishing Limited.
- Naumann, E., & Giel, K. (1995). Customer satisfaction measurement and management. Ohio: Thomson Executive Press Cincinnati.
- Nick Black and Reinhold Gruen. (2005). Understanding health service. England: Open university press.
- Organ, D.W., & Bateman, T. (1986). Organization behavior. 3rd ed. Illinois: Business Publications, Inc.
- Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. Journal of Marketing, 49 (Fall), 41-50.
- _____. (1991). Perceived service quality as a customer-based performance measure: An Empirical examination of organizational barrens using an extended service quality model. Human Resource Management, 30, 355-364.
- Pipat Yingseree, M.D (2004). Health Insurance System In Thailand. Thailand Health Systems Research Institute, Thailand.
- Penchansky, R., & Thomas, J. W., (1981). The Concept of Access Definition and Relationship to Consumer Satisfaction. Medical Care, 19 (2), 127-140.
- Schulz, R., & Johnson, A.C. (1990). Management of hospital and health service: Strategic issues and performance. 3rd ed, Toronto: The C.V. Mosby Company.
- Teas, S.A. (1994). SERVQUAL: A tool for evaluating patient satisfaction with Nursing care. Journal of Nursing Care Quality, 8 (January), 38-46.
- Webster, N. (1988). New Webster's Dictionary. (3rd ed.). New York: Simon & Schuster.
- William, L.H., Grillbert, D., & Birkhead, G. (1977). Equity in local service distribution. Public Administration Review.
- World Health Organization Almaa-Ata 1978. Primary Health Care. Geneva: WHO 1978 "Health for All" series no.1.

Zana Rae Higgs, Tina Bayne and Denice Murphy (2001). Health Care Access: Consumer Perspective. Public Health Nursing, 18 (1), 3-12.

Zeithaml, V.A., Berry, L.L. & Parasuraman, A. (1988). Communication and Control Processes in the Delivery of Service Quality. Journal of Marketing, 52 (April), 35-48.

THAI

กระทรวงสาธารณสุข, กองการพยาบาล. (2537). คู่มือการบริหารงานฝ่ายการพยาบาลโรงพยาบาล ศูนย์และโรงพยาบาลทั่วไป.

กฤษณี โพธิ์ชนะพันธ์. (2542). ความพึงพอใจต่อบริการของผู้รับบริการแผนกผู้ป่วยนอก สถาบันโรคผิวหนัง. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต (สาธารณสุขศาสตร์) สาขาวิชาเอกบริหารสาธารณสุข บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.

เกศินี ศรีคงอยู่. (2543). ความพึงพอใจของผู้รับบริการแผนกผู้ป่วยนอก โรงพยาบาลปากท่อ จังหวัดราชบุรี. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต (สาธารณสุขศาสตร์) สาขาวิชาเอกบริหารสาธารณสุข บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.

จรรย์ ดนะทิพย์. (2543). ความพึงพอใจของผู้ใช้บัตรประกันสุขภาพในการรับบริการ สถานีอนามัย ตำบลจอมพระ อำเภอท่าม่วง จังหวัดน่าน. ภาคนิพนธ์ปริญญาสาธารณสุขศาสตรบัณฑิต คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล.

จิตตินันท์ เตะระคุปต์. (2538). เอกสารการสอนชุดวิชา จิตวิทยาการบริการ. พิมพ์ครั้งที่ 3. มหาวิทยาลัยสุโขทัยธรรมาธิราช หน่วยที่ 8. สำนักพิมพ์มหาวิทยาลัยสุโขทัยธรรมาธิราช.

จินตนา พบประเสริฐ. (2543). ความพึงพอใจของผู้ใช้บัตรประกันสุขภาพในการรับบริการจาก สถานีอนามัยตำบลคลองพลู กิ่งอำเภอเขาคิชฌกูฏ จังหวัดจันทบุรี. ภาคนิพนธ์ปริญญาสาธารณสุขศาสตรบัณฑิต คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล.

จิรุตม์ ศรีรัตนบัลล์. (2543). เครื่องชี้วัดคุณภาพโรงพยาบาล (Hospital Quality Indicators). สถาบันพัฒนาและรับรองคุณภาพโรงพยาบาล. กรุงเทพมหานคร: บริษัท ดีไซร์ จำกัด.

แจ่มศรี ไชยรัตน์. (2542). ความพึงพอใจต่อการรับบริการการรักษาพยาบาลโดยใช้บัตรประกันสุขภาพที่สถานีอนามัยของผู้นำชุมชนและอาสาสมัครสาธารณสุข ตำบลเขาโร อำเภอทุ่งสงจังหวัดนครศรีธรรมราช. ภาคนิพนธ์ปริญญาสาธารณสุขศาสตรบัณฑิต คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล.

- ณัฐพงศ์ อนุวัตรรยรง. (2540). การเปรียบเทียบการสนับสนุนทางสังคมที่เกี่ยวข้องกับสุขภาพของผู้สูงอายุชาวไทยพุทธและชาวไทยมุสลิมในภาคใต้ตอนบน. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิตสาขาสังคมศาสตร์การแพทย์และสาธารณสุข บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- คุษฎี ใหญ่เรืองศรี. (2541). คุณภาพบริการตามความคาดหวังที่มีความสัมพันธ์กับความพึงพอใจในการบริการรักษาพยาบาลของพระภิกษุอาพาธในหอผู้ป่วยในโรงพยาบาลสงฆ์ กระทรวงสาธารณสุข. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต สาขาวิชาการบริหารโรงพยาบาล บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- ดุสิต สุจิรารัตน์. (2541). การวิเคราะห์ข้อมูลด้วยโปรแกรม SPSS for WINDOWS. (พิมพ์ครั้งที่ 2). กรุงเทพมหานคร: จุฑทอง.
- ทรงทิพย์ วงศ์พันธ์. (2541). คุณภาพบริการตามความคาดหวังและการรับรู้ของผู้รับบริการในงานผู้ป่วยนอกโรงพยาบาลรัฐ จังหวัดสุพรรณบุรี. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต (สาธารณสุขศาสตร์) สาขาวิชาเอกการบริหารโรงพยาบาล บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- เทพพนม เมืองแมน และสวใจ สุวรรณ. (2540). พฤติกรรมองค์กร. (พิมพ์ครั้งที่ 2). กรุงเทพมหานคร: โรงพิมพ์ไทยวัฒนาพานิช.
- เทพศักดิ์ บุญยรัตนพันธ์. (2535). ปัจจัยที่ส่งผลต่อการสร้างประสิทธิผลของการนำนโยบายการให้บริการแก่ประชาชนไปปฏิบัติ: กรณีศึกษาสำนักงานเขตกรุงเทพมหานคร. วิทยานิพนธ์ปริญญาพัฒนบริหารศาสตรดุษฎีบัณฑิต (การบริหารการพัฒนา). สถาบันบัณฑิตพัฒนบริหารศาสตร์.
- ธัญธร ธรรมรักษ์. (2542). ความพึงพอใจของผู้ประกันตนต่อบริการผู้ป่วยนอก โรงพยาบาลพระนั่งเกล้า. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต (สาธารณสุขศาสตร์) สาขาวิชาเอกบริหารสาธารณสุข บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- นภาคล แก้วมณี. (2543). ความพึงพอใจของผู้ใช้บัตรประกันสุขภาพในการรับบริการจากสถานีอนามัยอำเภอเมือง จังหวัดฉะเชิงเทรา. ภาคนิพนธ์ปริญญาสาธารณสุขศาสตรบัณฑิต คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล.
- นิกร ทองดารา. (2543). ความพึงพอใจของผู้ใช้บัตรประกันสุขภาพในการรับบริการจากสถานีอนามัยตำบลสระสี่เหลี่ยม อำเภอพนัสนิคม จังหวัดชลบุรี. ภาคนิพนธ์ปริญญาสาธารณสุขศาสตรบัณฑิต คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล.

- เบญญา ลวกไสง. (2541). ความพึงพอใจต่อบริการของโรงพยาบาลชุมชน ในจังหวัดบุรีรัมย์. ปรินญาสังคมศาสตรมหาบัณฑิต สาขาวิชาวิจัยประชากรและสังคม บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- ประเทือง สุธาวรณ (2534). การศึกษาการรับรู้และความคาดหวังของครูต่อสภาพแวดล้อมโรงเรียน ของโรงเรียนเอกชนในกรุงเทพมหานคร. วิทยานิพนธ์ปริญญาศึกษาศาสตรมหาบัณฑิต สาขาสิ่งแวดล้อม บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- ปานบดี เอกะจัมปกะ และสุทธิสารณ์ วัฒนมะโน. (2543). การประเมินความพึงพอใจของผู้รับบริการ ต่อการให้บริการของสถานบริการสาธารณสุข สังกัดกระทรวงสาธารณสุข ในภาวะวิกฤติ ทางเศรษฐกิจ. เอกสารประกอบการประชุมวิชาการประจำปีกระทรวงสาธารณสุข ครั้งที่ 8 เรื่องการปฏิรูประบบสาธารณสุข. วันที่ 23-25 สิงหาคม 2543 ณ โรงแรมลีการ์เนพลาซ่า อำเภอหาดใหญ่ จังหวัดสงขลา.
- ปิยวรรณ ประคุณคงชัย. (2533). ความพึงพอใจของผู้ป่วยนอกต่อการบริการของโรงพยาบาลของรัฐ: ศึกษากรณีจังหวัดนครสวรรค์. วิทยานิพนธ์ปริญญาสังคมศาสตรมหาบัณฑิต, สาขา วิจัยประชากรและสังคม บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- ปรียา ครามะคำ. (2538). ปัจจัยที่มีความสัมพันธ์กับความพึงพอใจของผู้ป่วยนอกที่มาใช้บริการ ณ กลุ่มผู้ป่วยนอก โรงพยาบาลพระปกเกล้า จันทบุรี. วารสารศูนย์การศึกษาแพทยศาสตร์ คลินิกโรงพยาบาลพระปกเกล้า, 12 (5), 144-149.
- ปิ่นนิภา วนากมล. (2545). คุณภาพบริการของโรงพยาบาลค่ายชนะรัชต์ตามการรับรู้ของผู้รับ บริการ. วิทยานิพนธ์ปริญญาพยาบาลศาสตรมหาบัณฑิต สาขาวิชาการบริหารพยาบาล บัณฑิตวิทยาลัยมหาวิทยาลัยเชียงใหม่.
- พวงทอง ตั้งธิดิกุล. (2542). ความพึงพอใจของผู้รับบริการบัตรประกันสุขภาพโดยความสมัครใจต่อ การบริการของสถานอนามัยในเขตจังหวัดอุทัยธานี. วิทยานิพนธ์ปริญญาวิทยาศาสตร มหาบัณฑิต (สาธารณสุขศาสตร์) สาขาบริหารสาธารณสุข บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- พาณี สีดกะสิน. (2533). เอกสารประกอบการสอนชุดวิชาการบริหารโรงพยาบาล 1 หน่วยที่ 1-7. พิมพ์ครั้งที่ 3. กรุงเทพมหานคร: สำนักพิมพ์สุโขทัยธรรมมาธิราช.
- เพียงเพ็ญ คงมณี. (2542). ความพึงพอใจต่อการรักษาพยาบาลโดยใช้บัตรประกันสุขภาพของผู้ใช้ บริการที่สถานอนามัย ตำบลหมอนนาง อำเภอพนัสนิคม จังหวัดชลบุรี. ภาคนิพนธ์ ปริญญาสาธารณสุขศาสตรบัณฑิต คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล.

- ขงยุทธ์ พงษ์สุภาพ. (2541). การพัฒนาเวชปฏิบัติครอบครัว: กรณีศูนย์แพทย์ชุมชนเมืองพระนครศรีอยุธยา. กรุงเทพมหานคร: บริษัทพรีแม็กกรุ๊ป จำกัด.
- รัชยา กุลวานิชไชยอนันท์. (2535). ความพึงพอใจของผู้ประกันตนต่อบริการทางการแพทย์: ศึกษาเฉพาะกรณีผู้ประกันตนในเขตกรุงเทพมหานครและปริมณฑล. รายงานการวิจัย. สำนักงานประกันสังคม. รัฐธรรมนูญแห่งราชอาณาจักรไทย พุทธศักราช 2540. (2540). รัฐธรรมนูญแห่งราชอาณาจักรไทย พุทธศักราช 2540 หมวด 3 สิทธิเสรีภาพของชนชาวไทยและหมวด 5 แนวนโยบายพื้นฐานแห่งรัฐ. กรุงเทพมหานคร: โรงพิมพ์ศาสนา.
- วิภา ครุวงศ์พิศิษฐ์กุล. (2525). ความพึงพอใจของผู้ป่วยนอกต่อบริการของโรงพยาบาลรามารชิบัติ. วิทยานิพนธ์ปริญญาโท สาขาสังคมศาสตรการแพทย์ บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- วิโรจน์ ตั้งเจริญเสถียรและคณะ (2539). คุณภาพบริการพยาบาลโรงพยาบาลในสายตาผู้ป่วย. วารสารการวิจัยระบบสาธารณสุข. 4(2), 158-168.
- วิโรจน์ ตั้งเจริญเสถียร, ภิรมย์ กมลรัตนกุล, อนุวัฒน์ สุขชาติกุล และคณะ. (2536). พฤติกรรมการใช้บริการทางการแพทย์ของผู้ประกันตน ในจังหวัดสมุทรปราการ. นนทบุรี: สำนักนโยบายและแผนสาธารณสุข กระทรวงสาธารณสุข.
- โยชิน แสงดี, พิมลพรรณ อิศรภักดี และมาลี สันภูวรรณ. (2543). ปัญหาและทุกข์ของประชาชนเมื่อใช้บริการสถานบริการสาธารณสุข. นครปฐม: สถาบันวิจัยประชากรและสังคม มหาวิทยาลัยมหิดล.
- สงวน นิตยารัมภ์พงศ์, สุภสิทธิ์ พรธนโรจน์ทัย และสัมฤทธิ์ ศรีธำรงค์สวัสดิ์. (2544). สู่การสร้างหลักประกันสุขภาพถ้วนหน้า. (พิมพ์ครั้งที่ 3), กรุงเทพมหานคร: สำนักพิมพ์สุพีเรียพริ้นติ้ง.
- สมใจ เลชะปราชญ์. (2545). ความพึงพอใจของผู้มารับบริการที่คลินิกตรวจโรคทั่วไป ศูนย์บริการสาธารณสุข 24 บางเขน สำนักอนามัย กรุงเทพมหานคร พ.ศ. 2545. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต (สาธารณสุขศาสตร์) สาขาวิชาเอกบริหารสาธารณสุข บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- สมศักดิ์ พิมพ์อุบ. (2543). ความพึงพอใจของผู้ใช้บัตรประกันสุขภาพในการรับบริการจากสถานีอนามัยตามตำบลแม่พลู อำเภอลับแล จังหวัดอุตรดิตถ์. ภาคนิพนธ์ปริญญาวิทยาศาสตรบัณฑิต คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล.

- สัมฤทธิ์ โปรา และวิศิษฐ์ พิชัยสนิท. (2535). การให้บริการด้านการรักษาพยาบาลผู้ป่วยในโรงพยาบาล. เอกสารการสอนชุดวิชาการบริหารโรงพยาบาล 1 หน่วยที่ 3. (พิมพ์ครั้งที่ 4). นนทบุรี: สำนักพิมพ์มหาวิทยาลัยสุโขทัยธรรมมาธิราช.
- สุจิตรา ชำนิวิทย์กรณ์. (2535). ภาควิชาการ. สำนักวิจัย คณะพัฒนาการเศรษฐกิจ สถาบันบัณฑิตพัฒนบริหารศาสตร์. กรุงเทพมหานคร: สำนักบรรณสารการพัฒนา.
- สุธีรา และคณะ. (2540). ความพึงพอใจของผู้มาใช้บริการที่แผนกตรวจผู้ป่วยนอก ภาควิชาอายุรศาสตร์ คณะแพทยศาสตร์ โรงพยาบาลรามธิบดี. ภาคนิพนธ์ปริญญาตรีโปรแกรมบริหารธุรกิจ คณะวิทยาการจัดการ สถาบันราชภัฏสวนดุสิต.
- สุชาติ ประสิทธิ์รัฐสินธุ์. (2544). ระเบียบวิธีการวิจัยทางสังคมศาสตร์. พิมพ์ครั้งที่ 1 กรุงเทพมหานคร: บริษัทเฟื่องฟ้า พรินติ้ง จำกัด.
- สุวรรณณ์ แนวจำปา. (2545). ความพึงพอใจของผู้รับบริการของโรงพยาบาลสรรพสิทธิประสงค์ภายใต้โครงการการสร้างหลักประกันสุขภาพถ้วนหน้า. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต (สาธารณสุขศาสตร์) สาขาวิชาเอกบริหารสาธารณสุข บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- สุวิทย์ วิบุลผลประเสริฐ และคณะ. (2542). การสาธารณสุขไทย พศ.2540-2541. กรุงเทพมหานคร: องค์การรับส่งสินค้าและพัสดุภัณฑ์.
- สุพล สัจวันดี. (2541). ความพึงพอใจต่อการรับบริการรักษาพยาบาลโดยใช้บัตรประกันสุขภาพที่สถานีอนามัยของผู้นำชุมชนในอำเภอสุวรรณภูมิ จังหวัดร้อยเอ็ด. ภาคนิพนธ์ปริญญาสาธารณสุขศาสตรบัณฑิต คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล.
- อนงค์ เอื้อวัฒนา. (2542). ความพึงพอใจของผู้รับบริการแผนกผู้ป่วยนอกโรงพยาบาลอำนาจเจริญ. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต (สาธารณสุขศาสตร์) สาขาวิชาเอกบริหารสาธารณสุข บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- อนุวัฒน์ ศุภชุติกุล. (2536). การพัฒนาคุณภาพบริการเพื่อความอยู่รอดของบริการสุขภาพในภาครัฐ. ใน ศุภสิทธิ์ พรรณารุโณทัย (บรรณาธิการ), สานความหวังสู่ความเป็นเลิศของโรงพยาบาลรัฐ ในวาระครบรอบ 60 ปีของ นพ. บุญยงค์ วงศ์รักมิตร (124-134). พิษณุโลกการพิมพ์: สุรสิทธิ์การพิมพ์.
- _____. (2543). คุณภาพของระบบสุขภาพ. กรุงเทพมหานคร: บริษัทดีไซร์.
- _____. (2543). เส้นทางสู่โรงพยาบาลคุณภาพ: คู่มือการเรียนรู้เชิงปฏิบัติ. สถาบันพัฒนาและรับรองคุณภาพโรงพยาบาล. (เอกสารอัดสำเนา).

- อนุวัฒน์ ศุภชุตikul. (2541). แนวคิดเรื่องคุณภาพบริการ. เอกสารประกอบการประชุม เรื่องการพัฒนาและรับรองคุณภาพโรงพยาบาลครั้งที่ 1. วันที่ 24-26 พฤศจิกายน 2541 ณ อาคารเฉลิมพระบารมี 50 ปี แพทยสมาคม. 45-46.
- อรพินท์ ไชยพยอม. (2542). ความพึงพอใจของผู้รับบริการต่อบริการแผนกผู้ป่วยนอกโรงพยาบาลศิริราช. วิทยานิพนธ์ปริญญาวิทยาศาสตรมหาบัณฑิต (สาธารณสุขศาสตร์) สาขาบริหารสาธารณสุข บัณฑิตวิทยาลัย มหาวิทยาลัยมหิดล.
- เอกสารวิชาการ เพื่อนำสู่การแลกเปลี่ยน ข้อคิดเห็นในการประชุมวิชาการ “พลังปัญญา: สู่การพัฒนาหลักประกันสุขภาพถ้วนหน้า”. การดำเนินงานระดับนโยบาย.
- เอกสารวิชาการ เพื่อนำสู่การแลกเปลี่ยน ข้อคิดเห็นในการประชุมวิชาการ “พลังปัญญา: สู่การพัฒนาหลักประกันสุขภาพถ้วนหน้า”. การบริหารระบบ.
- เอกสารวิชาการ เพื่อนำสู่การแลกเปลี่ยน ข้อคิดเห็นในการประชุมวิชาการ “พลังปัญญา: สู่การพัฒนาหลักประกันสุขภาพถ้วนหน้า”. พัฒนาการของระบบบริการ.
- เอกสารประกอบการเรียนการสอนนักศึกษาแพทย์ปีที่ 4. การบริหารจัดการ Primary Care Unit. บุญกร อนุชาติวรกุล. คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี.
- อุไร ชำนาญค้า และคณะ. (2539). การศึกษาพฤติกรรมของบุคลากรและความพึงพอใจในบริการของผู้มารับบริการหลังการนำคิวซีมาใช้เพื่อพัฒนาคุณภาพบริการสาธารณสุขในโรงพยาบาลโยธธร. สรรพสิทธิสาร. 17 (4), (ต.ค.-ธ.ค.): 292.
- อำนาจ เจริญพร. (2540). ปัจจัยที่มีผลต่อความพึงพอใจของผู้มารับบริการที่มีผลต่อระบบบริการของโรงพยาบาลราชสาส์น อำเภอราชสาส์น จังหวัดฉะเชิงเทรา. ภาคนิพนธ์ปริญญาสาธารณสุขศาสตรบัณฑิต. คณะสาธารณสุขศาสตร์ มหาวิทยาลัยมหิดล.

APPENDIX

APPENDIX A
LIST OF EXPERTS

1. Asst. Prof. Peera Krugkrunjit
Department of Public Health Administration, Faculty of Public Health,
Mahidol University

2. Asst. Prof. Dr. Sulee Tongvichian
Department of Public Health Nursing, Faculty of Public Health,
Mahidol University

3. Asst. Prof. Aunchulee Nuanklai
Nurse,
Department of Nursing, Faculty of Medicine, Ramathibodi Hospital

4. Asst. Prof. Thitivan Thamapairoj
Nurse,
Department of Nursing, Faculty of Medicine, Ramathibodi Hospital

5. Mrs. Sarika Somsri
Nurse,
Department of Nursing, Faculty of Medicine, Ramathibodi Hospital

APPENDIX B

ETHIC



No. 26/2005


**Documentary Proof of Ethical Clearance
The Committee on Human Rights Related to
Human Experimentation
Mahidol University, Bangkok**

Title of Project. Satisfaction of Universal Health Care Coverage Scheme Customer and General Customer toward OPD Service in University Hospitals
(Thesis for Master Degree)

Principle Investigator. Miss Chantana Sovat

Name of Institution. Faculty of Public Health

Approved by the Committee on Human Rights Related to Human Experimentation

Signature of Chairman. 
(Professor Dr.Srisin Khusmith)

Signature of Head of the Institute. 
(Professor Dr.Pornchai Matangkasombut)

Date of Approval. - 2 MAR 2005

APPENDIX C

QUESTIONNAIRES

Satisfaction of Universal Health Care Coverage Scheme Customer and General Customer towards OPD Services in University Hospital

Instructions:

1. This questionnaire constructed for those who have benefits under healthcare coverage scheme (30 baht project) and general patients in university hospital

2. The researcher is a student in the program of Master of Science (Public Health), Faculty of Public Health, Mahidol University. Data will be analyzed and presented as a whole picture; all personal data will be kept confidential.

3. This questionnaire is divided into three parts

Part 1 Demographic characteristics of customers

Part 2 Customers' satisfaction towards OPD services

Part 3 Other recommendations

Part 1 Demographic characteristics of customers

Please mark ✓ in or fill in the blank and fill the statement that fit your idea.

1. Gender Male Female Department (Juckapong building, floor)

2. AgeYear (s) (more than 6 months = 1 year)

3. Highest Educational Level

No study (in school) Primary Junior Secondary Senior

Secondary Diploma Bachelor or Higher

4. Occupation

Housework Employee..... Merchant Student

Business Government service Others, please indicate.....

5. Monthly income (Including extra money)

Less than 5,000 baht 5,001 – 10,000 baht 10,001 – 15,000 baht

15,001 – 20,000 baht more than 20,000 baht

6. Numbers of received service 2 - 5 times 6 - 10 times >10 times

7. How long dose it take you to the hospital?

Less than half an hour 1 hour More than one hour

8. Duration of received service

Morning (8.30 - 12.00 a.m.) Afternoon (13.00-16.30 p.m.)

Evening (16.30 - 20.00p.m.)

9. Healthcare Benefits

30 baht Paper of approval No Yes

No reimbursement (pay on their own)

Reimbursement

Officials Social Security State enterprise

Insurance Company The Traffic Accident Victim Insurance Act

Paid by employer

Part 2 Customers' Satisfaction toward services

Please mark × to select level of score that match your satisfaction from 1 to 10

No.	Statement	Level of Satisfaction										
		Low									High	
Your satisfaction about the following issues												
1.	Number of physicians	0	1	2	3	4	5	6	7	8	9	10
2.	Number of nurses	0	1	2	3	4	5	6	7	8	9	10
3.	Number of finance officers	0	1	2	3	4	5	6	7	8	9	10
4.	Number of pharmaceutical officers	0	1	2	3	4	5	6	7	8	9	10
5.	Quality of drugs that you received	0	1	2	3	4	5	6	7	8	9	10
6.	Medical instruments for special exam	0	1	2	3	4	5	6	7	8	9	10
7.	Cleanliness of instruments	0	1	2	3	4	5	6	7	8	9	10
8.	Medical supplies are modernized	0	1	2	3	4	5	6	7	8	9	10
9.	The use of computer for better serving of care services between units	0	1	2	3	4	5	6	7	8	9	10
10.	Service received during emergency period	0	1	2	3	4	5	6	7	8	9	10
11.	Continuousness of care and treatment	0	1	2	3	4	5	6	7	8	9	10
12.	Convenience about transportation to the hospital	0	1	2	3	4	5	6	7	8	9	10
13.	If the room for 30 baht is separated form other services	0	1	2	3	4	5	6	7	8	9	10
14.	Duration starting from registration to the time of seeing a doctor	0	1	2	3	4	5	6	7	8	9	10
15.	Duration of calculating for drug expense	0	1	2	3	4	5	6	7	8	9	10
16.	Duration of waiting for cost of treatment	0	1	2	3	4	5	6	7	8	9	10
17.	Duration of waiting for receiving drug	0	1	2	3	4	5	6	7	8	9	10
18.	Duration of each follow up											
19.	Care and treatment received from the same doctor.	0	1	2	3	4	5	6	7	8	9	10
20.	Referring for investigation or treatment in other sections	0	1	2	3	4	5	6	7	8	9	10
21.	Convenience in a waiting zone (waiting for receiving treatment)	0	1	2	3	4	5	6	7	8	9	10
22.	Cleanliness of treatment room	0	1	2	3	4	5	6	7	8	9	10

No.	Statement	Level of Satisfaction										
		Low					High					
23.	Duration of each follow up	0	1	2	3	4	5	6	7	8	9	10
24.	Postponing/changing date and time of appointment	0	1	2	3	4	5	6	7	8	9	10
25.	A hospital provides information by setting posters and charts that present procedures of service and information about benefits	0	1	2	3	4	5	6	7	8	9	10
26.	At the waiting zone, there are books or television provided.	0	1	2	3	4	5	6	7	8	9	10
27.	Provide restroom for patients and relatives.	0	1	2	3	4	5	6	7	8	9	10
28.	Provide services in chronological order.	0	1	2	3	4	5	6	7	8	9	10
29.	Cost of transportation from home to a hospital	0	1	2	3	4	5	6	7	8	9	10
30.	Cost of care such as dressing and injection	0	1	2	3	4	5	6	7	8	9	10
31.	Cost of medicine is suitable.	0	1	2	3	4	5	6	7	8	9	10
32.	Cost of special investigations	0	1	2	3	4	5	6	7	8	9	10
33.	Cost of services in order to receive satisfying service.	0	1	2	3	4	5	6	7	8	9	10
34.	Manners of physicians while giving healthcare service	0	1	2	3	4	5	6	7	8	9	10
35.	Manners of nurses while giving healthcare service	0	1	2	3	4	5	6	7	8	9	10
36.	Manners of finance officers while giving healthcare service	0	1	2	3	4	5	6	7	8	9	10
37.	A physician's attention to patients' complaints on their illness	0	1	2	3	4	5	6	7	8	9	10
38.	A nurse's attention to patients' complaints on their illness	0	1	2	3	4	5	6	7	8	9	10
39.	A non-physician's attention to patients' complaints on their illness	0	1	2	3	4	5	6	7	8	9	10
40.	Information, counseling, about disease, treatment plan, medicine and patients' practices provided by physicians	0	1	2	3	4	5	6	7	8	9	10

No.	Statement	Level of Satisfaction										
		Low									High	
41.	Information, counseling, about disease, treatment plan, medicine and patients' practices provided by nurses	0	1	2	3	4	5	6	7	8	9	10
42.	Physicians' competency on providing treatment	0	1	2	3	4	5	6	7	8	9	10
43.	The advice and information about medicine provided by pharmaceutical officers	0	1	2	3	4	5	6	7	8	9	10
44.	Personnel's collaboration to patient for advanced investigation	0	1	2	3	4	5	6	7	8	9	10
45.	Personnel's collaboration to serve your need and solve your problems	0	1	2	3	4	5	6	7	8	9	10
46.	Provide care services with equity	0	1	2	3	4	5	6	7	8	9	10
47.	Respect patient's right such as keeping his/her personal data confidential.	0	1	2	3	4	5	6	7	8	9	10

Part 3 Other recommendations

1.Improvement suggestions

.....

.....

.....

2.Most common problems

.....

.....

.....

3.Most impression services

.....

.....

.....

Thank you for your cooperation

APPENDIX D

QUESTIONNAIRES

No.	Statement	Satisfaction Level			
		Ramathibodi Hospital		King Chulalongkorn Memorial Hospital	
		UC	Gen	UC	Gen
Your satisfaction about the following issues					
1.	Number of physicians	7.50	7.32	8.56	8.51
2.	Number of nurses	7.39	7.26	8.47	8.80
3.	Number of finance officers	7.21	6.91	8.39	8.72
4.	Number of pharmaceutical officers	7.32	6.98	8.38	8.58
5.	Quality of drugs that you received	7.86	7.77	8.75	8.99
6.	Medical instruments for special exam	8.52	7.83	8.85	9.00
7.	Cleanliness of instruments	8.40	8.22	8.86	8.99
8.	Medical supplies are modernized	8.28	8.26	8.92	9.05
9.	The use of computer for better serving of care services between units	8.25	8.10	8.78	9.07
10.	Service received during emergency period	7.46	7.31	8.78	8.85
11.	Continuousness of care and treatment	7.85	7.72	8.20	8.89
12.	Convenience about transportation to the hospital	7.24	7.25	8.08	8.48
13.	If the room for 30 baht is separated form other services	7.58	7.34	8.37	8.48
14.	Duration starting from registration to the time of seeing a doctor	6.52	6.28	7.09	7.65
15.	Duration of calculating for drug expense	6.45	6.42	6.91	7.62
16.	Duration of waiting for cost of treatment	6.41	6.32	6.95	7.58
17.	Duration of waiting for receiving drug	6.32	6.24	6.90	7.63
18.	Duration of each follow up	6.85	6.84	7.29	8.11
19.	Care and treatment received from the same doctor	7.38	7.41	8.10	8.80

No.	Statement	Satisfaction Level			
		Ramathibodi Hospital		King Chulalongkorn Memorial Hospital	
		UC	Gen	UC	Gen
20.	Referring for investigation or treatment in other sections	7.32	6.90	8.22	8.41
21.	Convenience in a waiting zone (waiting for receiving treatment)	7.24	7.08	7.96	8.57
22.	Cleanliness of treatment room	7.70	7.62	7.92	8.44
23.	Duration of each follow up	7.36	7.43	8.11	8.48
24.	Postponing/changing date and time of appointment	7.28	7.27	7.81	8.38
25.	A hospital provides information by setting posters and charts that present procedures of service and information about benefits	7.53	7.55	7.87	8.51
26.	At the waiting zone, there are books or television provided.	7.29	7.26	8.11	8.09
27.	Provide restroom for patients and relatives.	6.78	6.44	6.97	7.65
28.	Provide services in chronological order.	7.20	7.11	7.40	7.88
29.	Cost of transportation from home to a hospital	7.04	7.03	7.49	8.33
30.	Cost of care such as dressing and injection	7.24	7.38	7.68	8.43
31.	Cost of medicine is suitable.	7.51	7.42	8.20	8.57
32.	Cost of special investigations	7.59	7.32	8.01	8.60
33.	Cost of services in order to receive satisfying service.	7.56	7.48	8.08	9.03
34.	Manners of physicians while giving healthcare service	8.08	8.18	8.81	9.37
35.	Manners of nurses while giving healthcare service	7.80	7.81	8.88	9.00
36.	Manners of finance officers while giving healthcare service	7.63	7.67	8.96	9.02
37.	A physician's attention to patients' complaints on their illness	8.00	8.24	8.74	9.10

No.	Statement	Satisfaction Level			
		Ramathibodi Hospital		King Chulalongkorn Memorial Hospital	
		UC	Gen	UC	Gen
38.	A nurse's attention to patients' complaints on their illness	7.62	7.80	8.50	8.96
39.	A non-physician's attention to patients' complaints on their illness	7.62	7.57	8.32	8.81
40.	Information, counseling, about disease, treatment plan, medicine and patients' practices provided by physicians	7.66	7.66	8.69	8.76
41.	Information, counseling, about disease, treatment plan, medicine and patients' practices provided by nurses	7.58	7.54	8.64	9.39
42.	Physicians' competency on providing treatment	7.86	8.14	8.84	9.08
43.	The advice and information about medicine provided by pharmaceutical officers	7.58	7.48	8.49	8.94
44.	Personnel's collaboration to patient for advanced investigation	7.52	7.42	8.42	8.80
45.	Personnel's collaboration to serve your need and solve your problems	7.37	7.24	8.28	8.62
46.	Provide care services with equity	7.28	7.18	7.68	8.26
47.	Respect patient's right such as keeping his/her personal data confidential.	7.78	7.58	8.59	9.11

UC = Universal health care coverage scheme customer (UC customer)

Gen = General customer

BIOGRAPHY

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